LEBRIJA

PLAN GENERAL DE ORDENACIÓN URBANÍSTICA

PGOU

DOCUMENTO:

ESTUDIO DE INUNDABILIDAD

JUNTA DE ANDALUCIA

CONSEJERÍA DE MEDIO AMBIENTE
Y ORDENACIÓN DEL TERRITORIO

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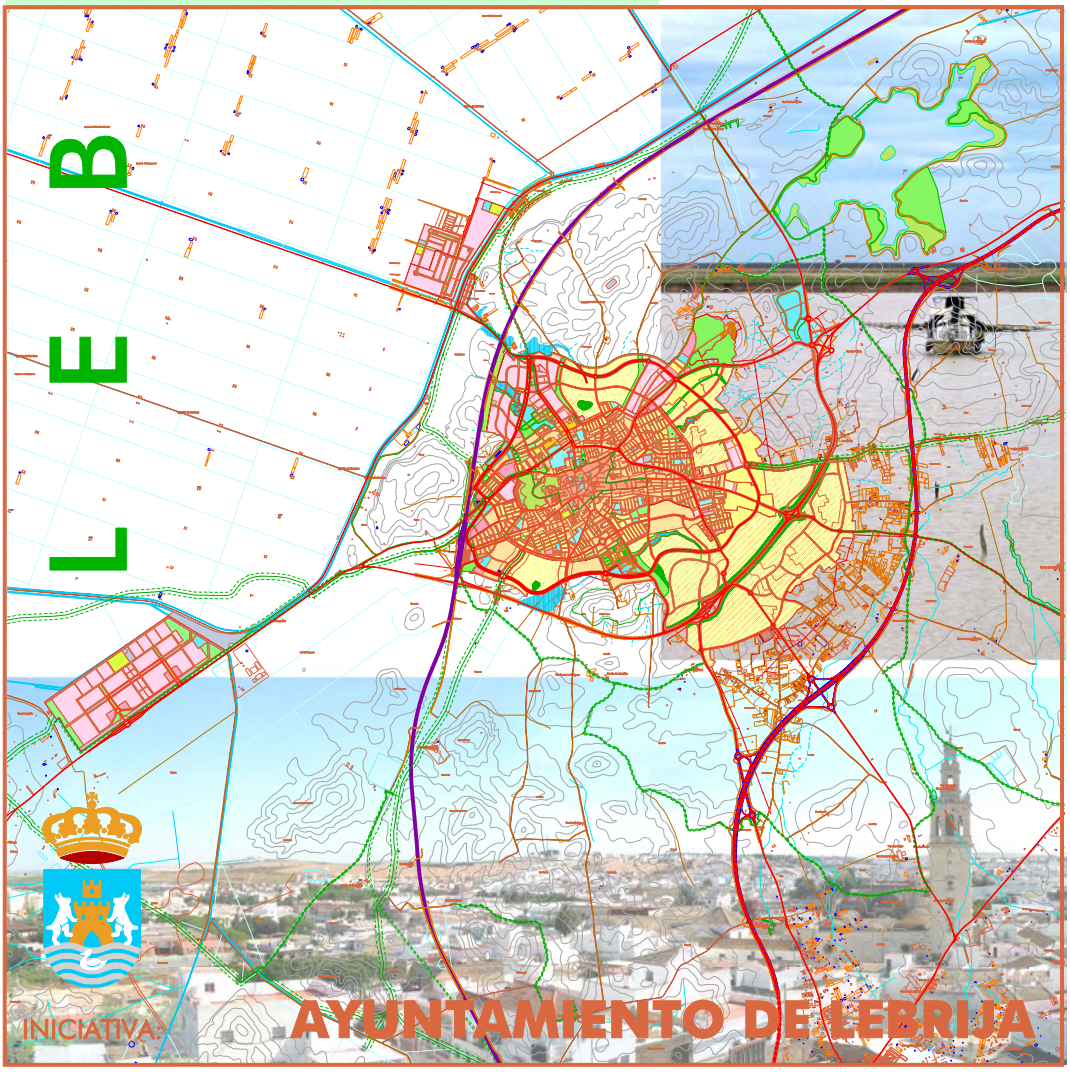
ABRIL 2014



INICIATIVA:

AYUNTAMIENTO DE LEBRIJA

Estudio de Inundabilidad del PGOU de Lebrija.

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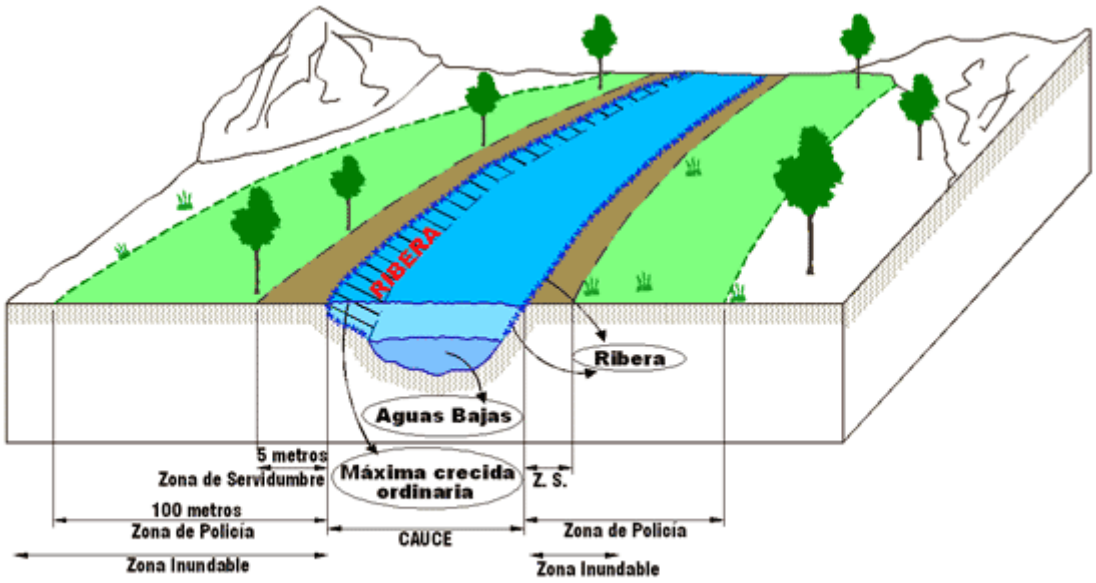
1 ANTECEDENTES

En la tramitación administrativa del Plan General de Ordenación Urbana (PGOU) de LEBRIJA en la provincia de Sevilla, se requiere un estudio hidrológico e hidráulico de los principales cauces del municipio, este servirá de base para adecuar el PGOU a los diferentes escenarios de avenidas e inundaciones que se deriven de este estudio y proponer si se estima oportuno algunas medidas correctoras

2 OBJETO DEL PRESENTE DOCUMENTO

El presente estudio tiene como objetivo establecer y fijar las características físicas de la cuenca de aportación del los cauces que transcurren por el municipio y ve en qué sentido influye en el planeamiento.

Se van a evaluar en primer lugar la avenida con periodo de retorno igual a 5 años (*Aspectos prácticos de la definición de Máxima Crecida Ordinaria, CEDEX 1994*) para la delimitación del la máxima crecida ordinaria (MCO) y a través de ésta, la zona de Dominio Publico Hidráulico (DPH) y Zona de Policía y en segundo lugar la avenida con periodo de retorno igual a 500 para delimitar la Zona Inundable.



Para el desarrollo del estudio hidrológico se ha utilizado el programa HEC-GEOHMS y para el estudio hidráulico de la avenida el HEC-RAS y HEC-GEORAS aplicaciones utilizadas por el CEDEX para el cálculo de modelos hidrológicos e hidráulicos.

El cálculo de caudales se ha realizado en base a la vigente Instrucción de Drenaje Superficial 5.2-IC, publicada por la Secretaría General Técnica del M.O.P.T. en julio de 1990. Además, se adjunta un cálculo basado en dicha instrucción con las recomendaciones introducidas por J.R. Témez adecuándose a las prescripciones del organismo de cuenca.

3 LEGISLACIÓN APLICABLE

A continuación se enumera la normativa vigente en referencia a zonas susceptibles de ser invadidas por las crecidas de los cauces de corrientes naturales y que será adoptada como marco de referencia en el desarrollo del presente Estudio.

Real Decreto 849/1986, de 11 de abril, por el que se aprueba el Reglamento del Dominio Público Hidráulico

Real Decreto Legislativo 1/2001, de 20 de julio, por el que se aprueba el texto refundido de la Ley de Aguas

Real Decreto 9/2008, de 11 de enero, por el que se modifica el Reglamento del Dominio Público Hidráulico

Directiva 2007/60/CE del Parlamento Europeo y del Consejo, de 23 de octubre de 2007, relativa a la evaluación y gestión de los riesgos de inundación

Plan Hidrológico Nacional (Ley 10/2001, de 5 de julio) posteriormente modificado por la Ley 11/2005, de 22 de junio.

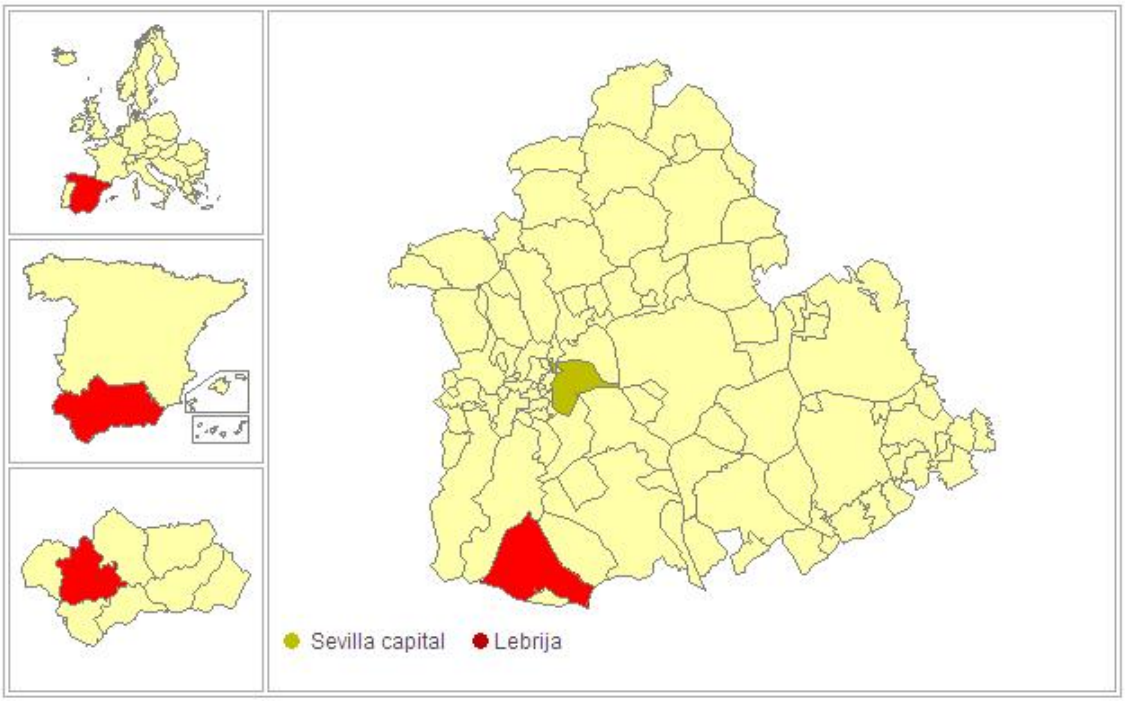
Instrucción de Planificación Hidrológica aprobada mediante ORDEN ARM/2656/2008, de 10 de septiembre.

4 CARACTERIZACIÓN DE LA ZONA

4.1 DATOS GENERALES

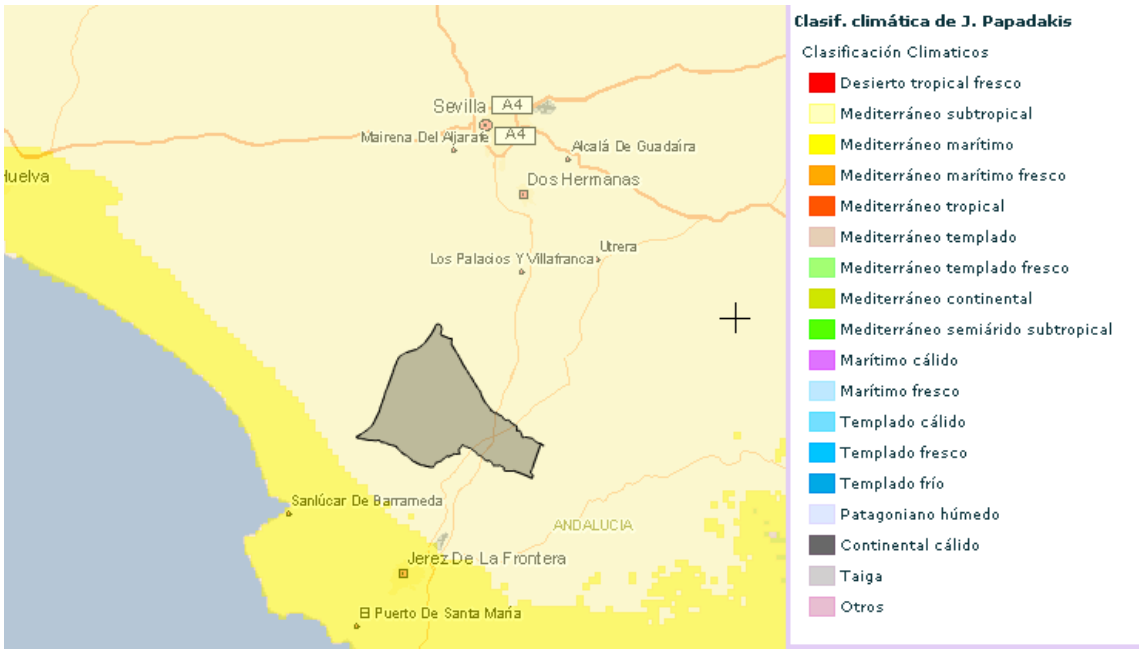
La zona de estudio se encuentra el término municipal de Lebrija en la provincia de Sevilla, tiene una extensión de 375,2 Km2, con una altura de 36 msnm cuenta y una población de 27.029 habitantes

Municipio: **Lebrija** Latitud: **36º 55'**
Provincia: **Sevilla** Longitud: **-6º 04'**



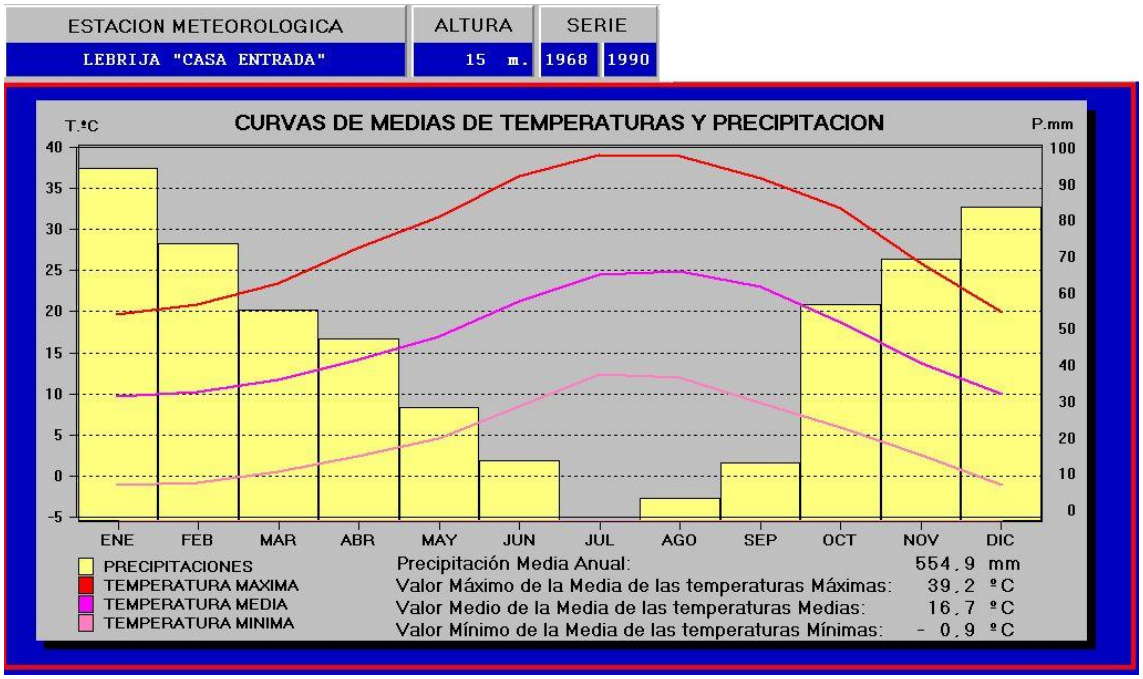
4.2 CLIMATOLOGÍA

La clasificación climática de la zona según el modelo de J Papadakis corresponde a Mediterráneo Subtropical

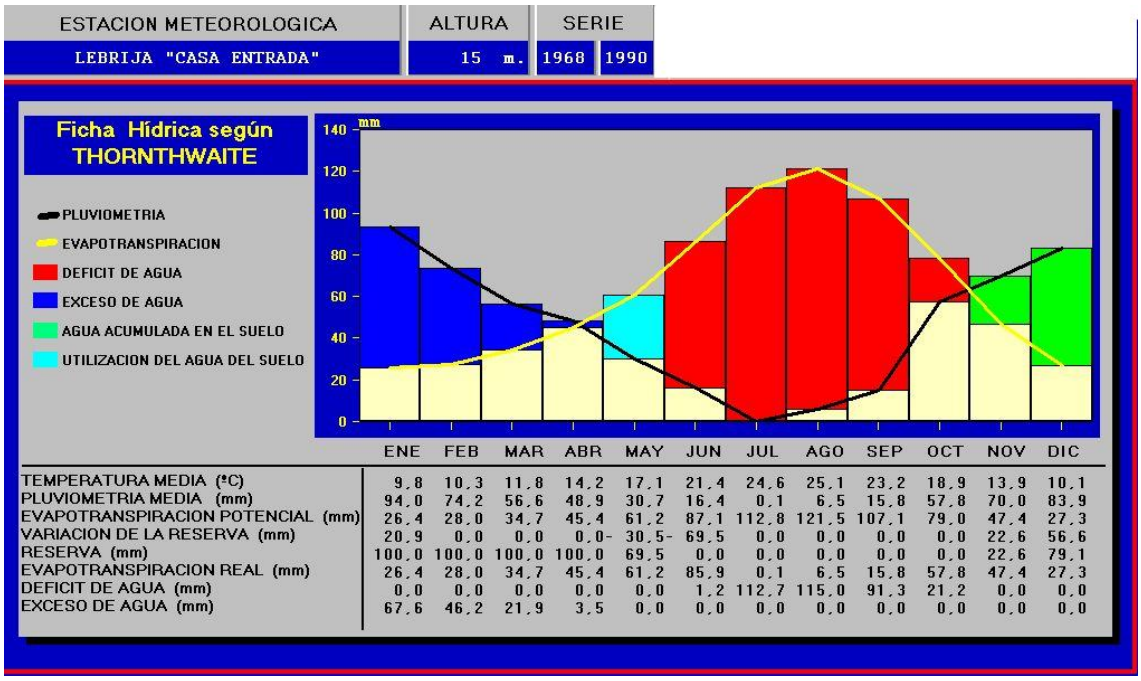


A continuación se muestran las curvas de precipitación y temperatura para la estación "Casa Entrada" localizada en Lebrija, donde se puede observar que la precipitación

media anual es de 555 mm concentrados principalmente en los meses de octubre a marzo

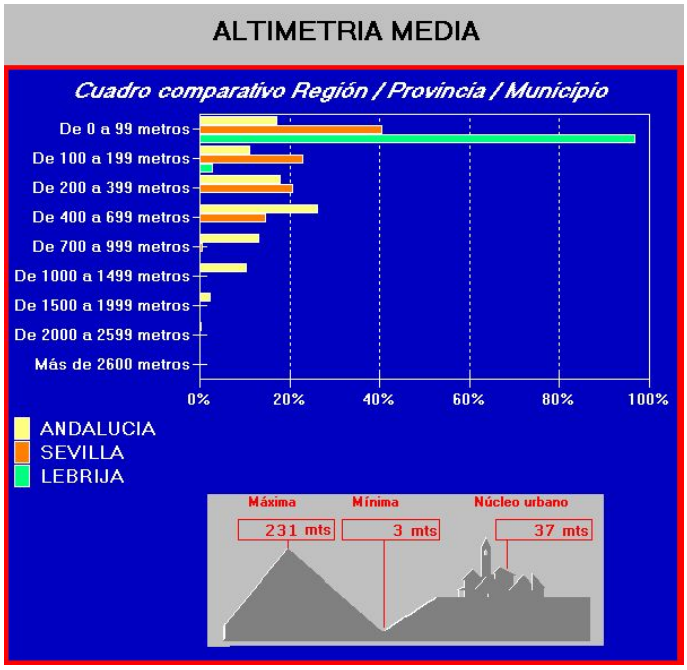


De le ficha de Thornthwaite se deduce que los meses donde más agua se encuentra en el suelo van de noviembre a marzo, lo que influirá en la escorrentía generada tras la lluvia

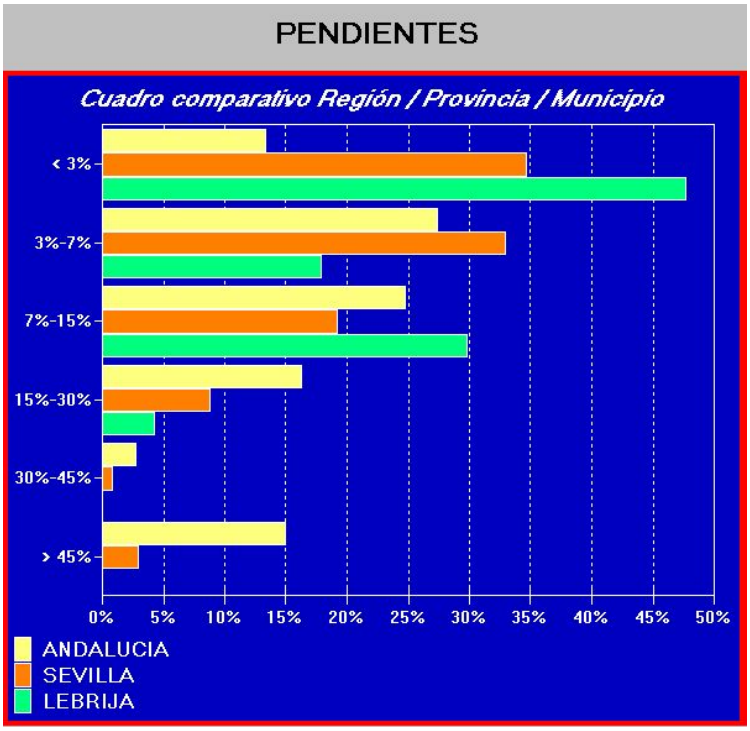


4.3 RELIEVE

Las cotas entre la que se encuentra el municipio van desde los 3 msnm a los 231 msnm encontrándose el núcleo urbano a una altura de media de 37 msnm

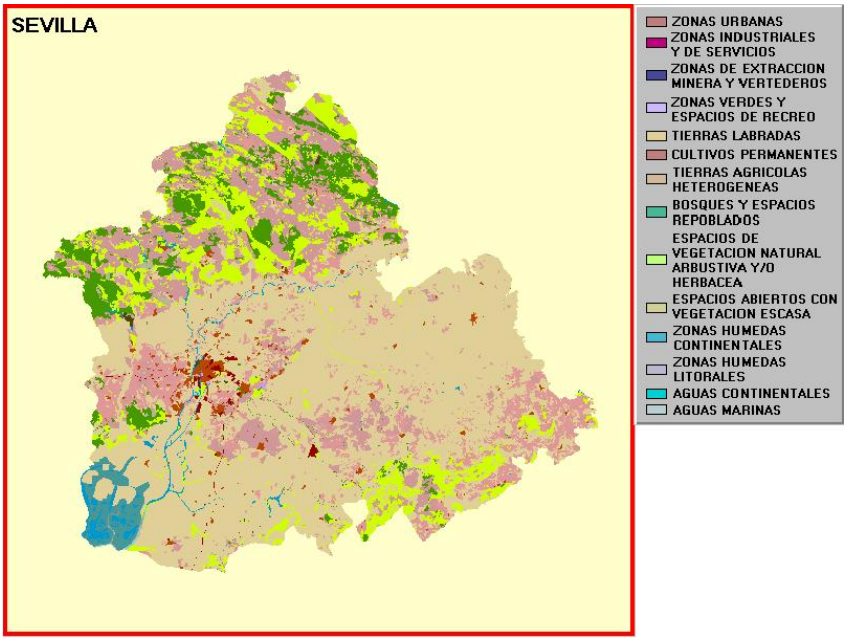


Se trata por tanto de un término municipal considerablemente llano el cual concentra la mayoría de sus pendientes en un rango que varía entre el 0% y 3%, superando la media de la provincia de Sevilla y por la del territorio andaluz.

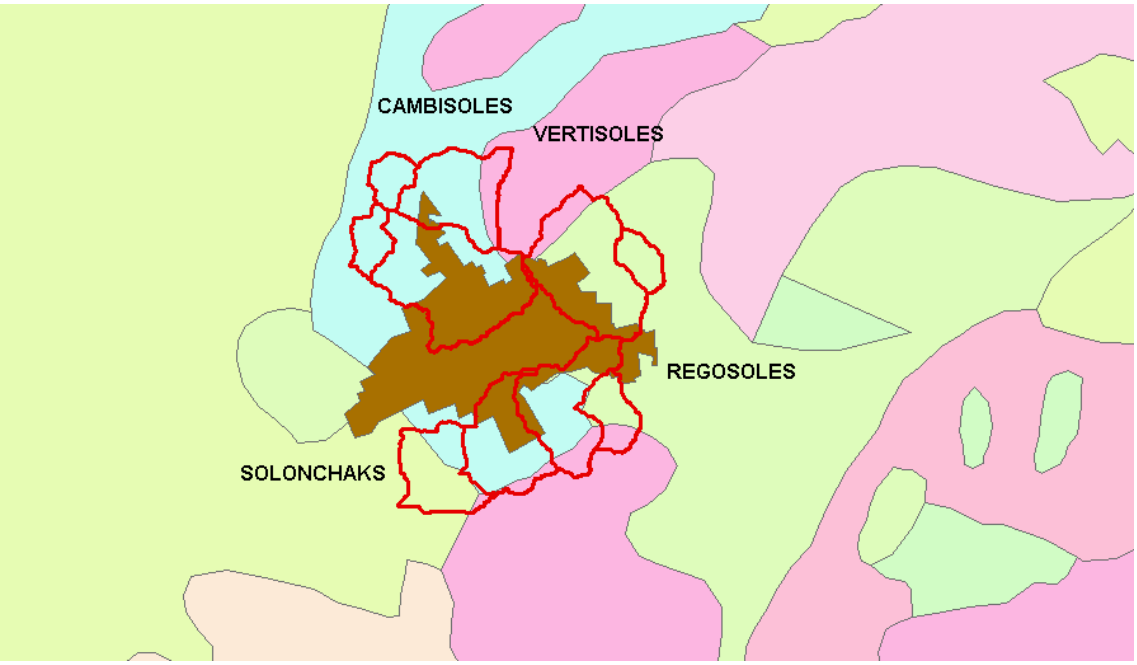


4.4 OCUPACIÓN Y TIPOS DE SUELO

El término municipal está principalmente ocupado por aguas continentales y tierras labradas y de forma residual o en menor escala por ocupación urbana y vegetación natural, esto va a condicionar la escorrentía generada por los episodios de lluvia y por tanto al cauda que se genere en los diferentes cauces objeto de estudio.



En cuanto a los tipos de suelo que afectan a las cuencas de estudio destacan los principalmente los cambisoles y los regosoles



Los cambisoles son suelos que tienen un horizonte B subsuperficial con evidencia de alteración (horizonte cámbico) respecto a los horizontes situados por debajo. También se consideran cambisoles los suelos que tienen un horizonte móllico que cubre un subsuelo con saturación en bases menor del 50% en alguna parte dentro de los 100 cm desde la superficie; los que tienen un horizonte andico, vértico o vítrico entre 25 y 100 cm., y los suelos que poseen un horizonte plíntico, petroplíntico o sálico que comienza entre 50 y 100 cm, en ausencia de texturas arenolimosas o más gruesas por debajo de estos últimos horizontes.

Típicamente el horizonte cámbico es de textura francoarenosa o más fina. Muestra estructura de suelo moderada o bien desarrollada, por lo general poliédrica y señales de alteración por procesos edáficos que se evidencian por su color (distinto al del material subyacente), por un mayor contenido en arcilla que el del horizonte inferior; por la ausencia de estructura de roca o por la evidencia de removimiento de carbonatos.

Los regosoles Suelos minerales sobre materiales no consolidados (excepto los flúvicos) de textura media, bien drenados, de perfil no diferenciado, en los que sólo puede apreciarse una mínima expresión de horizontes de diagnóstico, excepto las características del ócrico o las propiedades de una superficie yérmica. Constituyen un grupo de suelos cuyas principales características lo son por exclusión.

Los vertisoles Suelos de elevado contenido en arcilla, con esmectitas (principalmente montmorillonitas) como minerales dominantes, cuya propiedad de ser expansible les proporciona capacidad para desarrollar grietas desde la superficie hasta abajo, de 1 cm. de ancho, al menos en algún periodo del año.

Morfológicamente se caracterizan por el desarrollo, la forma y la orientación de agregados estructurales, prismáticos o en cuñas que se intersectan en caras curvas pulidas y brillantes por deslizamiento.

Son suelos que por su elevado contenido en arcilla y por la naturaleza de ésta poseen en húmedo una reducida capacidad de infiltración, debido al cierre de los macroporos. En seco son duros o muy duros, mientras que en mojado son adherentes y plásticos (suelos pesados o fuertes).

Los solonchaks comprende suelos con cantidades apreciables de sales más solubles que el yeso dentro de los 50 cm. desde la superficie, y no tienen otro horizonte de

diagnóstico distinto al horizonte A (mólico u ócrico) hístico, cámbico, gípsico o cálcico (FAO, 1974, 1998).

Recientemente los solonchaks se definen como suelos que tienen un horizonte de diagnóstico superficial o subsuperficial poco profundo, con un enriquecimiento – mínimo del 1% - en sales fácilmente solubles. Suele ser de 15 cm o más de espesor, y el producto de éste expresado en cm por el % de sal es 60 o más. Este horizonte, denominado sálico, comienza dentro de los 50 cm desde la superficie

5 CALCULOS HIDROLOGICOS

5.1 INTRODUCCIÓN

El estudio hidrológico determina los caudales de avenida que se producen como consecuencia de la generación de un evento tormentoso de carácter extremo en la cuenca de aportación. En el presente estudio se estiman los caudales de avenida para los periodos de retorno de 5 y 500 años.

Conceptualmente, la caracterización hidrológica se compone de dos procesos; la determinación del régimen de precipitaciones extremas y el proceso de formación de escorrentía.

El estudio de las precipitaciones extremas aborda dos cuestiones fundamentales; por un lado se define cual es la cantidad máxima de precipitación en función de la probabilidad de ocurrencia, y por otro lado se estima cual va a ser la distribución temporal a lo largo de la duración del evento tormentoso. En resumen, el estudio de precipitaciones responde a cuanta lluvia cae y como se reparte en el tiempo.

Para la determinación de la precipitación máxima en función del periodo de recurrencia se utiliza la metodología expuesta en la publicación del Ministerio de Fomento “Máximas Precipitaciones Diarias en la España Peninsular” (1977).

La generación de escorrentía se estima en base a la metodología propuesta en 1972 por el Servicio de Conservación de Recursos Naturales de los EE.UU. (NRCS), denominada el “Método del Numero de Curva”.

5.2 CARTOGRAFÍA EMPLEADA

La base cartográfica empleada para el Estudio Hidrológico es:

- Modelo Digital del Terreno (MDT) de Andalucía de 10 x 10 m.
- Mapa Topográfico Vectorial 1:10.000 de la Junta de Andalucía.
- Modelo Topográfico local del municipios de Lebrija

5.3 DEFINICIÓN DE LAS CUENCAS

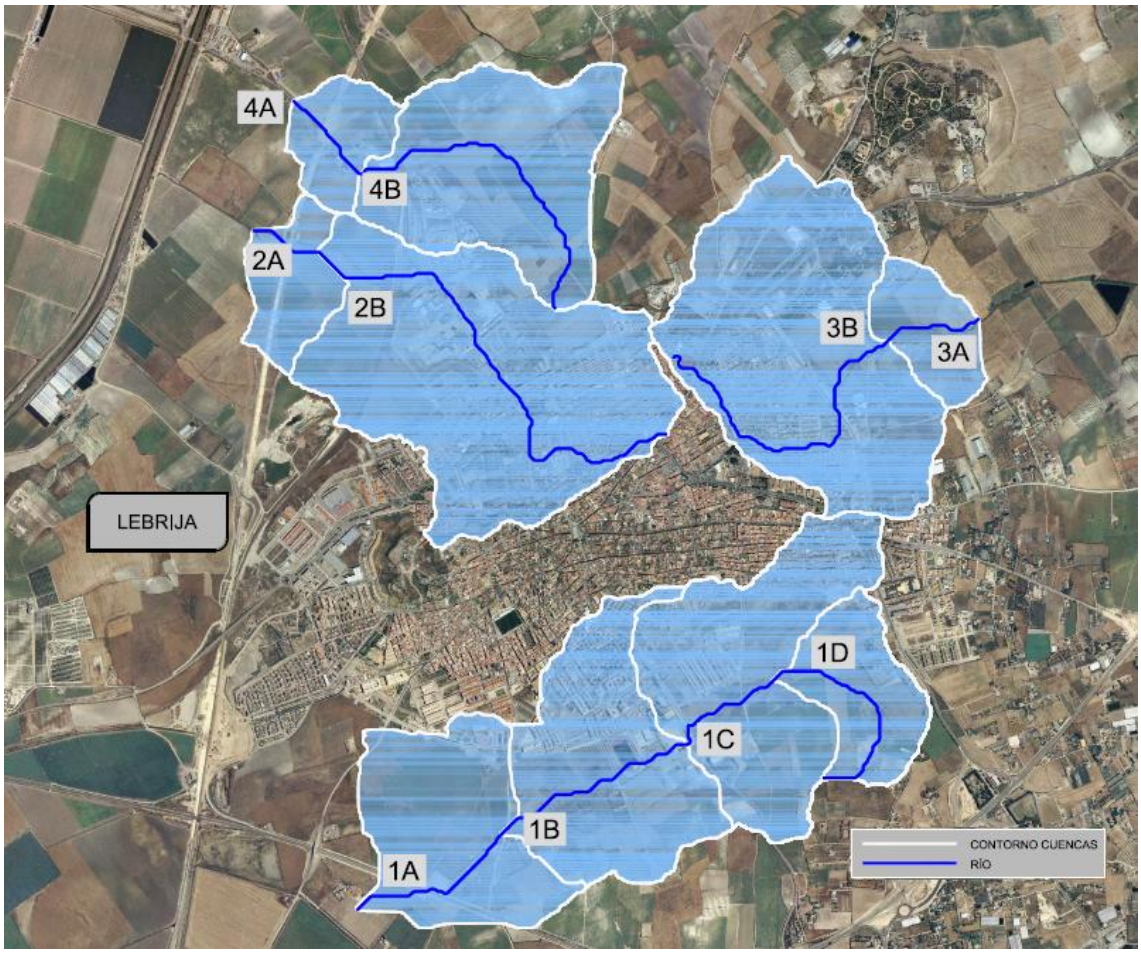
Para la definición de las cuencas se ha realizado un análisis del MDT con la herramienta libre HEC Geo-HMS. Los resultados son:

- Delineación de las cuencas por sus divisorias.
- Características físicas de las cuencas: superficie, cota máxima, cota mínima, longitud del recorrido más largo, pendiente, etc.

Para la delineación de las cuencas de forma automática, el input utilizado es un fichero ASCII (The American Standard Code for Information Interchange o Código estándar Estadounidense para el intercambio de información), el cual es un formato de almacenamiento general que guarda los datos mediante texto simple. En el caso de el Modelo Digital de Andalucía (tamaño de celda 10*10) existe lo opción de exportar en formato ASCII, por lo que ha extraído de éste un mapa de elevaciones (MDE).

A partir del modelo digital de elevaciones (MDE), se han generado las cuencas con el HEC - GeoHMS.

Se ha tramificado la delineación de las cuencas para ajustar más el caudal a cada uno de los puntos de cálculo, quedando por tanto divididas como se muestra a continuación. Por tanto la cuenca nº 1 se ha dividido en cuatro 1ª, 1B, 1C y 1D, la cuenca nº 2, nº 3 y nº 4 se han dividido en dos quedando de la siguiente manera 2ª y 2B, 3ª y 3B y por último 4ª y 4B



5.4 ANÁLISIS PLUVIOMÉTRICO

Para llevar a cabo el cálculo de la precipitación máxima en 24 horas para los periodos de retorno exigido por el órgano competente de la gestión de cuencas para este tipo de estudios se opta por dos fuentes de datos pluviométricos:

- Estaciones AEMET. Dentro de las estaciones existentes en la zona la más cernaza y por tanto más representativa de la cuenca es la siguiente:

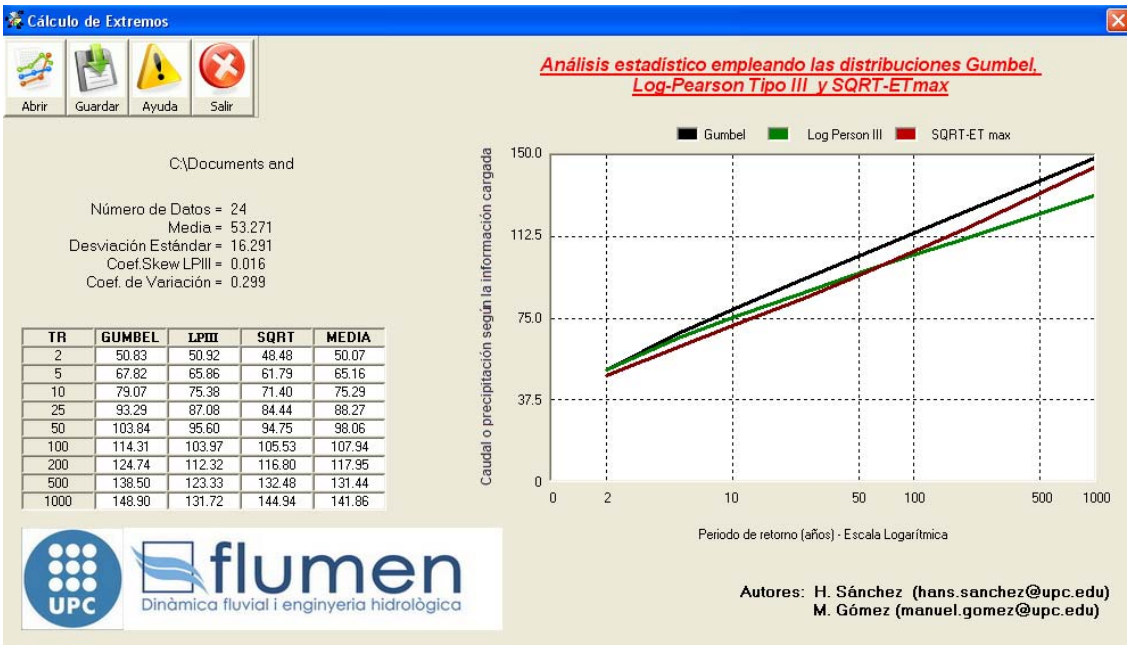
Código Estación: 5-895 (Sevilla)

Nombre Estación: Lebrija (I.N.B.)

PRECIPITACIONES MÏ¿½XIMAS ANUALES	
AÏ¿½O	PRECIPITACION mm/h
1962	74.5
1963	56.6
1964	60.0
1965	85.0
1966	64.5
1967	35.5
1968	87.0
1969	54.0
1970	57.0
1971	51.5
1972	67.0
1973	76.5
1974	33.5
1975	44.4
1976	43.5
1977	40.3
1978	40.0
1979	54.5
1980	41.0
1981	28.0
1982	59.5
1983	50.2
1984	38.5
1985	36.0

PRECIPITACIONES MAXIMAS ANUALES ORDENADAS		
RANGO	PRECIPITACION mm/h	F(x): PROB ACUM
1	28.0	0.0400
2	33.5	0.0800
3	35.5	0.1200
4	36.0	0.1600
5	38.5	0.2000
6	40.0	0.2400
7	40.3	0.2800
8	41.0	0.3200
9	43.5	0.3600
10	44.4	0.4000
11	50.2	0.4400
12	51.5	0.4800
13	54.0	0.5200
14	54.5	0.5600
15	56.6	0.6000
16	57.0	0.6400
17	59.5	0.6800
18	60.0	0.7200
19	64.5	0.7600
20	67.0	0.8000
21	74.5	0.8400
22	76.5	0.8800
23	85.0	0.9200
24	87.0	0.9600

Con esta serie de datos de máximos anuales y el programa de cálculo de extremos de variables hidrológicas para diferentes periodos de retorno se obtienen datos de precipitaciones anuales según las distribuciones de Guambel, Log-Pearson tipo III y SQRT-ETmax



TR	GUMBEL	LPIII	SQRT	MEDIA
2	50.83	50.92	48.48	50.07
5	67.82	65.86	61.79	65.16
10	79.07	75.38	71.40	75.29
25	93.29	87.08	84.44	88.27
50	103.84	95.60	94.75	98.06
100	114.31	103.97	105.53	107.94
200	124.74	112.32	116.80	117.95
500	138.50	123.33	132.48	131.44
1000	148.90	131.72	144.94	141.86

- Publicación MAXPLUWIN editada por el MOPU.

Esta aplicación realiza un ajuste estadístico siguiendo una ley con dos parámetros: "SQRT-Exponential Type Distribution on Maximum" (Proceeding of International Symposium on Flood Frecuency and Risk Analysis Lousiana May 1986 pp-253-264) conocida como SQRT-ET máx.

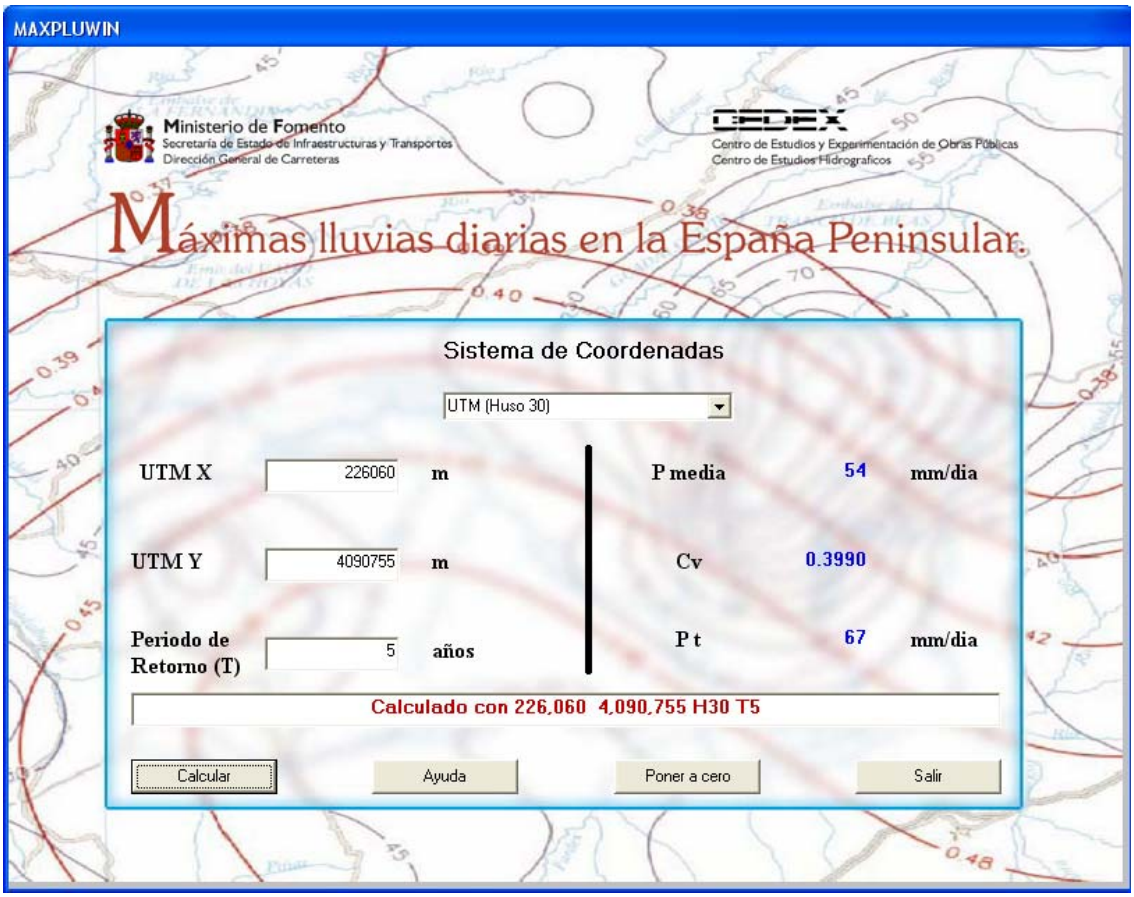
Con la Ley SQRT-ET máx el Centro de Estudios Hidrográficos del CEDEX ha obtenido resultados, en general, más realistas y más conservadores que los obtenidos con Gumbel. La expresión de la distribución SQRT-ET máx es la siguiente:

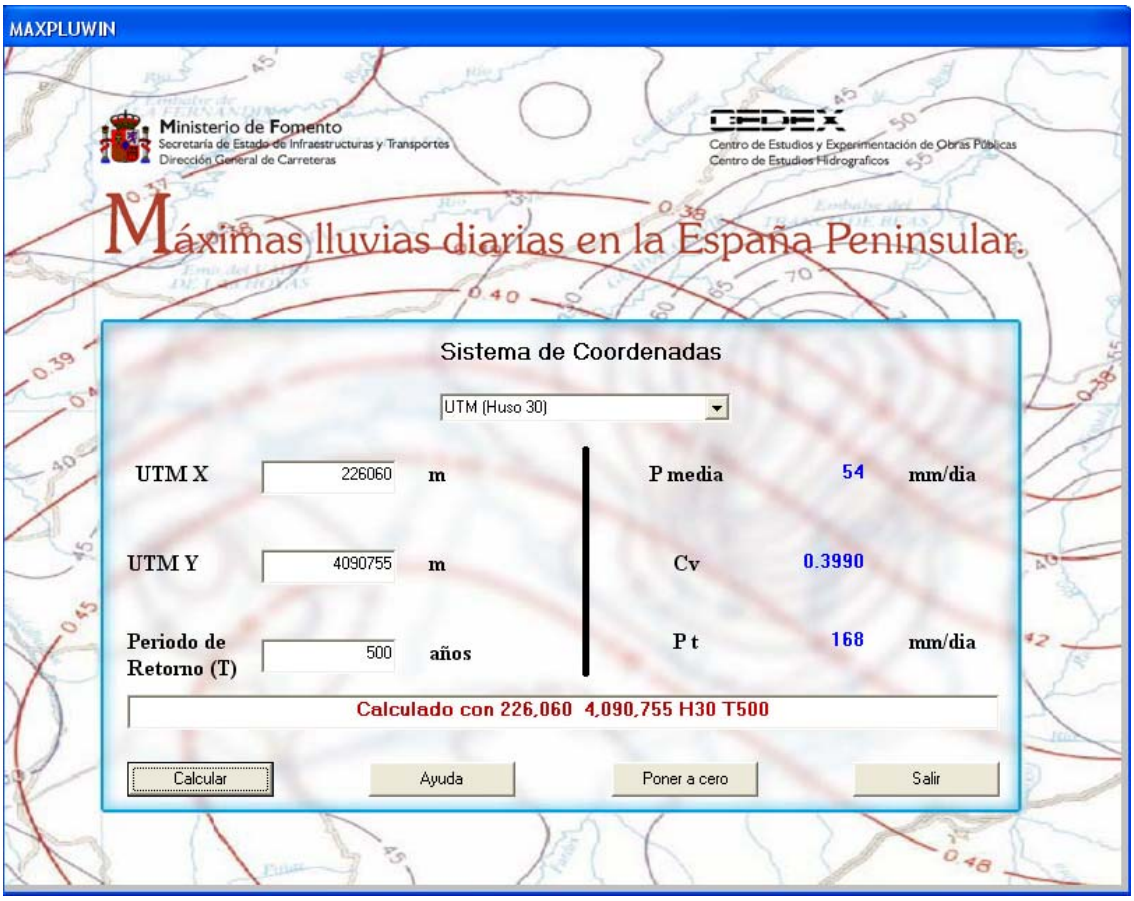
$$F(x) = Prob\,(X < x) = e^{-a(1+\sqrt{bx})} \cdot e^{-\sqrt{bx}}$$

Donde los parámetros “a” y “b” son obtenidos por el método de los momentos.

Para períodos de retorno bajos ambas leyes de distribución muestran valores similares. Sin embargo, para periodos de retorno de 50 años o superiores, la distribución SQRT-ET máx proporciona valores más conservadores que Gumbel.

A continuación se muestran las salidas de estas en primer lugar para 5 años y a continuación para 500


MAXPLUWIN
Ministerio de Fomento
Secretaría de Estado de Infraestructuras y Transportes
Dirección General de Carreteras
CEDEX
Centro de Estudios y Experimentación de Obras Públicas
Centro de Estudios Hidrográficos
Máximas lluvias diarias en la España Peninsular.
Sistema de Coordenadas
UTM (Huso 30)
UTM X
226060
m
UTM Y
4090755
m
Periodo de Retorno (T)
5
años
P media
54
mm/dia
Cv
0.3990
P t
67
mm/dia
Calculado con 226,060 4,090,755 H30 T5
Calcular
Ayuda
Poner a cero
Salir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Centro de Estudios Hidrográficos
Máximas lluvias diarias en la España Peninsular.
Sistema de Coordenadas
UTM (Huso 30)
UTM X
226060
m
UTM Y
4090755
m
Periodo de Retorno (T)
500
años
P media
54
mm/dia
Cv
0.3990
P t
168
mm/dia
Calculado con 226,060 4,090,755 H30 T500
Calcular
Ayuda
Poner a cero
Salir

Se toman por tanto los valores de la publicación de Máximas Lluvias Diarias para la España Peninsular, que mejores valores

PERIODO DE RETORNO (años)	PRECIPITACION (mm/día)
5	67
500	168

Reducción por área

La mayor parte de los trabajos hidrológicos requieren la estimación de la lluvia sobre una determinada área, que evidentemente será igual o menor que el correspondiente valor puntual calculado, debido al efecto de no simultaneidad.

La obtención de valores areales suele efectuarse mediante el uso de un factor reductor por el que se multiplican los valores puntuales previamente estimados. En España se emplea la expresión propuesta por Témez, en que el factor reductor KA es igual a:

$$K_A = 1 - \frac{LogA}{15}$$

Siendo A el área de la cuenca en km^2.

5.5 DETERMINACIÓN DE LA ESCORRENTÍA

Para el cálculo del parámetro de escorrentía se ha analizado, con HEC Geo-HMS, una cobertura de Número de Curva.

La metodología seguida para el cálculo del número de curva está basada en la utilización de los Sistemas de Información Geográfica (SIG), los cuales permiten trabajar con datos de muy diversa índole que se den en una misma localización geográfica. La generación de mapas a escala regional del número de curva se realiza mediante la aplicación de tablas de reclasificación y operaciones de superposición de las distintas capas de información de las que depende.

En primer lugar se calcula el mapa de número de curva y mediante la siguiente expresión se obtiene el umbral de escorrentía.

$$CN = \frac{5000}{P_0 + 50}$$

La metodología para la obtención de dicha cobertura se desarrolla en forma de apéndice al presente Estudio (APÉNDICE Nº 1). La documentación utilizada para su confección es:

- Mapa de Usos de Suelo de la Junta de Andalucía 2003 , 1:400.000.
- Mapa de Tipos de Suelos de la Junta de Andalucía, 1:400.000.
- MDT de la Junta de Andalucita, 20 x 20 m.
- Ortofotos digitales en blanco y negro y en color.

En que se refiere al Mapa de Cultivos y Aprovechamientos del área (usos de suelo) de la Conserjería de Medioambiente Andalucía, cabe destacar que, en los últimos años, la cartografía de usos de suelo de la Unión Europea ha realizado un importante avance con la puesta en marcha del Proyecto Corine Land Cover (CLC). El establecimiento de equivalencias entre los usos de suelo de la cartografía CLC y el Umbral de Escorrentía (Po) no es nuevo y las distintas Administraciones han venido adaptando su cartografía a esta nueva fuente de datos.

Los valores de escorrentía obtenidos y adoptados son para condiciones medias de humedad.

5.6 CÁLCULO DEL CAUDAL

Para el cálculo del caudal, se han seguido los siguientes criterios:

- Si el tiempo de concentración (Tc) es menor a 6 horas, el método que empleamos para el cálculo del caudal es el método racional o el método racional modificado. Donde la precipitación es constante en el espacio y en el tiempo.
- Si el tiempo de concentración (Tc) se encuentra entre 6 y 24 horas utilizamos para el cálculo del caudal el método racional modificado o el del hidrograma unitario (H.U.), dando mayor o menor peso a cada método según obtengamos un valor más cercano a las 6 horas. En este caso la precipitación es constante en el espacio y variable en el tiempo.
- Si el tiempo de concentración es mayor a 24 horas el método que utilizamos es el del Hidrograma Unitario o el método de circulación del hidrograma unitario, dando mayor o menor peso a cada método según obtengamos un valor más cercano a

las 24 horas. En este caso la precipitación es variable en el espacio y en el tiempo.

5.6.1 Método Racional Modificado y Generalizado

El método racional mejorado y generalizado, por J.R. Témez Peláez, fue elaborado para la Dirección General de Carreteras de España.

La fórmula considerada es la siguiente:

$$Q = \frac{C \times I \times A}{3,6} \times K$$

Donde:

Q (m^3/s): Caudal punta en el punto de desagüe correspondiente a un período de retorno dado.

C: Coeficiente de escorrentía de la cuenca drenada.

I (mm/h): Intensidad media de precipitación correspondiente al período de retorno considerado y a un intervalo igual al tiempo de concentración.

A (km2): Superficie de la cuenca.

K: Coeficiente de uniformidad.

5.6.1.1 Tiempo de concentración

El tiempo de concentración se define como el necesario para que las precipitaciones caídas en las zonas más alejadas de la cuenca puedan llegar al punto de desagüe.

Este tiempo es independiente de la configuración y magnitudes del aguacero, dependiendo sólo de las características morfológicas de la cuenca. Para estimarlo se emplea la fórmula:

$$T_C = 0,3 \left[\frac{L}{J^{1/4}} \right]^{0,76}$$

En el caso de cuencas urbanas con un grado de urbanización superior al 4% del área de la cuenca, con alcantarillado completo y/o curso principal canalizado, impermeable y de escasa rugosidad

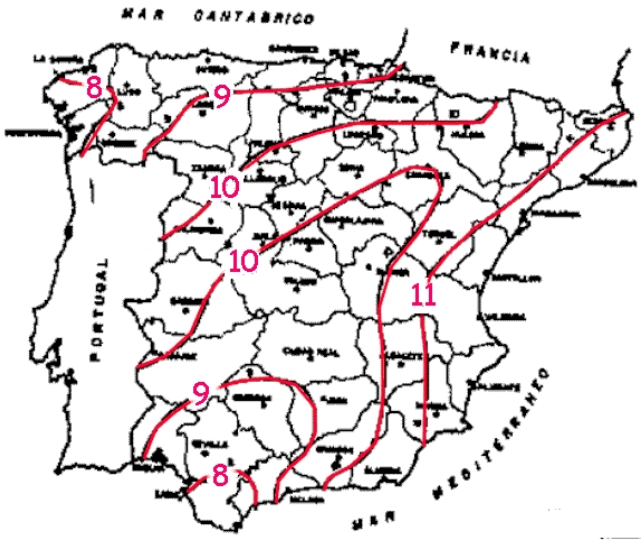
$$T_c = \frac{1}{1+3\sqrt{\mu(2-\mu)}} \cdot 0{,}3 \cdot \left(\frac{L}{j^{0{,}25}}\right)^{0{,}76}$$

Por tanto como este sería el caso objeto de estudio, donde el núcleo urbano ocupa más del 4% de la superficie de la cuenca, es esta última expresión la que se utiliza para el cálculo del tiempo de concentración

5.6.1.2 Intensidad de lluvia

Para el cálculo del caudal se ha considerado, de acuerdo con el método hidrometeorológico, que el caso más desfavorable es aquel en que el aguacero tiene una duración igual a la del tiempo de concentración.

Al contar sólo con datos de precipitaciones máximas diarias, no se pueden extrapolar los valores de las intensidades de aguaceros de distinta duración, por lo que para determinarlos, se ha de recurrir a las curvas intensidad-duración elaboradas para un conjunto de estaciones españolas. Consultando el mapa de isolíneas de los valores I1/Id para España que figura en la Norma 5.2-IC., siendo I1 la intensidad horaria e Id la intensidad media diaria, se obtiene que en la zona de estudio este factor es igual a 8,2



Para calcular la intensidad correspondiente a un aguacero de duración igual al tiempo de concentración se ha partido de la expresión general de las curvas intensidad-duración, donde:

$$I_d = \frac{P_d}{24}\left(\frac{mm}{h}\right)$$

$$I_T = I_d \cdot \left[\frac{I_1}{I_d}\right]^{\frac{28^{0,1} - T^{0,1}}{28^{0,1} - 1}}$$

Siendo I_T la intensidad del aguacero a considerar.

5.6.1.3 Coeficiente de escorrentía

El coeficiente de escorrentía se ha calculado de acuerdo con la fórmula que se indica en el método hidrometeorológico propuesto por la Instrucción 5.2-IC.

$$C = \frac{(P_d - P_o)\cdot(P_d + 23P_o)}{(P_d + 11P_o)^2}$$

donde P_d es la máxima precipitación total diaria para el período de retorno considerado y P_o es el umbral de escorrentía correspondiente a las características de las cuencas.

Para el estudio del valor del umbral de escorrentía se ha tomado un coeficiente corrector de 1 para estár del lado de la seguridad ya que de esta forma obtenemos caudales más conservadores

5.6.1.4 Coeficiente de uniformidad

Es un factor corrector del supuesto reparto uniforme de la escorrentía dentro del intervalo del cálculo de duración T_c.

El coeficiente de uniformidad varía de un aguacero a otro, pero su valor medio en una cuenca concreta depende principalmente del valor de su tiempo de concentración.

Según los trabajos realizados por J.R. Témez (1982), promovidos por la Dirección General de Carreteras, y expuestos en el XXIV Congreso Internacional de la IAHR, el valor de K puede estimarse de acuerdo con la fórmula siguiente:

$$K = 1 + \frac{Tc^{1,25}}{Tc^{1,25} + 14}$$

5.6.2 Caudales de cálculo

Se muestran a continuación las tablas de cálculo de los caudales para la simulación en cada una de las cuencas y subcuencas en las que se han dividido para ajustar el caudal en los tramos de los arroyos

Cuenca	T (años)	Pd (mm)	Ka	Pdc (mm)	Superficie cuenca (Ha)	NC	Po (mm)	K (*)	Poc (mm)	Pdc/Poc	C
CUENCA1A	5 = MCO	67.0	1.00	67.00	29.63	76	16.0	1.00	16.0	4.2	0.38
CUENCA1A	500	168.0	1.00	168.00	29.63	76	16.0	1.00	16.0	10.5	0.69
CUENCA1B	5 = MCO	67.0	1.00	66.86	107.59	79	13.0	1.00	13.0	5.1	0.45
CUENCA1B	500	168.0	1.00	167.64	107.59	79	13.0	1.00	13.0	12.9	0.75
CUENCA1C	5 = MCO	67.0	0.98	65.90	176.69	81	12.0	1.00	12.0	5.5	0.47
CUENCA1C	500	168.0	0.98	165.23	176.69	81	12.0	1.00	12.0	13.8	0.77
CUENCA1D	5 = MCO	67.0	0.98	65.35	234.04	81	12.0	1.00	12.0	5.4	0.47
CUENCA1D	500	168.0	0.98	163.86	234.04	81	12.0	1.00	12.0	13.7	0.76
CUENCA2A	5 = MCO	67.0	0.99	66.19	151.44	86	8.0	1.00	8.0	8.3	0.61
CUENCA2A	500	168.0	0.99	165.98	151.44	86	8.0	1.00	8.0	20.7	0.86
CUENCA2B	5 = MCO	67.0	0.99	66.38	137.77	86	8.0	1.00	8.0	8.3	0.61
CUENCA2B	500	168.0	0.99	166.44	137.77	86	8.0	1.00	8.0	20.8	0.86
CUENCA3A	5 = MCO	67.0	0.99	66.46	131.81	69	22.0	1.00	22.0	3.0	0.27
CUENCA3A	500	168.0	0.99	166.66	131.81	69	22.0	1.00	22.0	7.6	0.58
CUENCA3B	5 = MCO	67.0	1.00	66.78	112.18	69	22.0	1.00	22.0	3.0	0.27
CUENCA3B	500	168.0	1.00	167.44	112.18	69	22.0	1.00	22.0	7.6	0.58
CUENCA4A	5 = MCO	67.0	1.00	67.00	93.10	82	11.0	1.00	11.0	6.1	0.51
CUENCA4A	500	168.0	1.00	168.00	93.10	81	12.0	1.00	12.0	14.0	0.77
CUENCA4B	5 = MCO	67.0	1.00	67.00	74.56	82	11.0	1.00	11.0	6.1	0.51
CUENCA4B	500	168.0	1.00	168.00	74.56	81	12.0	1.00	12.0	14.0	0.77

Cuenca	T (años)	Superficie cuenca (Ha)	Superficie urbanizada (Ha)	Grado de urbanización	L (m)	J (m/m)	Tc (h)
CUENCA1A	5 = MCO	29.63	23.70	0.80	1,004	0.038	0.14
CUENCA1A	500	29.63	23.70	0.80	1,004	0.038	0.14
CUENCA1B	5 = MCO	107.59	75.31	0.70	1,531	0.027	0.21
CUENCA1B	500	107.59	75.31	0.70	1,531	0.027	0.21
CUENCA1C	5 = MCO	176.69	106.01	0.60	2,479	0.018	0.34
CUENCA1C	500	176.69	106.01	0.60	2,479	0.018	0.34
CUENCA1D	5 = MCO	234.04	117.02	0.50	3,250	0.015	0.45
CUENCA1D	500	234.04	117.02	0.50	3,250	0.015	0.45
CUENCA2A	5 = MCO	151.44	75.72	0.50	2,490	0.018	0.36
CUENCA2A	500	151.44	75.72	0.50	2,490	0.018	0.36
CUENCA2B	5 = MCO	137.77	68.89	0.50	2,166	0.020	0.32
CUENCA2B	500	137.77	68.89	0.50	2,166	0.020	0.32
CUENCA3A	5 = MCO	131.81	65.91	0.50	1,999	0.019	0.30
CUENCA3A	500	131.81	65.91	0.50	1,999	0.019	0.30
CUENCA3B	5 = MCO	112.18	56.09	0.50	1,551	0.022	0.24
CUENCA3B	500	112.18	56.09	0.50	1,551	0.022	0.24
CUENCA4A	5 = MCO	93.10	46.55	0.50	1,951	0.026	0.28
CUENCA4A	500	93.10	46.55	0.50	1,951	0.026	0.28
CUENCA4B	5 = MCO	74.56	37.28	0.50	1,519	0.032	0.22
CUENCA4B	500	74.56	37.28	0.50	1,519	0.032	0.22

Cuenca	T (años)	A (Ha)	I1/Id	Pdc (mm)	Id (mm/h)	It (mm/h)	C	Ku	Q (m3/s)
CUENCA1A	5 = MCO	29.63	8.2	67.00	2.79	56.77	0.38	1.01	**1.□□**
CUENCA1A	500	29.63	8.2	168.00	7.00	142.36	0.69	1.01	**8.12**
CUENCA1B	5 = MCO	107.59	8.2	66.86	2.79	47.36	0.45	1.01	**6.40**
CUENCA1B	500	107.59	8.2	167.64	6.99	118.76	0.75	1.01	**26.81**
CUENCA1C	5 = MCO	176.69	8.2	65.90	2.75	37.53	0.47	1.02	**8.83**
CUENCA1C	500	176.69	8.2	165.23	6.88	94.10	0.77	1.02	**36.00**
CUENCA1D	5 = MCO	234.04	8.2	65.35	2.72	32.52	0.47	1.03	**10.14**
CUENCA1D	500	234.04	8.2	163.86	6.83	81.54	0.76	1.03	**41.50**
CUENCA2A	5 = MCO	151.44	8.2	66.19	2.76	36.91	0.61	1.02	**9.69**
CUENCA2A	500	151.44	8.2	165.98	6.92	92.56	0.86	1.02	**34.02**
CUENCA2B	5 = MCO	137.77	8.2	66.38	2.77	39.28	0.61	1.02	**9.3□**
CUENCA2B	500	137.77	8.2	166.44	6.94	98.49	0.86	1.02	**32.86**
CUENCA3A	5 = MCO	131.81	8.2	66.46	2.77	40.28	0.27	1.02	**4.01**
CUENCA3A	500	131.81	8.2	166.66	6.94	101.01	0.58	1.02	**21.89**
CUENCA3B	5 = MCO	112.18	8.2	66.78	2.78	44.81	0.27	1.01	**3.80**
CUENCA3B	500	112.18	8.2	167.44	6.98	112.36	0.58	1.01	**20.□0**
CUENCA4A	5 = MCO	93.10	8.2	67.00	2.79	42.11	0.51	1.01	**5.60**
CUENCA4A	500	93.10	8.2	168.00	7.00	105.59	0.77	1.01	**21.31**
CUENCA4B	5 = MCO	74.56	8.2	67.00	2.79	46.77	0.51	1.01	**4.96**
CUENCA4B	500	74.56	8.2	168.00	7.00	117.28	0.77	1.01	**18.89**

(*)Si $K_A = 1 - \frac{\log S}{15}$ **si S > 1 km², de lo contrario K_A = 1.**

6 CALCULOS HIDRAULICOS

6.1 INTRODUCCIÓN

Para la realización del modelo hidráulico se ha empleado el programa de ordenador HEC-RAS (Hydrologic Engineering Center River Análisis System). Este modelo matemático, es una versión actualizada del modelo HEC-2, “Water Surface Profiles”, desarrollado en el “Hydrologic Engineering Center” del “U.S. Army Corps of Engineers”. La versión que utilizada es la 4.1

El programa se basa en la resolución de la ecuación de la energía, expresada en términos unidimensionales, con las pérdidas de carga valoradas según la ecuación de Manning y las siguientes hipótesis básicas:

- El flujo es estacionario; los valores de las variables no dependen del tiempo, que no interviene en los cálculos.
- El flujo es gradualmente variado: la curvatura de las líneas de corriente es despreciable, de manera que se puede suponer una distribución hidrostática de la presión.
- El flujo se considera unidimensional, considerándose en la distribución horizontal de la velocidad las zonas de cauce y llanura de inundación por ambas márgenes. La altura de la energía es igual para todos los puntos de cada sección.
- La pendiente del cauce ha de ser pequeña, debido a que la altura de presión se supone equivalente a la cota del agua medida verticalmente.
- Se admite cambio de régimen (de lento a rápido o viceversa) en un mismo cálculo.
- La pendiente de la energía es constante entre dos secciones transversales.
- El lecho del cauce es fijo.

El modelo matemático resuelve de forma iterativa la ecuación de la conservación de la energía para calcular el nivel del agua en una sección. Para calcular las pérdidas por fricción se utiliza la fórmula de Manning, pudiendo usarse diferentes procedimientos, tanto para asignar el valor del coeficiente, que varía de sección en sección, y en cada

una horizontal o verticalmente, como para calcular el valor medio en cada tramo. Pueden especificarse con todo detalle las pérdidas por contracción y por expansión así como las pérdidas en puentes y azudes.

6.2 CARTOGRAFÍA EMPLEADA

Para la realización del estudio se ha utilizado el MDT de Andalucía, junto con el levantamiento topográfico local del núcleo aporado por el ayuntamietno y finalmente a través de mediciones hechas en las visitas de campo, generando con ellos un TIN y aplicando el HEC Geo-RAS para la generación y exportación del correspondiente archivo HEC-RAS.

6.3 DISTRIBUCIÓN SECCIONES TRANSVERSALES DE CÁLCULO

Tomando como base el material topográfico nombrado en el apartado anterior, se procede a la extracción de perfiles transversales al eje del cauce del arroyo estudiado; las secciones se distribuiran de tal forma que quede bien definida la zona de afección a estudiar.

En los planos, se presenta la distribución y las secciones transversales utilizadas en los cálculos.

6.4 PARÁMETROS DE LA SIMULACIÓN

A continuación se detallan los parámetros que se han utilizado para la simulación de los periodos de avenida calculados en el estudio hidrológico

6.4.1 Esquema de la red

En los planos se puede encontrar un esquema de la red, con la tramificación empleada, con la numeración de cada uno de los perfiles transversales que se han utilizado para su identificación, además se recogen los *Levee. Banks, flowpaths, etc.*

6.4.2 Pérdidas

Las pérdidas entre perfiles debidas a la contracción y expansión del flujo se determinan mediante cálculos iterativos.

La ecuación de Manning se usa para calcular las pérdidas por rozamiento, y las demás pérdidas son descritas en términos de coeficientes que afectan al valor absoluto del cambio de velocidad entre dos perfiles consecutivos.

Cuando la velocidad aumenta en sentido hacia aguas abajo, se usa un coeficiente de contracción; y cuando la velocidad disminuye en el mismo sentido, se usa un coeficiente de expansión.

Los coeficientes de contracción y expansión son usados para calcular pérdidas de energía asociadas con cambios en la forma de los perfiles del río (o áreas de flujo computables).

Las pérdidas debidas a la expansión del flujo son mayores normalmente que las pérdidas por contracción, y las pérdidas de transiciones cortas y bruscas son mayores que las pérdidas de transiciones graduales.

En la tabla que aparece a continuación se muestran valores típicos de coeficientes de contracción y expansión (en el modelo hidráulico se ha adoptado el tercer tipo de coeficientes en el caso de estructuras):

COEFICIENTES DE CONTRACCIÓN Y EXPANSIÓN		
	CONTRACCIÓN	EXPANSIÓN
Sin Cálculo de Pérdidas	0,0	0,0
Transiciones Graduales	0,1	0,3
Secciones Típicas de Estructuras	0,3	0,5
Transiciones Bruscas	0,6	0,8

6.4.3 Rugosidad

La rugosidad tiene un papel muy importante en la fórmula que relaciona el caudal con las características morfológicas de un determinado cauce.

En un estudio de estas características es imprescindible la justificación del valor adoptado, utilizando sobretodo documentación gráfica (ortofotos, coberturas de rugosidad, reportaje fotográfico).

No es raro que se piense que un canal tiene un valor único de “n” (coeficiente de Manning) para todas las ocasiones. En realidad, el valor de “n” es muy variable y depende de un cierto número de factores. Para seleccionar el valor “n” apropiado para diferentes condiciones de diseño, resulta muy útil tener un conocimiento básico de estos factores.

Los coeficientes de Manning adoptados (según publicación de Chow V.T., 1982), son los siguientes:

	n		
	MARGEN IZQ.	**CAUCE**	**MARGEN DER.**
n0 **Valor base para cauces rectos y uniformes**	0.030	0.030	0.030
n1 **Valor adicional por la irregularidad en la sección recta**	0.004	0.007	0.004
n2 **Valor adicional por variaciones en el cauce**	0.001	0.001	0.001
n3 **Valor adicional por obstruccciones**	0.004	0.007	0.004
n4 **Valor adicional por vegetación**	0.006	0.010	0.006
n5 **Factor multiplicado por sinuosidad**	1.000	1.000	1.000
	0.045	**0.055**	**0.045**

6.4.4 Condiciones de contorno

Las condiciones de contorno del flujo en cada tramo en estudio, para las que existen varias alternativas, son las que indican al modelo cómo ha de comenzar los cálculos hidráulicos.

Estas son las distintas alternativas:

a. Calado crítico en la primera sección transversal.

b. Calado de agua conocido para un determinado caudal.

c. Pendiente de la línea de energía conocida.

d. Curva de gasto.

En los diferentes tramos se han establecido como condiciones de contorno:

- Aguas arriba: Calado crítico en la primera sección transversal.

- Aguas abajo: Calado normal con la pendiente natural del cauce (resultante de la topografía).

A continuación se resumen las condiciones de contorno de los arroyos:

Condiciones de contorno Arroyos		
Cauce	Aguas arriba	Aguas abajo
Arroyo 1	Calado crítico	Calado normal. S=0,002
Arroyo 2	Calado crítico	Calado normal. S=0,01
Arroyo 3	Calado crítico	Calado normal. S=0,015
Arroyo 4	Calado crítico	Calado normal. S=0,006

El programa HEC-RAS permite el cálculo en régimen mixto, es decir, procede inicialmente desde aguas abajo hacia aguas arriba, suponiendo régimen lento; en el caso de detectar un cambio de régimen automáticamente modifica el sentido de avance de los cálculos, computando las secciones desde aguas arriba hacia aguas abajo en régimen rápido.

7 RESULTADOS DEL CALCULO

Para concluir el Estudio se analizan los resultados obtenidos en la fase de cálculo y se calibran con las distintas visitas realizadas a la zona, las conversaciones con personas de la zona y búsqueda de datos históricos de inundaciones.

En cuanto a los cauces estudiados cabe resaltar lo siguiente:

Arroyo nº 1.

Para la avenida correspondiente a la Máxima Crecida Ordinaria todas las obras de drenaje estudiadas se ven desbordadas a excepción del entubamiento construido recientemente entre las secciones 1308 y 1522. Debido a la abundante vegetación en el cauce y a la escasa sección del mismo, sobretodo en los tramos altos, se producen inundaciones generalizadas en el tramo estudiado

Para el periodo de 500 años, al igual en el anterior, señalar que la sección de los cauces es insuficiente y todas las infraestructuras estudiadas no tienen capacidad para evacuar el caudal circulante produciendo vertido sobre los viales. Esto se debe en gran medida al estado actual del cauce, con abundante vegetación nitrófila debido a los campos de cultivo adyacentes que reducen la capacidad hidráulica del mismo. Por otro lado la escasa pendiente de la zona y las numerosas obras de drenaje hacen que la velocidad de la corriente sea reducida, lo cual genera un aumento de los calados.

En la zona alta del cauce, en el cruce con la Avenida del Cuervo se recomienda la unificación de secciones de las distintas obras de drenaje, adoptando un trazado menos quebrado y con una misma sección para las tres obras contiguas existentes. Por otro lado, la ODT existente en la A-471 debe ser ampliada a una obra de drenaje de capacidad adecuada que permita el desagüe de la avenida de 500 sin producir las sobreelevaciones y embalsamiento aguas arriba que se genera en la actualidad.

Arroyo nº 2.

Destacar que en el tramo de estudio del arroyo nº2 no existen obras de drenaje. El cauce de dicho arroyo presenta una sección escasa e insuficiente para la avenida correspondiente a la Máxima Crecida Ordinaria y por consiguiente para el periodo de retorno de 500 años.

Dicho cauce presente abundante vegetación, disminuyendo por consiguiente la capacidad hidráulica efectiva del mismo. En cuanto a los márgenes se presentan como tierras dedicadas al cultivo herbáceo con poca pendiente.

Debido a que la zona de inundación es llana, la velocidad de la corriente es reducida en la mayoría de las zonas, lo cual genera un aumento de los calados.

Arroyo nº 3.

Todas las obras de drenaje estudiadas se ven desbordadas para la avenida correspondiente a la Máxima Crecida Ordinaria y 500 años. Esto se produce debido al estado deteriorado de las obras, a la insuficiente sección hidráulica de las mismas y la abundante vegetación en el cauce.

Los márgenes del cauce son zonas llanas cubiertas de abundantes cultivos herbáceos. Por otro lado la escasa pendiente de la zona hacen que la velocidad de la corriente sea reducida (excepto en las zonas de las obras de drenaje), lo cual genera un aumento de los calados.

Arroyo nº 4.

Para la avenida correspondiente a la Máxima Crecida Ordinaria se desbordan las obras de drenaje de las secciones 841, 447. El resto tienen capacidad suficiente para aliviar dicha avenida. Respecto a la avenida del periodo de retorno de 500 años, únicamente el viaducto situado en el punto 317 (Ave Sevilla-Cádiz), tiene una sección suficiente para aliviar dicha avenida.

El cauce presente una vegetación abundante, disminuyendo la capacidad hidráulica efectiva del mismo. En cuanto a los márgenes se caracterizan por contar con terrenos dedicadas al cultivo herbáceo con poca pendiente y una carretera local que conecta un polígono industrial con Lebrija.

Debido a la gran pendiente existente en hasta la sección 1095 y a las numerosas obras de drenaje se produce zonas de elevada velocidad. En el resto de zonas (llanas y sin obras cercanas), su velocidad es moderada.

La proximidad al río Guadalquivir, la poca elevación existente y el relieve en general bastante llano hace que este tenga gran influencia en el término municipal e incluso pueda afectar a las zonas exteriores del núcleo urbano, en este sentido señalar la situación especial de los polígonos industriales presentes denominados Elio Antonio y Las Marismas. Para la determinación de la cota inundable del polígono industrial Elio Antonio el cual se encuentra en fase de de Proyecto de Urbanización por la sociedad estatal de suelo SEPES, organismo público dependiente del Ministerio de Fomento, se redactó un estudio de Inundabilidad por parte de *Ingenia Soluciones para la Ingeniería S.L.U.*

En la reunión mantenida con los servicios técnicos de la Confederación Hidrográfica del Guadalquivir por parte del redactor del PGOU, se decide tomar la cota de inundación deducida del citado estudio (4 msnm) y trasladarla aguas arriba del término municipal, utilizando una mota con esta altura para proteger el polígono de Las Marismas.

En el Documento nº 2 Planos se incluyen los resultados obtenidos en el estudio hidráulico. Concretamente en el plano 2.2.6.1 se incluyen, junto a las llanuras de inundación, las zonas de servidumbre y policía, válidas en el caso de que Confederación Hidrográfica del Guadalquivir considere dichos cauces como públicos.

No obstante se consideraran privados dichos cauces según la información obtenida en la Oficina de Catastro.

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Apéndice nº2: Metodología para el Cálculo del NC.

1. CALCULO DE NC

En el ciclo hidrológico, una parte importante del movimiento del agua viene determinada por la infiltración. La infiltración es el proceso por el que la precipitación se mueve hacia abajo a través de la superficie del suelo, aumentando la humedad del suelo.

Uno de los métodos más extendidos y experimentados de los modelos empíricos de infiltración es el del SCS de los Estados Unidos (McCuen, 1982).

Este modelo asume la hipótesis conceptual de que la escorrentía acumulada en una porción de la cuenca es a la infiltración acumulada, como la precipitación bruta acumulada, una vez descontada la fracción necesaria para que se produzca el encharcamiento, a la máxima infiltración acumulada que puede producirse, es decir:

$$\frac{Q}{F} = \frac{P - P_0}{S}$$

Siendo S la máxima infiltración potencial, F la infiltración real después del encharcamiento, P la precipitación, Q la escorrentía superficial y Po el umbral de escorrentía, es decir, la cantidad de precipitación necesaria para que el suelo se encharque y la escorrentía superficial aparezca.

Considerando que por continuidad se debe cumplir:

$$F=(P-P_0) - Q$$

Y asumiendo una relación media experimental entre el umbral de escorrentía y la máxima infiltración potencial de:

$$P_0=0.2S$$

Se llega a la siguiente ecuación:

$$Q = \frac{(P - 0.2S)^2}{P + 0.8S}$$

Los estudios empíricos realizados por el SCS permitieron relacionar la máxima infiltración potencial con un parámetro de referencia, denominado número de curva, CN, cuyos valores están tabulados entre 0 y 100.

$$S = \frac{1000}{CN} - 10$$

En la presente metodología se ha trabajado con una adaptación desarrollada por Témez (1978) en España de dicho método, en la cual utiliza como parámetro de referencia el umbral de escorrentía Po por considerar que tiene mayor sentido físico que el número de curva. El parámetro Po es función de cinco variables: el uso del suelo, el tipo de práctica con la que se cultiva, la pendiente del terreno, el tipo de suelo, categorizado según su facilidad de drenaje, y las condiciones de humedad del suelo. La relación entre el Po y estas variables no es matemática, sino tabular. Su cálculo se ha venido realizando normalmente mediante la superposición de los diferentes mapas correspondientes a cada una de las variables. Actualmente este tipo de operaciones espaciales se pueden hacer de una forma automática, menos laboriosa y más precisa con los SIG.

2. METODOLOGÍA

En la Tabla 1 se muestran los valores del número de curva deducidos del parámetro umbral de escorrentía, P0, utilizado en el trabajo de Témez (1978). Ambos están relacionados por la expresión siguiente:

$$CN = \frac{5000}{(50 - P_0)}$$

Como se observa en la Tabla 1, el valor del parámetro número de curva para condiciones medias de humedad en el suelo depende del uso del suelo, las características hidrológicas, la pendiente del terreno y el tipo de suelo.

La metodología que se propone en el presente trabajo para generar automáticamente un mapa del número de curva se apoya en los SIG. Estos son sistemas gestores de base de datos geográficos, en los que se manejan datos muy

diversos que se dan en una misma localización geográfica. Cuatro son sus principales funciones (Aronoff, 1989):

1. Entrada de datos

2. Manejo de datos (almacenamiento y búsqueda)

3. Manipulación y análisis de los datos

4. Salida de datos, tanto en forma de tabla como en mapa.

Hay dos tipos de estructura de datos en un SIG: vectorial y ráster. En los mapas vectoriales se utilizan puntos, líneas y polígonos, intentando representar de la manera más precisa las formas en el espacio. En cambio la segunda estructura, el mapa ráster, consiste en la división del espacio en una red de celdas rectangulares.

Por ello a este tipo de estructura se le llama también matricial. Dependiendo del tipo de análisis que se realice, se utilizará una estructura u otra. En Hidrología el uso del modelo ráster es, en general, más adecuado que el vectorial, y es el que se ha escogido para generar el mapa del número de curva. Las ventajas principales que presenta este modelo son: a) la división del territorio en unidades espaciales que tienen el mismo tamaño y la misma forma, facilitando la aplicación de modelos distribuidos, b) es fácil realizar operaciones con las celdas vecinas (p.e. análisis estadísticos) y c) permite combinar cualquier tipo de dato con mapas obtenidos de imágenes satélite.

El hecho de relacionar únicamente los objetos de forma espacial, permite que se analicen conjuntamente elementos diversos tales como pendiente y usos del suelo de una forma automática. Asimismo los SIG facilitan operativamente el conocer con detalle las consecuencias de diferentes cambios en el medio físico de una manera rápida y económica. Una vez establecidas relaciones matemáticas o lógicas entre una serie de variables que intervienen en el proceso estudiado, puede variarse fácilmente una de ellas y ver cómo afecta este cambio al resultado.

A continuación se describe el proceso seguido para generar los mapas matriciales (también llamados capas de información) de cada una de las variables que intervienen en la determinación del número de curva, y la forma en que se superponen y establecen las relaciones necesarias para generar dicho mapa.

Mapa de pendientes

Una de las variables necesarias para definir el número de curva es la pendiente, clasificada en dos grupos: menor del 3%, o mayor o igual al 3%.

Para la obtención del mapa de pendientes, se necesita un Modelo de Elevación Digital, que se puede definir como una matriz de números ordenados que representa la distribución espacial de las elevaciones sobre algún dato arbitrario del territorio (Moore et al., 1993).

Prácticamente en todos los SIG existe la función automática de obtención de pendientes derivada del Modelo de Elevación Digital. Si no es así, es posible generarla a partir de las diferencias de altitud que existen entre las celdas vecinas al analizarlas mediante filtros.

En este caso se ha utilizado el Modelo Digital del Terreno de la Junta de Andalucía.

Tabla 1. *Número de Curva, para condiciones medias de humedad.*

USO DE LA TIERRA	PENDIENTE	A	B	C	D
Barbecho R	>= 3	77	68	89	93
Barbecho N	>= 3	74	82	86	89
Barbecho R/N	< 3	71	78	82	86
Cultivos en hilera R	>= 3	69	79	86	89
Cultivos en hilera N	>= 3	67	76	82	86
Cultivos en hilera R/N	< 3	64	73	78	82
Cereales de invierno R	>= 3	63	75	83	86
Cereales de invierno N	>= 3	61	73	81	83
Cererales de invierno R/N	< 3	59	70	78	81
Rotación de cultivos pobres R	>= 3	66	77	85	89
Rotación de cultivos pobres N	>= 3	64	75	82	86
Rotación de cultivos pobres R/N	< 3	63	73	79	83
Rotación de cultivos densos R	>= 3	58	71	81	85
Rotación de cultivos densos N	>= 3	54	69	78	82
Rotación de cultivos densos R/N	< 3	52	67	76	79
Pradera pobre	>= 3	68	78	86	89
Pradera media	>= 3	49	69	78	85
Pradera buena	>= 3	42	60	74	79
Pradera muy buena	>= 3	39	55	69	77
Pradera pobre	< 3	46	67	81	88
Pradera media	< 3	39	59	75	83
Pradera buena	< 3	29	48	69	78
Pradera muy buena	< 3	17	33	67	76
Plantaciones regulares de aprovechamiento forestal pobre	>= 3	45	66	77	83
Plantaciones regulares de aprovechamiento forestal media	>= 3	39	60	73	78
Plantaciones regulares de aprovechamiento forestal buena	>= 3	33	54	69	77
Plantaciones regulares de aprovechamiento forestal pobre	< 3	40	60	73	78
Plantaciones regulares de aprovechamiento forestal media	< 3	35	54	69	77
Plantaciones regulares de aprovechamiento forestal buena	< 3	25	50	67	76
Masa forestal (bosques, monte bajo, ...) muy clara		56	75	86	91
Masa forestal (bosques, monte bajo, ...) clara		46	68	78	83
Masa forestal (bosques, monte bajo, ...) media		40	60	69	76
Masa forestal (bosques, monte bajo, ...) espesa		36	52	62	69
Masa forestal (bosques, monte bajo, ...) muy espesa		29	44	54	60
Rocas permeables	>= 3	94	94	94	94
Rocas permeables	< 3	91	91	91	91
Rocas impermeables	>= 3	96	96	96	96
Rocas impermeables	< 3	93	93	93	93

El mapa de pendientes resultante puede obtenerse tanto en forma de porcentaje como en grados. En este último caso deberá reconvertirse a porcentajes.

Una vez obtenido este mapa, se reclasifica en dos grupos: celdas con pendiente menor del 3 % y mayor o igual al 3 %. En la mayoría de los SIG esta operación puede hacerse fácilmente a través de las tablas de reclasificación. La estructura de dichas tablas variará según el SIG, aunque en esencia responden a un formato tal como el que se muestra a continuación:

0 hasta 2	1	Pendientes menores de 3%
3 hasta 1000	2	*Pendientes iguales o mayores del 3%*

Aplicando esta tabla se genera un nuevo mapa que tiene las siguientes categorías: 1 en todas aquellas celdas del mapa de pendientes inicial en las que la pendiente era menor del 3% ; 2 para aquellas celdas que tenían una pendiente igual o mayor al 3%; y 0, que significa que está fuera del área de análisis.

Características hidrológicas

La siguiente variable que se utiliza para la obtención del número de curva mediante las tablas propuestas por Témez (1978) es la característica hidrológica. Dicho autor la hace equivalente a la forma de cultivar la tierra.

Se divide en dos grupos:

N, el cultivo sigue las curvas de nivel, y

R, el cultivo sigue la línea de máxima pendiente

Los valores del número de curva asociados a cada tipo no se diferencian mucho, por lo que en muchos casos se considera que toda el área de estudio tiende a cultivarse de una misma manera, a no ser que se tengan datos específicos.

Mapa de tipos de suelo

Otra variable necesaria para determinar el número de curva es el mapa de tipos de suelo. Este mapa debe estar clasificado en los cuatro grupos que establece el SCS:

A. En ellos el agua se infiltra rápidamente, aun cuando estén muy húmedos. Profundos y de texturas gruesas (arenosas o areno-limosas), están excesivamente drenados.

B. Cuando están muy húmedos tienen una capacidad de infiltración moderada. La profundidad de suelo es de media a profunda y su textura es franco-arenosa, franca, francoarcillosa o franco-limosa. Están bien o moderadamente drenados.

C. Cuando están muy húmedos la infiltración es lenta. La profundidad de suelo es inferior a la media y su textura es franco-arcillosa, francoarcillo- limosa o arcillo-arenosa. Son suelos imperfectamente drenados.

D. Cuando están muy húmedos la infiltración es muy lenta. Tienen horizontes de arcilla en la superficie o próximos a ella y están pobremente o muy pobremente drenados. También se incluyen aquí los terrenos con nivel freático permanentemente alto y suelos de poco espesor (litosuelos).

Una forma de determinar a qué grupo pertenece cada suelo es a través de las publicaciones del M.O.P.T. (1992) y Porta et al. (1994), en las cuales se presentan unas tablas siguiendo la clasificación del Soil Taxonomy y de la FAO, respectivamente. En ellas se describen, además de características del entorno que ayudan a determinar con más exactitud el tipo de suelo en estudio (vegetación, clima, productividad agrícola, etc.), el tipo de drenaje que tienen los diferentes suelos. Acorde con esta característica se clasifica el suelo en las clases ya descritas A, B, C o D.

Esta capa de información se puede generar, básicamente, de dos formas: digitalizando el mapa de acuerdo a las unidades A, B, C y D, o, si ya se dispone de un mapa general de tipos de suelo en el SIG, se reclasifica el mapa mediante una tabla similar a la descrita para el mapa de pendientes (como ha sido este caso en el

que ha utilizado el Mapa de Usos de Suelos 1/400.000 de la Junta de Andalucía, se pueden ver las equivalencias en la Tabla 2).

Tabla 2. *Tabla de Equivalencias para los Tipos de Suelo.*

1.- Fluvisoles éutricos y Cambisoles éutricos	C
2.- Fluvisoles calcáreos	C
3.- Fluvisoles calcáreos y Xerosoles cálcicos con Regosoles calcáreos	C
4.- Regosoles éutricos, Regosoles dístricos y Arenosoles álbicos	B
5.- Regosoles éutricos, Litosoles y Cambisoles éutricos con Rankers, sobre materiales metamórficos	B
6.- Regosoles éutricos, Litosoles y Cambisoles éutricos con Rankers, sobre materiales plutónicos	B
7.- Regosoles éutricos, Xerosoles háplicos y Litosoles	B
8.- Regosoles éutricos, Cambisoles éutricos y Luvisoles órticos con Litosoles	B
9- Regosoles calcáreos y Regosoles éutricos	B
10.- Regosoles calcáreos	B
11.- Regosoles calcáreos y Litosoles con Cambisoles cálcicos	B
12.- Regosoles calcáreos y Xerosoles cálcicos con Litosoles y Fluvisoles calcáreos	B
13.- Regosoles calcáreos y Cambisoles cálcicos con Litosoles, Fluvisoles calcáreos y Rendsinas	B
14.- Regosoles calcáreos y Cambisoles cálcicos con Luvisoles cálcicos y Fluvisoles calcáreos	B
15.- Litosoles, Regosoles éutricos y Luvisoles crómicos con Cambisoles éutricos	D
16.- Litosoles y Regosoles dístricos	D
17.- Litosoles y Xerosoles lúvicos	D
18.- Litosoles, Cambisoles cálcicos y Xerosoles cálcicos	D
19.- Litosoles, Luvisoles crómicos y Rendsinas con Cambisoles cálcicos	D
20.- Arenosoles álbicos, Cambisoles húmicos y Gleysoles dístricos	D
21.- Vertisoles pélicos, Rendsinas y Regosoles calcáreos	D
22.- Vertisoles pélicos y Vertisoles crómicos	D
23.- Vertisoles crómicos y Cambisoles vértricos con Cambisoles cálcicos, Regosoles calcáreos y Vertisoles pélicos	D
24.- Solonchaks takíricos y Solonchaks gleicos	D
25.- Xerosoles cálcicos	C
26.- Xerosoles cálcicos y Fluvisoles calcáreos con Regosoles calcáreos	C
27.- Xerosoles cálcicos y Regosoles calcáreos	C
28.- Xerosoles cálcicos y Regosoles calcáreos con Fluvisoles calcáreos	C
29.- Xerosoles cálcicos y Litosoles con Fluvisoles calcáreos	C
30.- Xerosoles cálcicos y Xerosoles lúvicos con Regosoles calcáreos y Fluvisoles calcáreos	C
31.- Cambisoles éutricos, Regosoles éutricos y Litosoles con Rankers	C
32.- Cambisoles éutricos, Regosoles éutricos y Luvisoles crómicos con Litosoles	C
33.- Cambisoles éutricos, Rankers y Luvisoles órticos con Luvisoles crómicos	C
34.- Cambisoles éutricos, Rankers y Luvisoles órticos	C
35.- Cambisoles éutricos, Luvisoles crómicos y Litosoles con Cambisoles dístricos y Rankers	C
36.- Cambisoles éutricos, Luvisoles crómicos y Cambisoles cálcicos con Regosoles éutricos y calcáreos y Luvisoles cálcicos	C
37.- Cambisoles éutricos, Luvisoles crómicos y Luvisoles órticos	C
38.- Cambisoles éutricos, Luvisoles crómicos y Luvisoles órticos	C
39.- Cambisoles dístricos, Phaeozems háplicos y Rankers con Cambisoles	C

húmicos, Regosoles dístricos y Litosoles	
40.- Cambisoles cálcicos con Regosoles calcáreos	C
41.- Cambisoles cálcicos con Regosoles calcáreos	C
42.- Cambisoles cálcicos con Regosoles calcáreos, Fluvisoles calcáreos y Luvisoles cálcicos	C
43.- Cambisoles cálcicos y Regosoles calcáreos con Litosoles, Fluvisoles calcáreos y Cambisoles vérticos	C
44.- Cambisoles cálcicos, Regosoles calcáreos y Litosoles con Rendsinas	C
45.- Cambisoles cálcicos, Cambisoles gleicos y Regosoles calcáreos	C
46.- Cambisoles cálcicos, Luvisoles cálcicos y Regosoles calcáreos	C
47.- Cambisoles cálcicos, Luvisoles cálcicos y Luvisoles crómicos con Litosoles y Fluvisoles calcáreos	C
48.- Cambisoles vérticos, Regosoles calcáreos y Vertisoles crómicos con Cambisoles cálcicos	C
49.- Cambisoles vérticos, Vertisoles crómicos y Cambisoles cálcicos con Regosoles calcáreos	C
50.- Luvisoles órticos y Luvisoles gleicos	C
51.- Luvisoles órticos, Luvisoles gleicos y Cambisoles éutricos	C
52.- Luvisoles crómicos con Cambisoles cálcicos y Litosoles	C
53.- Luvisoles crómicos y Regosoles	C
54.- Luvisoles crómicos, Regosoles éutricos y Litosoles con Phaeozems y Cambisoles éutricos	C
55.- Luvisoles crómicos, Litosoles y Regosoles éutricos con Nitosoles dístricos	C
56.- Luvisoles crómicos, Cambisoles éutricos y Litosoles	C
57.- Luvisoles cálcicos, Cambisoles cálcicos y Cambisoles éutricos con Luvisoles crómicos, Regosoles calcáreos y Litosoles	C
58.- Luvisoles cálcicos, Cambisoles cálcicos y Luvisoles crómicos con Regosoles calcáreos	C
59.- Luvisoles cálcicos, Luvisoles crómicos y Luvisoles gleicos	C
60.- Luvisoles gleicos, Luvisoles órticos y Cambisoles éutricos	C
61.- Planosoles éutricos, Luvisoles gleicos y Luvisoles plínticos	B
62.- Planosoles móllicos, Vertisoles pélicos, Phaeozems calcáreos con Rankers arenosos	B
63.- Histosoles éutricos y Fluvisoles	D
64.- Regosoles dístricos y Arenosoles (Dunas y Playas)	B

En el último apartado se muestra el plano de tipo de suelo de la zona de estudio.

Mapas de usos del suelo

Aunque cada vez más se generan mapas de usos del suelo a partir de imágenes de satélite, en muchos estudios la fuente de información de esta variable sigue siendo el Mapa de Cultivos y Aprovechamientos del área. Es por ello por lo que a continuación se propone una tabla de equivalencia entre los usos del suelo que aparecen en la leyenda de dicho mapa y los usos del suelo propuestos por el SCS para determinar el número de curva. Para introducir la información final en el

SIG, al igual que con los tipos de suelo, o bien se digitaliza directamente el mapa con los usos del suelo del SCS, o bien se reclasifica el mapa de Cultivos y Aprovechamientos ya introducido en el SIG. De ésta última manera es como se ha trabajado con la cobertura de Usos de Suelo 1/400.000 de la Junta de Andalucía, aunque siempre apoyándose en las Ortofotos más actualizadas y visitas de campo. En la Tabla 3 se pueden observar las equivalencias establecidas en cuanto a Uso de Suelo.

En el último apartado se muestra el plano de usos de suelo de la zona de estudio.

Mapa del Número de Curva

La metodología seguida para combinar las capas de información y obtener el número de curva consiste en que a cada una de las variables que interviene en la obtención del número de curva se le asignó un número primo, considerando que la característica hidrológica era única (Tabla 3). Los mapas de entrada se reclasificaron con estos nuevos valores, excepto el de pendientes, ya que sus valores ya coincidían con los correspondientes números primos (1 y 2).

Dada la singularidad de los números primos, el producto de ellos siempre dará un número diferente. Así pues, si se multiplican los mapas de usos de suelo, pendiente y tipos de suelo, dará un resultado diferente por cada combinación de tres números primos (Tabla 3). De esta manera, conociendo el resultado del producto se puede saber de qué características de uso, tipo del suelo y de pendiente se tratan y se podrá encontrar su número de curva en la Tabla 1. Para obtenerlo con el SIG de una manera automática, se ha creado un archivo de reclasificación con todos los valores posibles, el cual se utiliza para reclasificar el mapa que contiene el producto de los tres mapas de entrada.

Estos valores del número curva pueden verse modificados según sean las condiciones de humedad del suelo anteriores al evento estudiado. Los valores presentados en la Tabla 1 corresponden a unas características de humedad medias. El SCS presenta unas tablas (McCuen, 1982) en las que se da la conversión directa considerando dos situaciones diferentes: en la que los suelos están secos aunque sin llegar al punto de marchitez, y en la que el suelo está saturado, situación que se considera que le corresponde a un suelo sobre el que ha caído una fuerte precipitación en los últimos 5 días.

En el presente trabajo se estudia el número de curva del territorio en condiciones medias de humedad.

Tabla 3. *Números primos asignados a las diversas clases de pendiente, tipos de suelo y usos de suelo.*

PENDIENTE < 3%		1	PENDIENTE < 3%
PENDIENTE >= 3%		2	PENDIENTE >= 3%
LITOLOGIA A		3	LITOLOGIA A
LITOLOGIA B		5	LITOLOGIA B
LITOLOGIA C		7	LITOLOGIA C
LITOLOGIA D		11	LITOLOGIA D
TEJIDO URBANO	111	89	ROCAS IMPERMEABLES
URBANIZACIONES RESIDENCIALES	115	83	ROCAS PERMEABLES
URBANIZACIONES AGRICOLAS/RESIDENCIALES	117	83	ROCAS PERMEABLES
ZONAS INDUSTRIALES Y COMERCIALES	121	89	ROCAS IMPERMEABLES
AUTOVÍAS, AUTOPISTAS Y ENLACES VIARIOS	131	89	ROCAS IMPERMEABLES
COMPLEJOS FERROVIARIOS	133	83	ROCAS PERMEABLES
ZONAS PORTUARIAS	135	89	ROCAS IMPERMEABLES
AEROPUERTOS	137	89	ROCAS IMPERMEABLES
OTRAS INFRAESTRUCTURAS TÉCNICAS	141	89	ROCAS IMPERMEABLES
ZONAS MINERAS	151	83	ROCAS PERMEABLES
ESCOMBRERAS Y VERTEDEROS	153	13	BARBECHO
ZONAS EN CONSTRUCCIÓN	155	83	ROCAS PERMEABLES
BALSAS DE ALPECHIN	157	89	ROCAS IMPERMEABLES
ZONAS VERDES URBANAS	191	41	PRADERA MEDIA
EQUIPAMIENTO DEPORTIVO Y RECREATIVO	193	31	PRADERA POBRE
MARISMA MAREAL CON VEGETACION	211	83	ROCAS PERMEABLES
MARISMA NO MAREAL CON VEGETACION	215	83	ROCAS PERMEABLES
MARISMA RECIENTE SIN VEGETACIÓN	217	83	ROCAS PERMEABLES
SALINAS TRADICIONALES	221	83	ROCAS PERMEABLES
SALINAS INDUSTRIALES Y PARQUES DE CULTIVOS	225	83	ROCAS PERMEABLES
ALBUFERAS	231	89	ROCAS IMPERMEABLES
ESTUARIOS Y CANALES DE MAREA	241	89	ROCAS IMPERMEABLES
MARES Y OCEANOS	291	89	ROCAS IMPERMEABLES
RIOS Y CAUCES NATURALES: LAMINA DE AGUA	311	89	ROCAS IMPERMEABLES
RIOS Y CAUCES NATURALES: BOSQUE DE GALERIA	315	89	ROCAS IMPERMEABLES
RIOS Y CAUCES NATURALES: OTRAS FORMAS RIPARIAS	317	89	ROCAS IMPERMEABLES
CANALES ARTIFICIALES	321	89	ROCAS IMPERMEABLES
LAGUNAS CONTINENTALES	331	89	ROCAS IMPERMEABLES
EMBALSES	341	89	ROCAS IMPERMEABLES

BALSAS DE RIEGOS Y GANADERAS	345	89	ROCAS IMPERMEABLES
CULTIVOS HERBACEOS EN SECANO	411	43	PRADERA MUY BUENA
OLIVAR EN SECANO	415	17	CULTIVOS EN HILERA
VIÑEDO EN SECANO	417	17	CULTIVOS EN HILERA
OTROS CULTIVOS LEÑOSOS EN SECANO	419	47	PLANTACIONES REGULARES DE APROVECHAMIENTO FORESTAL POBRE
ARROZALES	421	43	PRADERA MUY BUENA
CULTIVOS FORZADOS BAJO PLASTICO	423	83	ROCAS PERMEABLES
OTROS CULTIVOS HERBACEOS REGADOS	425	43	PRADERA MUY BUENA
OTROS CULTIVOS HERBACEOS REGADOS Y NO REGADOS	427	91	PRADERA BUENA
OTROS CULTIVOS HERBACEOS NO REGADOS	429	41	PRADERA MEDIA
CULTIVOS LEÑOSOS PARCIALMENTE REGADOS O NO REGADOS	430	17	CULTIVOS EN HILERA
CITRICOS EN REGADIO	431	17	CULTIVOS EN HILERA
OLIVOS EN REGADIO	433	17	CULTIVOS EN HILERA
FRUTALES TROPICALES EN REGADIO	435	17	CULTIVOS EN HILERA
OTROS CULTIVOS LEÑOSOS EN REGADIO	439	17	CULTIVOS EN HILERA
CULTIVOS HERBACEOS Y LEÑOSOS EN SECANO	441	47	PLANTACIONES REGULARES DE APROVECHAMIENTO FORESTAL POBRE
OLIVAR-VIÑEDO EN SECANO	445	17	CULTIVOS EN HILERA
OTRAS ASOCIACIONES Y MOSAICOS DE CULTIVOS LEÑOSOS EN SECANO	449	47	PLANTACIONES REGULARES DE APROVECHAMIENTO FORESTAL POBRE
CULTIVOS HERBACEOS Y LEÑOSOS REGADOS	451	59	PLANTACIONES REGULARES DE APROVECHAMIENTO FORESTAL BUENO
CULTIVOS HERBACEOS Y LEÑOSOS PARCIALMENTE REGADOS	455	53	PLANTACIONES REGULARES DE APROVECHAMIENTO FORESTAL MEDIO
CULTIVOS HERBACEOS Y LEÑOSOS NO REGADOS	457	47	PLANTACIONES REGULARES DE APROVECHAMIENTO FORESTAL POBRE
MOSAICO DE LEÑOSOS EN REGADIO	459	53	PLANTACIONES REGULARES DE APROVECHAMIENTO FORESTAL MEDIO
MOSAICO DE SECANOS Y REGADIOS CON CULTIVOS HERBACEOS	461	59	PLANTACIONES REGULARES DE APROVECHAMIENTO FORESTAL BUENO
MOSAICO DE SECANOS Y REGADIOS CON CULTIVOS HERBACEOS Y LEÑOSOS	465	53	PLANTACIONES REGULARES DE APROVECHAMIENTO FORESTAL MEDIO
MOSAICO DE SECANOS Y REGADIOS CON CULTIVOS LEÑOSOS	469	53	PLANTACIONES REGULARES DE APROVECHAMIENTO FORESTAL MEDIO
CULTIVOS HERBACEOS Y PASTIZALES	471	41	PRADERA MEDIA
CULTIVOS HERBACEOS Y VEGETACION NATURAL LEÑOSA	473	53	PLANTACIONES REGULARES DE APROVECHAMIENTO FORESTAL MEDIO
CULTIVOS LEÑOSOS Y PASTIZALES	475	53	PLANTACIONES REGULARES DE APROVECHAMIENTO FORESTAL MEDIO
CULTIVOS LEÑOSOS Y VEGETACION NATURAL LEÑOSA	477	47	PLANTACIONES REGULARES DE APROVECHAMIENTO FORESTAL POBRE
OTROS MOSAICOS DE CULTIVOS Y VEGETACIÓN NATURAL	479	41	PRADERA MEDIA
OLIVAR ABANDONADO	481	53	PLANTACIONES REGULARES DE APROVECHAMIENTO FORESTAL MEDIO
OTROS CULTIVOS LEÑOSOS ABANDONADOS	489	53	PLANTACIONES REGULARES DE APROVECHAMIENTO FORESTAL MEDIO

FORMACION ARBOLADA DENSA DE QUERCINEAS	510	73	MASA FORESTAL ESPESA
FORMACION ARBOLADA DENSA DE CONIFERAS	520	73	MASA FORESTAL ESPESA
FORMACION ARBOLADA DENSA DE EUCALIPTOS	530	73	MASA FORESTAL ESPESA
FORMACION ARBOLADA DENSA DE OTRAS FRONDOSAS	540	73	MASA FORESTAL ESPESA
FORMACION ARBOLADA DENSA DE QUERCINEAS + CONIFERAS	550	79	MASA FORESTAL MUY ESPESA
FORMACION ARBOLADA DENSA DE QUERCINEAS + EUCALIPTOS	560	79	MASA FORESTAL MUY ESPESA
FORMACION ARBOLADA DENSA DE CONIFERAS + EUCALIPTOS	570	79	MASA FORESTAL MUY ESPESA
FORMACION ARBOLADA DENSA DE OTRAS MEZCLAS	580	79	MASA FORESTAL MUY ESPESA
MATORRAL DENSO CON ARBOLADO DE QUERCINEAS DENSAS	611	73	MASA FORESTAL ESPESA
MATORRAL DENSO CON ARBOLADO DE QUERCINEAS DISPERSAS	615	71	MASA FORESTAL MEDIA
MATORRAL DENSO CON ARBOLADO DE CONIFERAS DENSAS	621	73	MASA FORESTAL ESPESA
MATORRAL DENSO CON ARBOLADO DE CONIFERAS DISPERSAS	625	71	MASA FORESTAL MEDIA
MATORRAL DENSO CON ARBOLADO DE EUCALIPTOS	630	71	MASA FORESTAL MEDIA
MATORRAL DENSO CON ARBOLADO DE OTRAS FRONDOSAS	640	71	MASA FORESTAL MEDIA
MATORRAL DENSO CON ARBOLADO DE QUERCINEAS + CONIFERAS	650	71	MASA FORESTAL MEDIA
MATORRAL DENSO CON ARBOLADO DE QUERCINEAS + EUCALIPTOS	660	71	MASA FORESTAL MEDIA
MATORRAL DENSO CON ARBOLADO DE CONIFERAS + EUCALIPTOS	670	71	MASA FORESTAL MEDIA
MATORRAL DENSO CON ARBOLADO DE OTRAS MEZCLAS	680	71	MASA FORESTAL MEDIA
MATORRAL DISPERSO CON ARBOLADO DE QUERCINEAS DENSAS	711	71	MASA FORESTAL MEDIA
MATORRAL DISPERSO CON ARBOLADO DE QUERCINEAS DISPERSAS	715	67	MASA FORESTAL CLARA
MATORRAL DISPERSO CON ARBOLADO DE CONIFERAS DENSAS	721	71	MASA FORESTAL MEDIA
MATORRAL DISPERSO CON ARBOLADO DE CONIFERAS DISPERSAS	725	67	MASA FORESTAL CLARA
MATORRAL DISPERSO CON ARBOLADO DE EUCALIPTOS	730	67	MASA FORESTAL CLARA
MATORRAL DISPERSO CON ARBOLADO DE OTRAS FRONDOSAS	740	67	MASA FORESTAL CLARA
MATORRAL DISPERSO CON ARBOLADO DE QUERCINEAS + CONIFERAS	750	67	MASA FORESTAL CLARA
MATORRAL DISPERSO CON ARBOLADO DE QUERCINEAS + EUCALIPTOS	760	67	MASA FORESTAL CLARA

MATORRAL DISPERSO CON ARBOLADO DE CONIFERAS + EUCALIPTOS	770	67	MASA FORESTAL CLARA
MATORRAL DISPERSO CON ARBOLADO DE OTRAS MEZCLAS	780	67	MASA FORESTAL CLARA
PASTIZAL CON ARBOLADO DE QUERCINEAS DENSAS	811	41	PRADERA MEDIA
PASTIZAL CON ARBOLADO DE QUERCINEAS DISPERSAS	815	31	PRADERA POBRE
PASTIZAL CON ARBOLADO DE CONIFERAS DENSAS	821	41	PRADERA MEDIA
PASTIZAL CON ARBOLADO DE CONIFERAS DISPERSAS	825	31	PRADERA POBRE
PASTIZAL CON ARBOLADO DE EUCALIPTOS	830	31	PRADERA POBRE
PASTIZAL CON ARBOLADO DE OTRAS FRONDOSAS	840	31	PRADERA POBRE
PASTIZAL CON ARBOLADO DE QUERCINEAS + CONIFERAS	850	31	PRADERA POBRE
PASTIZAL CON ARBOLADO DE QUERCINEAS + EUCALIPTOS	860	31	PRADERA POBRE
PASTIZAL CON ARBOLADO DE CONIFERAS + EUCALIPTOS	870	31	PRADERA POBRE
PASTIZAL CON ARBOLADO DE OTRAS MEZCLAS	880	31	PRADERA POBRE
CULTIVO DE HERBACEOS CON ARBOLADO DE QUERCINEAS DENSO	891	41	PRADERA MEDIA
CULTIVO DE HERBACEOS CON ARBOLADO DE QUERCINEAS DISPERSO	895	31	PRADERA POBRE
TALAS Y PLANTACIONES FORESTALES RECIENTES	901	61	MASA FORESTAL MUY CLARA
MATORRAL DENSO	911	71	MASA FORESTAL MEDIA
MATORRAL DISPERSO CON PASTIZAL	915	67	MASA FORESTAL CLARA
MATORRAL DISPERSO CON PASTO Y ROCA O SUELO	917	61	MASA FORESTAL MUY CLARA
PASTIZAL CONTINUO	921	41	PRADERA MEDIA
PASTIZAL CON CLAROS (ROCA,SUELO)	925	31	PRADERA POBRE
PLAYAS, DUNAS Y ARENALES	931	13	BARBECHO
ROQUEDOS Y SUELO DESNUDO	932	89	ROCAS IMPERMEABLES
AREAS CON FUERTE PROCESOS EROSIVOS	933	13	BARBECHO
ZONAS INCENDIADAS	934	13	BARBECHO
ZONAS SIN VEGETACION POR ROTURACON	935	13	BARBECHO

Por último se presenta la Tabla 4 (en la que se presentan las equivalencias los resultados de los productos de los tres números primos y el valor correspondiente al NC en condiciones medias de humedad II) que es la que aportará la cobertura objetivo.

Las trasformaciones de dicha coberturas a otras en distintas condiciones de unidad son directas, ya que en SIG se pueden operar con capas a modo de “calculadora”.

Tabla 4. *Equivalencias entre el producto de números primos y el valor correspondiente al NC en condiciones medias de humedad II.*

TABLA DE EQUIVALENCIAS ADOPTADA: PRODUCTO Nº PRIMOS NC CMH II										
			3	**NC**	**5**	**NC**	**7**	**NC**	**11**	**NC**
2	**13**	26	78	77	130	68	182	89	286	93
1	**13**	13	39	71	65	78	91	82	143	86
2	**17**	34	102	69	170	79	238	86	374	89
1	**17**	17	51	64	85	73	119	78	187	82
2	**19**	38	114	63	190	75	266	83	418	86
1	**19**	19	57	59	95	70	133	78	209	81
2	**23**	46	138	66	230	77	322	85	506	89
1	**23**	23	69	63	115	73	161	79	253	83
2	**29**	58	174	58	290	71	406	81	638	85
1	**29**	29	87	52	145	67	203	76	319	79
2	**31**	62	186	68	310	78	434	86	682	89
2	**41**	82	246	49	410	69	574	78	902	85
2	**91**	182	546	42	910	60	1274	74	2002	79
2	**43**	86	258	39	430	55	602	69	946	77
1	**31**	31	93	46	155	67	217	81	341	88
1	**41**	41	123	39	205	59	287	75	451	83
1	**91**	91	273	29	455	48	637	69	1001	78
1	**43**	43	129	17	215	33	301	67	473	76
2	**47**	94	282	45	470	66	658	77	1034	83
2	**53**	106	318	39	530	60	742	73	1166	78
2	**59**	118	354	33	590	54	826	69	1298	77
1	**47**	47	141	40	235	60	329	73	517	78
1	**53**	53	159	35	265	54	371	69	583	77
1	**59**	59	177	25	295	50	413	67	649	76
1	**61**	61	183	56	305	75	427	86	671	91
1	**67**	67	201	46	335	68	469	78	737	83
1	**71**	71	213	40	355	60	497	69	781	76
1	**73**	73	219	36	365	52	511	62	803	69
1	**79**	79	237	29	395	44	553	54	869	60
2	**61**	122	366	56	610	75	854	86	1342	91
2	**67**	134	402	46	670	68	938	78	1474	83
2	**71**	142	426	40	710	60	994	69	1562	76
2	**73**	146	438	36	730	52	1022	62	1606	69
2	**79**	158	474	29	790	44	1106	54	1738	60
2	**83**	166	498	94	830	94	1162	94	1826	94
1	**83**	83	249	91	415	91	581	91	913	91
2	**89**	178	534	96	890	96	1246	96	1958	96
1	**89**	89	267	93	445	93	623	93	979	93

En el último apartado se muestra el plano de número de curva de la zona de estudio.

3. CONCLUSIONES

Una de las metodologías más extendidas y experimentadas para la cuantificación de la escorrentía es el modelo empírico del número de curva, CN, del Servicio de Conservación de Suelos de los EEUU El parámetro hidrológico de referencia, CN, es función de diversas variables relacionadas con las características físicas de la cuenca. La relación entre dichas variables es tabular, lo que facilita su aplicación espacial mediante los SIG. Una ventaja que presenta la metodología propuesta es que la actualización de los mapas del número de curva es mucho más rápida y eficaz, puesto que supone únicamente cambiar los datos de algún mapa de variables (normalmente el de usos del suelo) y generar de nuevo el mapa de CN. Una vez la información forma parte del SIG utilizado, la generación del mapa del número de curva es un proceso rápido, y comparativamente menos pesado y más preciso que la superposición manual de las distintas capas de información, especialmente si se tiene en cuenta que cada vez se pueden adquirir más fácilmente información en formato digital.

Apéndice nº3: Estudio Hidráulico. Resultados numéricos y salidas gráficas del Hec-Ras.

```
                    HEC-RAS Version 4.1.0 Jan 2010
                     U.S. Army Corps of Engineers
                    Hydrologic Engineering Center
                          609 Second Street
                          Davis, California


           X     X  XXXXXX    XXXX        XXXX       XX      XXXX
           X     X  X        X    X       X   X     X  X    X
           X     X  X        X            X   X    X    X   X
           XXXXXXX  XXXX     X       XXX  XXXX     XXXXXX    XXXX
           X     X  X        X            X  X     X    X        X
           X     X  X        X    X       X   X    X    X        X
           X     X  XXXXXX    XXXX        X    X   X    X   XXXXX

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PROJECT DATA
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Project File : HR-Lebrija.prj
Run Date and Time: 4/27/2012 3:22:16 PM

Project in SI units

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PLAN DATA

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           Geometry Title: Actual_01
           Geometry File : f:\REMIX DOCUMENTOS\AMPARROGASA\EI_LEBRIJA\HIDRA\RAS\HR-Lebrija 27-04-2012\HR-Lebrija.g02

           Flow Title    : Actual
           Flow File     : f:\REMIX DOCUMENTOS\AMPARROGASA\EI_LEBRIJA\HIDRA\RAS\HR-Lebrija 27-04-2012\HR-Lebrija.f01

Plan Summary Information:
Number of:  Cross Sections =  287    Multiple Openings  =    0
            Culverts       =   14    Inline Structures  =    0
            Bridges        =    2    Lateral Structures =    0

Computational Information
    Water surface calculation tolerance  =  0.0001
    Critical depth calculation tolerance =  0.0001
    Maximum number of iterations         =  40
    Maximum difference tolerance         =  0.1
    Flow tolerance factor                =  0.0001

Computation Options
    Critical depth computed at all cross sections
    Conveyance Calculation Method: At breaks in n values only
    Friction Slope Method:         Program Selects Appropriate method
    Computational Flow Regime:     Mixed Flow


*******************************************************************************

FLOW DATA

Flow Title: Actual
Flow File : f:\REMIX DOCUMENTOS\AMPARROGASA\EI_LEBRIJA\HIDRA\RAS\HR-Lebrija 27-04-2012\HR-Lebrija.f01

Flow Data (m3/s)
*******************************************************************************
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River	Reach	RS	MCO	T500
Actual_1	Actual_1	2567.713	1.77	8.12
Actual_1	Actual_1	1925.651	6.4	26.81
Actual_1	Actual_1	1282.799	8.83	36
Actual_1	Actual_1	529.9171	10.14	41.5
Actual_2	Actual_2	871.0108	9.37	32.86
Actual_2	Actual_2	309.0579	9.69	34.02
Actual_3	Actual_3	1280.230	3.8	20.7
Actual_3	Actual_3	956.1785	4.01	21.89
Actual_4	Actual_4	1666.697	4.96	18.89
Actual_4	Actual_4	516.8986	5.6	21.31

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
Actual_1	Actual_1	MCO	Critical	Normal S = 0.002
Actual_1	Actual_1	T500	Critical	Normal S = 0.002
Actual_2	Actual_2	MCO	Critical	Normal S = 0.01
Actual_2	Actual_2	T500	Critical	Normal S = 0.01
Actual_3	Actual_3	MCO	Critical	Normal S = 0.015
Actual_3	Actual_3	T500	Critical	Normal S = 0.015
Actual_4	Actual_4	MCO	Critical	Normal S = 0.006
Actual_4	Actual_4	T500	Critical	Normal S = 0.006

GEOMETRY DATA

Geometry Title: Actual_01
Geometry File : f:\REMIX DOCUMENTOS\AMPARROGASA\EI_LEBRIJA\HIDRA\RAS\HR-Lebrija 27-04-2012\HR-Lebrija.g02

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 2567.713

INPUT
Description:
Station Elevation Data num= 29

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	36.5	7.66	36	9.87	35.83	13.71	35.51	19.45	35.04
19.98	35	24.6	34.71	28.28	34.38	32.45	34	32.49	34
33.55	33.47	34.39	33.28	35.05	33.07	35.12	33.07	37.02	33.7
37.56	34	37.7	34	37.81	34	38.91	34.08	40.75	34.2
43.29	34.31	44.3	34.36	45.88	34.52	47.09	34.59	50.84	34.98
51.04	35	58.46	35.66	62.07	36	67.9	36.47		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	32.45	.055	43.29	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
32.45	43.29	29.38	28.2	27.92	.1	.3

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 2539.521

INPUT

Description:
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	35.31	.1	35.3	3.65	35	5.76	34.87	5.78	34.87
5.79	34.86	7.88	34.75	7.9	34.75	7.92	34.75	7.95	34.75
7.97	34.74	9.48	34.66	9.5	34.66	9.53	34.66	9.54	34.67
9.56	34.67	18.27	34.06	18.63	34.04	19.26	34	22.92	33.76
33.92	33.05	34.84	33	36.41	32.83	37.7	32.5	37.74	32.48
38.62	32.32	39.59	32	40.3	31.76	40.87	31.55	41.4	31.68
42.79	32	43.55	32.28	44.81	32.39	44.94	32.4	49.33	33
57.54	33.65	61.31	34	71.9	34.78	75.08	35	76.9	35.16
84.68	35.84	86.21	35.98	86.48	36	86.87	36.04	89.86	36.29

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	37.7	.055	44.81	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
37.7	44.81	19.61	20.32	23.48	.1	.3

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 2519.348

INPUT
Description:
Station Elevation Data num= 35

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	35.24	1.57	35.09	2.43	35.01	2.55	35	9.56	34.5
16.12	34	22.27	33.3	25.36	33	40.59	32.09	40.65	32.08
42.04	32	42.66	32	43.19	31.94	45.27	31.29	46.2	31
46.21	30.99	46.31	30.96	47.6	30.5	47.76	30.44	48.58	30.59
50.13	30.86	50.72	31	53.91	31.54	55.6	31.83	57.4	31.97
57.72	32	67.35	32.72	71.27	33	75.71	33.41	81.97	34
86.87	34.48	91.76	35	98.71	35.62	102.92	36	104.77	36.23

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	45.27	.055	53.91	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
45.27	53.91	20.98	20.85	18.57	.1	.3

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 2498.482

INPUT
Description:
Station Elevation Data num= 35

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	35.26	1.71	35	9.3	34.09	9.97	34	10.52	33.91
16.43	33	20.1	32.51	24.54	32	26.58	31.83	37.02	31
37.57	30.95	38.22	30.89	41.5	30.59	42.45	30.49	43.58	30.41
46.04	30.18	46.62	30.14	46.75	30.12	47.59	30	49.18	29.39
49.29	29.35	49.34	29.37	50.34	29.81	51.04	30	53.08	30.25
53.32	30.28	55.32	30.47	55.6	30.5	57.72	30.68	61.72	31
70.87	31.7	75.1	32	79.38	32.31	88.32	33	91.8	33.35

```
Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
************************************************
       0    .045   46.75    .055   53.32    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         46.75   53.32             21.34   23.01   23.17              .1       .3

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 2475.476

INPUT
Description:
Station Elevation Data    num=      31
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   32.25    1.29   32.02    1.44      32     1.8   31.96    2.49   31.87
    9.52      31   11.32    30.8   19.24      30   22.49   29.73   29.37   29.16
   31.02      29   32.01   28.75   33.61    28.4   35.44   28.01   35.46      28
   36.57   27.75   36.63   27.76   37.79      28   38.41   28.36   40.67   28.68
   41.37   28.78   42.56      29   55.54   29.99   55.61      30   55.72   30.01
   66.88      31   73.57   31.64   77.62      32   80.53   32.24   88.52      33
   90.24    33.2

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
************************************************
       0    .045   33.61    .055   40.67    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         33.61   40.67             26.16   25.45   28.12              .1       .3

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 2450.021

INPUT
Description:
Station Elevation Data    num=      32
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   31.46    1.51   31.18     2.5      31    8.11   30.25    9.97      30
   13.42   29.62   18.88      29   26.91   28.24   28.89   28.05   29.24   28.02
   29.47      28   29.62   27.97      32    27.7   32.24   27.68   32.27   27.67
   37.14    27.1   38.01      27   39.27   26.58   39.63   26.47   41.34      27
   41.35      27    41.4   27.01   42.65   27.12   48.84   27.71   51.49      28
   56.37   28.41   63.75      29   68.06   29.36   70.52   29.59   74.71      30
   76.56   30.19   77.55   30.29

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
************************************************
       0    .045   37.14    .055   42.65    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         37.14   42.65             30.79   33.21   37.63              .1       .3

CROSS SECTION


RIVER: Actual_1
```

REACH: Actual_1 RS: 2416.810

INPUT
Description:
Station Elevation Data num= 25

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	29.43	3	29	7.94	28.18	9.04	28	10.58	27.77
12.6	27.47	15.72	27	24.48	26.37	24.58	26.37	27.31	26.19
29.56	26.03	30	26	31.5	25.5	31.83	25.38	32.23	25.26
34.88	25.52	35.9	25.62	38.09	25.71	41.81	25.9	42.87	26
44.25	26.08	57.05	27	66.04	27.78	68.58	28	74.18	28.7

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	29.56	.055	34.88	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
29.56	34.88	26.58	26.94	26.62	.1	.3

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 2389.874

INPUT
Description:
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	29.35	2.26	29.05	2.61	29	8.91	28.27	11.02	28
19.57	27.1	21.09	27	21.61	26.6	22.9	26	24.48	25.92
24.49	25.92	26.36	25.85	26.37	25.85	35.49	25.19	35.8	25.17
37.25	25.04	37.77	25	39.68	24.37	40.38	24.2	41.6	24.27
43.05	24.31	43.73	24.34	47	24.44	48.84	24.52	51.61	24.65
57.7	25	58.99	25.07	59	25.07	59.01	25.07	59.02	25.07
62.63	25.27	62.65	25.27	67.55	25.62	67.57	25.62	67.59	25.62
67.61	25.62	72.27	25.97	72.28	25.97	72.29	25.97	72.64	26
73.03	26.04	82.1	27	85.95	27.45	91.04	28	93.84	28.4
94.32	28.46								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	37.25	.055	43.05	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
37.25	43.05	32.92	31.85	31.16	.1	.3

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 2358.024

INPUT
Description:
Station Elevation Data num= 35

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	27.98	3.11	27.59	8.12	27	10.6	26.73	17.32	26
25.03	25.29	28.29	25.05	28.99	25	41.64	24.41	42.28	24.38
47.65	24.07	48.87	24	50.22	23.06	50.34	23.01	50.51	23
50.52	23	50.55	23	50.91	23	50.96	23.01	51.05	23.01
53.4	23.19	55.59	23.35	62.16	23.7	62.18	23.7	62.2	23.7

```
   62.22    23.7   62.24    23.7   62.25    23.7   63.25   23.73   70.12      24
   80.62   24.67   85.06      25   91.78   25.61   96.07      26  101.19    26.7

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
       0    .045   47.65    .055    53.4    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         47.65    53.4             26.59   27.28   24.44              .1       .3

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 2330.744

INPUT
Description:
Station Elevation Data    num=      39
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   27.24    1.76      27    6.62   26.41    9.87      26   11.63    25.8
   18.81      25   22.97   24.71   26.89   24.45   33.87      24   38.07   23.82
   38.09   23.81    38.1   23.81   38.12   23.81   40.53   23.72   40.55   23.72
   40.57   23.72   41.76   23.67   41.78   23.67   48.45   23.22   48.46   23.22
   48.48   23.22   50.61   23.13   52.61   23.04   53.57      23    54.1   22.72
   55.04   22.21    57.5   22.34   59.43   22.45   66.58   22.91   68.15      23
   69.25   23.06   87.68      24   91.17   24.31   99.13      25   109.9   25.99
  109.96      26     110      26  110.09   26.01  113.41   26.41

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
       0    .045   52.61    .055    57.5    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         52.61    57.5             22.54   20.47   18.91              .1       .3

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 2310.275

INPUT
Description:
Station Elevation Data    num=      57
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0    27.2    1.19      27    3.18   26.72    8.42      26    14.9    25.1
   15.63      25   21.59   24.48   24.91    24.2   27.14      24   28.05   23.92
   28.47   23.88   29.48   23.81   35.29   23.38   39.63   23.05   40.52      23
   47.94   22.61   52.06   22.47   53.85   22.47   55.94   22.48   56.64   22.53
   58.07      22   59.21   21.55   59.27   21.53   60.74   21.97   60.85      22
   62.38   22.06   63.18   22.09   68.02   22.26   68.05   22.26   68.08   22.26
    68.1   22.26   68.13   22.26   68.15   22.26   69.21   22.29   69.24   22.29
   71.94   22.44   71.97   22.44   73.21    22.5   73.24    22.5   73.28    22.5
   73.32    22.5    82.6   22.93   82.62   22.93   82.63   22.93   82.65   22.93
   82.67   22.93   84.05      23   84.39   23.03   97.51      24  101.06   24.33
  108.98      25  112.41    25.3  118.41   25.82  120.41      26  122.76   26.27
  128.72      27  130.31   27.21

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
       0    .045   53.85    .055   62.38    .045
```

```
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         53.85   62.38             18.79   20.22   21.44              .1       .3

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 2290.059

INPUT
Description:
Station Elevation Data    num=      48
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   26.99    5.55   26.22    7.16      26   12.62   25.23   14.29      25
   14.56   24.97    23.8      24   29.08   23.49   33.66      23    41.7   22.62
   41.73   22.62   48.61   22.21   48.63   22.21   49.24    22.2   49.25    22.2
   49.27    22.2   49.29    22.2    49.3    22.2   49.32    22.2   49.34    22.2
   53.11   22.14   53.13   22.14   56.95   22.03   56.96   22.03   57.02   22.02
    57.7      22   59.13   21.19   59.46      21   60.23   20.83   60.45   20.78
   60.54    20.8   61.59   20.97   61.72      21   64.43   21.28   64.97   21.33
   65.11   21.34   69.98      22   77.02    22.3   91.07      23  102.24   23.95
  102.83      24  104.18   24.13   113.5      25  121.89   25.74  124.92      26
  130.62   26.67  133.31      27  134.14   27.09

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045    57.7    .055   64.43    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          57.7   64.43             17.7   17.74   18.25              .1       .3

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 2272.323

INPUT
Description:
Station Elevation Data    num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0    26.9     2.4   26.55     5.9   26.05    6.07   26.02    6.22      26
    6.69   25.93   12.57      25   16.68   24.53   21.33      24   26.66   23.36
   29.55      23   30.28   22.93   41.56      22   46.16   21.61    48.1   21.52
   54.86   21.18   56.19   21.08   57.39      21   57.97   20.75   58.05   20.72
   59.65   20.06   59.96   20.17   62.18      21   64.52   21.33   64.56   21.34
   67.01   21.68   69.79      22   76.86   22.11   76.88   22.11   76.89   22.11
    76.9   22.11   76.91   22.11    77.9   22.12   77.91   22.12   95.32   22.98
   95.73      23   96.01   23.03  105.91      24   113.6   24.71  116.57      25
  123.02   25.65  126.39      26  134.45   26.94   134.9      27  135.56   27.07
   135.6   27.07

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045   58.05    .055   64.52    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         58.05   64.52             26.3   27.08   25.48              .1       .3

CROSS SECTION
```

```
RIVER: Actual_1
REACH: Actual_1           RS: 2245.213

INPUT
Description:
Station Elevation Data    num=      27
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   23.12     .97      23    6.25   22.43   10.39      22   13.87   21.62
   19.59      21   24.71   20.54   28.35   20.29   31.17    20.1   32.82      20
   34.68   19.72   36.02   19.64   36.05   19.64   36.19   19.64   37.15   19.58
   38.92   19.14   39.96   19.55   40.24   19.58   40.98      20   41.65   20.03
   46.35   20.27   53.21   20.69   58.24      21      63   21.33   68.85   21.75
    72.5      22   74.74   22.22

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045   36.05    .055   41.65    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         36.05   41.65            26.73    30.8    31.1             .1       .3

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 2214.445

INPUT
Description:
Station Elevation Data    num=      49
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   23.17     1.4      23    9.74   22.02    9.93      22   10.27   21.96
   19.05      21   23.98   20.48   28.56      20   30.76   19.85   30.77   19.85
   30.78   19.85    30.8   19.85   30.81   19.85   40.04    19.2   41.66   19.18
   41.67   19.18   41.69   19.18   41.71   19.18   44.42   19.12   44.44   19.12
   44.45   19.12   46.19   19.07   48.56   19.02    49.3      19   49.45      19
   49.59      19   51.74   18.27   51.84   18.24   51.89   18.25   52.43   18.44
   53.92   18.97      54      19   56.24   19.17   58.02    19.3   59.14   19.38
   59.16   19.38   65.09   19.78   65.11   19.79    67.6   19.85   67.62   19.85
   67.64   19.85   67.66   19.85   67.68   19.85      73      20   77.04   20.26
   87.63      21   95.54   21.63  100.16      22  100.76   22.08

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045   48.56    .055   56.24    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         48.56   56.24            14.57   19.75   30.45             .1       .3

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 2194.679

INPUT
Description:
Station Elevation Data    num=      69
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   23.16    1.29      23     1.7   22.95    8.97      22   14.74    21.4
   18.71      21    20.3   20.78   27.01      20   38.65    19.1   40.28      19
   45.17   18.61   47.56   18.41   48.23   18.36   50.71   18.17    50.8   18.17
```

52.64	18	52.89	17.93	53.7	17.71	55.37	17.82	55.59	17.81
56.49	17.8	59.57	17.78	61.52	17.77	62.54	17.78	68.39	17.83
71.02	17.86	72.6	17.88	76.24	17.93	80.45	18	80.94	18.02
80.96	18.02	80.99	18.02	82.34	18.08	82.43	18.08	83.06	18.1
86.18	18.22	88.15	18.29	88.53	18.3	89.42	18.33	91	18.38
94.46	18.44	96.38	18.45	96.84	18.46	98.07	18.46	98.63	18.47
99.21	18.47	99.75	18.47	101.54	18.48	102.06	18.49	105.2	18.52
105.5	18.53	109.13	18.56	116.91	19	118.33	19	121.43	19
122.29	19	123.27	19	123.86	19	125.82	19	125.94	19
126.07	19	126.68	19	126.71	19	126.75	19	126.8	19
128.19	19.04	129.43	19.09	129.44	19.09	130.71	19.16		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	50.8	.055	56.49	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
50.8	56.49	22.39	22.51	24.19	.1	.3

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 2172.173

INPUT
Description:
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	23.19	1.51	23	2.5	22.87	8.5	22.01	8.56	22.01
8.59	22	8.64	22	18.51	21	25.96	20.05	26.41	20
26.79	19.96	37.61	19	46.79	18.42	51.91	18.13	53.53	18.04
54.17	18	54.72	17.58	55.25	17.14	58.43	17.22	59.92	17.26
61.04	17.28	61.06	17.28	61.07	17.28	81.68	17.56	81.7	17.56
82.28	17.56	82.3	17.56	82.67	17.57	90.13	17.76	91.89	17.84
91.9	17.84	94.6	17.97	94.61	17.97	95.3	18	97.46	18.13
112.13	19	112.38	19.02	116.98	19.37				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	53.53	.055	58.43	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
53.53	58.43	24.52	26.08	25.3	.1	.3

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 2146.090

INPUT
Description:
Station Elevation Data num= 36

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	20.11	.08	20.1	.98	20	1.45	19.96	11.46	19
17.76	18.67	24.28	18.36	29.78	18.05	29.79	18.05	31.65	18
34.49	17.35	34.76	17.31	35.05	17.25	36.34	17	36.81	16.75
36.85	16.72	37.16	16.78	38.39	17	39.89	17	40.61	17
43.35	17	44.5	17	44.53	17	44.95	17	45.07	17
45.81	17.01	45.82	17.01	47.36	17.04	48.35	17.05	49.19	17.07
49.2	17.07	70	17.84	71.1	17.87	72.39	17.92	74.58	18
89.26	18.91								

```
Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**************************************************
       0    .045   35.05    .055   39.89    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         35.05   39.89             32.83   35.37   35.53              .1       .3

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 2110.755

INPUT
Description:
Station Elevation Data    num=      34
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   20.08      .8      20    2.28   19.87    3.84   19.74    12.6      19
   19.47   18.58   28.32      18   38.51   17.22   39.97   17.13   41.68   17.02
      42      17   42.29   16.87   43.16   16.45   43.53   16.24   46.11   16.27
   47.16   16.29   49.93   16.36   49.94   16.36   49.95   16.36   49.97   16.36
   49.98   16.36   49.99   16.36   54.74   16.48   54.75   16.48   62.66   16.74
   62.68   16.74   69.25   16.92   69.26   16.92   69.27   16.92   71.96      17
   79.84   17.38   87.62   17.76   92.18      18  101.92   18.61

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**************************************************
       0    .045   41.68    .055   46.11    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         41.68   46.11             28.99   28.63   25.02              .1       .3

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 2082.073

INPUT
Description:
Station Elevation Data    num=      37
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0    19.4    5.18      19   11.48   18.56   19.81      18   32.01   17.27
   36.28   17.02    36.7      17   37.35   16.16   37.43      16   38.04   15.91
   38.07    15.9   38.37   15.93   38.96   15.99   39.05      16   39.55      16
   39.61      16   39.72      16   40.75      16    42.7      16   44.09      16
   45.43      16   47.41      16   61.59   16.32   64.75   16.33   64.77   16.33
   64.79   16.33   65.95   16.33   67.41   16.34   67.43   16.34   87.15   16.97
   88.25      17   98.23   17.49  103.55   17.75  104.99   17.82  108.64      18
  112.75   18.32  113.21   18.36

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**************************************************
       0    .045   36.28    .055   40.75    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         36.28   40.75             20.17   20.19   15.63              .1       .3

CROSS SECTION
```

RIVER: Actual_1
REACH: Actual_1 RS: 2061.885

INPUT
Description:
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	19.28	4.24	19	8.13	18.75	16.76	18.19	19.57	18
20.52	17.95	34.66	17.31	34.67	17.31	38.7	17	40.31	16.66
41.26	16.62	42.49	16.56	43.2	16.53	44.27	16.47	44.48	16.45
49.05	16.01	49.1	16	49.16	15.98	49.79	15.73	50.43	15.86
51.14	16	52.26	16	52.48	16	54.58	16	54.85	16
55.97	16	56.65	16	57.16	16	59.83	16	60.52	16
60.76	16	62.14	16	62.4	16	62.88	16	63.58	16
64.53	16	65.14	16	65.5	16	66.04	16	70.01	16.09
76.43	16.12	76.44	16.12	78.78	16.13	81.7	16.14	81.71	16.14
91.06	16.44	92.37	16.49	94.66	16.51	95.8	16.55	97.76	16.62
98.82	16.64	102.72	16.78	105.02	16.82	109.4	17	110.2	17.04
110.75	17.07	114.23	17.25	127.71	18	128.08	18.03	131.46	18.29

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	44.48	.055	54.58	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
44.48	54.58	28.7	27.66	28.13	.1	.3

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 2034.217

INPUT
Description:
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	19.52	1.83	19.42	5.8	19.2	6.15	19.17	9.2	19
21.16	18.39	23.16	18.28	27.82	18	35.1	17.76	51.87	17.27
51.88	17.27	54.69	17.08	55.74	17	57.96	16.89	60.4	16.81
68.77	16.46	79.89	16.09	80.14	16.08	80.24	16.07	82.13	16
84.94	15.77	88.05	15.51	88.16	15.5	88.29	15.5	93.15	15.56
109.27	15.78	110.43	15.78	110.45	15.78	110.46	15.78	112.08	15.79
112.1	15.79	113.67	15.79	114.64	15.8	114.66	15.8	119.27	15.82
119.29	15.82	119.3	15.82	119.32	15.82	121.04	15.83	121.05	15.83
124.23	15.85	127.38	15.87	128.48	15.88	132.46	15.91	132.48	15.91
141.62	16	142.13	16	142.63	16	143.16	16	143.18	16
143.36	16	143.54	16	143.6	16	149.4	16.38	159.03	17
166.13	17.45	170.22	17.7	171.27	17.77	174.87	18	180.33	18.49
186.24	19	191.24	19.52	192.38	19.63	195.77	20	198.28	20.27

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	84.94	.055	93.15	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
84.94	93.15	32.85	33.02	35.76	.1	.3

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 2001.225

INPUT
Description:
Station Elevation Data num= 121

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	18.12	2.38	18	3.58	18	4.35	18	5.48	18
7.21	18	14.42	17.88	17.27	17.86	17.29	17.86	17.3	17.86
32.09	17.26	33.13	17.23	36.45	17.15	41.71	17	42.19	17
42.34	17	45.87	16.9	45.9	16.9	45.92	16.9	50.99	16.75
51.02	16.75	57.57	16.58	57.6	16.58	63.03	16.44	63.44	16.43
63.64	16.43	64.05	16.42	64.07	16.42	64.34	16.42	64.37	16.42
64.39	16.42	66.32	16.38	66.35	16.38	66.39	16.38	68.78	16.32
68.82	16.32	70.88	16.27	70.93	16.27	70.97	16.27	80.9	16
84.8	15.8	87.64	15.66	93.96	15.33	96.05	15.22	97.18	15.23
97.85	15.23	99.49	15.25	99.61	15.25	100.94	15.26	117.25	15.46
117.26	15.46	140.94	15.95	142.32	15.97	142.33	15.97	144.02	15.99
145.81	16	145.94	16	145.96	16	149.29	16	149.73	16
150.73	16	151.53	16	152.27	16	153.24	16	165.82	16.21
165.84	16.21	167.84	16.2	167.86	16.2	167.87	16.2	168.26	16.2
168.28	16.2	168.8	16.2	168.82	16.2	168.84	16.2	169.24	16.2
169.26	16.2	169.7	16.2	169.72	16.2	169.73	16.2	170.08	16.2
170.1	16.2	172.45	16.22	172.46	16.22	190.34	16.7	190.75	16.7
194.97	16.89	195.1	16.89	196.1	16.9	197.42	17	200.75	17.06
200.77	17.06	200.79	17.06	203.34	17.1	203.36	17.1	203.38	17.1
204.15	17.12	204.17	17.12	204.67	17.12	205.21	17.13	205.67	17.14
206.08	17.14	206.1	17.14	206.77	17.14	206.79	17.14	207.38	17.15
207.4	17.15	208.5	17.15	208.52	17.15	208.54	17.15	208.83	17.15
209.33	17.15	209.35	17.15	209.95	17.14	209.97	17.14	210.73	17.14
210.75	17.14	210.78	17.14	210.98	17.14	211	17.14	218.2	17.41
220.2	17.43								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	93.96	.055	99.49	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
93.96	99.49	11.56	15.14	21.25	.1	.3

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 1986.102

INPUT
Description:
Station Elevation Data num= 75

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	18	12.53	17.79	13.91	17.78	13.93	17.78	13.95	17.78
27.26	17.24	29.02	17.12	29.03	17.12	29.04	17.12	29.05	17.12
31.12	17	31.82	17	37.49	16.85	37.5	16.85	57.57	16.32
59.2	16.3	59.98	16.29	61.57	16.26	61.58	16.26	62.67	16.24
62.69	16.24	62.7	16.24	70.5	16.07	70.51	16.07	73.55	16
79.67	15.69	89.28	15.27	90.61	15.21	93.07	15.09	93.14	15.09
93.38	15.09	93.46	15.09	93.74	15.09	98.13	15.11	103.11	15.13
103.23	15.13	103.24	15.13	103.25	15.13	109.16	15.16	117.17	15.26
123.35	15.31	129.19	15.36	129.21	15.36	129.22	15.36	129.23	15.36
153.87	15.97	155.29	16	157.78	16.08	157.8	16.08	163.3	16.25
163.34	16.25	163.38	16.25	165.62	16.32	165.65	16.32	166.93	16.36
166.96	16.36	172.38	16.55	172.4	16.55	172.78	16.56	172.8	16.56
173.14	16.57	173.39	16.58	173.42	16.58	173.77	16.59	174.43	16.61
174.45	16.61	174.48	16.61	176.52	16.68	176.56	16.69	176.59	16.69
179.72	16.8	179.75	16.8	184.96	17	188.97	17.22	192.5	17.43

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	90.61	.055	98.13	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
90.61	98.13	17.29	20.89	21.66	.1	.3

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 1965.244

INPUT
Description:
Station Elevation Data num= 58

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	17.17	2.95	17	17.79	16.57	34.53	16.12	38.39	16.06
40.31	16.03	42.13	16	47.91	15.74	50.17	15.63	54.28	15.44
59.65	15.19	61.79	15.1	63.92	15	64.83	14.92	65.54	14.89
66.97	14.89	69.91	14.91	71.07	14.92	82.88	14.99	83.6	15
97.59	15.15	97.63	15.15	97.66	15.15	97.7	15.15	101.28	15.19
101.31	15.19	101.35	15.19	102.73	15.21	102.77	15.21	103.78	15.22
103.81	15.22	103.84	15.22	103.86	15.22	106.47	15.25	106.5	15.25
106.52	15.25	106.54	15.25	107.11	15.26	117.41	15.49	117.88	15.5
119.98	15.56	120.02	15.56	124.02	15.67	128.8	15.8	128.83	15.8
128.86	15.8	128.9	15.81	128.93	15.81	128.97	15.81	135.85	16
138.67	16.13	140.11	16.21	141.26	16.27	145.24	16.46	151.91	16.84
154.84	17	157.89	17.16	159.55	17.24				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	61.79	.055	69.91	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
61.79	69.91	36.68	39.59	39.3	.1	.3

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 1925.651

INPUT
Description:
Station Elevation Data num= 28

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	17.19	1.4	17.12	2.14	17.08	3.68	17	8.45	16.76
21.94	16	42.62	15.28	50.85	15	52.62	14.93	56.91	14.76
62.3	14.54	64.32	14.46	69.62	14.57	74.4	14.67	74.46	14.67
89.46	14.94	92.35	15	97.19	15.1	121.41	15.61	128.08	15.74
131.43	15.81	133.68	15.85	139.64	16	149.48	16.54	156.62	16.92
157.65	16.97	158.27	17	161.3	17.17				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	62.3	.055	69.62	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
62.3	69.62	19.67	17.15	11.77	.1	.3

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 1908.499

INPUT
Description:
Station Elevation Data num= 61

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	17.26	2.84	17	8.4	16.95	8.43	16.95	8.46	16.95
8.49	16.95	10.94	16.92	10.97	16.92	11.01	16.92	12.44	16.91
12.47	16.91	12.5	16.91	12.52	16.91	12.54	16.91	14.71	16.89
18.62	16.69	18.65	16.69	19.77	16.62	19.8	16.62	20.95	16.54
20.98	16.54	21.01	16.54	21.05	16.53	28.81	16	46.06	15.07
47.36	15	55.31	14.57	57.21	14.47	59.69	14.35	61.42	14.27
65.89	14.39	67.95	14.44	72.5	14.56	72.52	14.56	72.54	14.56
72.56	14.56	72.58	14.56	72.6	14.56	72.61	14.56	79.25	14.72
87.55	14.87	87.56	14.87	90.9	14.93	90.91	14.93	90.93	14.93
94.68	14.99	94.69	14.99	95.68	15	95.78	15	97.84	15.05
105.45	15.2	116.43	15.42	125.12	15.63	130.01	15.73	140.33	16
144.27	16.21	160.02	17	160.19	17.01	160.33	17.02	160.48	17.03
161.54	17.09								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	59.69	.055	65.89	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
59.69	65.89	31.02	30.96	29.39	.1	.3

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 1877.535

INPUT
Description:
Station Elevation Data num= 31

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	17.19	1.67	17	14.25	16.37	21.09	16	23.77	15.85
23.78	15.85	36.79	15.2	36.8	15.2	36.82	15.2	43.45	15
52.07	14.42	55.38	14.18	57.08	14.06	57.89	14	58	14
59.06	13.97	59.72	13.99	60.37	14	62.26	14.04	63.44	14.07
76.67	14.35	101.68	15	104.14	15.07	123.62	15.57	124.97	15.61
128.88	15.74	134.88	15.94	136.54	16	148.72	16.66	154.79	17
155.91	17.08								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	57.08	.055	62.26	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
57.08	62.26	30.88	27.81	25.78	.1	.3

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 1849.726

INPUT
Description:

Station Elevation Data num= 37

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	17.16	1.51	17	11.41	16.31	15.7	16	20.91	15.65
26.5	15.28	31.87	15	39.4	14.67	47.98	14.35	54.24	14.11
57.35	14	58.98	13.91	59.69	13.87	60.54	13.82	60.63	13.84
61.47	14	62.5	14.02	63.96	14.04	63.97	14.04	64.33	14.05
71.2	14.16	71.21	14.16	94.68	14.65	94.7	14.65	99.49	14.77
99.5	14.77	99.51	14.77	99.53	14.77	99.54	14.77	109.36	15
117.67	15.31	119.88	15.4	124.79	15.6	134.94	16	140.09	16.32
150.61	17	151.93	17.09						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	58.98	.055	62.5	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
58.98	62.5	20.66	21.99	21.43	.1	.3

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 1827.737

INPUT
Description:
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	16.98	13.63	16	17.35	15.7	26.9	15	31.88	14.87
31.89	14.87	31.9	14.87	31.91	14.87	51.39	14.17	51.4	14.17
52.97	14.11	52.98	14.11	52.99	14.11	56.23	14	59.61	13.9
61.76	13.84	63.24	13.79	65.69	13.71	67.46	13.86	68.05	13.89
69.82	14	80.58	14.2	80.6	14.2	80.63	14.2	80.65	14.2
84.36	14.26	86.33	14.28	86.35	14.28	86.37	14.28	87.15	14.29
87.17	14.29	87.19	14.29	87.21	14.29	87.74	14.3	87.76	14.3
102.11	14.68	102.14	14.68	102.17	14.68	114.97	15	128.14	15.55
138.78	16	140.03	16.08						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	63.24	.055	68.05	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
63.24	68.05	18.65	17.4	17.34	.1	.3

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 1810.336

INPUT
Description:
Station Elevation Data num= 63

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	17.15	1.3	17	3.35	16.83	4.4	16.74	13.98	16
28.57	15.05	29.35	15	39.46	14.73	39.49	14.73	39.52	14.73
40.62	14.7	40.65	14.7	44.5	14.63	44.53	14.63	44.71	14.62
44.73	14.62	44.75	14.62	62.73	14.12	62.74	14.12	62.76	14.12
62.78	14.12	66.71	14	67.27	13.98	73.15	13.71	73.19	13.7
75.19	13.62	75.6	13.85	75.62	13.85	75.64	13.85	75.67	13.85
75.69	13.85	75.71	13.85	75.74	13.85	75.76	13.85	75.78	13.85

75.79	13.85	76.82	13.9	76.85	13.9	76.89	13.9	76.92	13.9
78.08	13.91	78.24	13.91	78.3	13.91	78.35	13.91	80.32	13.93
83.4	13.95	89.24	14	89.73	14.01	92.29	14.08	99.33	14.27
117.72	14.76	125.91	15	126.13	15	133	15.33	138.22	15.58
147.54	16	147.78	16	148.23	16	148.45	16	148.48	16
149.03	16.03	149.23	16.05	151.85	16.21				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	73.15	.055	78.08	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
73.15	78.08	26.48	31.59	35.36	.1	.3

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 1778.741

INPUT
Description:
Station Elevation Data num= 125

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	17.29	.35	17.25	2.51	17	3.92	16.88	10.71	16.26
13.56	16	14.91	15.88	18.16	15.63	24.92	15.07	26.28	15
27.55	15	28.42	15	30.37	15	30.96	15	32.3	15
32.99	15	37.93	14.91	37.94	14.91	38.86	14.9	38.87	14.9
44.11	14.76	44.56	14.75	71.47	14.33	71.48	14.33	71.5	14.33
77.82	14.25	80.25	14.17	80.26	14.17	83.87	14.04	84.81	14
84.9	13.97	85.6	13.78	86.95	13.45	91.47	13.65	97.94	13.93
99.27	13.99	99.4	14	103.74	14.04	103.78	14.04	103.81	14.04
114.1	14.13	114.15	14.13	114.2	14.13	116.03	14.15	116.07	14.15
116.11	14.15	116.15	14.15	119.43	14.18	119.46	14.18	119.49	14.18
119.51	14.18	120.04	14.18	120.07	14.18	120.54	14.18	124.79	14.31
124.82	14.31	125.35	14.33	125.39	14.33	126.99	14.38	127.03	14.38
127.08	14.38	127.13	14.38	127.18	14.38	147.28	15	155.77	15.33
156.6	15.35	157.48	15.38	171.07	15.88	171.08	15.88	171.97	15.89
171.98	15.89	173.53	15.91	173.54	15.91	179.06	16	179.19	16.01
179.24	16.01	179.52	16.03	188.84	16.72	191.07	17	192.73	17.03
192.74	17.03	192.75	17.03	192.76	17.03	192.77	17.03	194.33	17.06
194.34	17.06	194.36	17.06	195.09	17.07	195.11	17.07	195.12	17.07
199.55	17	205.89	17.25	206.14	17.25	215.02	17.43	215.99	17.46
217.07	17.49	218.14	17.52	219.2	17.54	220.18	17.56	222.76	17.58
225.48	17.71	230.61	17.76	244.34	18	245.79	18	247.18	18
249.23	18	249.33	18	249.51	18.01	249.52	18.01	249.53	18.01
254.07	18.19	254.63	18.22	258.53	18.39	260.27	18.46	261.75	18.53
262.78	18.58	268.21	18.74	269.2	18.79	272.29	18.85	275.36	18.95
275.37	18.95	277.7	19	278.91	19	282.52	19.18	283.18	19.2

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	84.9	.055	91.47	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
84.9	91.47	23.21	27.32	31.94	.1	.3

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 1751.420

INPUT

Description:
Station Elevation Data num= 124

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	16.82	7.28	16	7.52	16	9.45	16	9.5	16
9.53	16	9.64	15.98	15.25	15.55	15.27	15.55	15.29	15.55
15.31	15.55	16.21	15.6	16.23	15.6	16.25	15.6	16.27	15.6
16.29	15.6	18.61	15.71	18.64	15.71	18.66	15.72	18.68	15.72
20.13	15.79	20.14	15.79	22.43	15.88	22.84	15.88	27.49	15
29.72	15	29.98	15	30.55	15	31.82	15	32.33	15
34	15	35.11	15	37.1	15	38.43	15	39.26	15
58.65	14.78	63.15	14.79	63.16	14.79	63.18	14.79	63.19	14.79
64.48	14.79	64.5	14.79	67.45	14.8	67.46	14.8	67.47	14.8
68.75	14.8	68.76	14.8	68.78	14.8	68.79	14.8	68.8	14.8
70.28	14.79	70.29	14.79	71.53	14.78	71.55	14.78	73	14.78
79.87	14.47	80.06	14.45	83.82	14.06	84.4	14	85.77	13.58
86.33	13.31	89.51	13.38	95.18	13.5	101.92	13.65	113.93	14
123.1	14	124.9	14	126.63	14	130.14	14.01	132.22	14.01
134.88	14.08	146.31	14.12	150.23	14.2	153.25	14.18	153.26	14.18
156.23	14	157.33	14	157.68	14	159.44	14	162.09	14
162.74	14	164.8	14.14	166.74	14.19	169.23	14.36	177.51	15
179.29	15	180.65	15	181.68	15	182.79	15	183.04	15
183.35	15	189.63	15.01	189.68	15.01	189.74	15.01	189.8	15.01
194.46	15.02	194.52	15.02	194.59	15.02	194.66	15.02	195.18	15.03
195.24	15.03	195.3	15.03	196.95	15.03	197	15.03	201.9	15.14
201.92	15.13	201.94	15.13	202.72	15.2	202.74	15.2	202.77	15.2
202.8	15.21	203.51	15.27	203.55	15.27	203.58	15.27	205.57	15.45
205.61	15.45	205.66	15.46	205.7	15.46	205.74	15.47	211.69	16
215.04	16.09	316.82	17.93	375.8	20.27	390.03	20.52		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	83.82	.055	89.51	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
83.82	89.51	21.2	20.94	19.52	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
232.13	390.0320.52211	

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 1730.476

INPUT
Description:
Station Elevation Data num= 111

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	16.34	3.89	16.14	3.9	16.14	5.1	16.14	5.11	16.14
14.41	16.15	14.42	16.15	16.2	16.15	16.21	16.15	24.9	16
28	16	31.16	16	37.7	16.33	37.72	16.33	37.74	16.33
37.85	16.33	37.87	16.33	37.9	16.33	37.96	16.33	37.99	16.33
38.02	16.33	38.18	16.33	38.21	16.33	38.24	16.33	38.27	16.33
38.39	16.33	38.43	16.33	38.46	16.32	38.64	16.32	38.68	16.32
38.72	16.32	39.22	16.31	39.28	16.31	49.96	16	51.4	16
56.37	16	57.59	16	57.9	16	58.22	16	60.79	16
64.95	15.77	73.43	15	73.85	14.77	74.28	14.54	75.27	14
75.91	13.49	76.48	13.2	79.92	13.3	81.89	13.35	91.91	13.62
91.95	13.62	91.99	13.62	92.03	13.62	92.06	13.62	94.38	13.69
94.41	13.69	94.44	13.69	94.46	13.69	99.06	13.79	99.09	13.79
99.12	13.79	99.15	13.79	99.18	13.79	99.65	13.8	99.69	13.8
100.28	13.8	100.32	13.8	100.35	13.8	100.75	13.8	100.79	13.8

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  116.85      14   117.9      14   130.7      14  130.81      14  131.21      14
  132.07   14.09  133.12   14.23     136   14.58  139.15      15  142.22   15.04
  148.86   15.07  186.07   15.19   186.1   15.19  186.13   15.19  186.16   15.19
  186.17   15.19   186.2   15.19  186.23   15.19  186.24   15.19  186.27   15.19
   186.3   15.19  186.33   15.19     190   15.15  190.03   15.15  190.06   15.15
  213.43      16  213.44      16  213.58      16  213.59      16  222.84      16
  225.22      16  226.97      16  227.76      16  232.12      16  243.34   16.27
  248.25   16.32  319.95   17.65  362.27   19.35  387.35   19.82  397.01   20.23
  398.78   20.27

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045   73.85    .055   79.92    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         73.85   79.92             47.49   45.73   43.74              .1       .3
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
************************
  238.81  395.2220.15153

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 1684.748

INPUT
Description:
Station Elevation Data    num=     138
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
       0   19.21    6.03      19    8.16    18.7   12.43      18   13.38   17.43
   14.03      17   15.05   16.44   15.86      16   17.36      16   25.54   15.91
   25.55   15.91   33.24   15.86   33.26   15.86   34.54   15.85   34.55   15.85
   37.07   15.83   39.09   15.83   41.18   15.82   41.19   15.82   65.67   15.56
   65.69   15.56   65.71   15.56   65.73   15.56   65.75   15.56   65.77   15.56
   65.79   15.56   65.81   15.56   91.77   15.18   92.07   15.17   95.75      15
   96.91   14.44   97.33   14.24   97.91      14   99.36   13.36  100.37   12.96
   103.8   13.09  106.93    13.2  125.63   13.92  127.93      14  132.37   14.07
  132.42   14.08  132.46   14.08  141.28   14.23  145.43   14.27  145.46   14.27
  145.48   14.27  145.73   14.27  145.76   14.27  146.03   14.27  146.05   14.27
  146.28   14.27   146.3   14.27  146.54   14.27  146.56   14.27  146.59   14.27
  146.61   14.27  147.29   14.27  147.32   14.27  147.34   14.27  151.11   14.43
  151.17   14.44  158.37   14.63  158.45   14.63  158.54   14.64  158.62   14.64
   158.7   14.64  172.16      15  192.63   15.29  192.72   15.29  192.81   15.29
   192.9   15.29  194.88   15.32  194.93   15.32  194.98   15.32   195.5   15.33
  195.54   15.33  195.75   15.33  195.79   15.33  195.82   15.33   196.2   15.34
  196.34   15.34  196.37   15.34  196.44   15.34   196.5   15.34  196.53   15.34
  196.59   15.34  196.74   15.34  196.77   15.34  196.84   15.34  196.91   15.34
  196.94   15.34  196.96   15.34  197.28   15.34  197.31   15.34  197.34   15.34
  197.43   15.34  197.46   15.34  197.74   15.34  197.77   15.34  198.14   15.34
  198.18   15.33  198.21   15.33  201.34   15.31  239.59   14.96   239.6   14.96
  239.62   14.96  239.63   14.96  239.65   14.96  245.64   15.17  245.66   15.17
  245.68   15.17   245.7   15.17  245.72   15.17  245.74   15.17  245.76   15.17
  245.77   15.17  245.79   15.17   245.8   15.17  259.69   15.47  280.97      16
  285.34      16  286.45      16  287.26      16  287.63      16  289.65      16
  319.12   16.68  321.34    16.7   352.4   17.27  369.67   17.96  379.56   18.14
  383.31   18.29  412.51   18.93  419.79   19.27   427.1    19.3  434.57   19.21
   435.9   19.28  437.55   19.36   438.7   19.37

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045   96.91    .055   103.8    .045
```

```
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         96.91   103.8            36.09   33.33    31.5              .1       .3
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
************************
  274.91  430.6619.25723

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 1651.421

INPUT
Description:
Station Elevation Data    num=     217
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   19.04    1.37      19    1.62      19    2.95      19    3.12      19
    4.59   18.68     7.7   18.35    8.77   18.19    9.22   18.12   10.79      18
   12.52   17.62   14.42      17   14.81      17   16.85      17   17.31      17
    18.1   16.61   20.11      16    20.6      16   21.51      16   26.48   15.92
   32.57   15.87   32.59   15.87    32.6   15.87   32.61   15.87   33.85   15.85
   33.86   15.85   33.87   15.85   36.88   15.81   36.89   15.81    36.9   15.81
   36.91   15.81   38.37   15.79   42.56   15.49   43.19   15.49   61.79   15.61
   61.81   15.61   61.85   15.61   61.87   15.61    61.9   15.61   94.27   15.23
   94.72   15.23   96.43   15.16    99.5   15.03  100.17      15  100.75   14.73
   101.5   14.37  102.28      14  104.07    13.3  105.28   12.79  107.23   12.93
  108.09   12.97  109.67   13.05  122.32   13.97  122.33   13.97  122.34   13.97
  128.17   13.99  128.18   13.99  129.27      14  130.84   14.01  133.32   14.02
  137.94   14.05  137.95   14.05  145.88   14.11  145.89   14.11  185.12   14.78
  185.13   14.78  185.14   14.78  189.61   14.86  189.62   14.86  191.16   14.88
  191.17   14.88  193.14    14.9  193.15    14.9  195.24   14.91  195.25   14.91
  197.18   14.92  197.19   14.92  199.42   14.93  199.43   14.93  199.43   14.94
  204.81   14.95  207.01   14.95  210.25   14.98  212.79   14.98  222.51   14.96
  224.58   14.95  233.51   14.81  233.52   14.81  239.91   14.76  239.93   14.76
  239.94   14.76  245.47   14.71  245.48   14.71   245.5   14.71  252.18   14.67
  252.19   14.67  252.21   14.67  252.22   14.67  252.24   14.67  252.25   14.67
  252.27   14.67  252.28   14.67  275.78   14.91  278.57      15  278.74    15.1
  280.27      16  280.28      16  280.29      16  280.29   16.01  282.25   16.78
  282.28   16.78  282.32   16.79  282.35   16.79  282.52   16.81  282.55   16.81
  282.57   16.81   282.6   16.81  282.63   16.81  282.88   16.74  282.92   16.73
  282.95   16.72  282.99   16.71  283.03   16.69  283.06   16.68  283.09   16.67
  284.91      16  285.53   15.75  286.45   15.53  288.18   15.22   288.7   15.08
  290.57   15.09  290.59   15.08  291.73   15.18  295.61   15.09  299.16   15.17
  304.98   15.28  307.52   15.35  309.67   15.42  311.36    15.5  319.24   15.75
  319.25   15.75  319.26   15.74  319.27   15.74  319.28   15.74   319.3   15.74
  319.31   15.74  319.32   15.74  319.33   15.75  330.26   15.82  330.27   15.83
  330.28   15.83   330.3   15.83  330.31   15.83  335.37   15.91  335.38   15.91
  339.06   15.98  340.29      16  347.54   16.25  349.97   16.34  352.15   16.43
  354.77   16.54  365.39   16.67  365.41   16.67  365.42   16.67  365.44   16.67
  365.46   16.67  365.47   16.67  365.49   16.67  365.51   16.67  375.28   16.74
  375.29   16.74  375.31   16.74  375.32   16.74  375.34   16.74  375.35   16.74
  375.36   16.74  375.38   16.74  375.39   16.74  379.07   16.79  379.08   16.79
  379.09   16.79  383.04   16.83  383.05   16.83  389.12      17  392.43      17
  396.04      17  396.13      17  398.87   17.09  401.05   17.19  402.55   17.26
  403.71   17.34  408.09   17.36  417.83   17.82  417.84   17.82  417.86   17.82
  417.87   17.82  417.89   17.82  417.91   17.82  417.93   17.82  420.47   17.83
  420.49   17.83   420.5   17.83  420.52   17.83  421.57   17.84  421.58   17.84
  422.71   17.85  422.73   17.85  424.22   17.86  424.24   17.86  426.37   17.89
  426.39   17.89  429.64   17.94  429.65   17.94  429.66   17.94  433.75      18
  440.33   18.19  445.38   18.36

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
************************************************
       0    .045   101.5    .055  108.09    .045
```

```
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         101.5  108.09            34.68    36.8   38.03             .1       .3
Right Levee     Station=  282.82      Elevation=   16.78

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 1614.620

INPUT
Description:
Station Elevation Data    num=     201
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
       0   18.38    2.24   18.36    2.26   18.36    2.28   18.36    5.63   18.31
    7.91   18.26    7.92   18.26   10.34    18.2    16.9   18.02   17.69      18
   19.12   17.84   24.03   17.38    27.8      17   27.97      17   28.47   16.83
   30.59      16   32.86   15.13   34.34   15.04   35.12      15   36.39      15
   36.66      15   38.63      15    41.1      15   41.59      15   41.98      15
    45.9   15.03   45.91   15.03   74.59   15.03    75.6   15.01   76.51      15
   77.71      15   77.87      15   78.96   14.96   79.57   14.93   83.15   14.81
   84.19   14.73   88.88   14.54   90.16   14.39    93.1   14.02   93.29      14
   93.54   13.91   97.72    12.6     101   13.02  103.77   13.38  104.11   13.42
  108.37      14  109.02   14.01  116.87   14.03  116.92   14.03  135.85   14.11
  135.91   14.11  135.98   14.11  136.05   14.11  142.01   14.13  142.06   14.13
   142.1   14.13   143.4   14.14  143.44   14.14  143.48   14.14  144.26   14.14
  144.29   14.14  145.16   14.15  145.19   14.15   145.7   14.15  145.72   14.15
  145.89   14.15  145.92   14.15  153.05    14.2  153.06    14.2  153.09    14.2
   153.1    14.2  153.14    14.2  153.15    14.2   153.2    14.2  153.21    14.2
  153.26    14.2  153.27    14.2  153.31    14.2  153.33    14.2  153.37    14.2
  153.38    14.2  153.43    14.2  153.44    14.2  153.48    14.2  153.49    14.2
  153.53    14.2  153.54    14.2  186.53   14.41  186.55   14.41  186.56   14.41
  186.58   14.41  186.59   14.41  186.61   14.41  186.62   14.41  186.64   14.41
  186.65   14.41  186.67   14.41  186.68   14.41   186.7   14.41  186.71   14.41
  186.73   14.41  186.74   14.41  186.75   14.41  186.76   14.41   214.6   14.49
  214.65   14.49  214.68   14.49  214.73   14.49  214.75   14.49  226.92    14.6
  226.95    14.6  227.32    14.6  227.35    14.6  227.37    14.6  228.79   14.59
  228.82   14.59  228.84   14.59  229.14   14.59  235.52   14.49  235.55   14.49
  235.58   14.49  235.59   14.49  235.61   14.49  235.62   14.49  235.65   14.49
  235.66   14.49  235.68   14.49  235.69   14.49  235.72   14.49  235.73   14.49
  235.75   14.49  235.76   14.49  257.72   14.21  257.73   14.21  257.74   14.21
  257.76   14.21  257.77   14.21  257.79   14.21   257.8   14.21  257.81   14.21
  257.83   14.21  272.98    14.4  272.99    14.4  273.01    14.4  273.03    14.4
  273.04    14.4  273.06    14.4  273.08    14.4  273.09    14.4  299.81   14.92
   303.4   14.95  303.41   14.95  303.42   14.95  318.99      15  321.25      15
  321.31      15   321.6   15.01  321.61   15.01  321.94   15.01  322.21   15.02
  339.17   15.24  339.69   15.26  340.41   15.29  343.81   15.33  348.91   15.66
  352.13   15.73  353.31   15.75  354.18   15.78  366.54   15.96  366.76   15.96
  366.84   15.97  366.92   15.97  368.93      16  375.02   16.02  377.46   16.11
  379.78   16.13  381.85   16.16  385.83   16.24  387.59   16.28   394.3   16.52
  396.23   16.58  397.54   16.64  400.92   16.77  407.51      17  407.52      17
  407.55      17  407.56      17  421.25   17.28  424.67   17.31   429.5   17.36
  435.85   17.63  435.87   17.63  435.88   17.63   435.9   17.63  435.92   17.63
  435.94   17.63  435.96   17.63  435.98   17.63  435.99   17.63   444.7    17.9
  446.71   17.99

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
************************************************
       0    .045    93.1    .055     101    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          93.1     101            12.42   10.41    9.02             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
```

```
   59.52   92.02 15.0299       F
  100.47  175.4614.33927       F
Right Levee     Station=  226.87      Elevation=    14.6

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 1604.204

INPUT
Description:
Station Elevation Data    num=     225
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
       0   19.27    2.05   19.16    2.06   19.16    2.08   19.16    6.17      19
    6.81   18.49    7.36      18    15.7   17.75   29.65   16.89   56.72   16.79
   68.53   16.11   70.73      16   71.36   15.45   72.11      15   80.37      15
    87.6      15   88.66      15   89.85      15   90.98      15  100.32      15
  103.18      15  104.35      15  116.36   14.15  117.86   14.12     120      14
  120.41   13.88  123.57   12.97  124.69   12.55  127.84   13.65  128.21   13.67
  130.01   13.75  132.35   13.97  132.57      14   134.5   14.02  136.48   14.05
  136.49   14.05  140.46    14.1  169.43   14.19  169.46   14.19  169.47   14.19
   169.5   14.19  169.51   14.19  169.54   14.19  169.55   14.19  169.58   14.19
  169.59   14.19  169.62   14.19  169.65   14.19  177.68   14.21  177.71   14.21
  177.73   14.21  177.74   14.21  177.76   14.21  177.77   14.21  177.79   14.21
   177.8   14.21  177.82   14.21  177.83   14.21  177.85   14.21  177.88   14.21
   177.9   14.21  189.18   14.23  189.23   14.23   219.1   14.41  219.11   14.41
  219.12   14.41  219.14   14.41  219.15   14.41  219.16   14.41  219.18   14.41
  219.19   14.41  219.21   14.41  219.22   14.41  219.24   14.41  219.25   14.41
  219.27   14.41  219.28   14.41   219.3   14.41  219.31   14.41  219.33   14.41
  253.92   14.51  253.95   14.51  253.96   14.51     254   14.51  254.05   14.51
   254.1   14.51  254.11   14.51  254.15   14.51  254.16   14.51  254.21   14.51
  254.22   14.51  257.71   14.49  257.74   14.49  258.39   14.49  258.42   14.49
  258.44   14.49  259.18   14.48  259.21   14.48  259.23   14.48  259.26   14.48
  259.77   14.48  259.79   14.48  259.82   14.48  260.08   14.48   260.1   14.48
  260.13   14.48  264.49   14.45  264.54   14.45  264.55   14.45  264.61   14.45
  264.62   14.45  264.67   14.44  264.68   14.44  264.73   14.44  264.74   14.44
  264.78   14.44   264.8   14.44  264.83   14.44  286.99   14.16  287.01   14.16
  287.02   14.16  287.04   14.16  287.05   14.16  287.07   14.16  287.09   14.16
   287.1   14.16  295.28   14.26  295.31   14.26  295.32   14.26  295.34   14.26
  295.35   14.26  295.37   14.26  295.38   14.26   295.4   14.26  309.81   14.54
  331.03   14.72  331.04   14.72  331.05   14.71  331.06   14.71  331.07   14.71
  331.09   14.71   331.1   14.71  331.11   14.71  331.13   14.71  331.14   14.71
  331.16   14.71  331.17   14.71  340.76   14.74  340.78   14.74   340.8   14.74
  340.82   14.74  340.83   14.75  340.85   14.75   354.1   14.84   366.5    14.9
  366.51    14.9  366.52    14.9  369.44   14.92  369.45   14.92  369.46   14.92
  369.47   14.92  376.58   14.97  376.59   14.97  381.17      15  381.58      15
  384.81    15.1  386.33   15.12  390.64   15.25  392.35    15.3  393.84   15.34
  397.35    15.4  398.75   15.46  406.25   15.85  406.27   15.85  407.23   15.85
  407.24   15.85  408.14   15.86  408.16   15.86  408.17   15.86  410.29   15.88
   410.3   15.88  410.31   15.88  411.61   15.89  413.41   15.92  413.42   15.92
  413.43   15.92  415.65   15.96  415.66   15.96  417.23      16  424.86   16.33
  431.36   16.52  436.56   16.71  437.83   16.75   443.7   16.94  443.71   16.94
  445.23   16.94  445.24   16.94  448.61   16.95  448.62   16.95  448.63   16.95
  454.63   16.98  454.64   16.98  456.94   16.99  457.36      17  458.98      17
  460.15   17.04  460.16   17.04  460.17   17.04  462.45   17.15  462.46   17.15
  462.47   17.16  462.48   17.16  463.22    17.2  463.24    17.2  463.25    17.2
  463.26    17.2  463.27    17.2  464.32   17.28  464.33   17.28  464.34   17.27
  464.35   17.27  464.36   17.27  464.73   17.32  464.73   17.31  475.19    17.8

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
*************************************************
       0    .045  120.41    .055  128.21    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
```

```
        120.41  128.21            68.84   80.9573.89999             .3       .5
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
   74.03  123.57    14.3       F
   125.7  146.48    14.3       F
Right Levee     Station=  254.19      Elevation=   14.49
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
************************
   19.85   45.5917.49601

CULVERT


RIVER: Actual_1
REACH: Actual_1           RS: 1600

INPUT
Description:
Distance from Upstream XS =    2.18
Deck/Roadway Width        =      53
Weir Coefficient          =     1.4
Upstream  Deck/Roadway Coordinates
    num=       2
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
***********************************************
       0    14.3       0     400    14.3       0

Upstream Bridge Cross Section Data
Station Elevation Data    num=     226
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
***************************************************************************
       0   19.27    2.05   19.16    2.06   19.16    2.08   19.16    6.17      19
    6.81   18.49    7.36      18    15.7   17.75   29.65   16.89   56.72   16.79
   68.53   16.11   70.73      16   71.36   15.45   72.11      15   80.37      15
    87.6      15   88.66      15   89.85      15   90.98      15  100.32      15
  103.18      15  104.35      15  116.36   14.15  117.86   14.12     120      14
  120.41   13.88  123.57   12.55  124.69   12.55   125.7   12.55  127.84   13.65
  128.21   13.67  130.01   13.75  132.35   13.97  132.57      14   134.5   14.02
  136.48   14.05  136.49   14.05  140.46    14.1  169.43   14.19  169.46   14.19
  169.47   14.19   169.5   14.19  169.51   14.19  169.54   14.19  169.55   14.19
  169.58   14.19  169.59   14.19  169.62   14.19  169.65   14.19  177.68   14.21
  177.71   14.21  177.73   14.21  177.74   14.21  177.76   14.21  177.77   14.21
  177.79   14.21   177.8   14.21  177.82   14.21  177.83   14.21  177.85   14.21
  177.88   14.21   177.9   14.21  189.18   14.23  189.23   14.23   219.1   14.41
  219.11   14.41  219.12   14.41  219.14   14.41  219.15   14.41  219.16   14.41
  219.18   14.41  219.19   14.41  219.21   14.41  219.22   14.41  219.24   14.41
  219.25   14.41  219.27   14.41  219.28   14.41   219.3   14.41  219.31   14.41
  219.33   14.41  253.92   14.51  253.95   14.51  253.96   14.51     254   14.51
  254.05   14.51   254.1   14.51  254.11   14.51  254.15   14.51  254.16   14.51
  254.21   14.51  254.22   14.51  257.71   14.49  257.74   14.49  258.39   14.49
  258.42   14.49  258.44   14.49  259.18   14.48  259.21   14.48  259.23   14.48
  259.26   14.48  259.77   14.48  259.79   14.48  259.82   14.48  260.08   14.48
   260.1   14.48  260.13   14.48  264.49   14.45  264.54   14.45  264.55   14.45
  264.61   14.45  264.62   14.45  264.67   14.44  264.68   14.44  264.73   14.44
  264.74   14.44  264.78   14.44   264.8   14.44  264.83   14.44  286.99   14.16
  287.01   14.16  287.02   14.16  287.04   14.16  287.05   14.16  287.07   14.16
  287.09   14.16   287.1   14.16  295.28   14.26  295.31   14.26  295.32   14.26
  295.34   14.26  295.35   14.26  295.37   14.26  295.38   14.26   295.4   14.26
  309.81   14.54  331.03   14.72  331.04   14.72  331.05   14.71  331.06   14.71
  331.07   14.71  331.09   14.71   331.1   14.71  331.11   14.71  331.13   14.71
  331.14   14.71  331.16   14.71  331.17   14.71  340.76   14.74  340.78   14.74
   340.8   14.74  340.82   14.74  340.83   14.75  340.85   14.75   354.1   14.84
   366.5    14.9  366.51    14.9  366.52    14.9  369.44   14.92  369.45   14.92
  369.46   14.92  369.47   14.92  376.58   14.97  376.59   14.97  381.17      15
  381.58      15  384.81    15.1  386.33   15.12  390.64   15.25  392.35    15.3
  393.84   15.34  397.35    15.4  398.75   15.46  406.25   15.85  406.27   15.85
```

407.23	15.85	407.24	15.85	408.14	15.86	408.16	15.86	408.17	15.86
410.29	15.88	410.3	15.88	410.31	15.88	411.61	15.89	413.41	15.92
413.42	15.92	413.43	15.92	415.65	15.96	415.66	15.96	417.23	16
424.86	16.33	431.36	16.52	436.56	16.71	437.83	16.75	443.7	16.94
443.71	16.94	445.23	16.94	445.24	16.94	448.61	16.95	448.62	16.95
448.63	16.95	454.63	16.98	454.64	16.98	456.94	16.99	457.36	17
458.98	17	460.15	17.04	460.16	17.04	460.17	17.04	462.45	17.15
462.46	17.15	462.47	17.16	462.48	17.16	463.22	17.2	463.24	17.2
463.25	17.2	463.26	17.2	463.27	17.2	464.32	17.28	464.33	17.28
464.34	17.27	464.35	17.27	464.36	17.27	464.73	17.32	464.73	17.31
475.19	17.8								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.03	120.41	.03	128.21	.03

Bank Sta: Left	Right	Coeff Contr.	Expan.
120.41	128.21	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
74.03	123.57	14.3	F
125.7	146.48	14.3	F

Right Levee Station= 254.19 Elevation= 14.49

Blocked Obstructions num= 1

Sta L	Sta R	Elev
19.85	45.59	17.49601

Downstream Deck/Roadway Coordinates

num= 2

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	14.3	0	600	14.3	0

Downstream Bridge Cross Section Data

Station Elevation Data num= 223

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	20.93	3.43	20.74	12.95	20.1	12.96	20.1	17.66	20
29.77	19.14	32.95	19	33.45	18.98	35.61	18.92	35.62	18.92
37.78	18.87	48.88	18.31	51.16	18.22	55.66	18	57.96	18
60.94	18	72.69	17.66	73.6	17.66	74.47	17.63	82.8	17
83.4	17	84.14	17	87.26	17	90.66	17	96.29	17
97.09	17	97.87	17	99.15	17	99.5	17	99.73	17
101.6	16.85	102.54	16.8	102.8	16.79	104.65	16.73	119.76	16
121.08	16	122.35	16	123.7	16	123.89	16	125.39	16
127.35	16	129	16	132.29	15.8	134.07	15.87	134.08	15.87
134.09	15.87	137.19	15.89	137.2	15.89	138.92	15.93	138.93	15.93
140.17	15.59	141.72	15.74	141.84	15.73	142.15	15.72	143.98	15.82
144.33	15.85	145.99	16	146.95	16.07	149.02	16.21	149.9	16.07
155.14	16.17	155.38	16.15	162.06	16.22	162.31	16.2	163.59	16.06
169.68	16.07	169.69	16.07	182.52	16.08	202.52	15.04	203.08	15
203.24	14.95	203.34	14.91	205.43	14	206.71	14	208.64	14
212.41	14.09	212.42	14.08	212.43	14.08	227.79	14.02	229.15	14
233.8	14	240.57	13.89	241.8	13.89	242.3	13.9	242.31	13.9
242.33	13.9	242.35	13.9	242.36	13.9	245.51	13.93	245.52	13.93
245.54	13.93	245.55	13.93	245.57	13.93	245.58	13.93	245.6	13.93
245.61	13.93	250.43	13.97	250.44	13.97	250.45	13.97	250.46	13.97
250.47	13.97	254.51	14	254.53	14	254.54	14	257.32	14.33
259.41	14.52	261.04	14.76	261.54	14.78	263.31	15	263.57	15
264.62	15	265.79	14.94	268.18	14.64	269.43	14.63	272.23	14.52
275.88	14.36	277.82	14.28	278.41	14.23	280.81	14.14	281.05	14.11
281.22	14.08	284.05	14	287.5	13.77	288.6	13.74	289.65	13.7
292.33	13.52	296.44	13.38	297.28	13.3	298.28	13.18	300.32	13.1
300.55	13.01	300.78	12.93	301.37	12.84	302.23	13	303.67	13
303.78	13	304	12.24	304.8	12.24	305.31	12.24	305.79	12.24

```
  306.35   12.24  307.15      13  307.47      13   308.5      13  310.31      13
  310.58      13  312.93      13  317.93      13  319.13      13  320.22      13
  323.52      13   326.5      13  327.45   13.33  330.91   13.29  342.18   13.93
  344.25   13.92  346.27   13.91  348.72   13.89  359.97   13.82  371.27   13.85
  371.28   13.85  379.78   13.86  379.79   13.86  381.61   13.87  381.62   13.87
  387.79   13.86   387.8   13.86  392.46   13.85  392.47   13.85  394.66   13.85
  394.67   13.85  401.52   13.83  401.53   13.83  401.54   13.83  407.66    13.8
  420.97   13.83  431.09   13.74   431.1   13.74  432.99   13.75     433   13.75
  436.12   13.77  440.87   13.82  440.88   13.82  440.89   13.82   440.9   13.82
  443.33   13.84  473.11   13.86  473.12   13.86  473.14   13.86  491.88   14.26
   491.9   14.26  491.91   14.26  491.93   14.26  521.38   14.94  521.39   14.94
  523.15   14.96  528.49   14.95  538.38   14.95  540.24   14.95  542.25   14.94
   545.6   15.02  547.94   15.02  547.95   15.02  547.96   15.02  571.27   15.72
  571.28   15.72  571.29   15.72   571.3   15.72  571.31   15.72  599.27   16.89
  601.69   16.98  602.11   16.99  602.68      17   603.2      17  603.85      17
  604.02      17  604.19      17  609.89      17  610.31      17   612.1      17
  612.58      17  612.96      17  621.36   17.32

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0     .03  300.55    .045   308.5     .03

Bank Sta: Left   Right    Coeff Contr.   Expan.
        300.55   308.5             .3       .5
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
  204.78  303.7413.99698       F
  307.05  545.32 13.9997       F
Left Levee      Station=  263.35      Elevation=   15.02
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
************************
       0  263.35   15.02

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .98
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Culverts =  1

Culvert Name     Shape      Rise    Span
Culvert #1      Circular       1
FHWA Chart # 1 - Concrete Pipe Culvert
FHWA Scale # 1 - Square edge entrance with headwall
Solution Criteria = Highest U.S. EG
Culvert Upstrm Dist  Length    Top n  Bottom n  Depth Blocked  Entrance Loss Coef   Exit Loss Coef
               2.18      53     .015     .015        0                  .5                1
Number of Barrels =  2
Upstream   Elevation =  12.55
Centerline Stations
    Sta.    Sta.
   124.1   125.2
Downstream Elevation =  12.44
Centerline Stations
    Sta.    Sta.
   304.7   305.9

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 1546.273
```

INPUT
Description:
Station Elevation Data num= 222

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	20.93	3.43	20.74	12.95	20.1	12.96	20.1	17.66	20
29.77	19.14	32.95	19	33.45	18.98	35.61	18.92	35.62	18.92
37.78	18.87	48.88	18.31	51.16	18.22	55.66	18	57.96	18
60.94	18	72.69	17.66	73.6	17.66	74.47	17.63	82.8	17
83.4	17	84.14	17	87.26	17	90.66	17	96.29	17
97.09	17	97.87	17	99.15	17	99.5	17	99.73	17
101.6	16.85	102.54	16.8	102.8	16.79	104.65	16.73	119.76	16
121.08	16	122.35	16	123.7	16	123.89	16	125.39	16
127.35	16	129	16	132.29	15.8	134.07	15.87	134.08	15.87
134.09	15.87	137.19	15.89	137.2	15.89	138.92	15.93	138.93	15.93
140.17	15.59	141.72	15.74	141.84	15.73	142.15	15.72	143.98	15.82
144.33	15.85	145.99	16	146.95	16.07	149.02	16.21	149.9	16.07
155.14	16.17	155.38	16.15	162.06	16.22	162.31	16.2	163.59	16.06
169.68	16.07	169.69	16.07	182.52	16.08	202.52	15.04	203.08	15
203.24	14.95	203.34	14.91	205.43	14	206.71	14	208.64	14
212.41	14.09	212.42	14.08	212.43	14.08	227.79	14.02	229.15	14
233.8	14	240.57	13.89	241.8	13.89	242.3	13.9	242.31	13.9
242.33	13.9	242.35	13.9	242.36	13.9	245.51	13.93	245.52	13.93
245.54	13.93	245.55	13.93	245.57	13.93	245.58	13.93	245.6	13.93
245.61	13.93	250.43	13.97	250.44	13.97	250.45	13.97	250.46	13.97
250.47	13.97	254.51	14	254.53	14	254.54	14	257.32	14.33
259.41	14.52	261.04	14.76	261.54	14.78	263.31	15	263.57	15
264.62	15	265.79	14.94	268.18	14.64	269.43	14.63	272.23	14.52
275.88	14.36	277.82	14.28	278.41	14.23	280.81	14.14	281.05	14.11
281.22	14.08	284.05	14	287.5	13.77	288.6	13.74	289.65	13.7
292.33	13.52	296.44	13.38	297.28	13.3	298.28	13.18	300.32	13.1
300.55	13.01	300.78	12.93	301.37	12.84	302.23	13	303.67	13
303.78	13	304.8	12.7	305.31	12.24	305.79	12.68	306.35	12.69
307.15	13	307.47	13	308.5	13	310.31	13	310.58	13
312.93	13	317.93	13	319.13	13	320.22	13	323.52	13
326.5	13	327.45	13.33	330.91	13.29	342.18	13.93	344.25	13.92
346.27	13.91	348.72	13.89	359.97	13.82	371.27	13.85	371.28	13.85
379.78	13.86	379.79	13.86	381.61	13.87	381.62	13.87	387.79	13.86
387.8	13.86	392.46	13.85	392.47	13.85	394.66	13.85	394.67	13.85
401.52	13.83	401.53	13.83	401.54	13.83	407.66	13.8	420.97	13.83
431.09	13.74	431.1	13.74	432.99	13.75	433	13.75	436.12	13.77
440.87	13.82	440.88	13.82	440.89	13.82	440.9	13.82	443.33	13.84
473.11	13.86	473.12	13.86	473.14	13.86	491.88	14.26	491.9	14.26
491.91	14.26	491.93	14.26	521.38	14.94	521.39	14.94	523.15	14.96
528.49	14.95	538.38	14.95	540.24	14.95	542.25	14.94	545.6	15.02
547.94	15.02	547.95	15.02	547.96	15.02	571.27	15.72	571.28	15.72
571.29	15.72	571.3	15.72	571.31	15.72	599.27	16.89	601.69	16.98
602.11	16.99	602.68	17	603.2	17	603.85	17	604.02	17
604.19	17	609.89	17	610.31	17	612.1	17	612.58	17
612.96	17	621.36	17.32						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	300.55	.055	308.5	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
300.55	308.5	18.65	24.165	18.183	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
204.78	303.74	13.99698	F
307.05	545.32	13.9997	F

Left Levee Station= 263.35 Elevation= 15.02
Blocked Obstructions num= 1

Sta L	Sta R	Elev

0 263.35 15.02

CULVERT

RIVER: Actual_1
REACH: Actual_1 RS: 1530

INPUT
Description:
Distance from Upstream XS = 3.7
Deck/Roadway Width = 14.35
Weir Coefficient = 1.4
Upstream Deck/Roadway Coordinates
num= 2

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	14	0	650	14	0

Upstream Bridge Cross Section Data
Station Elevation Data num= 222

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	20.93	3.43	20.74	12.95	20.1	12.96	20.1	17.66	20
29.77	19.14	32.95	19	33.45	18.98	35.61	18.92	35.62	18.92
37.78	18.87	48.88	18.31	51.16	18.22	55.66	18	57.96	18
60.94	18	72.69	17.66	73.6	17.66	74.47	17.63	82.8	17
83.4	17	84.14	17	87.26	17	90.66	17	96.29	17
97.09	17	97.87	17	99.15	17	99.5	17	99.73	17
101.6	16.85	102.54	16.8	102.8	16.79	104.65	16.73	119.76	16
121.08	16	122.35	16	123.7	16	123.89	16	125.39	16
127.35	16	129	16	132.29	15.8	134.07	15.87	134.08	15.87
134.09	15.87	137.19	15.89	137.2	15.89	138.92	15.93	138.93	15.93
140.17	15.59	141.72	15.74	141.84	15.73	142.15	15.72	143.98	15.82
144.33	15.85	145.99	16	146.95	16.07	149.02	16.21	149.9	16.07
155.14	16.17	155.38	16.15	162.06	16.22	162.31	16.2	163.59	16.06
169.68	16.07	169.69	16.07	182.52	16.08	202.52	15.04	203.08	15
203.24	14.95	203.34	14.91	205.43	14	206.71	14	208.64	14
212.41	14.09	212.42	14.08	212.43	14.08	227.79	14.02	229.15	14
233.8	14	240.57	13.89	241.8	13.89	242.3	13.9	242.31	13.9
242.33	13.9	242.35	13.9	242.36	13.9	245.51	13.93	245.52	13.93
245.54	13.93	245.55	13.93	245.57	13.93	245.58	13.93	245.6	13.93
245.61	13.93	250.43	13.97	250.44	13.97	250.45	13.97	250.46	13.97
250.47	13.97	254.51	14	254.53	14	254.54	14	257.32	14.33
259.41	14.52	261.04	14.76	261.54	14.78	263.31	15	263.57	15
264.62	15	265.79	14.94	268.18	14.64	269.43	14.63	272.23	14.52
275.88	14.36	277.82	14.28	278.41	14.23	280.81	14.14	281.05	14.11
281.22	14.08	284.05	14	287.5	13.77	288.6	13.74	289.65	13.7
292.33	13.52	296.44	13.38	297.28	13.3	298.28	13.18	300.32	13.1
300.55	13.01	300.78	12.93	301.37	12.84	302.23	12.24	303.67	12.24
303.78	12.24	304.8	12.24	305.31	12.24	305.79	12.24	306.35	12.24
307.15	12.24	307.47	12.24	308.5	13	310.31	13	310.58	13
312.93	13	317.93	13	319.13	13	320.22	13	323.52	13
326.5	13	327.45	13.33	330.91	13.29	342.18	13.93	344.25	13.92
346.27	13.91	348.72	13.89	359.97	13.82	371.27	13.85	371.28	13.85
379.78	13.86	379.79	13.86	381.61	13.87	381.62	13.87	387.79	13.86
387.8	13.86	392.46	13.85	392.47	13.85	394.66	13.85	394.67	13.85
401.52	13.83	401.53	13.83	401.54	13.83	407.66	13.8	420.97	13.83
431.09	13.74	431.1	13.74	432.99	13.75	433	13.75	436.12	13.77
440.87	13.82	440.88	13.82	440.89	13.82	440.9	13.82	443.33	13.84
473.11	13.86	473.12	13.86	473.14	13.86	491.88	14.26	491.9	14.26
491.91	14.26	491.93	14.26	521.38	14.94	521.39	14.94	523.15	14.96
528.49	14.95	538.38	14.95	540.24	14.95	542.25	14.94	545.6	15.02
547.94	15.02	547.95	15.02	547.96	15.02	571.27	15.72	571.28	15.72
571.29	15.72	571.3	15.72	571.31	15.72	599.27	16.89	601.69	16.98
602.11	16.99	602.68	17	603.2	17	603.85	17	604.02	17
604.19	17	609.89	17	610.31	17	612.1	17	612.58	17

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  612.96      17  621.36   17.32

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0     .03  300.55    .045   308.5     .03

Bank Sta: Left   Right    Coeff Contr.   Expan.
        300.55   308.5             .3       .5
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
  204.78  303.7413.99698       F
  307.05  545.32 13.9997       F
Left Levee      Station=  263.35      Elevation=   15.02
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
************************
       0  263.35   15.02

Downstream  Deck/Roadway Coordinates
    num=       2
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
***********************************************
       0      14       0     650      14       0

Downstream Bridge Cross Section Data
Station Elevation Data    num=     280
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   21.13     1.6      21    7.31   20.53    7.33   20.53    7.35   20.53
    7.36   20.53    7.38   20.53   16.69    20.1    21.7      20   28.47   19.07
   29.07      19   29.61   18.98   29.62   18.98   33.84   18.82   49.31   18.04
   50.09      18   55.59   17.78   75.11      17   75.97      17   76.22      17
   78.06      17   79.14      17   80.12      17   83.73      17   85.05      17
   86.19      17  108.98   16.96  109.01   16.96  109.04   16.96  110.84   16.96
  117.45   16.56  117.46   16.57  117.64   16.55  117.65   16.55  117.67   16.55
  117.68   16.55  118.42   16.53  118.43   16.53  118.45   16.53  118.46   16.53
  118.48   16.53  120.64   16.49  120.66   16.49  120.68   16.49  122.09   16.46
  122.11   16.46  122.12   16.46  122.14   16.46  125.04   16.41  125.06   16.41
  125.08   16.41  127.56   16.36  127.57   16.36  133.01   16.24  133.02   16.24
  133.03   16.24  141.99   16.03  142.69      16  142.73      16  142.75      16
   143.1      16  146.51   15.48  152.06      15  152.36      15  152.38      15
  156.79      15  157.22      15  163.78   14.02  164.04      14  164.16   14.02
  164.68      14  164.87      14  164.99      14  167.97      14   169.5      14
  173.79   14.05   173.8   14.05  174.49      14  179.02      14  179.46      14
  185.36      14  185.74      14  186.05      14  189.67      14  190.62      14
  192.93      14  198.41   14.19  198.42   14.19  200.08   14.22   200.1   14.22
  200.12   14.22  200.14   14.22  200.16   14.22  200.18   14.22   204.3   14.29
  204.32   14.29  204.34   14.29  204.36   14.29  204.38   14.29  204.39   14.29
  207.74   14.31  207.76   14.31  210.14   14.29  210.16   14.29  210.19   14.29
  210.21   14.29  220.67   14.14  227.23   14.03  227.24   14.03  227.25   14.03
  228.78      14  237.75   13.53  244.12   13.24   248.1   13.15  248.11   13.15
  248.12   13.15  250.25   13.14  250.57   13.14   254.3   13.04  254.45   13.04
   256.2      13  257.14      13  257.51      13  259.15      13  260.13      13
  261.12      13  262.55      13   264.6      13  264.79   13.03   265.1   13.06
  268.92   13.44  270.01   13.49  271.67   13.64  274.99   13.67  275.89   13.66
  276.71   13.62  277.98   13.48  279.29    13.3  279.57   13.23  280.33      13
  281.52      13   283.1      13  283.73      13  284.23   12.92  286.13   12.97
  286.31   12.97   286.5   12.93  289.47    12.6  291.44   12.12  292.63   12.12
  293.85   12.12  295.76   12.12  296.51   12.12  299.85   12.47  300.85   12.56
  303.16    12.9  303.35   12.93  303.58   12.96  303.78      13   307.5   13.01
  307.51   13.01  330.26   13.04  330.27   13.04  330.29   13.04   330.3   13.04
  338.29    13.5  338.31    13.5  338.32    13.5  339.34    13.5  339.35    13.5
  340.34    13.5  340.36    13.5  340.37    13.5  341.58   13.49  341.59   13.49
  341.61   13.49  347.19   13.45  352.84   13.47  352.85   13.47  382.05   13.54
  382.06   13.54  382.94   13.54  382.96   13.54  382.98   13.54  385.96   13.54
  385.98   13.54     386   13.54  388.26   13.53  388.28   13.53   388.3   13.53
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389.37	13.53	389.38	13.53	392.73	13.52	392.75	13.52	392.77	13.52
392.78	13.52	395.79	13.51	402.38	13.53	430.76	13.27	430.77	13.27
430.79	13.27	431.71	13.28	431.73	13.28	433.25	13.29	435.58	13.31
435.59	13.31	435.61	13.31	435.62	13.31	435.64	13.31	435.66	13.31
435.67	13.31	435.68	13.31	435.7	13.31	444.79	13.41	444.8	13.42
463.29	13.43	463.31	13.43	463.32	13.43	495.3	14.12	495.31	14.12
495.33	14.12	495.34	14.12	510.96	14.49	510.97	14.49	510.98	14.49
511	14.49	511.01	14.49	511.02	14.49	511.04	14.49	511.05	14.49
511.07	14.49	511.08	14.49	526.71	14.67	529.57	14.66	529.58	14.66
529.59	14.66	534.9	14.66	534.92	14.66	534.93	14.66	534.94	14.66
535.95	14.66	535.96	14.66	535.97	14.66	537.05	14.65	537.07	14.65
554.8	15.08	554.83	15.08	555.79	15.08	555.81	15.08	555.83	15.08
555.86	15.08	565.5	15.38	565.51	15.38	565.53	15.38	565.55	15.38
565.57	15.38	565.59	15.38	577.44	15.87	577.46	15.88	578.5	15.92
578.53	15.92	578.55	15.92	578.58	15.92	600.93	16.6	600.94	16.6
601.73	16.62	601.75	16.61	601.76	16.61	601.77	16.61	605	16.63
605.02	16.63	606.4	16.65	606.41	16.65	606.42	16.65	606.44	16.65
606.45	16.65	606.46	16.65	606.47	16.65	606.48	16.65	617.05	17.08

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.03	286.13	.045	303.16	.03

Bank Sta: Left	Right	Coeff Contr.	Expan.
286.13	303.78	.3	.5

Left Levee Station= 276.3 Elevation= 13.67
Right Levee Station= 382.38 Elevation= 16
Blocked Obstructions num= 1

Sta L	Sta R	Elev
382.38	617.05	16

Upstream Embankment side slope = 0 horiz. to 1.0 vertical
Downstream Embankment side slope = 0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow = .98
Elevation at which weir flow begins =
Energy head used in spillway design =
Spillway height used in design =
Weir crest shape = Broad Crested

Number of Culverts = 1

Culvert Name	Shape	Rise	Span
Culvert #1	Circular	1	

FHWA Chart # 1 - Concrete Pipe Culvert
FHWA Scale # 1 - Square edge entrance with headwall
Solution Criteria = Highest U.S. EG

Culvert	Upstrm Dist	Length	Top n	Bottom n	Depth Blocked	Entrance Loss Coef	Exit Loss Coef
	3.7	14.35	.015	.015	0	.5	1

Number of Barrels = 5
Upstream Elevation = 12.74
Centerline Stations

Sta.	Sta.	Sta.	Sta.	Sta.
302.91	304.11	305.31	306.51	307.71

Downstream Elevation = 12.12
Centerline Stations

Sta.	Sta.	Sta.	Sta.	Sta.
291.45	292.65	293.85	295.05	296.25

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 1522.209

INPUT

Description:
Station Elevation Data num= 299

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	21.13	1.6	21	7.31	20.53	7.33	20.53	7.35	20.53
7.36	20.53	7.38	20.53	16.69	20.1	21.7	20	28.47	19.07
29.07	19	29.61	18.98	29.62	18.98	33.84	18.82	49.31	18.04
50.09	18	55.59	17.78	75.11	17	75.97	17	76.22	17
78.06	17	79.14	17	80.12	17	83.73	17	85.05	17
86.19	17	108.98	16.96	109.01	16.96	109.04	16.96	110.84	16.96
117.45	16.56	117.46	16.57	117.64	16.55	117.65	16.55	117.67	16.55
117.68	16.55	118.42	16.53	118.43	16.53	118.45	16.53	118.46	16.53
118.48	16.53	120.64	16.49	120.66	16.49	120.68	16.49	122.09	16.46
122.11	16.46	122.12	16.46	122.14	16.46	125.04	16.41	125.06	16.41
125.08	16.41	127.56	16.36	127.57	16.36	133.01	16.24	133.02	16.24
133.03	16.24	141.99	16.03	142.69	16	142.73	16	142.75	16
143.1	16	146.51	15.48	152.06	15	152.36	15	152.38	15
156.79	15	157.22	15	163.78	14.02	164.04	14	164.16	14.02
164.68	14	164.87	14	164.99	14	167.97	14	169.5	14
173.79	14.05	173.8	14.05	174.49	14	179.02	14	179.46	14
185.36	14	185.74	14	186.05	14	189.67	14	190.62	14
192.93	14	198.41	14.19	198.42	14.19	200.08	14.22	200.1	14.22
200.12	14.22	200.14	14.22	200.16	14.22	200.18	14.22	204.3	14.29
204.32	14.29	204.34	14.29	204.36	14.29	204.38	14.29	204.39	14.29
207.74	14.31	207.76	14.31	210.14	14.29	210.16	14.29	210.19	14.29
210.21	14.29	220.67	14.14	227.23	14.03	227.24	14.03	227.25	14.03
228.78	14	237.75	13.53	244.12	13.24	248.1	13.15	248.11	13.15
248.12	13.15	250.25	13.14	250.57	13.14	254.3	13.04	254.45	13.04
256.2	13	257.14	13	257.51	13	259.15	13	260.13	13
261.12	13	262.55	13	264.6	13	264.79	13.03	265.1	13.06
268.92	13.44	270.01	13.49	271.67	13.64	274.99	13.67	275.89	13.66
276.71	13.62	277.98	13.48	279.29	13.3	279.57	13.23	280.33	13
281.52	13	283.1	13	283.73	13	284.23	12.92	286.13	12.97
286.31	12.97	286.5	12.93	289.47	12.6	291.44	12.34	292.9	13.07
292.9117	12.9213	929292.9465	12.7764	3293.0035	12.6387	1293.0814	12.5116	293.1783	12.3982
293.2916	12.3014	3293.4187	12.2235	4293.5564	12.1665	293.7014	12.1317	293.85	12.12
293.9986	12.1317	294.1436	12.1665	294.2813	12.2235	4294.4084	12.3014	3294.5218	12.3982
294.6186	12.5116	294.6964	12.6387	1294.7535	12.7764	3294.7883	12.9213	294.8	13.07
295.76	12.26	296.51	12.27	299.85	12.47	300.85	12.56	303.16	12.9
303.35	12.93	303.58	12.96	303.78	13	307.5	13.01	307.51	13.01
330.26	13.04	330.27	13.04	330.29	13.04	330.3	13.04	338.29	13.5
338.31	13.5	338.32	13.5	339.34	13.5	339.35	13.5	340.34	13.5
340.36	13.5	340.37	13.5	341.58	13.49	341.59	13.49	341.61	13.49
347.19	13.45	352.84	13.47	352.85	13.47	382.05	13.54	382.06	13.54
382.94	13.54	382.96	13.54	382.98	13.54	385.96	13.54	385.98	13.54
386	13.54	388.26	13.53	388.28	13.53	388.3	13.53	389.37	13.53
389.38	13.53	392.73	13.52	392.75	13.52	392.77	13.52	392.78	13.52
395.79	13.51	402.38	13.53	430.76	13.27	430.77	13.27	430.79	13.27
431.71	13.28	431.73	13.28	433.25	13.29	435.58	13.31	435.59	13.31
435.61	13.31	435.62	13.31	435.64	13.31	435.66	13.31	435.67	13.31
435.68	13.31	435.7	13.31	444.79	13.41	444.8	13.42	463.29	13.43
463.31	13.43	463.32	13.43	495.3	14.12	495.31	14.12	495.33	14.12
495.34	14.12	510.96	14.49	510.97	14.49	510.98	14.49	511	14.49
511.01	14.49	511.02	14.49	511.04	14.49	511.05	14.49	511.07	14.49
511.08	14.49	526.71	14.67	529.57	14.66	529.58	14.66	529.59	14.66
534.9	14.66	534.92	14.66	534.93	14.66	534.94	14.66	535.95	14.66
535.96	14.66	535.97	14.66	537.05	14.65	537.07	14.65	554.8	15.08
554.83	15.08	555.79	15.08	555.81	15.08	555.83	15.08	555.86	15.08
565.5	15.38	565.51	15.38	565.53	15.38	565.55	15.38	565.57	15.38
565.59	15.38	577.44	15.87	577.46	15.88	578.5	15.92	578.53	15.92
578.55	15.92	578.58	15.92	600.93	16.6	600.94	16.6	601.73	16.62
601.75	16.61	601.76	16.61	601.77	16.61	605	16.63	605.02	16.63
606.4	16.65	606.41	16.65	606.42	16.65	606.44	16.65	606.45	16.65
606.46	16.65	606.47	16.65	606.48	16.65	617.05	17.08		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val

```
************************************************
       0    .045   292.9     .02   294.8    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         292.9   294.8            3.423  13.485  16.228             .3       .5
Left Levee      Station=   276.3      Elevation=   13.67
Right Levee     Station=  382.38      Elevation=      16
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
************************
  382.38  617.05      16
Cross Section Lid
    num=      25
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
*********************************************************************
       0   14.22       0   292.9   14.22       0   292.9   14.22   13.07
 292.912   14.22  13.219 292.947   14.22  13.364 293.004   14.22  13.501
 293.081   14.22  13.628 293.178   14.22  13.742 293.292   14.22  13.839
 293.419   14.22  13.916 293.556   14.22  13.974 293.701   14.22  14.008
  293.85   14.22   14.02 293.999   14.22  14.008 294.144   14.22  13.974
 294.281   14.22  13.916 294.408   14.22  13.839 294.522   14.22  13.742
 294.619   14.22  13.628 294.696   14.22  13.501 294.754   14.22  13.364
 294.788   14.22  13.219   294.8   14.22   13.07   294.8   14.22       0
     600   14.22       0

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 1508.618

INPUT
Description:
Station Elevation Data    num=     298
     Sta     Elev     Sta     Elev     Sta     Elev     Sta     Elev     Sta     Elev
*********************************************************************************
       0   21.26     .86   21.19     2.2   21.08     3.1      21   16.59   20.31
   22.09      20   25.81   19.32   27.87      19   34.74   18.67   48.74      18
   53.32   17.86    70.9   17.13   70.91   17.13   71.93    17.1   71.94    17.1
   71.95    17.1   76.23      17   77.32      17   77.73      17   78.03      17
   78.88      17   80.71      17   104.9   16.96  105.07   16.96  105.23   16.96
  110.26   16.95  110.35   16.95  110.44   16.95  111.22   16.95  111.29   16.95
  111.36   16.95  112.26   16.94  112.32   16.94  113.92   16.94  113.95   16.94
  113.98   16.94  114.86   16.91  114.89   16.91  114.91   16.91  115.16   16.91
  115.19   16.91  115.22   16.91  115.25   16.91  115.54    16.9  115.58    16.9
  115.62    16.9  139.96      16  141.43      16   142.1      16  144.44      16
  144.91      16  146.21      16  148.75      16  149.71      16  151.78   15.73
  153.33   15.69  155.54   15.48  162.15   15.21  162.16   15.21  167.61   15.15
  167.62   15.15  167.63   15.15  167.64   15.15  175.88   15.07  175.89   15.07
  178.23   15.04  180.09      15  180.87      15  181.14   14.96  181.24   14.95
  182.76   14.54  186.03      14  186.83      14  187.42      14  189.47      14
   191.4      14  192.07      14  192.33      14  200.42   14.14  200.43   14.14
  200.44   14.14  200.45   14.14  200.46   14.14  200.47   14.14  207.35   14.19
  207.36   14.19  212.09   14.15   212.1   14.15  212.11   14.15  212.13   14.15
   223.3      14  224.73      14  224.75      14  227.82    13.8  235.45   13.46
  238.59    13.3  241.33   13.16  243.18   13.07  246.29      13  247.62      13
  249.33      13  249.88      13   250.2      13  251.31   13.31   254.4      14
  254.73      14  257.28      14  257.44      14   260.8      14  261.59      14
  266.83      14  268.58      14  270.88      14  273.67      14   274.8      14
  275.55      14  275.77      14   276.4      14   277.6   13.39  277.87   13.26
  278.39      13   280.1      13280.111712.85139280.146512.70643280.203612.56871
280.2814 12.4416280.378212.32825280.491612.23143280.618712.15354280.7564 12.0965
280.9014 12.0617  281.05   12.05281.1986 12.0617281.3436 12.0965281.481312.15354
281.608412.23143281.721712.32825281.8186 12.4416281.896512.56871281.953512.70643
281.988312.85139     282      13  284.73      13   284.8      13  284.87      13
  285.55      13  286.98      13  287.06      13  287.92      13  288.67      13
  289.39      13  290.35      13  291.96      13  297.66   13.02  297.67   13.02
```

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  297.68   13.02  298.89   13.03   298.9   13.03  325.08   13.06  325.12   13.06
  327.04   13.06  327.08   13.06  327.12   13.06  328.56   13.06   328.6   13.06
  328.64   13.06  336.46   13.07  336.49   13.07  336.52   13.07  336.54   13.07
  339.23   13.23  339.25   13.23  339.27   13.23  339.61   13.23  339.64   13.23
  339.97   13.23  339.99   13.23  340.01   13.23  340.42   13.22  340.44   13.22
  340.46   13.22  342.32   13.21   344.2   13.22  344.23   13.22  387.26   13.31
  387.29   13.31  387.53   13.31  387.55   13.31  387.58   13.31  388.39   13.31
  388.41   13.31  388.44   13.31  389.05   13.31  389.07   13.31   389.1   13.31
  389.39   13.31  389.41   13.31  390.31   13.31  390.34   13.31  390.36   13.31
  390.38   13.31   391.2   13.31  392.97   13.31  434.44   12.92  434.46   12.92
  434.48   12.92  434.69   12.92  434.72   12.92  435.07   12.93   435.6   12.93
  435.62   12.93  435.64   12.93  435.67   12.93  435.69   12.93  435.72   12.93
  435.74   12.93  435.76   12.93  435.78   12.93   449.9   13.09  449.92   13.09
  459.78    13.1   459.8    13.1  459.81    13.1  502.39   14.01  502.42   14.01
  506.69   14.11  506.71   14.11  506.73   14.11  506.75   14.11  506.77   14.11
   506.8   14.11  506.82   14.11  506.85   14.11  506.87   14.11  506.89   14.11
  534.25   14.41  535.02   14.41  535.04   14.41  535.06   14.41  536.47   14.41
  536.49   14.41  536.52   14.41  536.54   14.41  536.81   14.41  536.83   14.41
  536.85   14.41  537.14   14.41  537.16   14.41   554.9   14.83  554.92   14.84
  554.98   14.84  555.01   14.84  555.07   14.84  555.11   14.84  555.17   14.84
  555.21   14.84  555.28   14.85  555.31   14.85  555.38   14.85  555.42   14.85
  555.49   14.85  555.52   14.85  555.59   14.85  555.62   14.85  555.68   14.86
  555.71   14.86  555.77   14.86  555.79   14.86  555.83   14.86  563.36   15.05
  563.37   15.05   563.4   15.05  563.43   15.05  563.45   15.05  563.47   15.05
   604.3   16.22  604.31   16.22  604.53   16.23  604.81   16.24  604.85   16.24
  604.87   16.24  604.96   16.24  605.01   16.24  605.05   16.24  605.07   16.24
   605.5   16.26  605.51   16.26  605.97   16.28  605.98   16.28  606.47   16.29
  606.48    16.3  606.97   16.31  606.99   16.32  607.48   16.33   607.5   16.34
  607.96   16.35  607.99   16.36  614.61   16.63

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
*********************************************
       0    .045   280.1     .02     282    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         280.1     282            20.09   18.82   18.91             .1       .3
Right Levee     Station=  289.84      Elevation=      15
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
************************
  289.84  614.61      15
Cross Section Lid
    num=      25
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
***********************************************************************
       0   14.22       0   280.1   14.22       0   280.1   14.22      13
280.1117   14.2213.14861280.1465   14.2213.29357280.2036   14.2213.43129
280.2814   14.22 13.5584280.3782   14.2213.67175280.4916   14.2213.76857
280.6187   14.2213.84646280.7564   14.22 13.9035280.9014   14.22 13.9383
  281.05   14.22   13.95281.1986   14.22 13.9383281.3436   14.22 13.9035
281.4813   14.2213.84646281.6084   14.2213.76857281.7217   14.2213.67175
281.8186   14.22 13.5584281.8965   14.2213.43129281.9535   14.2213.29357
281.9883   14.2213.14861     282   14.22      13     282   14.22       0
     600   14.22       0

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 1489.793

INPUT
Description:
Station Elevation Data    num=     181
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
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0	16.94	10.51	16.9	10.53	16.9	10.54	16.9	10.56	16.9
10.57	16.9	25.17	16.49	25.18	16.49	25.2	16.49	29.34	16.4
29.36	16.4	29.37	16.39	29.39	16.39	34.28	16.3	34.29	16.3
34.3	16.3	42.35	16	47.03	16	49.15	16	49.25	16
49.76	16	52.26	15.91	53.36	15.88	71.69	15.49	71.7	15.49
72.39	15.46	72.4	15.46	72.42	15.46	72.43	15.46	74.39	15.4
74.4	15.4	74.42	15.4	74.44	15.4	74.45	15.4	74.47	15.4
80.81	15.21	80.83	15.21	80.84	15.21	80.86	15.21	80.87	15.21
84.91	15	85.27	15	88.25	15	89.46	14.99	89.47	14.99
92.44	14.97	106.4	14.07	108.53	14.03	108.54	14.03	110.35	14
113.59	14	115.15	14	120.89	14	122.46	14	125.74	13.04
126.42	13	126.65	13	126.99	13	128.02	13	129.95	13
130.13	13.04	130.23	13.06	130.66	13.16	133.42	13.8	134.09	14
141.74	14.04	141.75	14.04	141.76	14.04	145.15	14.05	145.16	14.05
145.18	14.05	147.51	14.07	147.53	14.07	147.55	14.07	147.57	14.07
151.16	14.09	151.18	14.09	151.2	14.09	151.22	14.09	153.35	14.1
153.37	14.1	163.74	14.04	163.75	14.04	163.76	14.04	163.78	14.04
163.79	14.04	166.86	14	167.69	13.57	168.38	13.22	169	13
170.04	12.86	170.052	12.711	170.087	12.566	170.144	12.429	170.221	12.302
170.318	12.188	170.4	12.118	170.432	12.091	170.559	12.014	170.696	11.957
170.841	11.922	170.99	11.91	171.139	11.922	171.284	11.957	171.421	12.014
171.548	12.091	171.662	12.188	171.759	12.302	171.837	12.429	171.894	12.566
171.928	12.711	171.94	12.86	188	13.03	188.01	13.03	188.02	13.03
188.03	13.03	188.04	13.03	188.06	13.03	188.07	13.03	188.08	13.03
188.09	13.03	188.1	13.03	193.39	13.06	193.41	13.06	193.43	13.06
193.95	13.06	193.96	13.06	221.76	13.09	221.83	13.09	221.87	13.09
221.94	13.09	221.98	13.09	235.14	13.04	235.17	13.04	235.2	13.04
235.21	13.04	235.24	13.04	235.27	13.04	235.28	13.04	235.3	13.04
241.12	13.04	241.15	13.04	241.18	13.04	241.21	13.04	241.24	13.04
241.27	13.04	241.28	13.04	241.3	13.04	241.31	13.04	241.33	13.04
241.34	13.04	241.36	13.04	241.37	13.04	241.39	13.04	282.69	13.15
282.72	13.15	282.73	13.15	282.76	13.15	282.77	13.15	282.8	13.15
282.81	13.15	282.84	13.15	282.85	13.15	282.88	13.15	282.89	13.15
282.92	13.15	282.95	13.15	287.46	13.18	287.48	13.18	291.86	13.14
291.89	13.14	291.92	13.14	291.95	13.14	291.96	13.14	291.99	13.14
292.02	13.14	292.03	13.14	292.05	13.14	292.06	13.14	292.09	13.14
330.69	12.8								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	170.04	.02	171.94	.045

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

170.04	171.94	20.84	20.9	21.52	.1	.3

Left Levee Station= 153.26 Elevation= 14.1
Right Levee Station= 287.4 Elevation= 16
Blocked Obstructions num= 1

Sta L	Sta R	Elev
182	330.69	16

Cross Section Lid
num= 25

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	14.01	0	170.04	14.01	0	170.04	14.01	12.86
170.052	14.01	13.009	170.087	14.01	13.154	170.144	14.01	13.291
170.221	14.01	13.418	170.318	14.01	13.532	170.432	14.01	13.629
170.559	14.01	13.706	170.696	14.01	13.764	170.841	14.01	13.798
170.99	14.01	13.81	171.139	14.01	13.798	171.284	14.01	13.764
171.421	14.01	13.706	171.548	14.01	13.629	171.662	14.01	13.532
171.759	14.01	13.418	171.837	14.01	13.291	171.894	14.01	13.154
171.928	14.01	13.009	171.94	14.01	12.86	171.94	14.01	0
335	14.01	0						

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 1468.900

INPUT
Description:
Station Elevation Data num= 162

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	17.12	2.8	17	8.64	16.95	8.66	16.95	8.67	16.95
16.77	16.89	16.79	16.89	16.81	16.89	16.83	16.89	18.23	16.87
18.25	16.87	18.75	16.87	25.07	16.85	25.1	16.85	25.13	16.85
44.21	16.31	44.24	16.31	54.78	16	63.37	15.74	64.75	15.69
66.8	15.62	74.43	15.39	77.25	15.29	79.69	15.22	86.28	15
108.74	14.84	108.83	14.84	117.21	14.78	117.26	14.78	119.75	14.76
122.97	14.73	123	14.73	123.03	14.73	123.06	14.73	123.09	14.73
126.06	14.73	126.09	14.73	126.13	14.73	126.16	14.73	126.17	14.73
126.2	14.73	126.24	14.73	149.03	14.15	149.04	14.15	149.05	14.15
153.56	14.17	172.36	14.25	172.38	14.25	172.39	14.25	186.08	14.06
190.01	14.01	190.02	14.01	190.55	14	190.77	13.84	191	13.68
191.37	13.42	191.99	13	192.28	12.78	193.24	12	193.47	11.95
193.72	12.67	193.731	712.52	139193.766	512.37	643193.823	512.23	871193.9014	12.1116
193.998	211.99	825194.111	611.90	143194.238	711.82	354194.3764	11.7665	194.5214	11.7317
194.67	11.72	194.8186	11.7317	194.9636	11.7665	195.1013	11.82354	195.2284	11.90143
195.341	811.99	825195.4386	12.1116	195.5164	12.23871	195.5735	12.37643	195.6083	12.52139
195.62	12.67	223.29	12.85	223.3	12.85	223.32	12.85	223.34	12.85
223.35	12.85	223.37	12.85	223.39	12.85	223.41	12.85	223.42	12.85
223.44	12.85	223.46	12.85	223.48	12.85	223.49	12.85	223.51	12.85
223.52	12.85	223.53	12.85	223.55	12.85	241.82	12.78	241.84	12.78
241.85	12.78	241.88	12.78	241.89	12.78	241.91	12.78	241.92	12.78
241.95	12.78	241.96	12.78	241.98	12.78	241.99	12.78	276.03	12.79
276.05	12.79	276.07	12.79	276.08	12.79	276.1	12.79	276.11	12.79
276.13	12.79	276.14	12.79	276.17	12.79	276.2	12.79	276.23	12.79
276.24	12.79	276.26	12.79	276.29	12.79	283.21	12.81	283.24	12.81
283.25	12.81	283.28	12.81	283.29	12.81	283.32	12.81	283.33	12.81
283.36	12.81	283.37	12.81	283.4	12.81	283.41	12.81	283.44	12.81
283.47	12.81	283.48	12.81	306.81	12.98	306.82	12.98	329.45	12.78
329.47	12.78	329.48	12.78	329.5	12.78	329.51	12.78	329.53	12.78
329.54	12.78	329.57	12.78	329.6	12.78	329.61	12.78	329.64	12.78
329.67	12.78	329.7	12.78	339.59	12.69	339.62	12.69	339.65	12.69
339.68	12.69	339.69	12.69	339.71	12.69	339.72	12.69	339.75	12.69
339.78	12.69	349.62	12.98						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	193.72	.02	195.62	.045

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
193.72 195.62 25.93 25.8 25.59 .1 .3
Left Levee Station= 172.07 Elevation= 14.25
Right Levee Station= 306.83 Elevation= 16
Blocked Obstructions num= 1

Sta L	Sta R	Elev
205	349.62	16

Cross Section Lid
num= 25

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	13.82	0	193.72	13.82	0	193.72	13.82	12.67
193.732	13.82	12.819	193.767	13.82	12.964	193.824	13.82	13.101
193.901	13.82	13.228	193.998	13.82	13.342	194.112	13.82	13.439
194.239	13.82	13.516	194.376	13.82	13.574	194.521	13.82	13.608
194.67	13.82	13.62	194.819	13.82	13.608	194.964	13.82	13.574
195.101	13.82	13.516	195.228	13.82	13.439	195.342	13.82	13.342
195.439	13.82	13.228	195.516	13.82	13.101	195.574	13.82	12.964

```
 195.608   13.82  12.819  195.62   13.82   12.67  195.62   13.82       0
     360   13.82       0

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 1443.099

INPUT
Description:
Station Elevation Data    num=     155
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
**********************************************************************************
       0   17.26    4.37      17   25.96   16.35   35.48      16   38.18   15.97
   38.19   15.97   67.02    15.2   73.53   15.04   74.72      15   79.45   14.91
   81.25   14.87   81.26   14.87  106.88    14.6   106.9    14.6  106.91    14.6
  106.93    14.6  106.94    14.6  106.96    14.6  106.97    14.6  106.98    14.6
     107    14.6  145.56   14.56  145.58   14.56  145.59   14.56  145.62   14.56
  145.65   14.56  145.66   14.56  145.69   14.56   145.7   14.56  145.73   14.56
  151.38   14.41   151.4   14.41  151.42   14.41  151.45   14.41  152.59   14.42
   157.4   14.44  157.41   14.44  157.43   14.44  165.73   14.32  165.75   14.32
  165.78   14.32   170.6   14.25  170.62   14.25  170.65   14.25  187.89      14
  188.06      14  188.27   13.83  189.26   13.21   189.6      13   189.8   12.86
  191.32   12.44191.331712.29139191.366512.14643191.423512.00871191.5014 11.8816
191.598311.76825191.711611.67143191.838711.59354191.9764 11.5365192.1214 11.5017
  192.27   11.49192.4186 11.5017192.5636 11.5365192.701311.59354192.828411.67143
192.941811.76825193.0386 11.8816193.116512.00871193.173512.14643193.208312.29139
  193.22   12.44  223.52   12.69  223.55   12.69  223.58   12.69   223.6   12.69
  246.13   12.66  246.15   12.66  246.16   12.66  246.19   12.66   246.2   12.66
  246.23   12.66  246.24   12.66  246.27   12.66  246.29   12.66  246.32   12.66
  246.34   12.66  246.37   12.66  246.38   12.66  246.41   12.66  246.43   12.66
  246.46   12.66  246.47   12.66   246.5   12.66  246.51   12.66  246.54   12.66
  259.95   12.69  259.97   12.69  259.98   12.69     260   12.69  260.01   12.69
  260.04   12.69  260.05   12.69  260.07   12.69  260.08   12.69  260.11   12.69
  260.12   12.69  260.14   12.69  260.15   12.69  260.17    12.7  260.18    12.7
   260.2    12.7  260.21    12.7  260.23    12.7  292.92   12.72  292.93   12.72
  292.95   12.72  292.96   12.72  292.99   12.72     293   12.72  293.03   12.72
  293.04   12.72  293.07   12.72   293.1   12.72  293.11   12.72  293.14   12.72
  293.15   12.72  293.17   12.72  293.18   12.72   293.2   12.72  293.21   12.72
  293.23   12.72  298.74   12.76  305.87    12.7   305.9    12.7  305.91    12.7
  305.94    12.7  305.95    12.7  305.99    12.7     306    12.7  306.04    12.7
  306.05    12.7  306.09    12.7  306.11    12.7  306.15    12.7  306.16    12.7
   306.2    12.7  306.21    12.7  306.25    12.7  306.26    12.7  306.29    12.7
   306.3    12.7   323.8   12.71  323.82   12.71  323.83   12.71  346.67   13.34

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045  191.32     .02  193.22    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        191.32  193.22            24.75   24.85   24.93             .1       .3
Right Levee     Station=  199.71      Elevation=      16
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
************************
  199.71  346.67      16
Cross Section Lid
    num=      25
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
**********************************************************************
       0   13.59       0  191.32   13.59       0  191.32   13.59   12.44
 191.332   13.59  12.589 191.367   13.59  12.734 191.424   13.59  12.871
 191.501   13.59  12.998 191.598   13.59  13.112 191.712   13.59  13.209
 191.839   13.59  13.286 191.976   13.59  13.344 192.121   13.59  13.378
  192.27   13.59   13.39 192.419   13.59  13.378 192.564   13.59  13.344
```

```
 192.701   13.59  13.286 192.828   13.59  13.209 192.942   13.59  13.112
 193.039   13.59  12.998 193.117   13.59  12.871 193.174   13.59  12.734
 193.208   13.59  12.589  193.22   13.59   12.44  193.22   13.59       0
     360   13.59       0

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 1418.248

INPUT
Description:
Station Elevation Data    num=     176
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
       0   17.23    3.15      17    9.36   16.66   13.86    16.4   21.04      16
   32.62   15.82   32.68   15.82   32.74   15.82   32.79   15.82   35.41   15.78
   36.25   15.77   37.15   15.76   37.18   15.76   37.22   15.76   38.93   15.74
   38.96   15.74   38.98   15.74   39.01   15.74   42.26   15.66   47.05   15.46
   47.08   15.45   47.12   15.45   47.17   15.45   47.22   15.45   47.27   15.45
   58.12      15   65.54   14.87   65.58   14.87   75.74   14.68    75.8   14.68
   75.85   14.68   80.38    14.6   80.42    14.6   81.14   14.59   81.18   14.59
   82.39   14.57   82.42   14.57   82.87   14.57    82.9   14.57   83.53   14.56
   83.56   14.56      89   14.46   89.22   14.46   89.25   14.46   89.28   14.45
   90.25   14.45   90.29   14.45   90.32   14.45   91.19   14.44   91.23   14.44
   91.69   14.44   91.73   14.44   91.92   14.43   91.96   14.43   92.71   14.43
   92.75   14.43  136.63    14.3  138.07   14.29  138.09   14.29   138.1   14.29
  138.12   14.29     142   14.27  142.02   14.27  142.03   14.27  144.14   14.26
  144.16   14.26  147.01   14.24  147.03   14.24  147.04   14.24  149.71   14.21
  149.72   14.21  149.73   14.21  158.42   14.13  158.43   14.13  158.44   14.13
  158.45   14.13  165.44   14.05  165.45   14.05  169.35      14  170.32      14
  176.05   13.59  178.52   13.17   179.5      13  181.46   12.21181.471712.06139
181.506511.91643181.563511.77871181.6414 11.6516181.738311.53825181.851611.44143
181.978711.36354182.1164 11.3065182.2614 11.2717  182.41   11.26182.5586 11.2717
182.7036 11.3065182.841311.36354182.968411.44143183.081811.53825183.1786 11.6516
183.256511.77871183.313511.91643183.348312.06139  183.36   12.21  189.07   12.29
  189.08   12.29   189.1   12.29  189.11   12.29  194.23   12.57  194.24   12.57
  194.26   12.57  202.18    12.8  202.19    12.8  202.21    12.8  202.22    12.8
  202.24    12.8  202.25    12.8  211.46   12.79   211.5   12.79  211.52   12.79
  211.56   12.79  211.57   12.79  211.61   12.79  211.63   12.79  245.96   12.73
  245.97   12.73  245.98   12.73  245.99   12.73     246   12.73  246.02   12.73
  246.03   12.73  246.04   12.73  246.05   12.73  246.07   12.73  246.08   12.73
   246.1   12.73  246.11   12.73  246.13   12.73  246.14   12.73  246.15   12.73
  246.16   12.73  246.18   12.73  246.19   12.73   246.2   12.73  246.21   12.73
  261.82   12.74  261.85   12.74  261.86   12.74  261.89   12.74   261.9   12.74
  292.78    12.8   292.8    12.8  292.81    12.8  292.82    12.8  292.83    12.8
  292.85    12.8  292.86    12.8  292.88    12.8  292.89    12.8  292.91    12.8
  292.92    12.8  292.94    12.8  292.95    12.8  292.97    12.8  292.99    12.8
     293    12.8  293.02    12.8  293.04    12.8  293.05    12.8  300.33   12.81
  300.34   12.81  300.36   12.81  308.36   13.03  308.39   13.03  308.41   13.03
   334.8   13.46

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
************************************************
       0    .045  181.46     .02  183.36    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        181.46  183.36            29.59   29.23   28.89             .1       .3
Right Levee     Station=  189.46      Elevation=      16
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
************************
  189.46   334.8      16
Cross Section Lid
    num=      25
```

```
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
*********************************************************************
       0   13.36       0  181.46   13.36       0  181.46   13.36   12.21
 181.472   13.36  12.359 181.507   13.36  12.504 181.564   13.36  12.641
 181.641   13.36  12.768 181.738   13.36  12.882 181.852   13.36  12.979
 181.979   13.36  13.056 182.116   13.36  13.114 182.261   13.36  13.148
  182.41   13.36   13.16 182.559   13.36  13.148 182.704   13.36  13.114
 182.841   13.36  13.056 182.968   13.36  12.979 183.082   13.36  12.882
 183.179   13.36  12.768 183.257   13.36  12.641 183.314   13.36  12.504
 183.348   13.36  12.359  183.36   13.36   12.21  183.36   13.36       0
     350   13.36       0

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 1389.021

INPUT
Description:
Station Elevation Data    num=     160
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   19.94    3.14   19.63    9.46      19    12.7   18.65   14.29    18.5
   16.54   18.31   19.57   18.07   19.78   18.05   20.56      18      24   17.63
   24.54   17.53   24.87   17.43   26.37      17   35.59   16.51   45.24      16
   51.23   15.77   54.62   15.62    68.7      15   81.93   14.73   89.16   14.61
   118.3   14.08  120.42   14.06  120.43   14.06  128.04      14  130.04      14
  137.29      14   137.3      14  143.75      14  147.35      14  147.36      14
  147.38      14  153.72      14  153.73      14  153.74      14  156.42      14
  156.43      14  156.44      14  176.51   13.12  179.52      13  181.27   12.84
  188.99   12.11  190.11      12   191.7   11.26  191.71   11.95191.721711.80139
191.756511.65643191.813511.51871191.8914 11.3916191.988311.27825192.101611.18143
192.228711.10354192.3664 11.0465192.5114 11.0117  192.66      11192.8086 11.0117
192.9536 11.0465193.091311.10354193.218411.18143193.331811.27825193.4286 11.3916
193.506511.51871193.563511.65643193.598311.80139  193.61   11.95  199.17      12
  200.45   12.06  211.99   12.49  212.01   12.49  212.02   12.49  212.03   12.49
  212.04   12.49  212.06   12.49  212.07   12.49  233.59   12.51  233.61   12.51
  233.63   12.51  233.66   12.51  233.68   12.51  233.71   12.51  233.73   12.51
  233.76   12.51  251.09   12.72  251.11   12.72  251.12   12.72  251.14   12.72
  251.15   12.72  251.17   12.72  251.18   12.72  266.11   12.67  266.12   12.67
  266.13   12.67  266.14   12.67  266.16   12.67  266.18   12.67  266.19   12.67
  266.21   12.67  266.23   12.67  266.24   12.67  266.26   12.67  266.28   12.67
  266.29   12.67  266.31   12.67  266.32   12.67  266.34   12.67  266.35   12.67
  266.37   12.67  266.38   12.67  288.86    12.7  288.88    12.7   288.9    12.7
  288.92    12.7  288.94    12.7  288.96    12.7  288.97    12.7  288.99    12.7
  289.01    12.7  289.03    12.7  307.83   12.79  307.84   12.79  307.85   12.79
  307.86   12.79  307.87   12.79  307.89   12.79   307.9   12.79  307.92   12.79
  307.93   12.79  307.94   12.79  307.96   12.79  307.97   12.79  307.99   12.79
     308   12.79  308.01   12.79  308.03   12.79  308.04   12.79  337.46    13.4
  337.47    13.4  337.51    13.4  337.52    13.4  337.57    13.4  337.62    13.4
  337.63    13.4  337.68    13.4  337.73    13.4  337.74    13.4  337.79    13.4
  337.83    13.4  337.84    13.4  339.02   13.42  339.05   13.42  339.07   13.42
   339.1   13.42  339.13   13.42  339.83    13.4  339.87    13.4  339.91    13.4
  339.95    13.4  339.96    13.4     340    13.4  340.04    13.4  346.57   13.37

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
*********************************************
       0    .045  191.71     .02  193.61    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        191.71  193.61            40.99   41.47   41.36             .1       .3
Right Levee     Station=  204.11      Elevation=      16
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
************************
```

```
  204.11  346.57      16
Cross Section Lid
    num=      25
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
*********************************************************************
       0    13.1       0  191.71    13.1       0  191.71    13.1   11.95
 191.722    13.1  12.099 191.757    13.1  12.244 191.814    13.1  12.381
 191.891    13.1  12.508 191.988    13.1  12.622 192.102    13.1  12.719
 192.229    13.1  12.796 192.366    13.1  12.854 192.511    13.1  12.888
  192.66    13.1    12.9 192.809    13.1  12.888 192.954    13.1  12.854
 193.091    13.1  12.796 193.218    13.1  12.719 193.332    13.1  12.622
 193.429    13.1  12.508 193.507    13.1  12.381 193.564    13.1  12.244
 193.598    13.1  12.099  193.61    13.1   11.95  193.61    13.1       0
     360    13.1       0

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 1347.551

INPUT
Description:
Station Elevation Data    num=     190
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*************************************************************************
       0   19.49     1.1   19.38    3.73   19.09    4.56      19   12.06   18.12
   13.18      18   14.88   17.47   16.35      17   27.05   16.26   30.98      16
   32.38   15.89   32.39   15.89    32.4   15.89   32.41   15.89   32.42   15.89
   47.76   15.09   47.78   15.09   49.88   15.06   49.89   15.06    49.9   15.06
   49.92   15.06   53.12      15   60.03   14.72   60.07   14.72   60.11   14.72
   60.15   14.72   63.11    14.6   63.15    14.6   63.19    14.6   63.22    14.6
   65.96   14.48   70.76   14.28   71.76   14.26   71.78   14.26    71.8   14.26
   71.83   14.26   71.85   14.26   74.02   14.23   74.05   14.23   74.08   14.23
   74.11   14.23   75.82    14.2   75.85    14.2   75.89   14.19   75.92   14.19
   85.87   14.02   85.88   14.02   85.89   14.02   85.89   14.01   86.74      14
   90.38   13.98   90.39   13.98   96.59   13.94    96.6   13.94   96.61   13.94
   99.23   13.93   99.24   13.93   99.25   13.93  118.91   13.91  118.93   13.91
  118.95   13.91  118.97   13.91  118.98   13.91     119   13.91  138.84   13.42
  138.85   13.42  138.86   13.42  140.14    13.4  140.15    13.4  150.12   13.14
  150.13   13.14  153.83      13  159.53   12.77  159.54   12.77  159.56   12.77
   170.4   12.12  170.41   12.12  170.42   12.12  170.43   12.12   172.8      12
  172.88   11.94  174.75   11.62174.761711.47139174.796511.32643174.853511.18871
174.9314 11.0616175.028210.94825175.141610.85143175.268710.77354175.4064 10.7165
175.5514 10.6817   175.7   10.67175.8486 10.6817175.9936 10.7165176.131310.77354
176.258410.85143176.371710.94825176.4686 11.0616176.546511.18871176.603511.32643
176.638311.47139  176.65   11.62  180.11      12  189.72   12.15  210.37   12.57
  210.39   12.57   210.4   12.57  210.42   12.57  210.43   12.57  210.45   12.57
  210.47   12.57  210.49   12.57   210.5   12.57  210.52   12.57  210.53   12.57
  210.55   12.57  229.76    12.4  229.78    12.4  229.79    12.4  229.81    12.4
  229.83    12.4  229.85    12.4  229.86    12.4  229.89    12.4   229.9    12.4
  229.93    12.4  229.95    12.4  229.97    12.4  229.99    12.4  230.01    12.4
  230.03    12.4  230.05    12.4  230.07    12.4  230.09    12.4   230.1    12.4
  230.12    12.4  230.13    12.4   240.2   12.32  240.23   12.32  240.26   12.32
  259.22   12.36  259.24   12.36  259.27   12.36   259.3   12.36  259.33   12.36
  259.35   12.36  259.36   12.36  259.38   12.36  259.41   12.36  259.43   12.36
   261.4   12.37  261.43   12.37  261.44   12.37  261.47   12.37  261.51   12.37
  261.54   12.37  261.57   12.37   261.6   12.37  297.97   12.54  297.99   12.54
   317.2   12.56  317.21   12.56  317.22   12.56  317.24   12.56  317.26   12.56
  317.27   12.56  317.29   12.57   317.3   12.57  317.32   12.57  317.33   12.57
  317.35   12.57  317.36   12.57  317.38   12.57  317.39   12.57  317.41   12.57
  317.43   12.57  317.44   12.57  317.45   12.57  317.46   12.57  337.29   12.61
  337.32   12.61  337.35   12.61  337.38   12.61  337.41   12.61  337.45   12.61
  337.47   12.61  337.51   12.61  337.54   12.61  337.58   12.61  339.12    12.6

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
```

```
************************************************
       0    .045  174.75     .02  176.65    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        174.75  176.65            38.26   38.57   37.49             .1       .3
Right Levee     Station=  210.31      Elevation=      16
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
************************
     188  339.12      16
Cross Section Lid
    num=      25
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
***********************************************************************
       0   12.77       0  174.75   12.77       0  174.75   12.77   11.62
 174.762   12.77  11.769 174.797   12.77  11.914 174.854   12.77  12.051
 174.931   12.77  12.178 175.028   12.77  12.292 175.142   12.77  12.389
 175.269   12.77  12.466 175.406   12.77  12.524 175.551   12.77  12.558
   175.7   12.77   12.57 175.849   12.77  12.558 175.994   12.77  12.524
 176.131   12.77  12.466 176.258   12.77  12.389 176.372   12.77  12.292
 176.469   12.77  12.178 176.547   12.77  12.051 176.604   12.77  11.914
 176.638   12.77  11.769  176.65   12.77   11.62  176.65   12.77       0
     360   12.77       0

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 1308.983

INPUT
Description:
Station Elevation Data    num=     135
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
       0      18     .45   17.86    3.25      17    5.89   16.19    6.76      16
    6.87      16   11.83   15.36   12.86   15.24   14.03      15   14.55      15
   14.88      15    19.1      15   23.84   14.56   26.03   14.31   27.13   14.23
   28.99      14   29.57      14   30.12      14   31.13      14   35.54   13.68
   37.15    13.5   41.11   13.08   41.97      13   42.04      13   42.62      13
   44.18      13   50.59   12.62   51.92   12.48   53.72   12.44   57.04      12
    58.2      12   62.09      12   63.41      12   64.55      12   65.21      12
   76.01      12   77.12      12      80   11.96   84.28   11.95   91.12   11.92
   93.82   11.91  101.61   11.86  103.93   11.85  103.94   11.85  106.61   11.83
  106.62   11.83  115.77   11.78  115.78   11.78  115.79   11.78   115.8   11.78
  119.98   11.74  119.99   11.74  123.36   11.73  123.37   11.73  123.38   11.73
  133.56   11.71  133.57   11.71  150.84   11.32150.851711.17139150.886511.02643
150.943510.88871151.0214 10.7616151.118310.64825151.231610.55143151.358710.47354
151.4964 10.4165151.6414 10.3817  151.79   10.37151.9386 10.3817152.0836 10.4165
152.221310.47354152.348410.55143152.461710.64825152.5586 10.7616152.636510.88871
152.693511.02643152.728311.17139  152.74   11.32  156.43      12  156.84      12
  179.92   12.28  179.94   12.28  179.95   12.28  179.96   12.28  179.98   12.28
  179.99   12.28     180   12.28  180.02   12.28  180.03   12.28  180.04   12.28
  180.05   12.28  180.07   12.28  198.77   12.14  198.78   12.14   198.8   12.14
  228.95   12.08  228.96   12.08  228.98   12.08  228.99   12.08  250.07   12.02
  250.09   12.02  250.11   12.02  250.12   12.02  250.14   12.02  250.17   12.02
   250.2   12.02  250.23   12.02  250.26   12.02  250.29   12.02  250.31   12.02
  250.32   12.02  250.34   12.02  255.98   12.03  256.01   12.03  256.04   12.03
  256.05   12.03  256.08   12.03  256.09   12.03  256.12   12.03  256.15   12.03
  256.16   12.03   283.5   12.23  283.52   12.23  283.53   12.23  283.55   12.23
  283.56   12.23  283.57   12.23  283.58   12.23   283.6   12.23  283.61   12.23
  283.63   12.23  283.64   12.23  283.66   12.23  283.68   12.23  320.62   12.29

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
************************************************
       0    .045  150.84     .02  152.74    .045
```

```
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        150.84  152.74            26.14   26.19      26             .1       .3
Right Levee     Station=  167.44      Elevation=      16
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
************************
  167.44  320.62      16
Cross Section Lid
    num=      24
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
***********************************************************************
       0   12.47       0  150.84   12.47       0  150.84   12.47   11.32
 150.852   12.47  11.469 150.887   12.47  11.614 150.944   12.47  11.751
 151.021   12.47  11.878 151.118   12.47  11.992 151.232   12.47  12.089
 151.359   12.47  12.166 151.496   12.47  12.224 151.641   12.47  12.258
  151.79   12.47   12.27 151.939   12.47  12.258 152.084   12.47  12.224
 152.221   12.47  12.166 152.348   12.47  12.089 152.462   12.47  11.992
 152.559   12.47  11.878 152.637   12.47  11.751 152.694   12.47  11.614
 152.728   12.47  11.469 152.728   12.47       0     350   12.47       0

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 1282.799

INPUT
Description:
Station Elevation Data    num=     114
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
       0   15.69     .62    15.6    4.27      15     7.9   14.68      11   14.42
   15.73      14   24.56   13.37   29.73      13   39.88   12.09   40.85      12
   48.07   11.79   48.08   11.79   68.75   11.48   68.76   11.48   68.78   11.48
   68.79   11.48   70.66   11.48   70.67   11.48   70.69   11.48   73.66   11.47
   74.84   11.46  112.28    11.2  112.29    11.2  112.34    11.2  112.35    11.2
  112.41    11.2  112.42    11.2  112.48    11.2  112.54    11.2  112.55    11.2
   112.6    11.2  118.97    11.2  119.31   11.19  119.32    11.2  119.35    11.2
   120.7   11.19  120.72   11.19  120.75   11.19   121.1   11.18  121.47   11.18
   121.5   11.18  122.35   11.17  122.38   11.17  122.41   11.17  124.15   11.15
  124.19   11.15  124.22   11.15  131.16   11.07   131.2   11.07  131.24   11.07
  131.29   11.07  131.33   11.07  137.39   11.01  137.95      11  138.71   10.66
  139.72   10.16  141.68   10.97  141.75      11  142.24   11.19  143.16   11.55
  144.27      12   160.3   12.03   160.4   12.03   160.5   12.03  160.59   12.03
  169.95   12.04  170.01   12.04  170.07   12.04  170.12   12.04  172.48   12.05
  172.52   12.05  174.78   12.03  174.81   12.03  174.84   12.03  174.86   12.03
  174.89   12.03  174.91   12.03  174.93   12.03  179.04   12.05  179.05   12.05
   179.1   12.05  228.55   11.94  228.57   11.94  228.58   11.94   228.6   11.94
  228.63   11.94  228.65   11.94  228.68   11.94  228.71   11.94  228.74   11.94
  228.76   11.94  228.79   11.94  228.81   11.94  228.83   11.94  267.06   12.03
   267.1   12.03  267.15   12.03  267.19   12.03  267.22   12.03  267.23   12.03
  267.26   12.03  267.88   12.03   267.9   12.03  267.93   12.03  267.96   12.03
  267.99   12.03  269.12   12.05  269.17   12.05  269.24   12.05   269.3   12.05
  269.37   12.05  269.44   12.05   269.5   12.05  313.03   12.46

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045  137.39    .055  142.24    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        137.39  142.24            27.74   27.57   27.21             .1       .3

CROSS SECTION
```

RIVER: Actual_1
REACH: Actual_1 RS: 1255.224

INPUT
Description:
Station Elevation Data num= 100

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	14.64	6.51	14	12.59	13.38	14.92	13.16	16.72	13
25.9	12.39	31.9	12	44.41	11.63	44.44	11.63	47.61	11.54
47.63	11.54	47.65	11.54	51.9	11.42	63.82	11.1	63.85	11.1
65.96	11.09	65.98	11.09	66.01	11.09	67.23	11.09	67.25	11.09
67.28	11.09	70.03	11.09	70.06	11.09	71.65	11.09	71.68	11.09
71.7	11.09	74.84	11.08	77.13	11.08	77.16	11.08	83.92	11.07
83.96	11.07	114.12	11.06	117.81	11.05	117.82	11.05	124.64	11
128.89	10.3	130.24	10.08	131.59	9.95	132.41	10.25	134.36	10.97
134.43	11	135.57	11.39	137.53	12	142.26	11.94	142.27	11.94
142.28	11.94	142.29	11.94	163.37	11.84	163.38	11.84	163.39	11.84
163.41	11.84	163.42	11.84	163.44	11.84	163.45	11.84	163.47	11.84
163.48	11.84	163.49	11.84	163.5	11.84	163.51	11.84	163.52	11.84
215.97	11.99	216.01	11.99	216.02	11.99	225.45	11.97	225.46	11.97
225.47	11.97	225.49	11.97	225.51	11.97	225.53	11.97	225.54	11.97
225.56	11.97	225.59	11.97	225.61	11.97	225.62	11.97	225.64	11.97
225.65	11.97	225.67	11.97	225.69	11.97	225.7	11.97	225.71	11.97
225.72	11.97	233.65	11.99	233.66	11.99	233.7	11.99	233.74	11.99
233.75	11.99	233.78	11.99	233.79	11.99	233.82	11.99	233.83	11.99
233.86	11.99	263.68	11.86	263.69	11.86	263.7	11.86	263.72	11.86
263.73	11.86	263.75	11.86	263.76	11.86	263.77	11.86	309.16	12.68

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	128.89	.055	134.36	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
128.89	134.36	19.43	19.49	19.51	.1	.3

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 1235.735

INPUT
Description:
Station Elevation Data num= 117

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	14.48	4.67	14.07	5.48	14	5.92	13.95	14.04	13
29.46	12	29.47	12	64.5	11.05	64.51	11.05	70.82	11.04
70.83	11.04	70.84	11.04	74.49	11.04	74.5	11.04	74.51	11.04
82.78	11.03	82.79	11.03	87.57	11.02	87.58	11.02	97.01	11.01
103.95	11	105.64	11	116.33	10.6	124.36	9.99	126.97	9.8
127.39	9.99	129.63	11	130.45	11.19	130.77	11.26	144.62	11.39
144.73	11.39	154.15	11.63	154.2	11.63	154.25	11.63	154.29	11.64
154.78	11.65	154.81	11.65	155.34	11.66	155.37	11.66	155.61	11.67
156.86	11.7	156.89	11.7	156.92	11.7	160.01	11.73	160.06	11.73
160.11	11.73	160.12	11.73	160.18	11.73	160.24	11.73	160.31	11.73
160.37	11.74	160.38	11.74	160.43	11.74	160.44	11.74	160.49	11.74
160.5	11.74	160.54	11.74	160.55	11.74	212.71	12.05	212.72	12.05
212.73	12.05	212.75	12.05	212.76	12.05	212.78	12.05	212.79	12.05
212.81	12.05	212.83	12.05	212.84	12.05	212.86	12.05	212.88	12.05
212.9	12.05	212.91	12.05	212.93	12.05	212.95	12.05	212.96	12.05
212.98	12.05	212.99	12.05	213.01	12.05	213.02	12.05	213.03	12.05
240.94	11.81	240.96	11.81	240.97	11.81	241	11.81	241.01	11.81
241.04	11.81	241.06	11.81	241.08	11.81	241.1	11.81	241.12	11.81
241.14	11.81	241.17	11.81	241.19	11.81	241.21	11.81	241.23	11.81

```
  241.25   11.81  241.26   11.81  262.47   11.72  262.48   11.72   262.5   11.72
  262.52   11.72  262.53   11.72  262.55   11.72  262.56   11.72  284.91   12.12
  284.92   12.12  284.94   12.12  284.96   12.12  284.99   12.12  285.01   12.12
  285.03   12.12  285.05   12.12  285.07   12.12  285.09   12.12  285.11   12.12
  285.13   12.12  305.92   12.54

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045  124.36    .055  130.45    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        124.36  130.45             21.97    21.9   21.93              .1       .3

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 1213.838

INPUT
Description:
Station Elevation Data    num=     112
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0    14.5    2.35   14.29    5.73      14   13.03   13.25   15.39      13
   18.31   12.79   22.26   12.49   29.42      12   36.58   11.59   36.62   11.59
   36.65   11.58   36.69   11.58   36.73   11.58   36.76   11.58    36.8   11.58
   36.83   11.58   42.09   11.28   42.12   11.28   42.14   11.28   42.17   11.28
   42.19   11.28   42.94   11.23   42.96   11.23   43.51    11.2   66.89   11.05
    68.7      11   70.67      11   78.18   10.99   90.22   10.99   90.24   10.99
   90.26   10.99   96.37   10.99    96.4   10.99   96.42   10.99   103.6   10.99
  103.62   10.99  103.64   10.99  103.66   10.99  106.09   10.99  106.12   10.99
  106.14   10.99  109.19   10.99  109.21   10.99  109.23   10.99  109.25   10.99
  119.16   10.38  119.18   10.38  123.29     9.9  125.65    9.63     127   10.18
   129.3   10.98  129.37      11  131.57   11.05  135.46   11.15  156.29   11.68
  156.31   11.68  156.32   11.68  156.33   11.68  156.34   11.68   194.7    12.1
  194.73    12.1  194.74    12.1  194.78    12.1  194.82    12.1  199.98   12.15
     200   12.15  200.02   12.15  200.03   12.15  200.05   12.15  200.08   12.15
   200.1   12.15  200.11   12.15  200.13   12.15  200.14   12.15  200.16   12.15
  200.19   12.15  200.21   12.15  200.23   12.15  207.17   12.27  207.22   12.27
  263.69   11.78   263.7   11.77  263.72   11.77  263.74   11.77  263.76   11.77
  263.77   11.77  263.79   11.77  263.82   11.77  263.84   11.77  263.85   11.77
  263.87   11.77  263.88   11.77   263.9   11.77  263.92   11.77  263.93   11.77
  263.95   11.77  263.96   11.77  263.97   11.77  273.31   11.75  273.33   11.75
  273.38   11.75   273.4   11.75  273.45   11.75  273.47   11.75  273.52   11.75
  273.54   11.75  273.59   11.75   273.6   11.75  273.65   11.76  273.66   11.76
  273.71   11.76  305.25   12.39

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045  123.29    .055   129.3    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        123.29   129.3             24.44   24.27   23.92              .1       .3

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 1189.571

INPUT
Description:
Station Elevation Data    num=     115
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
```

0	13.21	2.16	13	5.61	12.84	5.62	12.84	5.63	12.84
5.64	12.84	5.66	12.84	5.67	12.84	5.68	12.84	5.69	12.84
9.1	12.69	9.12	12.69	9.14	12.69	22.8	12.03	22.81	12.03
23.35	12	23.93	11.98	24.28	11.97	24.5	11.97	39.36	11.51
53.43	11	58.33	10.98	58.34	10.98	58.35	10.98	64.65	10.95
64.66	10.95	71.38	10.94	73.8	10.93	73.81	10.93	73.83	10.93
78.08	10.93	97.35	10.94	97.37	10.94	97.39	10.94	97.4	10.94
97.42	10.94	97.44	10.94	97.46	10.94	120.67	9.79	120.68	9.79
123.19	9.44	125.88	10.62	126.28	10.82	126.63	11	129.82	11.08
129.83	11.08	134.25	11.19	134.26	11.19	136.73	11.25	139.26	11.3
139.28	11.31	142.1	11.37	142.11	11.37	142.13	11.37	143.4	11.4
143.42	11.4	153.91	11.67	153.93	11.67	153.94	11.67	153.96	11.67
167	11.81	167.02	11.81	167.05	11.81	167.06	11.81	167.09	11.81
167.11	11.81	167.14	11.81	202.22	12.17	202.23	12.17	202.24	12.17
202.25	12.17	202.26	12.17	202.28	12.17	202.29	12.17	202.3	12.17
202.31	12.17	202.33	12.17	202.34	12.17	202.36	12.17	202.37	12.17
202.39	12.17	202.4	12.17	202.41	12.17	202.42	12.17	202.44	12.17
202.46	12.17	244.99	12.86	245	12.86	260.9	12.7	260.91	12.7
260.92	12.7	260.93	12.7	260.94	12.7	260.96	12.7	260.98	12.7
260.99	12.7	261.01	12.7	261.03	12.7	261.04	12.7	261.06	12.7
261.07	12.7	261.09	12.7	261.1	12.7	261.12	12.7	261.14	12.7
261.15	12.7	261.16	12.7	261.17	12.7	261.18	12.7	302.57	12.53
302.59	12.53	302.71	12.53	302.73	12.53	302.85	12.53	304.94	12.5

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	120.67	.055	126.28	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
120.67	126.28	34.84	34.72	34.62	.1	.3

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 1154.857

INPUT
Description:
Station Elevation Data num= 169

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	15.44	5.89	15	10.45	14.62	13.73	14.47	16.34	14.3
17.42	14.23	20.37	14	27.06	13.43	30.28	13.1	31.31	13
38.41	12.6	48.02	12	48.28	12	49.99	12	51.03	12
52.81	12	54.56	12	55.64	12	66.12	11.82	66.13	11.82
66.14	11.82	67.03	11.81	67.04	11.81	67.05	11.81	67.07	11.81
67.08	11.81	67.41	11.8	80.62	11.56	80.63	11.56	80.65	11.56
80.66	11.56	80.68	11.56	80.69	11.56	80.71	11.56	80.73	11.56
80.74	11.56	80.76	11.56	80.78	11.56	92.73	11.24	92.74	11.24
92.75	11.24	94.39	11.2	94.4	11.2	94.41	11.2	94.42	11.2
101.55	11	106.69	11	118.55	10.96	118.56	10.96	118.57	10.96
118.58	10.96	129.28	10.97	129.29	10.97	129.3	10.97	129.31	10.97
129.32	10.97	129.33	10.97	129.34	10.97	141.78	10.97	141.79	10.97
141.8	10.97	155.82	10.35	158.24	10.36	160.9	10.39	163.8	9.84
164.57	9.85	164.58	9.85	165.25	9.84	167.41	9.17	168.89	10.37
169.76	11	169.84	11	169.87	11	170.1	11	176.38	11.07
179.8	11.12	210.68	11.55	210.69	11.55	210.7	11.55	210.71	11.55
210.73	11.55	210.74	11.55	210.76	11.54	210.77	11.54	210.79	11.54
210.8	11.54	210.82	11.54	210.83	11.54	210.85	11.54	210.86	11.54
210.88	11.54	221.41	11.94	221.42	11.94	221.43	11.94	221.44	11.94
233.11	12.05	233.12	12.05	233.14	12.05	233.15	12.05	233.16	12.05
248.34	12.06	248.35	12.06	248.36	12.06	248.37	12.06	248.38	12.06
250.5	12.06	250.51	12.06	250.52	12.06	250.53	12.06	252	12.07
252.01	12.07	252.02	12.07	252.03	12.07	252.04	12.07	257.57	12.09

257.58	12.09	261.39	12.09	261.4	12.09	261.42	12.09	261.43	12.09
263.38	12.09	291.42	12.54	291.44	12.54	291.46	12.54	291.48	12.54
291.5	12.54	291.91	12.55	291.94	12.55	291.96	12.55	302.67	12.98
302.68	12.98	302.7	12.98	302.71	12.98	302.73	12.98	313.54	12.86
313.55	12.86	313.57	12.86	313.58	12.86	313.6	12.86	313.61	12.86
313.63	12.86	313.64	12.86	313.66	12.86	313.67	12.86	313.69	12.86
313.7	12.86	313.72	12.86	313.73	12.86	313.75	12.86	313.76	12.86
313.78	12.86	313.79	12.86	313.8	12.86	313.81	12.86	313.82	12.86
313.83	12.86	313.84	12.86	332.74	12.6	355.11	12.86	355.12	12.86
355.13	12.86	355.14	12.86	355.15	12.86	355.16	12.86	355.17	12.86
355.18	12.86	357.31	12.76	368.24	13.21	376.32	13.51		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	164.57	.055	170.1	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
164.57	170.1	19.39	18.62	17.8	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
109.14	163.47	10.99267	F
174.75	229.53	12.01737	F

CULVERT

RIVER: Actual_1
REACH: Actual_1 RS: 1150

INPUT
Description: ODT 5
Distance from Upstream XS = 6.88
Deck/Roadway Width = 7
Weir Coefficient = 1.4
Upstream Deck/Roadway Coordinates
num= 2

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	11	9	400	11	9

Upstream Bridge Cross Section Data
Station Elevation Data num= 169

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	15.44	5.89	15	10.45	14.62	13.73	14.47	16.34	14.3
17.42	14.23	20.37	14	27.06	13.43	30.28	13.1	31.31	13
38.41	12.6	48.02	12	48.28	12	49.99	12	51.03	12
52.81	12	54.56	12	55.64	12	66.12	11.82	66.13	11.82
66.14	11.82	67.03	11.81	67.04	11.81	67.05	11.81	67.07	11.81
67.08	11.81	67.41	11.8	80.62	11.56	80.63	11.56	80.65	11.56
80.66	11.56	80.68	11.56	80.69	11.56	80.71	11.56	80.73	11.56
80.74	11.56	80.76	11.56	80.78	11.56	92.73	11.24	92.74	11.24
92.75	11.24	94.39	11.2	94.4	11.2	94.41	11.2	94.42	11.2
101.55	11	106.69	11	118.55	10.96	118.56	10.96	118.57	10.96
118.58	10.96	129.28	10.97	129.29	10.97	129.3	10.97	129.31	10.97
129.32	10.97	129.33	10.97	129.34	10.97	141.78	10.97	141.79	10.97
141.8	10.97	155.82	10.35	158.24	10.36	160.9	10.39	163.8	9.84
164.57	9.85	164.58	9.85	165.25	9.84	167.41	9.17	168.89	10.37
169.76	11	169.84	11	169.87	11	170.1	11	176.38	11.07
179.8	11.12	210.68	11.55	210.69	11.55	210.7	11.55	210.71	11.55
210.73	11.55	210.74	11.55	210.76	11.54	210.77	11.54	210.79	11.54
210.8	11.54	210.82	11.54	210.83	11.54	210.85	11.54	210.86	11.54
210.88	11.54	221.41	11.94	221.42	11.94	221.43	11.94	221.44	11.94
233.11	12.05	233.12	12.05	233.14	12.05	233.15	12.05	233.16	12.05
248.34	12.06	248.35	12.06	248.36	12.06	248.37	12.06	248.38	12.06
250.5	12.06	250.51	12.06	250.52	12.06	250.53	12.06	252	12.07

252.01	12.07	252.02	12.07	252.03	12.07	252.04	12.07	257.57	12.09
257.58	12.09	261.39	12.09	261.4	12.09	261.42	12.09	261.43	12.09
263.38	12.09	291.42	12.54	291.44	12.54	291.46	12.54	291.48	12.54
291.5	12.54	291.91	12.55	291.94	12.55	291.96	12.55	302.67	12.98
302.68	12.98	302.7	12.98	302.71	12.98	302.73	12.98	313.54	12.86
313.55	12.86	313.57	12.86	313.58	12.86	313.6	12.86	313.61	12.86
313.63	12.86	313.64	12.86	313.66	12.86	313.67	12.86	313.69	12.86
313.7	12.86	313.72	12.86	313.73	12.86	313.75	12.86	313.76	12.86
313.78	12.86	313.79	12.86	313.8	12.86	313.81	12.86	313.82	12.86
313.83	12.86	313.84	12.86	332.74	12.6	355.11	12.86	355.12	12.86
355.13	12.86	355.14	12.86	355.15	12.86	355.16	12.86	355.17	12.86
355.18	12.86	357.31	12.76	368.24	13.21	376.32	13.51		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	164.57	.055	170.1	.045

Bank Sta: Left	Right	Coeff Contr.	Expan.
164.57	170.1	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
109.14	163.47	10.99267	F
174.75	229.53	12.01737	F

Downstream Deck/Roadway Coordinates
num= 2

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	11	9	400	11	9

Downstream Bridge Cross Section Data
Station Elevation Data num= 183

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	15.12	.98	15	1.29	15	4.65	15	6.31	14.87
8.49	14.5	9.48	14.37	10.18	14.26	11.81	14	15.09	13.9
15.1	13.9	23.65	13.43	26.78	13.29	31.07	13.07	31.37	13.05
32.4	13	35.86	12.91	38.09	12.86	40	12.82	40.01	12.82
52.17	12.19	52.18	12.19	62.06	12	62.46	12	63.79	12
64.85	12	70.43	11.91	70.44	11.91	70.45	11.91	83.14	11.65
83.15	11.65	83.16	11.65	83.18	11.65	83.19	11.65	83.21	11.65
83.23	11.65	83.24	11.65	83.26	11.65	83.27	11.65	83.28	11.65
83.3	11.65	83.31	11.65	83.32	11.65	83.34	11.65	83.35	11.65
83.36	11.65	91.11	11.43	91.13	11.43	109.78	11.15	116.53	11.14
129.38	11.29	129.39	11.29	129.41	11.29	129.43	11.3	129.45	11.3
135.8	11.3	135.81	11.3	135.83	11.3	135.84	11.3	135.86	11.3
135.88	11.3	135.89	11.3	135.91	11.3	143.09	11.3	143.11	11.3
143.12	11.3	143.14	11.3	143.16	11.3	160.3	11	163.8	11
164.1	11	164.11	10.99	165.64	10.2	166.02	10	167.14	9.28
167.5	9.02	167.64	9.12	169.09	10	169.93	10.39	171.03	10.99
171.06	11	186.29	11.17	186.32	11.17	186.35	11.17	194.42	11.26
199.9	11.32	209.34	11.52	215.8	11.63	215.81	11.63	215.83	11.63
218.96	11.69	218.97	11.69	218.99	11.69	219.01	11.69	221.73	11.74
221.75	11.74	221.76	11.74	223.13	11.76	223.15	11.76	223.17	11.76
227.38	11.83	227.39	11.83	231.56	12	235.81	12	239.58	12
242.9	12.05	242.91	12.05	244.78	12.07	246.14	12.08	248.82	12.09
248.83	12.09	248.84	12.09	258.77	12.09	258.78	12.09	258.79	12.09
263.23	12.16	264.14	12.18	264.41	12.18	275.09	12.19	275.52	12.2
276.33	12.2	276.79	12.2	278.34	12.23	287.53	12.44	287.56	12.44
287.59	12.44	287.62	12.45	287.65	12.45	287.69	12.45	287.72	12.45
287.75	12.45	287.78	12.45	287.8	12.45	287.82	12.45	297.05	12.83
297.08	12.83	297.11	12.83	303.31	12.76	303.33	12.76	303.36	12.76
303.37	12.76	303.41	12.76	303.43	12.76	303.46	12.76	303.48	12.76
303.52	12.76	303.54	12.76	303.58	12.76	303.6	12.76	303.64	12.76
303.66	12.76	303.69	12.76	318.97	12.79	318.99	12.79	321.18	12.81
321.2	12.81	321.21	12.81	321.23	12.81	324.09	12.84	324.11	12.84

324.13	12.84	324.14	12.84	327.06	12.87	327.08	12.87	327.1	12.87
327.11	12.87	330.93	12.9	330.95	12.9	330.96	12.9	330.98	12.9
337.69	12.95	337.7	12.95	342.48	12.99	343.46	13	343.73	13
344.01	13	356.03	13.12	356.04	13.12	356.05	13.12	359.97	13.21
360.82	13.23	361.16	13.25	374.25	13.73				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	164.11	.055	171.03	.045

Bank Sta: Left Right Coeff Contr. Expan.
164.11 171.03 .3 .5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
63.28	161.96	12.00951	F
173.89	234.73	12	F

Upstream Embankment side slope = 0 horiz. to 1.0 vertical
Downstream Embankment side slope = 0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow = .98
Elevation at which weir flow begins =
Energy head used in spillway design =
Spillway height used in design =
Weir crest shape = Broad Crested

Number of Culverts = 1

Culvert Name	Shape	Rise	Span
Culvert #1	Circular	1	

FHWA Chart # 1 - Concrete Pipe Culvert
FHWA Scale # 1 - Square edge entrance with headwall
Solution Criteria = Highest U.S. EG

Culvert	Upstrm Dist	Length	Top n	Bottom n	Depth Blocked	Entrance Loss Coef	Exit Loss Coef
	6.88	7	.015	.015	0	.5	1

Upstream Elevation = 9.17
Centerline Station = 167.41
Downstream Elevation = 9.02
Centerline Station = 167.5

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 1136.232

INPUT
Description:
Station Elevation Data num= 183

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	15.12	.98	15	1.29	15	4.65	15	6.31	14.87
8.49	14.5	9.48	14.37	10.18	14.26	11.81	14	15.09	13.9
15.1	13.9	23.65	13.43	26.78	13.29	31.07	13.07	31.37	13.05
32.4	13	35.86	12.91	38.09	12.86	40	12.82	40.01	12.82
52.17	12.19	52.18	12.19	62.06	12	62.46	12	63.79	12
64.85	12	70.43	11.91	70.44	11.91	70.45	11.91	83.14	11.65
83.15	11.65	83.16	11.65	83.18	11.65	83.19	11.65	83.21	11.65
83.23	11.65	83.24	11.65	83.26	11.65	83.27	11.65	83.28	11.65
83.3	11.65	83.31	11.65	83.32	11.65	83.34	11.65	83.35	11.65
83.36	11.65	91.11	11.43	91.13	11.43	109.78	11.15	116.53	11.14
129.38	11.29	129.39	11.29	129.41	11.29	129.43	11.3	129.45	11.3
135.8	11.3	135.81	11.3	135.83	11.3	135.84	11.3	135.86	11.3
135.88	11.3	135.89	11.3	135.91	11.3	143.09	11.3	143.11	11.3
143.12	11.3	143.14	11.3	143.16	11.3	160.3	11	163.8	11
164.1	11	164.11	10.99	165.64	10.2	166.02	10	167.14	9.28
167.5	9.02	167.64	9.12	169.09	10	169.93	10.39	171.03	10.99

171.06	11	186.29	11.17	186.32	11.17	186.35	11.17	194.42	11.26
199.9	11.32	209.34	11.52	215.8	11.63	215.81	11.63	215.83	11.63
218.96	11.69	218.97	11.69	218.99	11.69	219.01	11.69	221.73	11.74
221.75	11.74	221.76	11.74	223.13	11.76	223.15	11.76	223.17	11.76
227.38	11.83	227.39	11.83	231.56	12	235.81	12	239.58	12
242.9	12.05	242.91	12.05	244.78	12.07	246.14	12.08	248.82	12.09
248.83	12.09	248.84	12.09	258.77	12.09	258.78	12.09	258.79	12.09
263.23	12.16	264.14	12.18	264.41	12.18	275.09	12.19	275.52	12.2
276.33	12.2	276.79	12.2	278.34	12.23	287.53	12.44	287.56	12.44
287.59	12.44	287.62	12.45	287.65	12.45	287.69	12.45	287.72	12.45
287.75	12.45	287.78	12.45	287.8	12.45	287.82	12.45	297.05	12.83
297.08	12.83	297.11	12.83	303.31	12.76	303.33	12.76	303.36	12.76
303.37	12.76	303.41	12.76	303.43	12.76	303.46	12.76	303.48	12.76
303.52	12.76	303.54	12.76	303.58	12.76	303.6	12.76	303.64	12.76
303.66	12.76	303.69	12.76	318.97	12.79	318.99	12.79	321.18	12.81
321.2	12.81	321.21	12.81	321.23	12.81	324.09	12.84	324.11	12.84
324.13	12.84	324.14	12.84	327.06	12.87	327.08	12.87	327.1	12.87
327.11	12.87	330.93	12.9	330.95	12.9	330.96	12.9	330.98	12.9
337.69	12.95	337.7	12.95	342.48	12.99	343.46	13	343.73	13
344.01	13	356.03	13.12	356.04	13.12	356.05	13.12	359.97	13.21
360.82	13.23	361.16	13.25	374.25	13.73				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	164.11	.055	171.03	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
164.11	171.03	21.77	19.62	16.49	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
63.28	161.96	12.00951	F
173.89	234.73	12	F

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 1116.615

INPUT
Description:
Station Elevation Data num= 132

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	13.61	.27	13.56	1.77	13.24	3.01	13	4.49	12.92
4.49	12.91	4.5	12.91	4.51	12.91	4.52	12.91	4.53	12.91
4.54	12.91	7.68	12.75	7.7	12.75	9.43	12.67	9.45	12.67
10.59	12.62	10.61	12.62	10.63	12.62	12.47	12.56	12.49	12.56
12.51	12.56	12.53	12.56	12.54	12.56	14.12	12.52	14.14	12.52
33.78	12.21	34.41	12.2	38.67	12.06	38.68	12.06	47.97	12.01
48.67	12	48.8	12	48.98	12	49.43	12	50.01	11.99
51.23	11.96	52.99	11.95	53	11.95	59.98	11.93	60	11.93
66.4	11.88	66.43	11.88	72.02	11.84	72.05	11.84	91.61	11.63
91.63	11.63	91.64	11.63	91.67	11.63	91.68	11.63	91.71	11.63
91.72	11.63	91.74	11.63	91.75	11.63	91.78	11.63	91.79	11.63
101.24	11.47	101.27	11.47	103.03	11.46	111.98	11.55	111.99	11.55
112.01	11.55	112.03	11.55	112.04	11.55	112.06	11.55	112.08	11.55
112.1	11.55	112.12	11.55	112.14	11.55	112.16	11.55	112.18	11.55
112.2	11.55	112.22	11.55	112.24	11.55	112.26	11.55	112.27	11.55
141.07	11.18	141.08	11.18	141.09	11.18	146	11.06	148.7	11
152.15	10.51	153.41	10.33	155.36	10	156.02	9.31	156.3	9
156.92	8.94	156.98	8.93	157.18	8.95	157.81	9	158.34	9.31
159.45	10	160.44	10.43	161.66	10.94	161.82	11	163.27	11.07
163.28	11.07	169.08	11.16	184.3	11.56	197.03	11.84	197.04	11.84
200.57	11.92	200.58	11.92	204.03	11.99	204.29	12	205.31	12.03
208.18	12.12	227.87	12.71	232.95	12.86	237.38	13	238.63	13.02

```
  238.64   13.02  238.65   13.02   246.7   13.16  246.73   13.16  246.76   13.16
  247.91   13.17  247.94   13.18  247.97   13.18   249.8    13.2  249.82    13.2
  249.84    13.2  256.16   13.49  256.18   13.49  257.32   13.56  257.35   13.56
  257.37   13.56   257.4   13.57  257.43   13.57  265.22      14  272.38   14.48
  279.78      15  286.48   15.54

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045   148.7    .055  161.66    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         148.7  161.66            40.94   40.49   39.88              .1       .3
Ineffective Flow     num=       1
   Sta L   Sta R    Elev  Permanent
  164.57  184.5811.54294       F
Blocked Obstructions     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
***********************************************
  111.71  127.0111.54971  132.73  145.65 11.2892

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 1076.127

INPUT
Description:
Station Elevation Data    num=     132
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
***************************************************************************
       0   14.48    2.92   14.17    4.44      14    6.78   13.64   10.67      13
   12.35   12.19    12.7   12.03   12.75      12   13.03   11.99    20.6   11.85
   20.61   11.85   42.19   11.62   42.21   11.62   42.23   11.62   42.24   11.62
   42.26   11.62   42.27   11.62   42.29   11.62    42.3   11.62   69.87   11.21
   69.89   11.21   69.94   11.21   69.95   11.21      70   11.21    83.1   11.04
   83.13   11.04   88.95   11.02   89.28   11.02    89.3   11.02   89.32   11.02
   89.71   11.02   89.73   11.02   89.75   11.02   90.78   11.02    90.8   11.02
   90.82   11.02    91.3   11.02   91.32   11.02  104.61   11.15  104.63   11.15
  104.66   11.15  104.69   11.15  104.72   11.15  104.75   11.15  104.78   11.15
  104.81   11.15  104.84   11.15  104.86   11.15   104.9   11.15  122.74   11.37
  122.76   11.37  122.78   11.37  122.79   11.37  122.81   11.37  122.82   11.37
  122.84   11.37  122.85   11.37  122.87   11.37  122.89   11.37  138.66   11.19
  138.69   11.19  139.99   11.18  140.01   11.18  141.58   11.17  141.61   11.17
  141.63   11.17  143.52   11.16  164.69   11.15   164.7   11.16   165.2   11.15
  165.21   11.15     166   11.14  166.01   11.14  166.02   11.14  166.72   11.13
  166.73   11.13  166.74   11.13  167.27   11.12  172.11   11.02  173.06      11
   173.8      11  174.39   10.43  174.77      10   175.5    9.02  175.51       9
  176.41    8.78  176.43    8.77  176.46    8.79  176.95       9  177.93    9.44
  179.16      10  179.85   10.38  180.79      11  181.24   11.03  188.15   11.48
  196.85   11.92  197.85      12  201.35   12.12  201.39   12.12  201.43   12.12
  201.47   12.12  201.51   12.12  201.54   12.12  211.93   12.46  211.96   12.46
  211.99   12.47  212.02   12.47  212.05   12.47  215.71   12.57  215.74   12.57
  216.11   12.58  216.15   12.58  216.19   12.58  216.84    12.6  216.88    12.6
  216.93    12.6  219.61   12.66  219.67   12.67  219.73   12.67   219.8   12.67
  234.57      13  235.32   13.01  235.33   13.01  237.93   13.05  249.47   13.56
  259.99   13.98   260.6      14  269.41   14.61  272.62   14.83  275.15      15
  277.92   15.26     281   15.56

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045  172.11    .055  181.24    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        172.11  181.24            18.49   22.99   29.33              .1       .3
```

Left Levee Station= 122.64 Elevation= 11.37

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 1053.136

INPUT
Description:
Station Elevation Data num= 122

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	14.21	1.42	14.06	1.96	14	2.85	13.86	8.07	13
9.8	12.08	9.96	12	10.85	11.98	10.86	11.98	10.87	11.98
21.4	11.77	21.42	11.77	21.44	11.77	21.46	11.77	21.47	11.77
24.25	11.72	24.26	11.72	31.94	11.63	31.97	11.63	31.98	11.63
32	11.63	32.01	11.63	32.03	11.63	32.04	11.63	41.4	11.49
41.45	11.49	41.46	11.49	41.51	11.49	41.52	11.49	74.43	11.05
74.45	11.05	89.79	11.02	90.67	11.02	90.68	11.02	90.7	11.02
91.73	11.01	91.74	11.01	91.76	11.01	94.52	11.01	94.53	11.01
94.54	11.01	95.82	11.01	95.83	11.01	120.41	11.25	120.43	11.25
121	11.24	121.02	11.24	121.05	11.24	121.07	11.25	121.1	11.25
123.35	11.24	123.37	11.24	123.39	11.25	124.17	11.24	124.2	11.24
124.22	11.24	124.74	11.24	124.76	11.24	125.33	11.24	125.35	11.24
125.37	11.24	127.2	11.23	127.22	11.23	127.25	11.23	127.27	11.23
127.29	11.23	131.35	11.21	131.38	11.21	131.42	11.21	131.44	11.21
131.47	11.21	133.6	11.2	159.16	11.16	159.17	11.16	159.19	11.16
161.21	11.15	161.22	11.15	161.23	11.15	161.25	11.15	161.26	11.15
163.13	11.15	163.14	11.15	163.16	11.15	163.17	11.15	165.28	11.15
165.29	11.15	165.31	11.15	165.32	11.15	165.33	11.15	167.77	11.11
172.56	11	174.1	11	174.15	11	174.56	11	175.21	11
175.72	10.65	176.67	10	177.21	9.47	177.74	9	178.35	8.78
178.49	8.68	178.95	8.81	179.54	9	180.63	9.71	181.04	10
181.8	10.41	182.45	10.78	182.85	11	184.31	11.65	185	12
187.53	12.05	189.31	12.09	195.25	12.22	230.8	13	244.22	13.59
253.33	14	256.33	14.22	265.72	14.91	266.47	14.96	266.94	15
267.49	15.05	272.24	15.45						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	174.1	.055	182.45	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
174.1	182.45	37.35	41.42	29.13	.1	.3

Left Levee Station= 123.44 Elevation= 11.25

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 1011.713

INPUT
Description:
Station Elevation Data num= 101

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	14.35	3.07	14	7.45	13.31	9.56	13	10.99	12.28
11.61	12	25.99	11.7	26.08	11.7	26.16	11.7	27.06	11.68
27.12	11.68	27.18	11.68	28.54	11.66	28.57	11.66	28.6	11.66
28.7	11.65	28.73	11.65	28.76	11.65	28.79	11.65	28.81	11.65
28.83	11.66	29.97	11.63	30.01	11.63	30.05	11.63	30.09	11.62
30.12	11.62	30.16	11.62	30.18	11.62	30.19	11.62	30.21	11.62
71.55	11.06	71.56	11.06	93.68	11.01	94.99	11.01	95	11.01
96.54	11.01	96.55	11.01	96.56	11.01	100.69	11.01	100.7	11.01

102.63	11.01	112.89	11.1	112.9	11.1	114.94	11.1	114.95	11.1
114.96	11.1	114.97	11.1	114.98	11.1	123.33	11.09	123.34	11.09
123.35	11.09	126.34	11.08	126.35	11.08	126.36	11.08	128.39	11.08
130.61	11.07	130.62	11.07	137.29	11.03	139.78	11	141.2	10.88
148.69	10.16	150.33	10	151.26	9.1	151.36	9	151.7	8.88
152.73	8.52	153.68	8.94	153.82	9	154.58	9.68	154.87	9.94
154.94	10	155.07	10.07	156.46	10.78	156.89	11	157.02	11
157.98	11.04	159.12	11.07	159.13	11.07	161.04	11.12	161.05	11.12
162.72	11.16	171.53	11.89	177.55	12	179.7	12	180.76	12
181.23	12	202.65	12.3	202.67	12.3	204.4	12.31	204.42	12.31
230.36	12.85	230.37	12.85	230.38	12.85	237.21	13	245.61	13.34
260.67	13.88	261.99	13.93	264.02	14	269.02	14.42	274.88	15
277.82	15.27								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	148.69	.055	157.02	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
148.69	157.02		38.13	29.25	15.34	.1	.3

Left Levee Station= 115.24 Elevation= 11.09

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 982.4587

INPUT
Description:
Station Elevation Data num= 129

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	14.41	1.66	14.2	3.33	14	8.69	13.33	11.31	13
12.01	12.93	18.74	12	20.76	12	22.59	12	27.81	11.88
27.84	11.88	27.88	11.88	39.9	11.59	39.98	11.59	57.75	11.16
57.76	11.16	57.8	11.16	57.84	11.15	57.85	11.15	57.88	11.15
57.89	11.15	57.93	11.15	57.96	11.15	57.97	11.15	57.99	11.15
58	11.15	63.31	11.08	68.43	11.07	68.45	11.07	68.49	11.07
69.16	11.06	69.2	11.06	69.24	11.06	70.26	11.06	70.31	11.06
70.84	11.06	70.89	11.06	70.95	11.06	71	11.06	71.62	11.06
71.68	11.06	71.73	11.06	101.93	11.37	101.93	11.38	101.94	11.38
101.96	11.38	101.97	11.38	103.03	11.37	103.05	11.37	103.06	11.37
106.64	11.37	106.66	11.37	106.67	11.37	106.68	11.37	114.32	11.16
117.59	11.06	117.6	11.06	119	11	124.16	10.17	124.89	10.07
125.33	10	125.51	9.92	127.63	9	128.58	8.58	129.26	8.4
130.23	8.83	130.72	9	131.12	9.16	133.18	10	134.06	10.26
136.28	11	136.78	11	136.96	11	137.53	11	138.29	11
139.12	11	141.63	11.08	152.71	11.45	152.76	11.45	152.82	11.46
152.88	11.46	155.47	11.52	155.5	11.52	155.53	11.52	155.57	11.52
155.6	11.52	155.94	11.53	155.96	11.53	156.17	11.53	156.2	11.53
156.49	11.54	156.51	11.54	156.54	11.54	156.63	11.54	156.65	11.54
156.67	11.54	163.17	11.69	178.08	12	178.77	12.01	178.78	12.01
187.73	12.19	187.76	12.19	196.72	12.36	196.76	12.36	204	12.46
204.03	12.46	204.46	12.47	204.49	12.47	211.79	12.62	211.82	12.62
211.84	12.62	215.68	12.7	215.71	12.7	215.75	12.7	217.73	12.74
217.77	12.74	217.81	12.75	230.04	13	234.2	13.15	256.81	13.87
256.82	13.87	256.83	13.87	260.15	14	267.79	14.82	268.33	14.88
268.64	14.9	269.3	15	274.06	15.46	275.02	15.55		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	124.89	.055	136.96	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.

```
        124.89  136.96            30.97    32.8   18.23             .1       .3

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 949.6408

INPUT
Description:
Station Elevation Data    num=     134
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   14.21       2      14    4.48   13.45    5.89      13   13.23   12.16
   14.58      12   14.88      12   15.01      12   22.87   11.54    23.3   11.53
   23.81   11.54   24.78   11.51   32.55   11.73   32.57   11.73   32.58   11.73
   32.59   11.73   33.28   11.71    33.3   11.71   48.05   11.31   48.08   11.31
   48.09   11.31   48.11   11.31   48.12   11.31   48.14   11.31   48.15   11.31
    65.9   11.62   67.89   11.63    67.9   11.63   67.92   11.63   69.31   11.64
   69.32   11.64    70.8   11.64   70.81   11.64   70.82   11.64   90.43   11.89
   91.93   11.89   91.94   11.89   93.42   11.89   93.43   11.89  103.92   11.49
  103.94   11.49  103.95   11.49  103.96   11.49  103.97   11.49  103.99   11.49
     104   11.49  104.01   11.49  104.03   11.49  104.04   11.49  104.05   11.49
  104.07   11.49  104.08   11.49  104.09   11.49  104.11   11.49  104.12   11.49
  104.13   11.49  117.91   11.12  123.35    11.1  123.36    11.1   128.3   11.08
  128.32   11.08  131.71   11.07  141.18   11.02  145.17      11  145.44      11
   145.7      11  146.02      11  146.63   10.84  149.39   10.13  149.83      10
  150.34    9.83  152.64       9  153.61    8.52  154.11    8.28   154.2    8.33
  155.33       9  155.82    9.18  158.18      10  160.35   10.54  161.73   10.88
  161.89   10.93  162.37      11  164.17   11.06  180.29   11.47  189.51   11.81
  190.43   11.83  191.42   11.85  194.81      12  205.25   12.22  205.27   12.22
  205.28   12.22   205.3   12.22  210.15   12.32  210.17   12.32  210.19   12.32
  211.87   12.35  211.89   12.35  213.39   12.36   213.4   12.36  213.88   12.37
  215.05   12.38  215.07   12.38  232.49   12.86  232.51   12.86  232.52   12.86
  239.01      13  249.65   13.25   249.7   13.25  249.75   13.25  251.64    13.3
  251.68    13.3  253.62   13.34  253.66   13.34  253.69   13.34  258.83   13.51
  258.85   13.51  258.87   13.51   258.9   13.51  258.93   13.52  261.33   13.61
  261.36   13.61   261.4   13.61  261.43   13.61  261.47   13.62  263.47   13.69
  263.51   13.69  263.55   13.69   267.8   13.84  267.84   13.84  272.21      14
  273.43   14.21  278.76      15  282.57   15.38  283.35   15.46

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
************************************************
       0    .045  146.63    .055  160.35    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        146.63  160.35            14.91   22.46   27.78             .1       .3
Left Levee      Station=   92.51      Elevation=   11.88

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 927.2091

INPUT
Description:
Station Elevation Data    num=     131
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   14.31    2.97      14    4.62   13.35     5.2      13   14.71   12.07
   15.43      12   16.05   11.91    16.4   11.87   17.67    11.7   23.05      11
   24.47      11   27.34      11   38.83    11.3    38.9    11.3   38.97    11.3
   39.04   11.31   39.11   11.31   40.47   11.35   40.52   11.35   40.57   11.35
   41.62   11.38   41.66   11.38   41.69   11.38   43.05   11.45   43.33   11.45
   43.36   11.45   43.38   11.45   43.52   11.46   43.68   11.46    43.7   11.46
```

43.73	11.46	43.76	11.46	44.33	11.47	44.36	11.47	44.4	11.47
44.43	11.47	44.75	11.48	44.79	11.48	44.83	11.48	45.68	11.49
45.73	11.49	45.77	11.49	47.39	11.52	47.45	11.52	48.46	11.53
48.52	11.53	48.57	11.53	69.32	11.89	72.32	11.91	72.33	11.91
74.43	11.92	74.44	11.92	76.67	11.92	76.68	11.92	80.77	11.98
83.37	11.97	83.38	11.97	85.94	11.97	85.95	11.97	104.28	11.29
104.31	11.29	104.33	11.29	104.36	11.29	104.39	11.29	104.41	11.29
104.44	11.29	104.47	11.29	104.49	11.29	106.57	11.23	107.39	11.23
107.43	11.23	108.18	11.22	108.22	11.22	108.74	11.22	113.9	11.2
113.98	11.2	147.43	11.01	149.32	11	150.87	10.74	153.9	10.3
155.93	10	157.23	9.17	157.56	9	158.18	8.41	158.46	8.19
158.79	8.31	160.9	9	161.74	9.36	162.88	9.76	163.45	10
163.86	10.02	165.65	10.1	170.77	10.32	174.73	10.51	184.97	11
195.56	11.53	205.54	12	205.75	12	208.21	12.05	208.22	12.05
209.67	12.07	212.43	12.11	212.44	12.11	213.7	12.12	216.77	12.15
216.78	12.15	229.55	12.52	232.46	12.62	234.53	12.67	238.23	12.8
240.17	12.85	243.68	12.97	244.55	13	248.1	13.08	248.11	13.08
250.79	13.14	251.46	13.15	251.48	13.15	251.49	13.15	251.5	13.15
257.12	13.25	257.13	13.25	257.15	13.25	257.17	13.25	258.34	13.26
258.35	13.26	267.36	13.69	276	14	281.25	14.83	282.92	15
286.33	15.42								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	153.9	.055	163.86	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
153.9	163.86	12.61	11.65	11.14	.1	.3

Left Levee Station= 83.26 Elevation= 11.96

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 915.5645

INPUT
Description:
Station Elevation Data num= 111

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	14.17	.73	14.09	1.59	14	2.08	13.7	3.34	13
11.11	12.26	13	12.08	13.62	12.02	13.85	12	13.98	11.98
14.45	11.93	22.46	11	25.97	11	29.91	11	34.13	11.36
42.9	11.82	46.55	11.86	46.56	11.86	48.33	11.88	50.38	11.92
50.39	11.92	55.72	12	57.13	12.02	57.14	12.02	59.53	12.04
63.76	12.07	63.77	12.07	66.92	12.11	66.93	12.11	68.12	12.12
85.17	12.07	85.18	12.07	85.19	12.07	88.96	12.04	93.17	12
93.57	12	94.08	12	96.18	11.91	96.19	11.91	98.32	11.81
98.33	11.81	98.34	11.81	101.61	11.67	101.62	11.67	105.47	11.58
105.49	11.58	105.5	11.58	105.51	11.58	106.11	11.57	106.12	11.57
106.13	11.57	112.54	11.33	145.65	11.12	145.66	11.12	151.31	11
151.91	10.93	156.75	10.35	158.49	10.16	160.04	10	161.6	9.27
162.19	9	163.35	8.22	163.48	8.14	165.55	8.95	165.67	9
166.04	9.17	167.34	9.78	167.65	9.93	167.79	10	168.82	10.05
168.83	10.05	168.84	10.05	171.79	10.18	183.18	10.71	183.2	10.71
183.22	10.71	183.24	10.71	188.69	10.84	188.71	10.84	188.73	10.84
188.75	10.84	192.89	10.94	192.9	10.94	194.99	11	197.04	11.09
197.69	11.1	198.36	11.12	202.32	11.26	218.67	11.8	218.68	11.8
222.79	11.86	222.8	11.86	222.81	11.86	226.63	11.92	228.07	11.95
228.08	11.95	230.73	12	235.59	12.18	242.48	12.41	246.7	12.56
249.34	12.65	256.76	12.92	259.4	12.97	260.56	13	277.9	13.85
279.39	13.93	280.55	14	286.51	14.67	289.79	15	292.04	15.32
294.38	15.64								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	158.49	.055	167.65	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
158.49	167.65	6.96	9.95	12.29	.1	.3

Left Levee Station= 68.46 Elevation= 12.12

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 905.6098

INPUT
Description:
Station Elevation Data num= 147

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	14.29	2.41	14.02	2.42	14.02	2.63	14	2.72	13.94
4.31	13	8.27	12.52	13.14	12	16.87	11.61	22.36	11
31.33	11	31.37	11	31.38	11	31.4	11.01	31.43	11.01
31.62	11.04	36.01	11.81	36.53	11.89	38.11	12	39.53	12.72
40.5	12.78	40.78	12.63	41.28	12.72	42.16	12.79	53.84	12.16
53.86	12.16	55.63	12.17	55.65	12.17	55.67	12.17	57.31	12.19
57.33	12.19	57.35	12.2	57.37	12.2	60.57	12.23	60.58	12.23
60.6	12.23	61.62	12.24	61.64	12.24	61.65	12.24	63.47	12.25
63.49	12.25	63.51	12.25	63.52	12.25	64.91	12.27	64.92	12.27
65.45	12.27	73.31	12.24	73.34	12.24	73.37	12.24	75.19	12.23
83.31	12.15	83.34	12.15	83.37	12.15	93.74	12	99.35	12
99.44	12	99.51	12	106.32	11.84	106.33	11.84	107.39	11.82
107.4	11.82	118.48	11.4	141.21	11.24	141.22	11.24	150.08	11.05
150.09	11.05	151.72	11.01	152.26	11	155.45	10.59	159.59	10.11
160.58	10	163.73	9.04	163.84	9	163.93	8.95	165.43	8.1
166.99	8.82	167.32	9	167.6	9.13	169.34	10	169.6	10.01
172.46	10.16	172.47	10.16	172.48	10.16	173.15	10.2	182.8	10.69
182.82	10.69	184.43	10.72	184.45	10.72	184.47	10.72	187.08	10.77
187.1	10.77	187.12	10.77	188.96	10.81	188.98	10.81	190.44	10.84
193.85	10.93	196.39	11	200.1	11.08	200.12	11.08	200.13	11.08
200.15	11.08	207.26	11.25	207.28	11.25	207.31	11.25	208.86	11.29
208.88	11.29	217.71	11.58	217.73	11.58	219.01	11.6	219.04	11.6
219.06	11.6	220.6	11.62	220.63	11.62	220.65	11.62	222.44	11.65
222.47	11.65	223.69	11.68	225.39	11.71	225.42	11.71	225.45	11.71
225.48	11.71	234.93	11.89	240.23	12	247.55	12.28	247.57	12.28
257.21	12.63	257.91	12.64	259.08	12.67	259.1	12.67	259.12	12.67
259.14	12.67	260.66	12.7	260.68	12.7	261.4	12.72	262.9	12.76
262.92	12.76	266.38	12.85	266.4	12.85	266.42	12.85	270.98	12.99
271.42	13	271.78	13.03	284.52	14	295	14.97	295.34	15
295.51	15.02	297.8	15.33						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	159.59	.055	169.6	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
159.59	169.6	13.29	18.89	21.84	.1	.3

Left Levee Station= 42.03 Elevation= 12.77

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 886.7251

INPUT
Description:

Station Elevation Data num= 158

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	13.34	1.13	13	4.44	12.57	8.39	12	12.75	11.54
18.2	11	21.51	10.84	21.54	10.84	21.57	10.83	21.61	10.83
21.64	10.83	21.67	10.83	21.7	10.83	21.73	10.83	23.1	10.77
23.12	10.77	23.15	10.77	25.6	10.84	25.62	10.84	25.65	10.84
25.68	10.84	25.71	10.84	25.74	10.84	28.62	11	29.3	11.69
29.61	12	31.16	12.96	31.21	12.99	31.22	13	31.24	13
31.29	13	35.5	13	35.67	13	45.5	12.74	48.72	12.67
48.76	12.67	48.8	12.67	49.17	12.66	49.2	12.66	58.77	12.31
58.79	12.31	58.81	12.31	59.88	12.3	59.9	12.3	59.92	12.3
59.95	12.3	60.51	12.3	60.53	12.3	60.55	12.3	60.57	12.3
61.72	12.29	61.75	12.29	61.77	12.29	62.45	12.29	62.47	12.29
62.48	12.29	62.96	12.29	82.62	12	85.56	12	87.33	12
88.36	12	90.22	12	99.65	12	102.8	12	102.82	12
103.18	12	114.28	11.77	114.35	11.77	114.42	11.77	117.87	11.7
117.93	11.7	119.57	11.66	119.62	11.66	119.68	11.66	119.73	11.66
119.77	11.66	120.69	11.63	120.73	11.63	120.76	11.63	124.24	11.5
127.46	11.48	127.49	11.48	128.7	11.46	128.73	11.45	129.25	11.44
129.28	11.44	130.99	11.4	131.04	11.4	132.42	11.36	132.47	11.36
144.88	11.01	144.89	11.01	144.9	11.01	145.37	11	145.49	10.98
146.93	10.71	149.41	10.23	149.68	10.18	150.8	10	152.34	9.5
153.69	9	154.99	8.45	156.2	8.03	157.45	8.73	157.93	9
159.07	9.55	159.92	9.94	160.03	10	160.9	10.04	162.57	10.12
167.64	10.35	180.5	10.96	181.25	11	181.69	11	197.33	11.11
201.78	11.13	201.82	11.13	203.2	11.14	203.24	11.14	205.18	11.15
205.21	11.15	205.24	11.15	205.28	11.15	206.67	11.16	206.7	11.16
210.93	11.24	210.95	11.24	210.96	11.24	210.98	11.24	211.01	11.24
211.04	11.24	211.06	11.24	211.07	11.24	211.09	11.24	227.12	11.63
227.17	11.63	227.22	11.63	227.27	11.63	229	11.68	240.87	12
253.22	12.74	257.76	13	273.23	13.84	275.9	14	277.42	14.17
278.26	14.27	284.77	15	289.3	15.38	293.23	15.73	294.75	15.86
296.27	16	303.18	16.54	305.76	16.74	309.24	17	318.72	17.98
318.94	18	319.07	18.01	324.58	18.43				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	149.41	.055	160.9	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
149.41	160.9	13.94	16.07	17.54	.1	.3

Left Levee Station= 35.46 Elevation= 13

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 870.6595

INPUT
Description:
Station Elevation Data num= 152

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	13.99	3.79	13.19	4.74	13	6.41	12.67	10.22	12
14.94	11.75	14.97	11.75	15	11.75	15.03	11.75	15.06	11.75
17	11.59	17.03	11.59	17.05	11.59	17.42	11.57	17.45	11.56
17.47	11.56	17.5	11.56	18.25	11.53	18.29	11.52	19.61	11.44
19.65	11.43	24.94	11.05	24.95	11.05	25.57	11	25.84	11
30.75	11	31.42	11.41	32.29	12	32.77	12.3	34.08	13
36.61	13	38.12	13	40.03	12.87	40.6	12.85	41.46	12.81
42.9	12.76	51.07	12.33	54.46	12.25	59.91	12.05	59.92	12.05
64.39	12.01	66.54	12	66.72	12	71.17	11.97	71.51	12
71.94	12	74.38	12	74.67	12	76.18	12	76.27	12
78.4	12	78.51	12	81.09	12	86.77	12	90.49	12

102.55	12	103.63	11.31	104.1	11	105.64	11	106.65	11
109.83	11.06	109.84	11.06	113.74	11.13	113.75	11.13	113.76	11.13
113.77	11.13	123.95	11.28	123.97	11.28	123.98	11.28	124	11.28
134.71	11.23	137.82	11.16	137.83	11.16	137.84	11.16	137.86	11.16
142.76	11.04	144.27	11	144.31	10.99	144.59	10.88	145.59	10.52
147.07	10	147.26	9.84	148.24	9	148.28	8.96	149.42	8
150.65	7.95	150.77	7.95	151.03	7.95	152.31	8	152.79	8.27
153.97	9	154.82	9.34	156.33	10	156.88	10.03	162.08	10.32
162.97	10.37	163	10.37	163.02	10.37	163.04	10.37	163.06	10.37
163.07	10.37	163.09	10.37	165.11	10.48	165.12	10.48	165.14	10.48
170.64	10.71	172.66	10.74	172.69	10.74	172.73	10.74	177.08	10.81
177.12	10.81	177.16	10.81	177.2	10.81	188.96	11	191.5	11.02
191.51	11.02	195.02	11.04	211.6	11.09	211.61	11.09	211.62	11.09
211.64	11.09	211.65	11.09	217.17	11.08	217.18	11.08	217.19	11.08
217.2	11.08	217.21	11.08	218.73	11.08	218.74	11.08	218.75	11.08
221.76	11.08	221.77	11.08	223.13	11.08	236.32	11.56	240.01	11.84
240.46	11.85	242.35	12	250.93	12.47	260.47	13	265.2	13.35
274.26	14	274.89	14.06	284.87	15	286.25	15.11	297.18	16
306.58	16.75	309.55	17	311.07	17.12	322.29	18	323.25	18.08
324.01	18.14	327.38	18.39						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	144.31	.055	156.88	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
144.31	156.88	20.47	21.2	19.26	.1	.3

Left Levee Station= 36.7 Elevation= 13.02

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 849.4680

INPUT
Description:
Station Elevation Data num= 137

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	14.64	3.2	14.11	3.82	14	4.56	13.86	9.26	13
11.04	12.65	15.48	12	19.65	11.14	20.58	11	28.26	11
29.72	11	29.84	11.08	31.12	12	32.25	12.54	33.39	13
35.08	13	36.9	13	47.04	12.34	48.88	12.22	52.03	12
55.11	11.83	57.35	11.72	63.78	11.38	65.88	11.28	66.43	11.25
67.47	11.21	68.21	11.18	68.79	11.15	71.11	11.06	71.32	11.05
71.49	11.05	72.86	11.01	72.94	11.01	72.97	11.01	73.02	11.01
73.31	11.03	74.93	11.09	78.28	11.53	79.34	11.65	80.9	11.84
81.41	11.9	81.97	12	83.73	12	85.16	12	100.53	12
102.31	11.69	103.87	11.66	107.76	11	109.76	11	114.71	11
128.46	11	128.78	11	129.27	11	134.11	11	134.59	11
134.96	11	137.33	10.49	138.87	10.13	139.09	10.07	139.33	10
139.82	9.85	142.54	9	143.97	8.14	144.25	8	144.91	7.93
146.06	7.82	147.2	7.98	147.35	8	147.43	8.07	148.54	9
149.9	9.51	151.13	10	151.76	10	153.18	10	157.74	10
162.64	10.22	168.47	10.21	168.48	10.21	168.49	10.21	168.5	10.21
168.51	10.21	172.17	10.2	172.18	10.2	172.19	10.2	172.2	10.2
179.98	10.17	179.99	10.17	186.62	10.29	187.4	10.35	188.52	10.44
190.13	10.54	193.13	10.72	196.77	10.93	197.96	10.86	198.6	11
198.84	11	201.35	11	201.38	11	201.39	11	201.4	11
201.61	11	208.45	10.37	210.02	10.28	211.84	10.25	212.78	10.48
216.32	10.31	217.9	10.45	219.84	10.73	221.53	10.72	222.06	10.77
227.39	11	230.19	11	231.25	11	232.03	11	233.13	11
240.53	11.62	242.77	11.8	245.34	12	255.23	12.61	261.77	13
274.04	13.94	274.87	14	275.51	14.06	285.96	15	292.37	15.53
295.85	15.81	298.23	16	302.54	16.34	309.64	16.86	310.71	16.94

```
  311.05   16.96  311.57      17  318.35   17.53  320.52   17.69  324.39      18
   326.6   18.17   328.2    18.3

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
************************************************
       0    .045  139.09    .055  151.76    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        139.09  151.76             22.5   20.43   19.73             .1       .3
Left Levee      Station=   34.85      Elevation=   13.02
Right Levee     Station=  201.67      Elevation=   11.02

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 829.0050

INPUT
Description:
Station Elevation Data    num=     149
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   14.81    4.71      14       9   13.27    10.5      13   13.06    12.7
   18.26      12   21.69   11.34   23.55      11   31.42      11   35.21      11
    35.5   11.11    37.3      12    42.5   12.25   42.53   12.25   42.55   12.25
   42.58   12.25   43.66   12.29   43.68   12.29   44.44    12.3   44.47    12.3
   47.39   12.25   48.72   12.18   48.74   12.18   48.76   12.18   48.78   12.18
   48.81   12.18   48.84   12.18   52.82      12   59.73   11.61   59.79   11.61
   59.85    11.6   59.92    11.6   59.97    11.6   60.03    11.6   61.08   11.54
   61.11   11.54   61.14   11.54   61.17   11.54   61.34   11.53    62.2   11.48
   62.23   11.48   63.28   11.42   63.32   11.42   63.37   11.42   63.42   11.42
   63.47   11.42   63.53   11.41   63.59   11.41   63.64   11.41    63.7   11.41
   63.74    11.4   71.05      11    78.9      11   80.92      11   87.88   10.74
   89.23   10.78   89.65   10.75   90.39   10.71   92.34   10.69   93.99    10.7
   95.58    10.6   96.59   10.59   97.93   10.53   98.17   10.52  100.85   10.39
  102.47   10.34     103   10.33  104.71   10.27  106.36   10.27  106.85   10.24
  107.87   10.18  109.72    10.2  110.01   10.19  114.85   10.27  119.39   10.19
  123.81   10.22  131.26   10.05  132.79      10  132.98      10  133.12      10
  133.27      10  133.56      10  133.78    9.94  134.69    9.71  137.11       9
  138.37    8.14  138.55       8  139.08    7.84  139.61    7.69  140.44    7.89
  140.94       8     141    8.02  143.01       9   144.7    9.21  144.97     9.2
  145.13     9.2  145.63    9.18  147.89    9.25  158.31    9.68   171.5    9.66
  171.51    9.66   176.6    9.67  176.61    9.67  176.63    9.67  176.64    9.67
  179.78    9.67  179.79    9.67   179.8    9.67  179.81    9.67   185.8    9.67
  185.81    9.67  185.83    9.67  185.84    9.67  185.85    9.67  185.86    9.67
  185.87    9.67  194.16    9.65  194.17    9.65  194.19    9.65  214.31      10
  219.09      10  220.88      10  228.95    10.5  233.73   10.82  236.74      11
  243.05    11.5  249.47      12  259.77   12.66  265.29      13  271.27   13.47
  277.99      14  279.57   14.14   283.2   14.45  288.86   14.93  289.67      15
  299.44   15.82  301.66      16  305.87   16.29  309.51   16.57  312.33   16.77
  313.27   16.83  315.38      17  318.06    17.2  320.77   17.43  324.23   17.69
  325.59   17.79  328.09      18  330.84   18.22  331.96    18.3

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
************************************************
       0    .045  133.78    .055  144.97    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        133.78  144.97             24.53   26.27   28.81             .1       .3
Left Levee      Station=   44.41      Elevation=   12.34

CROSS SECTION
```

RIVER: Actual_1
REACH: Actual_1 RS: 802.7340

INPUT
Description:
Station Elevation Data num= 106

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	15.28	1.42	15	5.94	14.12	6.56	14	7.11	13.92
12.32	13.17	13.32	13	18.5	12.03	18.65	12	18.94	11.94
19.35	11.85	23.48	11	29.07	10.28	31.32	10	32.87	10
33.58	10	34.88	10	37.65	10	39.84	10	41.51	10
43.37	10	45.24	9.9	49.83	9.86	51.67	9.89	53.64	10
54.21	10	55.24	10.3	55.67	10.34	57.65	10.98	57.69	10.99
57.72	11	61.41	11	65.64	11	65.7	11	65.77	11
65.82	11	72.57	10.48	73.49	10.46	74.27	10.42	81.45	10.16
84.3	10	84.76	9.94	86.69	9.76	88.36	9.68	88.8	9.67
90.15	9.63	90.87	9.67	91.98	9.59	93.41	9.63	96.01	9.64
97.7	9.54	100.93	9.37	102.42	9.32	103.92	9.29	105.85	9.29
112.79	9.31	115	9.32	116.78	9.33	124.69	9.35	130.08	9.17
133.71	9	133.9	9	134.63	9	136.09	8.17	136.38	8
136.67	7.89	137.7	7.53	138.58	7.75	139.66	8	140.43	8.07
142.35	8.24	145.04	8.26	145.31	8.27	162.46	9	163.07	9
164.9	9.01	170.58	9.04	170.59	9.04	170.6	9.04	170.61	9.04
172.29	9.05	172.3	9.05	208.37	9.59	208.38	9.59	231.04	10
232.44	10	236.76	10.17	242.15	10.37	243.34	10.39	246.21	10.46
248.19	10.51	250.6	10.57	252.34	10.63	264.55	11	264.59	11
264.65	11	269.36	11.61	272.27	12	278.47	12.29	293.44	13
301.36	13.53	305.12	13.77	308.74	14	314.11	14.53	319.2	15
323.12	15.62								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	133.9	.055	140.43	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
133.9	140.43	21.47	24.53	25.16	.1	.3

Left Levee Station= 61.37 Elevation= 11

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 778.2098

INPUT
Description:
Station Elevation Data num= 100

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	14.51	1.69	14.21	2.8	14	4.54	13.7	7.92	13
13.24	12.07	13.61	12	15.08	11.75	19.43	11	23.89	10.6
30.23	10	32.63	9.86	33.14	9.83	37.68	9.53	45.95	9
47.15	9	49.35	9	50	9	51.47	9	52.58	9
53.84	9	57.34	9	58.57	9	59.38	9	71.26	8.89
71.27	8.89	75.33	8.88	75.34	8.88	86.08	8.86	86.09	8.86
87.81	8.86	98.54	8.54	99.66	8.5	103.33	8.49	106.3	8.35
108.55	8.24	110.69	8.25	111.04	8.24	112.97	8.09	113.92	8.01
114.07	8	114.18	7.97	116.19	7.39	116.98	7.71	117.87	8
118.65	8.02	123.73	8.16	124.51	8.18	132.19	8.39	142.13	8.64
148.7	8.78	153.67	8.9	158.96	9	159.65	9	159.68	9
159.94	9	160.23	9	162.09	9	162.26	9	186.4	9.28
188.16	9.3	188.19	9.3	190.7	9.33	210.41	9.66	210.42	9.66
210.43	9.66	211.33	9.69	211.35	9.69	211.37	9.69	214.06	9.78
214.08	9.78	219.16	9.95	219.17	9.95	220.48	10	226.41	10.05
226.44	10.05	226.45	10.05	229.06	10.08	229.08	10.08	237.49	10.3

237.52	10.3	237.54	10.3	237.57	10.3	248.83	10.83	248.85	10.83
248.86	10.83	248.88	10.83	252.29	11	264.55	11.94	265.31	12
267.21	12.09	286.87	13	302.6	13.99	302.8	14	304.22	14.61
304.76	15	306.75	15.11	306.76	15.11	306.77	15.11	309.07	15.22

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	112.97	.055	118.65	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
112.97	118.65	25.18	23.25	19.75	.1	.3

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 754.9577

INPUT
Description:
Station Elevation Data num= 84

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	14.66	3.07	14.1	3.6	14	3.79	13.94	6.81	13
6.99	12.96	11.13	12	12.05	11.77	15.21	11	16.45	10.87
25.96	10	40.58	9.16	43.28	9	50.89	8.91	50.92	8.91
50.94	8.91	66.38	8.71	66.42	8.71	79.88	8.58	79.91	8.58
80.86	8.58	80.88	8.58	80.91	8.58	83.37	8.57	83.39	8.57
83.42	8.57	83.8	8.57	92.73	8.3	92.75	8.3	92.77	8.3
92.79	8.3	100.69	8.15	100.71	8.15	100.73	8.15	105.56	8.05
105.61	8.05	107.85	8	108.43	7.72	109.52	7.25	110.74	7.84
110.96	7.95	111.05	8	111.58	8.01	111.77	8.02	112.84	8.04
119.68	8.18	155.67	8.9	160.83	9	167.96	9.08	174.65	9.15
181.71	9.22	181.74	9.22	183.84	9.24	183.87	9.24	190.04	9.3
190.06	9.3	190.08	9.3	190.11	9.3	191.1	9.31	191.13	9.31
191.15	9.31	206.95	9.77	206.96	9.77	206.97	9.77	210.8	9.92
210.81	9.92	210.82	9.92	212.89	10	219.25	10.31	222.3	10.37
235.04	10.72	237.04	10.78	242.38	10.92	242.39	10.92	244.18	11
250.44	11.43	258.97	12	276.76	12.97	277.33	13	285.01	13.41
296.49	14	297.68	14.91	297.81	15	300.38	15.14		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	105.61	.055	111.77	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
105.61	111.77	22.18	22.19	22.15	.1	.3

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 732.7650

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	13.58	2.32	13.21	3.58	13	7.09	12.41	9.61	12
10.48	11.55	11.52	11	13.37	10.4	14.43	10	16.21	9.91
20.23	9.72	25.43	9.47	28.46	9.32	31.17	9.2	34.8	9
40.61	8.93	40.62	8.93	47.78	8.83	71.96	8.47	89.78	8.29
89.79	8.29	91.55	8.26	92.57	8.24	92.58	8.24	98.18	8.12
98.19	8.12	98.2	8.12	102.87	8.03	104.24	8	105.28	7.44

```
  105.94    7.11  107.15    7.67  107.76       8  108.79    8.01  119.32    8.16
  119.33    8.16  119.35    8.16  146.29    8.67  146.31    8.67  147.65    8.69
  147.66    8.69  148.89     8.7   148.9     8.7  148.92     8.7  150.87    8.73
  150.88    8.73  152.56    8.75  152.58    8.75   152.6    8.75  173.97       9
  174.31       9  174.49       9  183.15    9.23  193.81     9.5  202.52    9.72
  204.49    9.77  211.01      10  212.33      10   217.2   10.47     224      11
  226.63   11.15  227.76   11.21  229.71   11.32   238.1   11.82  239.12   11.87
  241.44      12  248.77   12.52  252.02   12.71  256.71      13  257.42   13.07
  262.06   13.56   265.7   13.95  266.21      14  270.36   14.35  278.17      15
  287.35   15.38

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045  102.87    .055  108.79    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        102.87  108.79             33.25    32.9   32.46              .1       .3

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 699.8298

INPUT
Description:
Station Elevation Data    num=      79
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   13.58     .05   13.57    2.86      13    6.45   12.52   10.68      12
   13.86   11.71   23.04      11   23.14   10.94   24.71      10   25.35    9.95
   37.19       9   39.85    8.93   47.61    8.73   47.63    8.72   47.64    8.72
   47.65    8.72    50.9    8.65   50.92    8.65   52.34    8.62   52.36    8.62
   52.37    8.62   54.02    8.58   64.85    8.43   88.65     8.2   88.68     8.2
   97.16    8.14  112.05    8.07  114.85    8.02  114.86    8.02  116.18       8
  116.49    7.74  116.54    7.71  117.42       7  117.76    6.98  118.73    6.92
     119    6.94  119.92       7  120.23    7.26  121.07       8  121.66    8.01
  124.35    8.05  124.36    8.05  131.66    8.15  144.81    8.41  144.83    8.41
  144.84    8.41  144.86    8.41  144.87    8.41  144.88    8.41  144.89    8.41
  175.81     8.8  178.62    8.85  178.63    8.85  178.64    8.85  181.51    8.89
  182.94    8.92  182.95    8.92  182.96    8.92  188.81       9  189.25       9
  189.55       9  189.81       9  211.46    9.99  211.56      10  211.68      10
  226.21    10.6   234.5      11  242.11   11.81  243.94      12  247.48   12.29
  255.73      13  260.72   13.47  266.13      14  272.37   14.41  281.39      15
  281.73      15  282.29      15  283.75      15  290.08   15.24

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045  116.49    .055  121.66    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        116.49  121.66             28.94   28.86    28.7              .1       .3

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 670.8853

INPUT
Description:
Station Elevation Data    num=     102
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   13.73    1.65   13.43    3.88      13   10.66   12.41   14.94      12
```

20.02	11.49	25.15	11	28.53	10.32	29.29	10.18	30.34	10
33.36	9.76	37.87	9.43	43.5	9	46.35	8.91	46.36	8.91
47.35	8.9	68.73	8.56	68.75	8.56	68.76	8.56	68.78	8.56
101.83	8.4	101.86	8.4	101.87	8.4	101.9	8.4	101.94	8.4
107.75	8.37	107.77	8.37	113.71	8.24	113.73	8.24	115.73	8.21
115.75	8.21	115.77	8.21	120.04	8.15	120.06	8.15	120.09	8.15
127.62	8.04	127.63	8.04	129.89	8	130.13	8	131.06	7.24
131.38	7	131.95	6.85	132.3	6.76	132.41	6.79	133.34	7
134.12	7.51	134.95	8	135.13	8.01	145.64	8.36	145.76	8.37
145.88	8.37	146	8.38	146.12	8.38	146.23	8.38	146.81	8.4
146.85	8.4	146.9	8.4	146.94	8.4	147.01	8.41	147.04	8.41
147.07	8.41	147.09	8.41	147.13	8.41	147.15	8.41	147.29	8.41
147.32	8.41	147.35	8.41	147.38	8.41	147.84	8.42	147.92	8.42
148.25	8.42	148.37	8.42	149.1	8.43	149.3	8.43	199.81	8.91
201.44	8.93	201.45	8.93	203.75	8.96	203.78	8.96	203.79	8.96
208.08	9	211.19	9.11	231.64	10	234.97	10.17	251.12	11
251.29	11.02	251.72	11.07	258.13	11.84	259.58	12	270.38	12.84
272.47	13	278.21	13.6	282.33	14	287.02	14.31	289.93	14.51
292.86	14.7	294.17	14.78	297.28	15	297.48	15	297.73	15
298.65	15	304.76	15.23						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	129.89	.055	135.13	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
129.89	135.13	26.74	27.16	27.71	.1	.3

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 643.7293

INPUT
Description:
Station Elevation Data num= 94

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	13.7	3.11	13.23	4.75	13	6.01	12.81	11.58	12
30.51	11.02	30.79	11.01	30.96	11	30.97	10.99	31.95	10
38.11	9.68	40.58	9.58	42.44	9.5	52.91	9	53.18	9
62.25	8.96	65.8	8.95	65.81	8.95	78.47	8.75	78.48	8.75
78.5	8.75	78.52	8.75	92.17	8.69	92.18	8.69	92.2	8.69
92.21	8.69	92.24	8.69	92.25	8.69	118.47	8.55	118.48	8.55
118.49	8.55	138.04	8.14	142.52	8.02	143.24	8	143.57	7.72
144.37	7	144.5	6.9	144.89	6.61	145.13	6.68	145.69	6.86
146.09	7	147.59	7.5	149.02	8	149.22	8	160.76	8.15
166.18	8.22	166.21	8.22	170.37	8.27	170.41	8.27	173.83	8.31
173.86	8.31	186.55	8.53	186.56	8.53	186.59	8.53	186.6	8.53
186.62	8.53	186.63	8.53	186.66	8.53	186.69	8.53	186.7	8.53
186.72	8.53	186.73	8.53	201.17	8.69	201.85	8.69	201.87	8.69
201.9	8.69	202.91	8.71	202.93	8.71	202.96	8.71	205.87	8.74
205.9	8.74	207.69	8.76	210.78	8.79	210.81	8.79	210.85	8.79
227.88	8.98	229.64	9	233.33	9.17	250.89	10	256.15	10.28
267.54	10.9	269.38	11	277.58	11.92	278.37	12	282.99	12.37
290.56	13	293.67	13.3	298.64	13.73	301.11	13.95	301.77	14
310.47	14.57	312.49	14.72	316.58	15	322.43	15.19		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	142.52	.055	149.22	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
142.52	149.22	16.69	16.62	16.48	.1	.3

```
Ineffective Flow     num=       1
   Sta L   Sta R    Elev  Permanent
   99.94  142.198.649846       F
Left Levee      Station=  141.73      Elevation=8.039824
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
************************
   38.29  141.799.671134

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 627.1081

INPUT
Description:
Station Elevation Data    num=     118
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   14.51    3.54   14.07    4.08      14     4.4   13.96   11.62      13
   19.11   12.36    23.6      12   23.92      12   24.22      12   29.02   11.58
   32.47   11.33    38.3      11   39.19   10.34   39.89      10   40.27      10
   41.13      10   59.27    9.36   62.77    9.25   64.69    9.18    69.2       9
   88.63    8.92    88.7    8.92   88.76    8.92   88.81    8.92   89.89    8.91
   89.94    8.91   90.61    8.91   90.65    8.91   90.91    8.91   90.94    8.91
   90.97    8.91   91.79    8.91   92.11     8.9   92.14     8.9   93.28    8.89
    93.3    8.89   93.33    8.89   94.56    8.88   94.59    8.88    94.6    8.88
   94.63    8.88  134.03    8.66  134.05    8.66  142.03    8.49  142.04    8.49
  144.43    8.43  146.38    8.37   146.4    8.37  146.41    8.37  146.43    8.37
  152.57     8.2  152.59     8.2  154.26    8.15  158.99    8.01  159.47       8
  160.67    7.19  160.96       7  161.08    6.96  162.31    6.52  162.84    6.85
  163.09       7  163.94    7.49   164.8       8   165.1    8.01  166.09    8.03
   166.1    8.03  169.73    8.12  169.74    8.12   172.7    8.16  205.23    8.54
  205.25    8.54  205.29    8.54   205.3    8.54  205.35    8.54  205.36    8.54
   205.4    8.54  205.42    8.54  205.46    8.54  205.47    8.54  212.46    8.56
  212.48    8.56  212.51    8.56  212.53    8.56  212.54    8.56  212.56    8.56
  212.57    8.56  212.59    8.56  212.62    8.56  217.69    8.64  217.73    8.64
  217.76    8.64  217.79    8.64  217.83    8.64  217.86    8.64   251.7       9
  251.77       9  252.78       9  259.28     9.3  273.92      10  277.87   10.22
  282.22   10.46  291.79      11  300.34   11.83  302.04      12   302.8   12.06
  313.14      13  313.39   13.02  314.47    13.1  321.29   13.63  322.97   13.75
  323.72    13.8  326.26      14  331.95   14.41  334.06   14.54  335.85   14.66
  336.92   14.72  337.73   14.76  339.64   14.87

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
************************************************
       0    .045  158.99    .055   165.1    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        158.99   165.1            31.76   31.86   31.91             .1       .3
Left Levee      Station=  159.57      Elevation=7.934039
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
************************
   36.59  159.6411.09645

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 595.2490

INPUT
Description:
Station Elevation Data    num=     170
```

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	13.32	3.96	13	5.51	12.32	6.21	12	7.92	11.47
9.37	11	16.33	10.56	25.43	10	29.73	9.72	32.01	9.59
36.96	9.27	40.21	9.16	41.26	9.1	41.54	9.09	43.96	9
45.4	9	48.58	9	49.41	9	49.76	9	50.02	9
50.64	8.98	50.88	8.97	55.43	8.9	56.26	8.87	58.91	8.76
60.32	8.71	65.58	8.48	68.75	8.33	72.78	8.2	75.63	8.07
78.68	8.03	79.42	8.02	81.28	8.02	86.46	8.01	88.85	8.01
94.03	8.01	96.27	8.01	99.11	8.01	100.82	8	101.72	8
101.92	8	104.13	8	105.02	8	105.16	8	105.26	8
107.58	8.06	107.59	8.06	110.72	8.18	110.73	8.18	132.53	8
138.97	8	140.05	8	141.11	8	141.86	8	142.48	8
146.35	8	148.12	8	148.86	7.39	149.34	7	150.04	6.43
150.15	6.34	150.48	6.49	151.64	7	152.45	7.61	152.99	8
153.41	8.01	154.37	8.04	166	8.13	167.87	8.16	167.88	8.16
169.25	8.16	169.26	8.16	169.27	8.16	169.28	8.16	170.31	8.17
170.32	8.17	170.33	8.17	193.71	8.47	193.72	8.47	193.76	8.47
193.77	8.47	193.8	8.47	193.82	8.47	193.85	8.47	193.86	8.47
193.89	8.47	193.91	8.47	193.94	8.47	193.95	8.47	193.97	8.47
203.5	8.5	203.53	8.5	203.55	8.5	203.56	8.5	203.58	8.5
203.59	8.5	203.61	8.5	203.62	8.5	203.64	8.5	230.11	8.89
230.13	8.89	230.16	8.89	230.19	8.89	237.98	9	238.18	9
240	9	241.98	9	244.96	9	246.78	9	248.25	9
249.39	9	250.66	9	251.71	9	252.28	9	265.77	9.71
271.52	10	272.01	10	272.52	10	279.81	10.44	279.84	10.44
279.88	10.44	279.91	10.44	279.94	10.44	280.46	10.47	280.49	10.47
280.52	10.47	280.55	10.47	280.58	10.47	280.96	10.49	280.98	10.49
281.01	10.49	281.03	10.49	281.23	10.5	281.25	10.5	281.27	10.5
281.28	10.5	293.21	10.93	293.25	10.93	293.3	10.93	293.35	10.93
295.37	11	295.7	11.02	295.93	11.04	299.7	11.27	301.92	11.38
303.5	11.41	304.81	11.45	305.6	11.5	306.69	11.58	307.76	11.6
313.62	12	315.55	12	316.38	12	318.54	12.47	320.39	12.61
321.82	12.64	325	12.69	325.4	12.73	328.29	13	331.91	13
332.45	13	332.84	13	336.64	13.67	338.1	13.69	346.72	13.78
347.07	13.79	348.92	14	349.42	14	349.9	14	355.13	14.58

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	146.35	.055	153.41	.045

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
146.35 153.41 10.82 10.23 10.02 .1 .3
Left Levee Station= 148.21 Elevation=7.931054
Blocked Obstructions num= 1

Sta L	Sta R	Elev
9.55	148.31	0.98852

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 585.0177

INPUT
Description:
Station Elevation Data num= 114

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	12.53	.73	12.22	1.25	12	4.98	11.11	5.45	11
6.45	10.91	7.1	10.85	17.46	10	31.1	9.07	32.11	9
32.65	9	36.89	9	53.47	8.49	59.76	8.24	60.88	8.22
66.08	8	69.29	8	82.7	7.9	86.83	7.9	102.6	7.98
105.08	8	105.28	8	111.57	8	115.54	8	119.41	8
122.13	8	124.39	8	129.74	8	134.86	8	141.01	8

142.29	8	142.35	8	142.62	8	143.12	8	144.55	8
145.05	7.44	145.49	7	146.45	6.39	146.62	6.29	146.8	6.39
147.85	7	148.33	7.41	149.08	8	149.93	8	155.95	8
156.44	8	163.4	8	163.7	8	163.83	8	166.66	8
167.66	8	168.3	8	184.53	8.08	186.09	8.06	186.1	8.06
188.37	8.06	188.38	8.06	190.75	8.07	190.76	8.07	192.76	8.09
192.77	8.09	194.55	8.12	194.56	8.12	195.94	8.14	195.95	8.14
224.54	8.33	224.58	8.33	224.59	8.33	224.64	8.33	224.65	8.33
224.69	8.33	224.7	8.33	224.74	8.33	230.16	8.36	230.18	8.36
230.32	8.37	230.35	8.37	230.37	8.37	230.4	8.37	230.42	8.37
230.62	8.37	231.09	8.37	231.11	8.37	231.14	8.37	231.44	8.37
232.55	8.37	232.58	8.37	232.61	8.37	233.21	8.38	233.24	8.38
234.94	8.39	234.99	8.39	270.45	8.83	270.46	8.83	272.14	8.84
274.05	8.85	274.06	8.85	274.07	8.85	276.47	8.87	276.48	8.87
277.63	8.87	277.64	8.87	282.19	8.91	282.2	8.91	282.21	8.91
282.22	8.91	282.23	8.91	282.24	8.91	292.85	9	300.95	9.2
303.03	9.24	303.8	9.25	306.26	9.3	311.89	9.41		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	142.29	.055	149.93	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
142.29	149.93	8.34	15.27	22.96	.1	.3

Left Levee Station= 143.97 Elevation= 8

Blocked Obstructions num= 1

Sta L	Sta R	Elev
17.87	144.99	9.806448

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 569.7507

INPUT
Description:
Station Elevation Data num= 146

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	13.24	1.27	13.13	2.63	13	3.14	12.71	4.48	12
6.31	11.61	8.04	11.24	9.09	11	12.16	10.71	19.47	10
28.28	9.44	30.45	9.31	35.44	9	41.37	8.77	52.18	8.42
63.19	8.09	65.47	8	70.11	7.93	85.01	7.82	88.11	7.82
100.04	7.88	100.05	7.88	104.65	7.92	104.66	7.92	107.21	7.94
107.22	7.94	107.23	7.94	110.69	7.96	113.97	7.98	117.2	8
117.34	8	117.38	8	128.48	8	130.37	8	137.63	8
139.07	8	141.77	8	143.92	8	144.27	8	144.78	8
145.78	8	147.2	8	148.03	8	148.56	8	149.53	8
150.18	8	150.76	8	151.1	7.84	152.47	7	152.71	6.91
153.95	6.2	154.64	6.52	155.46	7	156.04	7.01	161.29	7.12
161.31	7.12	161.33	7.13	165.4	7.22	167.18	7.24	167.19	7.24
167.21	7.24	169.62	7.28	169.64	7.28	169.65	7.28	169.67	7.28
175.21	7.81	176.19	7.8	176.21	7.8	184.02	7.79	184.04	7.79
184.05	7.79	184.07	7.79	184.09	7.79	184.1	7.79	184.12	7.79
185.57	7.79	197.67	7.84	202.86	7.9	202.88	7.9	202.9	7.9
211.59	7.99	212.6	8	212.64	8	219.28	8.05	224.6	8.08
226.58	8.09	228.71	8.1	228.72	8.1	232.62	8.11	232.63	8.11
234.36	8.12	235.97	8.12	237.34	8.12	240.23	8.12	240.24	8.12
240.25	8.12	240.26	8.12	245.96	8.12	245.97	8.12	245.98	8.12
249.09	8.12	249.1	8.12	249.11	8.12	257.09	8.12	273.29	8.36
277.13	8.42	277.14	8.42	277.16	8.42	279.42	8.42	279.44	8.42
279.45	8.42	279.47	8.42	279.49	8.42	280.49	8.43	280.51	8.43
280.53	8.43	280.54	8.43	287.88	8.82	287.9	8.82	287.92	8.82
288.9	8.83	288.92	8.83	288.94	8.83	289.39	8.83	290.46	8.83

290.48	8.83	290.5	8.83	293.29	8.84	293.31	8.84	306.85	9
310.33	9	316.66	9	317.65	9	319.07	9	320.48	9
321.78	9	327.55	9	329.41	9	330.31	9	332.7	9
334.33	9	334.34	9	334.37	9	334.49	9.01	334.54	9.01
343.63	9.4								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	148.03	.055	156.04	.045

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
148.03 156.04 10.97 17.69 12.74 .3 .5
Left Levee Station= 149.51 Elevation= 8
Blocked Obstructions num= 1

Sta L	Sta R	Elev
20.97	150.89	9.892473

CULVERT

RIVER: Actual_1
REACH: Actual_1 RS: 560

INPUT
Description: ODT 4.1
Distance from Upstream XS = 6.53
Deck/Roadway Width = 8.77
Weir Coefficient = 1.4
Upstream Deck/Roadway Coordinates
num= 2

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
152	7	6	156	7	6

Upstream Bridge Cross Section Data
Station Elevation Data num= 148

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	13.24	1.27	13.13	2.63	13	3.14	12.71	4.48	12
6.31	11.61	8.04	11.24	9.09	11	12.16	10.71	19.47	10
28.28	9.44	30.45	9.31	35.44	9	41.37	8.77	52.18	8.42
63.19	8.09	65.47	8	70.11	7.93	85.01	7.82	88.11	7.82
100.04	7.88	100.05	7.88	104.65	7.92	104.66	7.92	107.21	7.94
107.22	7.94	107.23	7.94	110.69	7.96	113.97	7.98	117.2	8
117.34	8	117.38	8	128.48	8	130.37	8	137.63	8
139.07	8	141.77	8	143.92	8	144.27	8	144.78	8
145.78	8	147.2	8	148.03	8	148.56	8	149.53	8
150.18	8	150.76	8	151.1	7.84	152.47	7	152.71	6.91
153.35	6.2	153.95	6.2	154.55	6.2	154.64	6.52	155.46	7
156.04	7.01	161.29	7.12	161.31	7.12	161.33	7.13	165.4	7.22
167.18	7.24	167.19	7.24	167.21	7.24	169.62	7.28	169.64	7.28
169.65	7.28	169.67	7.28	175.21	7.81	176.19	7.8	176.21	7.8
184.02	7.79	184.04	7.79	184.05	7.79	184.07	7.79	184.09	7.79
184.1	7.79	184.12	7.79	185.57	7.79	197.67	7.84	202.86	7.9
202.88	7.9	202.9	7.9	211.59	7.99	212.6	8	212.64	8
219.28	8.05	224.6	8.08	226.58	8.09	228.71	8.1	228.72	8.1
232.62	8.11	232.63	8.11	234.36	8.12	235.97	8.12	237.34	8.12
240.23	8.12	240.24	8.12	240.25	8.12	240.26	8.12	245.96	8.12
245.97	8.12	245.98	8.12	249.09	8.12	249.1	8.12	249.11	8.12
257.09	8.12	273.29	8.36	277.13	8.42	277.14	8.42	277.16	8.42
279.42	8.42	279.44	8.42	279.45	8.42	279.47	8.42	279.49	8.42
280.49	8.43	280.51	8.43	280.53	8.43	280.54	8.43	287.88	8.82
287.9	8.82	287.92	8.82	288.9	8.83	288.92	8.83	288.94	8.83
289.39	8.83	290.46	8.83	290.48	8.83	290.5	8.83	293.29	8.84
293.31	8.84	306.85	9	310.33	9	316.66	9	317.65	9

319.07	9	320.48	9	321.78	9	327.55	9	329.41	9
330.31	9	332.7	9	334.33	9	334.34	9	334.37	9
334.49	9.01	334.54	9.01	343.63	9.4				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.03	148.03	.03	156.04	.03

Bank Sta: Left Right Coeff Contr. Expan.
148.03 156.04 .3 .5
Left Levee Station= 149.51 Elevation= 8
Blocked Obstructions num= 1

Sta L	Sta R	Elev
20.97	150.89	9.892473

Downstream Deck/Roadway Coordinates
num= 2

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
136	7	6	142	7	6

Downstream Bridge Cross Section Data
Station Elevation Data num= 134

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	13.14	1.49	13	2.33	12.54	3.25	12	4.65	11.72
8.08	11	13.14	10.52	18.05	10	28.51	9.41	30.3	9.3
35.16	9	49.35	8.45	60.09	8	63.7	7.94	63.71	7.94
63.72	7.94	70.7	7.83	70.71	7.83	70.72	7.83	74.55	7.77
74.57	7.77	82.87	7.72	84.62	7.72	91.43	7.75	91.45	7.75
94.11	7.77	94.13	7.77	95.62	7.79	95.64	7.79	95.66	7.79
97.68	7.8	97.7	7.8	99.63	7.81	99.65	7.81	101.64	7.82
117.8	7.93	122.01	7.57	122.86	7.52	125.97	7.62	126.95	7.57
129.78	7.67	131.49	7.6	133.64	7.4	134.79	7.33	135.25	7.3
138.32	7	138.95	6.1	139.55	6.1	140.15	6.1	140.74	6.71
141.35	7	141.82	7	143.58	7	147.83	7	150	7.04
161.28	7.25	161.33	7.26	172.22	7.44	175.4	7.49	175.44	7.49
175.49	7.49	177.71	7.52	177.75	7.52	177.79	7.52	178.47	7.53
178.5	7.53	178.53	7.53	180.09	7.56	180.45	7.57	180.48	7.57
180.51	7.57	186.58	7.65	186.59	7.65	186.61	7.65	186.62	7.65
186.64	7.65	186.65	7.65	186.68	7.65	186.71	7.65	186.74	7.65
215.25	7.88	215.26	7.88	216.85	7.89	216.86	7.89	218.85	7.89
223.13	7.9	223.14	7.9	240.42	8	240.66	8	240.97	8
241.26	8	242.35	8	242.65	8	244.3	8	246.62	8
247.83	8	251.4	8.08	259.07	8.18	259.08	8.18	259.1	8.18
259.12	8.18	259.14	8.18	263.62	8.24	263.64	8.24	263.65	8.24
263.67	8.24	263.69	8.24	263.7	8.24	263.72	8.24	267.05	8.28
267.07	8.28	267.09	8.28	267.11	8.28	283.78	8.83	287.31	9
287.64	9	295.97	9.34	300.07	9.48	310.96	9.86	314.07	9.98
314.16	9.98	314.79	10	321.56	10.44	323.21	10.54	325.08	10.63
326.17	10.69	327.01	10.72	329.58	10.85	330.39	10.87	333.07	11
333.17	11	333.21	11.01	342.8	11.44	342.89	11.44		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.03	134.79	.03	141.82	.03

Bank Sta: Left Right Coeff Contr. Expan.
134.79 141.82 .3 .5
Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
148.94	153.65	7.10738	F

Left Levee Station= 117.8 Elevation= 7.94
Blocked Obstructions num= 1

```
   Sta L   Sta R    Elev
************************
   20.52  135.849.857935

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .98
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Culverts =  1

Culvert Name     Shape      Rise    Span
Culvert #1      Circular      .8
FHWA Chart # 1 - Concrete Pipe Culvert
FHWA Scale # 1 - Square edge entrance with headwall
Solution Criteria = Highest U.S. EG
Culvert Upstrm Dist  Length    Top n  Bottom n  Depth Blocked  Entrance Loss Coef   Exit Loss Coef
               7.53    7.77      .02      .02        0                  .5                1
Upstream   Elevation =  6.2
           Centerline Station =  153.93
Downstream Elevation =  6.1
           Centerline Station =  139.5

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 552.0597

INPUT
Description:
Station Elevation Data    num=     133
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   13.14    1.49      13    2.33   12.54    3.25      12    4.65   11.72
    8.08      11   13.14   10.52   18.05      10   28.51    9.41    30.3     9.3
   35.16       9   49.35    8.45   60.09       8    63.7    7.94   63.71    7.94
   63.72    7.94    70.7    7.83   70.71    7.83   70.72    7.83   74.55    7.77
   74.57    7.77   82.87    7.72   84.62    7.72   91.43    7.75   91.45    7.75
   94.11    7.77   94.13    7.77   95.62    7.79   95.64    7.79   95.66    7.79
   97.68     7.8    97.7     7.8   99.63    7.81   99.65    7.81  101.64    7.82
   117.8    7.93  122.01    7.57  122.86    7.52  125.97    7.62  126.95    7.57
  129.78    7.67  131.49     7.6  133.64     7.4  134.79    7.33  135.25     7.3
  138.32       7  139.16    6.35  139.55     6.1  140.74    6.71  141.35       7
  141.82       7  143.58       7  147.83       7     150    7.04  161.28    7.25
  161.33    7.26  172.22    7.44   175.4    7.49  175.44    7.49  175.49    7.49
  177.71    7.52  177.75    7.52  177.79    7.52  178.47    7.53   178.5    7.53
  178.53    7.53  180.09    7.56  180.45    7.57  180.48    7.57  180.51    7.57
  186.58    7.65  186.59    7.65  186.61    7.65  186.62    7.65  186.64    7.65
  186.65    7.65  186.68    7.65  186.71    7.65  186.74    7.65  215.25    7.88
  215.26    7.88  216.85    7.89  216.86    7.89  218.85    7.89  223.13     7.9
  223.14     7.9  240.42       8  240.66       8  240.97       8  241.26       8
  242.35       8  242.65       8   244.3       8  246.62       8  247.83       8
   251.4    8.08  259.07    8.18  259.08    8.18   259.1    8.18  259.12    8.18
  259.14    8.18  263.62    8.24  263.64    8.24  263.65    8.24  263.67    8.24
  263.69    8.24   263.7    8.24  263.72    8.24  267.05    8.28  267.07    8.28
  267.09    8.28  267.11    8.28  283.78    8.83  287.31       9  287.64       9
  295.97    9.34  300.07    9.48  310.96    9.86  314.07    9.98  314.16    9.98
  314.79      10  321.56   10.44  323.21   10.54  325.08   10.63  326.17   10.69
  327.01   10.72  329.58   10.85  330.39   10.87  333.07      11  333.17      11
  333.21   11.01   342.8   11.44  342.89   11.44

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
```

```
************************************************
       0    .045  134.79    .055  141.82    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        134.79  141.82             16.76     7.2    6.75             .3       .5
Ineffective Flow     num=       1
   Sta L   Sta R    Elev  Permanent
  148.94  153.65 7.10738       F
Left Levee      Station=   117.8      Elevation=    7.94
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
************************
   20.52  135.849.857935

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 544.8601

INPUT
Description:
Station Elevation Data    num=     120
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   13.32     .21    13.3    3.69      13    3.92   12.85    5.15   12.13
    5.38      12   10.49   11.01   10.53      11    17.6   10.21   19.62      10
   22.18    9.85   30.89    9.39   38.09       9   53.93    8.25   56.61    8.13
    59.2       8   83.78    7.59   83.85    7.59   83.91    7.58   83.97    7.58
   84.04    7.58   84.08    7.58   84.12    7.58   84.28    7.58   84.31    7.58
   84.33    7.58   84.36    7.58   84.39    7.58   84.42    7.58   84.44    7.58
   84.93    7.58   84.94    7.58   85.04    7.58   85.16    7.58   85.27    7.58
   85.28    7.58   85.39    7.58    85.5    7.58   85.61    7.58  123.27    7.81
  123.37    7.81  131.36    7.15  132.77    7.04  132.78    7.04  133.28       7
  133.84    6.74  135.55    6.06  135.82    6.41  136.69    6.91   136.8    6.96
  136.93       7  137.37       7  137.75       7  137.91       7  139.22       7
  143.53       7  145.14       7  149.81    7.09  149.82    7.09  158.48     7.2
   162.7    7.25  162.72    7.25  162.73    7.25  166.57    7.29  166.58    7.29
   166.6    7.29  167.97    7.31  167.99    7.31     168    7.31  171.58    7.36
  172.52    7.38  172.54    7.38  172.55    7.38  198.74    7.61  198.76    7.61
  198.78    7.61  198.81    7.61  198.83    7.61  198.85    7.61  198.87    7.61
   198.9    7.61  198.92    7.61  198.94    7.61  198.96    7.61  212.74    7.69
  212.76    7.68  213.32    7.69  213.34    7.69     214    7.69  214.02    7.69
  215.38    7.68   215.4    7.68  220.66     7.7  220.68     7.7  221.64    7.71
  221.66    7.71  225.89    7.73  225.92    7.73  227.34    7.74  227.37    7.74
  229.55    7.76  233.07    7.79   233.1    7.79  235.33     7.8  235.35     7.8
  247.36     7.9  247.38    7.91     258       8   258.4       8  258.44       8
  265.03    8.33  276.47       9  290.85    9.82  294.05      10  298.63   10.42
  304.61      11  311.76   11.87  313.06      12  313.73   12.09  317.61   12.55

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
************************************************
       0    .045  131.36    .055  137.91    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        131.36  137.91               16   14.94    6.34             .3       .5
Ineffective Flow     num=       1
   Sta L   Sta R    Elev  Permanent
  145.35   150.67.102149       F
Left Levee      Station=  123.35      Elevation=    7.84
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
************************
   20.54  129.01 9.86157

CULVERT
```

RIVER: Actual_1
REACH: Actual_1 RS: 540

INPUT
Description: ODT 4.2
Distance from Upstream XS = 1.83
Deck/Roadway Width = 8
Weir Coefficient = 1.4
Upstream Deck/Roadway Coordinates
num= 2

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
130	7	6	140	7	6

Upstream Bridge Cross Section Data
Station Elevation Data num= 121

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	13.32	.21	13.3	3.69	13	3.92	12.85	5.15	12.13
5.38	12	10.49	11.01	10.53	11	17.6	10.21	19.62	10
22.18	9.85	30.89	9.39	38.09	9	53.93	8.25	56.61	8.13
59.2	8	83.78	7.59	83.85	7.59	83.91	7.58	83.97	7.58
84.04	7.58	84.08	7.58	84.12	7.58	84.28	7.58	84.31	7.58
84.33	7.58	84.36	7.58	84.39	7.58	84.42	7.58	84.44	7.58
84.93	7.58	84.94	7.58	85.04	7.58	85.16	7.58	85.27	7.58
85.28	7.58	85.39	7.58	85.5	7.58	85.61	7.58	123.27	7.81
123.37	7.81	131.36	7.15	132.77	7.04	132.78	7.04	133.28	7
133.78	6.06	135.55	6.06	135.82	6.06	135.93	6.06	136.43	6.06
136.8	6.96	136.93	7	137.37	7	137.75	7	137.91	7
139.22	7	143.53	7	145.14	7	149.81	7.09	149.82	7.09
158.48	7.2	162.7	7.25	162.72	7.25	162.73	7.25	166.57	7.29
166.58	7.29	166.6	7.29	167.97	7.31	167.99	7.31	168	7.31
171.58	7.36	172.52	7.38	172.54	7.38	172.55	7.38	198.74	7.61
198.76	7.61	198.78	7.61	198.81	7.61	198.83	7.61	198.85	7.61
198.87	7.61	198.9	7.61	198.92	7.61	198.94	7.61	198.96	7.61
212.74	7.69	212.76	7.68	213.32	7.69	213.34	7.69	214	7.69
214.02	7.69	215.38	7.68	215.4	7.68	220.66	7.7	220.68	7.7
221.64	7.71	221.66	7.71	225.89	7.73	225.92	7.73	227.34	7.74
227.37	7.74	229.55	7.76	233.07	7.79	233.1	7.79	235.33	7.8
235.35	7.8	247.36	7.9	247.38	7.91	258	8	258.4	8
258.44	8	265.03	8.33	276.47	9	290.85	9.82	294.05	10
298.63	10.42	304.61	11	311.76	11.87	313.06	12	313.73	12.09
317.61	12.55								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.03	131.36	.03	137.91	.03

Bank Sta: Left Right Coeff Contr. Expan.
131.36 137.91 .3 .5
Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
145.35	150.67	102149	F

Left Levee Station= 123.35 Elevation= 7.84
Blocked Obstructions num= 1

Sta L	Sta R	Elev
20.54	129.01	9.86157

Downstream Deck/Roadway Coordinates
num= 2

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
120	7	6	135	7	6

Downstream Bridge Cross Section Data
Station Elevation Data num= 124

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	10.24	2.34	10.04	2.74	10	3.02	9.98	3.2	9.97
3.82	9.94	13.89	9.41	22.01	9	24.03	8.89	39.43	8
45.47	7.95	71.83	7.61	71.85	7.61	71.86	7.61	71.88	7.61
71.89	7.61	71.9	7.61	71.92	7.61	71.93	7.61	71.94	7.61
71.96	7.61	71.97	7.61	71.99	7.61	103.38	7.73	103.41	7.73
103.42	7.73	103.45	7.73	103.46	7.73	103.49	7.73	103.5	7.73
103.53	7.73	103.54	7.73	103.57	7.73	103.58	7.73	103.61	7.73
103.62	7.73	103.65	7.73	112.82	7.59	112.84	7.59	114.2	7.54
114.91	7.51	114.92	7.51	115.55	7.49	116.27	7.45	116.29	7.46
116.3	7.46	120.02	7.26	120.03	7.26	123.04	7	123.88	7
124.64	7	125.55	6.26	125.89	6	126.39	5.99	126.48	5.99
126.82	6	127.24	6	127.31	6	128.54	6	129.83	7
129.84	7	132.38	7.05	133.34	7.06	138.79	7.12	138.8	7.12
143.82	7.17	143.83	7.17	145.65	7.19	145.66	7.19	145.67	7.19
150.42	7.26	151.69	7.28	151.7	7.28	151.71	7.28	188.33	7.6
188.37	7.6	188.38	7.6	188.41	7.6	188.42	7.6	188.46	7.6
188.47	7.6	188.51	7.6	188.52	7.6	188.55	7.6	188.56	7.6
194.83	7.63	194.86	7.63	195.1	7.63	195.13	7.63	195.42	7.63
195.44	7.63	196.03	7.63	196.06	7.63	198.32	7.63	198.35	7.63
198.76	7.63	198.78	7.63	200.57	7.65	200.6	7.65	201.19	7.65
201.22	7.65	202.12	7.66	203.57	7.67	203.61	7.67	204.51	7.67
204.55	7.67	209.3	7.71	209.35	7.71	222.13	7.83	222.19	7.83
222.24	7.83	241.04	8	255.57	8.89	257.1	9	263.81	9.37
275.11	10	280.44	10.56	284.7	11	292.23	11.64	295.46	11.92
296.28	12	297.14	12.11	298.5	12.31	298.66	12.33		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.03	123.88	.03	129.83	.03

Bank Sta: Left Right Coeff Contr. Expan.
123.88 129.83 .3 .5
Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
108.16	124.08	7.661986	F
129.6	131.69	7.033556	F

Left Levee Station= 103.08 Elevation= 7.73

Upstream Embankment side slope = 0 horiz. to 1.0 vertical
Downstream Embankment side slope = 0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow = .98
Elevation at which weir flow begins =
Energy head used in spillway design =
Spillway height used in design =
Weir crest shape = Broad Crested

Number of Culverts = 1

Culvert Name Shape Rise Span
Culvert #1 Circular .6
FHWA Chart # 1 - Concrete Pipe Culvert
FHWA Scale # 1 - Square edge entrance with headwall
Solution Criteria = Highest U.S. EG

Culvert Upstrm Dist	Length	Top n	Bottom n	Depth Blocked	Entrance Loss Coef	Exit Loss Coef
1.83	8	.015	.015	0	.5	1

Number of Barrels = 3
Upstream Elevation = 6.06
Centerline Stations

Sta.	Sta.	Sta.
134.08	135.08	136.08

Downstream Elevation = 6

Centerline Stations

Sta.	Sta.	Sta.
126.19	127.19	128.19

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 529.9171

INPUT
Description:
Station Elevation Data num= 124

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	10.24	2.34	10.04	2.74	10	3.02	9.98	3.2	9.97
3.82	9.94	13.89	9.41	22.01	9	24.03	8.89	39.43	8
45.47	7.95	71.83	7.61	71.85	7.61	71.86	7.61	71.88	7.61
71.89	7.61	71.9	7.61	71.92	7.61	71.93	7.61	71.94	7.61
71.96	7.61	71.97	7.61	71.99	7.61	103.38	7.73	103.41	7.73
103.42	7.73	103.45	7.73	103.46	7.73	103.49	7.73	103.5	7.73
103.53	7.73	103.54	7.73	103.57	7.73	103.58	7.73	103.61	7.73
103.62	7.73	103.65	7.73	112.82	7.59	112.84	7.59	114.2	7.54
114.91	7.51	114.92	7.51	115.55	7.49	116.27	7.45	116.29	7.46
116.3	7.46	120.02	7.26	120.03	7.26	123.04	7	123.88	7
124.64	7	125.55	6.26	125.89	6	126.39	5.99	126.48	5.99
126.82	6	127.24	6	127.31	6	128.99	6.67	129.83	7
129.84	7	132.38	7.05	133.34	7.06	138.79	7.12	138.8	7.12
143.82	7.17	143.83	7.17	145.65	7.19	145.66	7.19	145.67	7.19
150.42	7.26	151.69	7.28	151.7	7.28	151.71	7.28	188.33	7.6
188.37	7.6	188.38	7.6	188.41	7.6	188.42	7.6	188.46	7.6
188.47	7.6	188.51	7.6	188.52	7.6	188.55	7.6	188.56	7.6
194.83	7.63	194.86	7.63	195.1	7.63	195.13	7.63	195.42	7.63
195.44	7.63	196.03	7.63	196.06	7.63	198.32	7.63	198.35	7.63
198.76	7.63	198.78	7.63	200.57	7.65	200.6	7.65	201.19	7.65
201.22	7.65	202.12	7.66	203.57	7.67	203.61	7.67	204.51	7.67
204.55	7.67	209.3	7.71	209.35	7.71	222.13	7.83	222.19	7.83
222.24	7.83	241.04	8	255.57	8.89	257.1	9	263.81	9.37
275.11	10	280.44	10.56	284.7	11	292.23	11.64	295.46	11.92
296.28	12	297.14	12.11	298.5	12.31	298.66	12.33		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	123.88	.055	128.99	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
123.88	128.99	19.71	22.75	18.84	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
108.16	124.08	7.661986	F
129.6	131.69	7.033556	F

Left Levee Station= 103.08 Elevation= 7.73

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 507.1692

INPUT
Description:
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	10.15	1.82	10	2.27	9.97	3.29	9.91	14.18	9.23
18.11	9	34.9	8.15	37.58	8	43.24	7.95	43.26	7.95

50.82	7.89	55.4	7.85	62.12	7.8	62.16	7.8	62.2	7.8
62.23	7.8	68.25	7.75	76.58	7.65	76.59	7.65	76.61	7.65
76.64	7.65	76.66	7.65	76.67	7.65	76.69	7.65	76.7	7.65
76.72	7.65	86.73	7.68	86.75	7.68	86.76	7.68	86.79	7.68
86.8	7.68	86.83	7.68	86.84	7.68	86.87	7.68	86.89	7.68
86.92	7.68	86.93	7.68	86.95	7.68	86.96	7.68	86.99	7.68
87	7.68	124.33	7.14	128.94	7.09	130.53	7.02	131.06	7
132.19	6.35	132.76	6	133.53	5.96	133.79	5.95	134.23	5.98
134.42	6	135.66	6.53	136.58	6.93	136.74	7	138.9	7.03
143.04	7.07	143.05	7.07	143.06	7.07	155.11	7.2	159.07	7.25
167.22	7.33	167.24	7.33	167.27	7.33	170.85	7.36	170.87	7.36
177.25	7.42	177.28	7.42	178.03	7.42	178.06	7.42	178.08	7.42
178.75	7.43	178.77	7.43	181.35	7.45	181.37	7.45	181.39	7.45
191.16	7.54	191.18	7.54	191.19	7.54	191.21	7.54	191.22	7.54
191.25	7.54	221.59	7.89	221.62	7.89	234.18	8	238.63	8.31
244.36	8.75	247.84	9	255.76	9.42	264.35	9.9	266.17	10
270.45	10.43	272.27	10.57	273.87	10.71	277.56	11	279.04	11
281.07	11.17	284.07	11.44						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	130.53	.055	136.58	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
130.53	136.58	25.5	26.52	24.42	.1	.3

Left Levee Station= 86.96 Elevation= 7.66

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 480.6490

INPUT
Description:
Station Elevation Data num= 99

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	10.19	1.96	10	7.38	9.69	12.61	9.35	18.02	9
32.23	8.47	45.41	8	47.9	8	48.19	8	52.19	8
53.89	8	64.39	7.91	65.62	7.91	65.63	7.91	65.64	7.91
65.65	7.91	65.67	7.91	67.53	7.9	67.54	7.9	67.56	7.9
69.89	7.88	69.9	7.88	69.92	7.88	90.27	7.76	90.28	7.76
90.3	7.76	90.31	7.76	90.33	7.76	90.34	7.76	90.36	7.76
90.37	7.76	90.39	7.76	90.4	7.76	90.42	7.76	90.44	7.76
90.46	7.76	90.47	7.76	90.48	7.76	90.49	7.76	90.51	7.76
90.52	7.76	90.53	7.76	90.54	7.76	90.55	7.76	108.1	7.56
109.41	7.53	109.45	7.53	113.52	7.46	113.55	7.46	129.64	7.26
129.65	7.26	132.03	7.18	134.7	7.1	134.71	7.1	137.51	7.01
137.71	7	138.91	6.18	139.15	6	139.32	5.97	139.74	5.89
140.77	5.98	140.94	6	142.66	6.7	142.75	6.75	143.24	7
144.73	7	151.97	7.09	156.36	7.12	158.55	7.14	158.56	7.14
160.49	7.15	167.79	7.21	167.8	7.21	167.81	7.21	194.1	7.48
194.11	7.48	194.13	7.48	194.14	7.48	194.16	7.48	194.17	7.48
194.19	7.48	219.83	7.78	222.63	7.84	222.64	7.84	226.18	7.93
228.37	7.99	228.66	8	231.99	8.2	244.79	9	246.83	9.11
249.71	9.26	257.96	9.68	263.74	10	265.4	10.14	275.97	10.93
276.7	10.98	276.78	10.99	276.92	11	280.18	11.26		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	137.51	.055	142.75	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
137.51	142.75	27.87	29.26	31.15	.1	.3

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 451.3865

INPUT
Description:
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	10.16	1.7	10	14.21	9.35	20.65	9	35.47	8.63
35.52	8.63	35.58	8.63	37.71	8.57	45.1	8.35	45.12	8.35
45.14	8.35	46.12	8.33	46.14	8.33	46.16	8.33	46.18	8.33
46.36	8.33	46.38	8.33	46.41	8.33	46.43	8.33	56.59	8.04
56.6	8.04	56.61	8.04	57.67	8	57.91	7.99	84.73	7.65
84.74	7.65	96.8	7.57	96.83	7.57	109.09	7.52	110.92	7.49
110.94	7.49	123.73	7.47	124.61	7.44	124.62	7.44	124.64	7.44
124.65	7.44	129.62	7.27	129.63	7.27	129.64	7.27	129.65	7.27
131.59	7.2	134.8	7.08	134.81	7.08	134.82	7.08	136.47	7.02
136.98	7	137.37	6.69	138.16	6	138.41	5.95	139	5.83
139.23	5.87	139.77	6	141.77	6.1	144.68	6.25	147.8	6.37
160.37	6.85	163.11	6.96	163.31	6.97	163.54	6.98	163.97	7
164.45	7	188.71	7.29	188.75	7.29	188.8	7.29	188.85	7.29
190.29	7.31	190.34	7.31	190.39	7.31	192.48	7.34	192.52	7.34
192.55	7.34	192.59	7.34	194.44	7.36	194.47	7.36	194.5	7.36
194.53	7.36	194.55	7.36	195.76	7.38	195.78	7.38	195.81	7.38
195.83	7.38	200.8	7.51	200.85	7.51	211.45	7.77	211.5	7.78
211.56	7.78	220.54	8	223.77	8.15	231.08	8.46	240.13	8.87
243.3	9	255.98	9.73	260.76	10	260.95	10	262.35	10.14
272.28	11	274.24	11.14	274.7	11.18				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	136.47	.055	141.77	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
136.47	141.77	30.11	31.14	32.59	.1	.3

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 420.2550

INPUT
Description:
Station Elevation Data num= 75

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	10.29	3.26	10	21.03	9.1	23.04	9	23.51	8.99
43.74	8.08	43.75	8.08	43.76	8.08	43.77	8.08	43.78	8.08
45.56	8	56.8	7.72	56.81	7.72	56.82	7.72	56.83	7.72
56.84	7.72	59.66	7.64	59.67	7.64	72.41	7.43	72.43	7.43
99.95	7.2	99.97	7.2	99.98	7.2	128.38	7.01	132.33	6.98
134.4	7	134.56	7	135.45	6.22	135.66	6	135.81	5.94
136.25	5.76	136.44	5.82	137.01	6	139.2	6.11	145.29	6.43
145.33	6.43	145.36	6.43	145.4	6.43	145.44	6.44	148.95	6.62
151.52	6.75	151.58	6.75	151.64	6.75	151.69	6.76	153.25	6.84
153.29	6.84	153.32	6.84	154.6	6.91	155	6.91	155.02	6.91
155.05	6.91	155.08	6.91	155.16	6.91	155.18	6.91	155.2	6.91
155.27	6.91	175.5	6.96	175.65	6.96	175.82	6.96	189.87	7
190.84	7.01	190.85	7.01	193.54	7.09	204.43	7.36	222.37	8
223.43	8.05	225.98	8.15	242.06	8.8	247.17	9	262.19	9.81
264.11	9.91	265.62	10	271.72	10.63	275.31	11	278.67	11.28

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	134.4	.055	139.2	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
134.4	139.2	35.37	35.01	34.63	.1	.3

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 385.2368

INPUT
Description:
Station Elevation Data num= 172

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	10.32	4.07	10	12.72	9.59	23.75	9	24.48	9
24.85	9	36.88	8.33	42.07	8	48.72	7.74	48.76	7.74
48.8	7.74	48.83	7.74	56.09	7.45	56.13	7.45	57.04	7.41
57.07	7.41	57.1	7.41	57.76	7.39	57.78	7.39	57.8	7.39
59.38	7.32	63.22	7.26	63.23	7.26	63.25	7.26	63.26	7.26
63.28	7.26	63.29	7.26	63.31	7.26	63.32	7.26	63.34	7.26
87.53	6.92	87.63	6.92	87.72	6.92	87.83	6.92	87.92	6.91
88.04	6.91	88.13	6.91	88.26	6.91	88.35	6.91	88.47	6.91
88.56	6.91	88.68	6.91	88.76	6.9	88.88	6.9	88.95	6.9
89.06	6.9	89.12	6.9	89.21	6.9	106.66	6.71	106.69	6.71
108.85	6.69	109.08	6.69	109.1	6.69	109.77	6.7	109.79	6.7
109.82	6.7	113.85	6.93	113.88	6.93	113.89	6.93	113.93	6.93
113.95	6.94	113.99	6.94	114.01	6.94	114.05	6.94	114.08	6.94
114.13	6.94	114.15	6.94	114.2	6.94	114.23	6.95	114.28	6.95
114.31	6.95	114.35	6.95	114.38	6.95	114.42	6.95	114.45	6.95
114.49	6.96	114.51	6.96	114.55	6.96	114.57	6.96	128.21	7.23
129.05	7.25	129.06	7.25	129.07	7.25	129.09	7.25	133.45	7.05
133.46	7.05	133.47	7.05	133.48	7.05	133.49	7.05	134.3	7.01
134.53	7	134.65	6.89	135.06	6.54	135.71	6	136.3	5.78
136.57	5.69	137.02	5.83	137.51	6	139.44	6.42	139.92	6.52
141.15	6.78	145.44	7	145.76	7	145.93	7	146.02	7
146.13	7	149.73	7	150.04	7	150.16	7	159.63	7
167.67	7	168.53	7	170.41	7	180.94	6.9	180.98	6.9
185.59	6.85	185.64	6.85	185.69	6.85	190.61	6.8	190.65	6.8
190.69	6.8	190.73	6.8	193.48	6.77	193.51	6.77	193.54	6.77
193.57	6.77	193.6	6.77	194.13	6.77	195.69	6.75	195.73	6.75
195.76	6.75	195.8	6.75	196.3	6.74	196.33	6.74	196.36	6.74
197.11	6.73	197.34	6.73	197.46	6.73	197.48	6.73	197.51	6.73
197.62	6.73	197.65	6.73	198.69	6.74	199.12	6.74	199.16	6.75
200.56	6.76	200.62	6.76	202.05	6.78	202.12	6.78	204.71	6.82
204.81	6.82	204.9	6.82	204.99	6.82	205.08	6.82	218.05	7
223.69	7.27	228.84	7.51	231.88	7.66	239.51	8	256.34	8.61
262.97	8.86	264.08	8.9	265.44	8.94	265.58	8.95	266.8	9
271.13	9.29	276.13	9.61	282.31	10	288.51	10.64	291.98	11
294.94	11.32	295.23	11.35						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	134.3	.055	139.44	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
134.3	139.44	31.47	32.05	32.66	.1	.3

Left Levee Station= 128.99 Elevation= 7.24

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 353.1833

INPUT
Description:
Station Elevation Data num= 90

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	10.47	2.46	10.35	5.57	10	7.31	9.79	17.42	9
19.6	8.86	29.78	8.25	31.96	8	37.7	7.95	37.71	7.95
37.72	7.95	68.71	7.48	68.74	7.48	68.75	7.48	68.77	7.48
68.78	7.48	68.8	7.48	68.81	7.48	68.83	7.48	68.84	7.48
83.59	7.27	83.61	7.27	83.62	7.27	83.64	7.27	83.65	7.27
83.67	7.27	83.68	7.27	83.7	7.27	83.71	7.27	83.73	7.27
83.74	7.27	83.76	7.27	83.77	7.27	83.79	7.27	122.36	7.09
129.41	7.03	131.32	7	131.56	7	132.19	6.38	132.49	6
133.25	5.76	133.63	5.62	134.22	5.89	134.48	6	134.56	6.08
135.35	7	136.52	7	144.5	7	144.85	7	176.09	7.1
176.1	7.1	176.11	7.1	184.49	7	189.15	6.94	189.16	6.94
189.17	6.94	193.44	6.89	193.45	6.89	193.46	6.89	200.18	6.85
202.31	6.85	203.46	6.85	203.47	6.85	203.49	6.85	204.55	6.85
204.57	6.85	214.8	6.92	219.28	6.97	219.29	6.97	222.01	7
226.7	7.21	232.85	7.42	236.85	7.57	239.74	7.69	249.29	8
250.09	8	250.71	8	250.94	8	251.18	8	254.9	8.14
256.86	8.22	259.53	8.34	264.19	8.55	274.38	9	283.76	9.78
286.1	10	296.13	10.93	296.84	11	297.86	11.11	298.86	11.22

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	131.32	.055	136.52	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
131.32	136.52	27.18	27.17	24.65	.1	.3

Right Levee Station= 176.3 Elevation= 7.1

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 326.0251

INPUT
Description:
Station Elevation Data num= 152

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	10.63	9.22	10	17.12	9.65	20.52	9.54	31.8	9
33.02	9	34.65	9	37.18	9	37.26	9	37.39	9
38.17	8.7	40.76	8	50.06	7.91	50.07	7.91	50.09	7.91
56.4	7.84	56.42	7.84	56.44	7.84	59.12	7.81	59.14	7.81
71.01	7.53	71.02	7.53	71.04	7.53	71.05	7.53	71.07	7.53
71.08	7.53	78.36	7.45	78.91	7.45	78.93	7.45	99.84	7.47
99.87	7.47	99.88	7.47	99.91	7.47	99.93	7.47	99.96	7.47
99.98	7.47	100.01	7.47	100.03	7.47	100.07	7.47	100.08	7.47
100.12	7.47	100.14	7.47	100.17	7.47	100.19	7.47	100.22	7.47
100.24	7.47	100.27	7.47	100.29	7.47	100.31	7.47	100.32	7.47
114.11	7.35	115.26	7.33	115.28	7.33	115.3	7.33	116.53	7.31
117.35	7.3	117.37	7.3	117.4	7.3	117.43	7.3	129.49	7.12
129.51	7.12	129.54	7.12	129.57	7.12	129.59	7.12	137.59	7
137.74	7	138.63	6.41	139.21	6	140.08	5.67	140.36	5.57
140.55	5.67	141.15	6	141.69	6.49	142.27	7	142.84	7.02
144.4	7.06	150.24	7.23	150.27	7.24	150.3	7.24	150.33	7.24
150.36	7.24	156.48	7.41	156.51	7.41	156.54	7.41	156.57	7.41
156.59	7.41	156.62	7.41	159.06	7.49	159.09	7.49	159.11	7.49
159.12	7.48	165.96	7.5	165.99	7.5	166.03	7.5	168.87	7.47

168.91	7.47	168.96	7.47	171.99	7.43	172.05	7.43	173.91	7.41
204.73	7.18	204.74	7.18	205.6	7.16	205.61	7.16	206.78	7.13
206.79	7.13	206.8	7.13	208.33	7.12	208.34	7.12	208.35	7.12
208.36	7.12	210.2	7.1	210.21	7.1	210.22	7.1	211.9	7.1
211.91	7.1	215.45	7.1	215.46	7.1	217.06	7.11	220.92	7.11
220.93	7.11	232.83	7.1	232.84	7.1	234.72	7.1	234.73	7.1
234.74	7.1	234.75	7.1	236.8	7.11	236.81	7.11	236.83	7.11
236.84	7.11	236.85	7.11	239.79	7.14	239.8	7.14	240.22	7.15
240.23	7.15	240.24	7.15	242.87	7.18	242.88	7.18	261.81	7.76
261.83	7.76	261.84	7.76	268.39	7.96	268.4	7.96	269.79	8
290.62	8.89	293.26	9	294.48	9.16	301.46	10	308.94	10.71
311.98	11	314	11.2						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	137.59	.055	142.84	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
137.59	142.84	28.76	28.89	26.55	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
48.89	60.71	7.919235

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 297.1317

INPUT
Description:
Station Elevation Data num= 123

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	10.43	2.64	10.25	6.82	10	15.99	9.58	19.78	9.41
22.1	9.3	28.99	9	33.7	8.42	38.82	8	45.81	7.8
45.83	7.8	45.85	7.8	45.88	7.8	45.9	7.8	52.28	7.61
52.31	7.61	52.34	7.61	52.36	7.61	52.38	7.61	53.35	7.58
53.37	7.58	53.39	7.58	53.95	7.56	53.97	7.56	53.98	7.56
54.39	7.54	59.13	7.43	59.16	7.43	59.19	7.43	59.21	7.43
81.69	7.17	83.4	7.17	83.41	7.17	96.86	7.18	96.87	7.18
98.25	7.19	98.26	7.19	98.28	7.19	98.29	7.19	98.3	7.19
98.32	7.19	98.33	7.19	112.55	7.42	112.56	7.42	112.58	7.42
143.65	7.01	144.06	7	144.36	7	144.48	6.88	144.91	6.5
145.48	6	145.81	5.8	146.33	5.51	146.92	5.77	147.23	5.91
147.43	6	148.8	6.79	149.06	6.93	149.18	7	149.81	7.02
152.43	7.04	176.86	7.37	176.88	7.37	176.89	7.37	176.91	7.37
176.92	7.37	176.93	7.37	176.94	7.37	176.96	7.37	176.97	7.37
214.28	7.36	214.32	7.36	214.33	7.36	222.3	7.36	222.32	7.36
222.34	7.36	223.92	7.35	223.93	7.35	223.96	7.35	223.98	7.35
224.34	7.35	224.36	7.35	224.38	7.35	225.74	7.34	225.76	7.34
225.79	7.34	226.34	7.34	226.37	7.34	226.39	7.34	226.85	7.34
226.87	7.34	227.09	7.34	227.11	7.34	264.46	7.3	264.49	7.3
264.52	7.3	264.55	7.3	264.74	7.3	264.77	7.3	264.8	7.3
265.07	7.3	265.1	7.3	265.13	7.3	269.49	7.4	269.51	7.4
269.54	7.4	272.19	7.48	272.23	7.48	272.26	7.48	272.31	7.48
275.35	7.57	275.4	7.57	275.46	7.57	289.65	8	289.66	8
289.72	8	312.16	9	317.97	9.73	320.12	10	320.39	10.03
330.42	11	333.12	11.26	333.24	11.28				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	144.06	.055	149.06	.045

```
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        144.06  149.06            38.24   31.72   23.82              .1       .3
Left Levee      Station=  112.56      Elevation=    7.42

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 265.4205

INPUT
Description:
Station Elevation Data    num=     133
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   10.27     .73   10.22    2.66   10.08    3.88      10   20.64       9
   20.67       9    20.8    8.99   30.15     8.1   31.23       8   31.97    7.97
   36.96    7.81   36.98    7.81   38.68    7.76   38.69    7.76    38.7    7.76
   40.72     7.7    64.3    7.09   66.71    7.02   68.02       7   83.96       7
   87.98       7   100.8    7.22  100.84    7.22  100.88    7.22  100.93    7.22
  100.97    7.22  106.32    7.31  106.36    7.31  106.39    7.32   107.2    7.33
  108.49    7.35  108.51    7.35  108.54    7.35  108.57    7.35   109.4    7.36
   109.7    7.36  110.02    7.37  110.04    7.37  110.32    7.37  110.56    7.37
  111.29    7.38  111.77    7.38   111.8    7.38  117.06    7.33   117.1    7.33
  117.88    7.32  117.91    7.32  118.04    7.32  118.08    7.32  118.12    7.32
  118.16    7.32   141.1       7   141.6       7  141.81       7  142.97    6.89
   148.7    6.55  151.08    6.25  152.27     6.2  152.47     6.2  153.22       6
   154.6    5.47  154.69    5.44  154.79    5.49  155.95       6  157.03    6.51
  158.01       7  158.18       7  158.66       7  159.05       7  159.46       7
  162.03       7  164.05       7  180.61    7.05  180.64    7.05  180.67    7.05
  184.48    7.06  184.51    7.06  184.54    7.06  186.89    7.06  186.92    7.06
  186.94    7.06  186.96    7.06   193.8    7.16  193.81    7.16  193.83    7.16
  193.86    7.16  193.89    7.16  193.91    7.16  205.49    7.17   205.5    7.17
  205.54    7.17  241.31    7.19  241.32    7.19  241.33    7.19  247.49    7.15
   247.5    7.15  247.51    7.15  247.52    7.15  248.89    7.15   248.9    7.15
  248.91    7.15  253.96    7.13  253.97    7.13  255.98    7.12  255.99    7.12
     256    7.12  257.63    7.12  257.64    7.12  258.39    7.12   258.4    7.12
  273.01    7.12  273.02    7.12  273.04    7.12  273.05    7.12  274.29    7.13
   274.3    7.13  274.32    7.13  276.08    7.14   276.1    7.14  276.11    7.14
  301.19    7.73   301.2    7.73  301.21    7.73  310.81       8  314.64     8.2
  315.95    8.27  331.25       9   333.5    9.18  341.41      10  344.52   10.31
  351.59      11  354.05   11.24   354.7   11.31

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045  152.27    .055  158.66    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        152.27  158.66            42.37   35.49   24.56              .1       .3
Left Levee      Station=  112.07      Elevation=    7.39

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 229.9372

INPUT
Description:
Station Elevation Data    num=     127
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   10.34    5.04      10   19.86    9.13   22.13       9   23.39    8.88
   33.05       8   39.41    7.76   39.42    7.76   39.44    7.76   39.46    7.76
   42.47    7.66   42.48    7.66   43.52    7.63   43.54    7.63   43.55    7.63
   44.78    7.59   63.08    7.13    63.1    7.13   66.54    7.04   66.55    7.04
```

66.56	7.04	68.17	7	81.15	7	87.33	7	89.96	7
90.4	7	91.86	7.03	91.87	7.03	91.88	7.03	102.83	7.21
102.86	7.21	102.88	7.21	104.52	7.24	107.11	7.27	107.13	7.27
107.16	7.27	107.18	7.27	108.84	7.3	109.45	7.31	110.09	7.32
110.11	7.32	110.67	7.32	111.14	7.33	112.6	7.34	113.56	7.34
113.59	7.34	123.9	7.25	123.92	7.25	125.43	7.22	125.45	7.22
125.7	7.22	125.72	7.22	125.75	7.22	125.78	7.22	141.78	7
142.54	7	142.67	7	143.07	7	143.8	7	146.24	6.8
146.9	6.79	147.5	6.78	148.85	6.67	149.69	6.67	162.17	6.18
162.18	6.18	172.18	6.2	172.19	6.2	178.22	6.21	178.23	6.21
182.07	6.21	188.06	6.26	198.16	6.01	198.53	6	198.59	5.97
198.62	5.95	199.22	5.65	199.79	5.37	200.31	5.66	200.92	6
201.25	6.54	201.58	7	201.99	7	204.15	7.01	205.21	7.01
205.22	7.01	209.82	7.02	209.83	7.02	209.84	7.02	213.03	7.03
213.05	7.03	214.42	7.04	214.43	7.04	214.44	7.04	230.65	7.04
230.67	7.04	235.34	7.03	235.36	7.03	238.02	7.03	238.04	7.03
238.06	7.03	241.01	7.02	241.03	7.02	241.04	7.02	251.86	7.01
251.87	7.01	251.88	7.01	261.3	7	261.48	7	261.58	7
276.89	7	278.76	7	290.44	7	290.64	7	290.87	7.01
291.96	7.04	316.03	7.6	333.09	8	342.26	8.48	349.43	8.86
352.13	9	364.41	9.94	365.16	10	372.73	10.73	375.55	11
377.74	11.22	378.48	11.29						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	198.59	.055	201.99	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
198.59	201.99	29.06	45.07	39.28	.1	.3

Left Levee Station= 113.48 Elevation= 7.34

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 184.8676

INPUT
Description:
Station Elevation Data num= 140

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	10.38	3.75	10.15	5.98	10	11.78	9.67	24.87	9
28.57	8.67	36.06	8	38.14	7.92	38.15	7.92	38.16	7.92
38.18	7.92	38.19	7.92	46.72	7.61	46.75	7.61	46.78	7.61
46.8	7.61	46.83	7.61	49.66	7.52	49.69	7.52	50.04	7.52
50.06	7.52	50.68	7.52	50.7	7.52	50.73	7.52	55.93	7.31
58.93	7.24	58.97	7.24	59	7.24	62.79	7.15	62.83	7.15
62.86	7.15	69.09	7	74.67	7	76.61	7	81.6	7
86.3	7	96.04	7	97.5	7	98.33	7	102.28	7.06
104.05	7.09	105.93	7.11	107.58	7.12	109.01	7.14	113.48	7.16
116.53	7.17	116.54	7.17	133.81	7	138.03	7	138.61	7
139.44	7	142.35	7	142.98	7	143.15	7	144.43	7
156.88	6.96	156.9	6.96	166.35	6.61	166.37	6.61	166.39	6.61
170.5	6.62	170.52	6.62	170.54	6.62	170.56	6.62	172.95	6.63
172.96	6.63	174.46	6.64	197.95	6.87	197.98	6.87	198.02	6.87
198.04	6.87	198.08	6.87	198.11	6.87	198.14	6.87	198.17	6.87
198.2	6.87	202.49	6.82	206.38	6.86	206.42	6.86	206.44	6.86
206.48	6.86	206.49	6.86	206.54	6.86	206.55	6.86	206.59	6.86
206.61	6.86	219.41	6.69	219.43	6.69	219.45	6.69	220.23	6.67
220.25	6.67	220.27	6.67	222.52	6.63	222.55	6.63	222.57	6.63
222.59	6.63	225.77	6.56	225.8	6.56	225.82	6.56	225.85	6.56
225.87	6.56	242.13	6	246.24	6	247.67	6	248.55	6
249.18	6	249.29	6	249.98	6	250.14	6	251.84	5.44
252.17	5.27	252.69	5.4	254.45	5.89	254.8	6	254.83	6.01
255.1	6.04	261.02	6.75	262.27	6.72	263.31	6.69	263.32	6.69

264.45	6.67	286.68	6.84	298.33	7	299.33	7	302.58	7
326.57	7.43	329.56	7.49	332.76	7.55	337.77	7.64	348.85	7.87
350.91	7.91	355.23	8	370.93	8.71	376.84	9	389.24	9.93
390.21	10	397.58	10.7	400.67	11	401.44	11.08	403.7	11.3

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	249.29	.055	255.1	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
249.29	255.1	44.29	61.08	69.21	.1	.3

Left Levee Station= 116.3 Elevation= 7.17

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 123.7851

INPUT
Description:
Station Elevation Data num= 169

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	10.32	5.16	10	6.9	10	25.33	9.13	25.64	9.12
27.97	9	32.85	8.59	39.38	8	40.28	7.97	40.29	7.97
48.91	7.73	48.93	7.73	50.05	7.72	50.06	7.72	52.06	7.71
52.08	7.71	52.09	7.71	70.48	7	70.49	7	70.51	7
90.38	7	94.16	7	97.42	7	99.18	7	99.9	7
102.22	7	102.68	7	103.13	7	105.38	7	107.04	7
107.7	7.01	114.25	7.04	118.8	7.04	118.81	7.04	123	7
123.96	7	126.71	7	130.72	7	133.02	7	136.16	7
139.65	7	143.02	7	163.93	6.94	164.26	6.94	167.45	6.93
167.61	6.93	167.77	6.93	168.74	6.92	168.82	6.92	169.01	6.92
169.07	6.92	169.13	6.92	169.18	6.92	169.25	6.92	169.47	6.92
169.51	6.92	169.65	6.92	169.68	6.92	169.71	6.92	169.77	6.92
169.8	6.92	169.82	6.92	169.85	6.92	169.89	6.92	169.91	6.92
169.94	6.92	170.3	6.92	170.36	6.92	170.42	6.92	170.47	6.92
170.53	6.92	209.55	6.42	210.65	6.42	210.66	6.42	210.68	6.42
217.11	6.43	217.13	6.43	217.14	6.43	233.87	6	243.1	6
244.7	6	244.77	5.96	245.21	5.67	246.01	5.15	248.33	5.81
248.94	6	249.05	6	249.92	6	253.78	6	262.89	6.06
266.86	6.09	266.87	6.09	267.8	6.09	267.81	6.09	279.32	6.12
279.33	6.12	280.83	6.12	280.84	6.12	282.36	6.12	282.37	6.12
282.38	6.12	283.87	6.13	283.88	6.13	283.89	6.13	288.12	6.14
288.13	6.14	290.65	6.15	290.66	6.15	290.67	6.15	296.76	6.17
296.77	6.17	296.78	6.17	298.78	6.17	298.8	6.17	357.36	6.34
357.45	6.34	357.54	6.34	358.47	6.34	358.5	6.34	358.52	6.34
358.54	6.34	358.56	6.34	358.59	6.34	358.62	6.34	358.65	6.34
358.66	6.34	358.67	6.34	358.7	6.34	358.73	6.34	358.75	6.34
358.78	6.34	358.88	6.35	358.91	6.35	358.94	6.35	359.01	6.35
359.04	6.35	359.08	6.35	359.12	6.35	359.39	6.35	359.45	6.35
359.5	6.35	359.6	6.35	359.66	6.35	360.19	6.36	360.27	6.36
360.99	6.37	362.91	6.4	363.13	6.4	401.86	6.88	409.3	7
419.18	7.3	425.68	7.55	432.55	7.79	435.67	7.9	436.27	7.92
438.55	8	439.85	8.07	440.7	8.11	449.48	8.53	451.36	8.62
453.42	8.71	454.36	8.74	460.49	9	465.87	9.32	467.69	9.42
474.97	9.81	476.83	9.92	478.37	10	483.5	10.4		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	243.1	.055	249.05	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
243.1	249.05	27.65	28.39	29.44	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
251.58	500	8	F
0	243.1	8	F

CROSS SECTION

RIVER: Actual_1
REACH: Actual_1 RS: 95.36573

INPUT
Description:
Station Elevation Data num= 201

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	10.37	3.83	10.13	4.92	10	5.14	10	5.48	10
5.71	10	6.38	10	11.84	10	20.7	9.6	22.13	9.57
26.79	9.34	30.29	9	30.73	9	31.85	9	33.34	9
34.85	9	37.32	8.78	39.32	8.58	41.78	8.38	43.29	8.23
43.79	8.21	45.72	8	48.11	8	48.57	8	48.98	7.99
51.1	7.98	51.11	7.98	54.97	7.97	56.8	7.9	57.21	7.88
58.64	7.84	59.45	7.8	66.06	7.57	70.15	7.57	71.19	7.51
74.47	7	75.69	7	76.41	7	77.51	7	80.39	7
83.15	7	85.36	7	91.19	7	92	7	94.33	7
94.66	7	96.7	7	97.19	7	100.07	7	100.1	7
100.14	7	107.09	7	107.13	7	109.79	7	109.86	7
111.07	7	111.22	7	111.53	7	119.56	7	120.48	7
127.31	7	128.86	7	130.39	7	134.47	7	135.87	7
136.52	7	142.72	7	146.7	7	147.54	7	150.86	7
164.95	6.97	164.96	6.97	164.97	6.97	167.64	6.97	167.65	6.97
167.66	6.97	173.35	6.97	173.36	6.97	173.37	6.97	174.87	6.97
174.88	6.97	174.89	6.97	177.85	6.97	196.93	6.16	196.94	6.16
198.58	6.13	198.59	6.13	198.6	6.13	199.81	6.12	199.82	6.12
204.71	6.05	206.75	6.04	218.95	6.04	218.96	6.04	220.52	6
221.48	6	226.2	6	226.63	6	238.44	6	240.44	6
242.97	6	248.74	6	249.85	6	250.8	6	251.85	6
252.37	6	252.46	6	252.55	6	253.69	5.55	255.34	5.09
256.7	5.47	258.71	6	258.82	6	261.36	6	264.44	6
266.05	6	270.43	6	270.9	6	271.4	6	271.93	6
276.64	6	284.75	6	286.37	6	287.75	6	293.02	6
297.2	6	304.48	6	306.35	6	313	6	315.85	6
320.59	6	324.99	6	328.01	6	328.64	6	329.62	6
330.36	6	341.9	6.03	344.09	6.03	350.88	6.03	350.89	6.03
355.12	6.03	362.37	6.03	362.38	6.03	365.86	6.04	366.41	6.05
366.42	6.05	371.95	6.11	374.09	6.15	398.11	7	400.98	7
403.69	7	405.4	7	407.16	7	408.43	7	413.84	7
415.08	7	421.98	7	423.71	7	424.24	7	428.26	7
428.79	7	431.25	7	434.28	7.09	436.95	7.15	438.83	7.18
440.67	7.23	451.5	7.44	455.36	7.52	459.52	7.52	462.99	7.62
464.94	7.62	468.27	7.74	471.36	8	475.72	8	475.78	8
475.89	8	476.4	8	477.64	8.07	478.1	8.08	480.24	8.23
481.04	8.25	487.71	8.57	490.97	8.57	493.41	8.6	495.69	8.62
499.41	8.62	504.13	8.72	508.49	8.79	510.03	8.8	512.19	8.84
514.23	8.9	515.31	9	516.76	9	516.8	9	516.83	9
516.9	9	518.24	9.08	518.57	9.07	518.74	9.07	520.69	9.2
527.66	9.41								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	251.85	.055	258.82	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
251.85	258.82	45.68	45.42	45.24	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent

```
  162.02  250.616.973096       F
  261.77  415.75       7       F

CULVERT


RIVER: Actual_1
REACH: Actual_1           RS: 60

INPUT
Description: ODT 1 Y ODT 2
Distance from Upstream XS =       6
Deck/Roadway Width        =   30.81
Weir Coefficient          =     1.4
Upstream  Deck/Roadway Coordinates
    num=       2
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
**********************************************
       0    7.35       5    1000    7.35       5

Upstream Bridge Cross Section Data
Station Elevation Data    num=     202
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*********************************************************************************
       0   10.37    3.83   10.13    4.92      10    5.14      10    5.48      10
    5.71      10    6.38      10   11.84      10    20.7     9.6   22.13    9.57
   26.79    9.34   30.29       9   30.73       9   31.85       9   33.34       9
   34.85       9   37.32    8.78   39.32    8.58   41.78    8.38   43.29    8.23
   43.79    8.21   45.72       8   48.11       8   48.57       8   48.98    7.99
    51.1    7.98   51.11    7.98   54.97    7.97    56.8     7.9   57.21    7.88
   58.64    7.84   59.45     7.8   66.06    7.57   70.15    7.57   71.19    7.51
   74.47       7   75.69       7   76.41       7   77.51       7   80.39       7
   83.15       7   85.36       7   91.19       7      92       7   94.33       7
   94.66       7    96.7       7   97.19       7  100.07       7   100.1       7
  100.14       7  107.09       7  107.13       7  109.79       7  109.86       7
  111.07       7  111.22       7  111.53       7  119.56       7  120.48       7
  127.31       7  128.86       7  130.39       7  134.47       7  135.87       7
  136.52       7  142.72       7   146.7       7  147.54       7  150.86       7
  164.95    6.97  164.96    6.97  164.97    6.97  167.64    6.97  167.65    6.97
  167.66    6.97  173.35    6.97  173.36    6.97  173.37    6.97  174.87    6.97
  174.88    6.97  174.89    6.97  177.85    6.97  196.93    6.16  196.94    6.16
  198.58    6.13  198.59    6.13   198.6    6.13  199.81    6.12  199.82    6.12
  204.71    6.05  206.75    6.04  218.95    6.04  218.96    6.04  220.52       6
  221.48       6   226.2       6  226.63       6  238.44       6  240.44       6
  242.97       6  248.74       6  249.85       6   250.8       6  251.85       6
  252.37       6  252.46       6  252.55       6  253.69    5.55  255.34    5.09
   256.7    5.47  258.71       6  258.82       6  261.36       6  263.34    5.59
  264.44       6  266.05       6  270.43       6   270.9       6   271.4       6
  271.93       6  276.64       6  284.75       6  286.37       6  287.75       6
  293.02       6   297.2       6  304.48       6  306.35       6     313       6
  315.85       6  320.59       6  324.99       6  328.01       6  328.64       6
  329.62       6  330.36       6   341.9    6.03  344.09    6.03  350.88    6.03
  350.89    6.03  355.12    6.03  362.37    6.03  362.38    6.03  365.86    6.04
  366.41    6.05  366.42    6.05  371.95    6.11  374.09    6.15  398.11       7
  400.98       7  403.69       7   405.4       7  407.16       7  408.43       7
  413.84       7  415.08       7  421.98       7  423.71       7  424.24       7
  428.26       7  428.79       7  431.25       7  434.28    7.09  436.95    7.15
  438.83    7.18  440.67    7.23   451.5    7.44  455.36    7.52  459.52    7.52
  462.99    7.62  464.94    7.62  468.27    7.74  471.36       8  475.72       8
  475.78       8  475.89       8   476.4       8  477.64    8.07   478.1    8.08
  480.24    8.23  481.04    8.25  487.71    8.57  490.97    8.57  493.41     8.6
  495.69    8.62  499.41    8.62  504.13    8.72  508.49    8.79  510.03     8.8
  512.19    8.84  514.23     8.9  515.31       9  516.76       9   516.8       9
  516.83       9   516.9       9  518.24    9.08  518.57    9.07  518.74    9.07
  520.69     9.2  527.66    9.41

Manning's n Values        num=       3
```

Sta	n Val	Sta	n Val	Sta	n Val
0	.03	251.85	.03	258.82	.03

Bank Sta: Left Right Coeff Contr. Expan.
251.85 258.82 .3 .5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
162.02	250.61	6.973096	F
261.77	415.75	7	F

Downstream Deck/Roadway Coordinates
num= 2

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	7.35	5	1000	7.35	5

Downstream Bridge Cross Section Data
Station Elevation Data num= 217

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	11.31	.94	11.25	3.82	11	3.97	11	4.56	11
6.31	11	18.07	10.35	21.96	10	24.47	10	37.13	9.2
40.96	9	44.35	9	57.34	8.5	58.61	8.48	60.28	8.42
60.9	8.41	62.85	8.35	65.12	8.27	70.42	8	70.81	8
71.77	8	74.84	7.95	95.26	7.11	95.27	7.11	96.06	7.1
96.07	7.1	96.08	7.1	96.09	7.1	100.55	7.1	100.56	7.1
108.06	7	117.67	7	118.69	7	119.36	7	120.37	7
128.53	7	130.34	7	134.21	7	136.28	7	137.64	7
138.81	7	140.49	7	142.41	7	143.81	7	144.98	7
145.5	7	150.4	6.98	150.41	6.98	150.42	6.98	151.2	6.97
151.21	6.97	175.64	6.25	175.65	6.25	175.66	6.25	175.67	6.25
175.69	6.25	175.7	6.25	176.8	6.24	176.81	6.24	184.76	6
185.73	6	186.34	6	186.76	6	202.07	6	204.41	6
205.39	6	215.42	6.39	215.45	6.4	218.1	6.41	218.12	6.41
218.14	6.41	218.87	6.41	218.89	6.41	218.91	6.41	220.53	6.41
220.54	6.41	220.56	6.41	220.58	6.41	220.6	6.41	220.62	6.41
220.64	6.41	222.92	6.42	222.94	6.41	222.96	6.41	222.98	6.41
223	6.41	223.02	6.41	223.03	6.41	224.79	6.41	224.82	6.41
224.84	6.41	224.86	6.41	224.87	6.41	232.15	6	236.1	6
241.9	6	248.54	6	253.31	6	257.01	6	258.27	6
259.49	6	260.8	6	262.95	6	263.24	6	266.59	6
267.19	6	267.43	6	267.64	6	268.5	5.18	268.92	5
270.16	5	270.37	5	270.45	5	271.43	5	272.67	5.41
273.47	5.67	274.04	5.67	274.58	5.65	275.56	5.5	276.59	5.92
277.76	5.86	289.72	5.65	300.49	5.67	301.44	5.7	309.87	5.89
309.88	5.89	309.89	5.89	314.49	5.89	314.5	5.89	314.51	5.89
318.33	5.89	318.34	5.89	318.35	5.89	323.68	5.89	323.69	5.89
323.7	5.89	323.71	5.89	329.68	5.89	329.69	5.89	335.11	5.89
335.12	5.89	335.13	5.89	336.99	5.89	344.86	5.89	344.87	5.89
368.98	5.86	368.99	5.86	377.07	5.86	377.08	5.86	377.09	5.86
383.2	5.86	383.21	5.86	383.22	5.86	383.23	5.86	383.24	5.86
383.26	5.86	383.27	5.86	383.28	5.86	383.29	5.86	399.19	5.86
399.2	5.86	399.22	5.86	399.23	5.86	399.24	5.86	399.25	5.86
399.26	5.86	399.27	5.86	404.46	5.86	404.48	5.86	404.49	5.86
404.5	5.86	408.31	5.86	408.32	5.86	411.94	5.86	411.95	5.86
439.51	6	441.64	6	444.04	6	447.25	6.16	453.09	6.26
453.85	6.29	465.33	6.62	467.33	6.68	468.96	6.69	475.79	6.78
475.8	6.78	475.81	6.78	478.71	6.78	478.72	6.78	478.73	6.78
478.74	6.78	485.02	6.78	485.03	6.78	485.04	6.78	485.05	6.78
485.06	6.78	485.07	6.78	492.41	6.78	492.42	6.78	492.43	6.78
492.44	6.78	492.45	6.78	507.87	6.87	507.88	6.87	513.45	6.9
515.42	6.93	515.94	6.93	518.26	6.96	520.52	6.98	520.63	6.98
522.56	7	525.37	7	529.78	7	530.76	7.05	535.1	7.05
535.11	7.05	537.91	7.03						

Manning's n Values num= 3

```
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
       0     .03  266.59     .03  272.67     .03

Bank Sta: Left   Right    Coeff Contr.   Expan.
        266.59  272.67             .3       .5
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
  175.25   263.16.264323       F
   277.4  453.796.251749       F
Left Levee      Station=   225.2      Elevation=     6.4

Upstream Embankment side slope              =       1 horiz. to 1.0 vertical
Downstream Embankment side slope            =       1 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .98
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Culverts =  2

Culvert Name     Shape      Rise    Span
Culvert #1      Circular     1.2
FHWA Chart # 1 - Concrete Pipe Culvert
FHWA Scale # 1 - Square edge entrance with headwall
Solution Criteria = Highest U.S. EG
Culvert Upstrm Dist  Length    Top n  Bottom n  Depth Blocked  Entrance Loss Coef   Exit Loss Coef
                  6   30.81     .015     .015        0                   .5                1
Upstream   Elevation =  5.09
           Centerline Station =  255.34
Downstream Elevation =  5
           Centerline Station =  270.16

Culvert Name     Shape      Rise    Span
Culvert #2      Circular       1
FHWA Chart # 1 - Concrete Pipe Culvert
FHWA Scale # 1 - Square edge entrance with headwall
Solution Criteria = Highest U.S. EG
Culvert Upstrm Dist  Length    Top n  Bottom n  Depth Blocked  Entrance Loss Coef   Exit Loss Coef
                  6   30.81     .015     .015        0                   .5                1
Upstream   Elevation =  5.59
           Centerline Station =  263.34
Downstream Elevation =  5.5
           Centerline Station =  275.46

CROSS SECTION


RIVER: Actual_1
REACH: Actual_1           RS: 49.98656

INPUT
Description:
Station Elevation Data    num=     217
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   11.31     .94   11.25    3.82      11    3.97      11    4.56      11
    6.31      11   18.07   10.35   21.96      10   24.47      10   37.13     9.2
   40.96       9   44.35       9   57.34     8.5   58.61    8.48   60.28    8.42
    60.9    8.41   62.85    8.35   65.12    8.27   70.42       8   70.81       8
   71.77       8   74.84    7.95   95.26    7.11   95.27    7.11   96.06     7.1
   96.07     7.1   96.08     7.1   96.09     7.1  100.55     7.1  100.56     7.1
  108.06       7  117.67       7  118.69       7  119.36       7  120.37       7
  128.53       7  130.34       7  134.21       7  136.28       7  137.64       7
  138.81       7  140.49       7  142.41       7  143.81       7  144.98       7
   145.5       7   150.4    6.98  150.41    6.98  150.42    6.98   151.2    6.97
```

151.21	6.97	175.64	6.25	175.65	6.25	175.66	6.25	175.67	6.25
175.69	6.25	175.7	6.25	176.8	6.24	176.81	6.24	184.76	6
185.73	6	186.34	6	186.76	6	202.07	6	204.41	6
205.39	6	215.42	6.39	215.45	6.4	218.1	6.41	218.12	6.41
218.14	6.41	218.87	6.41	218.89	6.41	218.91	6.41	220.53	6.41
220.54	6.41	220.56	6.41	220.58	6.41	220.6	6.41	220.62	6.41
220.64	6.41	222.92	6.42	222.94	6.41	222.96	6.41	222.98	6.41
223	6.41	223.02	6.41	223.03	6.41	224.79	6.41	224.82	6.41
224.84	6.41	224.86	6.41	224.87	6.41	232.15	6	236.1	6
241.9	6	248.54	6	253.31	6	257.01	6	258.27	6
259.49	6	260.8	6	262.95	6	263.24	6	266.59	6
267.19	6	267.43	6	267.64	6	268.5	5.18	268.92	5
270.16	5	270.37	5	270.45	5	271.43	5	272.67	5.41
273.47	5.67	274.04	5.67	274.58	5.65	275.56	5.85	276.59	5.92
277.76	5.86	289.72	5.65	300.49	5.67	301.44	5.7	309.87	5.89
309.88	5.89	309.89	5.89	314.49	5.89	314.5	5.89	314.51	5.89
318.33	5.89	318.34	5.89	318.35	5.89	323.68	5.89	323.69	5.89
323.7	5.89	323.71	5.89	329.68	5.89	329.69	5.89	335.11	5.89
335.12	5.89	335.13	5.89	336.99	5.89	344.86	5.89	344.87	5.89
368.98	5.86	368.99	5.86	377.07	5.86	377.08	5.86	377.09	5.86
383.2	5.86	383.21	5.86	383.22	5.86	383.23	5.86	383.24	5.86
383.26	5.86	383.27	5.86	383.28	5.86	383.29	5.86	399.19	5.86
399.2	5.86	399.22	5.86	399.23	5.86	399.24	5.86	399.25	5.86
399.26	5.86	399.27	5.86	404.46	5.86	404.48	5.86	404.49	5.86
404.5	5.86	408.31	5.86	408.32	5.86	411.94	5.86	411.95	5.86
439.51	6	441.64	6	444.04	6	447.25	6.16	453.09	6.26
453.85	6.29	465.33	6.62	467.33	6.68	468.96	6.69	475.79	6.78
475.8	6.78	475.81	6.78	478.71	6.78	478.72	6.78	478.73	6.78
478.74	6.78	485.02	6.78	485.03	6.78	485.04	6.78	485.05	6.78
485.06	6.78	485.07	6.78	492.41	6.78	492.42	6.78	492.43	6.78
492.44	6.78	492.45	6.78	507.87	6.87	507.88	6.87	513.45	6.9
515.42	6.93	515.94	6.93	518.26	6.96	520.52	6.98	520.63	6.98
522.56	7	525.37	7	529.78	7	530.76	7.05	535.1	7.05
535.11	7.05	537.91	7.03						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	266.59	.055	272.67	.045

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

266.59	272.67	50.11	46	44.46	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
175.25	263.16	264323	F
277.4	453.79	6.251749	F

Left Levee Station= 225.2 Elevation= 6.4

CROSS SECTION

RIVER: Actual_2
REACH: Actual_2 RS: 871.0108

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	17.71	6.32	17	13.6	16.16	15.6	16	17.84	15.65
22.94	15	39.7	14.03	40.7	14	40.7	13.98	41.7	13.96
41.7	13.95	51.19	13.39	54.35	13.28	57.51	13.14	62.61	13
68.94	12.92	70.94	12.9	77.26	12.81	89.91	12.62	91.91	12.6
94.15	12.57	100.23	12.49	103.39	12.45	106.55	12.41	110.68	12.35
112.91	12.33	114.91	12.31	119.04	12.25	123.51	12.22	124.51	12.2
127.67	12.17	127.67	12.16	128.67	12.16	135.95	12.15	153.67	12.1
158.77	12.07	164.16	12	165.16	12	168.32	12	169.32	11.4

170.32	11	170.32	10.99	171.73	10.98	172.73	10.98	172.73	10.99
172.73	11	174.73	11.28	176.15	11.46	178.15	11.91	179.15	11.94
180.15	12	182.15	12	182.22	12	184.38	12	185.38	11.78
185.38	11.63	186.38	11	187.38	10.91	188.38	10.83	189.38	11
190.38	11.04	191.8	12	193.8	12.26	197.92	13	200.16	13.66
201.16	14	201.23	14	205.28	14.15	206.28	14.15	206.28	14.16
207.69	14.2	208.69	14.2	209.69	14.17	209.69	14.16	210.69	14.16
216.08	14.01								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	168.32	.055	191.8	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
168.32	191.8	11.4	10.44	9.21	.1	.3

CROSS SECTION

RIVER: Actual_2
REACH: Actual_2 RS: 860.5756

INPUT
Description:
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	17.74	3.16	17.47	5.4	17.23	8.4	17	13.78	16.32
16.95	16	17.95	15.81	24.27	15	24.27	14.97	29.37	14.64
37.91	14.04	38.91	14	49.35	13.18	52.52	13	57.9	12.91
69.3	12.75	69.3	12.74	70.3	12.72	71.72	12.71	75.84	12.67
75.84	12.66	77.84	12.64	102.19	12.28	103.19	12.27	104.19	12.26
115.59	12.12	117.01	12.11	122.11	12.05	122.11	12.04	125.27	12.01
127.51	12	128.51	11.96	128.51	11.95	133.89	11.8	135.89	11.71
140.36	11.51	149.58	11.3	151	11.05	153	11.36	154	11.65
155	11.8	156	12	164.24	12	165.24	12	170.63	11.93
172.63	11.91	177.1	11.89	179.1	11.9	179.1	11.84	182.26	11.92
183.51	11.95	185.42	12	186.84	11.89	188.84	11.47	188.84	11.26
189.84	11.46	192.07	11.23	195.24	12	197.47	12.65	199.47	13
199.47	13.17	202.45	13.95	202.64	14	212.12	14	216.25	14.03

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	127.51	.055	195.24	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
127.51	195.24	11.4	11.4	11.4	.1	.3

CROSS SECTION

RIVER: Actual_2
REACH: Actual_2 RS: 849.1740

INPUT
Description:
Station Elevation Data num= 57

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	16.89	3.16	16.69	4.16	16.6	10.87	16	11.87	15.88
16.97	15.29	19.21	15.08	19.21	15.03	19.21	15	27.75	14.29
30.91	14	39.16	13.33	42.76	13	51.01	12.78	53.25	12.76
75.38	12.38	77.62	12.36	81.74	12.33	84.9	12.3	86.9	12.28
107.15	12	108.15	11.73	110.39	11.64	113.55	11.45	116.71	11.24
122.1	11.05	123.1	11.17	123.1	11.26	125.33	11.65	126.33	11.92

126.33	12	130.46	12	131.87	12	135.03	12	139.16	11.96
151.81	11.86	157.19	11.82	181.54	11.25	182.54	11.23	182.77	11.23
183.54	11.22	184.54	11.22	185.54	11.23	188.54	11	189.54	10.7
190.54	10.5	191.54	10.83	191.54	11	194.54	11.62	196.94	12
196.94	12.2	197.94	13	199.35	13.07	202.33	13.95	202.52	14
209.8	14	216.12	14						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	135.03	.055	197.94	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
135.03	197.94	14.56	14.56	14.56	.1	.3

CROSS SECTION

RIVER: Actual_2
REACH: Actual_2 RS: 834.6162

INPUT
Description:
Station Elevation Data num= 62

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	15.77	8.54	15	9.54	14.92	12.71	14.76	14.71	14.62
21.41	14	24.58	13.67	31.86	13	32.86	12.92	34.27	12.91
35.27	12.9	41.6	12.66	45.72	12.6	48.88	12.48	54.27	12.41
59.37	12.28	65.69	12.21	72.01	12.1	77.4	12.05	83.72	12
84.72	11.69	86.14	11.44	88.14	11.03	89.55	11.38	91.55	12
92.97	12	96.13	12	100.25	12	101.25	11.98	107.58	11.87
108.99	11.87	117.24	11.75	119.47	11.75	121.71	11.73	122.71	11.73
126.83	11.67	129.07	11.68	132.23	11.65	148.99	11.55	151.23	11.55
153.23	11.54	154.23	11.54	156.23	11.54	157.23	11.54	157.23	11.53
158.64	11.53	175.41	11.23	179.95	11.13	185.85	11	187.26	10.83
188.26	10.31	189.26	10.63	190.68	11	194.8	11.79	195.8	12
195.8	12.4	197.21	13	198.91	13.48	200.38	13.9	200.38	14
201.38	14	214.02	14						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	122.71	.055	194.8	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
122.71	194.8	11.4	10.18	10.18	.1	.3

CROSS SECTION

RIVER: Actual_2
REACH: Actual_2 RS: 824.4382

INPUT
Description:
Station Elevation Data num= 70

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	15.6	5	15.13	5	15.07	6	15.05	6	15.04
6	15	7	14.92	18	14	22	13.45	26	13
27	12.88	29.24	12.74	30.24	12.68	34.71	12.54	41.99	12.15
48.31	12.05	51.48	12	53.71	11.68	54.71	11.49	54.71	11.35
56.13	11.48	59.29	12	62.45	12	64.45	12	68.92	12
73.39	11.87	74.39	11.87	75.39	11.87	86.16	11.63	90.29	11.6
92.52	11.58	95.69	11.5	105.17	11.5	109.65	11.44	112.81	11.39
113.81	11.39	116.97	11.38	120.13	11.33	125.52	11.34	126.52	11.33

128.75	11.34	130.99	11.31	135.11	11.32	136.53	11.31	144.77	11.27
151.1	11.27	152.51	11.27	156.63	11.26	159.8	11.25	164.27	11.25
166.27	11.24	169.43	11.22	181.94	11.01	182.43	11	184.67	11
187.83	11	188.83	10.66	189.83	10.16	192.07	10.92	192.07	11
193.48	11.18	197.6	12	198.6	12.93	198.6	13	200.02	13.27
201.11	13.6	202.02	13.87	203.43	14	204.43	14	216.14	14

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	169.43	.055	193.48	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
169.43	193.48	13.6	13.59	12.62	.1	.3

CROSS SECTION

RIVER: Actual_2
REACH: Actual_2 RS: 810.8468

INPUT
Description:
Station Elevation Data num= 75

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	15.01	0	15	1	14.91	12.05	14	14.05	13.79
19.14	13	20.14	13	21.14	13	22.14	13	23.14	12.57
25.38	12	25.38	11.8	25.38	11.67	26.38	11.91	27.38	12
31.38	12	32.38	12	34.62	11.88	35.62	11.83	39.62	11.65
41.03	11.62	44.03	11.52	46.27	11.49	47.68	11.41	48.68	11.38
53.15	11.22	54.15	11.18	58.63	11	64.95	10.97	67.19	10.96
69.42	10.96	73.55	10.95	78.02	10.95	81.18	10.95	85.3	10.95
95.15	10.94	103.7	10.95	119.85	10.95	120.85	10.95	125.32	10.95
132.94	10.95	134.94	10.96	141.65	10.97	150.19	10.97	152.43	10.97
158.75	10.96	161.91	10.96	167.3	10.87	173.62	10.86	175.86	10.76
178.1	10.75	180.33	10.61	183.49	10.56	183.64	10.55	188.88	10.15
189.88	10.12	191.29	10	192.29	10	193.29	10.33	193.29	10.5
194.71	10.91	194.71	11	195.71	11.12	198.87	11.95	199.87	12
200.87	12.01	200.87	12.18	201.87	13	203.24	13.34	203.28	13.36
206.45	14	207.45	14	208.45	14	212.92	14	218.3	14

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	161.91	.055	194.71	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
161.91	194.71	21.84	23.77	25.7	.1	.3

CROSS SECTION

RIVER: Actual_2
REACH: Actual_2 RS: 787.0773

INPUT
Description:
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	14.84	3.16	14.61	5.16	14.47	11.25	14	15.37	13.43
17.37	13	21.49	12.73	22.49	12.64	24.49	12	28.61	12
44.89	11.15	46.89	11	51.02	10.95	52.02	10.94	55.18	10.91
59.3	10.87	61.54	10.85	65.66	10.83	67.9	10.81	72.02	10.79
73.02	10.78	74.43	10.78	76.43	10.77	78.67	10.77	80.67	10.77
82.91	10.77	88.01	10.76	130.06	10.74	136.39	10.73	137.39	10.73

```
  139.63   10.73  142.79   10.73  143.79   10.73  146.02   10.73  150.15   10.73
  151.15   10.73  153.38   10.73  154.38   10.72  185.28   10.13  188.86   10.06
  193.34      10  194.34    9.88  194.34    9.73  195.34    9.88  195.34      10
  199.46    10.7  200.87      11  201.87   11.47  202.87      12  204.29   12.75
  204.29      13  204.41   13.01  213.51   13.77  213.51   13.78  213.51   13.79
  214.92   13.86  215.92   13.82  215.92   13.81  219.08   13.53

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
************************************************
       0    .045  154.38    .055  199.46    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        154.38  199.46             11.4    11.4   10.18              .1       .3

CROSS SECTION


RIVER: Actual_2
REACH: Actual_2           RS: 775.6758

INPUT
Description:
Station Elevation Data    num=      50
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   14.44    3.16   14.18    6.16      14    7.16    13.8   10.16      13
   24.72   12.09   25.72      12   29.85   11.76   42.21      11   56.78   10.82
   66.26   10.72   68.26   10.71   69.68   10.69   70.68   10.68   72.91   10.67
   73.91   10.67   74.91   10.66   75.91   10.66   76.91   10.65   77.91   10.65
   78.91   10.65   79.91   10.65   80.91   10.65   82.91   10.65  145.55   10.61
  146.97   10.61  147.97   10.61  148.97   10.61  149.97   10.61  150.97   10.61
  151.97   10.61  160.21   10.45  166.92   10.37  167.92   10.36  186.37   10.12
  196.08      10  197.08    9.76   198.5     9.6   198.5    9.86   199.5      10
  204.88   10.89  205.88      11  205.88   11.22  206.74   11.35  206.88   11.37
  207.88      12   209.3   12.38   209.3      13  217.54      13  223.87      13

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
************************************************
       0    .045  150.97    .055  204.88    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        150.97  204.88             11.4    11.4   13.34              .1       .3

CROSS SECTION


RIVER: Actual_2
REACH: Actual_2           RS: 764.2742

INPUT
Description:
Station Elevation Data    num=      42
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   12.26       4   12.05       5      12    8.16    11.8    21.2      11
   39.23   10.78   42.23   10.75   47.33   10.69   53.65   10.63   53.65   10.62
   56.65    10.6   57.65   10.59   58.65   10.59   58.65   10.58   59.65   10.58
   70.09   10.57  124.66   10.48  126.66   10.48  127.66   10.48  128.66   10.48
  129.66   10.48  130.66   10.49  133.83   10.48  134.83   10.47  137.06   10.46
  153.55   10.28  154.55   10.28  167.52   10.11  176.14      10  177.56    9.68
  178.56    9.49  179.56     9.7  180.56      10  184.68   10.92  185.68      11
  186.68   11.18  187.47   11.83  187.68      12  187.68    12.3  189.68      13
  200.12      13  204.24      13

Manning's n Values        num=       3
```

```
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
       0    .045  134.83    .055  184.68    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        134.83  184.68            18.87   27.89   39.86              .1       .3

CROSS SECTION


RIVER: Actual_2
REACH: Actual_2           RS: 736.3858

INPUT
Description:
Station Elevation Data    num=      52
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0    14.3       4      14     9.1   13.79    12.1   13.34    15.1      13
   23.16   12.55   34.21      12   42.21   11.44   49.28      11   56.35   10.92
   71.38   10.74   74.38   10.71   77.54   10.67   80.54   10.65   83.71   10.62
   87.83   10.54   89.83   10.53   89.83   10.52   91.24   10.52   92.24   10.52
  148.54   10.39  149.95   10.39  150.95   10.39  152.95   10.39  154.95   10.39
  155.95   10.39  156.95    10.4  161.08   10.41   165.2   10.39   167.2   10.38
  170.36   10.36  179.58   10.26   191.2   10.11  199.23      10  201.23      10
  202.64      10  203.64    9.73  204.64    9.28  206.88    9.78  206.88    9.91
  207.88      10  210.11   10.37  214.24      11  217.24   11.21  217.43   11.24
  223.56      12   225.8   12.79   226.8      13  230.92   13.33  232.92   13.48
  232.92   13.47  239.24   13.65

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
       0    .045   165.2    .055  210.11    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         165.2  210.11            13.45   19.27   27.63              .1       .3

CROSS SECTION


RIVER: Actual_2
REACH: Actual_2           RS: 717.1134

INPUT
Description:
Station Elevation Data    num=      66
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   13.64       5   13.44       8      13   18.05   12.47   27.05      12
   30.05   11.82   42.09      11   57.09   10.83   64.16   10.75   65.16   10.75
   67.16   10.72   69.16   10.71   71.16   10.68   72.16   10.68   82.36   10.48
   86.48   10.45   87.48   10.44   88.48   10.44   89.48   10.43   90.48   10.43
   92.48   10.43   92.48   10.42   93.48   10.42  137.89   10.28  138.89   10.27
  139.89   10.27  144.01   10.27  147.01   10.27  149.25   10.27  155.33   10.28
  157.33   10.27  171.23   10.12  172.73    10.1  181.52      10  181.52    9.27
  182.52       9  183.94    8.96  183.94       9  185.35    9.27  186.35    9.69
  186.35      10  193.06   10.46  196.32   10.74  199.46      11   208.4   11.46
  212.01   11.66  214.25   11.75  219.25   11.94  221.48      12   222.9   12.08
   226.5   12.35   227.5   12.37  231.11   12.46  236.11   12.71  237.52   12.77
  251.94   12.92  253.36   12.93  254.36   12.92  255.36   12.91  258.96   12.98
  259.96      13  266.37   13.07  267.37   13.06  273.77   13.14  287.37   13.56
  288.37   13.56

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
```

```
       0    .045  181.52    .055  186.35    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        181.52  186.35             21.34   23.34   25.44             .1       .3

CROSS SECTION


RIVER: Actual_2
REACH: Actual_2           RS: 693.7692

INPUT
Description:
Station Elevation Data    num=      64
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   13.29       2    13.2       4      13      22   12.02      22      12
      31   11.45      38      11      48   10.89   57.06   10.79   61.06   10.75
   65.06   10.71   79.06   10.43   79.06   10.44   86.06   10.37   88.06   10.35
   90.06   10.33   92.06   10.32   95.06    10.3   98.06   10.28  100.06   10.27
  114.06   10.19  126.06   10.12  128.06   10.11  135.06   10.09  138.06   10.08
  139.06   10.07  144.06   10.03   148.3      10  151.81    9.81  156.36    9.55
  159.97    9.05  160.97    9.04  160.97       9  160.97    8.98  161.97    8.75
  162.97    8.73  163.97       9  165.38    9.67  165.38     9.9  165.38    9.96
  165.38      10  169.62   10.16  175.66   10.38  191.26   10.92  191.26   10.93
  192.67      11  208.48   11.78  213.48      12  216.31   12.11  233.51   12.28
  234.93   12.22  235.93   12.26  237.34   12.22  239.58   12.21  240.99   12.31
  243.23   12.33  244.64   12.35  248.25   12.62  249.66   12.68   251.9   12.86
   251.9   12.87   252.9    12.9   253.9      13  255.31   13.05

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045   148.3    .055  165.38    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         148.3  165.38             11.96     9.9     9.9             .1       .3

CROSS SECTION


RIVER: Actual_2
REACH: Actual_2           RS: 683.8718

INPUT
Description:
Station Elevation Data    num=      55
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   12.71   13.04      12   26.04   11.17   29.04      11   40.08   10.87
   45.08   10.83   51.08   10.77   71.11   10.37   82.11   10.26   86.23   10.23
   86.23   10.22   89.23    10.2   92.23   10.18   97.23   10.14  101.23   10.11
  104.23   10.09  113.29   10.04  116.29   10.02  119.29   10.01   120.7      10
  130.14    9.62  134.19     9.5  135.14    9.47  142.35    9.02  143.35    9.01
  143.35       9  144.35     8.9  145.35    8.65  145.35    8.72  146.76       9
  146.76    9.35  147.76      10  148.76      10  149.76      10     152      10
     157      10  158.32   10.05   169.2   10.46  171.44   10.48  182.26   10.95
  183.26   10.96  183.26   10.97  184.26      11  200.07   11.74   202.9   11.86
   203.9   11.88   203.9   11.89   207.5      12  210.33      12  216.16      12
  236.41      12  237.82      12  237.82   12.09  242.82   12.54  250.03   12.95

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045   120.7    .055  147.76    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
```

```
         120.7  147.76            20.59   20.52    19.1             .1       .3

CROSS SECTION


RIVER: Actual_2
REACH: Actual_2           RS: 663.3554

INPUT
Description:
Station Elevation Data    num=      56
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   12.55       1   12.47   10.22      12   26.34   11.04   27.34      11
   32.44   10.95   40.51   10.88   72.89   10.21   91.14      10   93.14    9.96
   93.14    9.95   94.14    9.93  101.21    9.78  104.38    9.71  107.98     9.6
  112.98    9.48  118.39    9.29  126.87       9  126.87    8.99  126.87    8.96
  128.29    8.52  129.29    8.91  130.29       9  130.29    9.02  131.29    9.03
  132.29    9.05  141.94    9.42  151.16    9.77  160.59    9.96     162      10
  166.48   10.19   169.3   10.32   170.3   10.39  173.91   10.53  176.74    10.7
  181.21   10.89  183.45      11  184.86   11.05  184.86   11.06  190.69   11.21
   194.3   11.31  197.46    11.4  200.29   11.44  200.29   11.43  203.45   11.45
  206.28   11.44  207.69   11.42  208.69    11.4   215.9   11.31  224.51   11.38
  226.74   11.56  227.74   11.54  231.35      12  233.58   12.14  239.41   12.39
  240.83   12.44

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045   94.14    .055  160.59    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         94.14  160.59            17.02   16.97   18.38             .1       .3

CROSS SECTION


RIVER: Actual_2
REACH: Actual_2           RS: 646.3886

INPUT
Description:
Station Elevation Data    num=      42
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   13.04       2      13    12.2   12.51   21.42      12   26.52   11.71
   28.75    11.6   43.07      11   44.07   10.99      88   10.04      92      10
  105.34    9.68  112.56    9.47  117.72    9.31  125.59    9.07  128.42       9
  128.42    8.92  129.84     8.4  129.84    8.43  131.25       9  142.22    9.25
  160.09    9.66   177.3      10  184.51   10.28  186.75   10.33  188.16   10.35
  193.16   10.55   206.2   10.71  207.61   10.71  209.85   10.72  211.26   10.72
  212.68   10.71  213.68    10.7  225.08   10.73   235.9   10.89  241.73      11
  243.14      11  243.14   11.01  245.38      12  247.61    12.1  250.44   12.24
  252.68   12.34  254.09    12.4

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045  105.34    .055  160.09    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        105.34  160.09            21.18   25.48   29.73             .1       .3

CROSS SECTION


RIVER: Actual_2
```

REACH: Actual_2 RS: 620.9087

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	13.1	4.12	13	12.67	12.57	25.32	12	32.93	11.67
37.06	11.54	40.22	11.38	46.54	11.11	49.7	11	51.12	10.96
84.96	10	87.19	9.95	91.32	9.85	94.48	9.76	110.99	9.28
120.65	9	120.65	8.77	122.06	8.23	123.48	8.74	123.48	9
135.33	9	139.04	9	182.9	9.62	184.31	9.69	184.31	9.66
185.31	9.61	187.55	9.76	187.55	9.73	188.96	9.8	188.96	9.77
192.57	9.92	193.57	9.89	193.57	9.85	197.17	9.75	198.17	9.66
199.59	9.46	201.82	9.21	204.06	9	205.06	8.96	205.06	8.94
206.47	8.73	207.89	8.77	207.89	8.83	209.3	8.93	210.72	9
210.72	9.17	212.13	9.56	213.55	9.78	213.55	9.85	214.96	10
219.2	10.08	219.2	10.09	224.2	10.19	225.2	10.23	227.44	10.27
228.44	10.3	230.67	10.39	236.33	10.47	237.75	10.55	239.16	10.7
243.4	11	244.82	11.04	256.86	11.98	258.27	12	259.69	12.03
264.69	12.14	268.29	12.21						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	94.48	.055	213.55	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
94.48	213.55	21.26	22.62	24.76	.1	.3

CROSS SECTION

RIVER: Actual_2
REACH: Actual_2 RS: 598.2863

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	13.16	0	13.15	5.39	13.04	6.8	13	14.86	12.72
23.81	12.34	31.87	12	46.63	11.3	53.34	11	55.58	10.9
77.94	10	79.35	9.98	84.74	9.88	88.34	9.79	91.95	9.71
106.09	9.28	107.09	9.28	107.28	9.27	113.49	9.08	117.1	9
118.1	8.83	119.51	8.1	120.93	8.57	120.93	8.95	120.93	9
131.56	9.12	133.08	9.12	168.35	9.12	170.59	9.1	173.42	9.08
181.23	9.01	182.64	9	184.06	8.42	184.06	8.4	185.47	8.91
185.47	9	186.47	9.07	188.71	9.39	190.94	9.5	198.02	10
199.02	10.03	212.47	10.44	213.47	10.47	217.07	10.56	220.68	10.64
224.92	10.77	226.34	10.8	229.17	10.82	230.17	10.84	231.17	10.86
242.48	10.91	243.48	10.91	243.48	10.92	244.89	10.93	250.55	10.94
251.96	10.94	260.45	10.99	260.45	11	262.69	11	265.51	11.01
265.51	11.02	272.59	11.08	272.59	11.09	274	11.12	274	11.14
278.24	11.28	279.24	11.33	282.07	11.44	283.48	11.54	284.48	11.6
286.72	11.73	289.55	11.9	289.55	11.93	289.55	11.94	290.96	12
295.21	12.08								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	113.49	.055	186.47	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
113.49	186.47	24.08	21.21	16.28	.1	.3

CROSS SECTION

RIVER: Actual_2
REACH: Actual_2 RS: 577.0777

INPUT
Description:
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	13.14	1.41	13.13	2.83	13.1	6.43	13	7.85	12.98
7.85	12.97	10.68	12.8	11.68	12.78	13.09	12.75	16.7	12.56
18.11	12.51	20.94	12.42	23.18	12.33	32.39	12	33.81	11.95
33.81	11.94	35.22	11.86	41.63	11.57	51.63	11.05	51.63	11.03
52.63	11	53.63	10.94	60.03	10.61	61.03	10.6	64.63	10.43
64.63	10.41	65.63	10.41	65.63	10.4	73.45	10	78.45	9.89
103.28	9.32	106.4	9.25	112.5	9.12	117.5	9	118.5	8.03
118.5	8	119.5	7.99	119.5	7.97	120.5	8	121.5	8.61
122.5	9	134.11	9.14	139.53	9.2	139.53	9.21	140.53	9.21
141.53	9.22	147.94	9.29	147.94	9.3	148.94	9.3	149.94	9.31
150.94	9.3	151.94	9.3	152.94	9.29	173.55	9.11	186.28	9
186.28	8.73	187.69	8.35	188.69	8.57	189.69	9	198.91	9.53
204.57	9.76	206.81	9.87	211.05	10	221.68	10.29	222.68	10.31
223.68	10.31	227.29	10.39	230.11	10.46	236.52	10.49	237.93	10.51
240.17	10.54	246.57	10.63	250.18	10.64	251.59	10.64	257.25	10.68
258.66	10.7	262.9	10.7	262.9	10.71	271.39	10.77	276.39	10.78
279.22	10.81	281.45	10.83	283.69	10.85	287.29	10.9	289.53	10.93
291.77	10.95	296.77	10.99	298.18	11	303.84	11.14		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	117.5	.055	189.69	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
117.5	189.69	11.29	12.03	14.86	.1	.3

CROSS SECTION

RIVER: Actual_2
REACH: Actual_2 RS: 565.0447

INPUT
Description:
Station Elevation Data num= 72

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	13.04	0	13.03	2.24	13	3.24	12.94	7.48	12.62
13.14	12.45	14.55	12.36	18.16	12.26	20.98	12.13	22.4	12.1
25.23	12	25.23	11.98	26.23	11.97	29.83	11.81	31.25	11.78
34.07	11.65	40.48	11.37	43.31	11.25	47.55	11	55.36	10.61
66.67	10	69.5	9.95	78.72	9.73	85.79	9.55	100.52	9.22
106.31	9.09	110.55	9	111.97	8.5	113.38	8	114.8	7.94
114.8	7.87	116.21	7.99	116.21	8	117.21	8.68	117.21	8.89
117.21	9	128.31	9.13	128.52	9.13	141.25	9.22	142.25	9.22
167.01	9.11	175.5	9.03	179.74	9	181.15	8.35	182.57	9
196.02	9.46	202.42	9.64	208.08	9.82	216.57	10	217.98	10.02
220.81	10.07	225.05	10.14	237.09	10.32	239.92	10.33	242.75	10.36
246.35	10.39	248.59	10.4	250	10.42	266.28	10.54	269.11	10.55
270.53	10.57	271.94	10.59	272.94	10.6	275.77	10.63	277.18	10.65
278.6	10.66	281.43	10.69	295.57	11	296.57	11	300.81	11
303.64	11	305.05	11						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val

```
       0    .045  110.55    .055  182.57    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        110.55  182.57             10.63   11.31   12.72             .1       .3

CROSS SECTION


RIVER: Actual_2
REACH: Actual_2           RS: 553.7349

INPUT
Description:
Station Elevation Data    num=      69
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   11.65    2.83   11.57    4.24   11.51    7.07   11.38    8.49   11.34
   15.56   11.08   15.56   11.07   16.97      11   19.21   10.91   20.21    10.9
   25.86   10.63   32.27   10.32   33.68   10.25   38.68      10   41.51    9.92
   48.58    9.77   74.04    9.17   76.04    9.13   79.04    9.06   81.27       9
   85.51    8.43   89.12       8   90.12    7.79   90.12    7.78   91.53    7.95
   91.53       8   92.53    8.46   93.53    8.93   93.53    8.96   93.53       9
  104.75    9.07  115.47    9.15  116.88    9.15  147.99       9   155.8       9
  157.22    8.38  157.22     8.3  158.63    8.92  158.63    8.99  158.63       9
  169.26     9.3  170.68    9.32  174.92    9.44  177.75    9.49  179.98    9.54
  182.81    9.61  206.16    9.88  207.57     9.9  208.57    9.92  212.18    9.97
  214.41      10  217.24      10  218.24      10  219.66   10.02  235.21   10.13
  235.21   10.14  243.02   10.19  244.02    10.2  245.44   10.21  245.44   10.22
  246.44   10.22  247.44   10.22  247.44   10.23  248.85   10.24  248.85   10.27
  249.85   10.28  250.85   10.28  276.31      11  284.79   11.26

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***************************************************
       0    .045   79.04    .055  158.63    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         79.04  158.63             17.69    19.1   19.79             .1       .3

CROSS SECTION


RIVER: Actual_2
REACH: Actual_2           RS: 534.6314

INPUT
Description:
Station Elevation Data    num=      74
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   11.26       0   11.25    4.24   11.16    5.24   11.13   10.24      11
   11.24   10.97   12.24   10.97   14.48   10.91   14.48    10.9   14.48   10.89
   17.31   10.82   17.31   10.81   18.31   10.79   19.31   10.78   26.38   10.55
   29.21   10.47   32.04   10.36   34.27   10.29   38.51   10.13   41.34      10
   48.41    9.84   54.07    9.71   55.48    9.67   56.48    9.67   59.31    9.58
   60.73    9.53   80.53    9.15   87.27    9.05   91.16       9   91.16    8.97
   91.16    8.93  102.47       8  102.47    7.97  102.47    7.82  103.88    7.64
  104.88    7.99  104.88       8  104.88    8.02  105.88    8.67  105.88       9
   107.3       9   108.3       9  111.13       9  113.96       9  115.37       9
  116.65       9   118.2       9  119.61       9  126.02    9.04  128.25    9.04
  136.06       9  138.89       9  141.72       9  144.55       9  153.03       9
  155.86       9  169.31       9  169.31    8.89  169.31    8.71  170.73    8.28
  170.73     8.6  172.14       9  173.56    9.04  184.19    9.23  216.01    9.72
  237.95      10  240.77      10  242.19      10  244.42      10  245.42      10
  245.42   10.01  283.63   10.93  286.46      11  306.98   11.78

Manning's n Values        num=       3
```

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	91.16	.055	173.56	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
91.16	173.56	26.24	25.5	24.07	.1	.3

CROSS SECTION

RIVER: Actual_2
REACH: Actual_2 RS: 509.1368

INPUT
Description:
Station Elevation Data num= 57

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	10	1.41	10	15.56	9.79	16.97	9.79	19.8	9.78
21.21	9.77	22.63	9.76	31.85	9.61	36.85	9.59	38.26	9.58
39.26	9.56	41.5	9.54	42.91	9.53	45.74	9.5	48.57	9.47
62.02	9.17	64.26	9.16	67.86	9.14	70.69	9.13	79.18	9.06
84.18	9.01	85.18	9	90.24	8.77	92.99	8.64	104.3	8
105.3	7.84	105.3	7.43	106.72	7.89	106.72	8	118.66	8.4
118.76	8.41	122.36	8.48	140.75	9	142.16	9	143.58	9
144.99	9	146.4	9	156.3	9	170.45	9	170.45	8.93
171.86	8.24	173.27	8.9	173.27	9	173.27	9.01	183.17	9.11
187.42	9.15	207.22	9.47	227.73	9.72	243.29	10	243.29	10.01
258.85	10.48	265.92	10.63	268.75	10.72	281.47	11	281.47	11.01
292.79	11.56	297.03	11.74						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	85.18	.055	173.27	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
85.18	173.27	23.34	24.08	24.76	.1	.3

CROSS SECTION

RIVER: Actual_2
REACH: Actual_2 RS: 485.0546

INPUT
Description:
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	9.74	10.63	9.37	11.63	9.35	13.04	9.32	14.46	9.3
15.87	9.28	15.87	9.27	22.28	9.19	25.1	9.16	30.76	9.07
42.07	9	47.07	8.97	49.31	8.95	54.31	8.9	58.55	8.86
73.42	8.6	79.82	8.52	83.43	8.48	84.79	8.44	91.91	8.18
94.74	8.14	97.57	8	98.98	7.26	100.4	8	104.64	8.1
112.58	8.32	131.55	8.85	132.55	8.86	141.77	8.97	143.18	9
147.43	9	162.98	9	164.4	8.68	165.4	8.2	166.81	8.92
167.81	9	178.44	9.11	182.68	9.16	184.1	9.18	204.62	9.53
208.22	9.6	218.85	9.8	229.48	10	239.38	10.47	247.87	10.76
249.28	10.81	250.28	10.86	254.52	11	268.66	11.65	275.74	11.95
275.74	11.97								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	58.55	.055	167.81	.045

```
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         58.55  167.81             24.2   24.08   24.03             .1       .3

CROSS SECTION


RIVER: Actual_2
REACH: Actual_2           RS: 460.9725

INPUT
Description:
Station Elevation Data    num=      62
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
       0    10.3    5.66      10   18.38    9.37   24.79    9.02   24.79       9
    26.2       9    27.2       9   44.89    8.64   46.31    8.62   47.72     8.6
   50.55    8.59   54.79    8.55   56.21    8.54   57.62    8.53   64.69     8.5
   65.69    8.49    69.3    8.48   71.53    8.47   75.78    8.45   77.19    8.44
   78.61    8.42   81.43    8.42   82.85     8.4  105.48       8  105.83       8
  109.72       8  112.55       8  117.55       8  118.55    7.51  119.55     7.2
  120.96       8  130.86    8.29   132.3    8.32  140.76    8.46  158.45    8.77
  161.28    8.82  164.11    8.86  165.11    8.87  172.18    8.87  173.18     8.9
  174.18    8.89  175.18    8.87  176.59    8.89  178.01    8.89  183.66    8.31
  185.08    8.27  185.08    8.24  185.08    8.16  186.08    8.29  188.32       9
  193.97    9.13  198.97    9.22  211.01    9.46  241.43      10  244.26   10.17
  249.91   10.41  256.98   10.79  261.23      11  272.54   11.65  278.94      12
  281.77    12.2  283.19   12.27

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045   77.19    .055  178.01    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         77.19  178.01             17.8    19.1   21.25             .1       .3

CROSS SECTION


RIVER: Actual_2
REACH: Actual_2           RS: 441.8690

INPUT
Description:
Station Elevation Data    num=      65
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
       0   10.61    5.66   10.36    9.26   10.22   12.09   10.08   13.51      10
   24.14    9.33   29.97       9   33.57    8.89   34.99    8.87   40.82    8.71
   42.23    8.69   47.23    8.55   59.96    8.29   60.96    8.28   61.96    8.27
   65.56    8.24    67.8    8.22    68.8    8.21   72.41    8.19   73.82    8.17
   76.65    8.16   81.65    8.13   83.06    8.13   89.47    8.09   90.47    8.09
   94.07    8.08   95.07    8.07   99.31       8  108.53       8  111.36       8
  112.78       8  113.49       8  114.19       8  116.43       8  117.84       8
  120.67       8  121.67       8  122.67       8  124.08       8   125.5       8
   126.5       8   126.5    7.77  127.91    7.43  127.91     7.2  130.74    7.88
  130.74       8  134.98       8  137.81       8  138.65       8  140.05       8
  141.05       8  143.88       8  192.79    7.91  192.79    7.95  194.21       8
  194.21    8.42  195.62    8.85  195.62       9  199.23    9.08  237.52      10
  242.52   10.27  257.38      11  270.84   11.88  272.25      12  275.86   12.26

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045  120.67    .055  137.81    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
```

```
        120.67  137.81             22.2   23.34   22.62             .1       .3

CROSS SECTION


RIVER: Actual_2
REACH: Actual_2           RS: 418.5280

INPUT
Description:
Station Elevation Data    num=      53
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   10.27       5      10    6.41    9.96    6.41    9.93   15.63    9.35
   21.29       9   29.89    8.71   32.72    8.61   36.96    8.48   51.18    8.16
   52.18    8.14   53.18    8.12   58.18       8   59.59       8  110.68    7.53
  115.68    7.51  116.66    7.51  119.92    7.51  129.14     7.2  130.14    7.38
  131.14    7.74  132.14       8  141.86       8  155.57       8  164.79       8
  167.62       8  187.47       8  188.47       8  189.88       8   191.3       8
  192.71       8  193.71       8  194.71       8  195.71       8  196.71       8
  197.71       8  198.71    7.87  199.71     7.8  199.71    7.86  201.13       8
  201.13    8.34  201.13       9  204.73    9.11  230.98      10  232.39   10.08
  250.83      11  262.88   11.66  268.71      12  271.53   12.26  275.78    12.7
  278.61   12.92  279.61      13  291.65   13.84

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***************************************************
       0    .045   59.59    .055  132.14    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         59.59  132.14             21.4   22.67   24.76             .1       .3

CROSS SECTION


RIVER: Actual_2
REACH: Actual_2           RS: 395.8584

INPUT
Description:
Station Elevation Data    num=      56
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   10.75    2.24   10.66    3.65   10.58    5.06   10.48    7.89   10.28
    8.89   10.22    8.89   10.18    12.5      10    25.3    9.36    30.3    9.08
   31.72       9   38.93    8.72   42.54    8.61   47.54     8.4   51.14    8.29
   52.56     8.2   57.56    8.07   58.97       8   61.21       8   85.41    7.76
  109.83    7.54  113.43    7.49  119.09    7.44  137.97    7.25  149.89    7.12
  152.72    7.91  152.72       8  156.33       8  161.71       8  169.13       8
  182.74       8  183.74       8  190.14       8  190.14    7.96  191.55    7.63
  192.55     7.9  193.55       8  194.55    8.05  199.55    8.28  205.96     8.7
  209.56    8.86  210.98       9  218.19    9.23  230.39    9.67  234.64    9.83
  239.64      10  249.64   10.44  254.64   10.63  263.24      11  264.65   11.06
  282.46      12  291.89   12.61  296.89      13  298.31   13.07  300.54   13.25
  311.94   13.97

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***************************************************
       0    .045   61.21    .055  193.55    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         61.21  193.55             24.2   22.67   23.34             .1       .3

CROSS SECTION
```

RIVER: Actual_2
REACH: Actual_2 RS: 373.1887

INPUT
Description:
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	10.3	2.24	10.3	8.64	10	11.47	9.85	13.7	9.71
20.11	9.29	25.11	9	32.32	8.81	42.32	8.54	48.15	8.35
54.55	8.2	59.55	8	96.75	7.63	114.56	7.45	150.41	7.1
160.36	7	161.36	6.95	161.36	6.9	162.36	6.98	163.36	7
163.36	7.22	165.6	7.8	166.6	8	170.2	8	172.44	8
174.26	8	175.27	8	176.68	8	178.92	8	180.33	8
181.33	8	182.75	8	186.99	8	189.23	7.43	189.23	7.36
190.64	7.78	191.64	8	195.88	8.21	210.31	9	211.31	9.03
212.31	9.06	233.11	9.73	242.33	10	244.57	10.09	245.98	10.14
249.59	10.3	259.59	10.79	261.83	10.91	263.24	11	278.24	11.76
282.71	12	291.93	12.44	295.54	12.64	301.37	12.86	303.6	13
308.6	13.25	309.6	13.29	311.02	13.32	319.62	13.8		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	59.55	.055	191.64	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
59.55	191.64	16.4	19.1	21.25	.1	.3

CROSS SECTION

RIVER: Actual_2
REACH: Actual_2 RS: 354.0852

INPUT
Description:
Station Elevation Data num= 53

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	10	1.41	10	5.89	9.74	17.55	9	35.04	8.52
42.25	8.33	53.91	8	88.05	7.66	133.32	7.23	150.24	7.07
157.18	7	158.18	7	158.18	6.95	159.59	6.72	160.59	6.92
161.59	7	162.59	7.38	164.01	8	168.48	8	169.48	7.1
169.48	7	170.89	6.91	171.89	7	172.45	7.23	172.89	7.41
173.89	8	181.95	8.26	183.37	8.35	186.97	8.5	190.14	8.64
191.55	8.72	197.38	9	210.42	9.49	212.66	9.61	217.66	9.77
220.82	9.87	224.42	10	230.25	10.3	230.25	10.34	233.08	10.48
238.47	10.7	241.3	10.86	244.46	10.97	245.46	11	247.69	11.11
261.59	12	265.19	12.16	272.4	12.59	275.57	12.82	276.98	12.88
278.39	13	285.1	13.37	288.71	13.54				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	53.91	.055	173.89	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
53.91	173.89	19.04	21.69	25.62	.1	.3

CROSS SECTION

RIVER: Actual_2
REACH: Actual_2 RS: 332.3934

INPUT
Description:
Station Elevation Data num= 40

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	10.06	2.24	10	3.24	10	4.65	10	18.97	9.15
22.13	9	27.96	8.85	58.42	8	85.26	7.74	155.22	7.06
160.9	7	162.32	7	163.32	7	164.73	6.87	165.73	6.63
166.73	6.78	168.14	7	168.14	7.44	169.56	8	171.79	8
172.79	8	179.51	8.23	184.88	8.41	188.04	8.51	192.51	8.69
200.13	9	209.07	9.48	212.68	9.66	220.29	10	227	10.43
234.62	11	237.78	11.29	244.49	11.74	247.65	12	258.83	12.71
262.44	13	264.44	13.13	265.85	13.21	272.56	13.67	273.56	13.71

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	58.42	.055	169.56	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
58.42	169.56	21.59	23.33	23.76	.1	.3

CROSS SECTION

RIVER: Actual_2
REACH: Actual_2 RS: 309.0579

INPUT
Description:
Station Elevation Data num= 36

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	10.17	6.32	10	7.32	10	8.32	10	9.32	10
26.41	9.16	30.02	9	31.02	8.98	31.02	8.97	37.34	8.79
61.11	8	64.27	7.97	151.53	7.07	158.05	7	159.05	7
160.47	7	163.63	6.65	164.63	6.48	166.86	6.91	167.86	7
169.28	7.13	175.48	7.59	180.98	8	182.4	8.11	187.5	8.56
192.88	9	199.59	9.34	212.59	10	214.83	10.17	227.47	11
230.64	11.29	239.58	12	244.97	12.44	253.21	13	259.04	13.54
260.04	13.62								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	64.27	.055	175.48	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
64.27	175.48	13.12	13.34	14.32	.1	.3

CROSS SECTION

RIVER: Actual_2
REACH: Actual_2 RS: 295.7206

INPUT
Description:
Station Elevation Data num= 37

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	10	1	10	3.24	10	4.65	10	10.97	10
21.42	9.54	22.83	9.48	31.37	9	38.65	8.76	60.19	8
111.12	7.41	146.24	7.05	150.68	7	152.91	7	153.91	7
157.07	7	157.07	6.95	160.24	6.4	160.24	6.56	162.47	7
166.94	7.41	170.08	7.66	174.22	8	185.93	8.89	186.93	9
191.4	9.27	204.05	10	209.44	10.35	214.82	10.69	217.98	10.86

220.22	11	225.6	11.44	232.88	12	241.43	12.84	243.66	13
249.99	13.65	252.23	13.82						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	111.12	.055	170.08	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
111.12	170.08	20.61	21.38	21.59	.1	.3

CROSS SECTION

RIVER: Actual_2
REACH: Actual_2 RS: 274.3449

INPUT
Description:
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	9.9	1	9.9	4.61	9.91	6.61	9.91	11.99	9.93
13.99	9.94	18.46	9.87	18.46	9.86	20.7	9.86	22.7	9.85
32.55	9.58	40.79	9.19	42.21	9.17	45.37	9	50.76	8.78
61.2	8.38	62.2	8.31	69.81	8	77.09	7.85	80.25	7.82
98.28	7.52	101.44	7.49	147.32	7	149.32	7	149.38	7
161.03	6.4	163.27	6.29	163.27	6.3	166.43	7	173.91	7.59
178.13	7.92	180.13	8	182.37	8.12	201.68	9	206.78	9.39
214.4	10	222.94	10.57	228.04	10.96	229.45	11	238	11.8
241	12	243.23	12.21	247.71	12.56	252.8	13	255.97	13.27
257.38	13.38	259.62	13.54	265.94	14	266.94	14.06		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	101.44	.055	173.91	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
101.44	173.91	20.61	21.58	22.56	.1	.3

CROSS SECTION

RIVER: Actual_2
REACH: Actual_2 RS: 252.7693

INPUT
Description:
Station Elevation Data num= 72

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	9.96	18.03	9.72	20.03	9.7	20.03	9.69	23.19	9.68
24.6	9.68	25.6	9.68	26.6	9.68	26.6	9.69	48.74	9.28
50.15	9.26	51.15	9.26	52.15	9.25	53.15	9.25	54.57	9.26
64.06	9	65.06	9	67.29	9	76.78	9	79.94	9
91.65	8.49	102.09	8	119.81	7.62	131.51	7.42	136.9	7.33
140.06	7.27	148.3	7.14	151.47	7.06	156.85	7	165.4	6.8
170.49	6.69	175.88	6.58	176.37	6.56	185.37	6.14	186.37	6.12
188.6	6	189.6	5.97	191.02	6	191.02	6.05	193.02	7
196.18	7.21	200.93	7.4	203.79	7.52	204.79	7.56	206.79	7.63
216.28	7.94	217.28	7.95	217.28	7.96	218.28	8	223.38	8.14
225.62	8.21	242.38	9	245.54	9.29	247.78	9.46	250.01	9.56
257.29	10	259.53	10.12	259.53	10.16	262.69	10.29	265.85	10.45
269.02	10.6	272.18	10.72	279.46	11	282.62	11.21	286.75	11.46
288.98	11.56	289.98	11.64	295.37	12	300.75	12.34	301.75	12.47
304.91	12.68	308.08	12.88						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	151.47	.055	200.93	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
151.47	200.93	22.34	22.35	22.56	.1	.3

CROSS SECTION

RIVER: Actual_2
REACH: Actual_2 RS: 230.4201

INPUT
Description:
Station Elevation Data num= 63

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	9.93	5.1	9.88	9.57	9.83	26.33	9.19	28.33	9.14
31.5	9.09	36.88	9	37.88	8.99	52.75	9	62.95	9
67.42	9	68.42	9	73.8	9	76.8	9	77.8	8.98
78.8	8.96	78.8	8.92	99.68	8	102.85	7.91	112.33	7.71
142.7	7	168.09	6.32	176.22	6.1	179.39	6	179.39	5.99
181.39	5.71	181.39	5.72	183.62	6	189.95	6.65	192.38	6.92
193.11	7	196.11	7.09	197.11	7.11	199.11	7.17	209.55	7.47
214.02	7.62	215.02	7.65	230.83	8	233.83	8.13	238.3	8.37
241.47	8.58	243.47	8.68	245.7	8.8	248.87	9	255.19	9.27
258.35	9.37	262.48	9.52	267.57	9.73	274.85	10	288.46	10.67
294.78	11	299.25	11.27	304.35	11.48	308.47	11.65	310.71	11.74
313.87	11.92	316.11	12	318.11	12.17	319.11	12.21	320.52	12.27
321.52	12.41	324.69	12.59	327.85	12.86				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	142.7	.055	193.11	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
142.7	193.11	22.56	22.8	22.56	.1	.3

CROSS SECTION

RIVER: Actual_2
REACH: Actual_2 RS: 207.6205

INPUT
Description:
Station Elevation Data num= 61

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	10.1	1	10.07	2.41	10	3.41	9.94	8.51	9.61
19.28	9	23.41	8.9	23.41	8.89	26.57	8.82	27.57	8.81
34.85	8.65	36.26	8.64	41.36	8.55	44.52	8.49	46.76	8.46
60.36	8.47	61.78	8.47	63.78	8.5	64.78	8.49	70.16	8.49
71.58	8.48	73.58	8.48	93.5	8	94.5	8	97.66	7.9
102.13	7.79	120.82	7.26	125.29	7.12	130.39	7	145.25	6.67
154.74	6.48	159.84	6.36	162.69	6.29	174.71	6	175.71	5.65
176.71	5.52	178.12	5.91	179.12	6	180.12	6.09	188.15	6.67
192.77	7	206.37	7.32	209.53	7.39	233.57	7.9	234.99	7.93
235.99	7.96	238.22	8	244.55	8.31	258.15	9	267.64	9.34
268.64	9.42	274.96	9.68	282.24	10	293.95	10.72	297.11	10.87
298.11	11	301.27	11.24	310.76	12	318.04	12.76	320.27	13
324.4	13.44								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	130.39	.055	192.77	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
130.39	192.77	25.71	24.74	25.71	.1	.3

CROSS SECTION

RIVER: Actual_2
REACH: Actual_2 RS: 182.8820

INPUT
Description:
Station Elevation Data num= 73

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	10.19	3.16	10	12.65	9.4	19.93	9	28.18	8.72
31.34	8.62	41.78	8.3	44.01	8.21	45.43	8.18	53.67	8
54.67	8	58.8	8	61.03	8	62.03	8	69.65	8
70.65	8	72.65	8	74.06	8	81.34	7.89	94.95	7.83
103.49	7.68	104.49	7.65	105.49	7.62	107.73	7.58	109.73	7.55
112.89	7.47	116.05	7.41	119.21	7.32	131.86	7	164.29	6.27
173.62	6.06	175.86	6	175.86	5.96	176.86	5.77	178.27	5.19
178.27	5.32	180.27	6	188.76	6.41	188.82	6.42	197.06	6.76
203.39	7	204.39	7.03	217.04	7.25	220.2	7.32	223.36	7.37
227.48	7.44	232.87	7.51	236.99	7.61	240.15	7.64	242.15	7.69
243.57	7.71	249.89	7.89	250.89	7.9	254.06	8	257.22	8.12
260.38	8.21	261.38	8.25	278.14	9	282.27	9.24	287.65	10
291.77	10.32	294.94	10.54	297.17	10.68	302.27	11	307.66	11.45
314.94	12	315.94	12.11	317.35	12.21	320.51	12.48	326.84	13
327.84	13.06	333.22	13.56	335.22	13.7				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	131.86	.055	204.39	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
131.86	204.39	18.44	19.65	19.41	.1	.3

CROSS SECTION

RIVER: Actual_2
REACH: Actual_2 RS: 163.2360

INPUT
Description:
Station Elevation Data num= 72

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	10.46	0	10.44	7.28	10	10.44	9.8	25	9
44.65	8.28	51.93	8	52.93	8	55.17	8	59.29	8
62.45	8	65.61	8	66.61	8	93.54	7.59	103.03	7.54
126.8	7.13	129.96	7.05	132.19	7	168	6.25	172.72	6.15
175.88	6.07	180	6	180	5.91	181	5.02	181	5.15
183.24	5.92	183.24	6	193.25	6.29	207.01	6.69	215.25	6.8
217.49	6.87	223.81	6.92	227.94	6.96	232.06	6.99	234.3	7
241.37	7.06	242.37	7.07	250.61	7.15	250.61	7.16	252.61	7.19
252.61	7.21	254.03	7.22	256.03	7.28	258.26	7.31	260.26	7.37
261.68	7.4	263.68	7.49	270	7.61	271	7.66	283.37	8
284.37	8	285.37	8	291.7	8.57	294.7	8.74	296.11	8.81
297.11	8.88	298.11	9	300.35	9.39	302.35	10	307.73	10.25
316.95	10.68	322.34	11	324.34	11.11	325.75	11.22	332.82	11.69

338.21	11.95	338.21	11.96	338.21	11.97	339.21	12	344.31	12.33
346.54	12.52	349.7	12.72						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	132.19	.055	207.01	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
132.19	207.01	25.71	25.71	25.71	.1	.3

CROSS SECTION

RIVER: Actual_2
REACH: Actual_2 RS: 137.5280

INPUT
Description:
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	11.06	1	11	6.39	10.55	12.47	10	30.19	9.38
40.63	9	42.63	8.96	42.63	8.93	44.04	8.9	61.51	8.26
67.83	8	68.83	7.98	84.36	7.68	88.48	7.59	90.71	7.55
97.99	7.41	115.46	7.13	116.87	7.12	118.87	7.11	125.2	7
126.2	7	127.61	7	128.61	7	129.61	7	131.85	7
132.85	7	136.97	7	142.07	7	143.07	7	144.07	7
145.07	7	149.19	7	160.6	6.78	171.04	6.51	174.81	6.42
177.12	6.37	190.72	6	191.72	5.42	193.13	5.07	194.13	5.65
195.13	6	198.3	6.09	199.3	6.09	201.01	6.11	238.86	6.55
242.02	6.56	243.02	6.56	244.02	6.56	245.02	6.56	262.74	6.78
263.74	6.78	265.15	6.81	266.15	6.81	270.28	6.87	280.72	7
281.72	7.03	281.72	7.04	289	7.21	306.72	7.79	311.82	7.94
313.82	8	321.1	8.57	326.48	9	327.48	9.06	336.97	10
338.97	10.07	339.97	10.09	339.97	10.11	351.37	10.53	353.61	10.6
359.93	10.8	361.93	10.86	366.05	11	369.22	11.21	370.22	11.25
371.63	11.32	376.73	11.62	382.11	12	384.11	12.13		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	171.04	.055	238.86	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
171.04	238.86	23.54	23.77	23.53	.1	.3

CROSS SECTION

RIVER: Actual_2
REACH: Actual_2 RS: 113.7589

INPUT
Description:
Station Elevation Data num= 107

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	11.55	1	11.47	6.39	11.23	10.51	11	15.61	10.69
18.77	10.49	21.01	10.34	27.09	10	31.21	9.83	32.21	9.81
34.21	9.74	40.54	9.43	41.54	9.37	43.77	9.28	45.77	9.21
48.01	9.09	51.01	9	52.42	9	54.42	8.89	61.7	8.73
63.12	8.68	66.12	8.61	69.28	8.5	73.4	8.38	80.68	8.08
80.68	8.06	82.1	8	93.5	7.8	96.66	7.74	100.78	7.68
103.95	7.63	108.07	7.57	115.35	7.32	118.51	7.26	125.58	7
127.82	7	130.05	7	134.18	7	137.34	7	143.42	7
145.66	7	146.66	7	150.78	7	153.94	7	154.94	7

157.18	7	158.18	6.97	161.34	6.91	165.47	6.81	171.79	6.66
174.95	6.56	179.14	6.44	191.44	6.08	192.86	6.06	194.86	6
194.86	5.9	195.86	5.07	199.02	5.8	199.02	5.95	200.02	6
204.48	6	214.58	6	217.74	6	225.02	6	229.15	6
244.67	6.17	245.67	6.18	247.67	6.17	249.91	6.16	255.01	6.23
257.24	6.22	257.24	6.23	258.24	6.23	260.48	6.25	261.48	6.26
263.48	6.28	267.6	6.33	272.99	6.39	276.15	6.43	277.15	6.46
283.47	6.52	300.94	6.81	300.94	6.82	302.35	6.83	306.48	6.91
309.64	6.97	310.64	6.98	311.64	7	325.24	7.57	334.46	7.98
334.46	7.99	335.46	8	336.46	8.08	346.9	9	348.9	9.14
351.13	9.22	353.13	9.28	359.46	9.59	369.9	9.97	370.9	10
376	10.21	378.23	10.29	380.47	10.4	382.47	10.46	391.96	10.88
393.96	11	397.12	11.18						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	192.86	.055	200.02	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
192.86	200.02	17.46	17.46	17.46	.1	.3

CROSS SECTION

RIVER: Actual_2
REACH: Actual_2 RS: 96.29712

INPUT
Description:
Station Elevation Data num= 107

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	11.88	1	11.85	2	11.8	4.24	11.66	7.4	11.52
10.56	11.36	17.84	11.08	18.84	11.05	19.84	11	22.08	10.93
22.08	10.92	30.32	10.68	32.56	10.59	34.56	10.47	36.8	10.39
49.16	10	51.4	9.93	51.4	9.91	52.4	9.9	56.52	9.73
57.94	9.67	62.06	9.55	64.06	9.48	65.06	9.46	68.22	9.4
72.35	9.26	72.35	9.25	78.67	9	79.67	8.96	79.67	8.95
79.67	8.94	79.67	8.93	90.11	8.57	92.35	8.5	97.45	8.31
99.68	8.22	106.01	8	108.01	7.97	108.01	7.95	111.17	7.84
112.17	7.8	118.49	7.59	120.49	7.5	121.91	7.44	130.15	7.06
131.15	7	133.39	7	138.49	7	139.49	7	146.77	7
149.93	7	152.17	7	177.72	6.37	189.53	6.08	189.53	6.07
192.69	6	193.69	5.58	193.69	5.07	195.69	5.43	197.11	5.63
198.11	6	204.96	6	210.48	6	211.89	6	216.01	6
219.18	6	221.18	6	229.72	6	235.8	6	251.61	6
268.11	6	275.39	6.08	277.62	6.12	280.62	6.17	282.86	6.21
284.86	6.23	285.86	6.25	295.08	6.4	303.32	6.58	309.65	6.7
317.9	6.87	324.22	7	330.54	7.3	333.71	7.43	337.83	7.61
340.99	7.76	346.09	8	347.09	8.11	355.34	9	361.66	9.24
362.66	9.27	381.34	10	388.62	10.31	390.04	10.34	392.04	10.41
394.27	10.49	395.27	10.53	397.51	10.6	398.51	10.63	400.51	10.68
403.67	10.74	404.67	10.76	405.67	10.77	406.67	10.78	408.91	10.81
409.91	10.81	410.91	10.83						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	177.72	.055	285.86	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
177.72	285.86	17.46	17.46	17.46	.1	.3

CROSS SECTION

RIVER: Actual_2
REACH: Actual_2 RS: 78.83528

INPUT
Description:
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	11.06	3.16	11.01	4.16	11	6.4	10.91	11.5	10.74
12.5	10.71	12.5	10.69	16.62	10.59	18.86	10.53	22.02	10.47
24.02	10.45	25.43	10.4	26.43	10.37	34.68	10.19	35.68	10.14
38.84	10.07	38.84	10.06	42	10	44.24	9.93	45.24	9.88
52.52	9.54	55.68	9.41	59.81	9.18	63.93	9	71.21	8.74
79.45	8.25	81.69	8.13	83.69	8	90.02	7.75	93.18	7.59
97.3	7.44	100.46	7.24	104.59	7	105.59	7	107.59	6.96
109	6.92	120.4	6.7	133.74	6.42	134.89	6.39	149.56	6
151.56	5.35	151.56	5.07	152.56	5.23	154.79	6	161.98	6
166.19	6	172.52	6	173.52	6	176.68	6	178.92	6
179.92	6	219.21	6	221.45	6	246.18	6	250.66	6.09
251.66	6.11	253.66	6.16	264.1	6.36	267.26	6.44	270.42	6.52
274.54	6.61	285.95	6.91	286.95	6.92	289.18	7	297.43	7.37
303.75	7.6	312.97	8	319.3	8.63	323.42	9	330.7	9.3
332.7	9.34	334.11	9.4	336.11	9.47	339.28	9.56	341.28	9.59
342.69	9.64	343.69	9.65	344.69	9.67	346.93	9.7		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	149.56	.055	250.66	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
149.56	250.66	9.22	8.49	9.22	.1	.3

CROSS SECTION

RIVER: Actual_2
REACH: Actual_2 RS: 70.34394

INPUT
Description:
Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	10.85	1	10.82	6.39	10.63	7.39	10.6	10.55	10.51
13.55	10.46	19.87	10.3	20.87	10.26	22.29	10.22	27.39	10.08
31.51	10	38.79	9.64	43.89	9.42	51.17	9.05	51.17	9.03
52.58	9	61.8	8.46	66.9	8.21	68.31	8.14	70.31	8
76.64	7.71	77.64	7.65	87.13	7	88.13	6.98	89.13	6.95
106.85	6.54	110.5	6.43	110.97	6.42	125.53	6	127.53	5.08
130.69	6	137.59	6	140.18	6	147.46	6	149.46	6
157.7	6	163.09	6	177.41	6	224.25	6	226.25	6
228.48	6	229.48	6	234.58	6.12	236.82	6.17	242.9	6.32
248.29	6.45	251.45	6.54	264.79	6.87	265.79	6.91	269.91	7
273.08	7.17	282.56	7.51	294.93	8	294.93	8.02	294.93	8.04
302.21	8.72	307.31	9	307.31	9.01	310.47	9.07	310.47	9.08
311.47	9.11	313.71	9.15	320.03	9.21	321.03	9.24	322.03	9.26
325.2	9.31								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	125.53	.055	228.48	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
125.53	228.48	12.15	13.34	14.48	.1	.3

CROSS SECTION

RIVER: Actual_2
REACH: Actual_2 RS: 57.00518

INPUT
Description:
Station Elevation Data num= 74

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	10.48	5.1	10.31	6.1	10.31	13.38	10.18	21.63	10
21.63	9.99	27.95	9.62	31.11	9.43	33.11	9.32	37.24	9.04
37.24	9.02	38.65	9	54.17	8.14	57.17	8	63.5	7.59
68.6	7.24	69.6	7.18	70.6	7.15	73.6	7	78.98	6.84
81.98	6.74	86.87	6.59	88.31	6.54	90.31	6.43	93.47	6.35
96.63	6.22	98.63	6.14	101.79	6	104.03	5.42	105.03	5.07
108.19	5.78	108.19	6	113.29	6	113.86	6	121.54	6
123.77	6	124.77	6	139.33	6	201.18	6	206.57	6
207.57	6	208.57	6	209.57	6	210.57	6	211.98	6
215.14	6.1	217.14	6.15	224.42	6.34	252.31	6.97	252.31	6.98
253.31	6.99	253.31	7	262.53	7.35	267.01	7.53	271.13	7.68
279.38	8	279.38	8.01	280.38	8.04	283.2	8.24	286.81	8.46
294.62	8.75	296.03	8.84	297.03	8.87	298.03	8.89	298.03	8.9
301.64	9	309.45	9.3	310.45	9.33	312.69	9.41	314.92	9.48
317.75	9.58	319.16	9.61	320.58	9.64	321.99	9.67		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	101.79	.055	206.57	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
101.79	206.57	18.58	16.78	14.42	.1	.3

CROSS SECTION

RIVER: Actual_2
REACH: Actual_2 RS: 40.22435

INPUT
Description:
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	9.78	4.12	9.6	6.36	9.49	11.46	9.15	13.69	9
14.69	8.95	14.69	8.94	16.11	8.92	19.27	8.76	32.87	8
37	7.7	47.44	7	52.82	6.73	59.03	6.46	62.04	6.33
66.51	6.16	69.67	6	70.67	5.41	71.67	5.02	74.84	5.73
76.25	5.91	77.25	6	78.25	6	82.6	6	82.72	6
93.16	6	97.29	6	109.94	6	119.16	6	127.7	6
166.6	6	174.84	6	175.84	6	216.65	6.9	221.12	7
228.4	7.28	234.23	7.54	241.44	7.8	247.27	8	249.51	8.15
251.74	8.2	256.22	8.4	257.63	8.47	259.87	8.54	260.87	8.58
268.48	8.75	269.48	8.78	270.48	8.78	271.9	8.82		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	59.03	.055	69.67	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
59.03	69.67	20.51	17.2	15.81	.1	.3

CROSS SECTION

RIVER: Actual_2
REACH: Actual_2 RS: 23.02103

INPUT
Description:
Station Elevation Data num= 58

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	8.14	3.16	8	4.58	7.92	5.58	7.83	10.96	7.48
13.2	7.34	17.32	7	26.27	6.68	37.02	6.34	47.45	6
49.69	5.24	49.69	5.01	51.93	5.45	52.93	5.41	58.35	5.53
78.01	6	81.17	6	89.71	6	91.95	6	98.27	6
114.43	6	117.59	6	138.21	6	144.53	6	145.95	6
153.56	6.15	159.89	6.28	167.5	6.42	194.43	7	203.91	7.34
209.3	7.51	213.77	7.67	219.16	7.8	222.32	7.91	222.32	7.92
225.15	8	229.39	8.15	231.63	8.23	235.23	8.35	238.06	8.44
239.06	8.47	240.47	8.53	241.89	8.56	246.13	8.66	248.37	8.77
254.02	9	256.26	9	258.5	9	259.91	9	264.15	9
266.98	9	266.98	9.01	268.4	9.06	269.4	9.06	273	9.2
274.42	9.21	275.42	9.21	286.73	9.84				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	47.45	.055	145.95	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
47.45	145.95	24.04	23.02	19.42	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 1280.230

INPUT
Description:
Station Elevation Data num= 140

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	32.18	1.69	32.07	3.02	32	3.1	32	8.19	31.71
9.54	31.64	10.78	31.57	11.75	31.53	12.74	31.47	14.88	31.36
18.58	31.2	19.21	31.16	19.46	31.15	22.59	31	23.14	31
23.27	31	26.92	30.88	27.26	30.87	28.3	30.84	32.44	30.64
37.58	30.41	39	30.35	40	30.31	41.02	30.26	43.72	30.15
43.94	30.14	47	30.02	47.08	30.02	47.29	30.01	47.56	30
53.03	29.84	53.78	29.81	54.48	29.78	58.07	29.65	59.85	29.59
65.33	29.29	66.27	29.25	66.72	29.23	70.6	29	73.7	28.84
77.29	28.66	79.75	28.53	82.45	28.4	85.26	28.26	85.75	28.23
86.14	28.21	90.24	28.01	90.26	28.01	90.5	28	95.48	27.89
101.14	27.8	102.86	27.79	102.87	27.79	103.58	27.78	105.04	27.78
105.05	27.78	106.43	27.78	106.44	27.78	106.45	27.78	106.46	27.78
106.47	27.78	106.48	27.78	113.85	27.77	113.86	27.77	113.87	27.77
113.88	27.77	113.89	27.77	113.9	27.77	116.06	27.75	126.85	27.44
127.71	27.38	127.91	27.37	128.18	27.37	130.54	27.2	130.77	27.19
132.2	27.1	132.27	27.09	133.87	27	135.01	26.76	136.64	26.43
137.19	26.28	138.78	26.58	140.26	27	146.61	27.31	147.77	27.37
151.07	27.52	153.06	27.62	153.42	27.64	160	28	160.14	28
160.3	28	166.67	28.45	173.61	29	176.18	29.27	183.95	30
187.06	30.96	187.27	31	189.24	31.15	189.3	31.15	189.37	31.16
189.43	31.16	192.92	31.43	192.97	31.43	193.02	31.43	193.42	31.46
193.46	31.46	193.62	31.47	194.51	31.55	194.53	31.55	194.65	31.55
194.67	31.55	194.74	31.55	194.77	31.56	194.8	31.56	194.83	31.56
195.7	31.61	195.75	31.61	195.8	31.61	195.85	31.61	195.91	31.62
195.96	31.62	197.23	31.7	197.3	31.7	197.37	31.71	202.2	32
205.95	32.37	212.82	33	212.93	33.01	212.99	33.02	216.38	33.4

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   218.3   33.51  219.25   33.57  220.72   33.68  222.21    33.8   224.8      34
  226.08   34.09  226.75   34.16  228.34   34.33  233.54   34.82  234.95   34.99

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
       0    .045  133.87    .055  140.26    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        133.87  140.26               21   19.76   19.45             .1       .3

CROSS SECTION


RIVER: Actual_3
REACH: Actual_3           RS: 1260.467

INPUT
Description:
Station Elevation Data    num=     111
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   31.33     .21   31.32    3.39   31.18    4.37   31.13    7.24      31
    8.47   30.93   12.75   30.68   14.45   30.56   22.79   30.22   24.72   30.13
   28.02      30   28.03      30   28.12      30    33.7   29.74   37.02   29.58
    41.7   29.41   42.45   29.38   43.43   29.34   49.48   29.15   50.89   29.09
   53.84      29   54.84   28.97   54.92   28.97   55.05   28.97   57.62    28.9
   57.78   28.89   58.19   28.88   58.61   28.86   63.79   28.71    66.1   28.61
   67.84   28.54   70.65   28.44   74.48   28.27   75.82   28.21   79.44   28.05
   80.43      28   82.45   27.92   82.71   27.92  105.49   27.24  105.51   27.24
  106.22   27.23  107.06   27.23  107.07   27.23  107.78   27.22  107.79   27.22
  108.71   27.22  108.72   27.22  109.74   27.21  109.75   27.21  110.78    27.2
   110.8    27.2  110.82    27.2  111.85    27.2  113.12   27.19  113.14   27.19
  114.56   27.18  114.58   27.18  115.11   27.17  115.12   27.17  117.75   27.15
   118.9   27.13  126.86   27.03  126.87   27.03  129.13      27  129.23   26.98
  129.29   26.97  131.06   26.64  132.47   26.28  133.56      26  134.07   25.92
  134.29   25.88  134.71   25.93   135.2      26  136.16   26.41  137.23      27
   137.4      27  138.01      27   138.2      27  145.22   27.38  146.56   27.44
  148.52   27.57  154.91      28  160.56   28.44  168.11      29     171   29.26
  179.11      30  183.67   30.75  185.68      31  186.87   31.52  188.33      32
  188.51   32.19  189.51      33  189.57      33  189.92      33  190.37      33
  192.31   33.14  192.32   33.14  195.11   33.24  195.12   33.23  195.13   33.23
   196.3   33.27  196.31   33.26  196.76   33.28  196.77   33.28  205.41   33.91
  205.42   33.91  205.44   33.91  205.45   33.91  210.09      34  226.53   34.77
  231.77   34.91

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
       0    .045  129.13    .055  137.23    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        129.13  137.23              8.99    8.11    8.16             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
       0   91.48      28       T
  149.83  231.77      28       T

CROSS SECTION


RIVER: Actual_3
REACH: Actual_3           RS: 1252.359

INPUT
Description:
Station Elevation Data    num=     106
```

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	30.61	2.56	30.45	5.84	30.26	6.65	30.21	10.72	30
14.33	29.82	15.29	29.78	21.74	29.5	33.6	29.02	33.67	29.02
33.75	29.01	33.8	29.01	34.06	29	41.44	28.78	42.6	28.76
42.9	28.76	47.29	28.64	48.59	28.62	50.03	28.59	52.36	28.53
53.76	28.5	55.97	28.44	57.12	28.41	58.05	28.38	60.33	28.31
62.75	28.23	64.1	28.19	68.89	28	70.22	27.95	70.51	27.94
73.72	27.81	74.02	27.81	77.61	27.66	78.28	27.65	78.95	27.63
81.03	27.56	81.63	27.55	83.08	27.49	84.74	27.47	96.33	27.12
96.34	27.12	97.73	27.12	99.35	27.11	99.36	27.11	100.72	27.1
100.73	27.1	102.5	27.08	104.46	27.07	106.45	27.06	106.46	27.06
108.35	27.05	108.44	27.05	110.87	27.03	113.59	27.01	114.59	27
114.6	27	119.76	26.65	120.41	26.55	123.47	26.05	123.62	26.03
123.79	26	124.03	25.98	125.45	25.84	126.67	25.96	127.02	26
128.89	26.27	133.85	27	139.77	27.49	139.92	27.5	143.18	27.77
146.14	28	155.36	28.74	158.51	29	158.95	29.04	161.08	29.24
168.02	29.87	169.46	30	178.77	30.9	179.54	31	179.8	31.18
180.87	32	181.87	32.76	182.15	33	184.44	33.48	184.46	33.48
184.49	33.48	184.51	33.48	184.52	33.48	185.12	33.59	185.73	33.64
185.75	33.64	185.77	33.64	186.18	33.65	186.21	33.65	186.23	33.65
186.4	33.65	186.42	33.65	186.49	33.65	186.51	33.65	187.87	33.75
187.91	33.75	187.94	33.75	187.97	33.75	200.66	34	212.86	34.57
218.49	34.72								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	114.59	.055	133.85	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
114.59	133.85	7.61	6.03	6.94	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
0	124.85	27.3	T
126.05	218.49	27.3	T

CULVERT

RIVER: Actual_3
REACH: Actual_3 RS: 1252

INPUT
Description:
Distance from Upstream XS = 1
Deck/Roadway Width = 4
Weir Coefficient = 1.4
Upstream Deck/Roadway Coordinates
num= 2

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	27.3	0	200	27.3	0

Upstream Bridge Cross Section Data
Station Elevation Data num= 106

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	30.61	2.56	30.45	5.84	30.26	6.65	30.21	10.72	30
14.33	29.82	15.29	29.78	21.74	29.5	33.6	29.02	33.67	29.02
33.75	29.01	33.8	29.01	34.06	29	41.44	28.78	42.6	28.76
42.9	28.76	47.29	28.64	48.59	28.62	50.03	28.59	52.36	28.53
53.76	28.5	55.97	28.44	57.12	28.41	58.05	28.38	60.33	28.31
62.75	28.23	64.1	28.19	68.89	28	70.22	27.95	70.51	27.94
73.72	27.81	74.02	27.81	77.61	27.66	78.28	27.65	78.95	27.63
81.03	27.56	81.63	27.55	83.08	27.49	84.74	27.47	96.33	27.12
96.34	27.12	97.73	27.12	99.35	27.11	99.36	27.11	100.72	27.1

100.73	27.1	102.5	27.08	104.46	27.07	106.45	27.06	106.46	27.06
108.35	27.05	108.44	27.05	110.87	27.03	113.59	27.01	114.59	27
114.6	27	119.76	26.65	120.41	26.55	123.47	26.05	123.62	26.03
123.79	26	124.03	25.98	125.45	25.84	126.67	25.96	127.02	26
128.89	26.27	133.85	27	139.77	27.49	139.92	27.5	143.18	27.77
146.14	28	155.36	28.74	158.51	29	158.95	29.04	161.08	29.24
168.02	29.87	169.46	30	178.77	30.9	179.54	31	179.8	31.18
180.87	32	181.87	32.76	182.15	33	184.44	33.48	184.46	33.48
184.49	33.48	184.51	33.48	184.52	33.48	185.12	33.59	185.73	33.64
185.75	33.64	185.77	33.64	186.18	33.65	186.21	33.65	186.23	33.65
186.4	33.65	186.42	33.65	186.49	33.65	186.51	33.65	187.87	33.75
187.91	33.75	187.94	33.75	187.97	33.75	200.66	34	212.86	34.57
218.49	34.72								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	114.59	.055	133.85	.045

Bank Sta: Left	Right	Coeff Contr.	Expan.
114.59	133.85	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
0	124.85	27.3	T
126.05	218.49	27.3	T

Downstream Deck/Roadway Coordinates
num= 2

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	27.2	0	200	27.2	0

Downstream Bridge Cross Section Data
Station Elevation Data num= 104

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	30.11	.72	30.06	.97	30.05	1.27	30.03	1.8	30
7.87	29.65	8.74	29.6	11.01	29.48	13.2	29.36	14.93	29.27
16.47	29.19	19.58	29.05	19.89	29.03	20.62	29	24.23	28.86
24.41	28.85	32.85	28.53	33.88	28.53	36.31	28.49	36.87	28.48
39.07	28.44	40.08	28.42	43.24	28.33	46.72	28.27	47.64	28.26
49.11	28.22	51.86	28.18	54.9	28.13	55.38	28.11	57.97	28.06
60.21	28	61.81	27.96	62.26	27.94	63.9	27.89	66.88	27.8
68.02	27.76	69.29	27.72	69.8	27.7	70.85	27.66	72.95	27.59
76.79	27.44	79.77	27.36	80.96	27.32	82.04	27.29	83.29	27.24
84.75	27.21	86.2	27.18	86.78	27.16	87.88	27.14	88.25	27.13
91	27.09	93.28	27.02	95.25	27.02	97.52	27.01	98.41	27
99.71	26.98	102.55	26.93	103.26	26.9	104.23	26.88	106.08	26.85
106.54	26.83	106.82	26.81	109.2	26.76	109.62	26.74	109.97	26.72
111.03	26.65	112.85	26.61	114.68	26.55	117.2	26.38	118.41	26.34
121.3	26.08	121.4	26.08	122.22	26	123.29	25.8	123.49	25.76
124.15	25.85	125.33	26	125.8	26.07	127.41	26.32	132.12	27
132.95	27.07	137.16	27.46	143.02	28	144.49	28.12	155.32	29
157.58	29.21	164.13	29.81	165.56	29.94	166.17	30	173.1	30.74
175.8	31	178.25	31.57	180.55	32	180.79	32.13	182.05	33
183.75	33.35	183.76	33.35	183.77	33.35	187.52	33.81	187.54	33.82
187.55	33.82	196.88	34	203.99	34.34	221.58	34.78		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	114.68	.055	132.12	.045

Bank Sta: Left	Right	Coeff Contr.	Expan.
114.68	132.12	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent

```
       0  122.95    27.2       T
  124.15  221.58    27.2       T
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
************************
  190.29     220      35

Upstream Embankment side slope             =       0 horiz. to 1.0 vertical
Downstream Embankment side slope           =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .98
Elevation at which weir flow begins        =
Energy head used in spillway design        =
Spillway height used in design             =
Weir crest shape                           = Broad Crested

Number of Culverts =  1

Culvert Name     Shape      Rise    Span
Culvert #1      Circular     1.2
FHWA Chart # 1 - Concrete Pipe Culvert
FHWA Scale # 1 - Square edge entrance with headwall
Solution Criteria = Highest U.S. EG
Culvert Upstrm Dist  Length    Top n  Bottom n  Depth Blocked  Entrance Loss Coef   Exit Loss Coef
                 1       4     .015     .015        0                   .5                1
Upstream   Elevation =  25.9
           Centerline Station =  125.45
Downstream Elevation =  25.8
           Centerline Station =  123.55

CROSS SECTION


RIVER: Actual_3
REACH: Actual_3           RS: 1246.332

INPUT
Description:
Station Elevation Data    num=     104
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   30.11     .72   30.06     .97   30.05    1.27   30.03     1.8      30
    7.87   29.65    8.74    29.6   11.01   29.48    13.2   29.36   14.93   29.27
   16.47   29.19   19.58   29.05   19.89   29.03   20.62      29   24.23   28.86
   24.41   28.85   32.85   28.53   33.88   28.53   36.31   28.49   36.87   28.48
   39.07   28.44   40.08   28.42   43.24   28.33   46.72   28.27   47.64   28.26
   49.11   28.22   51.86   28.18    54.9   28.13   55.38   28.11   57.97   28.06
   60.21      28   61.81   27.96   62.26   27.94    63.9   27.89   66.88    27.8
   68.02   27.76   69.29   27.72    69.8    27.7   70.85   27.66   72.95   27.59
   76.79   27.44   79.77   27.36   80.96   27.32   82.04   27.29   83.29   27.24
   84.75   27.21    86.2   27.18   86.78   27.16   87.88   27.14   88.25   27.13
      91   27.09   93.28   27.02   95.25   27.02   97.52   27.01   98.41      27
   99.71   26.98  102.55   26.93  103.26    26.9  104.23   26.88  106.08   26.85
  106.54   26.83  106.82   26.81   109.2   26.76  109.62   26.74  109.97   26.72
  111.03   26.65  112.85   26.61  114.68   26.55   117.2   26.38  118.41   26.34
   121.3   26.08   121.4   26.08  122.22      26  123.29    25.8  123.49   25.76
  124.15   25.85  125.33      26   125.8   26.07  127.41   26.32  132.12      27
  132.95   27.07  137.16   27.46  143.02      28  144.49   28.12  155.32      29
  157.58   29.21  164.13   29.81  165.56   29.94  166.17      30   173.1   30.74
   175.8      31  178.25   31.57  180.55      32  180.79   32.13  182.05      33
  183.75   33.35  183.76   33.35  183.77   33.35  187.52   33.81  187.54   33.82
  187.55   33.82  196.88      34  203.99   34.34  221.58   34.78

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
*********************************************
       0    .045  114.68    .055  132.12    .045
```

```
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        114.68  132.12             9.51   12.88   17.04             .3       .5
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
       0  122.95    27.2       T
  124.15  221.58    27.2       T
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
************************
  190.29     220      35

CROSS SECTION


RIVER: Actual_3
REACH: Actual_3           RS: 1233.448

INPUT
Description:
Station Elevation Data    num=     100
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   30.05     .78      30    4.54   29.76    6.52   29.64    8.37   29.52
   11.77   29.31   16.79      29   16.93   28.99   19.19   28.87   21.43   28.76
   22.08   28.72   24.96   28.58   26.22   28.52   27.18   28.47   28.66    28.4
   29.65   28.36   31.23   28.29   32.16   28.26   34.78   28.16   36.64   28.14
   41.09   28.08   42.12   28.06    44.9      28   46.11   27.98   46.13   27.98
   47.73   27.96   47.78   27.96    52.4    27.9   52.98   27.89   54.05   27.87
   54.26   27.86   57.25   27.83   58.16   27.81   60.94   27.76   62.02   27.73
   62.88   27.71   64.36   27.66   66.51   27.61    68.9   27.55   74.15   27.34
   74.77   27.33   75.88   27.29    80.1   27.13   80.33   27.12   81.95   27.07
   82.06   27.06   83.89      27    87.4   26.92   91.68   26.84   93.12   26.79
   94.43   26.77      96   26.74   97.34   26.72    98.3    26.7  100.43   26.67
  102.22   26.65  102.25   26.65  102.94   26.62  103.45   26.61   105.3   26.58
  106.54   26.54  107.89   26.52  109.42   26.49  113.23   26.34  115.35   26.25
  116.39   26.21  119.75   26.05  120.63      26  121.13   25.88  121.92   25.67
  123.25   25.95  123.45      26  123.77   26.06  128.61      27  130.31   27.12
  133.66   27.38  134.67   27.45  138.89   27.77  141.73      28  149.74   28.66
  152.94   28.92  153.95      29  156.71   29.27  164.13      30  167.82   30.34
  175.15      31  176.96   31.16   178.6    31.3  185.69   31.93   185.7   31.93
  186.67      32  190.62   32.91  191.13      33   192.2   33.77  192.55      34
  194.41      34  194.84      34  195.28      34  208.36    34.3  208.66   34.31

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
************************************************
       0    .045  109.42    .055  128.61    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        109.42  128.61             3.48     8.1    7.56             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
       0   86.95      28       T
  128.25  208.66      28       T
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
************************
     200     220      35

CROSS SECTION


RIVER: Actual_3
REACH: Actual_3           RS: 1225.351

INPUT
Description:
```

Station Elevation Data num= 110

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	29.98	9.01	29.41	14.13	29.08	14.37	29.06	14.8	29.04
15.41	29	22.38	28.61	23.81	28.54	25.22	28.47	26.68	28.38
28.24	28.3	28.91	28.27	30.39	28.19	31	28.17	32.41	28.1
32.86	28.08	34.07	28.04	34.5	28.03	36.67	28	36.96	28
39.31	28	42.17	27.95	43.26	27.93	43.44	27.93	47.21	27.87
47.33	27.87	48.75	27.85	48.93	27.84	53.01	27.79	54.21	27.77
55.14	27.75	55.55	27.74	58.13	27.71	59.67	27.67	62	27.63
63.67	27.59	65.01	27.55	67.31	27.47	68.87	27.44	70.59	27.39
77.77	27.11	77.97	27.11	78.34	27.09	80.83	27	83.96	26.92
84.28	26.92	86.17	26.87	90.91	26.76	92.46	26.73	95.15	26.67
99.65	26.52	100.08	26.51	100.91	26.49	102.33	26.45	103.46	26.43
104.22	26.41	105.82	26.37	107.08	26.35	108.72	26.28	109.97	26.24
110.88	26.22	113.87	26.1	114.2	26.1	114.53	26.09	116.52	26
116.83	25.9	117.52	25.63	118.5	25.98	118.54	26	118.62	26.01
119.02	26.08	124.05	26.9	124.6	27	130.39	27.38	134.28	27.63
139.41	28	149.06	28.73	152.53	29	153.74	29.12	163.35	30
163.88	30.05	174.18	31	178.06	31.37	178.08	31.37	178.11	31.38
178.15	31.38	178.18	31.38	178.22	31.39	178.26	31.39	178.3	31.39
178.34	31.39	178.37	31.4	178.4	31.4	179.19	31.47	179.22	31.47
179.24	31.47	179.26	31.47	180.55	31.57	182.1	31.67	182.15	31.67
182.2	31.68	182.26	31.68	182.32	31.68	182.37	31.68	186.91	32
189.13	32.37	194.15	33	194.16	33.01	194.35	33.18	194.91	33.66

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	110.88	.055	119.02	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
110.88	119.02	13.89	15.69	16.57	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 1209.658

INPUT
Description:
Station Elevation Data num= 56

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	29.8	10.48	29.16	13.06	29	13.11	29	21.77	28.47
27.07	28.14	28.65	28.05	29.49	28	43.01	27.59	51.5	27.43
52	27.42	53.54	27.38	55.08	27.35	55.69	27.34	56.25	27.33
57.03	27.31	58.57	27.29	62.54	27.22	62.81	27.22	64.12	27.19
64.78	27.18	69.15	27.08	69.42	27.07	72.17	27	73.63	26.96
73.64	26.96	75.91	26.9	75.92	26.9	77.99	26.83	78	26.83
78.01	26.83	80.46	26.75	80.47	26.75	88.09	26.59	95.91	26.38
105.26	26.14	109.86	26	111.11	25.58	111.89	25.27	113.3	25.78
113.91	26	117.81	26.68	119.63	27	124.37	27.28	124.89	27.31
136.68	28	140.56	28.3	149.69	29	157.77	29.59	163.46	30
172.62	30.82	174.57	31	178.04	31.28	181.89	31.58	187.25	32
191.32	32.34								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	105.26	.055	117.81	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
105.26	117.81	10.72	13.21	14.96	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 1196.446

INPUT
Description:
Station Elevation Data num= 85

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	29.6	2.21	29.47	10.47	29	11.09	28.96	11.32	28.95
12.32	28.88	13.51	28.8	18.31	28.49	22.08	28.24	25.96	28
39.66	27.54	40.95	27.5	42.71	27.45	45.07	27.37	53.14	27.14
55.35	27.08	56.46	27.05	56.53	27.05	58.35	27	58.54	27
78.26	26.55	78.48	26.54	78.85	26.54	78.92	26.53	79	26.53
79.05	26.53	79.07	26.53	79.12	26.53	79.15	26.53	79.21	26.53
79.26	26.53	79.28	26.53	79.3	26.53	79.31	26.53	79.34	26.53
79.41	26.53	79.46	26.53	79.58	26.52	79.68	26.52	80.17	26.51
80.72	26.5	81.07	26.49	87.9	26.33	88.29	26.32	90.77	26.26
101.22	26	101.29	26	102.11	25.69	103.57	25	103.85	24.93
104.2	24.84	104.68	24.94	104.96	25	105.15	25.12	106.55	26
115.68	26.82	118.07	27	118.69	27.04	130.59	27.87	132.29	28
136.19	28.3	139.08	28.54	144.67	29	144.71	29	148.42	29.21
149.52	29.27	151.97	29.4	153.35	29.47	154.5	29.53	156.84	29.64
162.61	29.95	162.84	29.96	162.97	29.96	163.59	30	168.86	30.47
172.8	30.82	174.92	31	175.91	31.07	177.83	31.19	178.46	31.22
179.59	31.29	181.63	31.39	182.33	31.42	183.06	31.44	183.53	31.46

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	101.22	.055	106.55	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
101.22	106.55	8.07	7.82	7.15	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 1188.626

INPUT
Description:
Station Elevation Data num= 86

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	30.16	2.66	30	5.07	29.87	13.58	29.42	21.33	29
22.44	28.93	36.81	28	37.02	28	37.42	27.98	41.9	27.82
42.33	27.8	53.89	27.44	66.88	27	67.03	27	68.12	27
69.19	27	80.48	26.75	80.5	26.75	80.53	26.75	80.55	26.75
90.69	26.48	98.38	26.27	98.4	26.27	98.42	26.27	99.07	26.25
99.09	26.25	99.84	26.23	99.86	26.23	99.88	26.23	100.96	26.2
108.72	26	109.01	26	109.2	26	111.02	25.24	111.53	25
112.36	24.76	112.37	24.76	112.38	24.76	113.39	25	113.98	25.42
114.81	26	124.1	26.64	128.25	26.92	128.35	26.93	129.28	27
134.38	27.42	141.52	28	141.54	28	142.64	28.04	144.5	28.1
144.51	28.1	144.53	28.1	153.41	28.62	153.84	28.66	153.86	28.66
153.87	28.66	154.33	28.7	154.35	28.7	154.36	28.7	155.04	28.75
155.06	28.75	155.07	28.75	155.08	28.75	158.71	29	159.14	29.02
159.32	29.03	163.59	29.23	165.99	29.34	169.42	29.54	171.26	29.63
171.97	29.67	177.21	30	179.81	30.23	180.3	30.27	182.5	30.44
186.36	30.76	187.63	30.85	188.1	30.88	189.57	30.97	189.61	30.97
189.7	30.98	190.2	31	192	31.07	192.84	31.12	195.61	31.23
196.37	31.26								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	109.2	.055	114.81	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
109.2	114.81	6.65	6.22	5.64	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 1182.406

INPUT
Description:
Station Elevation Data num= 90

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	30.57	4.29	30.31	6.98	30.14	9.32	30	14.89	29.7
27.81	29	35.63	28.51	43.61	28	44	27.99	48.92	27.9
48.93	27.9	59.01	27.44	61.02	27.36	62.53	27.32	72.55	27
72.86	27	73.87	27	74.33	27	74.9	27	75.08	27
75.55	27	75.83	27	76.08	27	76.36	27	76.63	27
79.5	26.94	79.51	26.94	79.52	26.94	97.74	26.45	107.18	26.19
112.03	26.05	113.21	26.02	113.97	26	115.2	25.45	116.07	25.08
116.23	25	116.36	24.97	117.38	24.76	117.53	24.81	118.05	25
119.77	25.86	120.04	26	120.05	26	126.7	26.43	134.16	26.91
134.81	26.95	135.49	27	136.31	27.06	138.02	27.18	147.88	27.9
149.44	28	154.26	28.18	154.3	28.18	154.34	28.18	155.53	28.23
156.17	28.25	156.21	28.25	156.24	28.25	157.26	28.28	157.28	28.28
157.31	28.28	157.34	28.28	157.81	28.3	157.84	28.3	157.86	28.3
157.88	28.3	158.5	28.32	158.52	28.32	158.54	28.32	166.94	28.86
169.95	28.98	170.41	29	171.87	29.07	172.97	29.14	181.47	29.63
186.8	30	186.88	30.01	186.9	30.01	189.99	30.25	190.41	30.27
191.39	30.34	193.38	30.47	194.63	30.53	195.82	30.6	197.58	30.67
199.24	30.74	203.4	30.88	204.14	30.91	206.21	31	206.74	31.03

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	113.97	.055	120.04	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
113.97	120.04	10.9	8.43	9.6	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 1173.979

INPUT
Description:
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	30.15	2.53	30	9.13	29.66	14.6	29.37	21.59	29
26.17	28.73	31.07	28.44	35.62	28.17	38.29	28	49.04	27.79
49.13	27.78	49.23	27.78	49.33	27.78	50.4	27.76	50.47	27.76
50.53	27.76	50.96	27.75	51.01	27.75	51.05	27.75	51.33	27.74
51.37	27.74	51.4	27.74	51.61	27.74	51.64	27.74	53.08	27.67
53.11	27.67	53.16	27.67	53.22	27.67	53.47	27.65	53.54	27.65
53.61	27.65	55.08	27.57	55.2	27.57	58.15	27.41	58.31	27.4
58.47	27.39	58.62	27.38	58.76	27.38	65.97	27	69.03	27
75.42	26.72	76.31	26.72	76.72	26.72	77.37	26.72	78.52	26.71
96.23	26.33	96.76	26.32	100.75	26.21	101.98	26.18	108.6	26
109.85	25.39	110.64	25	111.38	24.76	111.41	24.75	112.22	24.99

112.26	25	112.27	25	113.61	25.48	115.19	26	119.3	26.25
121.6	26.38	127.09	26.74	127.13	26.75	127.88	26.79	128.6	26.84
131.04	27	136.15	27.32	138.2	27.42	142.64	27.67	145.21	27.78
145.79	27.81	150.78	28	151.98	28.03	151.99	28.03	152.84	28.09
153.13	28.1	153.32	28.11	156.93	28.25	159.91	28.38	165.08	28.6
168.94	28.77	174.86	29	175.02	29.01	175.03	29.01	175.08	29.01
181.33	29.39	182.49	29.46	184.51	29.57	188.45	29.75	188.78	29.77
191.61	29.89	191.62	29.89	191.63	29.89	191.64	29.89	194.82	30
196.49	30.06	197.15	30.09	198.02	30.12				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	108.6	.055	115.19	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
108.6	115.19	10.63	11.35	10.78	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 1162.626

INPUT
Description:
Station Elevation Data num= 105

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	30.11	1.87	30	15.83	29.23	20.39	29	24.25	28.77
28.38	28.53	37.19	28	40.39	27.94	40.4	27.94	55.65	27.48
56.06	27.48	56.07	27.48	56.43	27.47	57.4	27.46	57.42	27.46
62.98	27.3	62.99	27.3	68.82	27	71.99	26.7	72.32	26.7
73.38	26.7	81.11	26.36	83.17	26.37	84.12	26.36	85.65	26.36
88.35	26.34	98.35	26.12	99.44	26.09	102.9	26	104.26	26
104.69	26	105	26	105.69	26	106.45	26	106.94	26
107.2	26	107.61	26	108.88	25.69	111.16	25	111.83	24.69
112.71	24.91	113.03	25	113.79	25.15	115.39	25.54	117.32	26
118.29	26.06	122.14	26.3	124.18	26.42	124.99	26.47	125.56	26.5
131.21	26.85	134.19	27	139.58	27.25	140.98	27.31	142.77	27.38
144.57	27.44	146.34	27.51	149.45	27.62	151.22	27.68	152.02	27.71
152.52	27.73	153.14	27.74	160.01	28	163.46	28.16	164.7	28.2
165.79	28.25	170.05	28.36	172.8	28.48	173.4	28.5	176.24	28.62
179.07	28.72	179.85	28.76	182.83	28.94	182.87	28.94	183.98	29
184.05	29	185.07	29.04	189.12	29.15	189.13	29.15	189.14	29.15
189.15	29.15	190.03	29.17	190.04	29.17	190.05	29.17	190.06	29.18
190.91	29.21	190.93	29.21	190.94	29.21	191.61	29.26	191.62	29.26
191.63	29.26	191.81	29.27	191.82	29.27	191.83	29.27	192.09	29.3
192.1	29.3	193.91	29.42	194.78	29.43	194.8	29.43	199.81	29.57
201.13	29.58	203.2	29.6	207.34	29.68	208.39	29.69	210.71	29.75

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	107.61	.055	117.32	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
107.61	117.32	4.75	6.82	5.56	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
0	76.34	27	T
126.69	210.71	27	T

CROSS SECTION

RIVER: Actual_3

REACH: Actual_3 RS: 1155.802

INPUT
Description:
Station Elevation Data num= 113

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	30.07	1.15	30	9.26	29.5	12.34	29.32	13.18	29.27
18.34	29	28.24	28.44	31.54	28.24	33.27	28.14	35.75	28
41.41	27.8	42.1	27.78	42.98	27.76	58	27.33	58.66	27.31
58.67	27.31	59.25	27.31	60.82	27.28	60.83	27.28	69.57	27.04
70.38	27	77.19	26.36	77.87	26.36	80.06	26.36	84.02	26.19
86.57	26.2	87.21	26.2	87.86	26.19	90.19	26.17	94.59	26.11
98.7	26	98.8	26	101.12	26	101.2	26	103.1	25.84
104.3	25.74	106.58	25.42	108.05	25.26	108.65	25.18	109.48	25
110.16	24.73	110.33	24.67	110.48	24.74	111.34	25	117.22	25.9
117.76	26	118.87	26.07	120.72	26.16	123.95	26.34	128.14	26.57
130.05	26.67	132.35	26.78	133.27	26.83	137.43	27	137.44	27
140.7	27.13	141.55	27.16	145.52	27.31	147.31	27.38	148.4	27.42
149.74	27.46	158.29	27.79	159.66	27.83	161.03	27.88	161.81	27.91
163.93	27.99	164.14	28	164.17	28	164.34	28	165.4	28
167.85	28.07	168.39	28.09	169.48	28.12	170.18	28.15	176.6	28.39
177.04	28.42	178.72	28.52	179.12	28.54	179.86	28.58	180.4	28.61
180.76	28.62	182.18	28.7	184.62	28.78	184.89	28.79	188.82	29
189.48	29	190.08	29	190.26	29	190.33	29	190.46	29
190.53	29	190.55	29	190.57	29	194.08	29.24	195.8	29.26
195.81	29.26	198.9	29.36	199.73	29.37	202.87	29.4	205.66	29.46
207.45	29.48	213.02	29.63	215.03	29.68	215.44	29.69	215.84	29.7
219.83	29.82	220.05	29.83	220.5	29.85	224.84	30	226.76	30.1
227.12	30.12	227.46	30.15	227.55	30.16				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	101.12	.055	117.76	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
101.12	117.76	7.38	7.2	7.09	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
0	109.69	26.15	T
110.89	227.55	26.15	T

CULVERT

RIVER: Actual_3
REACH: Actual_3 RS: 1155

INPUT
Description:
Distance from Upstream XS = 1
Deck/Roadway Width = 4
Weir Coefficient = 1.4
Upstream Deck/Roadway Coordinates
num= 2

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	26.15	0	200	26.15	0

Upstream Bridge Cross Section Data
Station Elevation Data num= 113

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	30.07	1.15	30	9.26	29.5	12.34	29.32	13.18	29.27
18.34	29	28.24	28.44	31.54	28.24	33.27	28.14	35.75	28
41.41	27.8	42.1	27.78	42.98	27.76	58	27.33	58.66	27.31

58.67	27.31	59.25	27.31	60.82	27.28	60.83	27.28	69.57	27.04
70.38	27	77.19	26.36	77.87	26.36	80.06	26.36	84.02	26.19
86.57	26.2	87.21	26.2	87.86	26.19	90.19	26.17	94.59	26.11
98.7	26	98.8	26	101.12	26	101.2	26	103.1	25.84
104.3	25.74	106.58	25.42	108.05	25.26	108.65	25.18	109.48	25
110.16	24.73	110.33	24.67	110.48	24.74	111.34	25	117.22	25.9
117.76	26	118.87	26.07	120.72	26.16	123.95	26.34	128.14	26.57
130.05	26.67	132.35	26.78	133.27	26.83	137.43	27	137.44	27
140.7	27.13	141.55	27.16	145.52	27.31	147.31	27.38	148.4	27.42
149.74	27.46	158.29	27.79	159.66	27.83	161.03	27.88	161.81	27.91
163.93	27.99	164.14	28	164.17	28	164.34	28	165.4	28
167.85	28.07	168.39	28.09	169.48	28.12	170.18	28.15	176.6	28.39
177.04	28.42	178.72	28.52	179.12	28.54	179.86	28.58	180.4	28.61
180.76	28.62	182.18	28.7	184.62	28.78	184.89	28.79	188.82	29
189.48	29	190.08	29	190.26	29	190.33	29	190.46	29
190.53	29	190.55	29	190.57	29	194.08	29.24	195.8	29.26
195.81	29.26	198.9	29.36	199.73	29.37	202.87	29.4	205.66	29.46
207.45	29.48	213.02	29.63	215.03	29.68	215.44	29.69	215.84	29.7
219.83	29.82	220.05	29.83	220.5	29.85	224.84	30	226.76	30.1
227.12	30.12	227.46	30.15	227.55	30.16				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	101.12	.055	117.76	.045

Bank Sta: Left Right Coeff Contr. Expan.

101.12	117.76	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
0	109.69	26.15	T
110.89	227.55	26.15	T

Downstream Deck/Roadway Coordinates
num= 2

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	26.1	0	200	26.1	0

Downstream Bridge Cross Section Data
Station Elevation Data num= 118

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	29.83	2.83	29.62	5.41	29.45	12.46	29	21.1	28.56
25.4	28.31	30.75	28	34.71	27.79	39.01	27.69	39.83	27.66
42.84	27.55	47.21	27.39	49.24	27.34	51.82	27.28	57.4	27.12
58.39	27.11	59.26	27.1	61.6	27.06	61.61	27.06	63.83	27
65.09	27	65.54	26.96	65.67	26.94	66.88	26.8	67.88	26.63
69.72	26.36	70.37	26.24	70.68	26.19	71.92	26.04	71.96	26.03
72.37	26	73.22	26	73.71	26	73.94	26	74.6	26
75.2	26	77.09	26	77.6	26	78.45	26	78.74	26
79	26	82.14	26	83.26	25.97	85.59	25.88	85.83	25.86
89.16	25.82	89.67	25.79	91.12	25.76	93.21	25.71	94.55	25.61
94.93	25.58	97.58	25.49	103.29	25	103.7	24.85	104.25	24.65
104.54	24.73	105.52	25	113.94	25.83	115.43	26	116.15	26.04
116.34	26.05	119.18	26.18	123.35	26.39	125.27	26.46	129.72	26.64
133.53	26.8	134.53	26.84	137.15	26.93	137.28	26.93	139.38	27
139.42	27	141.69	27.07	143.03	27.12	148.67	27.3	149.16	27.32
153.71	27.45	154.77	27.5	155.41	27.52	158.39	27.6	158.84	27.61
160.75	27.65	162.82	27.67	168.72	27.87	169.35	27.88	171.01	27.95
171.9	28	174.8	28.17	175.38	28.19	176.37	28.23	178.82	28.36
181.45	28.47	182.15	28.52	182.85	28.55	183.75	28.6	184.89	28.65
186.12	28.7	186.45	28.73	187.92	28.77	190.62	28.92	193.76	28.96
194.52	28.97	198.48	29	198.99	29.01	199.03	29.01	202.28	29.05
202.9	29.07	208	29.18	209.03	29.2	210.07	29.23	211.4	29.28
212.33	29.31	214.17	29.37	217.24	29.48	219.79	29.58	220.64	29.61
228.36	29.9	228.67	29.92	230	29.97				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	94.55	.055	113.94	.045

Bank Sta: Left Right Coeff Contr. Expan.
94.55 113.94 .3 .5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
0	103.68	26.1	T
104.88	230	26.1	T

Upstream Embankment side slope = 0 horiz. to 1.0 vertical
Downstream Embankment side slope = 0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow = .98
Elevation at which weir flow begins =
Energy head used in spillway design =
Spillway height used in design =
Weir crest shape = Broad Crested

Number of Culverts = 1

Culvert Name	Shape	Rise	Span
Culvert #1	Circular	1.2	

FHWA Chart # 1 - Concrete Pipe Culvert
FHWA Scale # 1 - Square edge entrance with headwall
Solution Criteria = Highest U.S. EG

Culvert Upstrm Dist	Length	Top n	Bottom n	Depth Blocked	Entrance Loss Coef	Exit Loss Coef
1	4	.015	.015	0	.5	1

Upstream Elevation = 24.75
Centerline Station = 110.29
Downstream Elevation = 24.7
Centerline Station = 104.28

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 1148.600

INPUT
Description:
Station Elevation Data num= 118

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	29.83	2.83	29.62	5.41	29.45	12.46	29	21.1	28.56
25.4	28.31	30.75	28	34.71	27.79	39.01	27.69	39.83	27.66
42.84	27.55	47.21	27.39	49.24	27.34	51.82	27.28	57.4	27.12
58.39	27.11	59.26	27.1	61.6	27.06	61.61	27.06	63.83	27
65.09	27	65.54	26.96	65.67	26.94	66.88	26.8	67.88	26.63
69.72	26.36	70.37	26.24	70.68	26.19	71.92	26.04	71.96	26.03
72.37	26	73.22	26	73.71	26	73.94	26	74.6	26
75.2	26	77.09	26	77.6	26	78.45	26	78.74	26
79	26	82.14	26	83.26	25.97	85.59	25.88	85.83	25.86
89.16	25.82	89.67	25.79	91.12	25.76	93.21	25.71	94.55	25.61
94.93	25.58	97.58	25.49	103.29	25	103.7	24.85	104.25	24.65
104.54	24.73	105.52	25	113.94	25.83	115.43	26	116.15	26.04
116.34	26.05	119.18	26.18	123.35	26.39	125.27	26.46	129.72	26.64
133.53	26.8	134.53	26.84	137.15	26.93	137.28	26.93	139.38	27
139.42	27	141.69	27.07	143.03	27.12	148.67	27.3	149.16	27.32
153.71	27.45	154.77	27.5	155.41	27.52	158.39	27.6	158.84	27.61
160.75	27.65	162.82	27.67	168.72	27.87	169.35	27.88	171.01	27.95
171.9	28	174.8	28.17	175.38	28.19	176.37	28.23	178.82	28.36
181.45	28.47	182.15	28.52	182.85	28.55	183.75	28.6	184.89	28.65
186.12	28.7	186.45	28.73	187.92	28.77	190.62	28.92	193.76	28.96
194.52	28.97	198.48	29	198.99	29.01	199.03	29.01	202.28	29.05

202.9	29.07	208	29.18	209.03	29.2	210.07	29.23	211.4	29.28
212.33	29.31	214.17	29.37	217.24	29.48	219.79	29.58	220.64	29.61
228.36	29.9	228.67	29.92	230	29.97				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	94.55	.055	113.94	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
94.55	113.94	8.05	9.8	12.46	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
0	103.68	26.1	T
104.88	230	26.1	T

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 1138.802

INPUT
Description:
Station Elevation Data num= 135

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	29.96	4.54	29.65	9.91	29.25	10.89	29.18	13.32	29
16.36	28.84	17.88	28.76	24.89	28.4	27.87	28.24	29.82	28.14
32.36	28	34.82	27.82	38.47	27.57	40.88	27.53	44.2	27.36
57.31	27.04	58.45	27	58.78	27	59.03	27	60.57	27
61.63	27	62.07	27	62.42	27	70.39	26.28	73.02	26
74.67	26	76.17	26	77.22	26	83.1	25.83	95.93	25.31
99.13	25.18	100.9	25.07	101.2	25.07	102.22	25	103.24	24.67
103.47	24.6	103.62	24.65	104.46	25	105.79	25.09	106.25	25.12
114.39	25.64	115.93	25.72	119.61	25.89	119.75	25.9	119.81	25.91
121.87	26	125.23	26.12	125.57	26.13	127.02	26.18	127.39	26.19
131.18	26.3	131.99	26.32	134.07	26.38	135.53	26.42	136.79	26.45
139.37	26.51	141.19	26.55	142.76	26.58	146.74	26.66	147.77	26.68
148.12	26.69	149.36	26.7	154.06	26.79	154.57	26.8	155.65	26.81
160.1	26.87	160.26	26.87	160.43	26.88	162.95	27	165.99	27
166.26	27	167.16	27	168.31	27	169.07	27.04	169.15	27.05
169.23	27.07	171.03	27.21	172.11	27.31	173.91	27.51	174.7	27.55
175.11	27.6	176.9	27.67	178.1	27.72	178.81	27.82	183.9	28
186.17	28	187.32	28	190.27	28.17	190.86	28.18	198.65	28.38
198.7	28.38	198.75	28.38	198.8	28.39	201.96	28.47	201.99	28.47
202.02	28.47	202.05	28.47	202.08	28.47	202.84	28.49	202.87	28.49
202.9	28.49	202.92	28.49	203.3	28.5	203.32	28.5	203.35	28.5
203.69	28.51	203.71	28.51	203.73	28.51	203.84	28.51	203.86	28.51
203.88	28.51	204.12	28.52	204.14	28.52	217.31	28.79	220.02	28.89
220.18	28.89	222.56	29	222.8	29	223.13	29	224.35	29.06
224.45	29.07	224.67	29.07	226.49	29.18	228.08	29.25	229.78	29.34
231.37	29.41	236.26	29.66	238.34	29.75	243.95	29.92	244.07	29.92
244.18	29.93	244.28	29.93	246.81	30	246.84	30	248.66	30.1

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	95.93	.055	114.39	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
95.93	114.39	13.66	13.14	11.71	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
0	72.94	26.5	T
122.1	248.66	26.5	T

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 1125.665

INPUT
Description:
Station Elevation Data num= 133

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	29.92	6.09	29.54	14.76	29	14.95	29	15.14	29
18.26	28.79	20.35	28.64	28.17	28.14	28.95	28.09	30.41	28
30.5	28	35.9	27.67	38.91	27.37	39.67	27.32	42.25	27.06
42.87	27	43.08	27	44.17	27	45.82	27	46.66	27
47.21	27	47.67	27	48.18	27	58.61	26.6	59.78	26.53
63.68	26.47	64.91	26.37	65.37	26.36	67.18	26.2	67.44	26.19
69.68	26	70.28	25.99	74.06	25.94	77.23	25.83	92.53	25.33
99.34	25.1	101.26	25	102.41	24.56	102.54	24.5	102.73	24.56
103.6	25	107.81	25.08	115.46	25.41	120.69	25.63	120.7	25.63
122.16	25.68	122.17	25.68	122.19	25.68	123.53	25.73	123.55	25.73
123.56	25.73	124.98	25.78	124.99	25.78	125	25.78	126.75	25.83
126.76	25.83	126.77	25.83	126.78	25.83	130.62	25.94	130.63	25.94
133.17	26	134.89	26.03	135.12	26.04	138.11	26.09	139.12	26.11
142.66	26.16	143.78	26.19	145.8	26.22	149.93	26.28	151.48	26.3
152.35	26.31	153.27	26.33	162.61	26.8	164.71	27	165.25	27
165.43	27	165.76	27	166.18	27	166.4	27	167.88	27
168.5	27	182.05	27.62	182.46	27.63	183.41	27.63	183.77	27.64
184.26	27.64	185.1	27.66	185.86	27.67	191.51	27.82	191.71	27.83
192.18	27.84	196	27.93	196.55	27.94	198.75	28	199.03	28.01
201.56	28.05	202.35	28.07	202.36	28.07	204.1	28.13	207.28	28.19
207.93	28.21	209.01	28.24	212.99	28.43	214.03	28.48	215.8	28.55
219.75	28.72	221.69	28.82	226.38	29	229.66	29.14	230.67	29.17
231.89	29.21	232.94	29.25	234.03	29.28	234.81	29.31	243.04	29.64
243.06	29.64	243.07	29.64	244.32	29.67	244.34	29.67	247.69	29.75
247.71	29.75	248.45	29.78	248.47	29.78	248.48	29.78	252.44	29.89
252.45	29.89	252.46	29.89	255.18	30	255.32	30	255.51	30
255.88	30	256.15	30.02	256.24	30.03				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	99.34	.055	107.81	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
99.34	107.81	12.05	8.14	4.98	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 1117.522

INPUT
Description:
Station Elevation Data num= 150

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	29.77	12.76	29	15.43	28.85	17.63	28.71	19.3	28.6
23.88	28.32	28.63	28	38.45	27.3	42.78	27	53.38	26.58
58.79	26.37	68.16	26	73.17	25.9	73.19	25.9	73.21	25.9
73.55	25.89	74.43	25.88	76.43	25.84	76.45	25.84	77.95	25.82
79.07	25.8	79.1	25.8	80.04	25.78	80.06	25.78	81.24	25.77
81.26	25.77	89.31	25.49	89.68	25.47	91.84	25.36	91.85	25.36
91.87	25.36	91.9	25.35	96.34	25.14	96.35	25.14	96.37	25.14
98.83	25.02	99.25	25	99.84	24.77	100.55	24.48	100.8	24.61
101.82	25	112.14	25.21	112.19	25.21	112.23	25.21	112.28	25.22

112.32	25.22	112.36	25.22	114.99	25.27	116.68	25.35	118.23	25.42
118.25	25.42	118.74	25.45	118.76	25.45	118.79	25.45	119.27	25.47
119.3	25.47	119.32	25.47	119.87	25.49	119.9	25.49	119.93	25.49
120.67	25.52	120.7	25.52	120.73	25.52	120.76	25.52	122.68	25.59
122.72	25.59	122.75	25.59	122.79	25.59	126.43	25.71	126.47	25.71
126.5	25.71	127.37	25.74	130.28	25.81	130.3	25.81	134.29	25.94
135.33	25.95	135.99	25.95	139.14	26	139.52	26.01	139.57	26.01
142.05	26.05	147.1	26.12	147.79	26.13	148.88	26.15	150.03	26.17
155.08	26.43	161.07	27	162.58	27	163.08	27	163.97	27
165.12	27	165.72	27	166.8	27	167.87	27	178.21	27.48
178.79	27.49	180.1	27.49	181.26	27.5	182.38	27.52	183.43	27.53
187.63	27.62	188.04	27.63	188.99	27.65	191.76	27.7	194.12	27.72
195.97	27.76	198	28	199.24	28	200.31	28	200.66	28
201.19	28	202.92	28	203.44	28	203.94	28	204.04	28
204.2	28	206.47	28.1	207.3	28.14	213.87	28.47	222.93	28.83
223.18	28.84	226.54	28.97	227.24	29	227.26	29	227.33	29
228.42	29.04	229.88	29.09	230.14	29.1	240.97	29.55	240.98	29.55
241	29.55	241.87	29.57	241.89	29.57	244.29	29.63	244.31	29.63
244.86	29.65	244.88	29.65	244.9	29.65	247.9	29.75	247.92	29.75
247.93	29.75	254.22	30	254.52	30	254.94	30	254.96	30
254.98	30	255.52	30.05	255.88	30.08	257.47	30.21	258.36	30.29

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	98.83	.055	101.82	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
98.83	101.82	12.94	8.23	6.82	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
0	62.04	26.3	T
151.42	258.36	26.3	T

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 1109.291

INPUT
Description:
Station Elevation Data num= 143

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	29.46	7.25	29	19.01	28.3	24.39	28	31.96	27.53
41.98	27	46.17	26.84	47.29	26.8	53.12	26.59	55.42	26.51
60.85	26.28	63.05	26.2	67.24	26.02	67.37	26.01	67.68	26
68.88	25.98	73.87	25.88	73.89	25.88	74.73	25.86	76.11	25.84
76.13	25.84	77.18	25.82	77.2	25.82	77.78	25.81	77.8	25.81
79.68	25.79	79.7	25.79	79.72	25.79	83.97	25.6	89.02	25.38
93.78	25.16	93.79	25.16	93.8	25.16	93.81	25.16	93.83	25.16
97.27	25	97.95	24.53	98.13	24.4	98.86	24.88	99.09	25
104.39	25.11	104.43	25.11	104.46	25.11	104.5	25.11	109.5	25.21
109.53	25.22	114.02	25.27	114.14	25.27	114.16	25.27	114.18	25.27
114.2	25.27	114.23	25.27	114.42	25.27	114.44	25.27	114.46	25.27
114.61	25.28	114.63	25.28	114.65	25.28	115.02	25.28	117.68	25.38
120.11	25.48	128.18	25.74	129.01	25.75	132.34	25.75	135.11	25.8
136.88	25.83	137.05	25.83	139.27	26	139.75	26	143.11	26
144.87	26	145.17	26	145.71	26	150.97	26.44	152.06	26.52
152.97	26.61	154.11	26.7	154.59	26.74	154.76	26.76	156.03	26.87
157.74	27	157.75	27	157.77	27	158.72	27	160.38	27
162.5	27	163.59	27	164.14	27	165.79	27	171.84	27.28
172.65	27.29	174.48	27.31	176.07	27.32	177.62	27.34	179.05	27.36
181.95	27.43	182.58	27.44	184.04	27.47	186.08	27.51	189.93	27.55
191.35	27.58	191.96	27.65	194.81	28	196.73	28	197.58	28
197.91	28	199	28	200.56	28	200.65	28	200.88	28

201.09	28	201.17	28	201.37	28	205.98	28.24	210.32	28.4
211.15	28.44	212.85	28.51	224.51	29	224.79	29	224.98	29
225.35	29	225.5	29	227.1	29.06	227.11	29.06	228.65	29.11
228.67	29.11	228.69	29.12	236.82	29.46	236.84	29.46	236.86	29.46
237.29	29.46	237.32	29.46	238.5	29.5	238.52	29.5	238.79	29.51
238.82	29.51	238.85	29.51	240.32	29.55	240.35	29.55	240.39	29.55
249.93	29.94	251.38	30	252.16	30.07				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	97.27	.055	99.09	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
97.27	99.09	7.09	8.27	5.55	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
0	97.55	25.95	T
98.75	252.16	25.95	T

CULVERT

RIVER: Actual_3
REACH: Actual_3 RS: 1109

INPUT
Description:
Distance from Upstream XS = 1.5
Deck/Roadway Width = 4
Weir Coefficient = 1.4
Upstream Deck/Roadway Coordinates
num= 2

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	25.95	0	200	25.95	0

Upstream Bridge Cross Section Data
Station Elevation Data num= 143

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	29.46	7.25	29	19.01	28.3	24.39	28	31.96	27.53
41.98	27	46.17	26.84	47.29	26.8	53.12	26.59	55.42	26.51
60.85	26.28	63.05	26.2	67.24	26.02	67.37	26.01	67.68	26
68.88	25.98	73.87	25.88	73.89	25.88	74.73	25.86	76.11	25.84
76.13	25.84	77.18	25.82	77.2	25.82	77.78	25.81	77.8	25.81
79.68	25.79	79.7	25.79	79.72	25.79	83.97	25.6	89.02	25.38
93.78	25.16	93.79	25.16	93.8	25.16	93.81	25.16	93.83	25.16
97.27	25	97.95	24.53	98.13	24.4	98.86	24.88	99.09	25
104.39	25.11	104.43	25.11	104.46	25.11	104.5	25.11	109.5	25.21
109.53	25.22	114.02	25.27	114.14	25.27	114.16	25.27	114.18	25.27
114.2	25.27	114.23	25.27	114.42	25.27	114.44	25.27	114.46	25.27
114.61	25.28	114.63	25.28	114.65	25.28	115.02	25.28	117.68	25.38
120.11	25.48	128.18	25.74	129.01	25.75	132.34	25.75	135.11	25.8
136.88	25.83	137.05	25.83	139.27	26	139.75	26	143.11	26
144.87	26	145.17	26	145.71	26	150.97	26.44	152.06	26.52
152.97	26.61	154.11	26.7	154.59	26.74	154.76	26.76	156.03	26.87
157.74	27	157.75	27	157.77	27	158.72	27	160.38	27
162.5	27	163.59	27	164.14	27	165.79	27	171.84	27.28
172.65	27.29	174.48	27.31	176.07	27.32	177.62	27.34	179.05	27.36
181.95	27.43	182.58	27.44	184.04	27.47	186.08	27.51	189.93	27.55
191.35	27.58	191.96	27.65	194.81	28	196.73	28	197.58	28
197.91	28	199	28	200.56	28	200.65	28	200.88	28
201.09	28	201.17	28	201.37	28	205.98	28.24	210.32	28.4
211.15	28.44	212.85	28.51	224.51	29	224.79	29	224.98	29
225.35	29	225.5	29	227.1	29.06	227.11	29.06	228.65	29.11
228.67	29.11	228.69	29.12	236.82	29.46	236.84	29.46	236.86	29.46

237.29	29.46	237.32	29.46	238.5	29.5	238.52	29.5	238.79	29.51
238.82	29.51	238.85	29.51	240.32	29.55	240.35	29.55	240.39	29.55
249.93	29.94	251.38	30	252.16	30.07				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	97.27	.055	99.09	.045

Bank Sta: Left	Right	Coeff Contr.	Expan.
97.27	99.09	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
0	97.55	25.95	T
98.75	252.16	25.95	T

Downstream Deck/Roadway Coordinates
num= 2

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	25.85	0	200	25.85	0

Downstream Bridge Cross Section Data
Station Elevation Data num= 138

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	29.06	1.07	29	4.83	28.8	19.44	28	28.6	27.56
33.7	27.36	37.81	27.17	42.64	27	47.95	26.8	49.09	26.75
54.63	26.53	59.43	26.32	61.16	26.24	63.49	26.14	66.42	26.03
66.73	26.02	67.09	26	68.35	25.98	68.74	25.98	68.75	25.98
70.04	25.96	74.25	25.9	74.26	25.9	74.27	25.9	78.24	25.72
91.53	25.14	92.22	25.11	93.68	25.05	94.06	25.04	94.8	25
95.24	24.67	95.71	24.32	96.36	24.61	96.83	24.79	97.37	25
98.28	25	99.44	25	100.45	25	108.54	25.1	108.99	25.1
109	25.1	109.01	25.1	109.02	25.1	109.78	25.1	109.79	25.1
110.4	25.11	110.41	25.11	110.42	25.11	111.92	25.14	119.21	25.42
119.78	25.43	120.1	25.43	127.52	25.52	129.56	25.57	130.96	25.62
131.4	25.62	133.22	25.77	136.18	26	137.16	26	139.33	26
141.94	26	143.02	26	143.36	26	144.1	26	144.13	26
144.19	26	145.7	26.12	146.31	26.18	146.62	26.2	147.07	26.24
147.71	26.29	148.96	26.44	151.67	26.62	155.74	26.95	157.69	27
158.59	27	160.03	27	160.2	27	162.25	27	165.16	27.14
166.16	27.15	168.4	27.17	170.34	27.2	172.19	27.22	173.9	27.25
175.95	27.3	176.73	27.32	178.54	27.36	180.13	27.39	184.95	27.45
186.12	27.48	190.47	28	193.01	28	193.42	28	193.58	28
194.08	28	194.96	28	195.16	28	195.42	28	195.91	28
196.4	28	196.71	28	197.13	28	197.14	28	197.15	28
197.18	28	197.2	28	198.32	28.05	198.47	28.06	216.23	28.79
221.31	29	226.82	29.19	226.86	29.19	226.89	29.2	227.82	29.23
227.85	29.23	227.88	29.23	228.66	29.26	232.62	29.48	232.64	29.48
232.66	29.48	232.69	29.48	233.16	29.5	233.19	29.5	233.21	29.5
233.24	29.51	234.3	29.55	234.33	29.55	234.85	29.57	234.88	29.57
234.91	29.57	238.3	29.73	238.34	29.73	238.37	29.73	244.35	30
244.88	30.05	246.23	30.19	247.42	30.3				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	94.8	.055	97.37	.045

Bank Sta: Left	Right	Coeff Contr.	Expan.
94.8	97.37	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
0	95.2	25.85	T
96.4	247.42	25.85	T

```
Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .98
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Culverts =  1

Culvert Name     Shape      Rise    Span
Culvert #1      Circular     1.2
FHWA Chart # 1 - Concrete Pipe Culvert
FHWA Scale # 1 - Square edge entrance with headwall
Solution Criteria = Highest U.S. EG
Culvert Upstrm Dist  Length    Top n  Bottom n  Depth Blocked  Entrance Loss Coef   Exit Loss Coef
                1.5       4     .015     .015        0                  .5                1
Upstream   Elevation =  24.55
           Centerline Station =  98.15
Downstream Elevation =  24.45
           Centerline Station =  95.8

CROSS SECTION


RIVER: Actual_3
REACH: Actual_3           RS: 1101.019

INPUT
Description:
Station Elevation Data    num=     138
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
       0   29.06    1.07      29    4.83    28.8   19.44      28    28.6   27.56
    33.7   27.36   37.81   27.17   42.64      27   47.95    26.8   49.09   26.75
   54.63   26.53   59.43   26.32   61.16   26.24   63.49   26.14   66.42   26.03
   66.73   26.02   67.09      26   68.35   25.98   68.74   25.98   68.75   25.98
   70.04   25.96   74.25    25.9   74.26    25.9   74.27    25.9   78.24   25.72
   91.53   25.14   92.22   25.11   93.68   25.05   94.06   25.04    94.8      25
   95.24   24.67   95.71   24.32   96.36   24.61   96.83   24.79   97.37      25
   98.28      25   99.44      25  100.45      25  108.54    25.1  108.99    25.1
     109    25.1  109.01    25.1  109.02    25.1  109.78    25.1  109.79    25.1
   110.4   25.11  110.41   25.11  110.42   25.11  111.92   25.14  119.21   25.42
  119.78   25.43   120.1   25.43  127.52   25.52  129.56   25.57  130.96   25.62
   131.4   25.62  133.22   25.77  136.18      26  137.16      26  139.33      26
  141.94      26  143.02      26  143.36      26   144.1      26  144.13      26
  144.19      26   145.7   26.12  146.31   26.18  146.62    26.2  147.07   26.24
  147.71   26.29  148.96   26.44  151.67   26.62  155.74   26.95  157.69      27
  158.59      27  160.03      27   160.2      27  162.25      27  165.16   27.14
  166.16   27.15   168.4   27.17  170.34    27.2  172.19   27.22   173.9   27.25
  175.95    27.3  176.73   27.32  178.54   27.36  180.13   27.39  184.95   27.45
  186.12   27.48  190.47      28  193.01      28  193.42      28  193.58      28
  194.08      28  194.96      28  195.16      28  195.42      28  195.91      28
   196.4      28  196.71      28  197.13      28  197.14      28  197.15      28
  197.18      28   197.2      28  198.32   28.05  198.47   28.06  216.23   28.79
  221.31      29  226.82   29.19  226.86   29.19  226.89    29.2  227.82   29.23
  227.85   29.23  227.88   29.23  228.66   29.26  232.62   29.48  232.64   29.48
  232.66   29.48  232.69   29.48  233.16    29.5  233.19    29.5  233.21    29.5
  233.24   29.51   234.3   29.55  234.33   29.55  234.85   29.57  234.88   29.57
  234.91   29.57   238.3   29.73  238.34   29.73  238.37   29.73  244.35      30
  244.88   30.05  246.23   30.19  247.42    30.3

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
*********************************************
       0    .045    94.8    .055   97.37    .045
```

```
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          94.8   97.37             12.35   15.11   11.95              .3       .5
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
       0    95.2   25.85       T
    96.4  247.42   25.85       T

CROSS SECTION


RIVER: Actual_3
REACH: Actual_3           RS: 1085.906

INPUT
Description:
Station Elevation Data    num=     143
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   28.67    5.34   28.37    9.49   28.14   12.15      28   12.21      28
   15.34   27.88   19.53   27.72   21.35   27.66   24.87   27.54   29.67    27.4
   39.97      27   40.17      27   40.35      27   43.06      27   43.97   26.96
    44.1   26.96   55.83   26.62   56.38   26.59    56.4   26.59   56.84   26.57
   56.86   26.57   56.88   26.57    56.9   26.57   59.87   26.46   59.89   26.46
   59.91   26.45   59.94   26.45   61.75   26.39   61.78   26.38    61.8   26.38
   61.82   26.38   68.03   26.16   68.04   26.16   70.84   26.05    71.9      26
   72.11      26   72.99   25.97   73.06   25.96    73.2   25.96   77.46   25.76
   81.93   25.57   83.06   25.52   84.87   25.44   86.28   25.37   92.16   25.13
   92.63   25.11   93.28   25.08   95.28      25   96.84   24.31   96.95   24.26
   97.86   24.72   98.55      25   99.14      25  100.44      25  100.86      25
  101.81      25  102.61      25  103.13      25  103.52      25  103.87      25
  105.13      25  106.85      25  108.38      25  108.84      25  109.75   24.87
  111.06      25  111.75      25  112.36      25  117.88      25  118.45      25
  119.72   25.02  119.79   25.02  119.83   25.02  120.97   25.04  122.42   25.16
  127.58   25.58  131.69   25.92  132.19      26  133.59   26.02   137.1   26.08
  137.12   26.08  137.13   26.08  142.19   26.15   142.2   26.16  142.22   26.16
  142.23   26.16  142.87   26.17  142.99   26.17  148.77   26.68  148.78   26.68
  150.72   26.76  150.73   26.76  150.74   26.76  150.75   26.76  150.76   26.76
  151.27   26.77   152.1   26.79  152.11   26.79  152.12   26.79  154.49   26.84
   154.5   26.84  154.51   26.84  155.41   26.85  155.42   26.85  157.65   26.87
  157.66   26.88  160.01   26.89  161.87   26.92  163.87   26.96  163.89   26.95
  165.98      27  166.05      27   167.1   27.02  169.69   27.08  170.05   27.09
  177.29   27.17  177.74   27.18  184.48   27.99  184.52      28  184.54      28
  190.91   28.06  194.49   28.29   194.9   28.31  195.54   28.33  196.09   28.35
  212.81      29  213.49      29  213.87      29  214.22      29     215   29.03
  228.03   29.76  228.04   29.76  228.05   29.76  228.06   29.76  229.61   29.83
  229.62   29.83  229.63   29.83  233.04   29.96  233.93      30  234.47   30.05
  234.82   30.08  238.69   30.46  243.27   30.87

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
************************************************
       0    .045   95.28    .055   98.55    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         95.28   98.55             15.34   29.56    10.9              .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
       0   81.07    25.8       T
   127.9  243.27    25.8       T

CROSS SECTION


RIVER: Actual_3
REACH: Actual_3           RS: 1056.343

INPUT
```

Description:
Station Elevation Data num= 131

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	27.84	1.93	27.8	2.16	27.79	4.29	27.76	6.3	27.73
8.33	27.65	9.53	27.63	12.25	27.52	14.38	27.43	18.81	27.23
19.22	27.21	24.17	27	25.66	27	27.57	26.92	32.54	26.79
33.24	26.78	47.65	26.51	48.07	26.5	48.09	26.5	49.08	26.47
49.7	26.45	49.71	26.45	49.73	26.45	54.87	26.3	54.89	26.3
54.9	26.3	57.2	26.23	60.42	26.12	63.49	26	63.82	25.99
63.83	25.99	67.94	25.83	81.77	25.3	86.96	25.1	90.62	25
91.99	25	99.05	25	99.81	25	105.35	24.49	108.65	24.16
110.27	24	110.95	24	111.28	24	111.4	24	111.86	24
112.82	24.35	114.46	25	115.04	25.09	117.79	25.5	119.97	25.82
120.22	25.86	121.16	26	121.17	26	121.19	26	121.22	26
121.24	26	134.87	26.26	135.31	26.27	135.34	26.27	135.76	26.28
136.05	26.28	136.08	26.28	136.61	26.28	136.64	26.28	136.67	26.29
136.7	26.29	137.61	26.29	137.63	26.29	137.66	26.3	137.68	26.3
138.02	26.3	138.04	26.3	138.06	26.3	138.77	26.3	139.09	26.3
139.11	26.3	139.14	26.3	139.51	26.3	139.53	26.3	140.02	26.29
140.05	26.29	140.08	26.29	140.1	26.29	140.3	26.29	147.82	26.48
150.4	26.5	151.43	26.51	152.55	26.54	152.82	26.53	153.99	26.56
154.56	26.57	158.69	27	159.48	27	160.63	27	161.79	27
163.46	27	163.74	27.03	163.99	27.06	168.55	27.6	170.88	28
173.73	28.05	173.74	28.05	175.91	28.09	177.39	28.11	177.4	28.11
181.61	28.14	190.5	28.73	191.5	28.77	191.71	28.78	192.96	28.81
197.84	29	198.05	29	200.06	29	200.27	29	201.07	29.04
201.24	29.05	204.27	29.22	205.19	29.27	206.37	29.35	208.9	29.48
210.06	29.56	211.01	29.62	218.13	30	220.49	30.21	221.27	30.28
223.21	30.45	226.93	30.79	227.83	30.86	228	30.88	229.3	31
231.06	31.12								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	99.81	.055	114.46	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
99.81	114.46	13.54	12.99	13.09	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
0	74.83	26	T
118.24	231.06	26	T

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 1043.356

INPUT
Description:
Station Elevation Data num= 134

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	27	.04	27	1.02	27	3	27	5.08	27
8.33	27	10.54	27	12.14	27	12.89	27	13.6	27
14.24	27	14.84	27	17	27	17.88	27	37.2	26.16
38.01	26.14	40.72	26.08	42.14	26.05	43.09	26.03	44.35	26
45.18	26	46.17	26	49.75	26	59.6	25.72	59.62	25.72
59.63	25.72	61.37	25.68	61.39	25.68	61.41	25.68	62.86	25.65
62.88	25.65	63.83	25.63	63.85	25.63	68.25	25.46	73.4	25.26
80.48	25.06	82.67	25	83.09	25	85.31	25	86.46	25
86.77	25	87.48	25	88.12	25	88.7	25	89.22	25
89.59	25	91.82	25	91.99	25	92.31	25	92.39	25
93.23	25	105.21	24.02	105.35	24.01	105.4	24.01	105.44	24.01
105.55	23.98	106.27	23.88	106.61	23.91	107.43	24	108.31	24.41

109.36	24.93	109.5	25	109.59	25.01	109.61	25.01	111.1	25.2
111.86	25.22	117.64	25.64	122.58	26	125.9	26	126.02	26
127.74	26	128.54	26	129.9	26	131.56	26	132.65	26.01
133.89	26	134.84	26	135.13	26	136.21	26	137.08	26
139.03	26	141.12	26.49	141.65	26.64	143.4	27	149.03	27.32
151.14	27.5	157.23	28	159.33	28.05	164.78	28.16	164.83	28.16
164.87	28.17	168.13	28.23	168.16	28.23	168.2	28.24	169.02	28.25
169.05	28.25	170.05	28.27	170.08	28.27	170.47	28.28	170.75	28.28
170.77	28.28	171.57	28.29	175.26	28.53	175.28	28.53	175.71	28.56
175.73	28.56	175.76	28.56	175.79	28.56	177.6	28.67	177.63	28.67
177.66	28.67	180.12	28.81	180.14	28.81	180.17	28.81	183.67	29
184.42	29	195.61	29.82	195.91	29.83	197.59	29.93	197.73	29.94
198.81	30	200.78	30.15	201.58	30.21	204.21	30.39	207.14	30.63
208.84	30.75	211.53	31	214.09	31.16	215.14	31.24	220.27	31.58
222.15	31.69	223.85	31.83	224.82	31.89	226.14	32		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	93.23	.055	109.5	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
93.23	109.5	19.83	12.3	17.45	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
0	105.75	25.1	T
106.75	226.14	25.1	T

CULVERT

RIVER: Actual_3
REACH: Actual_3 RS: 1043

INPUT
Description:
Distance from Upstream XS = 1.5
Deck/Roadway Width = 8
Weir Coefficient = 1.4
Upstream Deck/Roadway Coordinates
num= 2

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	25.1	0	200	25.1	0

Upstream Bridge Cross Section Data
Station Elevation Data num= 134

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	27	.04	27	1.02	27	3	27	5.08	27
8.33	27	10.54	27	12.14	27	12.89	27	13.6	27
14.24	27	14.84	27	17	27	17.88	27	37.2	26.16
38.01	26.14	40.72	26.08	42.14	26.05	43.09	26.03	44.35	26
45.18	26	46.17	26	49.75	26	59.6	25.72	59.62	25.72
59.63	25.72	61.37	25.68	61.39	25.68	61.41	25.68	62.86	25.65
62.88	25.65	63.83	25.63	63.85	25.63	68.25	25.46	73.4	25.26
80.48	25.06	82.67	25	83.09	25	85.31	25	86.46	25
86.77	25	87.48	25	88.12	25	88.7	25	89.22	25
89.59	25	91.82	25	91.99	25	92.31	25	92.39	25
93.23	25	105.21	24.02	105.35	24.01	105.4	24.01	105.44	24.01
105.55	23.98	106.27	23.88	106.61	23.91	107.43	24	108.31	24.41
109.36	24.93	109.5	25	109.59	25.01	109.61	25.01	111.1	25.2
111.86	25.22	117.64	25.64	122.58	26	125.9	26	126.02	26
127.74	26	128.54	26	129.9	26	131.56	26	132.65	26.01
133.89	26	134.84	26	135.13	26	136.21	26	137.08	26
139.03	26	141.12	26.49	141.65	26.64	143.4	27	149.03	27.32
151.14	27.5	157.23	28	159.33	28.05	164.78	28.16	164.83	28.16

164.87	28.17	168.13	28.23	168.16	28.23	168.2	28.24	169.02	28.25
169.05	28.25	170.05	28.27	170.08	28.27	170.47	28.28	170.75	28.28
170.77	28.28	171.57	28.29	175.26	28.53	175.28	28.53	175.71	28.56
175.73	28.56	175.76	28.56	175.79	28.56	177.6	28.67	177.63	28.67
177.66	28.67	180.12	28.81	180.14	28.81	180.17	28.81	183.67	29
184.42	29	195.61	29.82	195.91	29.83	197.59	29.93	197.73	29.94
198.81	30	200.78	30.15	201.58	30.21	204.21	30.39	207.14	30.63
208.84	30.75	211.53	31	214.09	31.16	215.14	31.24	220.27	31.58
222.15	31.69	223.85	31.83	224.82	31.89	226.14	32		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	93.23	.055	109.5	.045

Bank Sta: Left	Right	Coeff Contr.	Expan.
93.23	109.5	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
0	105.75	25.1	T
106.75	226.14	25.1	T

Downstream Deck/Roadway Coordinates
num= 2

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	24.92	0	200	24.92	0

Downstream Bridge Cross Section Data
Station Elevation Data num= 121

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	26.01	.18	26	.53	26	.66	26	4.83	26
6.03	26	7.17	26	7.72	26	8.21	26	9.07	26
12.19	26	13.05	26	13.96	26	17.24	26	18.35	26
19.18	26	21.68	26	22.27	26	22.93	26	23.15	26
29.19	25.74	30.09	25.73	30.5	25.72	31.08	25.7	31.56	25.69
32.49	25.67	47.94	25.25	47.96	25.25	48.54	25.24	48.87	25.24
48.88	25.24	49.8	25.22	49.81	25.22	50.82	25.19	50.83	25.19
50.84	25.19	51.81	25.17	51.82	25.17	51.83	25.17	53.94	25.12
53.95	25.11	53.96	25.11	57.13	25.01	57.39	25	57.42	25
58.05	25	58.93	25	59.5	25	60.68	25	62.68	25
67	24.97	67.49	24.97	69.84	24.87	70.19	24.84	70.59	24.81
70.81	24.79	71.57	24.72	72.09	24.67	76.99	24.62	78.21	24.39
78.7	24.37	79.84	24.12	79.99	24.11	80.42	24	82.06	23.65
82.07	23.65	82.1	23.66	83.49	23.96	83.71	24	84.56	24.28
86.88	25	87.14	25	87.21	25	88.1	25	88.4	25
102.48	25.78	103.69	25.84	104.46	25.88	105.14	25.93	106.44	26
107.32	26	107.99	26	109.38	26	110.64	26	110.96	26
112.42	26.19	112.43	26.19	112.44	26.19	113.37	26.2	113.38	26.2
113.39	26.2	113.4	26.2	114.36	26.25	114.37	26.25	114.38	26.25
114.39	26.25	116.03	26.89	116.04	26.89	117.28	27	123.47	27.31
136.63	28	136.97	28.01	138.23	28.04	141.18	28.11	141.19	28.11
159.97	28.88	159.98	28.88	162.68	29	167.14	29.37	174.62	30
179.18	30.62	182.13	31	182.6	31	182.92	31	183.51	31
184.97	31	194.23	31.54	197.93	31.74	199.72	31.82	202.31	32
204.15	32.11								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	70.59	.055	87.14	.045

Bank Sta: Left	Right	Coeff Contr.	Expan.
70.59	87.14	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent

```
       0    81.6   24.92       T
    82.6  204.15   24.92       T
Blocked Obstructions     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
**********************************************
      60      72      27    90.5    95.5      27

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .98
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Culverts =  1

Culvert Name     Shape      Rise    Span
Culvert #1      Circular       1
FHWA Chart # 1 - Concrete Pipe Culvert
FHWA Scale # 1 - Square edge entrance with headwall
Solution Criteria = Highest U.S. EG
Culvert Upstrm Dist  Length    Top n  Bottom n  Depth Blocked  Entrance Loss Coef   Exit Loss Coef
               1.5       8     .015     .015        0                  .5                1
Upstream   Elevation =  23.9
           Centerline Station =  106.25
Downstream Elevation =  23.72
           Centerline Station =  82.1

CROSS SECTION


RIVER: Actual_3
REACH: Actual_3           RS: 1031.056

INPUT
Description:
Station Elevation Data    num=     121
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   26.01     .18      26     .53      26     .66      26    4.83      26
    6.03      26    7.17      26    7.72      26    8.21      26    9.07      26
   12.19      26   13.05      26   13.96      26   17.24      26   18.35      26
   19.18      26   21.68      26   22.27      26   22.93      26   23.15      26
   29.19   25.74   30.09   25.73    30.5   25.72   31.08    25.7   31.56   25.69
   32.49   25.67   47.94   25.25   47.96   25.25   48.54   25.24   48.87   25.24
   48.88   25.24    49.8   25.22   49.81   25.22   50.82   25.19   50.83   25.19
   50.84   25.19   51.81   25.17   51.82   25.17   51.83   25.17   53.94   25.12
   53.95   25.11   53.96   25.11   57.13   25.01   57.39      25   57.42      25
   58.05      25   58.93      25    59.5      25   60.68      25   62.68      25
      67   24.97   67.49   24.97   69.84   24.87   70.19   24.84   70.59   24.81
   70.81   24.79   71.57   24.72   72.09   24.67   76.99   24.62   78.21   24.39
    78.7   24.37   79.84   24.12   79.99   24.11   80.42      24   82.06   23.65
   82.07   23.65    82.1   23.66   83.49   23.96   83.71      24   84.56   24.28
   86.88      25   87.14      25   87.21      25    88.1      25    88.4      25
  102.48   25.78  103.69   25.84  104.46   25.88  105.14   25.93  106.44      26
  107.32      26  107.99      26  109.38      26  110.64      26  110.96      26
  112.42   26.19  112.43   26.19  112.44   26.19  113.37    26.2  113.38    26.2
  113.39    26.2   113.4    26.2  114.36   26.25  114.37   26.25  114.38   26.25
  114.39   26.25  116.03   26.89  116.04   26.89  117.28      27  123.47   27.31
  136.63      28  136.97   28.01  138.23   28.04  141.18   28.11  141.19   28.11
  159.97   28.88  159.98   28.88  162.68      29  167.14   29.37  174.62      30
  179.18   30.62  182.13      31   182.6      31  182.92      31  183.51      31
  184.97      31  194.23   31.54  197.93   31.74  199.72   31.82  202.31      32
  204.15   32.11

Manning's n Values        num=       3
```

```
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
       0    .045   70.59    .055   87.14    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         70.59   87.14             21.2   20.24   20.04              .3       .5
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
       0    81.6   24.92       T
    82.6  204.15   24.92       T
Blocked Obstructions     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
**********************************************
      60      72      27    90.5    95.5      27

CROSS SECTION


RIVER: Actual_3
REACH: Actual_3           RS: 1010.819

INPUT
Description:
Station Elevation Data    num=      89
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
       0   27.08    1.88      27    4.91   26.88    5.78   26.84    6.77    26.8
    7.36   26.78   16.92   26.38   21.35    26.2   24.42   26.05   26.12      26
   33.31   25.67   37.44   25.45   43.11   25.15   44.49   25.08   46.02      25
   47.18      25   47.45      25   62.33    24.7   62.35    24.7   62.91   24.69
   62.93   24.69   62.96   24.69   64.21   24.68   64.23   24.68   64.26   24.68
   65.16   24.66   65.18   24.66   65.72   24.65   65.74   24.65   65.76   24.65
   66.45   24.64   66.47   24.64   68.94   24.63   76.47   24.31    76.5   24.31
   79.99   24.22   80.02   24.22   81.03   24.19   83.62   24.11   87.57      24
   89.53   23.71   91.71   23.39   91.99   23.35   92.79   23.74   93.33      24
   94.25   24.48   95.17      25   97.66   25.48  100.18   25.88  100.96      26
  101.98   26.34  103.34   26.84   103.6   26.93  103.84      27  104.09      27
  104.38      27  104.71      27  105.18      27  105.39      27  106.32      27
  109.13      27  110.26      27   111.5      27  112.36      27  112.45      27
  112.48      27  113.37   27.03  113.87   27.05   115.6    27.1  116.52   27.14
  119.31   27.24  126.82   27.55  135.27   27.86  135.46   27.87  137.91      28
  143.72   28.23  163.47      29  166.98   29.27  176.41      30  185.94   30.95
  186.44      31  186.92   31.05  190.06   31.39  199.44      32  200.49   32.06
  200.82   32.08  202.27   32.16  202.93    32.2  204.32   32.28

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
       0    .045   81.03    .055   94.25    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         81.03   94.25            16.82   18.26   16.73              .1       .3
Blocked Obstructions     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
**********************************************
    63.5    75.5      27      94      99      27

CROSS SECTION


RIVER: Actual_3
REACH: Actual_3           RS: 992.5541

INPUT
Description:
Station Elevation Data    num=      86
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
```

```
*******************************************************************************
       0   27.58    6.77   27.31   12.12   27.09    14.4      27   16.76   26.86
   16.78   26.86   16.79   26.86   19.67   26.69    19.7   26.69   19.72   26.68
   19.74   26.68   22.21   26.53   22.23   26.53   22.26   26.53   22.27   26.53
   28.58   26.21    30.1   26.16   30.12   26.16   30.14   26.16    31.2   26.12
   31.22   26.12   34.89      26   34.95      26   35.11   25.99   54.31      25
   60.16   24.65   71.86   24.15   71.87   24.15   72.55   24.13   72.56   24.13
   72.57   24.13   73.55   24.12   77.59      24   77.76      24   78.29      24
   78.73      24   79.31      24   80.01      24   80.33      24   80.59      24
   82.92      24    84.1      24   84.28      24   84.36      24   85.39      24
   85.46      24   87.77      24   89.28      24   89.32      24   89.35      24
    89.9      24    90.3      24   90.35      24   91.43      24   92.44      24
   92.54      24   92.58      24   93.72   23.89   95.39   23.37   95.96   23.21
   96.14   23.15   96.38   23.06   96.66   23.19   98.37      24   99.57   24.95
   99.63      25   99.84   25.08  102.59      26  105.13   26.84   105.6      27
  106.88   27.04  110.07   27.14  118.47    27.4  129.09   27.73  137.68      28
  144.03   28.25  151.48   28.52  164.75      29  166.82   29.18  176.09      30
  176.76   30.06   181.7   30.54  186.25      31  193.75   31.81  195.71      32
  197.71   32.18

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045   92.58    .055   98.37    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         92.58   98.37             20.04   19.14   17.11              .1       .3

CROSS SECTION


RIVER: Actual_3
REACH: Actual_3           RS: 973.4102

INPUT
Description:
Station Elevation Data    num=      86
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   27.52   10.76      27   25.38    26.1   27.16      26   36.61   25.44
   39.54   25.26   42.89   25.11    45.3      25   45.39   24.99   45.41   24.99
   49.18   24.78   50.23   24.71   52.92   24.55   55.08   24.41   55.88   24.36
   57.27   24.28   58.74   24.18   59.22   24.16   62.04      24   62.21      24
   62.47      24   62.95      24   64.17      24   64.38      24   65.07      24
   66.31      24   66.66      24   69.68      24   70.85      24      71      24
   72.75      24   74.53      24   77.04      24    77.7      24   80.24      24
   81.19      24   82.54      24   82.81      24    83.2      24   84.72   23.26
   85.38      23    85.7   22.99   86.05   22.98   86.19   22.98   86.46   22.99
   86.97      23   88.32   23.68   88.73      24   88.94   24.16   89.84      25
   90.06   25.12   90.28   25.24   90.65   25.44   91.24   25.79    91.6      26
   93.88    26.7   94.93      27   99.59   27.12   99.93   27.13   104.9   27.27
  109.52   27.41  123.36   27.82  124.51   27.86  129.16      28  130.93   28.08
  134.07   28.22  145.09    28.7   152.1      29  154.44   29.19  157.79   29.46
  164.47      30  167.02   30.22  169.71   30.45  173.16   30.75  176.02      31
  182.56   31.68  185.76      32  192.04   32.52  194.27   32.68  197.97      33
  198.19      33  198.45      33  198.48      33  198.71   33.03  198.82   33.04
  198.93   33.05

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045    83.2    .055   88.73    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          83.2   88.73             15.51   17.23    21.3              .1       .3

CROSS SECTION
```

RIVER: Actual_3
REACH: Actual_3 RS: 956.1785

INPUT
Description:
Station Elevation Data num= 93

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	27.63	2.53	27.49	12.7	27	15.28	26.76	16.49	26.65
23.9	26	24.79	25.93	25.14	25.9	30.36	25.48	32.48	25.31
36.43	25	36.44	25	39.22	24.85	39.69	24.83	44.14	24.61
45.32	24.56	46.64	24.52	48.24	24.46	53.25	24.25	55.11	24.19
56.62	24.14	59.17	24.04	60	24	61.06	23.94	61.07	23.94
62.17	23.87	62.18	23.87	69.25	23.89	69.26	23.89	70.41	23.94
70.42	23.94	70.42	23.95	70.43	23.95	71.71	23.98	71.79	23.99
72.01	23.98	72.04	23.98	72.39	24	74.11	24	74.5	24
75.17	24	75.67	24	76.45	24	77.07	24	77.16	24
77.51	24	78.27	24	78.81	23.86	79.61	23.61	80.71	23
82.27	22.67	82.52	22.62	83.12	22.87	83.42	23	83.63	23.27
84.23	24	84.52	24.41	85	25	85.67	25.54	86.32	26
87.17	26.5	88.07	27	88.15	27	88.32	27	92.95	27.08
96.45	27.14	96.46	27.14	96.47	27.14	97.55	27.16	97.56	27.16
97.57	27.16	97.58	27.16	98.44	27.18	99.04	27.19	104.6	27.31
104.62	27.31	105.03	27.31	121.11	27.78	121.13	27.78	121.14	27.78
131.22	27.98	132.05	28	138.51	28.29	153.72	29	154.02	29.03
163.71	30	168.05	30.48	172.54	31	178.69	31.63	182.24	32
191.43	32.85	193.02	33	195.61	33.35				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	78.27	.055	84.23	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
78.27	84.23	11.26	16.58	18.25	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 939.5976

INPUT
Description:
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	28.06	.85	28	5.88	27.7	18.62	27	24.44	26.48
29.63	26	35.24	25.51	41.02	25	42.63	24.86	43.44	24.79
45.19	24.66	50.16	24.27	53.83	24.04	53.97	24.03	54.07	24.02
54.51	24	59.86	23.77	61.55	23.7	63.66	23.61	65.48	23.54
66.83	23.5	72.51	23.23	72.52	23.23	72.53	23.23	74.84	23.15
76.88	23.07	76.89	23.07	76.9	23.07	77.62	23.04	78.37	23
79.27	22.72	81.47	22.15	82.13	22.56	83	23	83.42	23.53
83.87	24	84.48	24.62	84.88	25	85.85	25.76	86.07	25.92
86.17	26	86.56	26.18	88.68	27	89.08	27	93.81	27.1
93.83	27.1	100.54	27.22	110.65	27.39	110.68	27.39	111.92	27.4
111.94	27.4	113.4	27.4	113.71	27.4	113.73	27.4	113.75	27.4
115.13	27.4	115.15	27.4	115.89	27.39	115.91	27.39	115.93	27.39
116.2	27.39	116.22	27.39	116.54	27.39	116.56	27.39	116.82	27.39
116.84	27.39	117.12	27.39	117.14	27.39	137.93	27.83	138.61	27.84
142.19	28	148.2	28.36	158.17	29	158.99	29.08	162.87	29.45
168.59	30	173.22	30.54	177.38	31	182.35	31.52	186.8	32
190.43	32.39	196.27	33	199.95	33.48				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	78.37	.055	83	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
78.37	83	11.84	15.55	16.41	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 924.0465

INPUT
Description:
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	28.58	7.34	28	11.91	27.72	22.61	27	28.01	26.55
34.43	26	43.11	25.19	45.26	25	51.38	24.43	56.25	24
60.45	23.75	63.21	23.6	65.57	23.48	75.18	23	76.16	22.86
76.69	22.78	77.79	22.61	80.56	22	81.59	21.34	81.72	21.26
82.13	21.56	82.72	22	85.34	22.92	85.51	22.98	85.57	23
88.33	23.9	88.91	24	90.9	24.71	91.83	25	92.07	25.13
92.49	25.31	93.45	25.72	94.24	26	95.47	26.33	96.41	26.59
96.81	26.7	97.85	26.92	98.03	26.96	98.29	27	100.25	27
100.29	27	101.02	27.01	101.46	27.02	105.89	27.04	105.89	27.05
111.2	27.05	112.35	27.05	112.36	27.05	117.47	27.03	120.29	27.01
120.3	27.01	121.3	27	122.53	27	123.51	27	124.59	27.01
125.03	27.02	128.9	27.05	129.25	27.07	129.46	27.08	131.86	27.12
132.06	27.13	133.93	27.18	135.41	27.25	136.85	27.3	137.51	27.34
138.87	27.39	139.95	27.43	144.88	27.68	146.62	27.77	150.32	27.96
150.49	27.97	151.11	28	154.38	28.23	158.05	28.52	161.49	28.78
163.46	28.94	164.26	29	166.56	29.22	174.33	30	177.03	30.26
184.5	30.98	184.6	30.99	184.63	30.99	184.68	31	189.78	31.56
193.91	32	194.1	32.02	194.23	32.03	199.79	32.53	201.92	32.72
203.53	32.86	204.17	32.91	205.26	33	205.64	33.04	205.89	33.06
206.32	33.1	206.33	33.1						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	76.69	.055	85.34	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
76.69	85.34	20.19	18.14	10.32	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 905.9035

INPUT
Description:
Station Elevation Data num= 84

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	27.34	1.49	27.22	4.28	27	10.26	26.47	13.34	26.21
15.89	26	24.49	25.25	27.36	25	30.95	24.66	35.54	24.21
37.94	24	45.83	23.31	48.43	23.14	50.77	23	54.59	22.77
61.59	22.35	65.3	22	66.46	21.29	66.73	21.11	66.9	21
66.9	21.01	67.22	21.27	68.16	22	70.16	22.63	71.22	23
72.12	23.1	72.52	23.15	74.18	23.35	77.16	23.72	79.4	24
79.48	24	79.85	24	80.65	24.14	80.88	24.18	82.6	24.41
83.66	24.52	86.22	24.56	87.36	24.64	93.83	24.91	95.42	25

```
   96.71   25.14      97   25.14   97.41   25.15   97.98   25.17   98.71   25.21
  108.79    25.9  111.68   25.97  111.69   25.97   112.6      26  113.99   26.25
   116.9   26.83  117.51   26.95   117.8      27  117.82      27  121.21   27.16
  123.93   27.27  125.22   27.32  128.11   27.49  129.01   27.54  129.77   27.58
  136.61      28  138.87   28.17  141.27   28.36  144.32   28.59   149.6      29
   153.7   29.43  155.42   29.63  157.19   29.83  157.57   29.87  158.83      30
  161.38   30.23  162.52   30.34  166.14   30.68   168.1   30.87  168.56   30.91
  169.58      31  173.77    31.4  175.87   31.58  176.56   31.64     181      32
  182.88   32.15  184.54   32.29  190.28    32.7  192.63   32.88

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***************************************************
       0    .045   61.59    .055   70.16    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         61.59   70.16             11.63   13.83   18.25              .1       .3

CROSS SECTION


RIVER: Actual_3
REACH: Actual_3           RS: 892.0765

INPUT
Description:
Station Elevation Data    num=      88
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   27.66    5.04   27.26    8.28      27   11.08   26.74   19.06      26
      24   25.53   25.75   25.38   30.03      25   33.13    24.7   40.45      24
   49.12   23.15   50.71      23    52.5   22.88   53.12   22.84    54.4   22.75
   54.83   22.72   56.11   22.64   60.29   22.36   63.06   22.19   65.31   22.05
   66.05      22   66.63   21.58   67.31      21   67.66   20.83   68.28   20.54
   68.87   20.93   69.01      21   69.67   21.54   70.22      22    71.9    22.5
   73.27      23   74.77   23.14   74.78   23.14   74.79   23.14   76.09   23.24
    76.1   23.24   76.11   23.24   77.38   23.33   79.52   23.48   81.24    23.6
   87.56      24   91.01   24.22   93.27   24.39   95.44   24.55   97.62   24.71
  101.46      25  105.54   25.29  105.55   25.29  105.56   25.29  105.58   25.29
  105.59   25.29   105.6   25.29  116.33   25.92  116.34   25.92  118.53      26
  120.99   26.37  121.59   26.43  122.29    26.5  123.23   26.59  125.06   26.81
  128.07   26.95     129      27  129.48   27.02  130.74   27.09  131.35   27.14
  132.92   27.24   139.5   27.75  142.05   27.94  142.21   27.95   142.3   27.96
  142.81      28  144.68   28.18  153.76      29  157.72   29.42  163.44      30
  166.97   30.33  167.53   30.38   173.6   30.91  173.99   30.95  174.21   30.97
  174.63      31  177.06    31.2  180.47   31.48  187.68      32  189.59   32.15
  190.88   32.27  192.07   32.37  192.45    32.4

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***************************************************
       0    .045   66.05    .055   70.22    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         66.05   70.22             26.73   28.22   28.57              .1       .3

CROSS SECTION


RIVER: Actual_3
REACH: Actual_3           RS: 863.8566

INPUT
Description:
Station Elevation Data    num=      78
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
```

```
       0   27.67     8.4      27    9.55   26.89   19.24      26   26.66    25.2
   28.58      25    30.9   24.77   38.89      24   44.53   23.51   50.68      23
   62.21   22.36   62.26   22.36   62.32   22.36   62.37   22.35   62.42   22.35
   62.47   22.35   62.78   22.34   62.81   22.34   62.85   22.33   62.99   22.33
   63.02   22.33   63.49    22.3   63.52    22.3   63.57    22.3    63.6    22.3
   64.04   22.29   64.09   22.29   64.14   22.29   64.19   22.29   67.09   22.21
   73.92      22    74.9   21.56    75.9      21   76.31   20.66   76.64   20.39
   76.95   20.73   77.22      21   77.82   21.61   78.22      22   79.12   22.14
    82.1   22.59   83.88   22.86   84.83      23      85   23.01   88.45   23.28
   90.58   23.44    94.8   23.77   95.44   23.81   98.34      24  101.54   24.24
  103.74   24.41  107.79   24.71  111.61      25  117.93   25.44  123.47   25.86
   124.4   25.93  125.28      26  133.49   26.55   135.7   26.69  139.86   26.94
  140.52      27  140.74      27  144.87   27.36  152.17      28  157.74   28.67
  160.46      29  162.14   29.16  168.27   29.75  170.11   29.92  170.94      30
  177.73   30.58  180.83   30.83  181.98   30.93  182.95      31  185.99   31.22
  191.43   31.63  194.04   31.82  195.89   31.95

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
       0    .045   73.92    .055   78.22    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         73.92   78.22             25.03   22.61   19.31              .1       .3

CROSS SECTION


RIVER: Actual_3
REACH: Actual_3           RS: 841.2441

INPUT
Description:
Station Elevation Data    num=      57
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
**************************************************************************************
       0   25.86    1.96   25.72   11.35   25.02   11.55   25.01   11.67      25
   17.21   24.68   20.29   24.47   27.09      24   27.98   23.93   38.98      23
   52.87    22.1   54.17      22   61.21   21.49   61.52   21.47   68.95      21
   69.77   20.63   70.44   20.33   71.11   20.85   71.27      21   71.34   21.19
   71.73      22    73.3   22.18   78.37   22.68   80.58   22.91   80.66   22.91
    81.6      23   91.24   23.76   94.16      24   97.71   24.27  106.77      25
  110.85   25.36     118      26  119.76   26.26  120.22   26.34  124.25      27
  124.28      27  125.23      27  125.34      27  126.86      27  127.57      27
  131.32   27.28  134.07   27.41  144.94      28  147.12   28.28  153.13      29
  156.15    29.3  163.17      30  163.89   30.06  164.37    30.1   168.6   30.45
  174.25   30.91  174.57   30.93  174.77   30.95  175.47      31  179.88   31.34
  182.94   31.57  182.99   31.58

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
       0    .045   54.17    .055   71.73    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         54.17   71.73             18.78    17.4   15.44              .1       .3

CROSS SECTION


RIVER: Actual_3
REACH: Actual_3           RS: 823.8461

INPUT
Description:
Station Elevation Data    num=      69
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
```

```
*******************************************************************************
       0   24.16    1.66      24    3.96      24    8.86   23.57   11.17   23.53
   12.86   23.47   14.63   23.49   15.69   23.48   17.52   23.41   20.71   23.32
    21.4   23.28   24.42    23.2   24.85   23.18   29.16   23.04      30      23
   32.02    22.9   33.57    22.8   38.73   22.46   40.79   22.34   44.65   22.09
   45.93      22   48.33   21.89   61.43   21.34    69.5      21   70.41   20.51
   71.06   20.13   71.83   20.61   72.52      21   73.28   21.41   73.86   21.73
   74.74      22   80.45   22.49   81.76   22.63   85.02      23   86.95   23.17
   90.13   23.43   97.21      24  102.32   24.45  109.11      25  115.57    25.6
  119.59      26  119.87   26.03  120.94   26.16  124.68   26.55  126.05   26.67
  128.17      27  129.12   27.05  132.38    27.2  134.25   27.31  137.09   27.43
  138.81   27.52  144.72   27.85  145.37   27.89  145.74   27.91  145.97   27.92
  147.34      28  152.44    28.6  155.76      29  156.82   29.11  157.26   29.15
   161.2   29.51  162.82   29.68   166.3      30  168.86    30.2  170.22   30.31
  175.01   30.66  179.05   30.99  179.15      31  181.65   31.15

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045   61.43    .055   73.28    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         61.43   73.28             25.68   23.39   19.41              .1       .3

CROSS SECTION


RIVER: Actual_3
REACH: Actual_3           RS: 800.4541

INPUT
Description:
Station Elevation Data    num=      66
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0      23     .44      23    1.42      23    3.26      23   17.92   22.24
   19.74   22.17   21.25   22.13   25.57   22.03   26.42      22   27.29      22
   27.56      22   29.14      22   30.26      22   48.85   21.52   49.59   21.51
   49.62   21.51   49.66   21.51   50.29    21.5   50.32    21.5   50.35    21.5
   50.51    21.5   50.54    21.5   53.24    21.4   53.27    21.4    53.3    21.4
   55.11   21.33   55.14   21.32   55.18   21.32   55.22   21.32   55.26   21.32
   57.98   21.22   63.86      21   65.68   20.28   66.17   20.08    66.4   20.27
   67.32      21   68.92   21.33   72.75      22   77.33   22.41   79.62    22.6
   79.93   22.63   84.47      23   94.19   23.84   95.86      24  100.61   24.34
  110.76      25  112.34   25.15  113.23   25.22  116.02   25.48  118.87   25.66
  123.44      26  123.88   26.05  124.44   26.12  128.71   26.64  131.84      27
  134.54   27.16  144.83   27.65  145.11   27.65  145.88   27.67  149.21      28
  154.04   28.49  156.06   28.68  160.49      29  166.52   29.59  171.66      30
  172.93    30.1

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045   57.98    .055   68.92    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         57.98   68.92             23.09   21.23   17.67              .1       .3

CROSS SECTION


RIVER: Actual_3
REACH: Actual_3           RS: 779.2239

INPUT
Description:
Station Elevation Data    num=      67
```

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	24.05	1.02	24	3.8	23.83	4.51	23.79	8.16	23.59
12.36	23.34	18.29	23	21.69	22.78	31.94	22	40.02	21.49
41.94	21.44	49.62	21.08	53.02	21.01	53.31	21	54.44	21
57.19	21	57.39	21	57.9	21	58.23	20.81	59.05	20.3
59.54	20	59.66	19.97	60.47	19.68	60.64	19.79	60.88	20
64.67	20.78	65.73	21	68.61	21.44	71.89	22	74.5	22.21
77.47	22.45	79.45	22.61	82.01	22.81	84.56	23	90.84	23.48
94.08	23.73	95.4	23.83	97.8	24	103.58	24.4	105.81	24.56
108	24.7	108.91	24.75	112.39	25	112.83	25.04	113.06	25.07
116.52	25.43	119.16	25.73	119.7	25.79	120.33	25.87	121.95	26
124.18	26.18	126.57	26.33	127.37	26.39	128.56	26.51	129.32	26.52
130.53	26.62	131.14	26.68	139.42	26.78	141.9	26.86	144.39	27
149.9	27.68	152.34	28	154.1	28.14	155.7	28.26	162.47	28.78
166.05	29	167.73	29.14						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	57.9	.055	65.73	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
57.9	65.73	24.14	22.58	16.52	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 756.6484

INPUT
Description:
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	23.85	2.54	23.71	3.57	23.67	4.93	23.61	6.97	23.5
9.67	23.37	13.16	23.2	14.04	23.15	16.9	23	19.37	22.82
26.63	22.24	28.5	22.1	28.95	22.06	29.65	22	30.95	21.89
42.72	21	50.68	20.52	51.98	20.44	59.19	20	60.29	19.62
60.71	19.5	61	19.72	61.41	20	64.1	20.56	66.23	21
68.21	21.21	77.46	22	77.64	22.01	78.32	22.07	81.81	22.34
84.84	22.58	87.71	22.8	90.25	23	94.91	23.3	101.19	23.8
102.24	23.88	102.89	23.93	104.05	24	110.29	24.47	112.78	24.65
114.15	24.77	118.06	25	118.49	25.03	118.6	25.04	119.75	25.18
124.33	25.7	127.39	26	127.43	26	131.54	26	135.78	26.15
139.39	26.37	142.17	26.48	143.65	26.55	144.88	26.62	149.79	27
155.24	27.74	157.21	28	159.75	28.18	163.97	28.48	166.05	28.62

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	50.68	.055	64.1	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
50.68	64.1	24.71	22.79	17.55	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 733.8605

INPUT
Description:
Station Elevation Data num= 64

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

```
*******************************************************************************
       0   22.95     .17   22.94    2.71   22.78    3.09   22.75    5.05   22.61
    6.25   22.53    7.43   22.45   11.22   22.15   11.94   22.09   13.04      22
    19.7   21.71    21.1   21.65   26.24   21.65   26.79   21.63   27.46   21.61
   44.43    21.2   48.69      21   58.09    20.6   66.54    20.2   70.75      20
    72.1   19.61   72.63   19.48   73.06   19.67   73.89      20   75.38   20.13
   76.68   20.23   84.73   20.86   86.05   20.97   86.45      21   87.82   21.17
   93.15   21.83   94.52      22   95.87   22.13    97.2   22.21  102.77   22.65
  105.31    22.8  108.03      23   108.5      23  111.46   23.21  114.07   23.41
  116.35   23.59  121.22      24  123.52   24.23  125.63   24.43  127.63   24.55
  128.53   24.59  130.44   24.54   131.1   24.54  132.86   24.54  133.55   24.58
  135.95   24.59  137.66    24.7  141.12   24.96  141.68      25  143.89   25.17
  145.96   25.35  153.92   25.99  154.02      26  154.07      26  163.19   26.84
  164.54      27  170.52   27.84  171.49      28  175.56   28.34

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045   66.54    .055   76.68    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         66.54   76.68             22.43   21.08   18.52             .1       .3

CROSS SECTION


RIVER: Actual_3
REACH: Actual_3           RS: 712.7758

INPUT
Description:
Station Elevation Data    num=      65
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0    24.3     2.9      24    6.63   23.64   13.81      23    21.2    22.4
   26.21      22   28.49   21.83   39.22      21   48.78   20.66   49.51   20.63
   49.77   20.63   49.95   20.62   50.08   20.62   50.31   20.61   50.36   20.61
   51.15   20.58   51.28   20.58   51.47   20.57   52.12   20.56      70    20.1
   70.01    20.1   70.02    20.1   70.04    20.1   71.73   20.08   78.89      20
    80.4   19.34   81.17   19.04      82   19.43   83.16      20   87.91   20.52
   90.52   20.83   91.12    20.9   91.94      21   94.72   21.28   97.31   21.54
   99.58   21.78   100.2   21.84  102.51      22  103.59   22.05  103.78   22.06
  106.52   22.18  110.37   22.27  112.11   22.39  115.37   22.41  116.21   22.44
  117.49   22.47  118.67   22.49  119.84   22.53  121.23   22.57  122.82   22.65
  123.55   22.64  128.56   22.79  129.12   22.82  131.96      23  134.83   23.23
  142.42      24  145.56   24.31  149.15   24.64   152.4      25  158.42   25.52
  163.33      26  165.74   26.29  166.74   26.43   168.2   26.62   170.7   26.98

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045   78.89    .055   83.16    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         78.89   83.16             21.47   19.76   18.07             .1       .3

CROSS SECTION


RIVER: Actual_3
REACH: Actual_3           RS: 693.0193

INPUT
Description:
Station Elevation Data    num=      81
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
```

0	24.66	5.59	24	15.04	23.13	16.44	23	18.84	22.81
22.19	22.54	28.8	22	36.35	21.44	42.34	21	45.72	20.87
45.73	20.87	45.74	20.87	63.79	20.17	63.81	20.17	65.39	20.15
65.4	20.15	65.42	20.15	67.61	20.13	67.63	20.13	67.64	20.13
67.66	20.13	68.77	20.12	68.78	20.12	68.8	20.12	68.81	20.12
76.65	20.03	79.6	20	80.12	20	82.33	20	84.44	20
86.24	20	87.49	19.24	87.88	19	88.41	18.88	89.65	18.59
90.82	18.88	91.35	19	91.93	19.24	94.62	20	96.38	20.17
97.84	20.31	100.47	20.5	102.89	20.68	104	20.78	106.76	21
112.41	21.09	112.47	21.09	119.42	21.28	119.63	21.28	119.65	21.28
119.87	21.29	119.89	21.29	120.32	21.3	120.34	21.3	120.37	21.3
120.66	21.31	120.69	21.31	121.09	21.33	121.12	21.33	121.14	21.33
121.17	21.33	122.64	21.41	122.68	21.41	122.72	21.41	122.76	21.41
124.79	21.53	124.84	21.53	124.89	21.53	130.33	21.86	130.36	21.86
132.6	22	138.03	22.46	140.48	22.66	144.41	23	149.08	23.68
151.24	24	153.43	24.29	158.86	25	165.55	25.73	168.1	26
171.41	26.53								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	86.24	.055	94.62	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
86.24	94.62	11.12	17.38	19.85	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 675.6385

INPUT
Description:
Station Elevation Data num= 57

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	25.31	2.71	25	10.38	24.06	10.9	24	11.42	23.95
21.13	23	26.48	22.57	34.05	22	41.4	21.45	47.27	21
49.34	20.89	52.04	20.8	62.37	20.45	70.71	20.14	73.93	20.02
75.15	20	81.63	20	82.51	20	82.53	20	82.98	20
84.66	20	86.45	20	87.06	19.5	87.7	19	89.09	18.75
90.24	18.56	91.61	18.92	91.93	19	95.21	19.42	96.98	19.67
99.4	20	104.27	20.44	106.21	20.56	108.37	20.69	113.89	21
114.97	21.08	115.85	21.18	118.73	21.47	120.54	21.67	121.44	21.77
123.86	22	128.13	22.33	131.66	22.59	134.81	22.81	137.15	22.98
137.25	22.98	137.46	23	139.93	23.23	148.53	24	149.33	24.07
152.59	24.42	157.34	24.92	157.97	25	167.42	26	167.45	26
167.65	26.02	173.23	26.53						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	86.45	.055	99.4	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
86.45	99.4	18.86	19.73	19.93	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 655.9124

INPUT
Description:
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	25.36	3.3	25	7.22	24.51	11.22	24	19.12	23.14
20.38	23	29.51	22.32	33.9	22	34.08	21.98	34.46	21.95
45.44	21	51.28	20.65	57.01	20.3	60.75	20.07	62.15	20
71.98	19.57	76.63	19.37	77.78	19.37	82.69	19.34	83.77	19
84.88	18.75	86.08	18.48	86.48	18.6	87.85	19	89.71	19.27
94.03	19.87	94.98	20	98.44	20.36	103.49	20.88	104.73	21
107.56	21.29	115.53	22	122.69	22.72	125.31	23	136.81	23.64
142.75	24	148.47	24.48	151.72	24.76	154.58	25	164.57	25.9
165.7	26	175.14	26.76						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	82.69	.055	89.71	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
82.69	89.71	20.88	21.13	21.43	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 634.7860

INPUT
Description:
Station Elevation Data num= 40

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	25.18	1.33	25	6.61	24.11	7.36	24	14.69	23.11
15.64	23	20.05	22.67	29	22	30.85	21.82	37.33	21.22
39.41	21.02	39.62	21	55.26	20.11	57.19	20	64.84	19.62
71.69	19.28	77.54	19	79.97	18.54	80.8	18.37	82.82	18.99
82.83	19	82.86	19	89.79	19.79	91.68	20	92.54	20.08
101.8	21	107.11	21.55	111.83	22	117.58	22.4	126.97	23
129.52	23.14	137.32	23.62	141.21	23.85	142.63	23.93	143.63	24
144.73	24.09	156.13	25	166.16	25.92	167.02	26	174.05	26.56

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	77.54	.055	82.83	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
77.54	82.83	20.01	17.21	17.89	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 617.5754

INPUT
Description:
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	24.47	.6	24.38	3.12	24	6.86	23.53	11.2	23
14.56	22.69	22.89	22	24.81	21.81	26.09	21.69	33.27	21
33.57	20.98	39.4	20.61	49.96	20	51.85	19.93	51.86	19.93
51.87	19.93	51.88	19.93	51.89	19.93	51.9	19.93	54.64	19.83
63.82	19.34	67.06	19.17	67.07	19.17	67.08	19.17	67.1	19.17
70.16	19	71.95	18.73	74.67	18.3	75.78	18.64	76.81	19
82.42	19.46	83.33	19.53	89.99	20	94.02	20.32	97.79	20.6
99.79	20.75	100.4	20.79	103.35	21	104.37	21.08	104.89	21.12

108.26	21.36	110.08	21.49	112.36	21.65	116.27	21.9	116.66	21.93
116.87	21.94	117.82	22	125.23	22.4	135.32	23	140.82	23.42
142.35	23.53	147.85	24	154.54	24.6	156.4	24.8	158.43	25
165.68	25.69	169.01	26	170.16	26.09	170.88	26.16	171.01	26.17

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	67.1	.055	82.42	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
67.1	82.42	22.93	20.63	24.32	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 596.9457

INPUT
Description:
Station Elevation Data num= 74

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	24.9	.23	24.88	6.73	24	9.46	23.7	16.22	23
17.35	22.86	20.9	22.42	24.18	22	28.47	21.49	32.4	21
34.51	20.81	37.73	20.53	46.11	20	50.72	19.81	51.26	19.8
52.43	19.79	54.39	19.72	59.6	19.57	65.63	19.32	69.22	19.18
72.44	19.06	72.45	19.06	73.52	19	76.29	18.53	78.55	18.15
78.62	18.18	79.09	18.36	80.76	19	86.72	19.19	86.96	19.2
86.99	19.2	87.01	19.2	97.14	19.68	97.15	19.68	97.17	19.68
97.18	19.68	97.2	19.68	100.31	19.79	100.32	19.79	100.34	19.79
100.35	19.79	100.37	19.79	100.38	19.79	100.4	19.79	106.95	19.99
107.13	20	107.17	20	107.26	20	115.43	20.51	116.2	20.57
122.27	21	124.76	21.18	126.91	21.35	128.12	21.44	129.71	21.58
135.25	21.94	135.46	21.96	135.57	21.97	135.66	21.97	136.07	22
141.12	22.29	143.5	22.47	145.77	22.66	148.03	22.83	148.41	22.85
149.66	23	156.84	23.71	159.64	24	168.35	24.78	170.87	25
172.61	25.13	183.29	26	183.84	26.05	184.72	26.14		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	73.52	.055	80.76	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
73.52	80.76	24.11	23.6	22.15	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 573.3445

INPUT
Description:
Station Elevation Data num= 57

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	23.51	4.26	23	6.78	22.74	13.35	22	16.3	21.63
18.35	21.36	21.28	21	29.48	20.18	31.4	20	47.56	19.01
47.72	19	47.76	19	47.77	19	52.9	18.78	53.57	18.75
55.63	18.68	58	18.57	58.43	18.55	60.57	18.48	63.75	18.29
64.75	18.26	66.19	18.23	68.34	18.06	69.15	18	70.06	17.86
70.47	17.74	71.6	17.98	71.69	18	71.84	18.02	71.98	18.04
78.37	19	78.51	19.02	79.43	19.14	85.86	20	85.92	20.01
85.96	20.01	92.26	20.57	95.25	20.82	95.88	20.87	96.2	20.89

97.61	21	109.44	21.81	112.19	22	116.34	22.26	117.55	22.33
119.05	22.42	123.71	22.68	129.48	22.97	129.72	22.98	130.01	23
140.72	23.64	145.33	23.97	145.6	23.98	145.79	24	158.06	24.84
160.18	25	168.32	25.57						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	66.19	.055	78.37	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
66.19	78.37	12.87	17.12	16.14	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 556.2210

INPUT
Description:
Station Elevation Data num= 54

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	24.72	1.53	24.56	2.68	24.44	6.57	24	10.14	23.61
13.95	23.17	15.33	23	17.9	22.72	24.75	22	29.56	21.43
33.18	21	35.92	20.69	42.17	20	47.72	19.58	50.99	19.34
55.86	19	57.67	18.89	60.5	18.73	67.01	18.33	67.61	18.3
68.59	18.24	71.61	18.1	72.27	18.06	73.84	18	75.37	17.69
76.15	17.48	77.29	17.72	78.44	17.94	78.73	18	79.05	18.16
80.75	19	82.66	19.1	84.34	19.22	87.56	19.41	90.87	19.6
93.06	19.81	93.76	19.85	95.33	20	101.99	20.51	105.47	20.84
106.24	20.9	107.27	21	115.2	21.52	122.68	22	129.68	22.54
133.65	22.85	135.69	23	141.04	23.3	153.37	24	156.26	24.21
167.23	25	168.53	25.07	176.42	25.5	179.07	25.66		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	71.61	.055	79.05	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
71.61	79.05	13.4	18.42	18.8	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 537.8052

INPUT
Description:
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	24.13	1.22	24	8.81	23.36	12.29	23	13.7	22.85
19.53	22.22	21.53	22	27.22	21.37	30.58	21	32.06	20.83
36.14	20.32	38.06	20.08	38.76	20	41.17	19.81	51.3	19
55.7	18.71	59.87	18.41	59.93	18.41	65.93	18	68.09	17.39
68.11	17.39	69.25	17.77	69.94	18	72.92	18.78	73.99	19
74.17	19	74.48	19	82.39	19.42	88.93	19.76	93.57	20
99.37	20.34	103.42	20.56	106.84	20.75	108.29	20.83	109.44	20.89
112	21	126.9	21.84	129.67	22	138.2	22.73	141.1	23
153.29	23.88	155.09	24	156.44	24.1	167.79	25	170.05	25.12
177.08	25.51								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	59.87	.055	72.92	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
59.87	72.92	11.98	15.25	16.66	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 522.5513

INPUT
Description:
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	24.01	.14	24	6.68	23.47	12.06	23	18.45	22.37
22.58	22	24.46	21.8	25.62	21.68	26.78	21.55	31.86	21
34.63	20.72	40.94	20	48.59	19.27	51.61	19	58.6	18.6
65.4	18.2	68.48	18	69.34	17.75	70.82	17.28	71.81	17.67
72.74	18	82.82	18.62	84.83	18.74	88.02	19	90.12	19.11
90.66	19.14	93.38	19.31	99.3	19.66	102.5	19.85	103.67	19.92
105.15	20	116.4	20.48	124.24	20.78	125.23	20.83	129.01	20.97
129.59	21	137.09	21.49	139.52	21.67	143.7	22	149.77	22.52
156.28	23	165.81	23.81	168	24	175.9	24.65	179.73	25
184.05	25.24								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	65.4	.055	82.82	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
65.4	82.82	11.29	11.89	12.77	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 510.6633

INPUT
Description:
Station Elevation Data num= 61

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	23.98	5.15	23.59	11.53	23.08	12.5	23	14.3	22.85
24.92	22	27.08	21.76	30.09	21.45	34.35	21	41.24	20.38
45.27	20	46.14	19.91	55.11	19	60.23	18.75	60.38	18.74
61.76	18.68	65.72	18.49	75.88	18	76.64	17.57	77.23	17.22
78.94	17.96	79.02	18	79.09	18.01	85.81	18.55	85.84	18.55
85.86	18.55	85.89	18.55	85.91	18.55	86.29	18.58	89.79	18.82
89.82	18.82	89.84	18.82	91.13	18.83	91.16	18.83	91.19	18.83
91.22	18.84	91.25	18.84	91.28	18.84	97.49	18.92	97.53	18.92
97.57	18.92	97.61	18.93	102.78	19	106.12	19.19	108.12	19.31
112.1	19.55	117.19	19.85	119.78	20	126.84	20.32	131.2	20.52
141.18	21	143.48	21.2	152.32	22	157.98	22.37	168.88	22.98
169.25	23	177.53	23.69	181.47	24	191.01	24.91	191.94	25
195.23	25.16								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	65.72	.055	86.29	.045

```
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         65.72   86.29             12.58   14.08   14.95              .1       .3

CROSS SECTION


RIVER: Actual_3
REACH: Actual_3           RS: 496.5821

INPUT
Description:
Station Elevation Data    num=      62
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   23.76    2.92   23.54    4.22   23.45    6.16    23.3   10.04      23
   14.37   22.66   15.15   22.62    16.3   22.54   20.88   22.22   22.64   22.09
   23.83      22   32.49   21.07   33.16      21   33.26   20.99   33.28   20.99
   33.47   20.98   39.87   20.46   45.52      20   46.38   19.93   48.72   19.71
   56.27      19   58.01   18.92   58.02   18.92   58.03   18.92   58.04   18.92
   60.29   18.81   60.75   18.78   67.23   18.44   76.03      18   77.65   17.44
   78.03    17.3   78.31   17.37   80.77      18   88.03   18.35   91.51   18.52
   99.08   18.95   99.09   18.95  101.02   18.98  101.03   18.98  102.96      19
  111.21   19.51  114.34    19.7  119.17      20  126.48   20.43   128.1   20.53
  134.19   20.78  135.06   20.83  139.05      21  142.32   21.15  144.32   21.27
  147.51   21.44  149.26   21.55  155.38      22  160.74   22.24  166.87   22.52
  176.57   22.98  176.77   22.99  176.97      23  177.18   23.02  182.84   23.43
  192.91      24  201.31   24.64

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045   76.03    .055   80.77    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         76.03   80.77             13.43    13.5   13.18              .1       .3

CROSS SECTION


RIVER: Actual_3
REACH: Actual_3           RS: 483.0792

INPUT
Description:
Station Elevation Data    num=      70
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   23.32    1.29   23.26    4.45      23    8.38   22.72    9.28   22.65
   11.89    22.4   13.28    22.3   16.71      22   18.14   21.87   21.35   21.61
   22.96   21.49   24.88   21.28   26.05   21.19   28.28      21   30.64   20.85
    31.3   20.79   35.63   20.47   37.19   20.34    39.8   20.18   42.37      20
   43.55   19.92   43.87    19.9   47.02   19.66   49.22   19.48   50.93   19.34
   54.92      19   58.03   18.86   58.05   18.86   60.44   18.75      71   18.28
   71.01   18.28   71.02   18.28   71.04   18.28   71.05   18.28   75.63      18
   76.31   17.83   78.66    17.3    80.4   17.64   81.77      18   89.02   18.43
   90.26    18.5  100.11      19  110.77   19.78  113.18   19.95   113.3   19.95
  114.04      20  124.41   20.82  127.44      21  129.12   21.07  130.01    21.1
  140.14   21.47  143.24   21.57   145.2   21.65  147.78   21.74  153.27   21.99
  153.56      22  163.21   22.31  165.36   22.41  170.17   22.62  174.81    22.8
   179.1      23   183.9   23.16  183.91   23.16  199.41   23.87  199.42   23.87
  199.43   23.87  204.03      24  204.38   24.02  208.07   24.25  209.85   24.36

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045   75.63    .055   81.77    .045
```

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
75.63	81.77	9.88	10.92	11.49	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 472.1636

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	23.15	3.96	23	4.46	22.98	4.73	22.96	7.21	22.81
8.97	22.67	11.01	22.56	12.41	22.46	14.04	22.37	16.21	22.24
19.77	22	20.35	21.95	20.54	21.94	24.14	21.61	25.84	21.49
28.45	21.29	29.51	21.2	31.88	21	33.69	20.87	34.22	20.84
35.25	20.76	38.42	20.53	41.26	20.31	45.06	20	46.51	19.85
57.17	19	57.51	19	58.61	19	58.93	19	59.34	19
59.65	19	59.93	19	60.33	19	63.7	18.81	70.69	18.43
79.7	18	81.47	17.51	82.25	17.3	85.62	17.98	85.71	18
94.95	18.66	95.39	18.7	100.51	19	104.84	19.3	113.8	20
116.85	20.3	118.53	20.44	124.89	21	126.87	21.09	128.77	21.19
137.27	21.61	144.17	21.91	144.53	21.93	144.96	21.95	146.39	22
154.82	22.18	154.83	22.18	154.84	22.18	154.85	22.18	159.28	22.27
159.3	22.27	159.31	22.27	160.85	22.3	160.86	22.3	160.87	22.3
163.67	22.37	163.68	22.37	180.23	22.93	182.46	22.95	182.47	22.95
186.49	22.99	187.38	23	194.04	23.24	194.07	23.24	197.84	23.37
197.87	23.37	197.9	23.37	197.93	23.37	201.63	23.48	201.66	23.48
201.68	23.48	201.71	23.48	202.47	23.51	202.5	23.51	203	23.52
203.02	23.52	203.04	23.52	203.06	23.52	204.44	23.55	204.46	23.55
215.36	23.86								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	79.7	.055	85.71	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
79.7	85.71	15.84	15.18	14.18	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 456.9867

INPUT
Description:
Station Elevation Data num= 84

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	22.3	1.78	22.27	3.6	22.21	4.09	22.2	7.88	22.04
7.96	22.04	8.62	22	10.74	21.89	11.08	21.87	13.39	21.76
16.89	21.61	19.18	21.48	21.18	21.36	26.83	21	28.16	20.9
28.52	20.87	32.8	20.54	34.08	20.45	36.11	20.32	37.22	20.24
37.78	20.21	41.39	20	42.38	19.94	42.82	19.91	47.26	19.66
51.66	19.35	53.83	19.23	56.37	19	56.38	19	56.39	19
68.2	18.96	71.18	18.94	71.2	18.94	71.23	18.94	73.38	18.94
73.4	18.94	73.42	18.94	73.44	18.94	73.46	18.94	73.7	18.94
73.72	18.94	80.4	18.11	83.56	18	84.98	17.74	86.21	17.47
86.87	17.3	90.14	17.88	90.83	18	91.45	18.06	99.29	18.76
100.33	18.85	102.05	19	103.84	19.12	116.13	20	117.04	20.1
117.36	20.14	118.41	20.25	125.33	21	125.41	21	129.96	21.08
139.76	21.55	145.41	21.82	147.44	21.9	149.28	22	176.07	22.73
176.71	22.74	176.95	22.75	176.96	22.75	176.97	22.75	177.02	22.75

177.03	22.75	177.14	22.75	177.23	22.75	177.25	22.75	177.26	22.75
177.39	22.75	204.58	22.91	204.73	22.91	207.18	23	207.19	23
209.37	23.06	209.38	23.06	215.28	23.19	221	23.36		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	83.56	.055	91.45	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
83.56	91.45	6.25	10.8	10.88	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 446.1882

INPUT
Description:
Station Elevation Data num= 104

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	22.14	2.81	22.17	3.5	22.16	7.05	22.16	8.89	22.14
9.19	22.13	12.6	22.06	14.23	22	15	21.97	15.47	21.95
21.03	21.7	22.04	21.63	24.05	21.52	25.63	21.42	26.83	21.36
28.54	21.28	33.09	21	33.15	21	36.57	20.76	40.22	20.45
43.2	20.22	45.98	20	46.32	19.98	46.42	19.97	49.67	19.75
51.82	19.61	53.27	19.5	55.59	19.35	60.21	19	60.51	18.99
60.99	18.97	68.99	18.7	75.52	18.42	77.29	18.35	78.94	18.28
84.28	18.4	84.29	18.41	84.3	18.41	84.31	18.41	84.32	18.41
84.34	18.41	84.35	18.41	84.36	18.41	84.37	18.41	86	18
88.17	17.57	89.54	17.3	91.55	17.46	96.47	18	100.31	18.31
101.88	18.46	105.55	18.8	107.71	19	118.28	19.78	121.1	20
121.11	20	121.15	20	121.21	20.01	131	21	137.72	21.19
137.74	21.19	137.75	21.19	139.59	21.23	141.24	21.27	141.26	21.27
142.4	21.3	142.42	21.3	144.09	21.33	144.11	21.33	151.39	21.68
154.13	21.78	154.15	21.78	154.16	21.78	154.18	21.78	156.59	21.86
156.61	21.86	156.62	21.86	156.63	21.86	156.65	21.87	160.82	22
166.33	22.13	166.34	22.13	169.71	22.21	169.72	22.21	171.98	22.25
174.25	22.3	176.07	22.33	177.64	22.35	177.65	22.35	179.15	22.37
180.39	22.38	181.84	22.39	181.85	22.39	183.11	22.4	184.22	22.4
185.48	22.41	185.49	22.41	186.6	22.4	190.43	22.38	190.44	22.38
193.06	22.34	193.07	22.34	193.08	22.34	193.75	22.33		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	84.36	.055	101.88	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
84.36	101.88	7.99	10.6	8.78	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 435.5890

INPUT
Description:
Station Elevation Data num= 73

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	21.45	.74	21.45	5.03	21.53	6.16	21.51	7.12	21.52
8.91	21.47	10.12	21.47	13.96	21.43	15.05	21.4	23.66	21
24.65	21	24.79	21	25.77	21	38.38	20	38.45	20

38.47	20	38.49	20	42.35	19.68	43.84	19.58	51.57	19
52.57	18.98	52.58	18.98	54.31	18.94	55.81	18.91	55.82	18.91
55.83	18.91	58.07	18.87	69.34	18.31	70.52	18.26	72.64	18.18
76.96	18	80.28	17.33	80.44	17.3	88.52	18	88.54	18
88.56	18	88.95	18.03	98.07	18.76	101.16	19	110.93	19.71
113.87	19.92	114.95	20	122.78	20.63	127.46	21	134.38	21.2
134.42	21.2	137.7	21.29	137.74	21.29	139.37	21.34	139.4	21.34
139.44	21.34	140.37	21.36	141.04	21.38	141.07	21.38	141.09	21.38
141.12	21.38	142.3	21.4	142.33	21.4	142.35	21.4	142.9	21.41
142.93	21.41	143.13	21.41	143.15	21.41	161.19	21.96	162.55	22
162.91	22.01	165.88	22.06	168.42	22.09	170.87	22.12	172.9	22.14
175.27	22.16	175.28	22.16	175.32	22.16				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	76.96	.055	88.52	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
76.96	88.52	12.79	17.09	19.87	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 418.5032

INPUT
Description:
Station Elevation Data num= 74

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	20.83	.19	20.83	2.06	20.82	3.66	20.81	9.08	20.73
9.65	20.72	10.25	20.71	10.95	20.69	14.97	20.67	15.67	20.63
16.55	20.59	18.06	20.48	19.17	20.43	22.86	20.09	23.95	20
28.05	19.73	29.76	19.58	32.95	19.37	36.24	19	41.89	18.89
41.92	18.89	41.94	18.89	51.2	18.56	51.63	18.55	51.65	18.55
52.06	18.53	52.07	18.53	53.28	18.44	53.3	18.44	53.32	18.44
53.34	18.44	54.48	18.37	54.5	18.37	54.52	18.37	54.54	18.37
54.56	18.37	56.18	18.3	56.2	18.3	56.22	18.3	59.28	18.15
62.17	18	62.81	18	63.72	17.86	69.34	17.3	73.3	17.67
76.16	18	76.63	18.02	76.64	18.02	79.98	18.19	80	18.19
80.02	18.19	80.03	18.19	80.04	18.19	82.64	18.34	93.53	18.99
93.64	19	93.73	19	104.43	19.84	106.79	20	107.02	20.01
113.34	20.27	114.34	20.31	116.21	20.39	121.84	20.59	125.12	20.73
125.9	20.76	126.52	20.78	127.12	20.79	132.39	20.91	133.08	20.93
135.4	20.98	136.82	21	138.64	21.03	143.12	21.07		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	62.81	.055	76.16	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
62.81	76.16	13.01	13.09	12.42	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 405.4106

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

```
       0   19.87     .12   19.87      .4   19.87     .68   19.87    1.53   19.87
    8.69   19.84    9.06   19.83    9.83   19.82   11.52    19.8   13.12   19.77
   15.42   19.72   17.11   19.68   17.91   19.65   19.46   19.61   20.44   19.57
   23.66   19.41    24.9   19.36   26.08    19.3   30.48      19   39.73   18.48
   41.45   18.39   43.69    18.3   44.59   18.25   51.34      18   51.81   17.99
   52.38   17.97   58.72   17.78   58.94   17.77   62.66   17.65   71.96   17.25
   77.87   17.91    78.7      18   82.16   18.17   89.16   18.51   99.76      19
  103.71   19.29  109.55   19.73  110.81   19.83  113.29      20  114.73   20.05
  117.21   20.13  119.57   20.19  120.86   20.22  127.09   20.37  128.01   20.39
  129.31   20.41  131.66   20.46  132.95   20.47  135.77   20.51  138.24   20.54
  140.32   20.55   141.2   20.56

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
       0    .045   58.72    .055   77.87    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         58.72   77.87             12.02   11.48    9.99              .1       .3

CROSS SECTION


RIVER: Actual_3
REACH: Actual_3           RS: 393.9341

INPUT
Description:
Station Elevation Data    num=      72
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
**********************************************************************************
       0   20.04     .24   20.03     .45   20.03    1.52      20    9.88   19.82
   11.46   19.78   12.99   19.74    15.8   19.68   19.08   19.57   22.28   19.46
    29.6   19.28   30.89   19.23   32.92   19.17   34.54   19.11   35.14   19.11
   40.96   19.08   41.64   19.08    43.7   19.06   47.32      19   48.11   18.99
   56.32   18.88   56.33   18.88   56.34   18.88   56.35   18.88   56.36   18.88
   56.37   18.88   56.38   18.88   57.52   18.85   57.53   18.85   57.54   18.85
   57.55   18.85   58.43   18.82   58.44   18.82   65.63   18.54   67.18   18.48
   71.46   18.25   71.77   18.23   75.92      18   83.61   17.78   88.95    17.7
   92.64   17.61   97.08   17.51  100.57   17.44  102.76    17.4  107.48   17.22
   110.1   17.49  116.13   17.94  116.87      18  121.17    18.2  122.32   18.26
  137.21      19  142.44   19.37  143.84   19.43  147.17   19.63     155   19.86
  155.86    19.9  160.24      20  160.57   20.01  162.95   20.04   168.1   20.11
  168.65   20.12  172.64   20.15  173.98   20.17  177.82    20.2  182.01   20.21
  182.49   20.22  186.59   20.22  187.66   20.22  191.19    20.2  194.23   20.17
  195.11   20.18  196.43   20.16

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
       0    .045   92.64    .055   110.1    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         92.64   110.1             13.24   13.11   12.43              .1       .3

CROSS SECTION


RIVER: Actual_3
REACH: Actual_3           RS: 380.8281

INPUT
Description:
Station Elevation Data    num=     112
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
**********************************************************************************
       0   20.96    2.35   20.84    2.84   20.82    3.67   20.77    6.28   20.62
```

10.42	20.36	11.84	20.27	15.99	20	16.15	19.99	20.67	19.66
29.1	19	37.98	18.84	50.6	18.5	50.61	18.5	52.13	18.5
52.14	18.5	54.08	18.5	60.35	18.43	60.76	18.43	60.96	18.43
68.2	18.34	68.69	18.34	76.6	18.38	77.43	18.38	78.68	18.38
79.94	18.4	82.4	18.39	86.31	18.4	87.21	18.4	89.74	18.4
96.1	18.32	97.07	18.32	97.08	18.32	98.89	18.29	98.9	18.29
99.9	18.28	99.91	18.28	99.92	18.28	99.94	18.28	99.95	18.28
106.07	18.12	106.08	18.12	106.08	18.11	106.09	18.11	106.1	18.11
108.42	18.04	108.43	18.04	109.58	18	110.93	17.97	111.56	17.96
111.57	17.96	118.66	17.82	118.67	17.82	118.68	17.82	118.69	17.82
120.23	17.78	120.25	17.78	120.26	17.78	122.34	17.73	122.35	17.73
135.95	17.37	147.93	17.05	150.19	17	150.86	16.95	151	16.94
151.12	16.95	151.62	17	159.48	17.59	159.54	17.6	161.89	17.78
165.94	18	180.61	18.77	184.64	19	187.51	19.13	188.24	19.15
191.14	19.27	198.77	19.45	200.3	19.46	201.4	19.48	204.41	19.52
211.73	19.55	214.22	19.58	216.92	19.6	218.76	19.61	219.63	19.62
220.7	19.62	223.94	19.63	224.91	19.63	225.75	19.63	227.73	19.6
230.88	19.6	231.92	19.58	234.34	19.52	236.75	19.51	237.99	19.47
239.76	19.45	243.01	19.32	243.77	19.31	244.71	19.28	249.98	19
251.36	19	254.54	19	257.47	19	260.37	19	261.46	19.14
264.17	19.53	266.47	19.87	266.56	19.88	267.43	20	273.75	20.32
287.86	21	294.84	21.27						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	135.95	.055	159.54	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
135.95	159.54	23.52	23.93	24.04	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 356.8988

INPUT
Description:
Station Elevation Data num= 142

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	20.79	.43	20.77	2.12	20.72	3.55	20.66	4.61	20.62
7.6	20.49	12.82	20.22	13.49	20.19	13.94	20.16	16.85	20
21.96	19.73	22.86	19.68	24.88	19.57	28.86	19.33	33.06	19.07
33.42	19.05	34.14	19	48.68	18.48	49.52	18.45	50.4	18.42
55.31	18.24	55.56	18.24	55.78	18.23	56.27	18.21	56.62	18.2
56.64	18.2	56.67	18.2	56.69	18.2	56.7	18.2	56.73	18.2
56.74	18.2	56.76	18.2	56.79	18.2	56.81	18.2	56.84	18.2
56.87	18.2	56.89	18.2	56.93	18.2	56.94	18.2	56.97	18.2
57.01	18.2	57.05	18.2	57.09	18.2	57.13	18.2	57.17	18.2
57.22	18.2	76.85	18.07	88.66	18	88.87	18	89.27	17.99
97.45	17.79	104.21	17.63	104.23	17.63	104.24	17.63	104.25	17.63
107.5	17.63	107.51	17.63	107.52	17.63	112.03	17.57	113.99	17.55
117.2	17.54	120.56	17.48	123.76	17.37	137.08	17.33	137.1	17.33
138.31	17.33	146.45	17.16	149.8	17.1	149.81	17.1	154.88	17
155.29	17	155.98	17	159.82	17	162.04	17	162.47	17
162.92	16.97	165.5	16.79	167.54	16.96	168.03	17	170.22	17.12
174.38	17.35	176.42	17.46	187.39	17.93	193.1	18	197.31	18.19
197.76	18.2	198.33	18.21	200.38	18.27	201.16	18.28	203.07	18.33
204.59	18.35	206.85	18.37	208.54	18.37	209.95	18.37	214.17	18.34
219.51	18.36	221.06	18.36	222.81	18.38	224.36	18.4	225.29	18.41
238.39	18.18	238.44	18.18	238.49	18.18	238.55	18.18	241.49	18.29
241.51	18.29	241.92	18.31	241.94	18.31	241.96	18.31	241.99	18.31
242.01	18.31	242.61	18.34	242.64	18.34	242.66	18.34	242.69	18.34
242.72	18.34	243.79	18.38	243.82	18.38	243.86	18.39	243.89	18.39
245.19	18.45	245.24	18.45	247.42	18.56	247.48	18.56	247.53	18.57

```
  247.57   18.57  247.61   18.57  253.14      19  255.77      19  262.92   19.52
  269.93      20   274.4   20.13  274.41   20.13  274.42   20.14  274.43   20.14
  278.07   20.25  278.09   20.25   278.1   20.25  282.63   20.41  282.65   20.41
  282.67   20.41  282.95   20.42

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
       0    .045   149.8    .055  170.22    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         149.8  170.22             31.96   30.94   29.42              .1       .3

CROSS SECTION


RIVER: Actual_3
REACH: Actual_3           RS: 325.9584

INPUT
Description:
Station Elevation Data    num=     107
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
**********************************************************************************
       0   21.59    4.34   21.39    4.35   21.39    5.59   21.34    5.61   21.34
    5.62   21.34    5.64   21.34    5.66   21.34    7.65   21.26    7.67   21.26
    7.68   21.26     7.7   21.26    7.72   21.26    7.73   21.25    7.75   21.25
   12.83      21   16.69   20.76   18.07    20.7   19.18   20.65   20.76   20.57
   23.53   20.42   27.88   20.18   28.86   20.12   31.12      20   32.81   19.88
    34.5   19.77   36.69   19.62   40.88   19.32   45.62      19   46.81   18.92
    54.3   18.42   59.97      18   64.93   17.87   72.94   17.78   73.06   17.77
   75.15   17.74   76.59   17.72   81.37   17.67   95.19    17.3  107.12   17.36
  107.15   17.36   112.4    17.2  112.41    17.2  112.84    17.2  112.85    17.2
  112.87    17.2  114.33    17.2  114.35    17.2  114.37    17.2  114.39    17.2
  115.96    17.2  115.98    17.2  118.33   17.18  118.34   17.18  118.36   17.18
  118.38   17.18  118.39   17.18  120.42   17.17  120.74   17.17  122.55   17.14
  122.57   17.14  127.63      17  130.35   16.59  131.61   16.46  133.85   16.17
  134.95      16  135.67   15.87   137.6   15.88  138.86   15.99  138.95      16
  138.99   16.02  140.43      17  140.88   17.01  144.74   17.15  166.62   17.91
  166.63   17.91  166.64   17.91  169.95   17.96  169.96   17.96  169.97   17.96
  172.79   17.99   172.8   17.99  173.63      18  182.54   18.31  184.87   18.42
  186.75   18.51  188.71   18.58  190.16   18.63  198.78      19  199.46   19.03
  199.68   19.04  206.23   19.31  208.66   19.43  210.43   19.52   213.5   19.65
  221.28      20  224.56   20.05  224.57   20.05   227.5   20.09   233.4   20.17
  233.41   20.17  233.42   20.17  235.75    20.2  235.76    20.2  237.44   20.23
  237.45   20.23  255.59   20.72

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
       0    .045  127.63    .055  140.43    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        127.63  140.43             32.96   30.14   26.59              .1       .3

CROSS SECTION


RIVER: Actual_3
REACH: Actual_3           RS: 295.8183

INPUT
Description:
Station Elevation Data    num=      92
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
**********************************************************************************
       0   21.43    3.68   21.22     3.7   21.22    3.72   21.22    3.74   21.22
```

8.21	21	23.35	20.14	25.65	20	38.23	19.14	40.21	19
41.06	18.93	41.07	18.93	43.02	18.76	43.03	18.76	54.09	18.09
54.1	18.09	54.11	18.09	58.16	18	72.12	17.4	83.91	17
84.13	17	84.51	17	85.54	17	87.36	17	88.03	17
88.22	17	89.7	17	91.83	17	96.24	17	98.93	17
99.63	17	100.73	17	100.88	17	100.98	17	102.18	17
103.73	17	106.39	17	110.75	17	111.67	16.52	112.48	16
114.75	16	115.65	16	115.82	16.26	116.7	17	118.87	17
122.98	17	125.3	17	134.58	17	135.81	17	145.7	17.96
146.08	18	157.31	18.51	168.08	19	168.29	19.01	174.68	19.34
178.35	19.53	183.27	19.78	187.79	20	188.31	20	193.33	20.09
203.74	20.26	209.34	20.35	213.73	20.42	218.48	20.49	218.52	20.49
218.56	20.49	221.61	20.53	222.59	20.55	222.63	20.55	225.25	20.58
225.28	20.58	225.31	20.58	225.86	20.59	225.89	20.59	227.03	20.6
227.05	20.6	227.08	20.6	227.55	20.61	227.57	20.61	227.91	20.61
227.94	20.61	232.96	20.74	232.99	20.74	233.02	20.75	233.03	20.75
233.05	20.75	233.06	20.75	233.08	20.75	233.09	20.75	233.12	20.75
233.14	20.75	233.42	20.74						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	110.75	.055	116.7	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
110.75	116.7	22.84	22.12	21.62	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 273.7013

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	21.18	1.18	21.07	1.9	21	2.13	20.98	3.59	20.87
15.12	20	27.84	19.04	28.34	19	28.6	18.98	45.75	18
47.05	17.94	47.06	17.94	47.07	17.94	47.08	17.94	47.09	17.94
56.19	17.54	56.21	17.54	56.24	17.54	56.27	17.54	56.3	17.54
56.32	17.54	58.54	17.43	58.57	17.43	64.6	17.18	64.62	17.18
64.64	17.18	64.67	17.18	70.82	17	90.39	16.37	91.57	16.33
102.01	16	103.78	16	105.92	16	106.15	16.18	107.73	17
108.79	17	109.72	17	112.63	17	115.07	17	129.27	17
137.85	17.59	140.43	17.75	146.03	18	152.1	18.29	153.79	18.41
158.37	18.63	160.9	18.83	163.22	19	164.99	19.1	170	19.34
171.32	19.43	174.85	19.61	177.26	19.78	180.81	20	181.24	20
182.06	20	182.45	20	182.59	20	182.74	20	186.5	20
187	20	199.3	20.22	199.31	20.23	199.33	20.23	209.87	20.34
209.89	20.34	209.9	20.35	209.92	20.35	214.07	20.4	214.09	20.4
214.1	20.4	216.49	20.43	216.5	20.43	216.52	20.43	216.54	20.43
219.23	20.47								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	70.82	.055	107.73	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
70.82	107.73	20.31	20.28	20.67	.1	.3

CROSS SECTION

RIVER: Actual_3

REACH: Actual_3 RS: 253.4211

INPUT
Description:
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	21.26	3.22	21	7.91	20.55	13.55	20	19.94	19.4
24.53	19	31.34	18.49	38.42	18	55.2	17.37	63.78	17.04
65.1	17	84.17	16.37	91.87	16.12	95.45	16	96.13	16
100.39	16	109.02	16.12	116.84	16.23	116.97	16.24	117.11	16.24
117.25	16.24	117.29	16.24	117.42	16.24	117.48	16.24	117.53	16.24
117.55	16.24	118.11	16.27	118.72	16.3	134.05	17	150.89	17.64
156.38	17.82	158.03	17.88	161.66	18	169.9	18.45	174.52	18.66
176.87	18.78	182.34	19	183.72	19.07	184.95	19.12	187.78	19.24
191.42	19.41	195.82	19.59	197.08	19.66	203.62	19.94	204.03	19.96
204.88	20	212.4	20.11	212.41	20.11	213.78	20.13	213.85	20.13

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	84.17	.055	118.72	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
84.17	118.72	28.9	24.33	20.13	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 229.0900

INPUT
Description:
Station Elevation Data num= 78

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	20.21	.9	20.11	1.92	20	14.83	19.04	15.31	19
15.38	18.99	15.45	18.99	15.72	18.96	26.95	18	30.74	17.82
45.35	17	52.31	16.67	54.45	16.58	60.58	16.3	64.23	16.16
66.28	16.08	67.12	16.05	68.51	16.01	68.89	16	69.72	16
71.5	16	74.5	16	75.63	16	77.55	16	82.06	16
84	15.98	84.49	16	87.48	16	87.74	16	88.78	16
90.11	16.01	91.95	16.03	91.96	16.03	98.6	16.07	98.61	16.07
101.64	16.08	101.65	16.08	103.41	16.15	115.08	16.58	118.79	16.63
119.81	16.65	127.3	16.89	127.62	16.89	131.13	17	131.14	17
131.24	17	140.12	17.28	142.78	17.37	145.55	17.46	156.58	17.87
158.07	17.92	158.32	17.93	160	18	165.13	18.24	167.46	18.34
174.09	18.65	177.68	18.81	181.64	19	182.06	19.02	182.13	19.02
197.19	19.89	197.2	19.89	197.22	19.89	197.24	19.89	198.52	19.9
198.54	19.9	198.55	19.9	198.57	19.9	198.59	19.9	198.61	19.9
200.95	19.92	200.97	19.92	200.99	19.92	201.01	19.92	201.03	19.92
201.05	19.92	201.06	19.92	205.55	19.96				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	64.23	.055	103.41	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
64.23	103.41	22.91	25.23	27.56	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 203.8620

INPUT
Description:
Station Elevation Data num= 54

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	22.02	.29	22	.63	21.97	12.38	21	16.69	20.58
24.12	20	25.68	19.89	31.52	19.4	34.43	19.16	36.3	19
41.44	18.53	46.7	18	52.91	17.47	58.02	17	65.96	16.56
76.57	16	80.82	15.61	82.46	15.46	88.5	15	89.31	14.85
89.75	14.78	89.98	14.87	90.38	15	91.65	15.05	92.02	15.06
98.14	15.26	101.03	15.31	104.75	15.4	117.91	15.75	125.58	15.95
127.21	16	127.84	16.02	128.19	16.03	134.47	16.22	135.55	16.24
141.82	16.42	143.36	16.46	145.61	16.53	149.44	16.63	161.49	17
162.48	17.05	163.59	17.1	170.02	17.42	173.03	17.57	181.8	18
190.03	18.46	199.58	19	203.66	19.23	203.67	19.23	207.87	19.26
208.73	19.27	226.78	19.74	226.79	19.74	227.26	19.74		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	82.46	.055	104.75	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
82.46	104.75	24.2	23.43	22.47	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 180.4265

INPUT
Description:
Station Elevation Data num= 78

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	22.28	3.54	22.08	4.1	22.04	4.79	22	14.8	21.18
17.02	21	26.51	20.07	26.9	20.03	27.18	20	27.53	19.96
36.56	19	42.34	18.52	48.06	18	56.06	17.35	60.15	17
64.69	16.73	77.08	16	84.04	15.56	91.83	15.07	93.03	15
93.25	14.95	94.28	14.71	94.6	14.78	95.77	15	96.01	15
104.03	15.15	104.05	15.15	107.68	15.21	108.95	15.23	108.98	15.23
109	15.23	109.03	15.23	110.37	15.26	110.4	15.26	110.42	15.26
110.44	15.26	112.38	15.3	112.4	15.3	112.42	15.3	112.44	15.3
122.01	15.57	125.63	15.67	125.66	15.67	125.69	15.67	137.05	16
147.43	16.38	147.47	16.38	147.51	16.38	147.55	16.38	147.58	16.38
147.61	16.38	148.65	16.42	148.67	16.42	150.87	16.52	151.89	16.56
151.92	16.56	151.95	16.56	151.99	16.56	152.02	16.56	154.49	16.65
154.54	16.66	154.59	16.66	154.65	16.66	163.33	17	168.15	17.21
185.71	18	189.53	18.21	203.54	19	213.38	19.18	213.4	19.18
213.42	19.18	213.43	19.18	224.39	19.47	224.41	19.47	224.9	19.48
224.92	19.48	225.4	19.47	228.32	19.42				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	84.04	.055	122.01	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
84.04	122.01	20.87	19.85	18.62	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 160.5738

INPUT
Description:
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	21.06	.73	21	11.73	20.02	11.84	20.01	11.89	20
11.93	20	15.57	19.69	17.47	19.56	19.67	19.39	20.89	19.3
25.92	19	27.1	18.93	27.79	18.87	30.8	18.66	39.95	18
54.41	17.04	55.02	17	55.26	16.99	55.39	16.98	55.6	16.97
57.49	16.88	73.15	16.15	76.21	16	80.03	15.79	85.11	15.5
85.46	15.48	91.62	15.13	93.94	15	94.79	14.79	95.45	14.63
98.13	14.74	101.84	14.88	104.17	15	108.83	15.13	113.56	15.27
125.51	15.61	138.06	16	153.21	16.67	160.24	17	163	17.14
164.54	17.2	168.04	17.34	173.44	17.56	180.74	17.87	184.15	18
197.68	18.66	202.8	18.92	204.38	19	206.01	19.03	206.03	19.03
206.04	19.03	206.05	19.03	206.06	19.03	217.98	19.26	218.01	19.26
218.04	19.26	224.36	19.28	224.38	19.28	224.41	19.28	224.43	19.28
224.46	19.28	225.4	19.27	225.43	19.27	225.46	19.27	226.21	19.26

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	85.46	.055	113.56	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
85.46	113.56	22.32	21.89	21.38	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 138.6799

INPUT
Description:
Station Elevation Data num= 47

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	20.62	8.1	20	11.26	19.72	19.02	19	28.23	18.24
31.22	18	40.11	17.48	46.26	17.12	47.15	17.08	47.61	17.05
47.82	17.04	48.52	17	51.4	16.87	72.71	16	86.46	15.46
90.25	15.32	98.76	15	100.12	14.78	100.79	14.6	102.67	14.66
104.48	14.71	113.46	14.97	114.6	15	130.81	15.75	138.34	16
148.02	16.53	157.28	17	166.77	17.57	174.35	18	177.11	18.11
177.12	18.11	177.13	18.11	177.14	18.11	177.15	18.11	179.12	18.19
179.13	18.19	180.31	18.22	180.32	18.22	181.92	18.27	181.93	18.27
181.94	18.27	194.04	18.64	204	18.98	204.15	18.99	204.51	19
206.36	19	222.46	19						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	98.76	.055	113.46	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
98.76	113.46	20.7	19.8	18.75	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 118.8793

INPUT
Description:
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	20.36	1.45	20.29	7.41	20	12.25	19.67	20.77	19
28.23	18.48	34.87	18	42.7	17.46	49.54	17	60.18	16.63
77.3	16	80.27	15.99	80.28	15.99	98.01	15.32	103.12	15.12
103.13	15.12	103.14	15.12	104.62	15	106.02	14.87	107.61	14.77
109.64	14.58	114.93	14.71	117.1	14.77	121.02	14.87	126.23	15
129.75	15.25	141.63	16	157.22	16.94	158.23	17	159.52	17.08
175.14	18	179.58	18.17	179.59	18.17	196.35	18.76	196.37	18.76
199.59	18.87	199.6	18.87	199.62	18.87	203.64	19	209.48	19
214.29	19	219.19	19	221.15	19	221.6	19	222.3	19

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	98.01	.055	129.75	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
98.01	129.75	18.05	17.62	17.12	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 101.2603

INPUT
Description:
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	19.98	9.95	19.71	22.82	19	29.06	18.61	37.96	18
42.5	17.73	46.23	17.5	54.32	17	57.62	16.84	57.63	16.84
82.37	16.05	82.38	16.05	86.25	16	92.99	15.98	93	15.98
93.02	15.98	93.04	15.98	105.25	15.42	106.2	15.38	106.21	15.38
106.22	15.38	106.23	15.38	106.25	15.38	106.26	15.38	110.92	15
113.02	14.59	113.87	14.4	113.98	14.4	116.5	14.39	122.64	14.73
123.22	14.75	128.14	14.95	129.46	15	143.34	15.83	145.74	16
150.75	16.29	163.56	17	165.53	17.11	181.06	18	193.29	18.43
196.95	18.56	201.59	18.7	204.34	18.79	205.27	18.82	206.06	18.85
207.05	18.87	208.08	18.9	210.77	18.99	212.13	18.99	213.25	19
213.85	19								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	110.92	.055	128.14	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
110.92	128.14	21.67	21.1	20.41	.1	.3

CROSS SECTION

RIVER: Actual_3
REACH: Actual_3 RS: 80.15922

INPUT
Description:
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	19.32	.41	19.32	.43	19.32	3.06	19.26	3.08	19.25
3.1	19.25	12.9	19.01	13.24	19	18.64	18.71	22.82	18.47
24.64	18.36	30.44	18	42.51	17.25	46.53	17	52.5	16.75
52.52	16.75	67.31	16.2	67.33	16.2	68.54	16.19	69.22	16.19
69.24	16.19	70.72	16.17	70.74	16.17	72.39	16.16	72.41	16.16

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    74.3   16.14   74.32   16.14   76.95   16.11   76.97   16.11   83.48   16.03
   83.49   16.03   85.41      16   92.26   15.72  105.12   15.17  109.14      15
  116.09   14.02  116.27      14  116.33      14   117.1   13.99  117.11   13.99
  117.63      14  122.07   14.81  123.02      15  124.78   15.11  127.88    15.3
  139.56      16  141.96    16.1  141.97    16.1  141.98    16.1  141.99    16.1
     142    16.1  148.45   16.36  148.47   16.36  161.62    16.9  161.63    16.9
  161.64    16.9  161.65    16.9  161.66    16.9  166.15      17  172.89   17.38
  179.04    17.7  180.85   17.79  181.73   17.84  182.78   17.89  185.05      18
  194.45   18.32  194.51   18.32  194.57   18.32  211.12   18.86  211.14   18.86
  211.31   18.86  211.33   18.86  211.35   18.86  211.49   18.86  211.51   18.86
  211.54   18.86  211.62   18.86  211.65   18.86  211.67   18.86  211.94   18.86
  211.96   18.86  211.98   18.86  212.19   18.86  212.21   18.86  212.34   18.86
  212.36   18.86  212.38   18.86  212.39   18.86  221.44   18.72

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045  109.14    .055  124.78    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        109.14  124.78             16.59   16.97    17.4              .1       .3

CROSS SECTION


RIVER: Actual_3
REACH: Actual_3           RS: 63.19227

INPUT
Description:
Station Elevation Data    num=      74
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   18.86    1.13   18.82    3.63   18.78    8.27    18.7   13.92   18.47
   17.32   18.39   22.51   18.13   23.06   18.11    23.8   18.09   25.27      18
   38.64   17.17   41.46      17   59.99   16.36   62.48    16.3   69.24   16.05
   69.25   16.05   73.04   16.03   75.19   16.01   76.35      16   82.64   15.84
   89.45    15.6   95.78    15.4   98.57   15.31  100.32   15.25  104.76   15.06
  106.34      15  112.64   14.13  113.34      14  114.51   13.77  115.36   13.59
  115.79   13.82  116.13      14  119.36   14.67  120.59   14.93  120.73   14.96
  120.91      15  121.85   15.06  125.73   15.28  127.35   15.37   138.2      16
  141.47   16.13  141.48   16.13   144.4   16.24  144.42   16.24  146.83   16.32
  146.85   16.32  148.81   16.37  148.83   16.37  149.72   16.38  150.26   16.39
  150.27   16.39  151.08    16.4  151.43   16.41  151.45   16.41  153.91   16.43
  153.93   16.43  168.34   16.79  168.85    16.8  174.62      17   179.4   17.22
  185.21   17.61  187.64   17.76  191.19      18  194.79   18.12   194.8   18.12
  198.28   18.24  200.01   18.29  200.02   18.29  202.54   18.36  202.56   18.36
  204.94   18.41  204.95   18.41  207.22   18.46  225.72    18.6

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045  104.76    .055  121.85    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        104.76  121.85             18.59   18.53   18.43              .1       .3

CROSS SECTION


RIVER: Actual_3
REACH: Actual_3           RS: 44.66612

INPUT
Description:
Station Elevation Data    num=      75
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
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*******************************************************************************
       0   18.27   14.52   18.08   16.87      18   27.08   17.44   32.17   17.16
   34.85      17   56.48   16.07   58.59      16   63.09   15.92    63.1   15.92
   69.09   15.81    69.1   15.81   73.88   15.76    73.9   15.76   73.91   15.76
   97.67   15.08  100.23      15  100.97   14.83  102.05   14.56  104.33      14
  108.33    13.5  110.52   13.23  111.64   13.52   113.7      14  114.74   14.45
  115.69      15  119.03   15.13  119.04   15.13  119.05   15.13  124.52   15.36
  133.96   15.77  134.67   15.78  134.69   15.78   134.7   15.78  137.13   15.82
  137.14   15.82  137.16   15.82  138.91   15.85  138.92   15.85  138.94   15.85
  140.21   15.86  140.23   15.86  142.53   15.89  142.54   15.89  142.55   15.89
  143.65    15.9  143.66    15.9   147.5   15.91  155.14   15.98  156.67      16
   157.6   16.01  157.77   16.02  160.59   16.08  161.39   16.11  163.24   16.16
  165.82    16.3   168.9   16.42  171.35   16.53   178.7      17  180.55   17.11
  186.44   17.44  190.59   17.63  192.02    17.7  192.96   17.74  193.72   17.78
  199.43      18  200.21   18.02   202.2   18.03  202.21   18.03  211.37   18.13
  214.62   18.17  214.64   18.17  219.46   18.21  219.48   18.21  221.65   18.23

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045  100.23    .055  115.69    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        100.23  115.69             30.01   44.67   44.11              .1       .3

CROSS SECTION


RIVER: Actual_4
REACH: Actual_4           RS: 1666.697

INPUT
Description:
Station Elevation Data    num=      68
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   42.17    4.12      42    6.36   41.89    7.36   41.84    7.36   41.83
    8.77   41.81   11.94   41.58   12.94   41.54   14.94   41.38   20.32      41
   29.81   40.17   31.22      40   35.34   39.15   36.34      39   40.47   38.67
   45.85   38.22   48.09   38.09   49.09      38   54.47    37.6   55.47   37.44
   59.95   37.07   59.95   37.04   60.95      37   64.11   36.77   66.34   36.63
   68.34   36.54   69.76   36.47   71.76   36.36   75.88   36.21    76.1    36.2
    77.3   36.16   81.42      36   84.58   35.57   84.58   35.51      86   35.03
   95.22      36   99.69   36.41  100.52   36.48  105.07   36.85  107.07      37
   113.4   37.65  115.63   37.88  116.63   37.93  116.63      38  123.91   38.68
  126.15   38.93  127.15      39  134.77   39.62  135.77   39.72  137.18   39.85
  139.18      40  144.56   40.36   146.8   40.53   149.8    40.7  152.96      41
   155.2   41.14  160.58   41.36  163.75   41.46  166.91   41.53  168.91    41.6
  173.38   41.69  174.38   41.73  176.62   41.77  179.78   41.82  181.78   41.84
  186.25      42  188.25      42  193.64      42

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045   81.42    .055   95.22    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         81.42   95.22             37.12   35.11   35.47              .1       .3

CROSS SECTION


RIVER: Actual_4
REACH: Actual_4           RS: 1631.588

INPUT
Description:
```

Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	40.12	3.16	40	6.32	39.77	9.49	39.64	12.65	39.5
14.65	39.4	17.81	39.3	18.81	39.23	27.36	39	34.64	38.85
35.64	38.86	36.64	38.85	36.64	38.83	39.8	38.79	39.8	38.77
43.92	38.69	47.08	38.6	48.5	38.61	58.94	38.16	58.94	38.15
59.94	38.23	60.94	38.25	60.94	38	66.32	37.47	68.32	37.26
69.74	37.18	70.74	37.14	71.74	37	85.34	36.1	85.34	36.07
86.34	36	94.88	35.41	99.98	35	102.22	34.82	103.22	34.74
105.22	34.63	107.05	34.49	107.45	34.46	109.69	34.33	113.81	34.05
113.81	34	115.81	33.62	116.81	33.44	117.81	33.02	118.81	33.11
120.23	33.25	124.35	33.72	128.47	33.98	128.47	33.99	128.47	34
130.47	34.32	133.64	34.48	133.66	34.48	135.05	34.7	138.05	34.83
139.46	35	141.7	35.4	142.7	35.57	145.7	36	146.7	36
147.7	36	150.86	36.3	154.99	36.53	156.99	37	157.99	37
169.39	37.85	171.39	38	171.39	38.01	171.39	38.02	176.77	38.39
185.99	39	187.41	39.04	187.41	39.07	191.53	39.28	194.69	39.44
196.93	39.57	206.15	40	207.15	40.01	207.15	40.02	210.31	40.25
212.55	40.35	216.67	40.58	223.95	40.98	224.95	40.99	224.95	41
232.23	41.49	233.23	41.49	234.23	41.58	235.23	41.55	236.23	41.65
238.46	41.6								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	113.81	.055	128.47	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
113.81	128.47	31.3	32.31	33.24	.1	.3

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 1599.279

INPUT
Description:
Station Elevation Data num= 94

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	38.69	1	38.62	3.24	38.51	3.24	38.49	5.47	38.33
7.47	38	8.47	37.76	9.47	37.71	10.47	37.43	14.94	37.25
15.94	37.17	16.94	37.11	16.94	37.1	19.18	37	26.46	36.76
29.62	36.66	31.04	36.62	33.04	36.59	34.45	36.57	36.45	36.57
37.87	36.56	38.87	36.56	42.03	36.58	44.26	36.61	48.39	36.67
50.62	36.7	50.62	36.71	56.01	36.76	58.01	36.77	59.42	36.76
60.42	36.75	63.58	36.66	64.58	36.66	66	36.64	67	36.64
69.23	36.7	69.23	36.71	74.62	36.92	74.62	36.93	76.62	37
78.03	36.98	78.03	36.97	92.9	36	93.9	35.93	104.67	35
106.67	34.89	109.83	34.62	116.16	34.17	118.39	34	126.94	33.36
129.47	33.2	131.06	33.1	131.06	33.07	132.06	33	135.67	32.61
137.67	32.29	138.67	32.19	139.67	32	144.77	31.24	146.18	31
147.18	30.99	147.18	30.88	148.18	30.99	148.18	31	153.56	31.79
154.56	32	158.44	32.26	162.18	32.51	165.34	32.79	168.5	33
172.63	33.44	175.79	33.69	180.26	33.99	180.26	34	181.26	34.2
186.65	35	187.65	35.08	192.12	35.53	197.22	36	200.38	36.41
204.85	37	213.4	37.65	214.4	37.74	217.56	38	223.88	38.57
229.27	39	231.51	39.19	232.51	39.25	235.67	39.5	241.99	40
251.48	40.69	255.95	41	266.39	41.49	269.55	41.62		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	137.67	.055	158.44	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
137.67	158.44	37.57	39.01	43.65	.1	.3

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 1560.274

INPUT
Description:
Station Elevation Data num= 107

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	36.52	4.47	36	6.71	35.84	7.71	35.8	9.12	35.7
11.36	35.47	16.74	35	18.16	34.88	19.16	34.86	19.16	34.83
19.16	34.76	25.87	34	28.1	34.18	29.1	34.22	31.34	34.21
33.57	34.18	34.99	34.11	35.99	34.11	35.99	34.09	38.22	34
41.83	33.9	42.83	33.9	50.45	33.78	51.86	33.78	52.86	33.77
56.47	33.71	57.47	33.69	60.63	33.67	63.46	33.7	66.62	33.81
67.62	33.81	68.62	33.82	74	33.96	75	34	76.42	34.02
80.54	34.18	81.96	34.17	83.37	34.22	85.37	34.24	88.98	34.27
89.98	34.26	91.39	34.25	94.55	34.21	95.97	34.21	99.13	34.14
101.36	34.08	103.6	34	105.84	33.87	110.31	33.49	112.54	33.29
114.78	33.13	115.78	33	119.39	32.66	127	32	128.42	31.81
130.42	31.6	134.02	31.26	136.26	31	139.42	30.62	143.03	30.17
144.6	30.04	145.03	30	146.44	29.82	147.85	29.8	154.18	29.31
157.78	29.09	157.78	29	157.78	28.97	158.78	28.85	158.78	28.65
160.2	28.81	160.2	29	162.43	29.2	170.05	30	174.52	30.56
176.08	30.78	177.68	31	186.63	31.76	188.04	31.89	190.04	32
191.46	32.25	196.84	33	202.67	33.58	207.15	34	208.15	34.3
212.62	35	220.23	35.79	221.65	36	223.88	36.25	226.12	36.43
230.59	37	232.59	37.16	239.3	38	239.3	38.03	240.3	38.07
246.62	38.77	248.86	39	255.57	39.53	260.95	40	265.43	40.29
269.9	40.6	275.73	41	281.11	41.37	290.06	41.94	291.06	42
296.89	42.38	297.89	42.45						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	144.6	.055	170.05	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
144.6	170.05	35.78	42.95	46.24	.1	.3

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 1517.321

INPUT
Description:
Station Elevation Data num= 134

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	33.88	8.6	33.1	9.6	33	12.43	32.78	16.04	32.51
19.64	32.2	22.47	32	24.47	31.79	28.08	31.39	30.9	31.5
30.9	31.54	32.32	31.59	33.32	31.68	34.32	31.72	35.32	31.75
38.92	31.81	40.34	31.83	40.34	31.84	40.34	31.85	42.57	31.84
42.57	31.83	45.4	31.79	47.64	31.72	47.64	31.74	52.64	31.66
54.05	31.68	56.05	31.72	60.3	31.88	61.3	31.89	64.12	32
66.36	32.2	67.77	32.26	70.01	32.38	71.42	32.42	72.42	32.48
73.84	32.52	75.25	32.56	76.25	32.59	77.67	32.62	78.67	32.63
79.67	32.63	81.08	32.64	82.08	32.63	83.5	32.63	83.5	32.61
84.91	32.58	88.52	32.49	89.52	32.45	90.93	32.39	93.17	32.28
94.17	32.24	96.4	32.12	98.64	32	100.05	31.83	103.66	31.51

107.26	31.12	108.68	31	115.89	30.28	116.89	30.13	118.3	30
121.91	29.49	126.91	29	130.51	28.58	134.99	28.17	135.99	28.12
136.99	28	138.27	27.87	145.59	27.1	147	27	150.61	26.67
151.61	26.38	153.02	26.79	154.44	27	154.44	27.05	158.91	27.38
165.31	28	168.14	28.28	170.38	28.6	173.05	28.9	173.98	29
177.59	29.24	187.59	30	188.59	30.17	192.19	30.65	195.02	31
197.26	31.17	197.26	31.26	200.86	31.58	204.47	31.93	204.47	32
206.7	32.2	213.11	33	216.71	33.42	220.32	34	220.32	34.06
226.15	35	228.39	35.24	234.79	36	234.79	36.04	242	37
245.61	37.36	247.02	37.6	250.63	38	250.63	38.05	257.84	39
260.07	39.22	261.49	39.4	264.32	39.67	265.32	39.79	268.14	40
269.14	40.05	271.97	40.24	274.21	40.41	276.44	40.55	280.05	40.8
281.46	40.91	282.88	41	285.11	41.23	290.11	42	291.11	42
292.53	42	296.13	42.17	298.37	42.2	299.37	42.22	300.37	42.25
301.78	42.3	303.2	42.35	304.2	42.41	305.61	42.48	310.61	42.76
311.61	42.8	312.61	42.85	313.61	42.87	313.61	42.91		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	138.27	.055	165.31	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
138.27	165.31	31.3	35.91	45.88	.1	.3

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 1481.412

INPUT
Description:
Station Elevation Data num= 157

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	34.93	8.49	34.11	9.9	34	11.31	33.88	19.12	33
21.95	32.64	21.95	32.59	23.37	32.5	27.61	32.16	29.02	32.08
30.44	32	31.85	31.88	32.85	31.86	35.09	31.74	36.09	31.7
37.5	31.58	38.92	31.45	40.33	31.36	44.57	31	45.99	30.9
46.99	30.9	47.99	30.9	49.4	30.75	50.82	30.74	50.82	30.72
52.23	30.67	53.64	30.57	59.3	30.41	60.72	30.38	61.72	30.39
65.96	30.54	66.96	30.53	66.96	30.54	67.96	30.54	68.96	30.59
78.18	30.66	81.01	30.74	83.83	30.73	86.66	30.79	87.66	30.79
96.88	30.97	97.88	30.97	100.71	31	102.13	31.01	109.2	31.02
110.61	31	112.02	31	113.02	31	114.02	31	115.02	30.97
115.02	30.94	117.85	30.7	119.27	30.5	126.34	30	127.75	30
127.75	29.86	130.58	29.72	132	29.4	134.82	29.25	137.06	29
138.06	28.91	139.06	28.82	141.89	28.46	143.3	28.27	145.54	28
147.77	27.83	150.6	27.59	153.43	27.28	156.26	27	157.67	26.86
159.09	26.75	165.51	26.13	166.9	26	167.9	25.94	172.9	25
174.31	24.77	174.31	24.71	175.73	24.9	177.14	25	177.14	25.04
179.97	25.36	186.37	26	187.37	26.06	195.18	26.44	196.6	26.54
197.45	26.54	197.6	26.54	202.6	26.82	202.6	26.83	205.43	26.92
206.84	27	212.5	27.38	216.1	27.58	217.1	27.65	222.1	28
227.76	28.48	230.59	28.64	232	28.73	234.83	29	239.07	29.26
248.29	29.95	248.29	29.97	248.29	29.98	248.29	30	252.53	30.48
255.36	30.68	256.78	30.78	258.19	31	261.02	31.25	262.43	31.32
263.85	31.47	266.68	31.65	271.68	32	273.09	32.13	278.75	32.78
280.16	32.94	280.16	33	281.58	33.13	282.99	33.22	285.23	33.34
286.64	33.35	287.64	33.41	289.06	33.34	290.47	33.47	291.88	33.37
292.88	33.49	294.3	33.39	294.3	33.41	295.71	33.37	295.71	33.54
297.13	34	299.36	34	300.36	34.06	300.36	34.12	301.36	34.27
303.6	35	305.01	35	307.84	35	309.26	35	311.49	35.73
311.49	35.8	312.49	36	315.32	36.28	317.56	36.51	319.79	37
321.21	37.64	322.21	38	326.45	38.55	330.69	39	332.11	39.32
337.76	40	345.57	40.76	347.81	41	350.64	41.37	352.87	41.7

```
   355.7      42   355.7   42.05

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
       0    .045  165.51    .055  187.37    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        165.51  187.37             36.9   38.49   43.16              .1       .3

CROSS SECTION


RIVER: Actual_4
REACH: Actual_4           RS: 1442.926

INPUT
Description:
Station Elevation Data    num=     131
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
**************************************************************************************
       0   34.38    2.83   34.14    2.83   34.12    4.24      34    5.66   33.88
   11.49      33   12.49   32.85   12.49   32.83   12.49   32.77    13.9   32.41
   17.51      32   19.74   31.83   21.16   31.65   23.99   31.35   26.81   31.09
   27.81      31   32.06   30.58   37.06   30.17   38.47   30.09   39.89      30
   39.89   29.95   43.49   29.83   46.32   29.76   49.15   29.67   52.75   29.53
      57   29.42   58.41   29.38   65.62   29.21   66.62    29.2   66.62   29.19
   68.86   29.11   69.86   29.11   72.09   29.06   74.33   29.08   75.74   29.14
   78.57   29.21   79.57   29.24   80.99   29.23   83.22   29.26   84.64   29.27
    87.8   29.28   90.04   29.28   92.27   29.25    95.1   29.24   97.93   29.22
   99.34   29.21  100.76   29.19  102.99   29.21  104.41   29.18  108.01   29.06
  109.43      29  114.43   28.84  115.84   28.76  118.67   28.63  122.28   28.46
  123.28   28.41  124.28   28.36  127.88   28.21  130.71      28  132.12      28
  134.95   27.73  136.37   27.62  139.19   27.43   142.8   27.21  145.04      27
  149.28   26.68  153.52   26.27  157.13      26  159.96   25.74  166.36   25.17
  167.36    25.1  167.36   25.08  168.36      25  173.36   24.49  174.77   24.37
   177.6   24.19  178.38   24.15   178.6   24.13   179.6   24.03   180.6      24
  187.67   23.64  192.67   23.14  192.67   23.13  193.67   23.24  195.09    23.5
   196.5   23.51   196.5   23.54  197.91      24  198.91   24.04  199.91   24.03
  199.91   24.09  202.15   24.17  203.56    24.2  204.98   24.23  213.29   24.87
   214.2   24.94  215.61      25  217.85   25.15  217.85    25.2  221.45   25.39
  224.28   25.54  230.69      26  233.51   26.17  234.51   26.26  238.99   26.62
  244.64      27  249.64   27.63  252.47      28  254.71   28.41  258.31      29
  264.72   29.74  266.95      30  269.19   30.33  273.43      31  274.85    31.2
  281.25      32  286.91   32.96  287.91      33  288.91   33.11  293.91    33.8
  295.32      34  296.32   34.19  299.15   34.45  301.98      35  303.39   35.13
   310.6      36  318.41   36.82  319.83      37  321.24   37.11  329.05      38
  329.05   38.03

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
       0    .045  178.38    .055  204.98    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        178.38  204.98             42.8   41.92   41.11              .1       .3

CROSS SECTION


RIVER: Actual_4
REACH: Actual_4           RS: 1401.006

INPUT
Description:
Station Elevation Data    num=      87
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
```

```
*******************************************************************************
       0   27.81    1.41   27.79    7.82   27.74    9.23   27.72    9.23    27.7
   10.65   27.68   13.47   27.64   13.47    27.6   15.71   27.58   16.71   27.54
   19.54   27.44   20.54   27.41   24.78   27.23   25.78   27.22   30.02      27
   31.02   26.93   33.26    26.7   38.92   26.18   41.15      26   53.19   25.34
   57.44      25   63.84   24.57   68.84   24.23   69.84   24.16   72.67      24
   77.67   23.47   81.27      23    84.1   22.82   92.59      22   94.09   21.81
   98.24    21.3   99.24   21.26   99.24   21.29  100.66   21.51  102.07   21.85
  102.07   21.86  102.07      22  107.07   22.56  112.73      23  114.14   23.03
  115.56   23.13  126.19   23.71  127.19   23.76  129.58   23.96  130.02      24
  132.85   24.25  140.66      25  146.31   25.74  148.55   25.97  149.55      26
  152.38   26.48  155.98      27  160.98   27.82  161.98      28   163.4   28.18
   168.4      29  169.81   29.21  174.81      30  179.05   30.77  180.47      31
  186.87   31.92  186.87      32  189.11   32.28  194.76      33     197   33.28
     202    33.8     203   33.96     204      34  207.61   34.34  209.02    34.5
  213.26   34.91  214.26   34.96  215.26      35  220.26   35.32  221.68   35.43
  223.09   35.52  225.33   35.65  227.56   35.77  227.56    35.8  231.17      36
  232.58   36.05  232.58   36.07  236.83   36.27  239.06   36.36  241.89   36.49
   243.3   36.56  244.72   36.59

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045    84.1    .055  112.73    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          84.1  112.73             34.82   35.23   32.65              .1       .3

CROSS SECTION


RIVER: Actual_4
REACH: Actual_4           RS: 1365.778

INPUT
Description:
Station Elevation Data    num=      63
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0    26.6   12.04   26.49   14.87   26.37   14.87   26.36   19.11    26.2
   19.11   26.19   20.53   26.15   23.36      26   37.57   25.22   38.57   25.19
   42.81      25   52.81   24.33   56.42      24   62.82   23.56    71.3      23
   72.72   22.85   83.35      22   85.58   21.78   94.07      21  101.61   20.29
  102.56    20.2  104.79      20  104.79   19.96  105.79   19.88  105.79   19.89
  107.21      20  109.44   20.62  110.86      21  116.51   21.58  123.58      22
  123.58   22.02  138.79   22.97   139.2      23  141.44   23.27  146.44      24
  150.68   24.51  154.29      25  159.29   25.53  163.53      26  165.77   26.43
  170.01      27  170.01   27.02  173.62   27.51  176.44      28  179.27    28.4
  180.69   28.66   182.1      29  185.71   29.43  190.71      30  192.94   30.35
  194.36   30.46   198.6      31   198.6   31.02   198.6   31.03  201.43   31.23
  202.84    31.3  207.08    31.6  212.08      32  216.33   32.31   223.4      33
   224.4   33.05   225.4   33.08   230.4   33.29

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045   94.07    .055  110.86    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         94.07  110.86             33.42   31.62   29.83              .1       .3

CROSS SECTION


RIVER: Actual_4
REACH: Actual_4           RS: 1334.156
```

INPUT
Description:
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	25.34	1	25.31	2	25.31	2	25.29	4.83	25.24
11.9	25.02	12.9	25	16.51	24.82	17.92	24.7	23.58	24.4
25.81	24.28	29.42	24.11	30.42	24.08	31.83	24	34.07	23.9
36.9	23.76	47.53	23	53.18	22.54	57.43	22.16	58.84	22
65.91	21.51	72.98	21	74.4	20.92	80.05	20.6	87.12	20.18
89.95	20	93.58	19.73	101.99	19.1	103.41	19	103.41	18.99
104.82	18.8	104.82	18.83	105.82	19	106.82	19.77	107.82	20
107.82	20.06	110.06	20.19	111.47	20.23	117.88	20.66	120.11	20.7
123.72	20.83	125.95	20.94	126.95	20.97	127.95	21	130.78	21.35
131.31	21.36	132.2	21.38	133.61	21.49	135.03	21.55	136.44	21.64
140.04	21.85	141.04	21.93	142.46	22	152.36	22.89	152.36	23
160.84	23.86	161.84	24	168.25	24.7	171.08	24.91	172.08	25
174.31	25.25	177.14	25.53	182.14	26	184.38	26.32	185.79	26.39
192.19	27	193.19	27.08	193.19	27.09	193.19	27.1	194.19	27.11
195.61	27.25	200.61	27.72	203.44	28	204.85	28.21	207.09	28.58
209.32	28.81	211.56	29	217.22	29.4	222.87	29.83	224.29	29.92
225.7	30	228.53	30.17	228.53	30.19				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	87.12	.055	107.82	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
87.12	107.82	27.8	26.4	24.08	.1	.3

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 1307.752

INPUT
Description:
Station Elevation Data num= 70

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	24.25	1.41	24	2.41	24	3.41	24	4.83	24
9.83	23.86	14.07	23.77	14.07	23.76	17.68	23.69	17.68	23.68
19.09	23.64	19.09	23.61	30.4	23.12	31.4	23.1	33.64	23
40.04	22.66	51.45	22	52.45	21.97	53.45	21.92	57.69	21.65
63.34	21.25	64.76	21.15	67	21	74.81	20.48	81.88	20
93.47	19.41	96.74	19.24	100.35	19	101.76	18.94	107.42	18.74
108.83	18.9	109.83	19	112.66	19.27	116.27	19.42	126.9	19.95
127.9	19.98	127.9	19.99	127.9	20	132.32	20.2	132.9	20.23
135.73	20.41	137.14	20.51	146.36	21	147.77	21.17	152.02	21.48
157.67	22	159.91	22.28	167.72	23	169.13	23.15	170.55	23.27
171.96	23.48	173.38	23.61	176.21	23.82	178.44	24	179.44	24.08
184.44	24.51	190.84	25	190.84	25.06	192.26	25.13	196.5	25.45
197.92	25.6	202.92	26	204.33	26.15	205.74	26.3	207.16	26.39
209.99	26.6	213.59	26.89	215.01	27	216.42	27.04	216.42	27.05

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	93.47	.055	116.27	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
93.47	116.27	29.99	29.83	27.66	.1	.3

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 1277.920

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	22.7	6.4	22.59	10.01	22.43	11.01	22.4	12.01	22.38
20.61	22	34.82	21.09	36.24	21	37.65	20.89	45.46	20
49.93	19.73	63.39	19	70.6	18.62	72.84	18.51	74.25	18.44
74.54	18.42	82.06	18	84.89	17.66	85.89	17.64	85.89	17.66
90.13	18	98.73	18.87	100.15	19	101.56	19.03	104.39	19.08
106.63	19.13	108.04	19.15	110.87	19.17	113.54	19.3	118.08	19.51
120.91	19.55	121.91	19.56	131.13	19.92	131.13	19.93	132.54	19.93
133.54	20	141.35	20.48	144.18	20.64	147.01	20.81	148.01	20.85
148.01	20.87	149.42	20.94	150.84	21	158.65	21.62	160.88	21.75
163.71	22	164.71	22.03	165.71	22.06	168.54	22.25	171.7	22.44
175.95	22.69	179.55	23	179.55	23.05	180.97	23.07	185.97	23.45
187.38	23.53	192.38	23.87	193.79	23.93	195.21	24	197.44	24.08
198.86	24.13	206.67	24.34	206.67	24.38	210.27	24.43	214.52	24.59
215.52	24.6	216.93	24.6						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	63.39	.055	100.15	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
63.39	100.15	33.61	32.36	27.01	.1	.3

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 1245.558

INPUT
Description:
Station Elevation Data num= 74

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	22	10.82	22	16.65	21.47	21.65	21	24.81	20.74
32.62	20	42.92	19.13	44.33	19	48.8	18.69	59.62	18
61.03	17.93	63.97	17.79	71.33	17.46	74.16	17.37	79.99	17.04
79.99	17	79.99	16.94	81.4	16.86	81.4	17	81.4	17.02
82.4	17.06	85.23	17.25	88.84	17.38	92.44	17.59	98.27	17.77
101.45	17.92	103.27	18	105.51	18.12	106.51	18.13	109.34	18.25
110.34	18.27	112.57	18.36	113.99	18.4	115.4	18.44	116.82	18.49
119.98	18.6	122.21	18.66	123.21	18.68	130.43	18.94	130.43	18.95
131.43	19	135.03	19.26	136.45	19.29	138.68	19.44	139.68	19.52
143.92	19.57	146.16	19.65	146.16	19.69	148.4	19.71	149.81	19.74
151.22	19.78	152.22	19.81	155.05	19.89	156.05	19.91	158.29	20
161.89	20.8	166.89	21	170.5	21.1	172.74	21.22	181.34	21.49
182.34	21.6	183.75	21.74	185.99	22	188.22	22.1	189.64	22.14
193.24	22.3	194.66	22.34	196.07	22.36	200.55	22.39	201.55	22.42
204.37	22.46	206.61	22.49	210.22	22.55	210.22	22.56		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	63.97	.055	98.27	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
63.97	98.27	23.02	21.41	21.26	.1	.3

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 1224.148

INPUT
Description:
Station Elevation Data num= 80

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	22.05	3.61	22.08	5.84	22	8.08	21.66	13.91	21
24.73	20.03	24.73	20	24.73	19.95	32.79	19	35.02	18.85
45.84	18	49.45	17.74	51.68	17.63	53.92	17.52	59.74	17.25
59.75	17.24	61.98	17.14	64.81	17	71.52	16.65	72.94	16.56
73.94	16.49	75.35	16.61	75.35	16.65	77.59	16.81	79.82	17
81.24	17	83.47	17.11	84.89	17.12	87.12	17.17	87.12	17.19
89.36	17.25	91.59	17.29	92.49	17.31	95.2	17.36	96.61	17.38
98.03	17.4	101.19	17.42	104.02	17.43	106.26	17.48	107.26	17.47
108.26	17.49	111.86	17.52	115.98	17.59	118.81	17.67	122.42	17.76
125.58	17.86	126.99	17.93	128.41	18	132.88	18.24	134.3	18.28
136.53	18.36	138.77	18.44	142.37	18.57	143.79	18.6	146.02	18.67
146.02	18.69	147.44	18.71	147.44	18.72	148.44	18.73	155.65	19
157.88	19.12	158.88	19.14	162.49	19.3	165.32	19.37	167.55	19.48
171.16	19.54	173.4	19.62	175.63	19.67	180.63	19.78	183.79	19.85
190.2	20	191.2	20.04	192.2	20.04	195.03	20.12	197.26	20.2
198.68	20.27	200.91	20.31	200.91	20.32	205.91	20.54	206.91	20.55

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	59.74	.055	87.12	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
59.74	87.12	23.59	33.43	41.11	.1	.3

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 1190.718

INPUT
Description:
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	22.14	2.83	22.05	4.24	22	6.48	21.63	10.72	21
12.14	20.92	19.21	20	27.02	19.15	28.02	19	35.09	18.14
36.5	18.06	36.5	18	37.92	17.92	42.16	17.49	47.16	17
48.57	16.94	51.4	16.79	56.57	16.45	63.44	16	64.86	15.84
66.27	15.62	69.1	15.84	71.34	16	74.16	16.2	81.58	16.5
90.44	16.85	94.05	17	106.09	17.5	114.58	17.81	118.82	17.99
119.82	18	120.82	18.03	135.03	18.63	139.27	18.87	141.51	19
142.51	19.05	148.91	19.44	151.74	19.63				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	56.57	.055	81.58	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
56.57	81.58	21.25	21.26	22.02	.1	.3

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 1169.459

INPUT
Description:
Station Elevation Data num= 36

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	21.74	4.24	22	7.85	22	17.07	22	22.07	21.29
24.3	21	25.72	20.86	28.55	20.6	33.55	20	40.62	19.04
40.62	19	40.62	18.99	49.22	18	52.05	17.72	59.86	17
66.58	16.58	70.49	16.34	76.32	16	79.93	15.71	83.53	15.4
91.34	15.91	92.34	16	94.45	16.1	95.95	16.17	115.16	17
118.76	17.27	127.98	18	134.38	18.37	136.62	18.47	140.86	18.68
146.52	18.97	147.52	18.99	147.52	19	152.52	19.53	155.35	19.8
158.18	20								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	76.32	.055	94.45	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
76.32	94.45	19.92	28.96	36.4	.1	.3

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 1140.498

INPUT
Description:
Station Elevation Data num= 34

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	20.88	1	20.79	9.06	20	11.3	19.64	15.42	19
17.66	18.72	24.37	18	26.6	17.75	29.76	17.45	34.24	17
37.4	16.75	41.16	16.49	48.17	16	49.58	15.9	49.58	15.88
51	15.82	55.12	15.5	58.73	15.25	59.73	15.16	63.33	15
64.33	14.91	65.33	15	65.33	15.01	71.04	15.48	75.63	15.85
77.63	16	79.04	16.29	82.2	17	89.82	17.52	92.06	17.74
95.66	18	97.9	18.19	108.67	19	114.05	19.67		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	55.12	.055	71.04	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
55.12	71.04	19.92	25.71	30.08	.1	.3

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 1114.789

INPUT
Description:
Station Elevation Data num= 44

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	19.75	5.1	19.31	7.34	19.09	8.34	19	10.34	18.7
16.66	18	24.91	17.27	26.91	17.08	27.91	17	30.14	16.81
37.42	16	40.42	15.83	41.84	15.8	41.84	15.77	42.84	15.72
43.84	15.65	44.8	15.6	46.07	15.53	50.07	15.32	53.23	15.13

55.47	15	55.47	14.95	57.47	14.79	57.47	14.72	61.59	14.24
64.76	14.53	71.87	14.99	72.04	15	75.04	15.15	76.04	15.23
80.16	15.54	85.54	15.86	87.54	16	89.78	16.46	93.78	17
96.94	17.26	99.18	17.48	102.18	17.76	104.41	18	106.41	18.23
110.54	18.63	112.77	18.86	113.77	19	117.9	19.45		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	55.47	.055	71.87	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
55.47	71.87	11.4	19.41	23.08	.1	.3

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 1095.376

INPUT
Description:
Station Elevation Data num= 54

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	19.89	1	19.84	1	19.82	2	19.78	7	19.5
9	19.34	12.16	19.04	13.16	19.03	13.16	19	21.16	18.25
24.16	18	30.16	17.35	33.32	17	35.32	16.75	43.32	16
52.32	15.5	52.45	15.49	54.56	15.37	57.56	15.18	61.56	15
70.56	14.27	71.56	14.15	71.56	14.12	72.56	14.07	81.75	14.45
94.58	14.99	94.58	15	99.68	15.31	100.68	15.39	103.68	15.56
106.68	15.72	110.68	16	114.68	16.41	116.92	16.59	118.92	16.74
121.92	17	124.92	17.19	125.92	17.24	127.92	17.38	129.92	17.47
130.92	17.56	131.92	17.63	133.92	17.74	134.92	17.77	136.92	17.9
138.33	17.91	139.33	18	140.33	18.07	141.33	18.1	143.33	18.28
145.33	18.4	146.33	18.52	147.33	18.6	148.33	18.63		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	61.56	.055	94.58	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
61.56	94.58	14.62	19.45	24.61	.1	.3

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 1075.926

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	19.3	1	19.33	5.12	19.21	5.12	19.18	8.12	19.04
9.12	19	10.12	18.9	10.12	18.91	12.12	18.84	15.29	18.67
21.37	18.24	22.37	18.16	23.37	18.1	24.37	18	32.43	17.11
33.43	17	33.43	16.97	38.53	16.47	43.53	16	57.68	15.13
58.66	15.06	59.66	15	66.73	14.56	69.73	14.43	72.9	14.24
74.9	14.14	77.9	14	77.9	13.98	78.9	13.93	79.9	13.8
79.9	13.91	80.9	13.89	81.9	13.88	81.9	13.87	82.9	13.87
83.9	13.87	84.9	13.87	84.9	13.88	85.9	13.88	85.9	13.89
86.9	13.89	87.9	13.9	88.9	13.91	90.31	13.93	91.31	13.95
91.67	13.95	94.31	13.98	95.31	14	96.31	14.02	97.31	14.08
98.31	14.1	99.72	14.17	101.72	14.23	102.72	14.28	103.72	14.34

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  105.72    14.4  107.96   14.48  108.96   14.53  111.96   14.64  112.96   14.68
  116.12   14.82  117.12   14.84  121.12      15  121.12   15.01  123.12   15.11
  124.12   15.12  125.54    15.2  126.54   15.21  128.54   15.28  128.54    15.3
  130.54   15.35  131.54   15.37  132.54   15.42  133.95   15.43  134.95   15.48
  147.99      16  148.99      16   150.4      16   151.4      16   152.4      16
   153.4      16   154.4      16   155.4      16   156.4      16   157.4      16
   158.4      16  159.82      16  160.82   16.09  161.82   16.13  162.82   16.28
  164.82   16.43  165.82   16.54  170.92   16.91  171.92      17  171.92   17.01

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045    72.9    .055  101.72    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          72.9  101.72             19.24   26.17   31.15              .1       .3

CROSS SECTION


RIVER: Actual_4
REACH: Actual_4           RS: 1049.753

INPUT
Description:
Station Elevation Data    num=      35
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   17.89       1   17.87    3.24   17.73    5.47    17.9    5.47   17.86
    7.47   17.98    7.47   17.97    8.89   17.99    8.89   17.98    9.89   17.59
   10.89   17.61   16.27   17.17   17.27   17.08   18.27      17   21.43   16.77
   25.91   16.32   27.91   16.17   30.14      16   34.27   15.71   43.75      15
   48.72   14.69   58.31   14.09   60.55      14   63.71   13.82   71.96   13.41
   86.64   13.92   86.82   13.93   89.06      14   94.16    14.2   104.6   14.66
  113.14      15  118.24   15.34  129.95      16  132.18   16.25  137.28   16.85

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045   60.55    .055   86.64    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         60.55   86.64             34.37   36.01   40.64              .1       .3

CROSS SECTION


RIVER: Actual_4
REACH: Actual_4           RS: 1013.742

INPUT
Description:
Station Elevation Data    num=      47
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   15.85       1   15.84    4.16   15.78    5.16   15.77    8.32   15.74
    9.32   15.71   12.49   15.66    13.9   15.61    14.9   15.58   18.06   15.47
   21.23   15.38   27.93      15   28.93   14.97   28.93   14.96    32.1   14.82
   35.26   14.72   40.64   14.44   42.88   14.37    49.2   14.06    49.2   14.05
   50.62      14   55.72   13.81   57.95    13.7   64.28   13.38   66.19    13.3
   70.99    13.1   71.99      13   74.22   12.99    81.5   12.91   92.22   12.97
   92.27   12.97   95.44      13   96.85   13.14   99.09   13.32  103.21   13.71
  106.37      14  108.61   14.13  109.61   14.18  111.02   14.27  116.12   14.55
  120.59   14.84  121.59   14.89  123.01      15  128.39   15.36  131.55   15.59
  137.88      16  140.11   16.32

Manning's n Values        num=       3
```

```
     Sta   n Val     Sta   n Val     Sta   n Val
**************************************************
       0    .045   66.19    .055   99.09    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         66.19   99.09             27.45   28.45   27.86              .1       .3

CROSS SECTION


RIVER: Actual_4
REACH: Actual_4           RS: 985.2877

INPUT
Description:
Station Elevation Data    num=      44
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   14.81    9.85   14.66   10.85   14.65   10.85   14.64   10.85   14.63
   10.85   14.62   12.26   14.59   12.26   14.58   21.75   14.19   27.14   14.03
   28.14      14   42.06   13.76   45.23    13.7   50.61   13.63   53.77   13.59
   56.01   13.55   57.01   13.53   58.01   13.52   71.94    13.2   77.32   13.15
   86.83   13.03   89.03      13   90.44      13   91.44      13   93.68   12.93
  101.29   12.66  110.93   12.81  113.38   12.85  121.92      13  124.16   13.16
  125.16   13.23  126.57   13.39   132.9      14   132.9   14.06   133.9   14.12
  139.73    14.5  147.01      15  147.01   15.02  148.42   15.06  154.75   15.55
  156.98   15.71  161.45      16  164.62   16.37  164.62   16.39

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**************************************************
       0    .045   90.44    .055  121.92    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         90.44  121.92             28.13   26.73   27.86              .1       .3

CROSS SECTION


RIVER: Actual_4
REACH: Actual_4           RS: 958.5618

INPUT
Description:
Station Elevation Data    num=      69
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   16.05       1      16   12.18   15.35   18.01      15   27.86   14.43
   35.92      14   37.92   13.94   40.75   13.85   41.75   13.81   42.75    13.8
   44.17   13.78    46.4   13.74   49.56   13.75    51.8   13.72   53.21   13.69
   54.21   13.66   55.21   13.64   69.53   13.53   70.95   13.51   73.18   13.49
   74.18   13.47   90.73   13.07   92.97   13.03   94.39   13.01   95.39      13
   98.55   12.93   98.55   12.94   98.55   12.95  102.15   12.91  103.15    12.9
  105.39   12.88  109.86   12.85  125.21   12.67  126.41   12.66  134.96   12.51
  134.96    12.5  138.12   12.45  142.59   12.54  144.83   12.57  148.43   12.64
  149.71   12.66  160.52   12.84  166.84   12.96  169.08      13  172.68   13.35
  173.68   13.48  175.92   13.76  176.92   13.88  178.33      14  179.33    14.1
  180.75   14.14  182.98    14.3  185.22   14.42  187.46   14.56  188.46   14.65
  189.87   14.71  193.03   14.92  193.03   14.94  194.03      15  197.64   15.21
   200.8   15.38  203.04    15.5  205.27   15.62  208.43   15.82  209.85   15.86
  212.08      16  213.08   16.18   214.5   16.24   215.5   16.36

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**************************************************
       0    .045  125.21    .055  149.71    .045
```

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
125.21	149.71	23.61	24.6	23.41	.1	.3

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 933.9658

INPUT
Description:
Station Elevation Data num= 63

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	15.19	19.03	15	40.12	14.08	41.12	14	52.17	13.65
52.17	13.64	53.17	13.63	56.17	13.51	57.17	13.5	57.17	13.49
58.17	13.49	58.17	13.48	82.25	13.11	82.25	13.1	85.41	13.08
88.57	13.06	90.81	13	92.22	13	93.22	13	94.64	13
95.64	13	97.87	12.88	109.96	12.29	114.08	12.24	127.08	12.24
132.92	12.24	140.08	12.24	141.5	12.24	159.28	12.54	159.88	12.55
163.04	12.6	168.43	12.67	175.14	12.76	180.52	12.86	186.85	12.95
190.45	13	192.45	13.18	193.45	13.27	195.45	13.51	197.69	13.77
199.92	14	201.34	14.09	202.34	14.13	204.57	14.3	206.81	14.43
208.81	14.55	210.22	14.62	214.7	14.89	215.7	14.91	215.7	14.92
216.7	15	220.3	15.21	221.3	15.28	225.77	15.47	227.77	15.6
230.01	15.7	233.17	15.85	234.17	15.89	237.33	16	237.33	16.06
240.5	16.22	241.5	16.26	242.91	16.35				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	97.87	.055	159.28	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
97.87	159.28	27.3	24.6	23.41	.1	.3

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 909.3698

INPUT
Description:
Station Elevation Data num= 110

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	15.22	25.3	15.01	31.62	15	33.86	15	35.27	14.82
39.4	14	50.17	13.62	54.29	13.38	56.53	13.32	59.69	13.09
60.69	13.06	60.69	13	64.81	12.92	67.05	12.87	70.21	12.8
72.45	12.76	74.68	12.74	90.49	12.18	92.73	12.12	94.73	12.09
96.14	12.08	100.27	12.02	101.27	12.04	102.27	12.03	103.27	12.03
105.5	12	106.5	12	107.5	12	108.92	12	110.92	12
110.92	12.01	113.15	12.04	113.15	12.02	114.15	12.02	116.39	12.01
119.29	12.01	121.77	12	122.77	12	125.01	12.01	126.01	12.02
126.01	12.01	127.42	12.02	127.42	12.03	129.42	12.05	146.44	12.31
146.51	12.31	147.51	12.33	150.67	12.37	152.09	12.4	154.32	12.43
156.32	12.46	159.49	12.5	160.9	12.53	164.06	12.57	167.23	12.62
171.35	12.69	172.35	12.71	177.73	12.79	177.73	12.8	184.06	12.9
189.44	13	190.44	13.11	191.44	13.16	192.44	13.27	196.57	13.7
199.73	14	199.73	14.01	199.73	14.02	202.89	14.23	205.13	14.36
208.29	14.53	209.29	14.63	214.67	14.92	214.67	14.94	216.09	15
219.25	15.12	219.25	15.13	222.41	15.24	222.41	15.26	224.41	15.34
226.65	15.4	227.65	15.43	229.06	15.47	230.06	15.51	231.06	15.54
232.48	15.56	233.48	15.57	234.48	15.6	235.89	15.61	235.89	15.63
236.89	15.63	237.89	15.64	239.31	15.66	240.31	15.67	241.31	15.67
242.72	15.69	243.72	15.69	245.14	15.71	246.14	15.71	247.14	15.71

249.37	15.74	250.37	15.75	252.61	15.81	252.61	15.83	253.61	15.84
256.77	15.96	257.77	16	260.93	16.15	261.93	16.18	265.09	16.33

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	74.68	.055	167.23	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
74.68	167.23	34.17	32.28	26.92	.1	.3

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 877.0899

INPUT
Description:
Station Elevation Data num= 94

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	15.15	12.37	15.1	42.96	15.01	45.96	15	45.96	14.92
46.96	14.88	48.38	14.78	55.45	14.27	60.55	14	61.55	13.95
61.55	13.82	62.96	13	65.96	12.7	67.96	12	69.38	11.98
71.38	11.96	86.24	11.82	92.75	11.75	94.17	11.75	94.17	11.74
95.17	11.73	96.17	11.73	99.33	11.82	103.45	11.91	107.45	12
112.55	12.09	114.37	12.12	156.48	12.83	156.48	12.84	160.61	12.93
163.77	13	167.77	13.42	173.15	14	174.15	14.04	177.15	14.21
178.57	14.24	181.57	14.36	183.8	14.45	184.8	14.49	186.8	14.56
187.8	14.61	189.22	14.65	190.22	14.69	191.22	14.71	193.22	14.75
193.22	14.77	194.63	14.79	196.63	14.82	196.63	14.83	196.63	14.84
198.63	14.87	200.05	14.88	200.05	14.89	202.05	14.91	202.05	14.92
204.28	14.94	205.28	14.94	207.28	14.96	209.52	14.97	212.52	14.98
214.76	14.98	217.76	14.99	219.99	14.99	222.99	14.98	226.15	14.98
229.15	14.98	231.39	14.97	234.39	14.97	236.63	14.97	237.63	14.97
239.63	14.97	242.79	14.98	244.79	14.98	247.95	15	250.19	15.02
253.19	15.05	255.42	15.09	256.42	15.1	258.42	15.14	259.42	15.15
261.66	15.2	262.66	15.21	264.66	15.26	266.07	15.27	268.07	15.32
269.07	15.35	271.31	15.4	272.31	15.43	273.31	15.44	276.47	15.59
278.71	15.71	284.09	16	285.51	16.11	286.51	16.2		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	67.96	.055	114.37	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
67.96	114.37	20.61	19.64	19.31	.1	.3

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 857.4481

INPUT
Description:
Station Elevation Data num= 130

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	15.23	30.59	15.1	40.64	15.07	42.88	15.06	53.08	15.01
55.08	15	71.36	14.33	76.46	14.24	77.46	14.15	79.69	14
81.69	13.34	82.69	13	83.69	12.16	83.69	12	84.55	11.97
86.85	11.9	94.92	11.61	94.92	11.6	95.92	11.54	111.21	11.94
112.41	11.96	113.45	11.98	114.45	12	115.45	12	116.45	12
117.45	12	118.45	12	119.86	12	120.86	12	131.06	12.17

133.06	12.2	134.06	12.22	137.22	12.25	138.22	12.28	141.39	12.31
142.39	12.35	145.39	12.39	147.62	12.42	149.62	12.48	151.86	12.51
154.86	12.58	155.86	12.61	159.98	12.69	160.98	12.71	164.14	12.81
165.14	12.83	169.27	12.93	169.27	12.94	172.27	13	173.27	13.13
174.27	13.17	177.43	13.38	178.43	13.47	180.67	13.59	182.67	13.71
183.67	13.77	184.67	13.8	186.9	13.92	186.9	13.93	188.9	14
189.9	14.02	192.14	14.07	193.14	14.1	195.14	14.13	195.14	14.14
197.37	14.16	198.37	14.17	200.37	14.19	202.61	14.2	203.61	14.21
204.61	14.21	205.61	14.22	207.61	14.23	208.61	14.23	210.61	14.23
211.61	14.23	212.61	14.24	214.85	14.24	215.85	14.24	216.85	14.24
217.85	14.24	219.85	14.24	221.26	14.24	222.26	14.24	224.26	14.23
225.26	14.23	227.5	14.23	228.5	14.23	229.5	14.24	230.5	14.24
232.5	14.26	233.5	14.27	235.5	14.28	235.5	14.29	237.5	14.3
238.5	14.31	240.73	14.33	241.73	14.34	242.73	14.35	243.73	14.36
244.73	14.38	246.73	14.39	247.73	14.41	248.73	14.42	249.73	14.44
250.73	14.46	251.73	14.48	253.73	14.5	254.73	14.52	255.73	14.55
256.73	14.57	258.73	14.61	259.73	14.62	261.73	14.68	261.73	14.69
264.89	14.76	264.89	14.77	267.89	14.86	271.89	14.97	272.89	15
275.89	15.12	275.89	15.14	279.89	15.28	281.89	15.35	283.89	15.47
287.06	15.6	289.06	15.67	294.06	15.89	295.06	15.91	296.06	15.97

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	84.55	.055	116.45	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
84.55	116.45	16.16	15.8	14.86	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
0	80.31	14	T
184.47	296.06	14	T

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 841.6505

INPUT
Description:
Station Elevation Data num= 141

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	15.23	32.56	15.11	33.56	15.11	36.72	15.09	37.72	15.09
46.78	15.07	49.01	15.06	50.01	15.06	51.01	15.05	52.01	15.05
57.11	15.02	62.21	15	65.37	14.96	69.37	14.92	70.37	14.91
76.7	14.62	79.7	14.49	81.93	14.31	83.31	14.2	85.93	14
87.35	13.46	88.35	13	89.35	12.7	93.47	11.98	95.47	11.54
96.47	11.39	112.41	11.67	114.72	11.72	117.88	11.74	119.88	11.77
123.04	11.8	127.04	11.84	131.17	11.89	136.26	11.95	140.39	12
142.39	12.03	146.51	12.11	146.51	12.13	150.63	12.21	151.63	12.24
154.63	12.31	156.05	12.35	159.05	12.41	161.05	12.46	163.28	12.51
165.28	12.56	167.52	12.61	169.52	12.66	170.52	12.69	172.76	12.75
173.76	12.77	175.76	12.82	176.76	12.84	177.76	12.85	179.99	12.89
179.99	12.9	179.99	12.91	180.99	12.91	181.99	12.95	182.99	12.95
185.23	12.99	186.23	13	186.23	13.03	188.23	13.09	190.46	13.13
190.46	13.14	192.46	13.18	194.46	13.22	194.46	13.23	196.7	13.26
198.7	13.28	198.7	13.29	200.7	13.31	201.7	13.32	203.11	13.34
204.11	13.34	204.11	13.35	206.11	13.36	207.11	13.37	208.53	13.38
209.53	13.38	211.53	13.39	212.53	13.39	213.94	13.4	214.94	13.4
216.94	13.41	217.94	13.41	218.94	13.42	220.36	13.41	221.36	13.42
222.36	13.42	224.36	13.42	225.77	13.42	226.77	13.43	227.77	13.42
229.77	13.43	230.77	13.43	232.19	13.43	233.19	13.43	235.19	13.44
236.19	13.43	237.6	13.44	238.6	13.44	239.6	13.45	240.6	13.45
241.6	13.46	243.84	13.46	244.84	13.47	245.84	13.47	245.84	13.48
246.84	13.5	247.84	13.52	249.25	13.55	250.25	13.58	251.25	13.61

252.25	13.64	254.25	13.67	255.66	13.7	256.66	13.72	257.66	13.76
259.66	13.81	260.66	13.86	262.9	13.91	264.9	13.99	264.9	14
266.9	14.07	269.14	14.15	270.14	14.18	272.14	14.26	273.14	14.32
275.37	14.4	278.37	14.5	279.37	14.57	281.61	14.63	285.61	14.79
287.02	14.82	291.02	15	292.44	15.05	293.44	15.09	299.52	15.4
301.52	15.5								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	93.47	.055	136.26	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
93.47	136.26	30.08	30.39	31.02	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
0	96.05	13	T
96.95	301.52	13	T

CULVERT

RIVER: Actual_4
REACH: Actual_4 RS: 841

INPUT
Description:
Distance from Upstream XS = 4
Deck/Roadway Width = 12
Weir Coefficient = 1.4
Upstream Deck/Roadway Coordinates
num= 2

Sta Hi Cord	Lo Cord	Sta Hi Cord	Lo Cord
0	13	0	300	13	0

Upstream Bridge Cross Section Data
Station Elevation Data num= 141

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	15.23	32.56	15.11	33.56	15.11	36.72	15.09	37.72	15.09
46.78	15.07	49.01	15.06	50.01	15.06	51.01	15.05	52.01	15.05
57.11	15.02	62.21	15	65.37	14.96	69.37	14.92	70.37	14.91
76.7	14.62	79.7	14.49	81.93	14.31	83.31	14.2	85.93	14
87.35	13.46	88.35	13	89.35	12.7	93.47	11.98	95.47	11.54
96.47	11.39	112.41	11.67	114.72	11.72	117.88	11.74	119.88	11.77
123.04	11.8	127.04	11.84	131.17	11.89	136.26	11.95	140.39	12
142.39	12.03	146.51	12.11	146.51	12.13	150.63	12.21	151.63	12.24
154.63	12.31	156.05	12.35	159.05	12.41	161.05	12.46	163.28	12.51
165.28	12.56	167.52	12.61	169.52	12.66	170.52	12.69	172.76	12.75
173.76	12.77	175.76	12.82	176.76	12.84	177.76	12.85	179.99	12.89
179.99	12.9	179.99	12.91	180.99	12.91	181.99	12.95	182.99	12.95
185.23	12.99	186.23	13	186.23	13.03	188.23	13.09	190.46	13.13
190.46	13.14	192.46	13.18	194.46	13.22	194.46	13.23	196.7	13.26
198.7	13.28	198.7	13.29	200.7	13.31	201.7	13.32	203.11	13.34
204.11	13.34	204.11	13.35	206.11	13.36	207.11	13.37	208.53	13.38
209.53	13.38	211.53	13.39	212.53	13.39	213.94	13.4	214.94	13.4
216.94	13.41	217.94	13.41	218.94	13.42	220.36	13.41	221.36	13.42
222.36	13.42	224.36	13.42	225.77	13.42	226.77	13.43	227.77	13.42
229.77	13.43	230.77	13.43	232.19	13.43	233.19	13.43	235.19	13.44
236.19	13.43	237.6	13.44	238.6	13.44	239.6	13.45	240.6	13.45
241.6	13.46	243.84	13.46	244.84	13.47	245.84	13.47	245.84	13.48
246.84	13.5	247.84	13.52	249.25	13.55	250.25	13.58	251.25	13.61
252.25	13.64	254.25	13.67	255.66	13.7	256.66	13.72	257.66	13.76
259.66	13.81	260.66	13.86	262.9	13.91	264.9	13.99	264.9	14
266.9	14.07	269.14	14.15	270.14	14.18	272.14	14.26	273.14	14.32
275.37	14.4	278.37	14.5	279.37	14.57	281.61	14.63	285.61	14.79

```
  287.02   14.82  291.02      15  292.44   15.05  293.44   15.09  299.52    15.4
  301.52    15.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045   93.47    .055  136.26    .045

Bank Sta: Left   Right    Coeff Contr.   Expan.
         93.47  136.26             .3       .5
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
       0   96.05      13       T
   96.95  301.52      13       T

Downstream  Deck/Roadway Coordinates
    num=       2
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
***********************************************
       0    12.8       0     300    12.8       0

Downstream Bridge Cross Section Data
Station Elevation Data    num=      95
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   14.68    10.2      15   14.32   15.01   18.32   15.03   32.64   15.08
   36.76   15.09   39.92   15.09   41.92    15.1   42.92    15.1   45.16    15.1
   46.16    15.1   47.16    15.1   48.16    15.1    50.4   15.11   64.54   15.02
   68.66   15.03   79.84      15   85.92      15   88.16      15   92.28      15
   96.28      15    97.7      15   101.7   14.75  111.33   14.21  115.04      14
  116.04   13.64  117.04      13  118.04   12.67  119.45      12  121.45   11.82
  125.58   11.06  140.87   11.27   141.3   11.27  142.87   11.29  145.11   11.32
  148.11   11.35  151.27   11.39  180.89   11.83  181.89   11.84  184.89   11.86
  187.12   11.88  188.12   11.89  190.12   11.91  193.29   11.93  194.29   11.93
  196.29   11.95  199.45   11.97  202.61   11.99  203.61      12  205.61   12.03
  207.85   12.06  208.85   12.06  210.85    12.1  214.01   12.14  216.01   12.18
  217.01   12.18  219.24   12.22  220.24   12.22  222.24   12.25  223.24   12.26
  225.48   12.29  226.48    12.3  228.72   12.33  229.72   12.34  231.72   12.37
  232.72   12.37  234.95   12.41  235.95   12.41  236.95   12.41  238.95   12.44
  240.37   12.44  241.37   12.44  243.37   12.47  244.37   12.47  274.96      13
  275.96      13  277.37      13  278.37      13  279.37      13  280.37      13
  282.61      13  284.61      13  285.61      13  286.61      13  288.03      13
  289.03      13  291.03      13  292.03      13  294.26      13  300.34   13.26
  303.34    13.4  313.54   13.88  315.78      14  332.06   14.65  337.16   14.85

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045  121.45    .055  180.89    .045

Bank Sta: Left   Right    Coeff Contr.   Expan.
        121.45  180.89             .3       .5
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
       0  125.55    12.8       T
  126.45  337.16    12.8       T

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .98
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Culverts =  1
```

```
Culvert Name     Shape      Rise    Span
Culvert #2      Circular      .9
FHWA Chart # 1 - Concrete Pipe Culvert
FHWA Scale # 1 - Square edge entrance with headwall
Solution Criteria = Highest U.S. EG
Culvert Upstrm Dist  Length    Top n  Bottom n  Depth Blocked  Entrance Loss Coef   Exit Loss Coef
                 .5       5     .015     .015        0                   .5                1
Upstream   Elevation =  11.4
           Centerline Station =  96.5
Downstream Elevation =  11.1
           Centerline Station =  126

CROSS SECTION


RIVER: Actual_4
REACH: Actual_4           RS: 811.2636

INPUT
Description:
Station Elevation Data    num=      95
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   14.68    10.2      15   14.32   15.01   18.32   15.03   32.64   15.08
   36.76   15.09   39.92   15.09   41.92    15.1   42.92    15.1   45.16    15.1
   46.16    15.1   47.16    15.1   48.16    15.1    50.4   15.11   64.54   15.02
   68.66   15.03   79.84      15   85.92      15   88.16      15   92.28      15
   96.28      15    97.7      15   101.7   14.75  111.33   14.21  115.04      14
  116.04   13.64  117.04      13  118.04   12.67  119.45      12  121.45   11.82
  125.58   11.06  140.87   11.27   141.3   11.27  142.87   11.29  145.11   11.32
  148.11   11.35  151.27   11.39  180.89   11.83  181.89   11.84  184.89   11.86
  187.12   11.88  188.12   11.89  190.12   11.91  193.29   11.93  194.29   11.93
  196.29   11.95  199.45   11.97  202.61   11.99  203.61      12  205.61   12.03
  207.85   12.06  208.85   12.06  210.85    12.1  214.01   12.14  216.01   12.18
  217.01   12.18  219.24   12.22  220.24   12.22  222.24   12.25  223.24   12.26
  225.48   12.29  226.48    12.3  228.72   12.33  229.72   12.34  231.72   12.37
  232.72   12.37  234.95   12.41  235.95   12.41  236.95   12.41  238.95   12.44
  240.37   12.44  241.37   12.44  243.37   12.47  244.37   12.47  274.96      13
  275.96      13  277.37      13  278.37      13  279.37      13  280.37      13
  282.61      13  284.61      13  285.61      13  286.61      13  288.03      13
  289.03      13  291.03      13  292.03      13  294.26      13  300.34   13.26
  303.34    13.4  313.54   13.88  315.78      14  332.06   14.65  337.16   14.85

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
*********************************************
       0    .045  121.45    .055  180.89    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        121.45  180.89            27.67   26.57   27.86              .3       .5
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
       0  125.55    12.8       T
  126.45  337.16    12.8       T

CROSS SECTION


RIVER: Actual_4
REACH: Actual_4           RS: 784.6932

INPUT
Description:
Station Elevation Data    num=      88
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   14.46    1.41   14.46    2.41   14.45    5.24   14.45    7.48   14.42
```

11.08	14.42	15.56	14.35	19.8	14.35	24.27	14.35	25.69	14.32
29.29	14.37	32.45	14.51	37.55	14.64	37.55	14.65	38.55	14.68
39.55	14.71	42.71	14.64	50.98	14.12	52.91	14	52.91	13.88
55.91	13.02	55.91	13	58.15	12	61.31	11.29	65.31	10.74
65.31	10.9	66.31	10.85	66.31	10.82	67.31	10.82	68.31	10.81
75.38	10.99	82.25	11.09	99.9	11.35	104.02	11.39	106.02	11.4
107.02	11.41	110.18	11.44	111.18	11.45	112.6	11.46	116.6	11.49
118.01	11.5	120.01	11.51	123.17	11.54	124.17	11.55	127.17	11.57
129.41	11.58	130.41	11.59	135.51	11.64	137.74	11.65	139.74	11.66
141.74	11.67	144.91	11.7	147.91	11.71	150.14	11.73	153.31	11.75
155.31	11.77	159.43	11.8	162.43	11.83	164.66	11.84	167.66	11.87
171.79	11.91	175.91	11.96	180.03	12	189.25	12.2	226.91	13
230.07	13.2	231.07	13.27	235.19	13.48	237.43	13.63	239.43	13.73
243.55	13.94	243.55	13.95	244.55	14	247.72	14.12	249.72	14.23
250.72	14.27	253.88	14.37	255.88	14.43	257.29	14.51	260.29	14.6
261.29	14.65	262.71	14.69	266.71	14.8	266.71	14.82	270.83	14.97
271.83	14.97	271.83	15	274.99	15.11				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	61.31	.055	99.9	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
61.31	99.9	29.71	33.16	33.24	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
0	53.22	14	T
240.65	274.99	14	T

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 751.5314

INPUT
Description:
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	18	1	18	3.24	18.2	4.24	18.28	6.24	18
6.24	17.89	7.24	17.3	8.24	17.04	8.24	17	9.65	16.43
10.65	16	10.65	15.97	11.65	15.54	12.65	15.04	13.65	15
15.89	14.34	15.89	14	28.05	13.35	31.05	13	32.47	13
34.47	12.89	42.53	12.6	44.76	12.42	44.76	12.41	46.76	12.25
49.93	12	51.93	11.88	57.31	11.67	74.78	11.09	79.88	11
85.26	11	100.62	10.61	104.68	10.51	110.06	10.4	111.06	10.4
111.06	10.41	112.06	10.41	115.22	10.27	124.71	10.52	131.78	10.66
133.06	10.7	143.18	10.97	148.28	11	149.7	11.01	155.78	11.06
167.18	11.15	168.18	11.15	168.18	11.16	176.43	11.21	177.43	11.22
178.43	11.22	179.43	11.23	180.43	11.24	181.43	11.24	182.84	11.25
188.92	11.29	191.16	11.31	192.16	11.32	193.16	11.33	195.4	11.35
196.4	11.37	198.4	11.39	206.64	11.44	208.06	11.46	210.06	11.49
213.22	11.53	215.46	11.57	218.46	11.61	220.69	11.63	223.85	11.68
227.98	11.74	231.14	11.8	232.14	11.81	236.26	11.88	240.39	11.95
243.55	12	260.04	12.95	260.04	12.98	261.04	13	268.32	13.56
273.42	13.95	273.42	13.97	273.42	14	278.52	14.28	279.93	14.36
282.93	14.53	290.21	14.89	290.21	14.93	292.45	15	295.61	15.28
297.61	15.47	299.85	15.63	300.85	15.73	304.97	16	308.13	16.13
310.13	16.24	317.41	16.67						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	85.26	.055	143.18	.045

```
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         85.26  143.18             12.07   12.53   12.99              .1       .3

CROSS SECTION


RIVER: Actual_4
REACH: Actual_4           RS: 739.0021

INPUT
Description:
Station Elevation Data    num=      82
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   19.14       5   19.11       5   19.15       6      19       7   18.82
       8   18.45       9   18.11       9      18   11.24   17.35   11.24      17
   12.24   16.61   14.24      16   15.24   15.75   15.24   15.56   17.24      15
   17.24   14.76   18.24      14   19.24    13.8   20.24   13.12   21.24   13.03
   21.24      13   22.24      13   27.24   12.68   33.32   12.36   37.32   12.14
   38.32   12.02   38.32      12   40.32   11.94   42.55   11.84   59.05   11.26
   60.46    11.2   63.46   11.11   66.62      11   67.62   10.97   84.39   10.47
   85.42   10.44   89.49   10.32   96.77   10.11   98.77   10.19  104.15   10.39
  104.15   10.38  117.74   10.74  121.62   10.84  124.78   10.86   128.9   10.88
  137.15      11  145.39      11  146.39      11  148.63      11  155.91   11.05
  156.91   11.05  165.16   11.11  166.16   11.12  167.57   11.13  168.57   11.14
  179.97   11.21  180.97   11.22  181.97   11.23  182.97   11.25  184.39   11.27
  185.39   11.29  190.48   11.33   191.9   11.35   193.9   11.38  196.14   11.41
  199.14   11.44  201.37   11.48  203.61   11.52  206.61   11.58  209.77   11.62
  213.89   11.68  217.05   11.72   227.5   11.84   228.5   11.88   230.5   11.95
  232.73      12  236.85   12.32  243.18      13  254.36    13.9   256.6      14
   257.6   14.12  264.88   14.66

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
*************************************************
       0    .045   67.62    .055  121.62    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         67.62  121.62             21.5   19.24   20.25              .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
       0   19.25      14       F
  253.02  264.88      14       T

CROSS SECTION


RIVER: Actual_4
REACH: Actual_4           RS: 719.7668

INPUT
Description:
Station Elevation Data    num=      85
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0      21       1      21       1   20.92    2.41      21    6.54   20.23
    7.54      20    7.54   19.74    8.54   19.37    9.54   19.15    9.54      19
   11.77   18.59   12.77   18.01   12.77      18   15.01   17.37   16.01      17
   16.01   16.65   18.01      16   19.42   15.67   20.42      15   21.42   14.94
   21.42   14.87   22.42      14   23.42   13.58   24.42      13   24.42   12.86
   27.42      12    31.9   11.43    34.9      11   36.31      11   38.31      11
   40.55      11   47.83   10.86   52.93   10.87   55.93   10.21   55.93    10.2
   56.33    10.2   56.93   10.19   59.93   10.15   64.05      10   65.46      10
   66.46    9.95   68.46    9.92   69.46    9.99   70.46      10   71.46   10.26
   72.46    10.4   81.68   10.87   83.92   10.88   87.08   10.88   88.21   10.88
   92.18   10.88  100.43   10.88  109.91      11  110.91      11  115.04      11
  117.04      11  128.44      11  129.85      11  130.85      11  135.95      11
```

142.03	10.73	143.03	10.73	143.03	10.74	144.03	10.74	151.31	11
154.31	11	155.31	11	158.31	11	162.44	11.06	198.58	11.46
198.58	11.47	199.99	11.49	203.15	11.65	204.15	11.65	211.43	12
213.43	12.21	221.68	13	224.84	13	228.96	13.33	237.21	14
247.65	14.83	249.65	15	251.89	15.16	252.89	15.21	261.13	15.86

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	52.93	.055	81.68	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
52.93	81.68	26.02	26.17	25.63	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
0	67.025	13.7	T
68.975	261.13	13.7	T

CULVERT

RIVER: Actual_4
REACH: Actual_4 RS: 719

INPUT
Description:
Distance from Upstream XS = 4
Deck/Roadway Width = 14
Weir Coefficient = 1.4
Upstream Deck/Roadway Coordinates
num= 2

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	13.7	0	300	13.7	0

Upstream Bridge Cross Section Data
Station Elevation Data num= 85

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	21	1	21	1	20.92	2.41	21	6.54	20.23
7.54	20	7.54	19.74	8.54	19.37	9.54	19.15	9.54	19
11.77	18.59	12.77	18.01	12.77	18	15.01	17.37	16.01	17
16.01	16.65	18.01	16	19.42	15.67	20.42	15	21.42	14.94
21.42	14.87	22.42	14	23.42	13.58	24.42	13	24.42	12.86
27.42	12	31.9	11.43	34.9	11	36.31	11	38.31	11
40.55	11	47.83	10.86	52.93	10.87	55.93	10.21	55.93	10.2
56.33	10.2	56.93	10.19	59.93	10.15	64.05	10	65.46	10
66.46	9.95	68.46	9.92	69.46	9.99	70.46	10	71.46	10.26
72.46	10.4	81.68	10.87	83.92	10.88	87.08	10.88	88.21	10.88
92.18	10.88	100.43	10.88	109.91	11	110.91	11	115.04	11
117.04	11	128.44	11	129.85	11	130.85	11	135.95	11
142.03	10.73	143.03	10.73	143.03	10.74	144.03	10.74	151.31	11
154.31	11	155.31	11	158.31	11	162.44	11.06	198.58	11.46
198.58	11.47	199.99	11.49	203.15	11.65	204.15	11.65	211.43	12
213.43	12.21	221.68	13	224.84	13	228.96	13.33	237.21	14
247.65	14.83	249.65	15	251.89	15.16	252.89	15.21	261.13	15.86

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	52.93	.055	81.68	.045

Bank Sta: Left	Right	Coeff Contr.	Expan.
52.93	81.68	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
0	67.025	13.7	T

```
  68.975  261.13    13.7       T

Downstream  Deck/Roadway Coordinates
    num=       2
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
**********************************************
       0    13.5       0     300    13.5       0

Downstream Bridge Cross Section Data
Station Elevation Data    num=      74
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0      21    3.16      21    4.16      21    5.16      21     7.4      21
     9.4      21   12.56      21   12.56    20.8    14.8   20.03    14.8      20
   17.96   19.22   17.96      19   18.96   18.36   19.96      18   21.37   17.35
   22.37      17   24.37   16.01   24.37      16   25.79   15.27   26.79      15
   26.79   14.63   28.79      14   28.79   13.89    30.2   13.32    30.2      13
    30.2   12.83    31.2      12    32.2    11.9   35.36      11   36.36      11
   36.36   10.66   36.36   10.52    37.1   10.35    38.6      10    40.6      10
   42.84      10   43.84      10   45.25    9.92   46.25    9.88   48.25    9.79
   49.66    9.58   50.66    9.74   51.66    9.75    53.9      10    54.9      10
    55.9      10   57.31      10   58.31      10   59.31    10.2   61.33   10.59
   62.48   10.81   78.97   10.84   80.38   10.86   81.38   10.88   81.38    10.9
   86.48   10.89   87.48    10.9   92.87    10.9   97.97      11  110.34      11
   113.5   10.87  123.94   10.89  136.31   10.91  138.54   10.89  142.67    10.9
  147.77   10.99  148.77      11  154.77    11.9  156.18      12  159.18   12.57
  161.18      13  164.34      13  165.34      13  168.34      13

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
       0    .045   36.36    .055   62.48    .045

Bank Sta: Left   Right    Coeff Contr.   Expan.
         36.36   62.48             .3       .5
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
       0  48.525    12.8       T
  50.475  168.34    12.8       T

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .98
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Culverts =  1

Culvert Name     Shape      Rise    Span
Culvert #2          Arch     1.2    1.95
FHWA Chart # 41- Arch; Corrugated metal
FHWA Scale # 1 - 90 Degree headwall
Solution Criteria = Highest U.S. EG
Culvert Upstrm Dist  Length    Top n  Bottom n  Depth Blocked  Entrance Loss Coef   Exit Loss Coef
                 .5       5     .015     .015        0                   .5                1
Upstream   Elevation =  10
           Centerline Station =  68
Downstream Elevation =  9.8
           Centerline Station =  49.5

CROSS SECTION


RIVER: Actual_4
REACH: Actual_4           RS: 693.5987
```

INPUT
Description:
Station Elevation Data num= 74

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	21	3.16	21	4.16	21	5.16	21	7.4	21
9.4	21	12.56	21	12.56	20.8	14.8	20.03	14.8	20
17.96	19.22	17.96	19	18.96	18.36	19.96	18	21.37	17.35
22.37	17	24.37	16.01	24.37	16	25.79	15.27	26.79	15
26.79	14.63	28.79	14	28.79	13.89	30.2	13.32	30.2	13
30.2	12.83	31.2	12	32.2	11.9	35.36	11	36.36	11
36.36	10.66	36.36	10.52	37.1	10.35	38.6	10	40.6	10
42.84	10	43.84	10	45.25	9.92	46.25	9.88	48.25	9.79
49.66	9.58	50.66	9.74	51.66	9.75	53.9	10	54.9	10
55.9	10	57.31	10	58.31	10	59.31	10.2	61.33	10.59
62.48	10.81	78.97	10.84	80.38	10.86	81.38	10.88	81.38	10.9
86.48	10.89	87.48	10.9	92.87	10.9	97.97	11	110.34	11
113.5	10.87	123.94	10.89	136.31	10.91	138.54	10.89	142.67	10.9
147.77	10.99	148.77	11	154.77	11.9	156.18	12	159.18	12.57
161.18	13	164.34	13	165.34	13	168.34	13		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	36.36	.055	62.48	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
36.36	62.48	33.06	30.05	25.31	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
0	48.525	12.8	T
50.475	168.34	12.8	T

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 663.5455

INPUT
Description:
Station Elevation Data num= 61

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	18.59	5	18.12	6	18.09	6	18	7	17.79
8.41	17	9.41	16.86	10.41	16	12.15	15.25	12.41	15.14
12.41	15	12.41	14.92	13.41	14.4	13.41	14	14.41	13.44
14.41	13	15.41	12.52	15.41	12	16.41	11.15	16.62	11.02
17.41	10.86	18.41	10	21.41	9.46	21.41	9.42	24.58	10
27.58	10.12	28.32	10.12	28.58	10.12	32.58	10.25	37.25	10.25
75.57	11.05	77.02	11.05	93.08	10.36	95.08	10.38	95.08	10.37
99.08	10.4	110.13	10.39	114.25	10.43	115.25	10.43	120.25	10.48
121.25	10.5	123.25	10.53	129.33	10.66	137.33	10.76	138.33	10.78
142.33	10.83	145.5	10.86	145.5	10.87	150.5	10.96	151.5	11
157.5	11.82	161.62	12	161.62	12.09	162.62	12.14	167.62	12.54
169.62	12.61	172.62	12.73	174.62	12.88	176.03	13	178.03	13
183.03	13								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	18.41	.055	32.58	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18.41	32.58	24.02	23.02	23.02	.1	.3

Ineffective Flow num= 2

```
   Sta L   Sta R    Elev  Permanent
       0   16.41      11       T
   77.05  183.03    11.1       T
Left Levee      Station=   16.41      Elevation=    11.2
Right Levee     Station=   77.05      Elevation=    11.2

CROSS SECTION


RIVER: Actual_4
REACH: Actual_4           RS: 640.5283

INPUT
Description:
Station Elevation Data    num=      85
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   15.08       1   15.57       2      16       3   16.33       4   16.32
    6.24   16.47    7.24   16.56    8.24   16.55   13.24      16   14.17      16
   14.24      16   15.24      16   16.24   15.56   17.24      15   18.65   14.05
   18.65      14   18.65   13.95   19.65      13   19.65   12.88   20.65      12
   20.65   11.16   21.65      11   21.65   10.74   21.65      10   22.65    9.62
   23.65    9.28   25.65    9.63   26.65      10   30.41   10.09    36.7   10.25
   47.75   10.53   68.84      11   71.84      11   73.84      11    81.9   10.71
    82.9   10.71    83.9   10.71    84.9   10.71   87.14    10.7   90.14   10.68
  105.17   10.26  107.17   10.23  113.25      10  120.33      10  123.33      10
  125.33      10  133.33    9.88  136.49    9.94  139.49      10  143.49   10.07
  144.49   10.11  155.53   10.31  156.53   10.35  168.53   10.78  171.53   10.86
  174.53      11  175.95   11.12  177.95   11.17  182.95   11.52  187.95   11.68
  188.95   11.73  191.95   11.85  191.95   11.88  194.95      12  194.95   12.07
  196.36   12.25  197.36   12.67  198.36   12.84  199.36      13  202.36      13
  203.36      13  205.36   13.83  206.36   13.78  206.36   13.77  206.36   13.76
  206.36   13.75  206.36   13.74  206.36   13.73  206.36   13.72  209.36      13
  214.36      13   216.6      13   219.6      13   220.6      13   225.6      13

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045   21.65    .055   26.65    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         21.65   26.65             18.99   18.03   17.03             .1       .3
Right Levee     Station=   73.84      Elevation=   11.05

CROSS SECTION


RIVER: Actual_4
REACH: Actual_4           RS: 622.4961

INPUT
Description:
Station Elevation Data    num=      71
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   14.39       2   14.85       3      15       7      15    8.01      15
       9      15      10      15      10    14.2      11      14      11   13.86
      12      13      13   12.12      13      12      14   11.78      14      11
      15   10.07      15   10.02      15      10      15    9.99      17    9.09
      18    9.23      19    9.64      20      10      23   10.19   25.07   10.33
      28   10.53   56.02      11   58.02      11   62.02    11.1   72.02   11.09
   76.02   11.03   78.02      11   79.02   10.98   82.02   10.92   87.12   10.73
  100.16    10.3  103.16   10.14  105.16      10  110.25    9.89  126.29    9.66
  126.29    9.65  128.29    9.68  131.29    9.75  145.43    9.98  145.43    9.99
  146.43      10  147.43   10.04  149.43    10.1  160.47   10.47  163.47    10.6
  166.47   10.69  171.57      11  172.57   11.05  172.57   11.06  176.57   11.23
  177.57   11.27  179.81   11.39  180.81   11.46  182.81   11.52  183.81    11.6
```

```
  186.81   11.76  187.81   11.83  190.81      12  193.97   12.37  197.97   12.82
  198.97   12.94  199.97      13  205.07      13  215.12      13  216.12      13
  220.12      13

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**************************************************
       0    .045      15    .055      20    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
             15      20            31.26   34.01   33.01             .1       .3
Right Levee     Station=   72.02      Elevation=    11.2

CROSS SECTION


RIVER: Actual_4
REACH: Actual_4           RS: 588.4816

INPUT
Description:
Station Elevation Data    num=      36
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   11.96      .1      12       1   12.22       2   12.22    8.01   12.18
   11.06   12.16   12.06      12   12.06   11.65   12.06   11.21   13.06      11
   13.06   10.67   14.06      10   15.06    9.56   16.06       9   16.06    8.76
   17.06    8.75   17.06    8.76   17.06       9   18.06    9.17   24.06      10
   25.06   10.06   26.06   10.13   30.06   10.38   35.15   10.64   36.15   10.74
   39.15   10.88   41.15      11   58.18    11.7   63.18   11.95   64.18      12
   68.18      12   69.18      12   71.18      12   72.18      12   82.23   12.14
   83.23   12.13

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**************************************************
       0    .045   14.06    .055   25.06    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         14.06   25.06             20.1      19   20.02             .1       .3

CROSS SECTION


RIVER: Actual_4
REACH: Actual_4           RS: 569.4819

INPUT
Description:
Station Elevation Data    num=      33
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   11.02       2      11    5.98   10.85       6   10.85    7.41   10.88
    8.41   10.82    9.41   10.67   11.41      10   12.41    9.15   13.41       9
   13.41    8.82   13.41    8.59   14.41     8.4   15.41       9   16.41       9
   23.32    9.41   24.48    9.48   25.48    9.52   35.48      10   43.54   10.49
   46.54   10.73   50.54      11   56.62   11.32   58.62   11.46   60.62   11.54
   67.69      12   69.69   12.03   75.69   12.15   77.69   12.17   78.69   12.19
   79.69   12.21   81.11   12.21   88.11   12.14

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**************************************************
       0    .045   13.41    .055   15.41    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         13.41   15.41            18.11      18   19.02             .1       .3
```

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 551.4819

INPUT
Description:
Station Elevation Data num= 32

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	10	2	10	6	9.6	7.05	9.49	8.24	9.36
11.24	9	12.24	8.28	12.24	8.25	18.24	8.51	20.24	8.6
23.31	8.76	24.36	8.82	25.36	8.88	26.36	8.91	28.36	9
34.36	9.21	36.36	9.36	41.46	9.57	42.46	9.67	48.46	9.96
49.46	10	53.58	10.24	56.58	10.47	58.58	10.59	63.05	11
64.05	11.06	65.05	11.17	73.6	11.78	75.83	12	77.25	12.01
79.25	12.04	86.86	12.04						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	11.24	.055	28.36	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
11.24	28.36	8.06	8.28	8.65	.1	.3

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 543.2019

INPUT
Description:
Station Elevation Data num= 35

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	9.22	5	9	7.04	9	10.1	9	12.1	8.24
12.1	8	12.1	7.84	13.1	7.76	13.1	7.78	13.1	8
14.1	8.04	18.1	8.29	21.1	8.41	22.29	8.47	26.2	8.66
33.2	8.87	35.2	8.93	35.2	8.94	38.36	9	44.36	9.33
50.68	9.76	53.68	10	60.01	10.46	66.09	11	66.09	11.04
66.09	11.05	73.37	11.52	74.79	11.6	79.89	11.87	80.89	11.92
80.89	11.93	82.89	12	85.12	12	88.28	12	89.28	12

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	12.1	.055	26.2	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
12.1	26.2	16.24	13.6	12.73	.1	.3

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 529.6032

INPUT
Description:
Station Elevation Data num= 54

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	9.85	18.11	9.1	20.11	9	36.14	8.26	43.21	8

44.21	7.56	44.21	7.15	45.21	7.35	45.21	7.33	57.25	7.08
58.25	7.08	66.32	7.52	68.32	7.58	75.32	7.89	82.39	8
83.39	8.48	84.39	8.49	85.39	8.48	90	8.2	93.45	8
95.45	8	95.57	7.15	97.09	7.15	97.45	8	104.14	8.28
106.51	8.38	113.58	8.55	127.61	9	129.61	9.1	135.7	9.51
142.98	9.92	143.98	9.96	143.98	10	149.07	10.4	150.07	10.44
153.24	10.76	154.65	10.83	156.65	11	158.06	11.07	158.06	11.08
160.3	11.21	162.3	11.28	164.54	11.32	164.54	11.35	166.77	11.4
166.77	11.42	169.01	11.47	171.01	11.55	172.42	11.55	173.42	11.53
175.66	11.63	178.82	11.63	180.24	11.6	181.24	11.56		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	44.21	.055	181.24	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
44.21	181.24	12.76	12.7	13.44	.3	.5

BRIDGE

RIVER: Actual_4
REACH: Actual_4 RS: 529

INPUT
Description:
Distance from Upstream XS = 1.5
Deck/Roadway Width = 7
Weir Coefficient = 1.4
Upstream Deck/Roadway Coordinates
num= 2

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
95	8	7.8	100	8	7.8

Upstream Bridge Cross Section Data
Station Elevation Data num= 54

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	9.85	18.11	9.1	20.11	9	36.14	8.26	43.21	8
44.21	7.56	44.21	7.15	45.21	7.35	45.21	7.33	57.25	7.08
58.25	7.08	66.32	7.52	68.32	7.58	75.32	7.89	82.39	8
83.39	8.48	84.39	8.49	85.39	8.48	90	8.2	93.45	8
95.45	8	95.57	7.15	97.09	7.15	97.45	8	104.14	8.28
106.51	8.38	113.58	8.55	127.61	9	129.61	9.1	135.7	9.51
142.98	9.92	143.98	9.96	143.98	10	149.07	10.4	150.07	10.44
153.24	10.76	154.65	10.83	156.65	11	158.06	11.07	158.06	11.08
160.3	11.21	162.3	11.28	164.54	11.32	164.54	11.35	166.77	11.4
166.77	11.42	169.01	11.47	171.01	11.55	172.42	11.55	173.42	11.53
175.66	11.63	178.82	11.63	180.24	11.6	181.24	11.56		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	44.21	.055	181.24	.045

Bank Sta: Left	Right	Coeff Contr.	Expan.
44.21	181.24	.3	.5

Downstream Deck/Roadway Coordinates
num= 2

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
95	8	7.8	105	8	7.8

Downstream Bridge Cross Section Data

Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	10.03	0	10	13.15	9.35	21.15	9	24.32	8.89
33.37	8.6	47.41	8.13	52.51	8	54.51	7.47	55.51	7.09
63.57	6.93	66.57	7.16	68.8	6.83	79.85	7.57	84.95	7.92
85.95	8	93.7	8	97.13	8	99.13	8	99.47	7.08
101.03	7.08	101.13	7.82	103.13	8	104.13	8	107.29	8
109.29	8.07	111.29	8.13	115.31	8.23	123.66	8.44	130.73	8.68
131.73	8.71	134.89	8.83	139.99	9	142.99	9.16	143.99	9.22
144.99	9.26	148.15	9.44	149.15	9.49	153.28	9.62	154.28	9.69
159.38	9.84	160.79	9.92	160.79	9.95	162.21	10	165.03	10.3
172.84	11	175.08	11.12	176.08	11.13	176.08	11.14	180.32	11.4
183.15	11.46								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	54.51	.055	101.13	.045

Bank Sta: Left Right Coeff Contr. Expan.
54.51 101.13 .3 .5

Upstream Embankment side slope = 0 horiz. to 1.0 vertical
Downstream Embankment side slope = 0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow = .98
Elevation at which weir flow begins =
Energy head used in spillway design =
Spillway height used in design =
Weir crest shape = Broad Crested

Number of Bridge Coefficient Sets = 1

Low Flow Methods and Data
Energy
Selected Low Flow Methods = Highest Energy Answer

High Flow Method
Energy Only

Additional Bridge Parameters
Add Friction component to Momentum
Do not add Weight component to Momentum
Class B flow critical depth computations use critical depth
inside the bridge at the upstream end
Criteria to check for pressure flow = Upstream energy grade line

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 516.8986

INPUT
Description:
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	10.03	0	10	13.15	9.35	21.15	9	24.32	8.89
33.37	8.6	47.41	8.13	52.51	8	54.51	7.47	55.51	7.09
63.57	6.93	66.57	7.16	68.8	6.83	79.85	7.57	84.95	7.92
85.95	8	93.7	8	97.13	8	99.13	8	99.47	7.08
101.03	7.08	101.13	7.82	103.13	8	104.13	8	107.29	8
109.29	8.07	111.29	8.13	115.31	8.23	123.66	8.44	130.73	8.68
131.73	8.71	134.89	8.83	139.99	9	142.99	9.16	143.99	9.22
144.99	9.26	148.15	9.44	149.15	9.49	153.28	9.62	154.28	9.69
159.38	9.84	160.79	9.92	160.79	9.95	162.21	10	165.03	10.3

```
  172.84      11  175.08   11.12  176.08   11.13  176.08   11.14  180.32    11.4
  183.15   11.46

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
       0    .045   54.51    .055  101.13    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         54.51  101.13             21.54   18.86   12.73              .3       .5

CROSS SECTION


RIVER: Actual_4
REACH: Actual_4           RS: 498.0395

INPUT
Description:
Station Elevation Data    num=      61
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   10.72    3.16   10.44    8.55      10   13.93    9.87   17.09    9.76
   19.33     9.7   32.33    9.16   32.33    9.15   36.45       9   48.54    8.67
   55.82    8.46   58.05    8.42   58.05    8.41   58.05     8.4   62.53    8.31
   62.53     8.3   63.53     8.3   63.53    8.28   64.53    8.27   66.76    8.23
      69     8.2    80.7       8   87.41    7.38   89.41    7.25   90.41    7.23
   92.41    7.09  104.12    6.82  105.12    6.95  106.12    6.95  117.82    7.85
  119.23     7.8  120.23    7.72  120.23    7.71  120.23     7.7  120.93    7.63
  125.62     7.2  129.74    7.41  131.16    7.45  136.54    7.71  146.39       8
  148.29    8.07  152.72    8.24  155.88    8.37  156.88    8.43  160.48    8.55
  161.48     8.6  163.72    8.67  166.88    8.76     171    8.91     172    8.93
  175.17       9  176.17    9.05  180.41    9.33  184.01    9.59  189.67      10
  198.89   10.74  201.72      11  203.13   11.08  210.94   11.24  212.36   11.22
  213.77   11.19

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
       0    .045   87.41    .055  136.54    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         87.41  136.54             18.83   17.49    8.48              .1       .3

CROSS SECTION


RIVER: Actual_4
REACH: Actual_4           RS: 480.5480

INPUT
Description:
Station Elevation Data    num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   10.82    2.24   10.69   13.64      10   32.24     9.3   40.84       9
   64.44    8.12   68.05    8.02   69.05       8   70.05       8   72.28       8
   73.28       8   74.28       8   77.11       8   80.72       8   82.95       8
   84.37       8   85.78       8   88.02    7.85  104.42    7.09  117.23    7.15
  121.62    7.18  125.83     7.2  131.66     7.4   133.9    7.47  141.71    7.67
  143.12    7.72  148.12    7.86  148.12    7.88  150.36    7.97  150.56    7.97
  151.77       8  158.98     8.3  161.81    8.42  166.81    8.62  174.02    8.91
  175.43    8.94  176.85       9  181.32    9.27  191.32      10  195.56   10.34
   197.8    10.5  200.04   10.64  206.44   10.82  206.44   10.84  207.44   10.85
  208.44   10.86

Manning's n Values        num=       3
```

```
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
       0    .045   88.02    .055  143.12    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         88.02  143.12             19.8   16.67   12.81             .1       .3

CROSS SECTION


RIVER: Actual_4
REACH: Actual_4           RS: 463.8804

INPUT
Description:
Station Elevation Data    num=      49
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   10.18    2.83      10   16.28    9.53   30.42       9   51.64    8.12
   53.87    8.05   53.87    8.04   53.87    8.03   53.87    8.02   54.87    8.02
   55.87       8   57.29       8   61.53       8   67.93    8.02   68.93       8
   76.74    7.75   97.96    7.01  100.19       7  105.93       7  112.92       7
  114.34    6.97  114.34    6.87  114.34    6.56  115.75    6.83  115.75       7
  118.58    7.11  126.39     7.4  132.04     7.6  133.04    7.63  134.04    7.63
  136.87     7.7     141     7.8   149.6       8   149.6    8.04  151.02    8.06
   159.5    8.46  163.74    8.62  165.98    8.72  173.05       9  178.71    9.41
  183.71    9.81  184.71    9.87  186.94      10  188.36   10.08  191.19   10.18
   192.6   10.25  196.84   10.31  196.84    10.3  198.26   10.31

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
       0    .045   76.74    .055  126.39    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         76.74  126.39            18.39    16.4    12.8             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
       0   78.06       8       T
  137.03  198.26       8       T

CROSS SECTION


RIVER: Actual_4
REACH: Actual_4           RS: 447.4822

INPUT
Description:
Station Elevation Data    num=      57
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   10.52    2.83   10.32    5.06   10.23    9.31      10   16.38    9.71
   18.61    9.63   20.03    9.57   24.27    9.36   32.08       9   37.08    8.54
   42.74       8   44.15       8    48.4       8   50.63       8   52.87       8
   53.87       8   55.28       8    56.7       8   82.19    7.17   87.19       7
   87.19    6.86    88.6    6.77    88.6    6.93    88.6       7   90.92       7
   99.24       7  102.06       7  103.06    6.86  103.15     6.2  106.01     6.2
  106.48       7  109.31    7.14  112.91    7.25  130.45    7.69  133.43    7.77
  139.09     7.9  142.69       8  144.11       8  156.15    8.39  157.15    8.45
  158.56    8.48  165.63       9  167.05       9  172.05       9  173.46    9.08
  173.46    9.09  174.88    9.08  174.88     9.1  176.29    9.11  177.29    9.19
  179.53    9.34  182.53    9.62  183.94    9.73  186.94    9.96  186.94    9.97
  187.94      10  189.94   10.07

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
```

```
***********************************************
       0    .045   82.19    .055  112.91    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         82.19  112.91             8.48     9.2     8.6             .3       .5
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
       0   103.5       7       T
   105.5  189.94       7       T

CULVERT


RIVER: Actual_4
REACH: Actual_4           RS: 447

INPUT
Description:
Distance from Upstream XS =     1.5
Deck/Roadway Width        =       5
Weir Coefficient          =     1.4
Upstream  Deck/Roadway Coordinates
    num=       2
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
***********************************************
      80       7       0     200       7       0

Upstream Bridge Cross Section Data
Station Elevation Data    num=      57
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   10.52    2.83   10.32    5.06   10.23    9.31      10   16.38    9.71
   18.61    9.63   20.03    9.57   24.27    9.36   32.08       9   37.08    8.54
   42.74       8   44.15       8    48.4       8   50.63       8   52.87       8
   53.87       8   55.28       8    56.7       8   82.19    7.17   87.19       7
   87.19    6.86    88.6    6.77    88.6    6.93    88.6       7   90.92       7
   99.24       7  102.06       7  103.06    6.86  103.15     6.2  106.01     6.2
  106.48       7  109.31    7.14  112.91    7.25  130.45    7.69  133.43    7.77
  139.09     7.9  142.69       8  144.11       8  156.15    8.39  157.15    8.45
  158.56    8.48  165.63       9  167.05       9  172.05       9  173.46    9.08
  173.46    9.09  174.88    9.08  174.88     9.1  176.29    9.11  177.29    9.19
  179.53    9.34  182.53    9.62  183.94    9.73  186.94    9.96  186.94    9.97
  187.94      10  189.94   10.07

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045   82.19    .055  112.91    .045

Bank Sta: Left   Right    Coeff Contr.   Expan.
         82.19  112.91             .3       .5
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
       0   103.5       7       T
   105.5  189.94       7       T

Downstream  Deck/Roadway Coordinates
    num=       2
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
***********************************************
      80       7       0     200       7       0

Downstream Bridge Cross Section Data
Station Elevation Data    num=      81
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0    11.3    2.83    11.1    4.24      11   10.65   10.63    16.3   10.35
```

```
   22.71      10   29.11    9.71   30.52    9.65   35.52    9.34   41.18       9
   42.59    8.91   44.83     8.6   47.66    8.28   49.07       8   50.49       8
    58.3       8   61.13       8   62.13       8   63.54       8   64.54       8
   65.54       8   75.44    7.69   80.44    7.52   88.25    7.24   95.32       7
   96.32    6.86   96.32    6.79   97.32    6.87   98.32       7   99.48       7
  103.98       7  108.98    7.27  111.81       7  111.81    6.54  111.98     6.2
  115.13     6.2  115.22       7  116.22    7.04  119.83    7.13  120.83    7.15
  123.65    7.24  138.03    7.54  146.33    7.72  147.33    7.72  148.33    7.72
  150.56    7.83  151.98    7.84  153.39    7.85  153.39    7.86   154.8    7.84
  156.22    7.85  162.62    7.93  167.62    7.99  168.62       8  170.86    8.08
  172.27    8.19  172.27     8.2  175.88    8.38  178.11    8.35  180.94    8.52
  181.94    8.52  183.36    8.54  184.36    8.58  185.36    8.63  187.59    8.71
  190.59    8.84  193.59       9  193.59    9.06  193.59    9.09  199.68    9.61
  200.68    9.69  202.91     9.8  203.91    9.84  203.91    9.85  203.91    9.87
  206.91    9.94  206.91    9.95  208.91      10  208.91   10.02  212.07   10.07
  214.07   10.11

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045   88.25    .055  123.65    .045

Bank Sta: Left   Right    Coeff Contr.   Expan.
         88.25  123.65             .3       .5
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
       0  112.55       7       T
  114.45  214.07       7       T

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .98
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Culverts =  2

Culvert Name     Shape      Rise    Span
Culvert #1          Arch     .45      .9
FHWA Chart # 41- Arch; Corrugated metal
FHWA Scale # 1 - 90 Degree headwall
Solution Criteria = Highest U.S. EG
Culvert Upstrm Dist  Length    Top n  Bottom n  Depth Blocked  Entrance Loss Coef   Exit Loss Coef
                 .5       5     .015     .015        0                  .5                1
Upstream   Elevation =  6.2
           Centerline Station =  104
Downstream Elevation =  6.2
           Centerline Station =  113

Culvert Name     Shape      Rise    Span
Culvert #2          Arch     .45      .9
FHWA Chart # 41- Arch; Corrugated metal
FHWA Scale # 1 - 90 Degree headwall
Solution Criteria = Highest U.S. EG
Culvert Upstrm Dist  Length    Top n  Bottom n  Depth Blocked  Entrance Loss Coef   Exit Loss Coef
                 .5       5     .015     .015        0                  .5                1
Upstream   Elevation =  6.2
           Centerline Station =  105
Downstream Elevation =  6.2
           Centerline Station =  114

CROSS SECTION


RIVER: Actual_4
```

REACH: Actual_4 RS: 438.2866

INPUT
Description:
Station Elevation Data num= 81

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	11.3	2.83	11.1	4.24	11	10.65	10.63	16.3	10.35
22.71	10	29.11	9.71	30.52	9.65	35.52	9.34	41.18	9
42.59	8.91	44.83	8.6	47.66	8.28	49.07	8	50.49	8
58.3	8	61.13	8	62.13	8	63.54	8	64.54	8
65.54	8	75.44	7.69	80.44	7.52	88.25	7.24	95.32	7
96.32	6.86	96.32	6.79	97.32	6.87	98.32	7	99.48	7
103.98	7	108.98	7.27	111.81	7	111.81	6.54	111.98	6.2
115.13	6.2	115.22	7	116.22	7.04	119.83	7.13	120.83	7.15
123.65	7.24	138.03	7.54	146.33	7.72	147.33	7.72	148.33	7.72
150.56	7.83	151.98	7.84	153.39	7.85	153.39	7.86	154.8	7.84
156.22	7.85	162.62	7.93	167.62	7.99	168.62	8	170.86	8.08
172.27	8.19	172.27	8.2	175.88	8.38	178.11	8.35	180.94	8.52
181.94	8.52	183.36	8.54	184.36	8.58	185.36	8.63	187.59	8.71
190.59	8.84	193.59	9	193.59	9.06	193.59	9.09	199.68	9.61
200.68	9.69	202.91	9.8	203.91	9.84	203.91	9.85	203.91	9.87
206.91	9.94	206.91	9.95	208.91	10	208.91	10.02	212.07	10.07
214.07	10.11								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	88.25	.055	123.65	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
88.25	123.65	9.9	9.4	8.6	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
0	112.55	7	T
114.45	214.07	7	T

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 428.8812

INPUT
Description:
Station Elevation Data num= 101

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	11.13	1.41	11	5.02	10.79	7.85	10.67	17.07	10
18.07	9.97	19.07	9.95	25.47	9.65	35.47	9	36.47	8.75
38.71	8	40.12	8	41.54	8	42.54	8	45.36	8.07
46.78	8.08	48.19	8.09	51.02	8.1	52.02	8.09	53.43	8.09
57.68	8	62.68	7.84	62.68	7.83	81.12	7.2	89.45	7.7
90.34	7.75	91.34	7.75	94.16	7.7	95.58	7.57	96.99	7.44
101.24	7	102.24	6.06	102.24	5.89	104.47	6.83	104.47	7
105.47	7	106.47	7	110.71	7	113.54	7	126.35	7.28
127.34	7.28	129.18	7.28	131.41	7.3	132.41	7.34	137.41	7.41
141.02	7.45	142.43	7.45	145.26	7.47	149.5	7.52	151.74	7.56
154.57	7.58	155.57	7.61	156.98	7.64	158.4	7.65	161.23	7.75
162.64	7.77	167.64	8	167.64	8.01	171.88	8.08	172.88	8.09
172.88	8.12	175.71	8.2	175.71	8.22	178.54	8.31	181.37	8.44
182.37	8.46	185.2	8.52	186.2	8.54	187.61	8.54	188.61	8.54
189.61	8.54	194.61	8.53	196.85	8.5	199.08	8.5	201.32	8.47
202.73	8.45	203.73	8.43	209.56	8.33	210.56	8.32	214.17	8.23
215.58	8.2	219.19	8.09	220.19	8.08	222.43	8	227.43	7.92
230.25	7.96	243.06	8	249.46	8	257.95	8	266.55	8.34
272.21	8.57	282.21	9	288.61	9.54	291.44	9.77	292.44	9.85

```
  293.44    9.91  294.85      10  302.66    10.8  304.08      11  309.08   11.48
  309.08   11.52

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045   62.68    .055  141.02    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         62.68  141.02            29.87   29.22    27.8             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
       0   72.33       8       T
  147.82  309.08       8       T

CROSS SECTION


RIVER: Actual_4
REACH: Actual_4           RS: 399.6586

INPUT
Description:
Station Elevation Data    num=      87
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   10.72    1.41   10.63    6.41   10.11    6.41   10.07    7.41      10
    8.41    9.85   10.65       9   15.65    8.28   18.48       8   19.89       8
   20.89       8   25.14       8   26.14       8   27.55       8   29.79    8.67
    31.2    8.92    31.2    8.91    32.2       9    33.2       9   34.61       9
   36.03       9   37.03       9   39.86    9.63   39.86    9.64   43.46       9
   44.88       9   45.88       9   46.88       9   48.29       9   49.71    8.35
   50.71       8   51.71    7.97   53.94    7.83   64.74    7.37   73.36       7
   74.36    6.66   79.36    6.94   79.36       7   80.36       7   81.36    6.38
   81.36       6   81.36    5.95   82.36    5.92   82.36    5.94   82.36       6
   83.77    6.21    86.6    6.14   91.07    6.28   93.31     6.3   99.71    6.48
   99.84    6.49  103.32    6.51  124.72    6.91  128.32    6.92  129.32    6.92
  132.15    6.93  139.96    6.95  141.38    6.96  143.61    6.97  145.03    6.97
  150.03    6.98  153.63    6.98  158.63    6.99  163.63       7  170.04    7.11
  171.45    7.11  176.45    7.21  180.06    7.25  181.47    7.23  185.08    7.27
  186.49     7.3   187.9    7.28  190.14    7.33  191.55    7.31  192.97    7.33
  192.97    7.32   195.2     7.3   215.2    7.61  225.83    7.65  231.67    7.79
  239.48       8   242.3    8.11  244.54    8.23  254.54     8.7  260.94       9
  265.94    9.39  272.35     9.9

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045   73.36    .055  128.32    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         73.36  128.32            27.78   25.91    28.6             .1       .3

CROSS SECTION


RIVER: Actual_4
REACH: Actual_4           RS: 373.7445

INPUT
Description:
Station Elevation Data    num=      64
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   12.08       1      12    4.61   11.61    9.61      11   16.82   10.27
   18.23      10   22.47    9.66   26.08    9.38   30.32       9   37.53    8.52
   43.94       8   45.35    7.94   58.16    7.72   59.57    7.72   72.38    7.06
```

73.38	7.06	74.79	7	75.06	6.95	75.79	6.8	76.79	6.24
78.21	6.74	79.62	7	81.86	7.1	86.1	7.09	88.33	7
89.33	6.39	90.33	6	90.33	5.86	90.33	5.67	91.75	5.82
91.75	6	103.15	6.19	106.72	6.25	118.15	6.44	135.18	6.76
136.18	6.76	137.18	6.76	138.59	6.77	139.59	6.77	140.59	6.77
141.59	6.77	143.01	6.77	144.01	6.77	146.84	6.78	148.25	6.78
183.08	7	185.31	7	199.53	7	203.13	7	208.79	7
211.62	7	217.45	7.09	231.66	7.46	237.32	7.61	240.92	7.69
253.13	8	270.94	8.74	276.59	9	279.42	9.2	290.82	10
296.65	10.48	300.9	10.86	303.13	11	307.37	11.4		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	75.06	.055	185.31	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
75.06	185.31	24.7	27.2	25.6	.1	.3

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 346.5426

INPUT
Description:
Station Elevation Data num= 68

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	11.64	2.83	11.31	4.24	11.1	4.24	11.05	5.24	11
6.24	10.9	14.84	10	19.84	9.52	25.5	9	28.33	8.71
34.73	8.28	38.34	8	42.58	7.84	44	7.76	58.21	7.14
59.62	7.13	60.62	7.12	66.28	7	67.69	7	71.94	7
72.55	7	72.94	7	74.35	6.46	75.76	6.17	78	6.92
78	7	79	7	80	7	87.07	7	88.07	6.28
88.07	6	89.49	5.37	90.9	6	101.93	6.19	102.3	6.2
109.37	6.32	110.79	6.34	114.39	6.39	139.23	6.74	158.44	6.88
159.86	6.89	161.27	6.89	178.3	7	183.3	7	184.3	7
185.71	7	188.88	7	198.1	7	199.51	7	200.92	7
203.16	7	204.16	7	206.4	7	210	7	212.24	7
222.87	7.27	224.28	7.32	243.49	7.8	244.91	7.86	250.56	8
257.77	8.28	276.21	9	277.63	9.15	289.03	10	290.44	10.13
296.85	10.47	306.07	11	315.29	11.62				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	72.55	.055	178.3	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
72.55	178.3	12.18	13.02	12.2	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
0	57.25	7.5	T
219.4	315.29	7.5	T

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 333.5228

INPUT
Description:
Station Elevation Data num= 64

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

```
*******************************************************************************
       0   10.96    2.83   10.71    9.23      10   17.04    9.13   18.46       9
   28.46    8.13   29.87       8   31.28    7.93   31.28    7.92    32.7    7.87
   35.53    7.75   41.93    7.42   50.53    7.06   51.95       7    57.6       7
   64.01       7   66.84       7   68.25       7   69.21    6.61   69.25    6.59
   70.66    6.17   72.08    6.87   73.49       7    81.3       7   82.72    6.06
   82.72       6   82.72    5.97   82.78       5    84.5       5   84.56    5.21
   84.67    6.06   91.61    6.11   95.85    6.19      97     6.2  137.72    6.75
  168.96    6.99  170.38       7  171.79       7  172.79       7  186.24       7
  189.85    7.05  197.66    7.07  200.49    7.08  206.89    7.22  208.31    7.26
  211.91    7.33  216.15    7.45  219.76    7.53  221.17    7.57  230.39     7.8
   238.2       8  241.03    8.07  241.03     8.1  242.45    8.12  247.45    8.29
  252.45    8.48  258.85    8.71  266.66       9  267.66    9.05  283.28      10
  284.69   10.08   292.5   10.54  300.31      11  305.31    11.3

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045   68.25    .055  172.79    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         68.25  172.79             6.68    6.24     6.4             .3       .5
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
       0    82.8       7       T
    84.6  305.31       7       T

CULVERT


RIVER: Actual_4
REACH: Actual_4           RS: 333

INPUT
Description:
Distance from Upstream XS =      .5
Deck/Roadway Width        =       5
Weir Coefficient          =     1.4
Upstream  Deck/Roadway Coordinates
    num=       2
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
***********************************************
      80       7       0     200       7       0

Upstream Bridge Cross Section Data
Station Elevation Data    num=      64
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   10.96    2.83   10.71    9.23      10   17.04    9.13   18.46       9
   28.46    8.13   29.87       8   31.28    7.93   31.28    7.92    32.7    7.87
   35.53    7.75   41.93    7.42   50.53    7.06   51.95       7    57.6       7
   64.01       7   66.84       7   68.25       7   69.21    6.61   69.25    6.59
   70.66    6.17   72.08    6.87   73.49       7    81.3       7   82.72    6.06
   82.72       6   82.72    5.97   82.78       5    84.5       5   84.56    5.21
   84.67    6.06   91.61    6.11   95.85    6.19      97     6.2  137.72    6.75
  168.96    6.99  170.38       7  171.79       7  172.79       7  186.24       7
  189.85    7.05  197.66    7.07  200.49    7.08  206.89    7.22  208.31    7.26
  211.91    7.33  216.15    7.45  219.76    7.53  221.17    7.57  230.39     7.8
   238.2       8  241.03    8.07  241.03     8.1  242.45    8.12  247.45    8.29
  252.45    8.48  258.85    8.71  266.66       9  267.66    9.05  283.28      10
  284.69   10.08   292.5   10.54  300.31      11  305.31    11.3

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045   68.25    .055  172.79    .045
```

```
Bank Sta: Left   Right    Coeff Contr.   Expan.
         68.25  172.79             .3       .5
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
       0    82.8       7       T
    84.6  305.31       7       T

Downstream  Deck/Roadway Coordinates
    num=       2
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
**********************************************
      80       7       0     200       7       0

Downstream Bridge Cross Section Data
Station Elevation Data    num=      67
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   11.67    3.61   11.15    5.02      11    6.43   10.85   14.24      10
   20.65    9.27   23.48       9   24.89    8.77   33.49       8   45.53     7.4
   48.36    7.29   54.77       7   59.77       7   72.57       7   73.57       7
   74.99       7   75.99    6.75      76    6.75    77.4    6.17    77.4    6.55
   78.81       7   85.22       7   88.05       7   88.05    6.81   88.05    6.43
   89.05       6   89.05     5.9   89.12       5   91.32       5   92.46       6
   96.07    6.06   103.9    6.17  146.39    6.76  172.01    6.95  177.01       7
  178.42       7  185.49       7  199.71    7.18  200.71    7.18  204.31    7.19
  205.72     7.2  220.59    7.53  222.01    7.55  228.41    7.71  230.64    7.76
  237.05     7.9  237.05    7.91  241.29       8  246.95    8.19  247.95    8.21
  249.36    8.26  252.19    8.34  257.19    8.51  262.19    8.69  267.19    8.84
  268.19    8.87   271.8       9  286.66    9.87  288.08    9.94  289.08      10
  294.73   10.35  298.34   10.52  298.34   10.53  298.34   10.54  306.94      11
  318.98    11.6   320.4    11.7

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
       0    .045   72.57    .055  177.01    .045

Bank Sta: Left   Right    Coeff Contr.   Expan.
         72.57  177.01             .3       .5
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
       0    89.1       7       T
    90.9   320.4       7       T

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .98
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Culverts =  1

Culvert Name     Shape      Rise    Span
Culvert #1      Circular     1.8
FHWA Chart # 1 - Concrete Pipe Culvert
FHWA Scale # 1 - Square edge entrance with headwall
Solution Criteria = Highest U.S. EG
Culvert Upstrm Dist  Length    Top n  Bottom n  Depth Blocked  Entrance Loss Coef   Exit Loss Coef
                 .5       5     .015     .015        0                  .5                1
Upstream   Elevation =  5
           Centerline Station =  83.7
Downstream Elevation =  5
           Centerline Station =  90

CROSS SECTION
```

RIVER: Actual_4
REACH: Actual_4 RS: 327.2853

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	11.67	3.61	11.15	5.02	11	6.43	10.85	14.24	10
20.65	9.27	23.48	9	24.89	8.77	33.49	8	45.53	7.4
48.36	7.29	54.77	7	59.77	7	72.57	7	73.57	7
74.99	7	75.99	6.75	76	6.75	77.4	6.17	77.4	6.55
78.81	7	85.22	7	88.05	7	88.05	6.81	88.05	6.43
89.05	6	89.05	5.9	89.12	5	91.32	5	92.46	6
96.07	6.06	103.9	6.17	146.39	6.76	172.01	6.95	177.01	7
178.42	7	185.49	7	199.71	7.18	200.71	7.18	204.31	7.19
205.72	7.2	220.59	7.53	222.01	7.55	228.41	7.71	230.64	7.76
237.05	7.9	237.05	7.91	241.29	8	246.95	8.19	247.95	8.21
249.36	8.26	252.19	8.34	257.19	8.51	262.19	8.69	267.19	8.84
268.19	8.87	271.8	9	286.66	9.87	288.08	9.94	289.08	10
294.73	10.35	298.34	10.52	298.34	10.53	298.34	10.54	306.94	11
318.98	11.6	320.4	11.7						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	72.57	.055	177.01	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
72.57	177.01	10.81	9.9	10	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
0	89.1	7	T
90.9	320.4	7	T

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 317.3868

INPUT
Description:
Station Elevation Data num= 69

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	11.54	1.41	11.36	3.65	11	7.89	10.64	14.3	10
19.3	9.36	22.12	9	26.37	8.57	31.37	8	41.37	7.37
49.18	7	55.58	6.81	56.99	6.77	62.65	6.57	65.48	6.47
69.95	6.32	75.61	6.26	75.61	6.27	77.02	6.07	77.74	6.36
79.26	6.97	79.26	7	83.5	7	87.74	7	87.74	6.95
88.74	6	90.16	5.55	90.16	5.32	91.57	5.73	91.57	6
104.26	6.16	112.19	6.26	117.19	6.32	149.84	6.77	161.88	6.86
162.88	6.86	174.28	6.97	177.11	7	197.73	7.24	204.8	7.4
204.8	7.41	204.8	7.42	207.62	7.47	209.86	7.52	211.28	7.55
217.68	7.68	229.08	7.94	231.91	7.98	231.91	8	241.13	8.26
244.73	8.38	247.56	8.47	251.17	8.56	255.41	8.68	257.65	8.74
263.3	8.92	266.13	9	269.74	9.16	272.57	9.24	286.17	9.9
288.4	10	288.4	10.01	290.64	10.09	299.86	10.73	304.86	11
315.49	11.51	324.71	12	325.71	12.05	329.95	12.47		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	49.18	.055	149.84	.045

```
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         49.18  149.84            21.56   21.93   21.92             .3       .5
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
       0   72.55      18       T
  102.55  329.95      18       T

BRIDGE


RIVER: Actual_4
REACH: Actual_4           RS: 317

INPUT
Description:
Distance from Upstream XS =     1.5
Deck/Roadway Width        =      17
Weir Coefficient          =     1.4
Upstream  Deck/Roadway Coordinates
    num=       6
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
***********************************************************************
     6.5      18       0   72.55      18       0   72.55      18      17
  102.55      18      17  102.55      18       0   206.5      18       0

Upstream Bridge Cross Section Data
Station Elevation Data    num=      69
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
       0   11.54    1.41   11.36    3.65      11    7.89   10.64    14.3      10
    19.3    9.36   22.12       9   26.37    8.57   31.37       8   41.37    7.37
   49.18       7   55.58    6.81   56.99    6.77   62.65    6.57   65.48    6.47
   69.95    6.32   75.61    6.26   75.61    6.27   77.02    6.07   77.74    6.36
   79.26    6.97   79.26       7    83.5       7   87.74       7   87.74    6.95
   88.74       6   90.16    5.55   90.16    5.32   91.57    5.73   91.57       6
  104.26    6.16  112.19    6.26  117.19    6.32  149.84    6.77  161.88    6.86
  162.88    6.86  174.28    6.97  177.11       7  197.73    7.24   204.8     7.4
   204.8    7.41   204.8    7.42  207.62    7.47  209.86    7.52  211.28    7.55
  217.68    7.68  229.08    7.94  231.91    7.98  231.91       8  241.13    8.26
  244.73    8.38  247.56    8.47  251.17    8.56  255.41    8.68  257.65    8.74
   263.3    8.92  266.13       9  269.74    9.16  272.57    9.24  286.17     9.9
   288.4      10   288.4   10.01  290.64   10.09  299.86   10.73  304.86      11
  315.49   11.51  324.71      12  325.71   12.05  329.95   12.47

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
************************************************
       0    .045   49.18    .055  149.84    .045

Bank Sta: Left   Right    Coeff Contr.   Expan.
         49.18  149.84             .3       .5
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
       0   72.55      18       T
  102.55  329.95      18       T

Downstream  Deck/Roadway Coordinates
    num=       6
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
***********************************************************************
     6.5      18       0    81.5      18       0    81.5      18      17
   111.5      18      17   111.5      18       0   206.5      18       0

Downstream Bridge Cross Section Data
Station Elevation Data    num=      79
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
```

```
*******************************************************************************
       0   12.69       0   12.62       5      12    11.4    11.1    12.4      11
   19.61   10.23   21.03      10   23.26    9.81   28.92       9   35.32    8.44
   38.93       8      46    7.37   47.42    7.23   51.02       7   62.42    6.85
   78.04    6.31   85.11       6   86.11     5.8   86.11    5.72   86.31    5.74
   87.53    5.85   87.53       6   87.53    6.32   88.94       7   95.35       7
   96.76       7   97.76    6.51   98.76       6   99.76    5.68     100    5.32
   102.5    5.32  102.52    5.99   112.9    6.14  128.78    6.34     138    6.46
  167.83    6.84  168.83    6.84  169.83    6.85  172.07    6.86  173.48    6.88
  177.72    6.91  185.53    6.98  187.77       7  189.18    7.05   190.6    7.09
  204.81    7.53  217.62    7.87  221.86    7.97  223.27       8  226.88     8.1
  234.69    8.36  246.09    8.74  247.51     8.8  247.51    8.81  252.51    8.95
  252.51    8.96  252.51    8.97  253.92       9  264.55    9.37  269.55    9.53
  272.38    9.63  282.38    9.96  283.38    9.97  284.38      10  287.21   10.09
  295.81   10.48  302.21   10.76  303.63   10.83  307.87      11   310.7    11.1
   311.7   11.11   311.7   11.14  314.53   11.24  315.94   11.33  320.94   11.53
  322.35   11.59  330.96      12  330.96   12.01   335.2   12.19

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
       0    .045   51.02    .055  172.07    .045

Bank Sta: Left   Right    Coeff Contr.   Expan.
         51.02  172.07             .3       .5
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
       0    81.5      18       T
   111.5   335.2      18       T

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .98
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Piers =  1

Pier Data
Pier Station     Upstream=   87.55    Downstream=    96.5
Upstream     num=       2
    Width   Elev    Width   Elev
*********************************
      .5       0      .5      17
Downstream     num=       2
    Width   Elev    Width   Elev
*********************************
      .5       0      .5      17

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
       Energy
Selected Low Flow Methods = Highest Energy Answer

High Flow Method
       Energy Only

Additional Bridge Parameters
       Add Friction component to Momentum
       Do not add Weight component to Momentum
       Class B flow critical depth computations use critical depth
           inside the bridge at the upstream end
       Criteria to check for pressure flow = Upstream energy grade line
```

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 295.4587

INPUT
Description:
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	12.69	0	12.62	5	12	11.4	11.1	12.4	11
19.61	10.23	21.03	10	23.26	9.81	28.92	9	35.32	8.44
38.93	8	46	7.37	47.42	7.23	51.02	7	62.42	6.85
78.04	6.31	85.11	6	86.11	5.8	86.11	5.72	86.31	5.74
87.53	5.85	87.53	6	87.53	6.32	88.94	7	95.35	7
96.76	7	97.76	6.51	98.76	6	99.76	5.68	100	5.32
102.5	5.32	102.52	5.99	112.9	6.14	128.78	6.34	138	6.46
167.83	6.84	168.83	6.84	169.83	6.85	172.07	6.86	173.48	6.88
177.72	6.91	185.53	6.98	187.77	7	189.18	7.05	190.6	7.09
204.81	7.53	217.62	7.87	221.86	7.97	223.27	8	226.88	8.1
234.69	8.36	246.09	8.74	247.51	8.8	247.51	8.81	252.51	8.95
252.51	8.96	252.51	8.97	253.92	9	264.55	9.37	269.55	9.53
272.38	9.63	282.38	9.96	283.38	9.97	284.38	10	287.21	10.09
295.81	10.48	302.21	10.76	303.63	10.83	307.87	11	310.7	11.1
311.7	11.11	311.7	11.14	314.53	11.24	315.94	11.33	320.94	11.53
322.35	11.59	330.96	12	330.96	12.01	335.2	12.19		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	51.02	.055	172.07	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
51.02	172.07	43.86	43.14	42.45	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
0	81.5	18	T
111.5	335.2	18	T

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 252.3185

INPUT
Description:
Station Elevation Data num= 70

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	12.4	3.61	12	3.61	11.96	6.43	11.73	12.84	11
12.84	10.93	24.24	10	24.24	9.93	33.46	9.03	33.46	9
37.06	8.76	47.69	8	48.69	7.97	48.69	7.96	48.69	7.95
55.1	7.54	63.7	7.07	64.7	7.05	64.7	7	89.7	6.44
92.53	6.37	98.93	6.23	106.74	6	108.98	5.66	109.14	5.64
109.98	5.55	110.98	5.95	111.98	6	114.21	6.73	117.04	6.89
118.04	6.91	119.46	6.98	120.87	6.86	121.87	6.57	122.87	6
123.87	5.81	124.87	5.27	125.87	5.6	126.87	5.78	127.87	6
135.97	6.12	139.27	6.17	189.72	6.86	200.54	7	204.78	7.18
209.78	7.36	219.78	7.77	225.44	8	233.25	8.42	236.85	8.61
240.46	8.77	243.29	8.96	244.29	9	254.92	9.51	262.73	10
267.73	10.33	271.33	10.53	274.16	10.7	280.56	11	280.56	11.04
282.8	11.11	289.2	11.43	293.45	11.57	300.66	11.95	300.66	11.97
302.07	12	306.31	12.2	307.73	12.26	308.73	12.31	310.14	12.35

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	64.7	.055	200.54	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
64.7	200.54	20.52	19.8	20.52	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
0	78.61	7	T
177.17	310.14	7	T

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 232.5208

INPUT
Description:
Station Elevation Data num= 74

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	13.92	1.41	13.77	3.65	13.51	7.89	13	10.13	12.81
11.54	12.7	14.37	12.38	17.98	12	18.98	11.9	21.81	11.59
24.63	11.36	25.63	11.23	26.63	11.16	28.05	11	38.05	10.1
39.05	10	41.28	9.82	48.36	9.17	49.36	9.07	49.36	9.03
49.36	9.02	50.36	9	51.77	8.89	63.98	8	68.98	7.71
70.39	7.6	80.39	7	81.8	6.97	90.41	6.85	123.21	6.21
126.04	6.14	127.45	6.13	128.87	6.1	133.3	6	133.34	6
133.34	5.88	134.75	5.46	136.17	5.79	137.58	6	139	6
146.81	6	147.81	5.38	148.81	5.2	151.04	5.87	151.04	6
159.99	6.13	172.44	6.32	174.68	6.36	178.92	6.42	196.13	6.66
197.54	6.67	210.35	6.87	218.16	6.97	219.57	7	220.57	7.05
225.57	7.25	243.38	8	251.98	8.51	257.63	8.81	260.46	9
264.07	9.2	267.67	9.35	271.28	9.58	279.88	10	284.12	10.24
285.12	10.29	289.37	10.57	292.97	10.84	295.8	11	303.61	11.39
315.01	12	318.62	12.15	325.83	12.56	328.66	12.68		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	133.3	.055	151.04	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
133.3	151.04	28.32	28.28	27.58	.1	.3

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 204.2365

INPUT
Description:
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	11.21	1.41	11.02	1.41	11	11.41	10	15.89	9.63
21.54	9.2	22.96	9.09	24.37	9	32.43	8.39	38.09	8
43.92	7.67	48.92	7.45	57.52	7	62.52	6.87	92.52	6.33
93.94	6.33	96.17	6.3	96.17	6.29	97.17	6.29	119.38	6
119.39	5.99	120.79	5.14	121.79	5.34	123.21	6	126.81	6.51
126.81	6.52	129.64	6.51	129.64	6.5	129.64	6.49	133.25	6
133.25	5.8	134.66	5.06	136.07	5.66	137.07	6	145.96	6.15
152.07	6.25	184.88	6.79	192.09	6.89	198.49	7	203.49	7.28
218.49	8	224.89	8.42	228.5	8.65	233.5	9	239.33	9.35
249.96	10	250.96	10.03	255.2	10.3	257.44	10.44	267.44	11

268.85	11.15	271.09	11.23	273.92	11.4	280.32	11.77	281.74	11.9
282.74	11.93	284.15	12	294.15	12.5	299.15	12.72		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	93.94	.055	152.07	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
93.94	152.07	29	29.7	31.14	.1	.3

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 174.5388

INPUT
Description:
Station Elevation Data num= 74

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	11.34	2.83	11	4.24	10.87	9.24	10.42	12.07	10.12
13.49	10	20.7	9.31	23.52	9	24.94	8.84	34.16	8.03
34.16	8.01	34.16	8	44.16	7.5	51.97	7.11	52.97	7.07
55.2	7	63.02	6.75	64.43	6.71	65.84	6.69	67.26	6.64
71.5	6.52	73.74	6.48	75.15	6.45	80.15	6.29	82.98	6.27
83.98	6.26	86.81	6.17	92.46	6.06	94.7	6.06	97.53	6.07
100.36	6.07	106.76	6.08	117.39	6	118.8	6	127.41	6
128.2	5.67	128.82	5.42	130.24	4.99	131.65	5.78	131.65	6
140.87	6	141.87	6	141.87	5.88	143.28	5.03	144.28	5
144.28	4.89	145.28	4.96	145.28	5	146.7	5.9	146.7	6
148.11	6.01	148.11	6.02	154.72	6.14	169.37	6.4	172.98	6.46
204.22	7	208.46	7.34	217.68	8	221.29	8.29	230.51	9
231.51	9.06	232.51	9.13	241.11	9.76	245.35	10	251.75	10.63
254.58	11	258.83	11.28	268.83	12	270.24	12.14	271.65	12.19
274.48	12.5	280.89	13	284.49	13.14	287.32	13.22		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	127.41	.055	148.11	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
127.41	148.11	22.66	23.34	24.08	.1	.3

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 151.1968

INPUT
Description:
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	11.91	4.24	11.44	7.85	11	12.09	10.65	19.9	10
21.32	9.85	24.14	9.55	30.55	9	33.38	8.74	40.45	8
45.45	7.7	50.45	7.38	54.69	7.11	56.93	7	71.79	6.43
75.4	6.32	78.23	6.22	79.64	6.17	80.64	6.15	81.64	6.13
85.88	6	88.12	5.99	92.36	5.98	95.19	5.98	98.02	5.97
100.25	5.96	110.15	5.95	111.15	5.95	126.77	5.98	133.84	6
139.5	6	140.5	6	140.5	5.93	141.5	5.88	143.74	5
143.74	4.9	145.15	5	145.15	5.14	146.57	6	150.81	6
155.81	6	155.81	5.33	157.22	5	157.22	4.89	158.22	4.79
159.22	4.92	159.22	5	160.22	5.69	161.22	5.94	161.22	6

```
  165.47    6.09  168.94    6.15  198.12    6.71  211.57    6.97  212.98       7
  223.61    7.68  228.61       8  230.03    8.11  232.86     8.3  242.86       9
  252.08    9.85  254.31      10  261.52   10.81  263.76      11  265.99   11.18
  268.82   11.41  275.23   11.98  275.23      12  284.45   12.57  290.85      13
  300.75   13.44  300.75   13.45  301.75   13.45  305.99   13.64  306.99   13.64
  308.41   13.71  310.64   13.77  310.64   13.78  312.06   13.79  312.06    13.8
  312.06   13.81  313.06   13.81  314.06   13.82  314.06   13.81  315.06   13.81
  316.06   13.81  318.88   13.73  321.71   13.66  322.71   13.66

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
       0    .045   139.5    .055  168.94    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         139.5  168.94               29   29.01      29             .1       .3

CROSS SECTION


RIVER: Actual_4
REACH: Actual_4           RS: 122.1893

INPUT
Description:
Station Elevation Data    num=      83
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
**********************************************************************************
       0   11.46    1.41   11.36    5.02      11   19.16   10.03   20.16      10
   21.58    9.88    30.8    9.05   32.21       9   32.21    8.95   33.62    8.77
   40.03    8.18   41.44       8   45.68    7.75   56.31       7   58.55    6.89
   80.48       6   86.89    5.98   89.71    5.97   93.96    5.95   98.96    5.94
   123.8    5.95   124.8    5.96   125.8    5.96   135.7    5.99  137.11       6
  138.52       6  140.07       6  140.76       6  142.17     5.1  142.17       5
  142.17    4.75  143.59       5  143.59    5.34     145       6     150       6
  154.24       6  155.24    5.35  156.24       5  156.24    4.85  156.24    4.75
  157.66       5  159.07       6  167.34    6.06   176.1    6.13   177.1    6.13
   178.1    6.13  187.32     6.2  187.32    6.21  188.74    6.21  192.98     6.3
  193.98    6.33  195.39    6.36  197.63    6.43  198.63    6.43  219.15       7
  231.95    7.92  233.37       8  237.61    8.31  239.85    8.44  242.68    8.69
   245.5    8.86  247.74       9  249.15    9.09  251.98     9.3  254.81    9.45
  257.64     9.6  259.88    9.77  261.29    9.83  264.12      10  266.95   10.28
  271.19   10.59  277.02      11  282.68   11.41  286.92   11.63  289.75   11.79
  293.35      12  299.01   12.26  300.42    12.3  301.42   12.33  305.03   12.47
  306.03   12.51  307.44   12.54  308.86   12.58

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
       0    .045  140.07    .055  159.07    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        140.07  159.07             16.96   16.96   17.69             .1       .3

CROSS SECTION


RIVER: Actual_4
REACH: Actual_4           RS: 105.2275

INPUT
Description:
Station Elevation Data    num=      65
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
**********************************************************************************
       0   10.46   11.31      10   12.31      10   20.12    9.49   25.78       9
   30.02    8.61   35.02    8.13   36.44    8.04   36.44       8   43.51    7.56
```

52.73	7	63.36	6.5	73.26	6	74.67	6	81.08	6
109.39	6	110.81	6	129.14	5.6	129.91	5.58	131.33	5.14
131.33	5.17	132.33	5	132.33	4.72	133.74	5	135.16	5.64
135.16	6	137.99	6	143.64	6	145.06	5.18	145.06	5
146.06	4.78	147.47	4.96	147.47	5	148.47	5.73	149.47	6
150.88	6.01	156.27	6.05	156.54	6.06	171.41	6.13	174.24	6.14
206.13	6.86	206.13	6.87	211.78	6.94	214.61	6.97	218.22	7
228.85	7.6	234.5	8	235.92	8.05	237.33	8.17	242.33	8.51
246.58	8.74	250.82	9	255.82	9.3	258.65	9.52	265.05	9.91
266.05	9.97	267.05	10	280.5	10.8	283.33	11	286.16	11.15
287.57	11.17	289.81	11.26	292.64	11.38	295.47	11.42	299.71	11.56

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	110.81	.055	156.27	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
110.81	156.27	28.32	29.73	30.41	.1	.3

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 75.49478

INPUT
Description:
Station Elevation Data num= 71

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	8.77	1.41	8.7	2.83	8.67	5.66	8.57	9.9	8.38
14.14	8.23	18.38	8	24.04	7.45	29.7	7	36.77	6.62
46.67	6	47.67	6	63.23	5.69	64.23	5.68	94.64	5.15
100.3	5.08	103.7	5.03	105.95	5	107.37	4.64	108.78	4.99
108.78	5	110.2	5.96	110.2	6	118.01	6	119.01	6
119.01	5.69	120.42	5	120.42	4.84	121.42	4.68	122.42	4.86
122.42	5	124.66	5.54	126.89	5.68	128.31	5.91	130.88	5.94
137.53	5.99	138.53	6	142.77	6.01	145.6	6.07	148.43	6.1
183.08	6.59	184.5	6.6	187.32	6.63	188.74	6.64	191.57	6.68
194.39	6.71	197.22	6.76	202.88	6.85	210.09	6.96	212.33	7
214.56	7.09	215.56	7.21	227.23	8	230.83	8.21	244.72	9
249.2	9.26	260.86	10	265.33	10.32	269.8	10.49	272.04	10.56
273.45	10.61	277.06	10.78	280.22	10.85	281.63	10.9	283.87	10.93
284.87	10.93	285.87	10.93	287.28	10.94	288.28	10.94	289.7	10.94
294.17	10.93								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	47.67	.055	130.88	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
47.67	130.88	23.34	22.67	21.25	.1	.3

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 52.82321

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	8.31	0	8.3	3.16	8.23	6.32	8.13	9.93	8

11.93	7.92	11.93	7.89	15.54	7.68	16.54	7.6	19.7	7.42
21.11	7.31	25.58	7	27.58	6.91	29.82	6.79	35.21	6.45
35.21	6.44	38.03	6.31	41.64	6.1	42.64	6.08	44.05	6
45.47	5.95	74.54	5.26	75.95	5.25	76.95	5.25	77.95	5.25
78.95	5.25	79.95	5.25	90.58	5.19	94.82	5.15	105.48	5.03
107.55	5	107.55	4.97	108.55	4.45	109.97	4.91	109.97	5
110.97	5.79	111.97	6	111.97	6.02	112.97	6.02	117.97	6.05
120.2	6.01	121.2	6.01	121.2	6	121.2	5.89	122.2	5
123.2	4.95	124.2	4.57	124.2	4.67	124.2	4.87	125.2	5
127.44	5.08	128.44	5.11	129.44	5.13	130.85	5.16	132.2	5.2
142.89	5.53	162	6	164.83	6.05	176.87	6.23	178.28	6.26
179.7	6.28	192.43	6.63	193.43	6.64	197.67	6.68	199.08	6.71
201.91	6.74	204.74	6.78	207.57	6.82	218.97	7	224.63	7.37
235.26	8	249.4	8.65	258.62	9	258.62	9.02	260.62	9.12
262.03	9.15	280.28	9.82	282.28	9.89	285.44	9.96	286.44	9.97
286.44	10	291.54	10.12	294.7	10.17	296.7	10.21	298.7	10.22
300.94	10.23	300.94	10.24	305.06	10.23	305.06	10.24	310.16	10.21
312.16	10.26								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	75.95	.055	132.2	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
75.95	132.2	12.72	12.86	15.55	.1	.3

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 39.96368

INPUT
Description:
Station Elevation Data num= 80

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	6.56	1.41	6.55	2.83	6.48	4.24	6.46	7.07	6.41
8.49	6.38	11.31	6.31	11.31	6.28	14.14	6.22	16.97	6.09
16.97	6.08	19.8	6	19.8	5.98	24.04	5.9	28.28	5.79
31.11	5.74	33.35	5.67	35.58	5.62	37	5.6	38.41	5.55
39.83	5.54	56.11	5.14	58.93	5.13	59.93	5.12	61.35	5.12
62.76	5.12	65.59	5.12	85.39	5	86.39	5	87.79	5
87.8	5	88.8	4.7	89.8	4.45	90.8	4.7	90.8	5
92.22	5.91	92.22	6	97.22	6	100.82	6	101.82	5.37
101.82	5	102.82	4.77	102.82	4.52	103.82	4.66	104.82	5
106.24	5.2	114.42	5.55	120.38	5.81	129.6	5.86	135.26	5.9
141.66	5.94	151.56	6	159.37	6.22	183.41	6.89	186.24	6.92
194.73	7	196.14	7.07	198.97	7.3	201.8	7.49	204.63	7.68
208.87	7.95	208.87	7.97	208.87	8	215.94	8.1	218.17	8.13
235.87	8.71	236.87	8.74	239.1	8.78	242.1	8.84	247.2	8.93
252.3	9	253.3	9	254.3	9	255.3	9	257.3	9
258.71	9	264.71	9.2	265.71	9.22	266.71	9.24	268.71	9.25

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	39.83	.055	114.42	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
39.83	114.42	9.21	10.8	9.89	.1	.3

CROSS SECTION

RIVER: Actual_4

REACH: Actual_4 RS: 29.15927

INPUT
Description:
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	6.82	1.41	6.81	3.65	6.78	5.06	6.75	8.67	6.66
11.5	6.6	15.1	6.51	16.52	6.44	22.35	6.33	23.76	6.27
25.18	6.23	30.18	6.1	30.18	6.09	33.01	6	34.01	5.97
35.01	5.97	37.24	5.91	38.24	5.9	41.07	5.81	42.48	5.8
43.48	5.79	46.31	5.73	49.14	5.66	51.38	5.59	54.98	5.51
61.39	5.37	62.8	5.34	64.21	5.31	65.21	5.28	67.45	5.25
68.87	5.23	71.1	5.2	76.76	5.05	81	5.03	82.41	5.03
83.83	5.03	86.07	5.03	91.07	5.03	95.31	5	96.72	5
102.38	5	104.61	5	107.44	5	108.17	4.96	108.44	4.94
109.44	4.43	110.44	4.67	111.44	5	112.44	5.37	113.44	5.52
114.44	5.71	117.27	5.74	119.51	5.71	120.92	5.44	121.92	5.4
122.92	5	124.34	4.49	125.75	5	127.16	5.35	127.16	5.36
128.58	5.62	128.58	5.67	134.24	5.73	134.9	5.74	135.65	5.74
137.06	5.75	175.27	6	178.1	6.09	180.93	6.17	193.66	6.63
204.97	6.92	207.8	7	215.61	7.37	217.85	7.48	220.08	7.61
222.91	7.76	225.74	7.87	227.15	8	247.67	8.33	247.67	8.34
249.09	8.36	250.5	8.37	253.33	8.47				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	51.38	.055	134.9	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
51.38	134.9	4.24	5.32	5.65	.1	.3

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 23.84281

INPUT
Description:
Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	6.2	5	6.14	6	6.12	12.4	6	21.62	5.89
23.86	5.86	24.86	5.86	27.69	5.79	29.1	5.79	30.1	5.79
32.93	5.74	33.93	5.74	34.93	5.73	36.34	5.69	39.17	5.67
41.41	5.61	43.64	5.6	44.64	5.58	46.06	5.54	51.72	5.45
53.13	5.41	54.54	5.36	64.44	5.18	65.44	5.16	65.44	5.15
68.27	5.1	69.27	5.09	72.1	5.05	73.51	5.01	76.34	5
79.17	5	83.41	5	85.65	5	89.89	5	91.31	5
92.72	5	94.14	5	95.14	5	98.74	5	104.82	5
105.14	5	105.14	4.61	105.14	4.42	106.56	4.78	106.56	5
111.56	5	117.22	5	117.22	4.7	118.63	4.45	118.63	4.55
120.04	5	121.46	5.3	123.69	5.53	130.67	5.62	153.43	5.88
159.83	5.93	171.14	6	172.56	6.09	178.96	6.3	195.24	6.92
198.07	7	210.11	7.48	220.74	8	229.96	8.16	237.03	8.25
244.84	8.31								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	54.54	.055	121.46	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
54.54	121.46	14.13	11.65	10.62	.1	.3

CROSS SECTION

RIVER: Actual_4
REACH: Actual_4 RS: 12.19474

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	5.72	3.61	5.66	7.85	5.56	10.08	5.53	12.32	5.5
17.32	5.42	18.73	5.41	19.73	5.39	21.15	5.38	22.56	5.34
27.56	5.34	28.98	5.33	29.98	5.3	31.39	5.3	34.22	5.26
35.22	5.25	40.88	5.17	41.88	5.15	45.48	5.1	49.09	5.04
51.32	5	61.32	5	62.32	5	78.14	5	83.79	5
85.21	5	86.62	5	90.86	5	93.69	5	96.52	5
96.52	4.96	97.93	4.38	98.93	4.7	99.93	5	100.38	5
108.42	5	111.25	5	111.25	4.77	112.66	4.39	112.66	4.75
113.66	5	115.08	5	117.31	5.23	126.84	5.36	149.14	5.65
153.38	5.74	164.7	5.95	167.52	5.99	167.52	6	189.46	6.93
190.87	7	209.26	7.72	216.33	8	224.14	8.12	230.54	8.17

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.045	51.32	.055	115.08	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
51.32	115.08	7.8	12.19	10.62	.1	.3

SUMMARY OF MANNING'S N VALUES

River:Actual_1

Reach	River Sta.	n1	n2	n3
Actual_1	2567.713	.045	.055	.045
Actual_1	2539.521	.045	.055	.045
Actual_1	2519.348	.045	.055	.045
Actual_1	2498.482	.045	.055	.045
Actual_1	2475.476	.045	.055	.045
Actual_1	2450.021	.045	.055	.045
Actual_1	2416.810	.045	.055	.045
Actual_1	2389.874	.045	.055	.045
Actual_1	2358.024	.045	.055	.045
Actual_1	2330.744	.045	.055	.045
Actual_1	2310.275	.045	.055	.045
Actual_1	2290.059	.045	.055	.045
Actual_1	2272.323	.045	.055	.045
Actual_1	2245.213	.045	.055	.045
Actual_1	2214.445	.045	.055	.045
Actual_1	2194.679	.045	.055	.045
Actual_1	2172.173	.045	.055	.045
Actual_1	2146.090	.045	.055	.045
Actual_1	2110.755	.045	.055	.045
Actual_1	2082.073	.045	.055	.045
Actual_1	2061.885	.045	.055	.045
Actual_1	2034.217	.045	.055	.045
Actual_1	2001.225	.045	.055	.045
Actual_1	1986.102	.045	.055	.045
Actual_1	1965.244	.045	.055	.045
Actual_1	1925.651	.045	.055	.045
Actual_1	1908.499	.045	.055	.045
Actual_1	1877.535	.045	.055	.045

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*Actual_1        *    1849.726    *     .045*     .055*     .045*
*Actual_1        *    1827.737    *     .045*     .055*     .045*
*Actual_1        *    1810.336    *     .045*     .055*     .045*
*Actual_1        *    1778.741    *     .045*     .055*     .045*
*Actual_1        *    1751.420    *     .045*     .055*     .045*
*Actual_1        *    1730.476    *     .045*     .055*     .045*
*Actual_1        *    1684.748    *     .045*     .055*     .045*
*Actual_1        *    1651.421    *     .045*     .055*     .045*
*Actual_1        *    1614.620    *     .045*     .055*     .045*
*Actual_1        *    1604.204    *     .045*     .055*     .045*
*Actual_1        *    1600        *Culvert  *        *        *
*Actual_1        *    1546.273    *     .045*     .055*     .045*
*Actual_1        *    1530        *Culvert  *        *        *
*Actual_1        *    1522.209    *     .045*      .02*     .045*
*Actual_1        *    1508.618    *     .045*      .02*     .045*
*Actual_1        *    1489.793    *     .045*      .02*     .045*
*Actual_1        *    1468.900    *     .045*      .02*     .045*
*Actual_1        *    1443.099    *     .045*      .02*     .045*
*Actual_1        *    1418.248    *     .045*      .02*     .045*
*Actual_1        *    1389.021    *     .045*      .02*     .045*
*Actual_1        *    1347.551    *     .045*      .02*     .045*
*Actual_1        *    1308.983    *     .045*      .02*     .045*
*Actual_1        *    1282.799    *     .045*     .055*     .045*
*Actual_1        *    1255.224    *     .045*     .055*     .045*
*Actual_1        *    1235.735    *     .045*     .055*     .045*
*Actual_1        *    1213.838    *     .045*     .055*     .045*
*Actual_1        *    1189.571    *     .045*     .055*     .045*
*Actual_1        *    1154.857    *     .045*     .055*     .045*
*Actual_1        *    1150        *Culvert  *        *        *
*Actual_1        *    1136.232    *     .045*     .055*     .045*
*Actual_1        *    1116.615    *     .045*     .055*     .045*
*Actual_1        *    1076.127    *     .045*     .055*     .045*
*Actual_1        *    1053.136    *     .045*     .055*     .045*
*Actual_1        *    1011.713    *     .045*     .055*     .045*
*Actual_1        *    982.4587    *     .045*     .055*     .045*
*Actual_1        *    949.6408    *     .045*     .055*     .045*
*Actual_1        *    927.2091    *     .045*     .055*     .045*
*Actual_1        *    915.5645    *     .045*     .055*     .045*
*Actual_1        *    905.6098    *     .045*     .055*     .045*
*Actual_1        *    886.7251    *     .045*     .055*     .045*
*Actual_1        *    870.6595    *     .045*     .055*     .045*
*Actual_1        *    849.4680    *     .045*     .055*     .045*
*Actual_1        *    829.0050    *     .045*     .055*     .045*
*Actual_1        *    802.7340    *     .045*     .055*     .045*
*Actual_1        *    778.2098    *     .045*     .055*     .045*
*Actual_1        *    754.9577    *     .045*     .055*     .045*
*Actual_1        *    732.7650    *     .045*     .055*     .045*
*Actual_1        *    699.8298    *     .045*     .055*     .045*
*Actual_1        *    670.8853    *     .045*     .055*     .045*
*Actual_1        *    643.7293    *     .045*     .055*     .045*
*Actual_1        *    627.1081    *     .045*     .055*     .045*
*Actual_1        *    595.2490    *     .045*     .055*     .045*
*Actual_1        *    585.0177    *     .045*     .055*     .045*
*Actual_1        *    569.7507    *     .045*     .055*     .045*
*Actual_1        *    560         *Culvert  *        *        *
*Actual_1        *    552.0597    *     .045*     .055*     .045*
*Actual_1        *    544.8601    *     .045*     .055*     .045*
*Actual_1        *    540         *Culvert  *        *        *
*Actual_1        *    529.9171    *     .045*     .055*     .045*
*Actual_1        *    507.1692    *     .045*     .055*     .045*
*Actual_1        *    480.6490    *     .045*     .055*     .045*
*Actual_1        *    451.3865    *     .045*     .055*     .045*
*Actual_1        *    420.2550    *     .045*     .055*     .045*
*Actual_1        *    385.2368    *     .045*     .055*     .045*
*Actual_1        *    353.1833    *     .045*     .055*     .045*
*Actual_1        *    326.0251    *     .045*     .055*     .045*
*Actual_1        *    297.1317    *     .045*     .055*     .045*
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*Actual_1        *    265.4205    *     .045*     .055*     .045*
*Actual_1        *    229.9372    *     .045*     .055*     .045*
*Actual_1        *    184.8676    *     .045*     .055*     .045*
*Actual_1        *    123.7851    *     .045*     .055*     .045*
*Actual_1        *    95.36573    *     .045*     .055*     .045*
*Actual_1        *    60          *Culvert  *        *        *
*Actual_1        *    49.98656    *     .045*     .055*     .045*
*****************************************************************

River:Actual_2
*****************************************************************
*     Reach      *   River Sta.   *   n1    *   n2    *   n3    *
*****************************************************************
*Actual_2        *    871.0108    *     .045*     .055*     .045*
*Actual_2        *    860.5756    *     .045*     .055*     .045*
*Actual_2        *    849.1740    *     .045*     .055*     .045*
*Actual_2        *    834.6162    *     .045*     .055*     .045*
*Actual_2        *    824.4382    *     .045*     .055*     .045*
*Actual_2        *    810.8468    *     .045*     .055*     .045*
*Actual_2        *    787.0773    *     .045*     .055*     .045*
*Actual_2        *    775.6758    *     .045*     .055*     .045*
*Actual_2        *    764.2742    *     .045*     .055*     .045*
*Actual_2        *    736.3858    *     .045*     .055*     .045*
*Actual_2        *    717.1134    *     .045*     .055*     .045*
*Actual_2        *    693.7692    *     .045*     .055*     .045*
*Actual_2        *    683.8718    *     .045*     .055*     .045*
*Actual_2        *    663.3554    *     .045*     .055*     .045*
*Actual_2        *    646.3886    *     .045*     .055*     .045*
*Actual_2        *    620.9087    *     .045*     .055*     .045*
*Actual_2        *    598.2863    *     .045*     .055*     .045*
*Actual_2        *    577.0777    *     .045*     .055*     .045*
*Actual_2        *    565.0447    *     .045*     .055*     .045*
*Actual_2        *    553.7349    *     .045*     .055*     .045*
*Actual_2        *    534.6314    *     .045*     .055*     .045*
*Actual_2        *    509.1368    *     .045*     .055*     .045*
*Actual_2        *    485.0546    *     .045*     .055*     .045*
*Actual_2        *    460.9725    *     .045*     .055*     .045*
*Actual_2        *    441.8690    *     .045*     .055*     .045*
*Actual_2        *    418.5280    *     .045*     .055*     .045*
*Actual_2        *    395.8584    *     .045*     .055*     .045*
*Actual_2        *    373.1887    *     .045*     .055*     .045*
*Actual_2        *    354.0852    *     .045*     .055*     .045*
*Actual_2        *    332.3934    *     .045*     .055*     .045*
*Actual_2        *    309.0579    *     .045*     .055*     .045*
*Actual_2        *    295.7206    *     .045*     .055*     .045*
*Actual_2        *    274.3449    *     .045*     .055*     .045*
*Actual_2        *    252.7693    *     .045*     .055*     .045*
*Actual_2        *    230.4201    *     .045*     .055*     .045*
*Actual_2        *    207.6205    *     .045*     .055*     .045*
*Actual_2        *    182.8820    *     .045*     .055*     .045*
*Actual_2        *    163.2360    *     .045*     .055*     .045*
*Actual_2        *    137.5280    *     .045*     .055*     .045*
*Actual_2        *    113.7589    *     .045*     .055*     .045*
*Actual_2        *    96.29712    *     .045*     .055*     .045*
*Actual_2        *    78.83528    *     .045*     .055*     .045*
*Actual_2        *    70.34394    *     .045*     .055*     .045*
*Actual_2        *    57.00518    *     .045*     .055*     .045*
*Actual_2        *    40.22435    *     .045*     .055*     .045*
*Actual_2        *    23.02103    *     .045*     .055*     .045*
*****************************************************************

River:Actual_3
*****************************************************************
*     Reach      *   River Sta.   *   n1    *   n2    *   n3    *
*****************************************************************
*Actual_3        *    1280.230    *     .045*     .055*     .045*
*Actual_3        *    1260.467    *     .045*     .055*     .045*
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*Actual_3        *    1252.359    *     .045*     .055*     .045*
*Actual_3        *    1252        *Culvert  *        *        *
*Actual_3        *    1246.332    *     .045*     .055*     .045*
*Actual_3        *    1233.448    *     .045*     .055*     .045*
*Actual_3        *    1225.351    *     .045*     .055*     .045*
*Actual_3        *    1209.658    *     .045*     .055*     .045*
*Actual_3        *    1196.446    *     .045*     .055*     .045*
*Actual_3        *    1188.626    *     .045*     .055*     .045*
*Actual_3        *    1182.406    *     .045*     .055*     .045*
*Actual_3        *    1173.979    *     .045*     .055*     .045*
*Actual_3        *    1162.626    *     .045*     .055*     .045*
*Actual_3        *    1155.802    *     .045*     .055*     .045*
*Actual_3        *    1155        *Culvert  *        *        *
*Actual_3        *    1148.600    *     .045*     .055*     .045*
*Actual_3        *    1138.802    *     .045*     .055*     .045*
*Actual_3        *    1125.665    *     .045*     .055*     .045*
*Actual_3        *    1117.522    *     .045*     .055*     .045*
*Actual_3        *    1109.291    *     .045*     .055*     .045*
*Actual_3        *    1109        *Culvert  *        *        *
*Actual_3        *    1101.019    *     .045*     .055*     .045*
*Actual_3        *    1085.906    *     .045*     .055*     .045*
*Actual_3        *    1056.343    *     .045*     .055*     .045*
*Actual_3        *    1043.356    *     .045*     .055*     .045*
*Actual_3        *    1043        *Culvert  *        *        *
*Actual_3        *    1031.056    *     .045*     .055*     .045*
*Actual_3        *    1010.819    *     .045*     .055*     .045*
*Actual_3        *    992.5541    *     .045*     .055*     .045*
*Actual_3        *    973.4102    *     .045*     .055*     .045*
*Actual_3        *    956.1785    *     .045*     .055*     .045*
*Actual_3        *    939.5976    *     .045*     .055*     .045*
*Actual_3        *    924.0465    *     .045*     .055*     .045*
*Actual_3        *    905.9035    *     .045*     .055*     .045*
*Actual_3        *    892.0765    *     .045*     .055*     .045*
*Actual_3        *    863.8566    *     .045*     .055*     .045*
*Actual_3        *    841.2441    *     .045*     .055*     .045*
*Actual_3        *    823.8461    *     .045*     .055*     .045*
*Actual_3        *    800.4541    *     .045*     .055*     .045*
*Actual_3        *    779.2239    *     .045*     .055*     .045*
*Actual_3        *    756.6484    *     .045*     .055*     .045*
*Actual_3        *    733.8605    *     .045*     .055*     .045*
*Actual_3        *    712.7758    *     .045*     .055*     .045*
*Actual_3        *    693.0193    *     .045*     .055*     .045*
*Actual_3        *    675.6385    *     .045*     .055*     .045*
*Actual_3        *    655.9124    *     .045*     .055*     .045*
*Actual_3        *    634.7860    *     .045*     .055*     .045*
*Actual_3        *    617.5754    *     .045*     .055*     .045*
*Actual_3        *    596.9457    *     .045*     .055*     .045*
*Actual_3        *    573.3445    *     .045*     .055*     .045*
*Actual_3        *    556.2210    *     .045*     .055*     .045*
*Actual_3        *    537.8052    *     .045*     .055*     .045*
*Actual_3        *    522.5513    *     .045*     .055*     .045*
*Actual_3        *    510.6633    *     .045*     .055*     .045*
*Actual_3        *    496.5821    *     .045*     .055*     .045*
*Actual_3        *    483.0792    *     .045*     .055*     .045*
*Actual_3        *    472.1636    *     .045*     .055*     .045*
*Actual_3        *    456.9867    *     .045*     .055*     .045*
*Actual_3        *    446.1882    *     .045*     .055*     .045*
*Actual_3        *    435.5890    *     .045*     .055*     .045*
*Actual_3        *    418.5032    *     .045*     .055*     .045*
*Actual_3        *    405.4106    *     .045*     .055*     .045*
*Actual_3        *    393.9341    *     .045*     .055*     .045*
*Actual_3        *    380.8281    *     .045*     .055*     .045*
*Actual_3        *    356.8988    *     .045*     .055*     .045*
*Actual_3        *    325.9584    *     .045*     .055*     .045*
*Actual_3        *    295.8183    *     .045*     .055*     .045*
*Actual_3        *    273.7013    *     .045*     .055*     .045*
*Actual_3        *    253.4211    *     .045*     .055*     .045*
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*Actual_3        *    229.0900    *     .045*     .055*     .045*
*Actual_3        *    203.8620    *     .045*     .055*     .045*
*Actual_3        *    180.4265    *     .045*     .055*     .045*
*Actual_3        *    160.5738    *     .045*     .055*     .045*
*Actual_3        *    138.6799    *     .045*     .055*     .045*
*Actual_3        *    118.8793    *     .045*     .055*     .045*
*Actual_3        *    101.2603    *     .045*     .055*     .045*
*Actual_3        *    80.15922    *     .045*     .055*     .045*
*Actual_3        *    63.19227    *     .045*     .055*     .045*
*Actual_3        *    44.66612    *     .045*     .055*     .045*
*****************************************************************

River:Actual_4
*****************************************************************
*     Reach      *   River Sta.   *   n1    *   n2    *   n3    *
*****************************************************************
*Actual_4        *    1666.697    *     .045*     .055*     .045*
*Actual_4        *    1631.588    *     .045*     .055*     .045*
*Actual_4        *    1599.279    *     .045*     .055*     .045*
*Actual_4        *    1560.274    *     .045*     .055*     .045*
*Actual_4        *    1517.321    *     .045*     .055*     .045*
*Actual_4        *    1481.412    *     .045*     .055*     .045*
*Actual_4        *    1442.926    *     .045*     .055*     .045*
*Actual_4        *    1401.006    *     .045*     .055*     .045*
*Actual_4        *    1365.778    *     .045*     .055*     .045*
*Actual_4        *    1334.156    *     .045*     .055*     .045*
*Actual_4        *    1307.752    *     .045*     .055*     .045*
*Actual_4        *    1277.920    *     .045*     .055*     .045*
*Actual_4        *    1245.558    *     .045*     .055*     .045*
*Actual_4        *    1224.148    *     .045*     .055*     .045*
*Actual_4        *    1190.718    *     .045*     .055*     .045*
*Actual_4        *    1169.459    *     .045*     .055*     .045*
*Actual_4        *    1140.498    *     .045*     .055*     .045*
*Actual_4        *    1114.789    *     .045*     .055*     .045*
*Actual_4        *    1095.376    *     .045*     .055*     .045*
*Actual_4        *    1075.926    *     .045*     .055*     .045*
*Actual_4        *    1049.753    *     .045*     .055*     .045*
*Actual_4        *    1013.742    *     .045*     .055*     .045*
*Actual_4        *    985.2877    *     .045*     .055*     .045*
*Actual_4        *    958.5618    *     .045*     .055*     .045*
*Actual_4        *    933.9658    *     .045*     .055*     .045*
*Actual_4        *    909.3698    *     .045*     .055*     .045*
*Actual_4        *    877.0899    *     .045*     .055*     .045*
*Actual_4        *    857.4481    *     .045*     .055*     .045*
*Actual_4        *    841.6505    *     .045*     .055*     .045*
*Actual_4        *    841         *Culvert  *        *        *
*Actual_4        *    811.2636    *     .045*     .055*     .045*
*Actual_4        *    784.6932    *     .045*     .055*     .045*
*Actual_4        *    751.5314    *     .045*     .055*     .045*
*Actual_4        *    739.0021    *     .045*     .055*     .045*
*Actual_4        *    719.7668    *     .045*     .055*     .045*
*Actual_4        *    719         *Culvert  *        *        *
*Actual_4        *    693.5987    *     .045*     .055*     .045*
*Actual_4        *    663.5455    *     .045*     .055*     .045*
*Actual_4        *    640.5283    *     .045*     .055*     .045*
*Actual_4        *    622.4961    *     .045*     .055*     .045*
*Actual_4        *    588.4816    *     .045*     .055*     .045*
*Actual_4        *    569.4819    *     .045*     .055*     .045*
*Actual_4        *    551.4819    *     .045*     .055*     .045*
*Actual_4        *    543.2019    *     .045*     .055*     .045*
*Actual_4        *    529.6032    *     .045*     .055*     .045*
*Actual_4        *    529         *Bridge   *        *        *
*Actual_4        *    516.8986    *     .045*     .055*     .045*
*Actual_4        *    498.0395    *     .045*     .055*     .045*
*Actual_4        *    480.5480    *     .045*     .055*     .045*
*Actual_4        *    463.8804    *     .045*     .055*     .045*
*Actual_4        *    447.4822    *     .045*     .055*     .045*
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*Actual_4	* 447	*Culvert *	*	*
*Actual_4	* 438.2866	* .045*	.055*	.045*
*Actual_4	* 428.8812	* .045*	.055*	.045*
*Actual_4	* 399.6586	* .045*	.055*	.045*
*Actual_4	* 373.7445	* .045*	.055*	.045*
*Actual_4	* 346.5426	* .045*	.055*	.045*
*Actual_4	* 333.5228	* .045*	.055*	.045*
*Actual_4	* 333	*Culvert *	*	*
*Actual_4	* 327.2853	* .045*	.055*	.045*
*Actual_4	* 317.3868	* .045*	.055*	.045*
*Actual_4	* 317	*Bridge *	*	*
*Actual_4	* 295.4587	* .045*	.055*	.045*
*Actual_4	* 252.3185	* .045*	.055*	.045*
*Actual_4	* 232.5208	* .045*	.055*	.045*
*Actual_4	* 204.2365	* .045*	.055*	.045*
*Actual_4	* 174.5388	* .045*	.055*	.045*
*Actual_4	* 151.1968	* .045*	.055*	.045*
*Actual_4	* 122.1893	* .045*	.055*	.045*
*Actual_4	* 105.2275	* .045*	.055*	.045*
*Actual_4	* 75.49478	* .045*	.055*	.045*
*Actual_4	* 52.82321	* .045*	.055*	.045*
*Actual_4	* 39.96368	* .045*	.055*	.045*
*Actual_4	* 29.15927	* .045*	.055*	.045*
*Actual_4	* 23.84281	* .045*	.055*	.045*
*Actual_4	* 12.19474	* .045*	.055*	.045*

SUMMARY OF REACH LENGTHS

River: Actual_1

Reach	River Sta.	Left	Channel	Right
*Actual_1	* 2567.713	* 29.38*	28.2*	27.92*
*Actual_1	* 2539.521	* 19.61*	20.32*	23.48*
*Actual_1	* 2519.348	* 20.98*	20.85*	18.57*
*Actual_1	* 2498.482	* 21.34*	23.01*	23.17*
*Actual_1	* 2475.476	* 26.16*	25.45*	28.12*
*Actual_1	* 2450.021	* 30.79*	33.21*	37.63*
*Actual_1	* 2416.810	* 26.58*	26.94*	26.62*
*Actual_1	* 2389.874	* 32.92*	31.85*	31.16*
*Actual_1	* 2358.024	* 26.59*	27.28*	24.44*
*Actual_1	* 2330.744	* 22.54*	20.47*	18.91*
*Actual_1	* 2310.275	* 18.79*	20.22*	21.44*
*Actual_1	* 2290.059	* 17.7*	17.74*	18.25*
*Actual_1	* 2272.323	* 26.3*	27.08*	25.48*
*Actual_1	* 2245.213	* 26.73*	30.8*	31.1*
*Actual_1	* 2214.445	* 14.57*	19.75*	30.45*
*Actual_1	* 2194.679	* 22.39*	22.51*	24.19*
*Actual_1	* 2172.173	* 24.52*	26.08*	25.3*
*Actual_1	* 2146.090	* 32.83*	35.37*	35.53*
*Actual_1	* 2110.755	* 28.99*	28.63*	25.02*
*Actual_1	* 2082.073	* 20.17*	20.19*	15.63*
*Actual_1	* 2061.885	* 28.7*	27.66*	28.13*
*Actual_1	* 2034.217	* 32.85*	33.02*	35.76*
*Actual_1	* 2001.225	* 11.56*	15.14*	21.25*
*Actual_1	* 1986.102	* 17.29*	20.89*	21.66*
*Actual_1	* 1965.244	* 36.68*	39.59*	39.3*
*Actual_1	* 1925.651	* 19.67*	17.15*	11.77*
*Actual_1	* 1908.499	* 31.02*	30.96*	29.39*
*Actual_1	* 1877.535	* 30.88*	27.81*	25.78*
*Actual_1	* 1849.726	* 20.66*	21.99*	21.43*
*Actual_1	* 1827.737	* 18.65*	17.4*	17.34*
*Actual_1	* 1810.336	* 26.48*	31.59*	35.36*
*Actual_1	* 1778.741	* 23.21*	27.32*	31.94*

*Actual_1	*	1751.420	*	21.2*	20.94*	19.52*
*Actual_1	*	1730.476	*	47.49*	45.73*	43.74*
*Actual_1	*	1684.748	*	36.09*	33.33*	31.5*
*Actual_1	*	1651.421	*	34.68*	36.8*	38.03*
*Actual_1	*	1614.620	*	12.42*	10.41*	9.02*
*Actual_1	*	1604.204	*	68.84*	80.95*	73.89999*
*Actual_1	*	1600	*Culvert	*	*	*
*Actual_1	*	1546.273	*	18.65*	24.165*	18.183*
*Actual_1	*	1530	*Culvert	*	*	*
*Actual_1	*	1522.209	*	3.423*	13.485*	16.228*
*Actual_1	*	1508.618	*	20.09*	18.82*	18.91*
*Actual_1	*	1489.793	*	20.84*	20.9*	21.52*
*Actual_1	*	1468.900	*	25.93*	25.8*	25.59*
*Actual_1	*	1443.099	*	24.75*	24.85*	24.93*
*Actual_1	*	1418.248	*	29.59*	29.23*	28.89*
*Actual_1	*	1389.021	*	40.99*	41.47*	41.36*
*Actual_1	*	1347.551	*	38.26*	38.57*	37.49*
*Actual_1	*	1308.983	*	26.14*	26.19*	26*
*Actual_1	*	1282.799	*	27.74*	27.57*	27.21*
*Actual_1	*	1255.224	*	19.43*	19.49*	19.51*
*Actual_1	*	1235.735	*	21.97*	21.9*	21.93*
*Actual_1	*	1213.838	*	24.44*	24.27*	23.92*
*Actual_1	*	1189.571	*	34.84*	34.72*	34.62*
*Actual_1	*	1154.857	*	19.39*	18.62*	17.8*
*Actual_1	*	1150	*Culvert	*	*	*
*Actual_1	*	1136.232	*	21.77*	19.62*	16.49*
*Actual_1	*	1116.615	*	40.94*	40.49*	39.88*
*Actual_1	*	1076.127	*	18.49*	22.99*	29.33*
*Actual_1	*	1053.136	*	37.35*	41.42*	29.13*
*Actual_1	*	1011.713	*	38.13*	29.25*	15.34*
*Actual_1	*	982.4587	*	30.97*	32.8*	18.23*
*Actual_1	*	949.6408	*	14.91*	22.46*	27.78*
*Actual_1	*	927.2091	*	12.61*	11.65*	11.14*
*Actual_1	*	915.5645	*	6.96*	9.95*	12.29*
*Actual_1	*	905.6098	*	13.29*	18.89*	21.84*
*Actual_1	*	886.7251	*	13.94*	16.07*	17.54*
*Actual_1	*	870.6595	*	20.47*	21.2*	19.26*
*Actual_1	*	849.4680	*	22.5*	20.43*	19.73*
*Actual_1	*	829.0050	*	24.53*	26.27*	28.81*
*Actual_1	*	802.7340	*	21.47*	24.53*	25.16*
*Actual_1	*	778.2098	*	25.18*	23.25*	19.75*
*Actual_1	*	754.9577	*	22.18*	22.19*	22.15*
*Actual_1	*	732.7650	*	33.25*	32.9*	32.46*
*Actual_1	*	699.8298	*	28.94*	28.86*	28.7*
*Actual_1	*	670.8853	*	26.74*	27.16*	27.71*
*Actual_1	*	643.7293	*	16.69*	16.62*	16.48*
*Actual_1	*	627.1081	*	31.76*	31.86*	31.91*
*Actual_1	*	595.2490	*	10.82*	10.23*	10.02*
*Actual_1	*	585.0177	*	8.34*	15.27*	22.96*
*Actual_1	*	569.7507	*	10.97*	17.69*	12.74*
*Actual_1	*	560	*Culvert	*	*	*
*Actual_1	*	552.0597	*	16.76*	7.2*	6.75*
*Actual_1	*	544.8601	*	16*	14.94*	6.34*
*Actual_1	*	540	*Culvert	*	*	*
*Actual_1	*	529.9171	*	19.71*	22.75*	18.84*
*Actual_1	*	507.1692	*	25.5*	26.52*	24.42*
*Actual_1	*	480.6490	*	27.87*	29.26*	31.15*
*Actual_1	*	451.3865	*	30.11*	31.14*	32.59*
*Actual_1	*	420.2550	*	35.37*	35.01*	34.63*
*Actual_1	*	385.2368	*	31.47*	32.05*	32.66*
*Actual_1	*	353.1833	*	27.18*	27.17*	24.65*
*Actual_1	*	326.0251	*	28.76*	28.89*	26.55*
*Actual_1	*	297.1317	*	38.24*	31.72*	23.82*
*Actual_1	*	265.4205	*	42.37*	35.49*	24.56*
*Actual_1	*	229.9372	*	29.06*	45.07*	39.28*
*Actual_1	*	184.8676	*	44.29*	61.08*	69.21*
*Actual_1	*	123.7851	*	27.65*	28.39*	29.44*

Actual_1	95.36573	45.68	45.42	45.24
Actual_1	60	Culvert		
Actual_1	49.98656	50.11	46	44.46

River: Actual_2

Reach	River Sta.	Left	Channel	Right
Actual_2	871.0108	11.4	10.44	9.21
Actual_2	860.5756	11.4	11.4	11.4
Actual_2	849.1740	14.56	14.56	14.56
Actual_2	834.6162	11.4	10.18	10.18
Actual_2	824.4382	13.6	13.59	12.62
Actual_2	810.8468	21.84	23.77	25.7
Actual_2	787.0773	11.4	11.4	10.18
Actual_2	775.6758	11.4	11.4	13.34
Actual_2	764.2742	18.87	27.89	39.86
Actual_2	736.3858	13.45	19.27	27.63
Actual_2	717.1134	21.34	23.34	25.44
Actual_2	693.7692	11.96	9.9	9.9
Actual_2	683.8718	20.59	20.52	19.1
Actual_2	663.3554	17.02	16.97	18.38
Actual_2	646.3886	21.18	25.48	29.73
Actual_2	620.9087	21.26	22.62	24.76
Actual_2	598.2863	24.08	21.21	16.28
Actual_2	577.0777	11.29	12.03	14.86
Actual_2	565.0447	10.63	11.31	12.72
Actual_2	553.7349	17.69	19.1	19.79
Actual_2	534.6314	26.24	25.5	24.07
Actual_2	509.1368	23.34	24.08	24.76
Actual_2	485.0546	24.2	24.08	24.03
Actual_2	460.9725	17.8	19.1	21.25
Actual_2	441.8690	22.2	23.34	22.62
Actual_2	418.5280	21.4	22.67	24.76
Actual_2	395.8584	24.2	22.67	23.34
Actual_2	373.1887	16.4	19.1	21.25
Actual_2	354.0852	19.04	21.69	25.62
Actual_2	332.3934	21.59	23.33	23.76
Actual_2	309.0579	13.12	13.34	14.32
Actual_2	295.7206	20.61	21.38	21.59
Actual_2	274.3449	20.61	21.58	22.56
Actual_2	252.7693	22.34	22.35	22.56
Actual_2	230.4201	22.56	22.8	22.56
Actual_2	207.6205	25.71	24.74	25.71
Actual_2	182.8820	18.44	19.65	19.41
Actual_2	163.2360	25.71	25.71	25.71
Actual_2	137.5280	23.54	23.77	23.53
Actual_2	113.7589	17.46	17.46	17.46
Actual_2	96.29712	17.46	17.46	17.46
Actual_2	78.83528	9.22	8.49	9.22
Actual_2	70.34394	12.15	13.34	14.48
Actual_2	57.00518	18.58	16.78	14.42
Actual_2	40.22435	20.51	17.2	15.81
Actual_2	23.02103	24.04	23.02	19.42

River: Actual_3

Reach	River Sta.	Left	Channel	Right
Actual_3	1280.230	21	19.76	19.45
Actual_3	1260.467	8.99	8.11	8.16
Actual_3	1252.359	7.61	6.03	6.94
Actual_3	1252	Culvert		
Actual_3	1246.332	9.51	12.88	17.04
Actual_3	1233.448	3.48	8.1	7.56

*Actual_3	*	1225.351	*	13.89*	15.69*	16.57*
*Actual_3	*	1209.658	*	10.72*	13.21*	14.96*
*Actual_3	*	1196.446	*	8.07*	7.82*	7.15*
*Actual_3	*	1188.626	*	6.65*	6.22*	5.64*
*Actual_3	*	1182.406	*	10.9*	8.43*	9.6*
*Actual_3	*	1173.979	*	10.63*	11.35*	10.78*
*Actual_3	*	1162.626	*	4.75*	6.82*	5.56*
*Actual_3	*	1155.802	*	7.38*	7.2*	7.09*
*Actual_3	*	1155	*Culvert	*	*	*
*Actual_3	*	1148.600	*	8.05*	9.8*	12.46*
*Actual_3	*	1138.802	*	13.66*	13.14*	11.71*
*Actual_3	*	1125.665	*	12.05*	8.14*	4.98*
*Actual_3	*	1117.522	*	12.94*	8.23*	6.82*
*Actual_3	*	1109.291	*	7.09*	8.27*	5.55*
*Actual_3	*	1109	*Culvert	*	*	*
*Actual_3	*	1101.019	*	12.35*	15.11*	11.95*
*Actual_3	*	1085.906	*	15.34*	29.56*	10.9*
*Actual_3	*	1056.343	*	13.54*	12.99*	13.09*
*Actual_3	*	1043.356	*	19.83*	12.3*	17.45*
*Actual_3	*	1043	*Culvert	*	*	*
*Actual_3	*	1031.056	*	21.2*	20.24*	20.04*
*Actual_3	*	1010.819	*	16.82*	18.26*	16.73*
*Actual_3	*	992.5541	*	20.04*	19.14*	17.11*
*Actual_3	*	973.4102	*	15.51*	17.23*	21.3*
*Actual_3	*	956.1785	*	11.26*	16.58*	18.25*
*Actual_3	*	939.5976	*	11.84*	15.55*	16.41*
*Actual_3	*	924.0465	*	20.19*	18.14*	10.32*
*Actual_3	*	905.9035	*	11.63*	13.83*	18.25*
*Actual_3	*	892.0765	*	26.73*	28.22*	28.57*
*Actual_3	*	863.8566	*	25.03*	22.61*	19.31*
*Actual_3	*	841.2441	*	18.78*	17.4*	15.44*
*Actual_3	*	823.8461	*	25.68*	23.39*	19.41*
*Actual_3	*	800.4541	*	23.09*	21.23*	17.67*
*Actual_3	*	779.2239	*	24.14*	22.58*	16.52*
*Actual_3	*	756.6484	*	24.71*	22.79*	17.55*
*Actual_3	*	733.8605	*	22.43*	21.08*	18.52*
*Actual_3	*	712.7758	*	21.47*	19.76*	18.07*
*Actual_3	*	693.0193	*	11.12*	17.38*	19.85*
*Actual_3	*	675.6385	*	18.86*	19.73*	19.93*
*Actual_3	*	655.9124	*	20.88*	21.13*	21.43*
*Actual_3	*	634.7860	*	20.01*	17.21*	17.89*
*Actual_3	*	617.5754	*	22.93*	20.63*	24.32*
*Actual_3	*	596.9457	*	24.11*	23.6*	22.15*
*Actual_3	*	573.3445	*	12.87*	17.12*	16.14*
*Actual_3	*	556.2210	*	13.4*	18.42*	18.8*
*Actual_3	*	537.8052	*	11.98*	15.25*	16.66*
*Actual_3	*	522.5513	*	11.29*	11.89*	12.77*
*Actual_3	*	510.6633	*	12.58*	14.08*	14.95*
*Actual_3	*	496.5821	*	13.43*	13.5*	13.18*
*Actual_3	*	483.0792	*	9.88*	10.92*	11.49*
*Actual_3	*	472.1636	*	15.84*	15.18*	14.18*
*Actual_3	*	456.9867	*	6.25*	10.8*	10.88*
*Actual_3	*	446.1882	*	7.99*	10.6*	8.78*
*Actual_3	*	435.5890	*	12.79*	17.09*	19.87*
*Actual_3	*	418.5032	*	13.01*	13.09*	12.42*
*Actual_3	*	405.4106	*	12.02*	11.48*	9.99*
*Actual_3	*	393.9341	*	13.24*	13.11*	12.43*
*Actual_3	*	380.8281	*	23.52*	23.93*	24.04*
*Actual_3	*	356.8988	*	31.96*	30.94*	29.42*
*Actual_3	*	325.9584	*	32.96*	30.14*	26.59*
*Actual_3	*	295.8183	*	22.84*	22.12*	21.62*
*Actual_3	*	273.7013	*	20.31*	20.28*	20.67*
*Actual_3	*	253.4211	*	28.9*	24.33*	20.13*
*Actual_3	*	229.0900	*	22.91*	25.23*	27.56*
*Actual_3	*	203.8620	*	24.2*	23.43*	22.47*
*Actual_3	*	180.4265	*	20.87*	19.85*	18.62*
*Actual_3	*	160.5738	*	22.32*	21.89*	21.38*

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*Actual_3        *    138.6799    *     20.7*     19.8*    18.75*
*Actual_3        *    118.8793    *    18.05*    17.62*    17.12*
*Actual_3        *    101.2603    *    21.67*     21.1*    20.41*
*Actual_3        *    80.15922    *    16.59*    16.97*     17.4*
*Actual_3        *    63.19227    *    18.59*    18.53*    18.43*
*Actual_3        *    44.66612    *    30.01*    44.67*    44.11*
*******************************************************************

River: Actual_4
*******************************************************************
*     Reach      *   River Sta.   *  Left   * Channel *  Right  *
*******************************************************************
*Actual_4        *    1666.697    *    37.12*    35.11*    35.47*
*Actual_4        *    1631.588    *     31.3*    32.31*    33.24*
*Actual_4        *    1599.279    *    37.57*    39.01*    43.65*
*Actual_4        *    1560.274    *    35.78*    42.95*    46.24*
*Actual_4        *    1517.321    *     31.3*    35.91*    45.88*
*Actual_4        *    1481.412    *     36.9*    38.49*    43.16*
*Actual_4        *    1442.926    *     42.8*    41.92*    41.11*
*Actual_4        *    1401.006    *    34.82*    35.23*    32.65*
*Actual_4        *    1365.778    *    33.42*    31.62*    29.83*
*Actual_4        *    1334.156    *     27.8*     26.4*    24.08*
*Actual_4        *    1307.752    *    29.99*    29.83*    27.66*
*Actual_4        *    1277.920    *    33.61*    32.36*    27.01*
*Actual_4        *    1245.558    *    23.02*    21.41*    21.26*
*Actual_4        *    1224.148    *    23.59*    33.43*    41.11*
*Actual_4        *    1190.718    *    21.25*    21.26*    22.02*
*Actual_4        *    1169.459    *    19.92*    28.96*     36.4*
*Actual_4        *    1140.498    *    19.92*    25.71*    30.08*
*Actual_4        *    1114.789    *     11.4*    19.41*    23.08*
*Actual_4        *    1095.376    *    14.62*    19.45*    24.61*
*Actual_4        *    1075.926    *    19.24*    26.17*    31.15*
*Actual_4        *    1049.753    *    34.37*    36.01*    40.64*
*Actual_4        *    1013.742    *    27.45*    28.45*    27.86*
*Actual_4        *    985.2877    *    28.13*    26.73*    27.86*
*Actual_4        *    958.5618    *    23.61*     24.6*    23.41*
*Actual_4        *    933.9658    *     27.3*     24.6*    23.41*
*Actual_4        *    909.3698    *    34.17*    32.28*    26.92*
*Actual_4        *    877.0899    *    20.61*    19.64*    19.31*
*Actual_4        *    857.4481    *    16.16*     15.8*    14.86*
*Actual_4        *    841.6505    *    30.08*    30.39*    31.02*
*Actual_4        *    841         *Culvert  *         *         *
*Actual_4        *    811.2636    *    27.67*    26.57*    27.86*
*Actual_4        *    784.6932    *    29.71*    33.16*    33.24*
*Actual_4        *    751.5314    *    12.07*    12.53*    12.99*
*Actual_4        *    739.0021    *     21.5*    19.24*    20.25*
*Actual_4        *    719.7668    *    26.02*    26.17*    25.63*
*Actual_4        *    719         *Culvert  *         *         *
*Actual_4        *    693.5987    *    33.06*    30.05*    25.31*
*Actual_4        *    663.5455    *    24.02*    23.02*    23.02*
*Actual_4        *    640.5283    *    18.99*    18.03*    17.03*
*Actual_4        *    622.4961    *    31.26*    34.01*    33.01*
*Actual_4        *    588.4816    *     20.1*       19*    20.02*
*Actual_4        *    569.4819    *    18.11*       18*    19.02*
*Actual_4        *    551.4819    *     8.06*     8.28*     8.65*
*Actual_4        *    543.2019    *    16.24*     13.6*    12.73*
*Actual_4        *    529.6032    *    12.76*     12.7*    13.44*
*Actual_4        *    529         *Bridge   *         *         *
*Actual_4        *    516.8986    *    21.54*    18.86*    12.73*
*Actual_4        *    498.0395    *    18.83*    17.49*     8.48*
*Actual_4        *    480.5480    *     19.8*    16.67*    12.81*
*Actual_4        *    463.8804    *    18.39*     16.4*     12.8*
*Actual_4        *    447.4822    *     8.48*      9.2*      8.6*
*Actual_4        *    447         *Culvert  *         *         *
*Actual_4        *    438.2866    *      9.9*      9.4*      8.6*
*Actual_4        *    428.8812    *    29.87*    29.22*     27.8*
*Actual_4        *    399.6586    *    27.78*    25.91*     28.6*
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Actual_4	373.7445	24.7	27.2	25.6
Actual_4	346.5426	12.18	13.02	12.2
Actual_4	333.5228	6.68	6.24	6.4
Actual_4	333	Culvert		
Actual_4	327.2853	10.81	9.9	10
Actual_4	317.3868	21.56	21.93	21.92
Actual_4	317	Bridge		
Actual_4	295.4587	43.86	43.14	42.45
Actual_4	252.3185	20.52	19.8	20.52
Actual_4	232.5208	28.32	28.28	27.58
Actual_4	204.2365	29	29.7	31.14
Actual_4	174.5388	22.66	23.34	24.08
Actual_4	151.1968	29	29.01	29
Actual_4	122.1893	16.96	16.96	17.69
Actual_4	105.2275	28.32	29.73	30.41
Actual_4	75.49478	23.34	22.67	21.25
Actual_4	52.82321	12.72	12.86	15.55
Actual_4	39.96368	9.21	10.8	9.89
Actual_4	29.15927	4.24	5.32	5.65
Actual_4	23.84281	14.13	11.65	10.62
Actual_4	12.19474	7.8	12.19	10.62

SUMMARY OF CONTRACTION AND EXPANSION COEFFICIENTS
River: Actual_1

Reach	River Sta.	Contr.	Expan.
Actual_1	2567.713	.1	.3
Actual_1	2539.521	.1	.3
Actual_1	2519.348	.1	.3
Actual_1	2498.482	.1	.3
Actual_1	2475.476	.1	.3
Actual_1	2450.021	.1	.3
Actual_1	2416.810	.1	.3
Actual_1	2389.874	.1	.3
Actual_1	2358.024	.1	.3
Actual_1	2330.744	.1	.3
Actual_1	2310.275	.1	.3
Actual_1	2290.059	.1	.3
Actual_1	2272.323	.1	.3
Actual_1	2245.213	.1	.3
Actual_1	2214.445	.1	.3
Actual_1	2194.679	.1	.3
Actual_1	2172.173	.1	.3
Actual_1	2146.090	.1	.3
Actual_1	2110.755	.1	.3
Actual_1	2082.073	.1	.3
Actual_1	2061.885	.1	.3
Actual_1	2034.217	.1	.3
Actual_1	2001.225	.1	.3
Actual_1	1986.102	.1	.3
Actual_1	1965.244	.1	.3
Actual_1	1925.651	.1	.3
Actual_1	1908.499	.1	.3
Actual_1	1877.535	.1	.3
Actual_1	1849.726	.1	.3
Actual_1	1827.737	.1	.3
Actual_1	1810.336	.1	.3
Actual_1	1778.741	.1	.3
Actual_1	1751.420	.1	.3
Actual_1	1730.476	.1	.3
Actual_1	1684.748	.1	.3
Actual_1	1651.421	.1	.3

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*Actual_1        *    1614.620*       .1*       .3*
*Actual_1        *    1604.204*       .3*       .5*
*Actual_1        *    1600    *Culvert  *         *
*Actual_1        *    1546.273*       .3*       .5*
*Actual_1        *    1530    *Culvert  *         *
*Actual_1        *    1522.209*       .3*       .5*
*Actual_1        *    1508.618*       .1*       .3*
*Actual_1        *    1489.793*       .1*       .3*
*Actual_1        *    1468.900*       .1*       .3*
*Actual_1        *    1443.099*       .1*       .3*
*Actual_1        *    1418.248*       .1*       .3*
*Actual_1        *    1389.021*       .1*       .3*
*Actual_1        *    1347.551*       .1*       .3*
*Actual_1        *    1308.983*       .1*       .3*
*Actual_1        *    1282.799*       .1*       .3*
*Actual_1        *    1255.224*       .1*       .3*
*Actual_1        *    1235.735*       .1*       .3*
*Actual_1        *    1213.838*       .1*       .3*
*Actual_1        *    1189.571*       .1*       .3*
*Actual_1        *    1154.857*       .3*       .5*
*Actual_1        *    1150    *Culvert  *         *
*Actual_1        *    1136.232*       .3*       .5*
*Actual_1        *    1116.615*       .1*       .3*
*Actual_1        *    1076.127*       .1*       .3*
*Actual_1        *    1053.136*       .1*       .3*
*Actual_1        *    1011.713*       .1*       .3*
*Actual_1        *    982.4587*       .1*       .3*
*Actual_1        *    949.6408*       .1*       .3*
*Actual_1        *    927.2091*       .1*       .3*
*Actual_1        *    915.5645*       .1*       .3*
*Actual_1        *    905.6098*       .1*       .3*
*Actual_1        *    886.7251*       .1*       .3*
*Actual_1        *    870.6595*       .1*       .3*
*Actual_1        *    849.4680*       .1*       .3*
*Actual_1        *    829.0050*       .1*       .3*
*Actual_1        *    802.7340*       .1*       .3*
*Actual_1        *    778.2098*       .1*       .3*
*Actual_1        *    754.9577*       .1*       .3*
*Actual_1        *    732.7650*       .1*       .3*
*Actual_1        *    699.8298*       .1*       .3*
*Actual_1        *    670.8853*       .1*       .3*
*Actual_1        *    643.7293*       .1*       .3*
*Actual_1        *    627.1081*       .1*       .3*
*Actual_1        *    595.2490*       .1*       .3*
*Actual_1        *    585.0177*       .1*       .3*
*Actual_1        *    569.7507*       .3*       .5*
*Actual_1        *    560     *Culvert  *         *
*Actual_1        *    552.0597*       .3*       .5*
*Actual_1        *    544.8601*       .3*       .5*
*Actual_1        *    540     *Culvert  *         *
*Actual_1        *    529.9171*       .3*       .5*
*Actual_1        *    507.1692*       .1*       .3*
*Actual_1        *    480.6490*       .1*       .3*
*Actual_1        *    451.3865*       .1*       .3*
*Actual_1        *    420.2550*       .1*       .3*
*Actual_1        *    385.2368*       .1*       .3*
*Actual_1        *    353.1833*       .1*       .3*
*Actual_1        *    326.0251*       .1*       .3*
*Actual_1        *    297.1317*       .1*       .3*
*Actual_1        *    265.4205*       .1*       .3*
*Actual_1        *    229.9372*       .1*       .3*
*Actual_1        *    184.8676*       .1*       .3*
*Actual_1        *    123.7851*       .1*       .3*
*Actual_1        *    95.36573*       .3*       .5*
*Actual_1        *    60      *Culvert  *         *
*Actual_1        *    49.98656*       .3*       .5*
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River: Actual_2

Reach	River Sta.	Contr.	Expan.
Actual_2	871.0108	.1	.3
Actual_2	860.5756	.1	.3
Actual_2	849.1740	.1	.3
Actual_2	834.6162	.1	.3
Actual_2	824.4382	.1	.3
Actual_2	810.8468	.1	.3
Actual_2	787.0773	.1	.3
Actual_2	775.6758	.1	.3
Actual_2	764.2742	.1	.3
Actual_2	736.3858	.1	.3
Actual_2	717.1134	.1	.3
Actual_2	693.7692	.1	.3
Actual_2	683.8718	.1	.3
Actual_2	663.3554	.1	.3
Actual_2	646.3886	.1	.3
Actual_2	620.9087	.1	.3
Actual_2	598.2863	.1	.3
Actual_2	577.0777	.1	.3
Actual_2	565.0447	.1	.3
Actual_2	553.7349	.1	.3
Actual_2	534.6314	.1	.3
Actual_2	509.1368	.1	.3
Actual_2	485.0546	.1	.3
Actual_2	460.9725	.1	.3
Actual_2	441.8690	.1	.3
Actual_2	418.5280	.1	.3
Actual_2	395.8584	.1	.3
Actual_2	373.1887	.1	.3
Actual_2	354.0852	.1	.3
Actual_2	332.3934	.1	.3
Actual_2	309.0579	.1	.3
Actual_2	295.7206	.1	.3
Actual_2	274.3449	.1	.3
Actual_2	252.7693	.1	.3
Actual_2	230.4201	.1	.3
Actual_2	207.6205	.1	.3
Actual_2	182.8820	.1	.3
Actual_2	163.2360	.1	.3
Actual_2	137.5280	.1	.3
Actual_2	113.7589	.1	.3
Actual_2	96.29712	.1	.3
Actual_2	78.83528	.1	.3
Actual_2	70.34394	.1	.3
Actual_2	57.00518	.1	.3
Actual_2	40.22435	.1	.3
Actual_2	23.02103	.1	.3

River: Actual_3

Reach	River Sta.	Contr.	Expan.
Actual_3	1280.230	.1	.3
Actual_3	1260.467	.1	.3
Actual_3	1252.359	.3	.5
Actual_3	1252 Culvert		
Actual_3	1246.332	.3	.5
Actual_3	1233.448	.1	.3
Actual_3	1225.351	.1	.3
Actual_3	1209.658	.1	.3
Actual_3	1196.446	.1	.3
Actual_3	1188.626	.1	.3

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*Actual_3        *    1182.406*       .1*       .3*
*Actual_3        *    1173.979*       .1*       .3*
*Actual_3        *    1162.626*       .1*       .3*
*Actual_3        *    1155.802*       .3*       .5*
*Actual_3        *    1155    *Culvert  *         *
*Actual_3        *    1148.600*       .3*       .5*
*Actual_3        *    1138.802*       .1*       .3*
*Actual_3        *    1125.665*       .1*       .3*
*Actual_3        *    1117.522*       .1*       .3*
*Actual_3        *    1109.291*       .3*       .5*
*Actual_3        *    1109    *Culvert  *         *
*Actual_3        *    1101.019*       .3*       .5*
*Actual_3        *    1085.906*       .1*       .3*
*Actual_3        *    1056.343*       .1*       .3*
*Actual_3        *    1043.356*       .3*       .5*
*Actual_3        *    1043    *Culvert  *         *
*Actual_3        *    1031.056*       .3*       .5*
*Actual_3        *    1010.819*       .1*       .3*
*Actual_3        *    992.5541*       .1*       .3*
*Actual_3        *    973.4102*       .1*       .3*
*Actual_3        *    956.1785*       .1*       .3*
*Actual_3        *    939.5976*       .1*       .3*
*Actual_3        *    924.0465*       .1*       .3*
*Actual_3        *    905.9035*       .1*       .3*
*Actual_3        *    892.0765*       .1*       .3*
*Actual_3        *    863.8566*       .1*       .3*
*Actual_3        *    841.2441*       .1*       .3*
*Actual_3        *    823.8461*       .1*       .3*
*Actual_3        *    800.4541*       .1*       .3*
*Actual_3        *    779.2239*       .1*       .3*
*Actual_3        *    756.6484*       .1*       .3*
*Actual_3        *    733.8605*       .1*       .3*
*Actual_3        *    712.7758*       .1*       .3*
*Actual_3        *    693.0193*       .1*       .3*
*Actual_3        *    675.6385*       .1*       .3*
*Actual_3        *    655.9124*       .1*       .3*
*Actual_3        *    634.7860*       .1*       .3*
*Actual_3        *    617.5754*       .1*       .3*
*Actual_3        *    596.9457*       .1*       .3*
*Actual_3        *    573.3445*       .1*       .3*
*Actual_3        *    556.2210*       .1*       .3*
*Actual_3        *    537.8052*       .1*       .3*
*Actual_3        *    522.5513*       .1*       .3*
*Actual_3        *    510.6633*       .1*       .3*
*Actual_3        *    496.5821*       .1*       .3*
*Actual_3        *    483.0792*       .1*       .3*
*Actual_3        *    472.1636*       .1*       .3*
*Actual_3        *    456.9867*       .1*       .3*
*Actual_3        *    446.1882*       .1*       .3*
*Actual_3        *    435.5890*       .1*       .3*
*Actual_3        *    418.5032*       .1*       .3*
*Actual_3        *    405.4106*       .1*       .3*
*Actual_3        *    393.9341*       .1*       .3*
*Actual_3        *    380.8281*       .1*       .3*
*Actual_3        *    356.8988*       .1*       .3*
*Actual_3        *    325.9584*       .1*       .3*
*Actual_3        *    295.8183*       .1*       .3*
*Actual_3        *    273.7013*       .1*       .3*
*Actual_3        *    253.4211*       .1*       .3*
*Actual_3        *    229.0900*       .1*       .3*
*Actual_3        *    203.8620*       .1*       .3*
*Actual_3        *    180.4265*       .1*       .3*
*Actual_3        *    160.5738*       .1*       .3*
*Actual_3        *    138.6799*       .1*       .3*
*Actual_3        *    118.8793*       .1*       .3*
*Actual_3        *    101.2603*       .1*       .3*
*Actual_3        *    80.15922*       .1*       .3*
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*Actual_3        *    63.19227*       .1*       .3*
*Actual_3        *    44.66612*       .1*       .3*
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River: Actual_4

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*     Reach      *   River Sta.   * Contr.  * Expan.  *
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*Actual_4        *    1666.697*       .1*       .3*
*Actual_4        *    1631.588*       .1*       .3*
*Actual_4        *    1599.279*       .1*       .3*
*Actual_4        *    1560.274*       .1*       .3*
*Actual_4        *    1517.321*       .1*       .3*
*Actual_4        *    1481.412*       .1*       .3*
*Actual_4        *    1442.926*       .1*       .3*
*Actual_4        *    1401.006*       .1*       .3*
*Actual_4        *    1365.778*       .1*       .3*
*Actual_4        *    1334.156*       .1*       .3*
*Actual_4        *    1307.752*       .1*       .3*
*Actual_4        *    1277.920*       .1*       .3*
*Actual_4        *    1245.558*       .1*       .3*
*Actual_4        *    1224.148*       .1*       .3*
*Actual_4        *    1190.718*       .1*       .3*
*Actual_4        *    1169.459*       .1*       .3*
*Actual_4        *    1140.498*       .1*       .3*
*Actual_4        *    1114.789*       .1*       .3*
*Actual_4        *    1095.376*       .1*       .3*
*Actual_4        *    1075.926*       .1*       .3*
*Actual_4        *    1049.753*       .1*       .3*
*Actual_4        *    1013.742*       .1*       .3*
*Actual_4        *    985.2877*       .1*       .3*
*Actual_4        *    958.5618*       .1*       .3*
*Actual_4        *    933.9658*       .1*       .3*
*Actual_4        *    909.3698*       .1*       .3*
*Actual_4        *    877.0899*       .1*       .3*
*Actual_4        *    857.4481*       .1*       .3*
*Actual_4        *    841.6505*       .3*       .5*
*Actual_4        *    841     *Culvert  *         *
*Actual_4        *    811.2636*       .3*       .5*
*Actual_4        *    784.6932*       .1*       .3*
*Actual_4        *    751.5314*       .1*       .3*
*Actual_4        *    739.0021*       .1*       .3*
*Actual_4        *    719.7668*       .3*       .5*
*Actual_4        *    719     *Culvert  *         *
*Actual_4        *    693.5987*       .3*       .5*
*Actual_4        *    663.5455*       .1*       .3*
*Actual_4        *    640.5283*       .1*       .3*
*Actual_4        *    622.4961*       .1*       .3*
*Actual_4        *    588.4816*       .1*       .3*
*Actual_4        *    569.4819*       .1*       .3*
*Actual_4        *    551.4819*       .1*       .3*
*Actual_4        *    543.2019*       .1*       .3*
*Actual_4        *    529.6032*       .3*       .5*
*Actual_4        *    529     *Bridge   *         *
*Actual_4        *    516.8986*       .3*       .5*
*Actual_4        *    498.0395*       .1*       .3*
*Actual_4        *    480.5480*       .1*       .3*
*Actual_4        *    463.8804*       .1*       .3*
*Actual_4        *    447.4822*       .3*       .5*
*Actual_4        *    447     *Culvert  *         *
*Actual_4        *    438.2866*       .3*       .5*
*Actual_4        *    428.8812*       .1*       .3*
*Actual_4        *    399.6586*       .1*       .3*
*Actual_4        *    373.7445*       .1*       .3*
*Actual_4        *    346.5426*       .1*       .3*
*Actual_4        *    333.5228*       .3*       .5*
*Actual_4        *    333     *Culvert  *         *
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*Actual_4        *    327.2853*       .3*       .5*
*Actual_4        *    317.3868*       .3*       .5*
*Actual_4        *    317     *Bridge   *         *
*Actual_4        *    295.4587*       .3*       .5*
*Actual_4        *    252.3185*       .1*       .3*
*Actual_4        *    232.5208*       .1*       .3*
*Actual_4        *    204.2365*       .1*       .3*
*Actual_4        *    174.5388*       .1*       .3*
*Actual_4        *    151.1968*       .1*       .3*
*Actual_4        *    122.1893*       .1*       .3*
*Actual_4        *    105.2275*       .1*       .3*
*Actual_4        *    75.49478*       .1*       .3*
*Actual_4        *    52.82321*       .1*       .3*
*Actual_4        *    39.96368*       .1*       .3*
*Actual_4        *    29.15927*       .1*       .3*
*Actual_4        *    23.84281*       .1*       .3*
*Actual_4        *    12.19474*       .1*       .3*
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Profile Output Table - Standard Table 1

River	Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Actual_4	Actual_4	1666.697	MCO	4.96	35.03	35.70	35.70	35.86	0.045488	1.79	2.77	8.68	1.01
Actual_4	Actual_4	1666.697	T500	18.89	35.03	36.15	36.15	36.40	0.030678	2.24	8.71	19.38	0.92
Actual_4	Actual_4	1631.588	MCO	4.96	33.02	33.63	33.68	33.86	0.068798	2.11	2.35	7.82	1.23
Actual_4	Actual_4	1631.588	T500	18.89	33.02	34.00	34.12	34.44	0.080216	2.94	6.42	14.64	1.42
Actual_4	Actual_4	1599.279	MCO	4.96	30.88	31.47	31.51	31.68	0.065708	2.05	2.42	8.14	1.20
Actual_4	Actual_4	1599.279	T500	18.89	30.88	31.88	31.96	32.26	0.055682	2.72	6.96	13.56	1.21
Actual_4	Actual_4	1560.274	MCO	4.96	28.65	29.40	29.40	29.53	0.049257	1.63	3.04	11.25	1.00
Actual_4	Actual_4	1560.274	T500	18.89	28.65	29.72	29.78	30.02	0.058133	2.42	7.81	18.46	1.19
Actual_4	Actual_4	1517.321	MCO	4.96	26.38	27.11	27.13	27.28	0.055594	1.81	2.74	9.77	1.09
Actual_4	Actual_4	1517.321	T500	18.89	26.38	27.50	27.53	27.77	0.046823	2.29	8.25	18.34	1.09
Actual_4	Actual_4	1481.412	MCO	4.96	24.71	25.37	25.36	25.52	0.040508	1.69	2.93	9.15	0.95
Actual_4	Actual_4	1481.412	T500	18.89	24.71	25.76	25.80	26.07	0.047330	2.48	7.61	15.07	1.11
Actual_4	Actual_4	1442.926	MCO	4.96	23.13	23.71	23.71	23.85	0.046392	1.66	2.99	10.73	1.00
Actual_4	Actual_4	1442.926	T500	18.89	23.13	24.10	24.11	24.32	0.042269	2.10	9.02	21.25	1.03
Actual_4	Actual_4	1401.006	MCO	4.96	21.26	21.88	21.86	22.03	0.035985	1.68	2.96	8.56	0.91
Actual_4	Actual_4	1401.006	T500	18.89	21.26	22.33	22.34	22.60	0.039686	2.30	8.20	15.86	1.02
Actual_4	Actual_4	1365.778	MCO	4.96	19.88	20.46	20.46	20.62	0.044839	1.75	2.83	9.09	1.00
Actual_4	Actual_4	1365.778	T500	18.89	19.88	20.88	20.90	21.17	0.041292	2.38	7.93	15.12	1.05
Actual_4	Actual_4	1334.156	MCO	4.96	18.80	19.66	19.45	19.71	0.009755	0.98	5.04	12.14	0.49
Actual_4	Actual_4	1334.156	T500	18.89	18.80	20.11	19.89	20.23	0.014181	1.55	12.18	20.41	0.63
Actual_4	Actual_4	1307.752	MCO	4.96	18.74	19.19	19.17	19.29	0.038308	1.40	3.55	14.39	0.90
Actual_4	Actual_4	1307.752	T500	18.89	18.74	19.51	19.50	19.70	0.033675	1.91	10.05	26.75	0.92
Actual_4	Actual_4	1277.920	MCO	4.96	17.64	18.21	18.15	18.29	0.028365	1.30	3.83	13.85	0.79
Actual_4	Actual_4	1277.920	T500	18.89	17.64	18.55	18.51	18.73	0.031351	1.84	10.26	23.62	0.89
Actual_4	Actual_4	1245.558	MCO	4.96	16.86	17.52	17.42	17.56	0.016253	0.92	5.37	21.07	0.58
Actual_4	Actual_4	1245.558	T500	18.89	16.86	17.83	17.71	17.92	0.016892	1.31	14.41	36.46	0.65
Actual_4	Actual_4	1224.148	MCO	4.96	16.49	17.03	16.97	17.10	0.030736	1.21	4.10	17.48	0.80
Actual_4	Actual_4	1224.148	T500	18.89	16.49	17.32	17.28	17.46	0.028482	1.68	11.52	34.63	0.84
Actual_4	Actual_4	1190.718	MCO	4.96	15.62	16.31	16.17	16.35	0.013508	0.93	5.32	18.07	0.55

Actual_4	Actual_4	1190.718	T500	18.89	15.62	16.66	16.51	16.76	0.012689	1.36	14.29	32.39	0.59
Actual_4	Actual_4	1169.459	MCO	4.96	15.40	16.01	15.89	16.06	0.013782	0.98	5.07	16.51	0.56
Actual_4	Actual_4	1169.459	T500	18.89	15.40	16.36	16.23	16.48	0.013468	1.54	13.23	30.28	0.62
Actual_4	Actual_4	1140.498	MCO	4.96	14.91	15.44	15.39	15.52	0.027804	1.26	3.94	14.67	0.78
Actual_4	Actual_4	1140.498	T500	18.89	14.91	15.77	15.73	15.96	0.025532	1.99	10.01	22.90	0.84
Actual_4	Actual_4	1114.789	MCO	4.96	14.24	14.93	14.79	14.98	0.013673	1.00	4.96	15.26	0.56
Actual_4	Actual_4	1114.789	T500	18.89	14.24	15.27	15.17	15.41	0.015783	1.69	11.93	25.78	0.67
Actual_4	Actual_4	1095.376	MCO	4.96	14.07	14.56	14.51	14.63	0.026302	1.15	4.30	17.51	0.74
Actual_4	Actual_4	1095.376	T500	18.89	14.07	14.86	14.82	15.01	0.030588	1.70	11.09	28.23	0.87
Actual_4	Actual_4	1075.926	MCO	4.96	13.80	14.23	14.12	14.26	0.010906	0.73	6.82	28.65	0.48
Actual_4	Actual_4	1075.926	T500	18.89	13.80	14.53	14.35	14.59	0.009664	1.17	17.04	41.34	0.51
Actual_4	Actual_4	1049.753	MCO	4.96	13.41	13.90	13.79	13.94	0.013852	0.84	5.89	23.81	0.54
Actual_4	Actual_4	1049.753	T500	18.89	13.41	14.15	14.06	14.26	0.017813	1.47	13.38	35.62	0.68
Actual_4	Actual_4	1013.742	MCO	4.96	12.91	13.67	13.12	13.67	0.000257	0.22	23.62	44.26	0.09
Actual_4	Actual_4	1013.742	T500	18.89	12.91	13.87	13.34	13.89	0.001404	0.61	32.98	50.77	0.21
Actual_4	Actual_4	985.2877	MCO	4.96	12.66	13.67	12.96	13.67	0.000062	0.13	44.46	81.69	0.04
Actual_4	Actual_4	985.2877	T500	18.89	12.66	13.85	13.17	13.86	0.000382	0.36	60.76	94.62	0.11
Actual_4	Actual_4	958.5618	MCO	4.96	12.45	13.67	12.73	13.67	0.000013	0.07	81.85	121.18	0.02
Actual_4	Actual_4	958.5618	T500	18.89	12.45	13.85	12.92	13.85	0.000095	0.21	105.18	135.84	0.06
Actual_4	Actual_4	933.9658	MCO	4.96	12.24	13.67	12.37	13.67	0.000004	0.04	130.46	145.15	0.01
Actual_4	Actual_4	933.9658	T500	18.89	12.24	13.85	12.54	13.85	0.000031	0.13	157.31	152.48	0.03
Actual_4	Actual_4	909.3698	MCO	4.96	12.00	13.67	12.15	13.67	0.000002	0.03	169.12	147.39	0.01
Actual_4	Actual_4	909.3698	T500	18.89	12.00	13.85	12.30	13.85	0.000017	0.10	196.29	154.36	0.03
Actual_4	Actual_4	877.0899	MCO	4.96	11.73	13.67	11.98	13.67	0.000002	0.04	145.53	108.24	0.01
Actual_4	Actual_4	877.0899	T500	18.89	11.73	13.85	12.15	13.85	0.000018	0.12	165.12	110.17	0.03
Actual_4	Actual_4	857.4481	MCO	4.96	11.54	13.67	11.89	13.67	0.000002	0.04	135.82	101.24	0.01
Actual_4	Actual_4	857.4481	T500	18.89	11.54	13.85	12.13	13.85	0.000020	0.13	154.25	105.35	0.03
Actual_4	Actual_4	841.6505	MCO	4.96	11.39	12.86	12.86	13.59	0.026426	3.78	1.31	89.71	1.00
Actual_4	Actual_4	841.6505	T500	18.89	11.39	13.84	13.14	13.85	0.000101	0.17	116.67	174.00	0.06
Actual_4	Actual_4	841		Culvert									
Actual_4	Actual_4	811.2636	MCO	4.96	11.06	12.52	12.52	13.25	0.026365	3.79	1.31	128.93	1.00
Actual_4	Actual_4	811.2636	T500	18.89	11.06	13.84	12.89	13.84	0.000024	0.09	189.78	197.27	0.03
Actual_4	Actual_4	784.6932	MCO	4.96	10.74	11.72	11.14	11.72	0.000153	0.17	34.04	90.03	0.07
Actual_4	Actual_4	784.6932	T500	18.89	10.74	13.84	11.37	13.84	0.000003	0.06	361.20	188.59	0.01
Actual_4	Actual_4	751.5314	MCO	4.96	10.27	11.72	10.59	11.72	0.000007	0.05	112.71	170.73	0.02
Actual_4	Actual_4	751.5314	T500	18.89	10.27	13.84	10.81	13.84	0.000001	0.04	575.79	253.17	0.01
Actual_4	Actual_4	739.0021	MCO	4.96	10.11	11.72	10.46	11.72	0.000005	0.05	123.23	171.28	0.01
Actual_4	Actual_4	739.0021	T500	18.89	10.11	13.84	10.70	13.84	0.000001	0.03	574.76	234.62	0.01
Actual_4	Actual_4	719.7668	MCO	4.96	9.92	11.59	10.80	11.71	0.003641	1.54	3.23	171.30	0.38
Actual_4	Actual_4	719.7668	T500	18.89	9.92	13.41	12.05	13.80	0.004474	2.79	6.77	206.19	0.48
Actual_4	Actual_4	719		Culvert									
Actual_4	Actual_4	693.5987	MCO	4.96	9.58	10.23	10.53	11.24	0.128102	4.45	1.11	21.83	1.88
Actual_4	Actual_4	693.5987	T500	18.89	9.58	11.78	11.78	12.84	0.023489	4.57	4.14	121.33	1.00
Actual_4	Actual_4	663.5455	MCO	4.96	9.42	10.47	10.16	10.48	0.002490	0.58	9.63	29.86	0.26

Actual_4	Actual_4	663.5455	T500	18.89	9.42	11.04	10.51	11.06	0.001207	0.66	34.89	58.63	0.20
Actual_4	Actual_4	640.5283	MCO	4.96	9.28	10.38	10.11	10.41	0.004225	0.93	6.73	19.98	0.34
Actual_4	Actual_4	640.5283	T500	18.89	9.28	11.00	10.55	11.02	0.002053	0.89	27.37	47.05	0.24
Actual_4	Actual_4	622.4961	MCO	4.96	9.09	10.21	9.96	10.30	0.009643	1.35	3.91	8.44	0.51
Actual_4	Actual_4	622.4961	T500	18.89	9.09	10.81	10.65	10.95	0.008646	1.92	13.74	30.79	0.53
Actual_4	Actual_4	588.4816	MCO	4.96	8.75	9.80	9.63	9.88	0.016581	1.32	3.75	8.06	0.62
Actual_4	Actual_4	588.4816	T500	18.89	8.75	10.23	10.18	10.50	0.026304	2.30	8.40	14.01	0.85
Actual_4	Actual_4	569.4819	MCO	4.96	8.40	9.35	9.35	9.50	0.024965	1.99	3.14	10.05	0.73
Actual_4	Actual_4	569.4819	T500	18.89	8.40	9.76	9.76	10.00	0.024412	2.65	9.11	18.86	0.78
Actual_4	Actual_4	551.4819	MCO	4.96	8.25	8.82	8.76	8.91	0.024874	1.27	3.90	12.96	0.74
Actual_4	Actual_4	551.4819	T500	18.89	8.25	9.09	9.13	9.37	0.044751	2.31	8.28	20.57	1.07
Actual_4	Actual_4	543.2019	MCO	4.96	7.76	8.49	8.49	8.63	0.049535	1.65	3.02	11.25	1.00
Actual_4	Actual_4	543.2019	T500	18.89	7.76	8.88	8.88	9.10	0.030486	2.13	9.43	23.03	0.90
Actual_4	Actual_4	529.6032	MCO	4.96	7.08	7.60	7.38	7.62	0.004254	0.56	8.88	26.41	0.31
Actual_4	Actual_4	529.6032	T500	18.89	7.08	8.00	7.64	8.04	0.005634	0.87	21.68	41.05	0.38
Actual_4	Actual_4	529		Bridge									
Actual_4	Actual_4	516.8986	MCO	5.60	6.83	7.57	7.22	7.58	0.001746	0.45	12.60	27.52	0.21
Actual_4	Actual_4	516.8986	T500	21.31	6.83	7.94	7.50	7.98	0.003871	0.89	24.23	35.84	0.33
Actual_4	Actual_4	498.0395	MCO	5.60	6.82	7.54	7.20	7.54	0.001982	0.41	13.68	38.99	0.22
Actual_4	Actual_4	498.0395	T500	21.31	6.82	7.88	7.49	7.91	0.003093	0.71	30.81	60.49	0.30
Actual_4	Actual_4	480.5480	MCO	5.60	7.09	7.47	7.32	7.49	0.005985	0.57	9.81	37.97	0.36
Actual_4	Actual_4	480.5480	T500	21.31	7.09	7.80	7.54	7.84	0.005975	0.84	25.31	56.89	0.39
Actual_4	Actual_4	463.8804	MCO	5.60	6.56	7.40	7.18	7.41	0.003461	0.47	11.83	39.60	0.28
Actual_4	Actual_4	463.8804	T500	21.31	6.56	7.72	7.41	7.75	0.004576	0.80	27.32	59.79	0.35
Actual_4	Actual_4	447.4822	MCO	5.60	6.20	7.34	7.12	7.36	0.003301	0.51	11.44	39.72	0.27
Actual_4	Actual_4	447.4822	T500	21.31	6.20	7.63	7.37	7.67	0.004789	0.91	25.93	60.20	0.36
Actual_4	Actual_4	447		Culvert									
Actual_4	Actual_4	438.2866	MCO	5.60	6.20	7.34	7.15	7.35	0.004528	0.53	10.82	42.64	0.31
Actual_4	Actual_4	438.2866	T500	21.31	6.20	7.62	7.38	7.66	0.005203	0.89	26.18	64.40	0.37
Actual_4	Actual_4	428.8812	MCO	5.60	5.89	7.23	7.12	7.27	0.016940	0.88	6.34	26.92	0.58
Actual_4	Actual_4	428.8812	T500	21.31	5.89	7.51	7.41	7.57	0.019074	1.15	18.72	66.15	0.65
Actual_4	Actual_4	399.6586	MCO	5.60	5.92	7.01	6.46	7.01	0.000504	0.23	25.28	90.77	0.11
Actual_4	Actual_4	399.6586	T500	21.31	5.92	7.25	6.76	7.26	0.001176	0.48	50.19	115.90	0.18
Actual_4	Actual_4	373.7445	MCO	5.60	5.67	7.00	6.32	7.00	0.000231	0.15	38.39	99.18	0.07
Actual_4	Actual_4	373.7445	T500	21.31	5.67	7.23	6.59	7.24	0.000617	0.31	71.94	153.85	0.13
Actual_4	Actual_4	346.5426	MCO	5.60	5.37	6.99	6.28	6.99	0.000189	0.14	40.15	95.03	0.07
Actual_4	Actual_4	346.5426	T500	21.31	5.37	7.22	6.55	7.22	0.000560	0.30	74.48	164.28	0.13
Actual_4	Actual_4	333.5228	MCO	5.60	5.00	6.82	6.00	6.97	0.005375	1.72	3.26	68.96	0.41
Actual_4	Actual_4	333.5228	T500	21.31	5.00	7.18	7.10	7.20	0.012625	0.72	29.96	157.31	0.50
Actual_4	Actual_4	333		Culvert									
Actual_4	Actual_4	327.2853	MCO	5.60	5.00	6.49	6.00	6.71	0.009151	2.09	2.68	39.72	0.55
Actual_4	Actual_4	327.2853	T500	21.31	5.00	7.15	7.11	7.19	0.022872	0.88	24.47	145.98	0.65
Actual_4	Actual_4	317.3868	MCO	5.60	5.32	6.53	6.24	6.55	0.003280	0.60	9.26	58.73	0.28
Actual_4	Actual_4	317.3868	T500	21.31	5.32	6.97	6.55	7.04	0.005363	1.16	18.42	115.88	0.40

Actual_4	Actual_4	317		Bridge										
Actual_4	Actual_4	295.4587	MCO	5.60	5.32	6.47	6.12	6.49	0.002072	0.52	10.77	55.93	0.23
Actual_4	Actual_4	295.4587	T500	21.31	5.32	6.85	6.42	6.92	0.005331	1.14	18.66	100.14	0.39
Actual_4	Actual_4	252.3185	MCO	5.60	5.27	6.38	6.09	6.38	0.002791	0.40	14.14	52.87	0.24
Actual_4	Actual_4	252.3185	T500	21.31	5.27	6.69	6.36	6.71	0.003484	0.58	36.64	91.17	0.29
Actual_4	Actual_4	232.5208	MCO	5.60	5.20	6.33	6.04	6.34	0.001449	0.43	15.55	56.28	0.19
Actual_4	Actual_4	232.5208	T500	21.31	5.20	6.63	6.30	6.65	0.002160	0.72	37.58	92.36	0.25
Actual_4	Actual_4	204.2365	MCO	5.60	5.06	6.26	5.87	6.28	0.005744	0.52	10.87	47.17	0.34
Actual_4	Actual_4	204.2365	T500	21.31	5.06	6.53	6.31	6.56	0.005801	0.78	28.92	87.65	0.38
Actual_4	Actual_4	174.5388	MCO	5.60	4.89	6.13	5.61	6.14	0.003190	0.55	12.22	65.21	0.27
Actual_4	Actual_4	174.5388	T500	21.31	4.89	6.40	6.18	6.42	0.003138	0.76	33.88	92.88	0.29
Actual_4	Actual_4	151.1968	MCO	5.60	4.79	6.06	5.46	6.07	0.003111	0.50	13.65	79.96	0.26
Actual_4	Actual_4	151.1968	T500	21.31	4.79	6.35	6.10	6.36	0.002200	0.57	40.33	104.62	0.24
Actual_4	Actual_4	122.1893	MCO	5.60	4.75	5.86	5.54	5.93	0.009799	1.13	4.95	8.15	0.46
Actual_4	Actual_4	122.1893	T500	21.31	4.75	6.25	6.10	6.28	0.004252	0.77	33.54	116.55	0.32
Actual_4	Actual_4	105.2275	MCO	5.60	4.72	5.68	5.42	5.73	0.012859	1.04	5.39	13.87	0.53
Actual_4	Actual_4	105.2275	T500	21.31	4.72	6.09	5.94	6.16	0.017283	1.18	19.91	91.39	0.63
Actual_4	Actual_4	75.49478	MCO	5.60	4.64	5.46	5.23	5.47	0.004126	0.51	10.97	37.21	0.30
Actual_4	Actual_4	75.49478	T500	21.31	4.64	5.75	5.49	5.79	0.006791	0.85	25.15	58.18	0.41
Actual_4	Actual_4	52.82321	MCO	5.60	4.45	5.36	5.20	5.37	0.004512	0.48	12.04	55.68	0.31
Actual_4	Actual_4	52.82321	T500	21.31	4.45	5.63	5.39	5.66	0.004297	0.76	30.29	77.68	0.34
Actual_4	Actual_4	39.96368	MCO	5.60	4.45	5.30	5.15	5.31	0.004965	0.49	11.54	48.31	0.32
Actual_4	Actual_4	39.96368	T500	21.31	4.45	5.56	5.33	5.59	0.006653	0.81	26.48	66.68	0.40
Actual_4	Actual_4	29.15927	MCO	5.60	4.43	5.24	5.10	5.25	0.005409	0.50	11.20	48.45	0.33
Actual_4	Actual_4	29.15927	T500	21.31	4.43	5.47	5.28	5.51	0.008878	0.89	23.94	63.29	0.46
Actual_4	Actual_4	23.84281	MCO	5.60	4.42	5.22	5.08	5.23	0.004489	0.44	12.85	58.68	0.30
Actual_4	Actual_4	23.84281	T500	21.31	4.42	5.43	5.24	5.47	0.006625	0.79	26.98	70.50	0.40
Actual_4	Actual_4	12.19474	MCO	5.60	4.38	5.16	5.06	5.17	0.006000	0.45	12.64	75.06	0.34
Actual_4	Actual_4	12.19474	T500	21.31	4.38	5.36	5.19	5.39	0.006005	0.75	30.66	105.46	0.38
Actual_3	Actual_3	1280.230	MCO	3.80	26.28	27.44	26.95	27.46	0.001183	0.54	8.81	22.70	0.19
Actual_3	Actual_3	1280.230	T500	20.70	26.28	27.74	27.55	27.82	0.006832	1.58	17.80	38.64	0.48
Actual_3	Actual_3	1260.467	MCO	3.80	25.88	27.44	26.55	27.44	0.000252	0.29	18.29	47.55	0.09
Actual_3	Actual_3	1260.467	T500	20.70	25.88	27.69	27.34	27.72	0.001758	0.88	32.10	60.05	0.25
Actual_3	Actual_3	1252.359	MCO	3.80	25.84	26.98	26.87	27.39	0.021705	2.86	1.33	18.76	0.87
Actual_3	Actual_3	1252.359	T500	20.70	25.84	27.64	27.52	27.69	0.010998	1.07	20.23	62.83	0.53
Actual_3	Actual_3	1252		Culvert									
Actual_3	Actual_3	1246.332	MCO	3.80	25.76	26.82	26.82	27.32	0.030177	3.15	1.21	24.10	1.00
Actual_3	Actual_3	1246.332	T500	20.70	25.76	27.41	27.41	27.54	0.042901	1.70	13.05	58.74	0.98
Actual_3	Actual_3	1233.448	MCO	3.80	25.67	26.53	26.31	26.55	0.005659	0.66	5.76	18.94	0.36
Actual_3	Actual_3	1233.448	T500	20.70	25.67	26.98	26.76	27.04	0.006528	1.18	19.73	43.55	0.44
Actual_3	Actual_3	1225.351	MCO	3.80	25.63	26.47	26.32	26.50	0.006906	0.86	5.09	19.79	0.41
Actual_3	Actual_3	1225.351	T500	20.70	25.63	26.92	26.72	26.99	0.007493	1.43	18.13	39.67	0.49
Actual_3	Actual_3	1209.658	MCO	3.80	25.27	26.39	26.14	26.41	0.004093	0.68	6.20	20.71	0.32
Actual_3	Actual_3	1209.658	T500	20.70	25.27	26.81	26.59	26.88	0.006967	1.28	18.90	40.00	0.46

Actual_3	Actual_3	1196.446	MCO	3.80	24.84	26.36	25.64	26.38	0.001092	0.56	8.74	24.18	0.18
Actual_3	Actual_3	1196.446	T500	20.70	24.84	26.75	26.50	26.81	0.004065	1.35	22.14	45.40	0.37
Actual_3	Actual_3	1188.626	MCO	3.80	24.76	26.36	25.55	26.37	0.000842	0.51	9.52	24.87	0.16
Actual_3	Actual_3	1188.626	T500	20.70	24.76	26.71	26.45	26.78	0.004061	1.37	21.62	43.30	0.37
Actual_3	Actual_3	1182.406	MCO	3.80	24.76	26.35	25.54	26.36	0.000800	0.50	9.54	24.28	0.16
Actual_3	Actual_3	1182.406	T500	20.70	24.76	26.67	26.44	26.75	0.004765	1.46	19.96	41.02	0.40
Actual_3	Actual_3	1173.979	MCO	3.80	24.75	26.35	25.56	26.36	0.000784	0.48	9.79	25.57	0.16
Actual_3	Actual_3	1173.979	T500	20.70	24.75	26.61	26.42	26.70	0.005857	1.55	18.71	41.98	0.44
Actual_3	Actual_3	1162.626	MCO	3.80	24.69	26.34	25.46	26.35	0.000357	0.33	14.42	35.18	0.11
Actual_3	Actual_3	1162.626	T500	20.70	24.69	26.59	26.24	26.64	0.002759	1.06	25.92	51.32	0.31
Actual_3	Actual_3	1155.802	MCO	3.80	24.67	25.79	25.79	26.29	0.032441	3.15	1.21	12.79	1.00
Actual_3	Actual_3	1155.802	T500	20.70	24.67	26.55	26.42	26.61	0.010360	1.15	19.17	52.56	0.52
Actual_3	Actual_3	1155		Culvert									
Actual_3	Actual_3	1148.600	MCO	3.80	24.65	26.21	25.75	26.22	0.010429	0.61	6.77	49.17	0.45
Actual_3	Actual_3	1148.600	T500	20.70	24.65	26.36	26.33	26.46	0.026252	1.44	14.66	53.10	0.78
Actual_3	Actual_3	1138.802	MCO	3.80	24.60	26.17	25.30	26.17	0.000067	0.14	30.17	55.17	0.05
Actual_3	Actual_3	1138.802	T500	20.70	24.60	26.28	25.69	26.29	0.001192	0.65	35.55	59.92	0.20
Actual_3	Actual_3	1125.665	MCO	3.80	24.50	26.17	25.24	26.17	0.000033	0.12	42.97	75.16	0.03
Actual_3	Actual_3	1125.665	T500	20.70	24.50	26.27	25.59	26.28	0.000615	0.53	51.19	82.89	0.15
Actual_3	Actual_3	1117.522	MCO	3.80	24.48	26.17	25.25	26.17	0.000029	0.12	46.96	85.82	0.03
Actual_3	Actual_3	1117.522	T500	20.70	24.48	26.27	25.56	26.27	0.000517	0.51	55.88	90.51	0.13
Actual_3	Actual_3	1109.291	MCO	3.80	24.40	25.61	25.61	26.12	0.038373	3.15	1.21	40.37	1.00
Actual_3	Actual_3	1109.291	T500	20.70	24.40	26.18	26.17	26.26	0.013878	2.04	19.70	84.34	0.62
Actual_3	Actual_3	1109		Culvert									
Actual_3	Actual_3	1101.019	MCO	3.80	24.32	25.64	25.50	26.03	0.022917	2.74	1.38	51.67	0.82
Actual_3	Actual_3	1101.019	T500	20.70	24.32	26.09	26.09	26.18	0.018164	2.05	17.90	80.36	0.70
Actual_3	Actual_3	1085.906	MCO	3.80	24.26	25.68	25.10	25.68	0.000090	0.17	26.43	49.29	0.05
Actual_3	Actual_3	1085.906	T500	20.70	24.26	25.65	25.35	25.69	0.003036	0.95	25.36	48.48	0.30
Actual_3	Actual_3	1056.343	MCO	3.80	24.00	25.67	24.48	25.68	0.000045	0.14	32.02	46.98	0.04
Actual_3	Actual_3	1056.343	T500	20.70	24.00	25.61	25.10	25.64	0.001772	0.84	29.22	44.86	0.25
Actual_3	Actual_3	1043.356	MCO	3.80	23.88	25.03	25.03	25.62	0.030197	3.39	1.12	28.16	1.02
Actual_3	Actual_3	1043.356	T500	20.70	23.88	25.53	25.39	25.60	0.010043	1.15	18.97	49.86	0.51
Actual_3	Actual_3	1043		Culvert									
Actual_3	Actual_3	1031.056	MCO	3.80	23.65	24.84	24.84	25.41	0.029412	3.34	1.14	14.37	1.00
Actual_3	Actual_3	1031.056	T500	20.70	23.65	25.34	25.34	25.52	0.032357	1.98	11.58	33.99	0.89
Actual_3	Actual_3	1010.819	MCO	3.80	23.35	24.27	24.06	24.30	0.007988	0.81	4.75	15.72	0.43
Actual_3	Actual_3	1010.819	T500	20.70	23.35	24.71	24.53	24.84	0.012227	1.67	12.83	20.12	0.60
Actual_3	Actual_3	992.5541	MCO	3.80	23.06	24.09	23.90	24.14	0.009274	1.07	4.51	24.09	0.48
Actual_3	Actual_3	992.5541	T500	20.70	23.06	24.62	24.36	24.67	0.004440	1.19	21.20	38.30	0.37
Actual_3	Actual_3	973.4102	MCO	3.80	22.98	23.86	23.62	23.95	0.011158	1.28	2.98	5.07	0.53
Actual_3	Actual_3	973.4102	T500	20.70	22.98	24.52	24.31	24.58	0.004751	1.33	20.03	35.93	0.39
Actual_3	Actual_3	956.1785	MCO	4.01	22.62	23.54	23.41	23.69	0.021103	1.69	2.37	4.12	0.71
Actual_3	Actual_3	956.1785	T500	21.89	22.62	24.26	24.26	24.45	0.016763	2.22	13.01	31.44	0.69

Actual_3	Actual_3	939.5976	MCO	4.01	22.15	22.99	22.99	23.21	0.044292	2.06	1.95	4.58	1.01
Actual_3	Actual_3	939.5976	T500	21.89	22.15	23.55	23.69	24.00	0.039280	3.38	8.15	18.08	1.09
Actual_3	Actual_3	924.0465	MCO	4.01	21.26	22.60	22.34	22.67	0.011189	1.17	3.43	6.59	0.52
Actual_3	Actual_3	924.0465	T500	21.89	21.26	23.23	23.15	23.51	0.019295	2.40	9.86	15.77	0.77
Actual_3	Actual_3	905.9035	MCO	4.01	21.00	22.29	22.15	22.39	0.023236	1.43	2.80	6.81	0.71
Actual_3	Actual_3	905.9035	T500	21.89	21.00	23.03	22.86	23.19	0.011659	1.91	13.09	21.28	0.60
Actual_3	Actual_3	892.0765	MCO	4.01	20.54	22.13	21.56	22.18	0.004756	1.04	3.99	6.61	0.34
Actual_3	Actual_3	892.0765	T500	21.89	20.54	22.94	22.65	23.06	0.006229	1.80	15.52	21.50	0.44
Actual_3	Actual_3	863.8566	MCO	4.01	20.39	21.82	21.60	21.96	0.020389	1.66	2.42	3.70	0.66
Actual_3	Actual_3	863.8566	T500	21.89	20.39	22.57	22.57	22.80	0.017755	2.47	11.55	23.42	0.69
Actual_3	Actual_3	841.2441	MCO	4.01	20.33	21.58	21.31	21.61	0.007303	0.83	4.82	11.52	0.41
Actual_3	Actual_3	841.2441	T500	21.89	20.33	22.16	21.90	22.28	0.011464	1.59	13.98	21.09	0.57
Actual_3	Actual_3	823.8461	MCO	4.01	20.13	21.48	21.19	21.50	0.004904	0.73	5.63	15.23	0.35
Actual_3	Actual_3	823.8461	T500	21.89	20.13	22.03	21.73	22.12	0.006110	1.39	18.11	29.67	0.44
Actual_3	Actual_3	800.4541	MCO	4.01	20.08	21.21	21.13	21.30	0.028715	1.33	3.02	10.13	0.78
Actual_3	Actual_3	800.4541	T500	21.89	20.08	21.78	21.68	21.92	0.012648	1.77	14.78	32.86	0.61
Actual_3	Actual_3	779.2239	MCO	4.01	19.68	20.76	20.57	20.85	0.013947	1.29	3.12	6.28	0.58
Actual_3	Actual_3	779.2239	T500	21.89	19.68	21.34	21.34	21.58	0.019165	2.33	11.26	23.93	0.76
Actual_3	Actual_3	756.6484	MCO	4.01	19.50	20.58	20.33	20.60	0.006075	0.75	5.35	14.41	0.38
Actual_3	Actual_3	756.6484	T500	21.89	19.50	21.07	20.85	21.19	0.009224	1.59	15.13	25.12	0.54
Actual_3	Actual_3	733.8605	MCO	4.01	19.48	20.42	20.25	20.45	0.007169	0.86	5.04	17.15	0.42
Actual_3	Actual_3	733.8605	T500	21.89	19.48	20.85	20.71	20.96	0.010482	1.66	15.75	32.46	0.57
Actual_3	Actual_3	712.7758	MCO	4.01	19.04	19.98	19.95	20.18	0.036207	1.99	2.01	4.19	0.92
Actual_3	Actual_3	712.7758	T500	21.89	19.04	20.56	20.52	20.70	0.014520	2.12	14.47	36.01	0.66
Actual_3	Actual_3	693.0193	MCO	4.01	18.59	19.67	19.31	19.72	0.006323	1.00	4.03	6.66	0.41
Actual_3	Actual_3	693.0193	T500	21.89	18.59	20.35	20.25	20.46	0.008068	1.70	16.93	39.15	0.51
Actual_3	Actual_3	675.6385	MCO	4.01	18.56	19.58	19.23	19.62	0.004952	0.81	4.93	9.40	0.36
Actual_3	Actual_3	675.6385	T500	21.89	18.56	20.15	19.90	20.30	0.011505	1.77	13.89	30.79	0.60
Actual_3	Actual_3	655.9124	MCO	4.01	18.48	19.46	19.21	19.50	0.006530	0.97	4.68	16.51	0.42
Actual_3	Actual_3	655.9124	T500	21.89	18.48	20.04	19.78	20.12	0.005368	1.42	19.47	34.10	0.43
Actual_3	Actual_3	634.7860	MCO	4.01	18.37	19.35	19.10	19.39	0.004412	0.90	5.34	15.66	0.35
Actual_3	Actual_3	634.7860	T500	21.89	18.37	19.93	19.65	20.01	0.005119	1.48	19.31	32.48	0.42
Actual_3	Actual_3	617.5754	MCO	4.01	18.30	19.26	18.98	19.29	0.007021	0.80	5.05	14.55	0.41
Actual_3	Actual_3	617.5754	T500	21.89	18.30	19.82	19.54	19.90	0.006701	1.35	18.22	32.57	0.46
Actual_3	Actual_3	596.9457	MCO	4.01	18.15	18.92	18.86	19.05	0.027910	1.58	2.54	6.58	0.81
Actual_3	Actual_3	596.9457	T500	21.89	18.15	19.48	19.48	19.68	0.018794	2.28	12.38	30.92	0.77
Actual_3	Actual_3	573.3445	MCO	4.01	17.74	18.63	18.36	18.65	0.003427	0.66	6.71	19.11	0.30
Actual_3	Actual_3	573.3445	T500	21.89	17.74	19.28	18.82	19.32	0.002695	0.94	25.59	37.36	0.30
Actual_3	Actual_3	556.2210	MCO	4.01	17.48	18.59	18.17	18.60	0.001531	0.57	7.97	17.14	0.21
Actual_3	Actual_3	556.2210	T500	21.89	17.48	19.22	18.71	19.28	0.002763	1.16	22.98	31.78	0.32
Actual_3	Actual_3	537.8052	MCO	4.01	17.39	18.54	18.19	18.57	0.003494	0.66	6.13	14.00	0.30
Actual_3	Actual_3	537.8052	T500	21.89	17.39	19.12	18.76	19.21	0.005765	1.39	17.50	26.98	0.44
Actual_3	Actual_3	522.5513	MCO	4.01	17.28	18.50	18.14	18.52	0.002663	0.54	7.71	20.64	0.26
Actual_3	Actual_3	522.5513	T500	21.89	17.28	19.09	18.63	19.13	0.002904	0.96	25.47	39.17	0.31
Actual_3	Actual_3	510.6633	MCO	4.01	17.22	18.45	18.20	18.47	0.006205	0.68	5.94	17.96	0.37

Actual_3	Actual_3	510.6633	T500	21.89	17.22	19.04	18.66	19.09	0.003963	1.03	24.19	48.85	0.35
Actual_3	Actual_3	496.5821	MCO	4.01	17.30	18.38	18.11	18.41	0.003200	0.81	6.38	20.19	0.30
Actual_3	Actual_3	496.5821	T500	21.89	17.30	19.00	18.61	19.04	0.002879	1.16	26.34	46.71	0.32
Actual_3	Actual_3	483.0792	MCO	4.01	17.30	18.34	17.98	18.36	0.002947	0.77	6.23	17.76	0.29
Actual_3	Actual_3	483.0792	T500	21.89	17.30	18.95	18.59	19.00	0.003060	1.19	24.97	43.28	0.33
Actual_3	Actual_3	472.1636	MCO	4.01	17.30	18.29	18.00	18.32	0.004471	0.89	5.31	16.11	0.35
Actual_3	Actual_3	472.1636	T500	21.89	17.30	18.90	18.59	18.96	0.004198	1.34	21.41	36.68	0.38
Actual_3	Actual_3	456.9867	MCO	4.01	17.30	18.20	17.97	18.24	0.006618	0.93	4.62	13.35	0.42
Actual_3	Actual_3	456.9867	T500	21.89	17.30	18.74	18.54	18.87	0.008962	1.76	14.64	23.74	0.55
Actual_3	Actual_3	446.1882	MCO	4.01	17.30	18.15	17.85	18.18	0.004875	0.72	5.57	12.93	0.35
Actual_3	Actual_3	446.1882	T500	21.89	17.30	18.70	18.44	18.78	0.006602	1.29	18.84	35.41	0.45
Actual_3	Actual_3	435.5890	MCO	4.01	17.30	18.09	17.84	18.12	0.005573	0.78	5.24	14.90	0.38
Actual_3	Actual_3	435.5890	T500	21.89	17.30	18.62	18.38	18.71	0.006434	1.42	18.26	33.33	0.46
Actual_3	Actual_3	418.5032	MCO	4.01	17.30	17.94	17.80	17.99	0.011782	0.95	4.21	12.50	0.52
Actual_3	Actual_3	418.5032	T500	21.89	17.30	18.35	18.31	18.54	0.019474	2.02	12.14	27.62	0.76
Actual_3	Actual_3	405.4106	MCO	4.01	17.25	17.82	17.67	17.85	0.008905	0.75	5.36	19.72	0.45
Actual_3	Actual_3	405.4106	T500	21.89	17.25	18.18	18.07	18.30	0.013576	1.57	15.36	36.02	0.63
Actual_3	Actual_3	393.9341	MCO	4.01	17.22	17.65	17.60	17.70	0.024322	1.03	3.99	20.97	0.70
Actual_3	Actual_3	393.9341	T500	21.89	17.22	17.97	17.94	18.11	0.020759	1.75	14.16	39.67	0.76
Actual_3	Actual_3	380.8281	MCO	4.01	16.94	17.46	17.31	17.48	0.006786	0.64	6.33	25.38	0.39
Actual_3	Actual_3	380.8281	T500	21.89	16.94	17.80	17.65	17.88	0.011173	1.35	17.68	42.70	0.56
Actual_3	Actual_3	356.8988	MCO	4.01	16.79	17.20	17.15	17.24	0.019816	0.90	4.62	27.15	0.63
Actual_3	Actual_3	356.8988	T500	21.89	16.79	17.62	17.45	17.67	0.006051	1.04	25.47	72.14	0.42
Actual_3	Actual_3	325.9584	MCO	4.01	15.87	16.88	16.35	16.90	0.001743	0.54	7.39	11.86	0.22
Actual_3	Actual_3	325.9584	T500	21.89	15.87	17.46	16.97	17.52	0.003370	1.14	25.83	64.77	0.34
Actual_3	Actual_3	295.8183	MCO	4.01	16.00	16.69	16.51	16.80	0.015944	1.45	2.76	4.98	0.62
Actual_3	Actual_3	295.8183	T500	21.89	16.00	17.23	17.23	17.35	0.013225	1.92	17.56	61.11	0.62
Actual_3	Actual_3	273.7013	MCO	4.01	16.00	16.49	16.31	16.51	0.007546	0.69	5.81	19.97	0.41
Actual_3	Actual_3	273.7013	T500	21.89	16.00	16.88	16.71	16.97	0.014167	1.34	16.28	33.01	0.61
Actual_3	Actual_3	253.4211	MCO	4.01	16.00	16.37	16.22	16.38	0.004477	0.47	8.48	36.26	0.31
Actual_3	Actual_3	253.4211	T500	21.89	16.00	16.70	16.48	16.75	0.006334	1.00	23.36	53.54	0.42
Actual_3	Actual_3	229.0900	MCO	4.01	15.98	16.14	16.13	16.18	0.046652	0.92	4.36	38.40	0.87
Actual_3	Actual_3	229.0900	T500	21.89	15.98	16.37	16.35	16.49	0.031525	1.57	14.47	50.21	0.86
Actual_3	Actual_3	203.8620	MCO	4.01	14.78	15.52	15.32	15.53	0.004156	0.55	7.47	27.36	0.31
Actual_3	Actual_3	203.8620	T500	21.89	14.78	15.97	15.67	16.01	0.004365	1.01	24.57	49.13	0.37
Actual_3	Actual_3	180.4265	MCO	4.01	14.71	15.40	15.24	15.42	0.006158	0.56	7.20	29.45	0.36
Actual_3	Actual_3	180.4265	T500	21.89	14.71	15.87	15.55	15.91	0.003991	0.86	26.88	53.64	0.34
Actual_3	Actual_3	160.5738	MCO	4.01	14.63	15.29	15.07	15.31	0.004949	0.56	7.18	25.50	0.33
Actual_3	Actual_3	160.5738	T500	21.89	14.63	15.80	15.45	15.84	0.003545	0.89	26.86	51.69	0.33
Actual_3	Actual_3	138.6799	MCO	4.01	14.60	15.19	14.99	15.21	0.004115	0.63	6.91	24.92	0.32
Actual_3	Actual_3	138.6799	T500	21.89	14.60	15.73	15.37	15.76	0.003069	0.96	27.27	50.62	0.32
Actual_3	Actual_3	118.8793	MCO	4.01	14.58	15.09	14.93	15.11	0.006422	0.61	6.54	23.95	0.37
Actual_3	Actual_3	118.8793	T500	21.89	14.58	15.66	15.27	15.70	0.003296	0.86	26.84	47.38	0.32
Actual_3	Actual_3	101.2603	MCO	4.01	14.39	14.93	14.77	14.97	0.010163	0.82	4.91	16.48	0.48
Actual_3	Actual_3	101.2603	T500	21.89	14.39	15.57	15.21	15.63	0.004418	1.14	21.63	37.10	0.38

Actual_3	Actual_3	80.15922	MCO	4.01	13.99	14.72	14.51	14.77	0.008774	0.93	4.30	10.48	0.47
Actual_3	Actual_3	80.15922	T500	21.89	13.99	15.41	15.11	15.51	0.007289	1.43	16.81	30.33	0.48
Actual_3	Actual_3	63.19227	MCO	4.01	13.59	14.39	14.35	14.52	0.033266	1.60	2.51	7.28	0.87
Actual_3	Actual_3	63.19227	T500	21.89	13.59	15.05	14.98	15.30	0.030126	2.21	9.92	16.62	0.91
Actual_3	Actual_3	44.66612	MCO	4.01	13.23	13.99	13.85	14.06	0.015010	1.15	3.48	9.23	0.60
Actual_3	Actual_3	44.66612	T500	21.89	13.23	14.67	14.45	14.86	0.015012	1.94	11.28	13.51	0.68
Actual_2	Actual_2	871.0108	MCO	9.37	10.83	11.86	11.48	11.90	0.005056	0.92	10.16	15.94	0.37
Actual_2	Actual_2	871.0108	T500	32.86	10.83	12.24	12.07	12.36	0.011731	1.61	24.14	72.69	0.59
Actual_2	Actual_2	860.5756	MCO	9.37	11.05	11.74	11.66	11.81	0.022894	1.21	7.72	25.89	0.71
Actual_2	Actual_2	860.5756	T500	32.86	11.05	12.09	12.03	12.19	0.023212	1.37	24.28	76.97	0.74
Actual_2	Actual_2	849.1740	MCO	9.37	10.50	11.61	11.39	11.64	0.005474	0.64	13.88	42.66	0.35
Actual_2	Actual_2	849.1740	T500	32.86	10.50	11.94	11.69	12.00	0.008295	0.90	31.91	73.33	0.45
Actual_2	Actual_2	834.6162	MCO	9.37	10.31	11.50	11.33	11.53	0.009643	0.82	11.37	36.97	0.47
Actual_2	Actual_2	834.6162	T500	32.86	10.31	11.75	11.65	11.83	0.018210	1.20	26.92	83.72	0.65
Actual_2	Actual_2	824.4382	MCO	9.37	10.16	11.25	11.24	11.36	0.041783	1.50	6.34	34.23	0.94
Actual_2	Actual_2	824.4382	T500	32.86	10.16	11.48	11.48	11.61	0.024683	1.76	23.01	90.01	0.80
Actual_2	Actual_2	810.8468	MCO	9.37	10.00	10.89	10.71	10.95	0.017351	1.08	8.67	28.33	0.62
Actual_2	Actual_2	810.8468	T500	32.86	10.00	11.12	11.08	11.18	0.012977	1.28	32.84	139.96	0.58
Actual_2	Actual_2	787.0773	MCO	9.37	9.73	10.65	10.40	10.67	0.005083	0.65	14.51	40.93	0.35
Actual_2	Actual_2	787.0773	T500	32.86	9.73	10.89	10.70	10.94	0.007272	1.05	38.09	143.26	0.45
Actual_2	Actual_2	775.6758	MCO	9.37	9.60	10.60	10.33	10.62	0.003329	0.52	17.96	50.87	0.28
Actual_2	Actual_2	775.6758	T500	32.86	9.60	10.84	10.59	10.87	0.004161	0.80	48.45	149.48	0.34
Actual_2	Actual_2	764.2742	MCO	9.37	9.49	10.57	10.31	10.58	0.002964	0.50	20.85	112.69	0.27
Actual_2	Actual_2	764.2742	T500	32.86	9.49	10.80	10.61	10.82	0.003367	0.74	52.21	146.68	0.31
Actual_2	Actual_2	736.3858	MCO	9.37	9.28	10.46	10.25	10.48	0.005251	0.62	16.58	91.75	0.35
Actual_2	Actual_2	736.3858	T500	32.86	9.28	10.70	10.54	10.73	0.004753	0.85	45.62	136.74	0.36
Actual_2	Actual_2	717.1134	MCO	9.37	8.96	10.11	9.89	10.31	0.016908	1.97	5.28	16.40	0.64
Actual_2	Actual_2	717.1134	T500	32.86	8.96	10.58	10.50	10.64	0.005854	1.51	37.99	117.22	0.40
Actual_2	Actual_2	693.7692	MCO	9.37	8.73	9.86	9.61	9.94	0.011879	1.25	7.49	14.45	0.55
Actual_2	Actual_2	693.7692	T500	32.86	8.73	10.27	10.26	10.43	0.014927	1.93	21.69	72.59	0.67
Actual_2	Actual_2	683.8718	MCO	9.37	8.65	9.77	9.54	9.82	0.010084	1.03	9.11	20.91	0.50
Actual_2	Actual_2	683.8718	T500	32.86	8.65	10.15	9.99	10.28	0.014073	1.65	22.19	64.41	0.64
Actual_2	Actual_2	663.3554	MCO	9.37	8.52	9.64	9.37	9.66	0.004986	0.64	14.56	40.78	0.34
Actual_2	Actual_2	663.3554	T500	32.86	8.52	9.98	9.69	10.03	0.007430	0.99	33.37	69.47	0.44
Actual_2	Actual_2	646.3886	MCO	9.37	8.40	9.53	9.34	9.56	0.007200	0.70	13.45	44.03	0.40
Actual_2	Actual_2	646.3886	T500	32.86	8.40	9.84	9.62	9.90	0.008341	1.10	30.84	70.38	0.48
Actual_2	Actual_2	620.9087	MCO	9.37	8.23	9.42	9.14	9.43	0.002404	0.41	23.11	74.30	0.23
Actual_2	Actual_2	620.9087	T500	32.86	8.23	9.71	9.37	9.73	0.003711	0.66	49.61	106.17	0.31
Actual_2	Actual_2	598.2863	MCO	9.37	8.10	9.37	9.16	9.38	0.001920	0.37	25.58	85.54	0.21
Actual_2	Actual_2	598.2863	T500	32.86	8.10	9.64	9.31	9.66	0.002921	0.68	49.85	98.48	0.28
Actual_2	Actual_2	577.0777	MCO	9.37	7.97	9.31	8.92	9.32	0.004785	0.48	19.93	91.19	0.31
Actual_2	Actual_2	577.0777	T500	32.86	7.97	9.55	9.32	9.58	0.005005	0.78	43.69	106.16	0.36
Actual_2	Actual_2	565.0447	MCO	9.37	7.87	9.23	8.79	9.25	0.008760	0.58	16.48	89.13	0.41
Actual_2	Actual_2	565.0447	T500	32.86	7.87	9.48	9.28	9.51	0.006197	0.83	41.04	107.70	0.40

Actual_2	Actual_2	553.7349	MCO	9.37	7.78	9.11	8.68	9.13	0.010966	0.67	14.10	71.24	0.47
Actual_2	Actual_2	553.7349	T500	32.86	7.78	9.42	9.20	9.45	0.005117	0.79	43.74	110.53	0.36
Actual_2	Actual_2	534.6314	MCO	9.37	7.64	8.86	8.61	8.93	0.010314	1.12	8.33	16.25	0.50
Actual_2	Actual_2	534.6314	T500	32.86	7.64	9.29	9.13	9.33	0.008203	0.90	38.33	114.42	0.45
Actual_2	Actual_2	509.1368	MCO	9.37	7.43	8.70	8.42	8.72	0.004635	0.63	14.93	40.53	0.33
Actual_2	Actual_2	509.1368	T500	32.86	7.43	9.09	8.75	9.13	0.007381	0.87	38.08	105.21	0.43
Actual_2	Actual_2	485.0546	MCO	9.37	7.26	8.56	8.35	8.59	0.007310	0.68	13.69	46.28	0.40
Actual_2	Actual_2	485.0546	T500	32.86	7.26	8.88	8.64	8.93	0.008980	0.97	33.84	81.54	0.47
Actual_2	Actual_2	460.9725	MCO	9.37	7.20	8.34	8.21	8.37	0.011436	0.77	12.19	50.18	0.49
Actual_2	Actual_2	460.9725	T500	32.86	7.20	8.55	8.47	8.63	0.020234	1.29	26.44	95.66	0.69
Actual_2	Actual_2	441.8690	MCO	9.37	7.20	8.10	8.06	8.12	0.013536	0.73	14.10	106.55	0.51
Actual_2	Actual_2	441.8690	T500	32.86	7.20	8.30	8.19	8.34	0.007604	0.86	39.02	134.93	0.43
Actual_2	Actual_2	418.5280	MCO	9.37	7.20	7.85	7.70	7.87	0.008138	0.66	14.26	56.71	0.42
Actual_2	Actual_2	418.5280	T500	32.86	7.20	8.18	7.94	8.21	0.003907	0.72	50.79	150.93	0.32
Actual_2	Actual_2	395.8584	MCO	9.37	7.12	7.72	7.50	7.73	0.004433	0.52	17.85	62.39	0.31
Actual_2	Actual_2	395.8584	T500	32.86	7.12	8.10	7.74	8.11	0.003973	0.62	53.23	138.94	0.31
Actual_2	Actual_2	373.1887	MCO	9.37	6.90	7.65	7.34	7.65	0.002067	0.39	23.77	71.71	0.22
Actual_2	Actual_2	373.1887	T500	32.86	6.90	8.02	7.58	8.04	0.002770	0.56	58.98	133.05	0.27
Actual_2	Actual_2	354.0852	MCO	9.37	6.72	7.61	7.29	7.62	0.001790	0.37	25.17	74.14	0.20
Actual_2	Actual_2	354.0852	T500	32.86	6.72	7.97	7.52	7.99	0.002228	0.56	59.17	112.72	0.24
Actual_2	Actual_2	332.3934	MCO	9.37	6.63	7.56	7.28	7.57	0.002885	0.45	20.63	64.49	0.26
Actual_2	Actual_2	332.3934	T500	32.86	6.63	7.91	7.53	7.93	0.003481	0.66	49.55	101.32	0.30
Actual_2	Actual_2	309.0579	MCO	9.69	6.48	7.48	7.23	7.49	0.004042	0.52	18.65	61.80	0.30
Actual_2	Actual_2	309.0579	T500	34.02	6.48	7.81	7.49	7.83	0.004786	0.76	45.00	98.18	0.35
Actual_2	Actual_2	295.7206	MCO	9.69	6.40	7.39	7.23	7.42	0.007966	0.67	14.46	54.16	0.41
Actual_2	Actual_2	295.7206	T500	34.02	6.40	7.71	7.48	7.76	0.006302	0.97	36.88	85.90	0.42
Actual_2	Actual_2	274.3449	MCO	9.69	6.29	7.12	6.95	7.18	0.018222	1.06	9.11	31.80	0.63
Actual_2	Actual_2	274.3449	T500	34.02	6.29	7.51	7.34	7.58	0.012681	1.14	29.83	73.86	0.56
Actual_2	Actual_2	252.7693	MCO	9.69	5.97	6.87	6.58	6.90	0.006341	0.79	12.31	30.45	0.40
Actual_2	Actual_2	252.7693	T500	34.02	5.97	7.30	6.99	7.36	0.007221	1.13	30.99	59.91	0.45
Actual_2	Actual_2	230.4201	MCO	9.69	5.71	6.78	6.41	6.80	0.002617	0.54	17.93	40.40	0.26
Actual_2	Actual_2	230.4201	T500	34.02	5.71	7.20	6.75	7.24	0.003589	0.89	39.07	65.65	0.33
Actual_2	Actual_2	207.6205	MCO	9.69	5.52	6.73	6.36	6.74	0.002637	0.51	18.88	46.17	0.26
Actual_2	Actual_2	207.6205	T500	34.02	5.52	7.12	6.69	7.15	0.003598	0.82	41.70	72.36	0.32
Actual_2	Actual_2	182.8820	MCO	9.69	5.19	6.65	6.32	6.67	0.003141	0.53	18.12	47.20	0.28
Actual_2	Actual_2	182.8820	T500	34.02	5.19	7.01	6.64	7.05	0.005089	0.86	39.35	72.20	0.37
Actual_2	Actual_2	163.2360	MCO	9.69	5.02	6.58	6.30	6.60	0.003919	0.55	17.57	51.28	0.30
Actual_2	Actual_2	163.2360	T500	34.02	5.02	6.90	6.60	6.94	0.005824	0.90	38.58	84.24	0.40
Actual_2	Actual_2	137.5280	MCO	9.69	5.07	6.44	6.26	6.46	0.007997	0.66	14.59	55.50	0.41
Actual_2	Actual_2	137.5280	T500	34.02	5.07	6.71	6.52	6.76	0.008587	1.02	34.79	93.71	0.47
Actual_2	Actual_2	113.7589	MCO	9.69	5.07	6.32	6.15	6.34	0.002484	0.64	21.31	83.97	0.25
Actual_2	Actual_2	113.7589	T500	34.02	5.07	6.58	6.35	6.61	0.003390	0.93	47.06	113.13	0.31
Actual_2	Actual_2	96.29712	MCO	9.69	5.07	6.29	6.08	6.30	0.001826	0.33	29.36	107.42	0.20
Actual_2	Actual_2	96.29712	T500	34.02	5.07	6.54	6.22	6.56	0.002553	0.59	59.09	130.62	0.26
Actual_2	Actual_2	78.83528	MCO	9.69	5.07	6.26	6.08	6.26	0.001763	0.33	30.34	119.06	0.20

Actual_2	Actual_2	78.83528	T500	34.02	5.07	6.50	6.20	6.51	0.002487	0.58	60.94	139.37	0.26
Actual_2	Actual_2	70.34394	MCO	9.69	5.08	6.24	6.07	6.25	0.001921	0.33	30.02	122.74	0.20
Actual_2	Actual_2	70.34394	T500	34.02	5.08	6.47	6.19	6.49	0.002640	0.59	60.29	140.10	0.26
Actual_2	Actual_2	57.00518	MCO	9.69	5.07	6.21	6.06	6.22	0.002414	0.35	28.16	122.84	0.22
Actual_2	Actual_2	57.00518	T500	34.02	5.07	6.43	6.18	6.45	0.003259	0.62	56.53	138.25	0.29
Actual_2	Actual_2	40.22435	MCO	9.69	6.00	6.16	6.06	6.17	0.003845	0.21	21.61	116.85	0.24
Actual_2	Actual_2	40.22435	T500	34.02	6.00	6.37	6.18	6.39	0.004217	0.37	46.69	131.21	0.28
Actual_2	Actual_2	23.02103	MCO	9.69	5.01	6.07	5.82	6.08	0.010001	0.56	17.28	103.84	0.43
Actual_2	Actual_2	23.02103	T500	34.02	5.01	6.25	6.12	6.29	0.010014	0.92	38.05	118.81	0.49
Actual_1	Actual_1	2567.713	MCO	1.77	33.07	33.63	33.63	33.77	0.048700	1.71	1.04	3.56	1.01
Actual_1	Actual_1	2567.713	T500	8.12	33.07	34.18	34.18	34.39	0.035525	2.05	4.07	10.05	0.94
Actual_1	Actual_1	2539.521	MCO	1.77	31.55	32.08	32.10	32.25	0.060214	1.80	0.98	3.66	1.11
Actual_1	Actual_1	2539.521	T500	8.12	31.55	32.47	32.57	32.84	0.073205	2.72	3.01	7.63	1.33
Actual_1	Actual_1	2519.348	MCO	1.77	30.44	30.97	30.95	31.09	0.042276	1.53	1.16	4.30	0.94
Actual_1	Actual_1	2519.348	T500	8.12	30.44	31.36	31.39	31.63	0.046026	2.30	3.54	7.83	1.07
Actual_1	Actual_1	2498.482	MCO	1.77	29.35	29.99	29.99	30.14	0.048576	1.73	1.02	3.38	1.00
Actual_1	Actual_1	2498.482	T500	8.12	29.35	30.38	30.45	30.66	0.047407	2.38	3.62	10.49	1.09
Actual_1	Actual_1	2475.476	MCO	1.77	27.75	28.18	28.25	28.42	0.100361	2.15	0.82	3.48	1.41
Actual_1	Actual_1	2475.476	T500	8.12	27.75	28.56	28.71	29.03	0.092490	3.05	2.69	6.95	1.50
Actual_1	Actual_1	2450.021	MCO	1.77	26.47	27.07	27.06	27.19	0.047036	1.53	1.16	4.65	0.97
Actual_1	Actual_1	2450.021	T500	8.12	26.47	27.45	27.46	27.65	0.027772	2.09	4.39	12.04	0.87
Actual_1	Actual_1	2416.810	MCO	1.77	25.26	25.70	25.70	25.80	0.035727	1.45	1.32	6.93	0.88
Actual_1	Actual_1	2416.810	T500	8.12	25.26	25.94	26.02	26.21	0.056518	2.53	3.63	12.03	1.19
Actual_1	Actual_1	2389.874	MCO	1.77	24.20	24.50	24.52	24.60	0.053705	1.49	1.32	9.10	1.03
Actual_1	Actual_1	2389.874	T500	8.12	24.20	24.76	24.77	24.93	0.038635	1.96	4.46	14.98	0.97
Actual_1	Actual_1	2358.024	MCO	1.77	23.00	23.38	23.38	23.48	0.037539	1.50	1.29	6.38	0.89
Actual_1	Actual_1	2358.024	T500	8.12	23.00	23.68	23.71	23.89	0.037545	2.26	4.14	12.50	0.98
Actual_1	Actual_1	2330.744	MCO	1.77	22.21	22.65	22.58	22.69	0.015211	1.05	1.87	8.24	0.58
Actual_1	Actual_1	2330.744	T500	8.12	22.21	22.95	22.89	23.08	0.021115	1.74	5.13	13.54	0.74
Actual_1	Actual_1	2310.275	MCO	1.77	21.53	22.13	22.13	22.24	0.042192	1.46	1.25	6.58	0.93
Actual_1	Actual_1	2310.275	T500	8.12	21.53	22.48	22.48	22.60	0.028037	1.61	5.38	19.95	0.82
Actual_1	Actual_1	2290.059	MCO	1.77	20.78	21.32	21.25	21.39	0.021789	1.13	1.57	5.98	0.68
Actual_1	Actual_1	2290.059	T500	8.12	20.78	21.73	21.64	21.88	0.019441	1.82	4.77	9.77	0.73
Actual_1	Actual_1	2272.323	MCO	1.77	20.06	20.68	20.68	20.84	0.048830	1.77	1.00	3.20	1.01
Actual_1	Actual_1	2272.323	T500	8.12	20.06	21.26	21.26	21.47	0.028644	2.08	4.27	10.81	0.87
Actual_1	Actual_1	2245.213	MCO	1.77	19.14	19.78	19.71	19.84	0.019487	1.16	1.60	6.28	0.65
Actual_1	Actual_1	2245.213	T500	8.12	19.14	20.02	20.11	20.33	0.055019	2.57	3.37	8.85	1.17
Actual_1	Actual_1	2214.445	MCO	1.77	18.24	18.83	18.83	18.98	0.048049	1.72	1.03	3.45	1.00
Actual_1	Actual_1	2214.445	T500	8.12	18.24	19.29	19.28	19.42	0.025949	1.76	5.30	19.06	0.81
Actual_1	Actual_1	2194.679	MCO	1.77	17.71	17.92	17.90	17.95	0.028772	0.78	2.25	22.42	0.70
Actual_1	Actual_1	2194.679	T500	8.12	17.71	18.01	18.05	18.17	0.078578	1.74	4.54	28.08	1.24
Actual_1	Actual_1	2172.173	MCO	1.77	17.14	17.48	17.41	17.50	0.009242	0.73	3.02	20.67	0.44
Actual_1	Actual_1	2172.173	T500	8.12	17.14	17.70	17.59	17.74	0.008542	1.00	9.43	33.41	0.46
Actual_1	Actual_1	2146.090	MCO	1.77	16.72	17.16	17.12	17.19	0.017097	0.82	2.34	16.04	0.57
Actual_1	Actual_1	2146.090	T500	8.12	16.72	17.39	17.31	17.46	0.015353	1.23	6.93	23.52	0.61

Actual_1	Actual_1	2110.755	MCO	1.77	16.24	16.52	16.48	16.56	0.018240	0.95	2.09	13.05	0.61
Actual_1	Actual_1	2110.755	T500	8.12	16.24	16.77	16.71	16.85	0.019226	1.42	6.21	21.09	0.68
Actual_1	Actual_1	2082.073	MCO	1.77	15.90	16.25	16.13	16.26	0.004099	0.47	3.97	21.19	0.29
Actual_1	Actual_1	2082.073	T500	8.12	15.90	16.46	16.31	16.49	0.007365	0.89	9.95	34.04	0.42
Actual_1	Actual_1	2061.885	MCO	1.77	15.73	16.13	16.08	16.15	0.016835	0.68	2.99	30.38	0.55
Actual_1	Actual_1	2061.885	T500	8.12	15.73	16.28	16.22	16.33	0.015407	0.92	8.60	39.86	0.57
Actual_1	Actual_1	2034.217	MCO	1.77	15.50	15.78	15.70	15.79	0.008622	0.58	3.37	24.02	0.41
Actual_1	Actual_1	2034.217	T500	8.12	15.50	15.97	15.88	16.00	0.007485	0.86	11.93	56.59	0.43
Actual_1	Actual_1	2001.225	MCO	1.77	15.22	15.46	15.40	15.48	0.009637	0.63	3.28	25.85	0.44
Actual_1	Actual_1	2001.225	T500	8.12	15.22	15.64	15.56	15.68	0.011387	1.04	9.07	38.07	0.53
Actual_1	Actual_1	1986.102	MCO	1.77	15.09	15.28	15.22	15.29	0.009914	0.55	3.52	30.72	0.43
Actual_1	Actual_1	1986.102	T500	8.12	15.09	15.50	15.37	15.52	0.005289	0.70	12.82	50.77	0.36
Actual_1	Actual_1	1965.244	MCO	1.77	14.89	15.15	15.04	15.15	0.003266	0.36	5.26	36.42	0.25
Actual_1	Actual_1	1965.244	T500	8.12	14.89	15.43	15.18	15.44	0.001582	0.45	19.69	60.48	0.20
Actual_1	Actual_1	1925.651	MCO	6.40	14.46	14.93	14.83	14.96	0.008811	0.95	8.28	36.19	0.47
Actual_1	Actual_1	1925.651	T500	26.81	14.46	15.28	15.10	15.34	0.007634	1.33	25.42	62.78	0.48
Actual_1	Actual_1	1908.499	MCO	6.40	14.27	14.77	14.67	14.81	0.010506	1.08	7.29	30.09	0.52
Actual_1	Actual_1	1908.499	T500	26.81	14.27	15.15	14.98	15.22	0.007665	1.40	24.60	58.61	0.49
Actual_1	Actual_1	1877.535	MCO	6.40	13.97	14.58	14.36	14.60	0.003033	0.69	11.38	35.78	0.29
Actual_1	Actual_1	1877.535	T500	26.81	13.97	15.01	14.66	15.04	0.003413	1.06	31.50	58.62	0.34
Actual_1	Actual_1	1849.726	MCO	6.40	13.82	14.50	14.29	14.52	0.002607	0.65	12.82	43.84	0.27
Actual_1	Actual_1	1849.726	T500	26.81	13.82	14.94	14.56	14.96	0.002383	0.89	38.25	73.24	0.28
Actual_1	Actual_1	1827.737	MCO	6.40	13.71	14.47	14.16	14.48	0.001131	0.48	17.41	51.03	0.18
Actual_1	Actual_1	1827.737	T500	26.81	13.71	14.90	14.44	14.92	0.001498	0.76	45.54	80.16	0.23
Actual_1	Actual_1	1810.336	MCO	6.40	13.62	14.45	14.10	14.46	0.000811	0.39	20.10	55.41	0.15
Actual_1	Actual_1	1810.336	T500	26.81	13.62	14.88	14.36	14.89	0.001203	0.66	50.54	87.79	0.20
Actual_1	Actual_1	1778.741	MCO	6.40	13.45	14.43	13.99	14.43	0.000650	0.41	21.69	63.65	0.14
Actual_1	Actual_1	1778.741	T500	26.81	13.45	14.84	14.36	14.86	0.000945	0.64	56.35	101.29	0.18
Actual_1	Actual_1	1751.420	MCO	6.40	13.31	14.42	13.74	14.42	0.000116	0.18	43.43	89.66	0.06
Actual_1	Actual_1	1751.420	T500	26.81	13.31	14.83	14.10	14.84	0.000279	0.36	83.66	121.17	0.10
Actual_1	Actual_1	1730.476	MCO	6.40	13.20	14.42	13.67	14.42	0.000113	0.18	37.90	60.16	0.06
Actual_1	Actual_1	1730.476	T500	26.81	13.20	14.82	13.97	14.83	0.000397	0.40	62.93	64.05	0.11
Actual_1	Actual_1	1684.748	MCO	6.40	12.96	14.41	13.49	14.41	0.000148	0.22	33.35	53.70	0.07
Actual_1	Actual_1	1684.748	T500	26.81	12.96	14.80	13.89	14.81	0.000599	0.55	56.79	68.40	0.15
Actual_1	Actual_1	1651.421	MCO	6.40	12.79	14.41	13.43	14.41	0.000186	0.26	32.39	61.79	0.08
Actual_1	Actual_1	1651.421	T500	26.81	12.79	14.78	13.93	14.79	0.000647	0.59	60.99	109.56	0.15
Actual_1	Actual_1	1614.620	MCO	6.40	12.60	14.40	13.42	14.40	0.000210	0.31	34.01	94.52	0.09
Actual_1	Actual_1	1614.620	T500	26.81	12.60	14.76	14.25	14.77	0.000320	0.45	101.53	208.04	0.11
Actual_1	Actual_1	1604.204	MCO	6.40	12.55	14.39	13.72	14.40	0.000357	0.37	29.26	103.45	0.11
Actual_1	Actual_1	1604.204	T500	26.81	12.55	14.76	14.34	14.77	0.000345	0.44	105.94	234.75	0.11
Actual_1	Actual_1	1600		Culvert									
Actual_1	Actual_1	1546.273	MCO	6.40	12.24	14.03	13.43	14.03	0.000060	0.15	70.59	198.39	0.04
Actual_1	Actual_1	1546.273	T500	26.81	12.24	14.76	14.00	14.76	0.000029	0.14	233.36	246.52	0.03
Actual_1	Actual_1	1530		Culvert									

Actual_1	Actual_1	1522.209	MCO	6.40	12.12	13.59	13.36	13.97	0.006281	2.74	2.34	1.59	0.72
Actual_1	Actual_1	1522.209	T500	26.81	12.12	14.76	14.43	14.76	0.000214	0.45	121.66	223.55	0.05
Actual_1	Actual_1	1508.618	MCO	6.40	12.05	13.42	13.29	13.86	0.007359	2.94	2.18	1.70	0.80
Actual_1	Actual_1	1508.618	T500	26.81	12.05	14.74	14.48	14.76	0.000889	0.92	58.58	107.83	0.10
Actual_1	Actual_1	1489.793	MCO	6.40	11.91	13.18	13.15	13.70	0.008985	3.19	2.01	1.79	0.90
Actual_1	Actual_1	1489.793	T500	26.81	11.91	14.73	14.34	14.74	0.000654	0.84	58.97	85.81	0.10
Actual_1	Actual_1	1468.900	MCO	6.40	11.72	13.00	12.96	13.51	0.008729	3.15	2.03	1.77	0.89
Actual_1	Actual_1	1468.900	T500	26.81	11.72	14.69	14.43	14.72	0.001448	1.31	42.67	77.12	0.15
Actual_1	Actual_1	1443.099	MCO	6.40	11.49	12.75	12.73	13.28	0.009095	3.21	2.00	1.79	0.91
Actual_1	Actual_1	1443.099	T500	26.81	11.49	14.41	14.41	14.64	0.006861	2.81	18.29	41.09	0.39
Actual_1	Actual_1	1418.248	MCO	6.40	11.26	12.55	12.50	13.05	0.008545	3.12	2.05	1.77	0.88
Actual_1	Actual_1	1418.248	T500	26.81	11.26	14.00	14.00	14.39	0.012276	3.55	12.33	19.07	0.54
Actual_1	Actual_1	1389.021	MCO	6.40	11.00	12.34	12.24	12.80	0.007725	3.00	2.14	1.72	0.83
Actual_1	Actual_1	1389.021	T500	26.81	11.00	13.42	13.58	13.91	0.020025	4.08	12.81	34.53	0.63
Actual_1	Actual_1	1347.551	MCO	6.40	10.67	12.06	11.91	12.48	0.007138	2.90	2.21	1.69	0.79
Actual_1	Actual_1	1347.551	T500	26.81	10.67	13.24	13.24	13.43	0.008322	2.77	19.09	41.75	0.38
Actual_1	Actual_1	1308.983	MCO	6.40	10.37	11.62	11.62	12.16	0.009498	3.26	1.96	1.81	0.93
Actual_1	Actual_1	1308.983	T500	26.81	10.37	12.63	12.72	12.92	0.017515	3.58	21.32	117.01	0.51
Actual_1	Actual_1	1282.799	MCO	8.83	10.16	11.37	11.31	11.41	0.008369	1.22	11.27	54.41	0.47
Actual_1	Actual_1	1282.799	T500	36.00	10.16	12.03	11.56	12.04	0.000968	0.65	72.63	200.77	0.18
Actual_1	Actual_1	1255.224	MCO	8.83	9.95	11.24	10.86	11.26	0.002189	0.81	18.69	76.48	0.26
Actual_1	Actual_1	1255.224	T500	36.00	9.95	12.02	11.33	12.02	0.000387	0.50	102.17	240.76	0.12
Actual_1	Actual_1	1235.735	MCO	8.83	9.80	11.22	10.57	11.22	0.000851	0.49	26.05	72.26	0.16
Actual_1	Actual_1	1235.735	T500	36.00	9.80	12.01	11.18	12.02	0.000246	0.40	127.86	238.43	0.10
Actual_1	Actual_1	1213.838	MCO	8.83	9.63	11.20	10.52	11.21	0.000862	0.55	27.17	93.42	0.17
Actual_1	Actual_1	1213.838	T500	36.00	9.63	12.01	10.99	12.01	0.000195	0.38	131.61	205.56	0.09
Actual_1	Actual_1	1189.571	MCO	8.83	9.44	11.19	10.29	11.19	0.000279	0.35	38.20	85.85	0.10
Actual_1	Actual_1	1189.571	T500	36.00	9.44	12.00	10.79	12.01	0.000159	0.36	134.88	162.69	0.08
Actual_1	Actual_1	1154.857	MCO	8.83	9.17	11.17	10.33	11.18	0.000478	0.43	31.59	88.18	0.12
Actual_1	Actual_1	1154.857	T500	36.00	9.17	12.00	11.10	12.00	0.000233	0.42	111.45	171.40	0.09
Actual_1	Actual_1	1150		Culvert									
Actual_1	Actual_1	1136.232	MCO	8.83	9.02	11.03	10.48	11.12	0.006412	1.30	6.88	15.67	0.42
Actual_1	Actual_1	1136.232	T500	36.00	9.02	11.67	11.47	12.00	0.013457	2.64	14.49	135.88	0.66
Actual_1	Actual_1	1116.615	MCO	8.83	8.93	10.97	10.13	11.00	0.002673	0.81	10.94	12.84	0.28
Actual_1	Actual_1	1116.615	T500	36.00	8.93	11.64	11.10	11.70	0.003340	1.32	39.70	96.88	0.34
Actual_1	Actual_1	1076.127	MCO	8.83	8.77	10.79	10.05	10.86	0.004699	1.20	7.37	6.45	0.36
Actual_1	Actual_1	1076.127	T500	36.00	8.77	11.56	11.37	11.58	0.001976	0.96	60.25	143.29	0.25
Actual_1	Actual_1	1053.136	MCO	8.83	8.68	10.66	9.97	10.75	0.005442	1.26	7.02	6.55	0.39
Actual_1	Actual_1	1053.136	T500	36.00	8.68	11.52	11.33	11.55	0.001840	0.98	61.35	144.59	0.25
Actual_1	Actual_1	1011.713	MCO	8.83	8.52	10.42	9.79	10.51	0.006203	1.27	7.18	9.83	0.41
Actual_1	Actual_1	1011.713	T500	36.00	8.52	11.44	10.89	11.47	0.001772	1.03	57.48	123.00	0.25
Actual_1	Actual_1	982.4587	MCO	8.83	8.40	10.31	9.59	10.36	0.003106	0.96	9.38	10.94	0.31
Actual_1	Actual_1	982.4587	T500	36.00	8.40	11.31	10.53	11.39	0.003430	1.43	34.73	83.89	0.35
Actual_1	Actual_1	949.6408	MCO	8.83	8.28	10.17	9.61	10.23	0.005303	1.11	7.95	9.59	0.39

Actual_1	Actual_1	949.6408	T500	36.00	8.28	11.06	10.52	11.23	0.007464	1.87	20.03	29.68	0.51
Actual_1	Actual_1	927.2091	MCO	8.83	8.19	10.01	9.49	10.09	0.006848	1.29	6.85	7.72	0.44
Actual_1	Actual_1	927.2091	T500	36.00	8.19	10.97	10.53	11.07	0.004578	1.60	27.51	34.78	0.40
Actual_1	Actual_1	915.5645	MCO	8.83	8.14	9.91	9.45	10.01	0.007783	1.37	6.46	7.38	0.47
Actual_1	Actual_1	915.5645	T500	36.00	8.14	10.89	10.50	11.01	0.005153	1.72	26.75	38.81	0.43
Actual_1	Actual_1	905.6098	MCO	8.83	8.10	9.82	9.43	9.92	0.009498	1.43	6.18	7.79	0.51
Actual_1	Actual_1	905.6098	T500	36.00	8.10	10.81	10.43	10.96	0.006099	1.82	24.36	35.39	0.46
Actual_1	Actual_1	886.7251	MCO	8.83	8.03	9.55	9.29	9.70	0.014690	1.71	5.16	6.87	0.63
Actual_1	Actual_1	886.7251	T500	36.00	8.03	10.59	10.31	10.80	0.009979	2.11	19.11	25.27	0.58
Actual_1	Actual_1	870.6595	MCO	8.83	7.95	9.44	8.83	9.52	0.005212	1.21	7.29	7.32	0.39
Actual_1	Actual_1	870.6595	T500	36.00	7.95	10.41	9.84	10.64	0.009918	2.18	17.40	17.83	0.57
Actual_1	Actual_1	849.4680	MCO	8.83	7.82	9.31	8.76	9.39	0.006283	1.26	7.02	7.84	0.42
Actual_1	Actual_1	849.4680	T500	36.00	7.82	10.03	9.76	10.36	0.018598	2.55	14.27	19.10	0.77
Actual_1	Actual_1	829.0050	MCO	8.83	7.69	8.98	8.81	9.18	0.020517	2.02	4.38	5.82	0.74
Actual_1	Actual_1	829.0050	T500	36.00	7.69	9.84	9.84	10.00	0.011622	2.02	25.32	71.15	0.61
Actual_1	Actual_1	802.7340	MCO	8.83	7.53	8.73	8.52	8.78	0.006122	1.16	9.12	20.96	0.42
Actual_1	Actual_1	802.7340	T500	36.00	7.53	9.22	9.00	9.34	0.010448	1.89	25.42	54.92	0.58
Actual_1	Actual_1	778.2098	MCO	8.83	7.39	8.65	8.37	8.67	0.002222	0.75	16.49	47.78	0.26
Actual_1	Actual_1	778.2098	T500	36.00	7.39	9.13	8.73	9.15	0.002329	1.03	56.11	129.27	0.29
Actual_1	Actual_1	754.9577	MCO	8.83	7.25	8.61	8.32	8.62	0.001505	0.59	21.13	64.96	0.21
Actual_1	Actual_1	754.9577	T500	36.00	7.25	9.09	8.62	9.11	0.001290	0.74	68.12	127.57	0.21
Actual_1	Actual_1	732.7650	MCO	8.83	7.11	8.59	8.28	8.59	0.001096	0.52	24.88	77.77	0.18
Actual_1	Actual_1	732.7650	T500	36.00	7.11	9.07	8.56	9.08	0.000919	0.64	79.20	143.71	0.18
Actual_1	Actual_1	699.8298	MCO	8.83	6.92	8.56	7.90	8.57	0.000450	0.42	35.31	101.85	0.12
Actual_1	Actual_1	699.8298	T500	36.00	6.92	9.05	8.48	9.06	0.000467	0.53	99.10	154.40	0.13
Actual_1	Actual_1	670.8853	MCO	8.83	6.76	8.53	7.94	8.55	0.001420	0.72	21.64	85.33	0.21
Actual_1	Actual_1	670.8853	T500	36.00	6.76	9.03	8.62	9.04	0.000765	0.66	87.08	165.91	0.16
Actual_1	Actual_1	643.7293	MCO	8.83	6.61	8.48	7.89	8.50	0.001697	0.74	16.40	42.13	0.23
Actual_1	Actual_1	643.7293	T500	36.00	6.61	8.97	8.58	9.01	0.002418	1.13	47.35	85.35	0.29
Actual_1	Actual_1	627.1081	MCO	8.83	6.52	8.43	7.82	8.47	0.003185	1.01	12.10	35.78	0.29
Actual_1	Actual_1	627.1081	T500	36.00	6.52	8.91	8.66	8.96	0.003684	1.30	41.45	83.72	0.32
Actual_1	Actual_1	595.2490	MCO	8.83	6.34	8.21	7.76	8.31	0.008550	1.49	7.29	25.05	0.46
Actual_1	Actual_1	595.2490	T500	36.00	6.34	8.60	8.60	8.76	0.014312	2.28	23.85	62.09	0.61
Actual_1	Actual_1	585.0177	MCO	8.83	6.29	7.74	7.72	8.14	0.041495	2.78	3.17	3.76	0.97
Actual_1	Actual_1	585.0177	T500	36.00	6.29	8.31	8.38	8.54	0.028672	2.77	20.87	77.15	0.82
Actual_1	Actual_1	569.7507	MCO	8.83	6.20	7.58	7.38	7.62	0.005161	1.03	9.81	21.29	0.37
Actual_1	Actual_1	569.7507	T500	36.00	6.20	8.03	7.81	8.13	0.011503	1.91	26.86	65.33	0.58
Actual_1	Actual_1	560		Culvert									
Actual_1	Actual_1	552.0597	MCO	8.83	6.10	7.58	7.26	7.59	0.002028	0.62	17.27	45.35	0.23
Actual_1	Actual_1	552.0597	T500	36.00	6.10	8.04	7.61	8.07	0.002784	0.96	51.89	113.95	0.28
Actual_1	Actual_1	544.8601	MCO	8.83	6.06	7.57	7.24	7.58	0.001314	0.54	22.29	65.14	0.19
Actual_1	Actual_1	544.8601	T500	36.00	6.06	8.04	7.55	8.05	0.001214	0.70	70.23	130.15	0.20
Actual_1	Actual_1	540		Culvert									
Actual_1	Actual_1	529.9171	MCO	10.14	5.99	7.56	7.25	7.58	0.001786	0.82	19.89	69.41	0.24

Actual_1	Actual_1	529.9171	T500	41.50	5.99	8.03	7.63	8.04	0.001030	0.77	93.34	202.56	0.19
Actual_1	Actual_1	507.1692	MCO	10.14	5.95	7.53	7.21	7.54	0.001013	0.60	28.38	92.91	0.18
Actual_1	Actual_1	507.1692	T500	41.50	5.95	8.01	7.56	8.02	0.000872	0.71	97.70	196.92	0.18
Actual_1	Actual_1	480.6490	MCO	10.14	5.89	7.50	7.20	7.51	0.001214	0.68	25.55	84.68	0.20
Actual_1	Actual_1	480.6490	T500	41.50	5.89	7.98	7.55	8.00	0.001039	0.79	86.75	172.20	0.19
Actual_1	Actual_1	451.3865	MCO	10.14	5.83	7.48	6.63	7.49	0.000295	0.35	39.99	84.67	0.10
Actual_1	Actual_1	451.3865	T500	41.50	5.83	7.96	7.17	7.97	0.000540	0.59	101.16	158.86	0.14
Actual_1	Actual_1	420.2550	MCO	10.14	5.76	7.48	6.66	7.48	0.000135	0.24	62.45	138.24	0.07
Actual_1	Actual_1	420.2550	T500	41.50	5.76	7.95	7.19	7.96	0.000248	0.40	137.01	173.60	0.09
Actual_1	Actual_1	385.2368	MCO	10.14	5.69	7.48	6.96	7.48	0.000061	0.16	89.71	172.64	0.04
Actual_1	Actual_1	385.2368	T500	41.50	5.69	7.95	7.20	7.95	0.000129	0.28	176.50	194.93	0.07
Actual_1	Actual_1	353.1833	MCO	10.14	5.62	7.47	7.10	7.47	0.000147	0.21	66.76	164.81	0.06
Actual_1	Actual_1	353.1833	T500	41.50	5.62	7.94	7.25	7.95	0.000214	0.32	154.51	209.20	0.08
Actual_1	Actual_1	326.0251	MCO	10.14	5.57	7.46	7.22	7.47	0.000781	0.50	36.63	151.56	0.15
Actual_1	Actual_1	326.0251	T500	41.50	5.57	7.93	7.44	7.94	0.000425	0.47	128.14	219.73	0.12
Actual_1	Actual_1	297.1317	MCO	10.14	5.51	7.43	6.95	7.44	0.001047	0.60	37.26	211.63	0.17
Actual_1	Actual_1	297.1317	T500	41.50	5.51	7.92	7.47	7.93	0.000301	0.40	149.53	245.62	0.10
Actual_1	Actual_1	265.4205	MCO	10.14	5.44	7.42	6.68	7.42	0.000145	0.24	76.47	236.39	0.07
Actual_1	Actual_1	265.4205	T500	41.50	5.44	7.92	7.30	7.92	0.000124	0.28	204.35	274.32	0.07
Actual_1	Actual_1	229.9372	MCO	10.14	5.37	7.42	6.37	7.42	0.000029	0.11	130.03	256.46	0.03
Actual_1	Actual_1	229.9372	T500	41.50	5.37	7.92	6.63	7.92	0.000055	0.18	267.89	294.21	0.04
Actual_1	Actual_1	184.8676	MCO	10.14	5.27	7.42	6.28	7.42	0.000017	0.10	157.07	272.46	0.03
Actual_1	Actual_1	184.8676	T500	41.50	5.27	7.91	6.72	7.92	0.000039	0.19	303.24	312.79	0.04
Actual_1	Actual_1	123.7851	MCO	10.14	5.15	7.38	6.32	7.41	0.000863	0.73	13.54	360.76	0.18
Actual_1	Actual_1	123.7851	T500	41.50	5.15	7.38	7.13	7.86	0.014583	2.98	13.51	360.54	0.73
Actual_1	Actual_1	95.36573	MCO	10.14	5.09	7.39	6.20	7.39	0.000002	0.04	338.98	376.98	0.01
Actual_1	Actual_1	95.36573	T500	41.50	5.09	7.51	7.00	7.51	0.000023	0.13	383.48	383.53	0.03
Actual_1	Actual_1	60		Culvert									
Actual_1	Actual_1	49.98656	MCO	10.14	5.00	5.91	5.91	6.19	0.028600	2.44	4.52	153.07	0.89
Actual_1	Actual_1	49.98656	T500	41.50	5.00	6.26	6.25	6.27	0.002004	0.75	76.38	225.39	0.25

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ERRORS WARNINGS AND NOTES
Errors Warnings and Notes for Plan : Actual_v2

River: Actual_1 Reach: Actual_1 RS: 2567.713 Profile: MCO
Warning:The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
River: Actual_1 Reach: Actual_1 RS: 2567.713 Profile: T500
Warning:The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The

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            program defaulted to critical depth.
River: Actual_1  Reach: Actual_1     RS: 2539.521     Profile: MCO
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 2539.521     Profile: T500
     Warning:The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross sections.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 2519.348     Profile: MCO
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Note:   Hydraulic jump has occurred between this cross section and the previous upstream section.
River: Actual_1  Reach: Actual_1     RS: 2519.348     Profile: T500
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 2498.482     Profile: MCO
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
             for the water surface and continued on with the calculations.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated
             water surface came back below critical depth.  This indicates that there is not a valid subcritical answer.  The
             program defaulted to critical depth.
River: Actual_1  Reach: Actual_1     RS: 2498.482     Profile: T500
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 2475.476     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 2475.476     Profile: T500
     Warning:The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 2450.021     Profile: MCO
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Note:   Hydraulic jump has occurred between this cross section and the previous upstream section.
River: Actual_1  Reach: Actual_1     RS: 2450.021     Profile: T500
     Warning:The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross sections.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 2416.810     Profile: MCO
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
             for the water surface and continued on with the calculations.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated
             water surface came back below critical depth.  This indicates that there is not a valid subcritical answer.  The
             program defaulted to critical depth.
River: Actual_1  Reach: Actual_1     RS: 2416.810     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 2389.874     Profile: MCO
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 2389.874     Profile: T500
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 2358.024     Profile: MCO
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     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
             for the water surface and continued on with the calculations.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated
             water surface came back below critical depth.  This indicates that there is not a valid subcritical answer.  The
             program defaulted to critical depth.
River: Actual_1  Reach: Actual_1     RS: 2358.024     Profile: T500
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program selected the water
             surface that had the least amount of error between computed and assumed values.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 2330.744     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Note:   Hydraulic jump has occurred between this cross section and the previous upstream section.
River: Actual_1  Reach: Actual_1     RS: 2330.744     Profile: T500
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Note:   Hydraulic jump has occurred between this cross section and the previous upstream section.
River: Actual_1  Reach: Actual_1     RS: 2310.275     Profile: MCO
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
             for the water surface and continued on with the calculations.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated
             water surface came back below critical depth.  This indicates that there is not a valid subcritical answer.  The
             program defaulted to critical depth.
River: Actual_1  Reach: Actual_1     RS: 2310.275     Profile: T500
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
             for the water surface and continued on with the calculations.
     Warning:Divided flow computed for this cross-section.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated
             water surface came back below critical depth.  This indicates that there is not a valid subcritical answer.  The
             program defaulted to critical depth.
River: Actual_1  Reach: Actual_1     RS: 2290.059     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Note:   Hydraulic jump has occurred between this cross section and the previous upstream section.
River: Actual_1  Reach: Actual_1     RS: 2290.059     Profile: T500
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Note:   Hydraulic jump has occurred between this cross section and the previous upstream section.
River: Actual_1  Reach: Actual_1     RS: 2272.323     Profile: MCO
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
             for the water surface and continued on with the calculations.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated
             water surface came back below critical depth.  This indicates that there is not a valid subcritical answer.  The
             program defaulted to critical depth.
River: Actual_1  Reach: Actual_1     RS: 2272.323     Profile: T500
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
             for the water surface and continued on with the calculations.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated
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            water surface came back below critical depth.  This indicates that there is not a valid subcritical answer.  The
            program defaulted to critical depth.
River: Actual_1  Reach: Actual_1     RS: 2245.213     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
            This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
            the need for additional cross sections.
     Note:   Hydraulic jump has occurred between this cross section and the previous upstream section.
River: Actual_1  Reach: Actual_1     RS: 2245.213     Profile: T500
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
            the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 2214.445     Profile: MCO
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
            for the water surface and continued on with the calculations.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
            the need for additional cross sections.
     Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated
            water surface came back below critical depth.  This indicates that there is not a valid subcritical answer.  The
            program defaulted to critical depth.
River: Actual_1  Reach: Actual_1     RS: 2214.445     Profile: T500
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
            for the water surface and continued on with the calculations.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
            the need for additional cross sections.
     Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated
            water surface came back below critical depth.  This indicates that there is not a valid subcritical answer.  The
            program defaulted to critical depth.
River: Actual_1  Reach: Actual_1     RS: 2194.679     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
            This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
            the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 2194.679     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
            This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
            the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 2172.173     Profile: MCO
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
            the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 2172.173     Profile: T500
     Note:   Hydraulic jump has occurred between this cross section and the previous upstream section.
River: Actual_1  Reach: Actual_1     RS: 2146.090     Profile: MCO
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
            the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 2146.090     Profile: T500
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
            the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 2110.755     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
            This may indicate the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 2110.755     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
            This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
            the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 2082.073     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
            This may indicate the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 2082.073     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
            This may indicate the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 2061.885     Profile: MCO
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
            the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 2061.885     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
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            This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
            the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 2034.217     Profile: MCO
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
            the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 2034.217     Profile: T500
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
            the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 2001.225     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
            This may indicate the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 1986.102     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
            This may indicate the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 1986.102     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
            This may indicate the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 1965.244     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
            This may indicate the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 1965.244     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
            This may indicate the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 1908.499     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
            This may indicate the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 1908.499     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
            This may indicate the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 1849.726     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
            This may indicate the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 1778.741     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
            This may indicate the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 1778.741     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
            This may indicate the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 1651.421     Profile: MCO
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 1651.421     Profile: T500
     Warning:Divided flow computed for this cross-section.
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 1614.620     Profile: MCO
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 1614.620     Profile: T500
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 1604.204     Profile: MCO
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, water surface was
            used.
River: Actual_1  Reach: Actual_1     RS: 1604.204     Profile: T500
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, water surface was
            used.
River: Actual_1  Reach: Actual_1     RS: 1600     Profile: T500
     Warning:The weir over culvert is submerged.
River: Actual_1  Reach: Actual_1     RS: 1546.273     Profile: MCO
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, water surface was
            used.
River: Actual_1  Reach: Actual_1     RS: 1546.273     Profile: T500
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, water surface was
            used.
River: Actual_1  Reach: Actual_1     RS: 1530     Profile: MCO     Culv: Culvert #1
     Warning:During the culvert inlet control computations, the program could not balance the culvert/weir flow.  The reported
            inlet energy grade answer may not be valid.
River: Actual_1  Reach: Actual_1     RS: 1530     Profile: T500
     Warning:The weir over culvert is submerged.
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River: Actual_1  Reach: Actual_1     RS: 1522.209     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 1489.793     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 1468.900     Profile: T500
     Warning:The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross sections.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 1443.099     Profile: T500
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
             for the water surface and continued on with the calculations.
     Warning:The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross sections.
     Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated
             water surface came back below critical depth.  This indicates that there is not a valid subcritical answer.  The
             program defaulted to critical depth.
River: Actual_1  Reach: Actual_1     RS: 1418.248     Profile: T500
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program selected the water
             surface that had the least amount of error between computed and assumed values.
     Warning:The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 1389.021     Profile: MCO
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 1389.021     Profile: T500
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 1347.551     Profile: MCO
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 1347.551     Profile: T500
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
             for the water surface and continued on with the calculations.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated
             water surface came back below critical depth.  This indicates that there is not a valid subcritical answer.  The
             program defaulted to critical depth.
River: Actual_1  Reach: Actual_1     RS: 1308.983     Profile: MCO
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
             for the water surface and continued on with the calculations.
     Warning:The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross sections.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated
             water surface came back below critical depth.  This indicates that there is not a valid subcritical answer.  The
             program defaulted to critical depth.
River: Actual_1  Reach: Actual_1     RS: 1308.983     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 1282.799     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Note:   Hydraulic jump has occurred between this cross section and the previous upstream section.
River: Actual_1  Reach: Actual_1     RS: 1282.799     Profile: T500
     Warning:Divided flow computed for this cross-section.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Note:   Hydraulic jump has occurred between this cross section and the previous upstream section.
River: Actual_1  Reach: Actual_1     RS: 1255.224     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 1235.735     Profile: T500
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     Warning:Divided flow computed for this cross-section.
River: Actual_1  Reach: Actual_1     RS: 1213.838     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 1213.838     Profile: T500
     Warning:Divided flow computed for this cross-section.
River: Actual_1  Reach: Actual_1     RS: 1154.857     Profile: MCO
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, water surface was
             used.
River: Actual_1  Reach: Actual_1     RS: 1154.857     Profile: T500
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, water surface was
             used.
River: Actual_1  Reach: Actual_1     RS: 1136.232     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, water surface was
             used.
River: Actual_1  Reach: Actual_1     RS: 1136.232     Profile: T500
     Warning:The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross sections.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, water surface was
             used.
River: Actual_1  Reach: Actual_1     RS: 1116.615     Profile: MCO
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 1116.615     Profile: T500
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 1076.127     Profile: MCO
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 1053.136     Profile: MCO
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 1011.713     Profile: MCO
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 1011.713     Profile: T500
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 982.4587     Profile: T500
     Warning:Divided flow computed for this cross-section.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 949.6408     Profile: MCO
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 949.6408     Profile: T500
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 927.2091     Profile: MCO
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 927.2091     Profile: T500
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 915.5645     Profile: MCO
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 915.5645     Profile: T500
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 905.6098     Profile: MCO
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 905.6098     Profile: T500
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 886.7251     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 886.7251     Profile: T500
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 870.6595     Profile: MCO
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 870.6595     Profile: T500
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 849.4680     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
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            This may indicate the need for additional cross sections.
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 849.4680     Profile: T500
     Warning:The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
            the need for additional cross sections.
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 829.0050     Profile: MCO
     Warning:The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross sections.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
            This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
            the need for additional cross sections.
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 829.0050     Profile: T500
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
            for the water surface and continued on with the calculations.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
            the need for additional cross sections.
     Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated
            water surface came back below critical depth.  This indicates that there is not a valid subcritical answer.  The
            program defaulted to critical depth.
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 802.7340     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
            This may indicate the need for additional cross sections.
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 802.7340     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
            This may indicate the need for additional cross sections.
     Note:   Hydraulic jump has occurred between this cross section and the previous upstream section.
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 732.7650     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
            This may indicate the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 699.8298     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
            This may indicate the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 670.8853     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
            This may indicate the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 643.7293     Profile: MCO
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 643.7293     Profile: T500
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, water surface was
            used.
River: Actual_1  Reach: Actual_1     RS: 627.1081     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
            This may indicate the need for additional cross sections.
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 627.1081     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
            This may indicate the need for additional cross sections.
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, water surface was
            used.
River: Actual_1  Reach: Actual_1     RS: 595.2490     Profile: MCO
     Warning:The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross sections.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
            This may indicate the need for additional cross sections.
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 595.2490     Profile: T500
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
            for the water surface and continued on with the calculations.
     Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated
            water surface came back below critical depth.  This indicates that there is not a valid subcritical answer.  The
            program defaulted to critical depth.
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, water surface was
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            used.
River: Actual_1  Reach: Actual_1     RS: 585.0177     Profile: MCO
     Warning:The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross sections.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 585.0177     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, water surface was
             used.
River: Actual_1  Reach: Actual_1     RS: 569.7507     Profile: MCO
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, water surface was
             used.
River: Actual_1  Reach: Actual_1     RS: 569.7507     Profile: T500
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, water surface was
             used.
     Note:   Hydraulic jump has occurred between this cross section and the previous upstream section.
River: Actual_1  Reach: Actual_1     RS: 552.0597     Profile: MCO
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, water surface was
             used.
River: Actual_1  Reach: Actual_1     RS: 552.0597     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, water surface was
             used.
River: Actual_1  Reach: Actual_1     RS: 544.8601     Profile: MCO
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, water surface was
             used.
River: Actual_1  Reach: Actual_1     RS: 544.8601     Profile: T500
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, water surface was
             used.
River: Actual_1  Reach: Actual_1     RS: 540     Profile: T500
     Warning:The weir over culvert is submerged.
River: Actual_1  Reach: Actual_1     RS: 529.9171     Profile: MCO
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, water surface was
             used.
River: Actual_1  Reach: Actual_1     RS: 529.9171     Profile: T500
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, water surface was
             used.
River: Actual_1  Reach: Actual_1     RS: 507.1692     Profile: MCO
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 507.1692     Profile: T500
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 480.6490     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 451.3865     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 451.3865     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 420.2550     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 385.2368     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 385.2368     Profile: T500
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 353.1833     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
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River: Actual_1  Reach: Actual_1     RS: 353.1833     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 326.0251     Profile: MCO
     Warning:Divided flow computed for this cross-section.
River: Actual_1  Reach: Actual_1     RS: 297.1317     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 297.1317     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_1  Reach: Actual_1     RS: 265.4205     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 265.4205     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 229.9372     Profile: MCO
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 229.9372     Profile: T500
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 184.8676     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 184.8676     Profile: T500
     Warning:The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross sections.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 123.7851     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 123.7851     Profile: T500
     Warning:The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross sections.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 95.36573     Profile: MCO
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, water surface was
             used.
River: Actual_1  Reach: Actual_1     RS: 95.36573     Profile: T500
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, water surface was
             used.
River: Actual_1  Reach: Actual_1     RS: 60     Profile: MCO     Culv: Culvert #1
     Note:   The normal depth exceeds the height of the culvert.  The program assumes that the normal depth is equal to the height
             of the culvert.
River: Actual_1  Reach: Actual_1     RS: 60     Profile: MCO     Culv: Culvert #2
     Note:   The normal depth exceeds the height of the culvert.  The program assumes that the normal depth is equal to the height
             of the culvert.
River: Actual_1  Reach: Actual_1     RS: 60     Profile: T500     Culv: Culvert #2
     Note:   The normal depth exceeds the height of the culvert.  The program assumes that the normal depth is equal to the height
             of the culvert.
River: Actual_1  Reach: Actual_1     RS: 49.98656     Profile: MCO
     Warning:Slope-Area method could not converge on a starting water surface elevation within the specified number of trials.
             The program used critical depth as the starting water surface.
     Warning:Divided flow computed for this cross-section.
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_1  Reach: Actual_1     RS: 49.98656     Profile: T500
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_2  Reach: Actual_2     RS: 871.0108     Profile: MCO
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     Warning:Divided flow computed for this cross-section.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_2  Reach: Actual_2     RS: 871.0108     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_2  Reach: Actual_2     RS: 860.5756     Profile: MCO
     Warning:Divided flow computed for this cross-section.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_2  Reach: Actual_2     RS: 860.5756     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_2  Reach: Actual_2     RS: 849.1740     Profile: MCO
     Warning:Divided flow computed for this cross-section.
River: Actual_2  Reach: Actual_2     RS: 849.1740     Profile: T500
     Warning:Divided flow computed for this cross-section.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_2  Reach: Actual_2     RS: 834.6162     Profile: MCO
     Warning:Divided flow computed for this cross-section.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_2  Reach: Actual_2     RS: 834.6162     Profile: T500
     Warning:Divided flow computed for this cross-section.
River: Actual_2  Reach: Actual_2     RS: 824.4382     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_2  Reach: Actual_2     RS: 824.4382     Profile: T500
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
             for the water surface and continued on with the calculations.
     Warning:Divided flow computed for this cross-section.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated
             water surface came back below critical depth.  This indicates that there is not a valid subcritical answer.  The
             program defaulted to critical depth.
River: Actual_2  Reach: Actual_2     RS: 810.8468     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_2  Reach: Actual_2     RS: 810.8468     Profile: T500
     Note:   Hydraulic jump has occurred between this cross section and the previous upstream section.
River: Actual_2  Reach: Actual_2     RS: 736.3858     Profile: MCO
     Warning:The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross sections.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_2  Reach: Actual_2     RS: 717.1134     Profile: MCO
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_2  Reach: Actual_2     RS: 717.1134     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_2  Reach: Actual_2     RS: 646.3886     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_2  Reach: Actual_2     RS: 646.3886     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_2  Reach: Actual_2     RS: 620.9087     Profile: MCO
     Warning:Divided flow computed for this cross-section.
River: Actual_2  Reach: Actual_2     RS: 620.9087     Profile: T500
     Warning:Divided flow computed for this cross-section.
River: Actual_2  Reach: Actual_2     RS: 598.2863     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
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River: Actual_2  Reach: Actual_2     RS: 577.0777     Profile: MCO
     Warning:Divided flow computed for this cross-section.
River: Actual_2  Reach: Actual_2     RS: 553.7349     Profile: MCO
     Warning:Divided flow computed for this cross-section.
River: Actual_2  Reach: Actual_2     RS: 534.6314     Profile: MCO
     Warning:Divided flow computed for this cross-section.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_2  Reach: Actual_2     RS: 509.1368     Profile: MCO
     Warning:Divided flow computed for this cross-section.
River: Actual_2  Reach: Actual_2     RS: 485.0546     Profile: MCO
     Warning:Divided flow computed for this cross-section.
River: Actual_2  Reach: Actual_2     RS: 485.0546     Profile: T500
     Warning:Divided flow computed for this cross-section.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_2  Reach: Actual_2     RS: 460.9725     Profile: MCO
     Warning:Divided flow computed for this cross-section.
River: Actual_2  Reach: Actual_2     RS: 460.9725     Profile: T500
     Warning:Divided flow computed for this cross-section.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_2  Reach: Actual_2     RS: 418.5280     Profile: MCO
     Warning:Divided flow computed for this cross-section.
River: Actual_2  Reach: Actual_2     RS: 395.8584     Profile: MCO
     Warning:Divided flow computed for this cross-section.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_2  Reach: Actual_2     RS: 373.1887     Profile: MCO
     Warning:Divided flow computed for this cross-section.
River: Actual_2  Reach: Actual_2     RS: 354.0852     Profile: MCO
     Warning:Divided flow computed for this cross-section.
River: Actual_2  Reach: Actual_2     RS: 354.0852     Profile: T500
     Warning:Divided flow computed for this cross-section.
River: Actual_2  Reach: Actual_2     RS: 309.0579     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_2  Reach: Actual_2     RS: 295.7206     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_2  Reach: Actual_2     RS: 295.7206     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_2  Reach: Actual_2     RS: 274.3449     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_2  Reach: Actual_2     RS: 252.7693     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_2  Reach: Actual_2     RS: 163.2360     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_2  Reach: Actual_2     RS: 137.5280     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_2  Reach: Actual_2     RS: 137.5280     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_2  Reach: Actual_2     RS: 40.22435     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_2  Reach: Actual_2     RS: 40.22435     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 1280.230     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
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River: Actual_3  Reach: Actual_3     RS: 1280.230     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 1260.467     Profile: MCO
     Warning:The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross sections.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 1260.467     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 1246.332     Profile: MCO
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
             for the water surface and continued on with the calculations.
     Warning:The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross sections.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated
             water surface came back below critical depth.  This indicates that there is not a valid subcritical answer.  The
             program defaulted to critical depth.
River: Actual_3  Reach: Actual_3     RS: 1246.332     Profile: T500
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
             for the water surface and continued on with the calculations.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated
             water surface came back below critical depth.  This indicates that there is not a valid subcritical answer.  The
             program defaulted to critical depth.
River: Actual_3  Reach: Actual_3     RS: 1233.448     Profile: MCO
     Note:   Hydraulic jump has occurred between this cross section and the previous upstream section.
River: Actual_3  Reach: Actual_3     RS: 1233.448     Profile: T500
     Note:   Hydraulic jump has occurred between this cross section and the previous upstream section.
River: Actual_3  Reach: Actual_3     RS: 1209.658     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 1173.979     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 1173.979     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 1162.626     Profile: MCO
     Warning:The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross sections.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 1162.626     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 1155.802     Profile: MCO
     Warning:During subcritical analysis, the water surface upstream of culvert went to critical depth.
River: Actual_3  Reach: Actual_3     RS: 1155     Profile: MCO
     Warning:During subcritical analysis, the water surface upstream of culvert went to critical depth.
River: Actual_3  Reach: Actual_3     RS: 1148.600     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 1148.600     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 1138.802     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 1117.522     Profile: MCO
     Warning:The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross sections.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
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            This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 1117.522     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 1109.291     Profile: MCO
     Warning:During subcritical analysis, the water surface upstream of culvert went to critical depth.
River: Actual_3  Reach: Actual_3     RS: 1109     Profile: MCO
     Warning:During subcritical analysis, the water surface upstream of culvert went to critical depth.
River: Actual_3  Reach: Actual_3     RS: 1101.019     Profile: MCO
     Warning:The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross sections.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 1101.019     Profile: T500
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
             for the water surface and continued on with the calculations.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated
             water surface came back below critical depth.  This indicates that there is not a valid subcritical answer.  The
             program defaulted to critical depth.
River: Actual_3  Reach: Actual_3     RS: 1085.906     Profile: T500
     Note:   Hydraulic jump has occurred between this cross section and the previous upstream section.
River: Actual_3  Reach: Actual_3     RS: 1056.343     Profile: MCO
     Warning:The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross sections.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 1056.343     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 1043.356     Profile: MCO
     Warning:During subcritical analysis, the water surface upstream of culvert went to critical depth.
River: Actual_3  Reach: Actual_3     RS: 1043     Profile: MCO
     Warning:During subcritical analysis, the water surface upstream of culvert went to critical depth.
River: Actual_3  Reach: Actual_3     RS: 1031.056     Profile: MCO
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
             for the water surface and continued on with the calculations.
     Warning:The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross sections.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated
             water surface came back below critical depth.  This indicates that there is not a valid subcritical answer.  The
             program defaulted to critical depth.
River: Actual_3  Reach: Actual_3     RS: 1031.056     Profile: T500
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
             for the water surface and continued on with the calculations.
     Warning:Divided flow computed for this cross-section.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated
             water surface came back below critical depth.  This indicates that there is not a valid subcritical answer.  The
             program defaulted to critical depth.
River: Actual_3  Reach: Actual_3     RS: 1010.819     Profile: MCO
     Note:   Hydraulic jump has occurred between this cross section and the previous upstream section.
River: Actual_3  Reach: Actual_3     RS: 1010.819     Profile: T500
     Warning:Divided flow computed for this cross-section.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Note:   Hydraulic jump has occurred between this cross section and the previous upstream section.
River: Actual_3  Reach: Actual_3     RS: 973.4102     Profile: T500
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     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 956.1785     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 956.1785     Profile: T500
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
             for the water surface and continued on with the calculations.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated
             water surface came back below critical depth.  This indicates that there is not a valid subcritical answer.  The
             program defaulted to critical depth.
River: Actual_3  Reach: Actual_3     RS: 939.5976     Profile: MCO
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
             for the water surface and continued on with the calculations.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated
             water surface came back below critical depth.  This indicates that there is not a valid subcritical answer.  The
             program defaulted to critical depth.
River: Actual_3  Reach: Actual_3     RS: 939.5976     Profile: T500
     Warning:The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross sections.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 924.0465     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 924.0465     Profile: T500
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Note:   Hydraulic jump has occurred between this cross section and the previous upstream section.
River: Actual_3  Reach: Actual_3     RS: 905.9035     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 892.0765     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 892.0765     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 863.8566     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 863.8566     Profile: T500
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
             for the water surface and continued on with the calculations.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated
             water surface came back below critical depth.  This indicates that there is not a valid subcritical answer.  The
             program defaulted to critical depth.
River: Actual_3  Reach: Actual_3     RS: 841.2441     Profile: T500
     Note:   Hydraulic jump has occurred between this cross section and the previous upstream section.
River: Actual_3  Reach: Actual_3     RS: 823.8461     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 823.8461     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
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            This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 800.4541     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 800.4541     Profile: T500
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 779.2239     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 779.2239     Profile: T500
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
             for the water surface and continued on with the calculations.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated
             water surface came back below critical depth.  This indicates that there is not a valid subcritical answer.  The
             program defaulted to critical depth.
River: Actual_3  Reach: Actual_3     RS: 756.6484     Profile: T500
     Note:   Hydraulic jump has occurred between this cross section and the previous upstream section.
River: Actual_3  Reach: Actual_3     RS: 733.8605     Profile: MCO
     Warning:The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross sections.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 712.7758     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 675.6385     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 617.5754     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 617.5754     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 596.9457     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 596.9457     Profile: T500
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
             for the water surface and continued on with the calculations.
     Warning:The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross sections.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated
             water surface came back below critical depth.  This indicates that there is not a valid subcritical answer.  The
             program defaulted to critical depth.
River: Actual_3  Reach: Actual_3     RS: 573.3445     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 573.3445     Profile: T500
     Note:   Hydraulic jump has occurred between this cross section and the previous upstream section.
River: Actual_3  Reach: Actual_3     RS: 556.2210     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 556.2210     Profile: T500
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     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 522.5513     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 472.1636     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 435.5890     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 435.5890     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 405.4106     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 393.9341     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 380.8281     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 356.8988     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 325.9584     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 325.9584     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 295.8183     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 295.8183     Profile: T500
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
             for the water surface and continued on with the calculations.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated
             water surface came back below critical depth.  This indicates that there is not a valid subcritical answer.  The
             program defaulted to critical depth.
River: Actual_3  Reach: Actual_3     RS: 273.7013     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Note:   Hydraulic jump has occurred between this cross section and the previous upstream section.
River: Actual_3  Reach: Actual_3     RS: 253.4211     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 253.4211     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 229.0900     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 229.0900     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 80.15922     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
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            This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 80.15922     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 63.19227     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_3  Reach: Actual_3     RS: 63.19227     Profile: T500
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1666.697     Profile: MCO
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
             for the water surface and continued on with the calculations.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated
             water surface came back below critical depth.  This indicates that there is not a valid subcritical answer.  The
             program defaulted to critical depth.
River: Actual_4  Reach: Actual_4     RS: 1666.697     Profile: T500
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
             for the water surface and continued on with the calculations.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated
             water surface came back below critical depth.  This indicates that there is not a valid subcritical answer.  The
             program defaulted to critical depth.
River: Actual_4  Reach: Actual_4     RS: 1631.588     Profile: MCO
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1631.588     Profile: T500
     Warning:The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross sections.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1599.279     Profile: MCO
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1599.279     Profile: T500
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1560.274     Profile: MCO
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
             for the water surface and continued on with the calculations.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1560.274     Profile: T500
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1517.321     Profile: MCO
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1517.321     Profile: T500
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1481.412     Profile: MCO
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Note:   Hydraulic jump has occurred between this cross section and the previous upstream section.
River: Actual_4  Reach: Actual_4     RS: 1481.412     Profile: T500
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1442.926     Profile: MCO
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
             for the water surface and continued on with the calculations.
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     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated
             water surface came back below critical depth.  This indicates that there is not a valid subcritical answer.  The
             program defaulted to critical depth.
River: Actual_4  Reach: Actual_4     RS: 1442.926     Profile: T500
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1401.006     Profile: MCO
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1401.006     Profile: T500
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1365.778     Profile: MCO
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
             for the water surface and continued on with the calculations.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated
             water surface came back below critical depth.  This indicates that there is not a valid subcritical answer.  The
             program defaulted to critical depth.
River: Actual_4  Reach: Actual_4     RS: 1365.778     Profile: T500
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1334.156     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1334.156     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Note:   Hydraulic jump has occurred between this cross section and the previous upstream section.
River: Actual_4  Reach: Actual_4     RS: 1307.752     Profile: MCO
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1307.752     Profile: T500
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1277.920     Profile: MCO
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1277.920     Profile: T500
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1245.558     Profile: MCO
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1245.558     Profile: T500
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1224.148     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1224.148     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1169.459     Profile: MCO
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     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1169.459     Profile: T500
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1140.498     Profile: MCO
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1140.498     Profile: T500
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1114.789     Profile: MCO
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1114.789     Profile: T500
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1095.376     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1095.376     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1075.926     Profile: MCO
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1075.926     Profile: T500
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1049.753     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1049.753     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1013.742     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 1013.742     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 985.2877     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 985.2877     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 958.5618     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 958.5618     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 857.4481     Profile: MCO
     Warning:The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross sections.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 857.4481     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
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            This may indicate the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 841.6505     Profile: MCO
     Warning:During subcritical analysis, the water surface upstream of culvert went to critical depth.
River: Actual_4  Reach: Actual_4     RS: 841     Profile: MCO
     Warning:During subcritical analysis, the water surface upstream of culvert went to critical depth.
     Warning:The weir over culvert is submerged.
River: Actual_4  Reach: Actual_4     RS: 841     Profile: MCO     Culv: Culvert #2
     Warning:During the culvert inlet control computations, the program could not balance the culvert/weir flow.  The reported
             inlet energy grade answer may not be valid.
River: Actual_4  Reach: Actual_4     RS: 841     Profile: T500
     Warning:The weir over culvert is submerged.
River: Actual_4  Reach: Actual_4     RS: 811.2636     Profile: MCO
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
             for the water surface and continued on with the calculations.
     Warning:The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross sections.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 811.2636     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 784.6932     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Note:   Hydraulic jump has occurred between this cross section and the previous upstream section.
River: Actual_4  Reach: Actual_4     RS: 784.6932     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 739.0021     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_4  Reach: Actual_4     RS: 739.0021     Profile: T500
     Warning:The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross sections.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_4  Reach: Actual_4     RS: 719     Profile: MCO     Culv: Culvert #2
     Note:   The flow in the culvert is entirely supercritical.
River: Actual_4  Reach: Actual_4     RS: 719     Profile: T500     Culv: Culvert #2
     Note:   Culvert critical depth exceeds the height of the culvert.
     Note:   During the supercritical calculations a hydraulic jump occurred inside of the culvert.
     Note:   The culvert inlet is submerged and the culvert flows full over part or all of its length.  Therefore, the culvert
             inlet equations are not valid and the supercritical result has been discarded.  The outlet answer will be used.
River: Actual_4  Reach: Actual_4     RS: 693.5987     Profile: T500
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
             for the water surface and continued on with the calculations.
     Warning:The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross sections.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated
             water surface came back below critical depth.  This indicates that there is not a valid subcritical answer.  The
             program defaulted to critical depth.
River: Actual_4  Reach: Actual_4     RS: 663.5455     Profile: MCO
     Note:   Hydraulic jump has occurred between this cross section and the previous upstream section.
River: Actual_4  Reach: Actual_4     RS: 663.5455     Profile: T500
     Note:   Hydraulic jump has occurred between this cross section and the previous upstream section.
River: Actual_4  Reach: Actual_4     RS: 640.5283     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_4  Reach: Actual_4     RS: 640.5283     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
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     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_4  Reach: Actual_4     RS: 622.4961     Profile: MCO
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_4  Reach: Actual_4     RS: 622.4961     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Note:   Multiple critical depths were found at this location.  The critical depth with the lowest, valid, energy was used.
River: Actual_4  Reach: Actual_4     RS: 588.4816     Profile: MCO
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 588.4816     Profile: T500
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 569.4819     Profile: MCO
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
             for the water surface and continued on with the calculations.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated
             water surface came back below critical depth.  This indicates that there is not a valid subcritical answer.  The
             program defaulted to critical depth.
River: Actual_4  Reach: Actual_4     RS: 569.4819     Profile: T500
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
             for the water surface and continued on with the calculations.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated
             water surface came back below critical depth.  This indicates that there is not a valid subcritical answer.  The
             program defaulted to critical depth.
River: Actual_4  Reach: Actual_4     RS: 551.4819     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Note:   Hydraulic jump has occurred between this cross section and the previous upstream section.
River: Actual_4  Reach: Actual_4     RS: 551.4819     Profile: T500
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 543.2019     Profile: MCO
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
             for the water surface and continued on with the calculations.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated
             water surface came back below critical depth.  This indicates that there is not a valid subcritical answer.  The
             program defaulted to critical depth.
River: Actual_4  Reach: Actual_4     RS: 543.2019     Profile: T500
     Warning:The energy equation could not be balanced within the specified number of iterations.  The program used critical depth
             for the water surface and continued on with the calculations.
     Warning:The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross sections.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
     Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated
             water surface came back below critical depth.  This indicates that there is not a valid subcritical answer.  The
             program defaulted to critical depth.
River: Actual_4  Reach: Actual_4     RS: 529.6032     Profile: MCO
     Warning:Divided flow computed for this cross-section.
River: Actual_4  Reach: Actual_4     RS: 529.6032     Profile: T500
     Warning:Divided flow computed for this cross-section.
     Note:   Hydraulic jump has occurred between this cross section and the previous upstream section.
River: Actual_4  Reach: Actual_4     RS: 529     Profile: MCO Upstream
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     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 529     Profile: T500 Upstream
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 516.8986     Profile: MCO
     Warning:Divided flow computed for this cross-section.
River: Actual_4  Reach: Actual_4     RS: 516.8986     Profile: T500
     Warning:Divided flow computed for this cross-section.
River: Actual_4  Reach: Actual_4     RS: 498.0395     Profile: MCO
     Warning:Divided flow computed for this cross-section.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 438.2866     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 438.2866     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 428.8812     Profile: MCO
     Warning:Divided flow computed for this cross-section.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 428.8812     Profile: T500
     Warning:Divided flow computed for this cross-section.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 399.6586     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 373.7445     Profile: MCO
     Warning:Divided flow computed for this cross-section.
River: Actual_4  Reach: Actual_4     RS: 346.5426     Profile: MCO
     Warning:Divided flow computed for this cross-section.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 346.5426     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 327.2853     Profile: MCO
     Warning:Divided flow computed for this cross-section.
     Warning:The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross sections.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 327.2853     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 317.3868     Profile: MCO
     Warning:Divided flow computed for this cross-section.
River: Actual_4  Reach: Actual_4     RS: 317.3868     Profile: T500
     Warning:Divided flow computed for this cross-section.
River: Actual_4  Reach: Actual_4     RS: 295.4587     Profile: MCO
     Warning:Divided flow computed for this cross-section.
River: Actual_4  Reach: Actual_4     RS: 295.4587     Profile: T500
     Warning:Divided flow computed for this cross-section.
River: Actual_4  Reach: Actual_4     RS: 252.3185     Profile: MCO
     Warning:Divided flow computed for this cross-section.
River: Actual_4  Reach: Actual_4     RS: 252.3185     Profile: T500
     Warning:Divided flow computed for this cross-section.
River: Actual_4  Reach: Actual_4     RS: 232.5208     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 232.5208     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
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River: Actual_4  Reach: Actual_4     RS: 204.2365     Profile: MCO
     Warning:Divided flow computed for this cross-section.
River: Actual_4  Reach: Actual_4     RS: 151.1968     Profile: MCO
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 122.1893     Profile: MCO
     Warning:Divided flow computed for this cross-section.
River: Actual_4  Reach: Actual_4     RS: 122.1893     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 105.2275     Profile: MCO
     Warning:Divided flow computed for this cross-section.
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 105.2275     Profile: T500
     Warning:The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
             This may indicate the need for additional cross sections.
     Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
             the need for additional cross sections.
River: Actual_4  Reach: Actual_4     RS: 75.49478     Profile: MCO
     Warning:Divided flow computed for this cross-section.
River: Actual_4  Reach: Actual_4     RS: 75.49478     Profile: T500
     Warning:Divided flow computed for this cross-section.
River: Actual_4  Reach: Actual_4     RS: 52.82321     Profile: MCO
     Warning:Divided flow computed for this cross-section.
River: Actual_4  Reach: Actual_4     RS: 52.82321     Profile: T500
     Warning:Divided flow computed for this cross-section.
River: Actual_4  Reach: Actual_4     RS: 39.96368     Profile: MCO
     Warning:Divided flow computed for this cross-section.
River: Actual_4  Reach: Actual_4     RS: 39.96368     Profile: T500
     Warning:Divided flow computed for this cross-section.
River: Actual_4  Reach: Actual_4     RS: 29.15927     Profile: MCO
     Warning:Divided flow computed for this cross-section.
River: Actual_4  Reach: Actual_4     RS: 29.15927     Profile: T500
     Warning:Divided flow computed for this cross-section.
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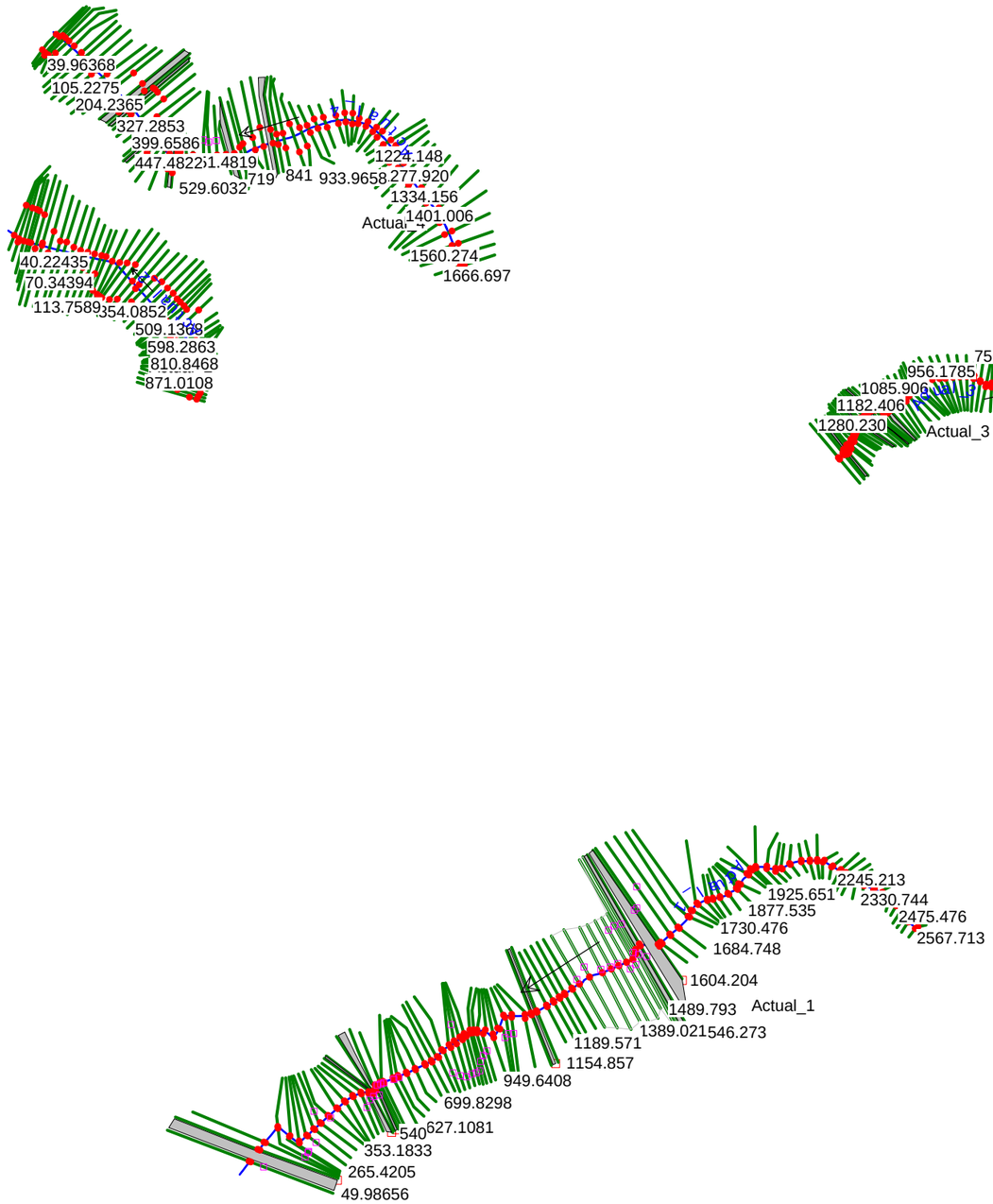
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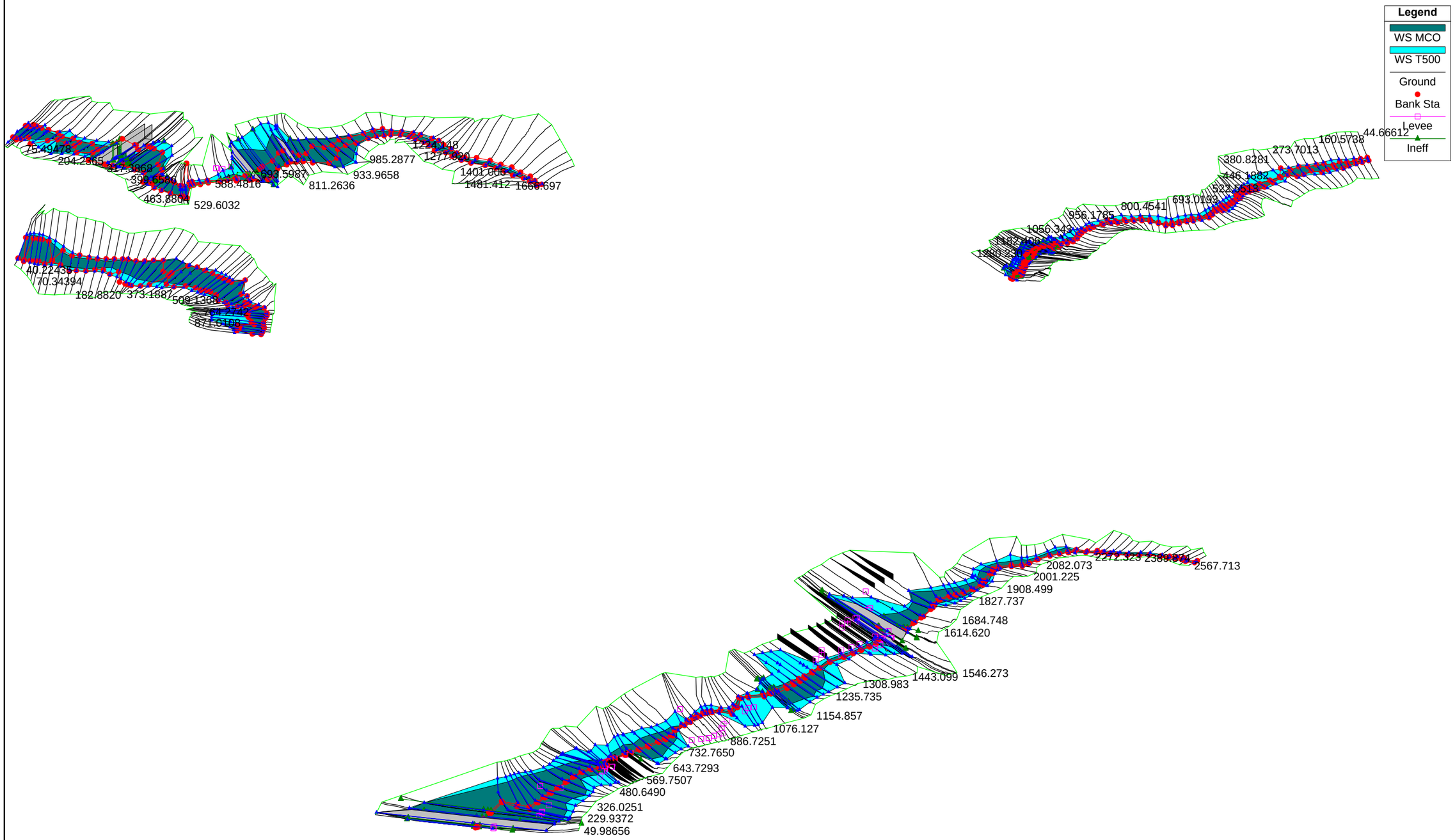

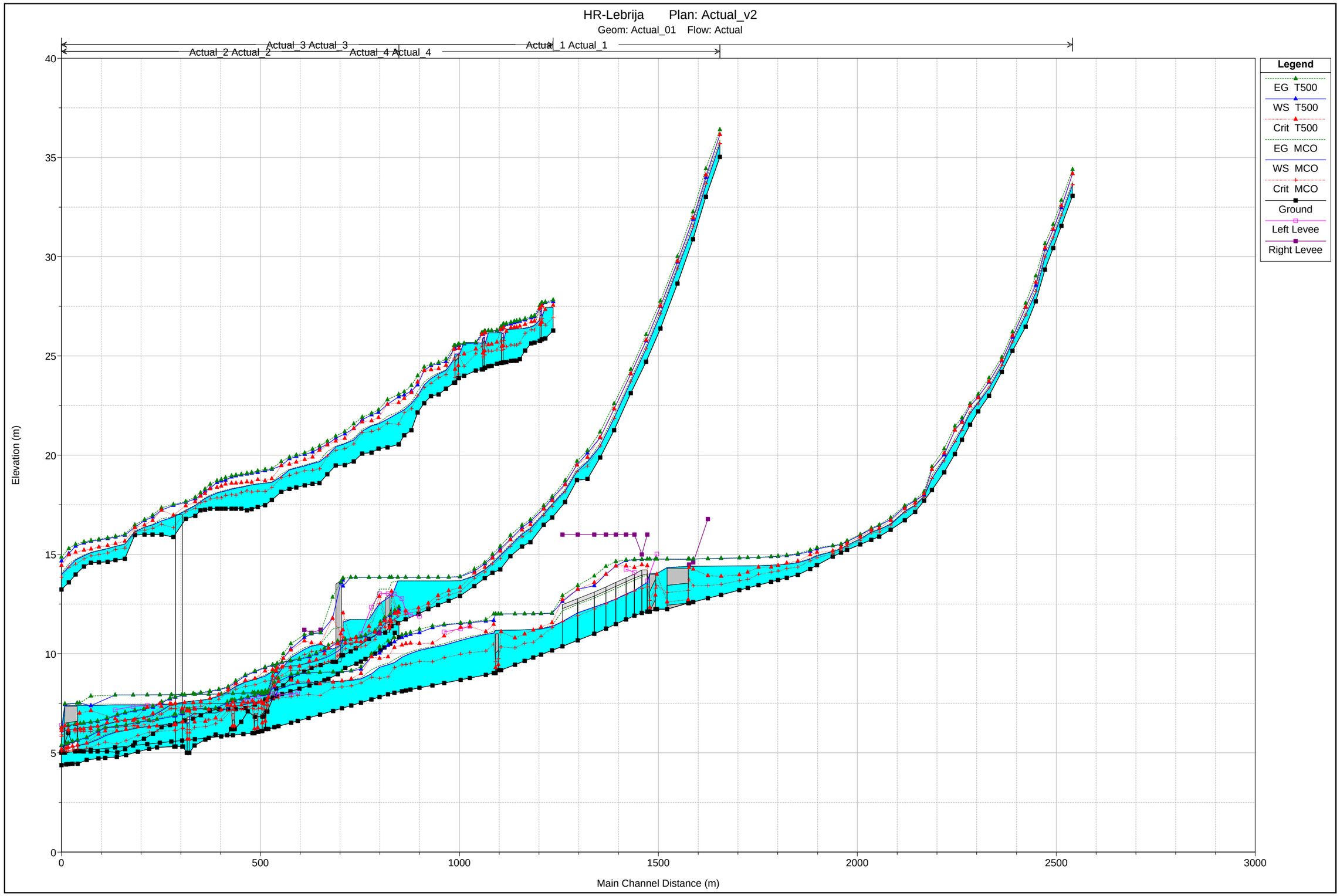
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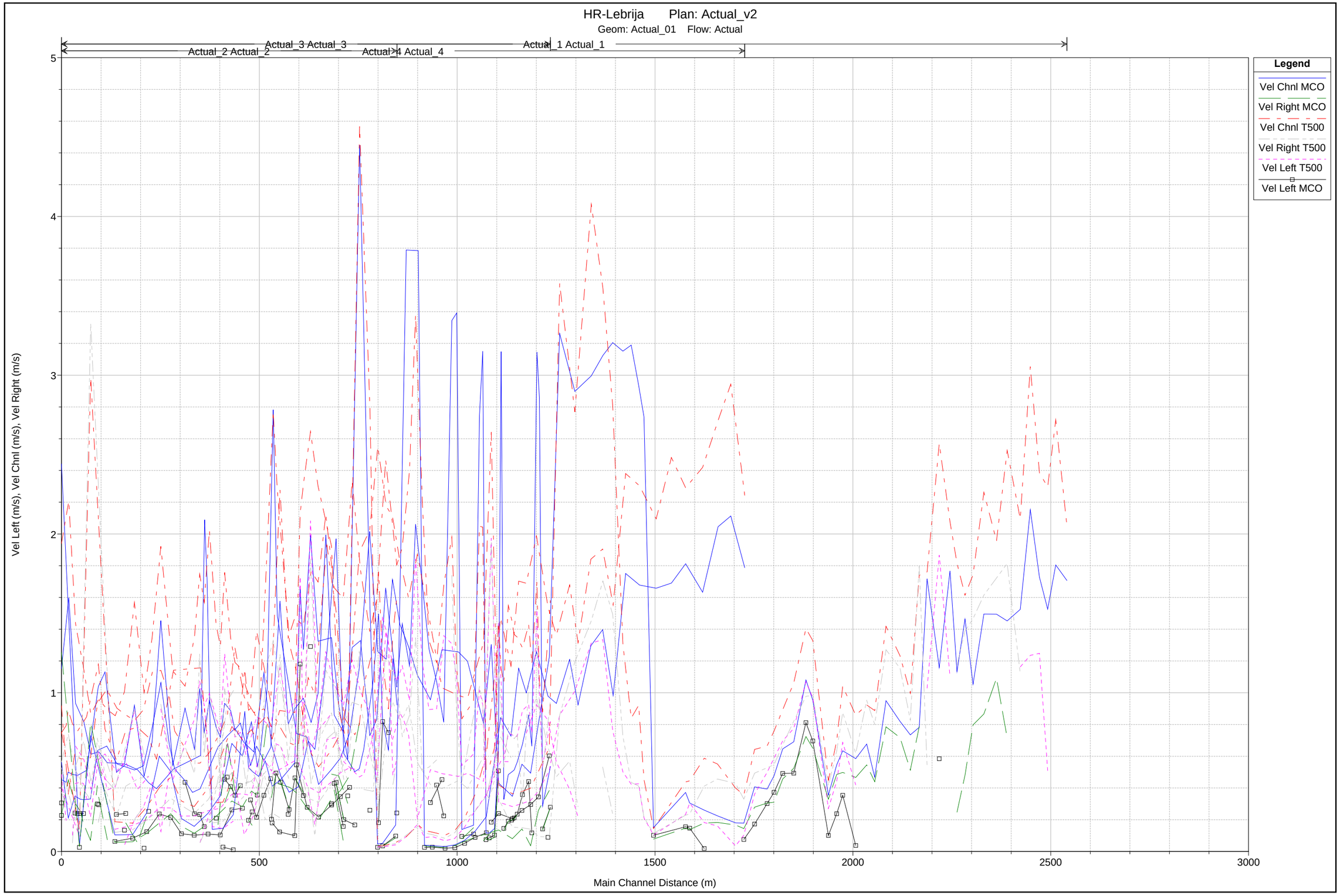
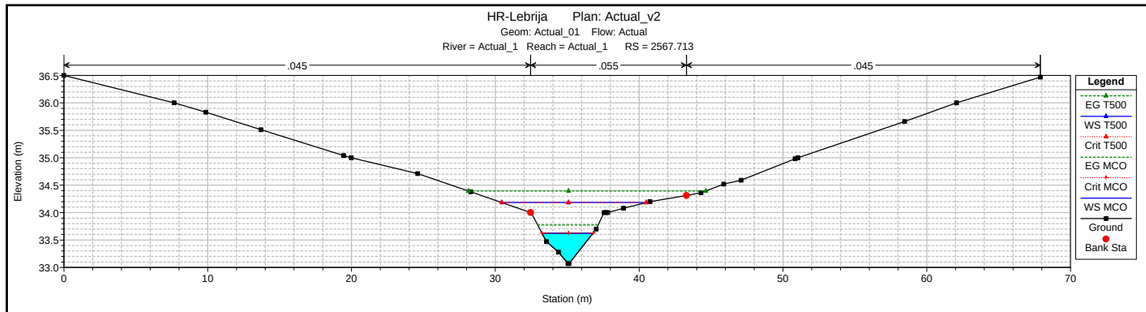
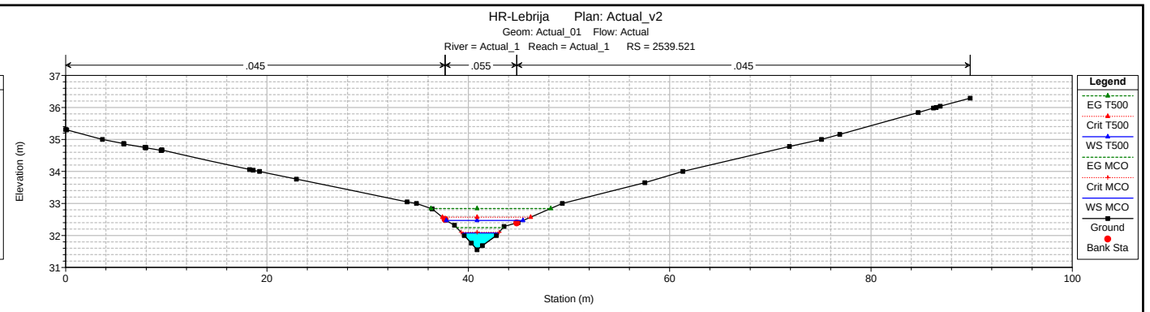
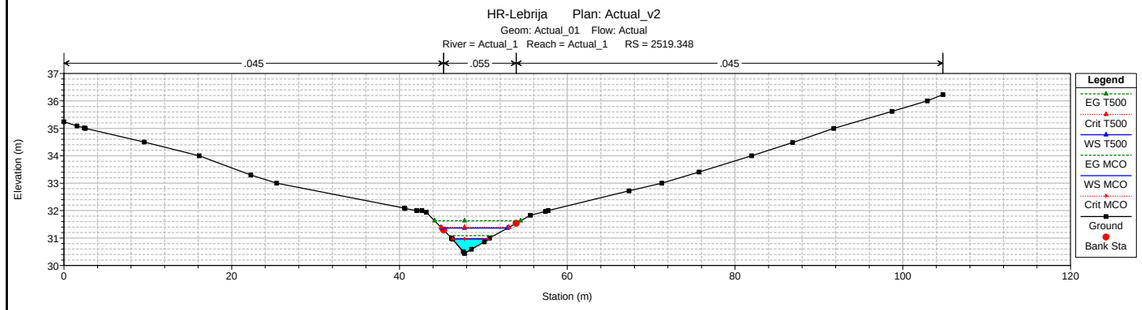
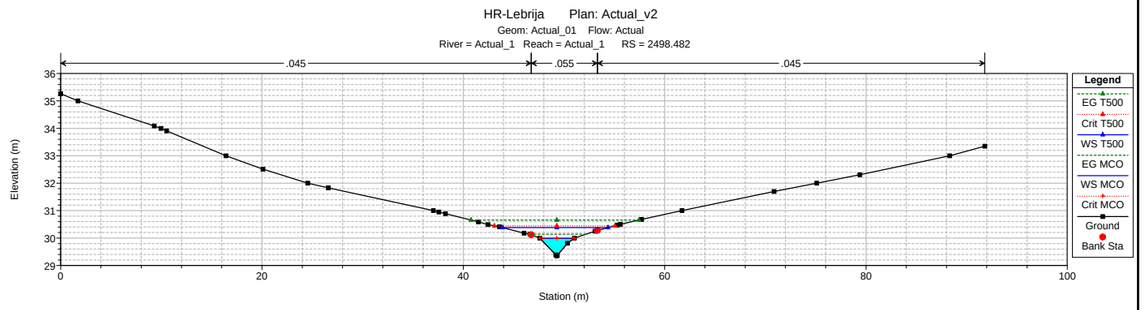
Crit MCO
Ground
Left Levee
Right Levee
Elevation (m)
Main Channel Distance (m)
0
5
10
15
20
25
30
35
40
0
500
1000
1500
2000
2500
3000

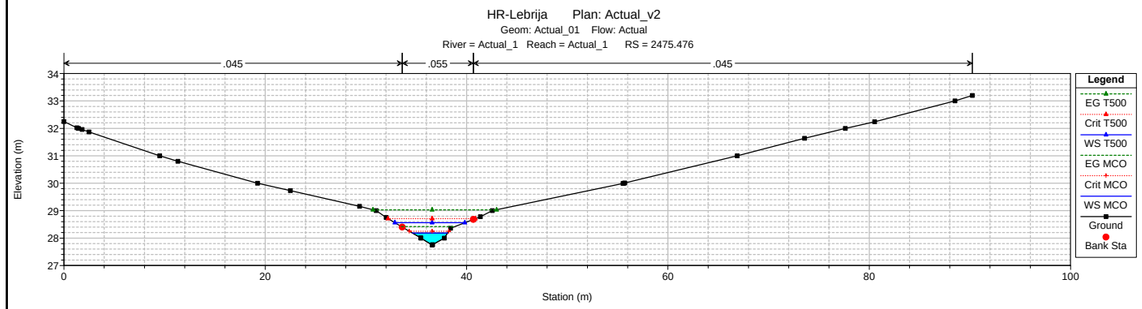

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
Actual_3 Actual_3
Actual_2 Actual_2
Actual_4 Actual_4
Actual_1 Actual_1
Legend
Vel Chnl MCO
Vel Right MCO
Vel Chnl T500
Vel Right T500
Vel Left T500
Vel Left MCO
Vel Left (m/s), Vel Chnl (m/s), Vel Right (m/s)
Main Channel Distance (m)
0
1
2
3
4
5
0
500
1000
1500
2000
2500
3000

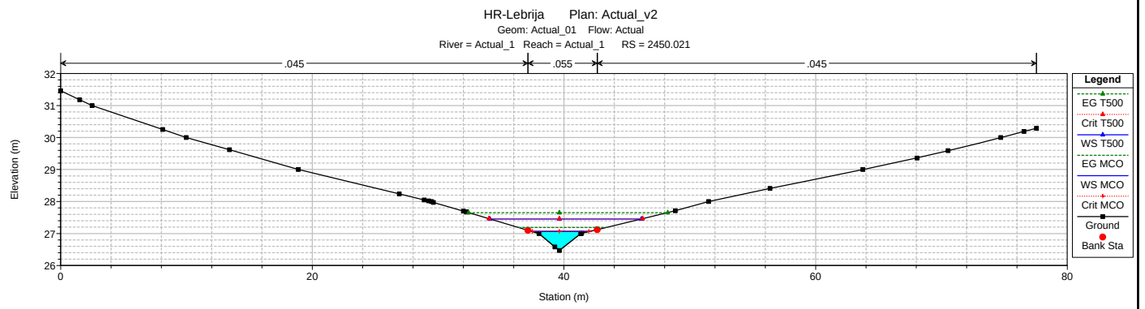

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2567.713
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
Crit MCO
WS MCO
Ground
Bank Sta

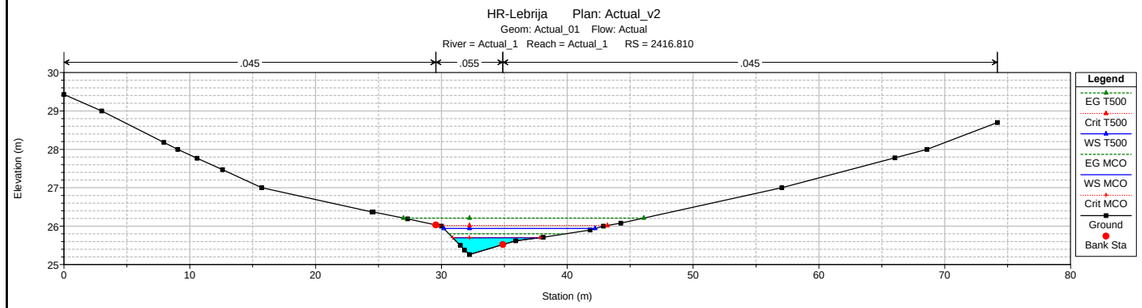

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2539.521
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
Crit T500
WS T500
EG MCO
Crit MCO
WS MCO
Ground
Bank Sta

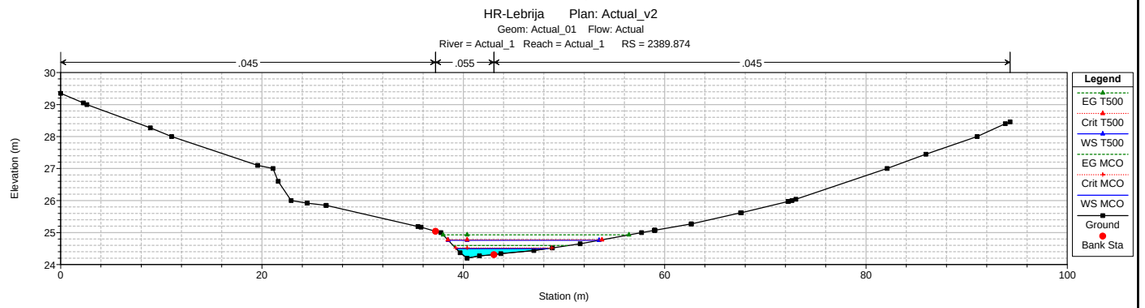

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2519.348
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
Crit T500
WS T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

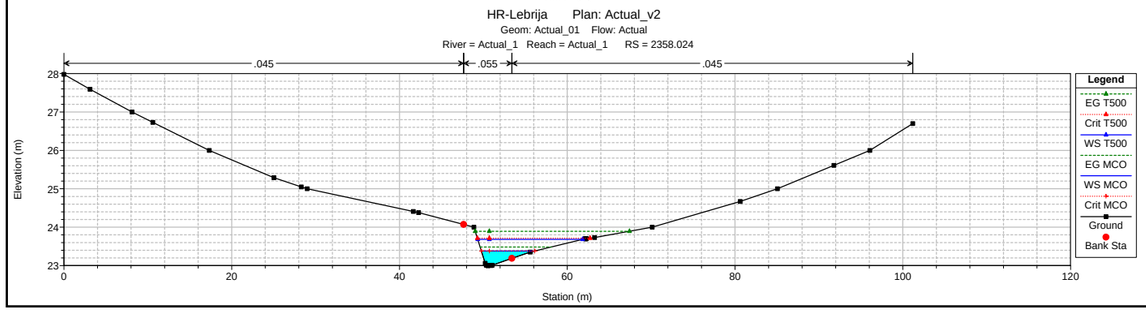

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2498.482
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
Crit T500
WS T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

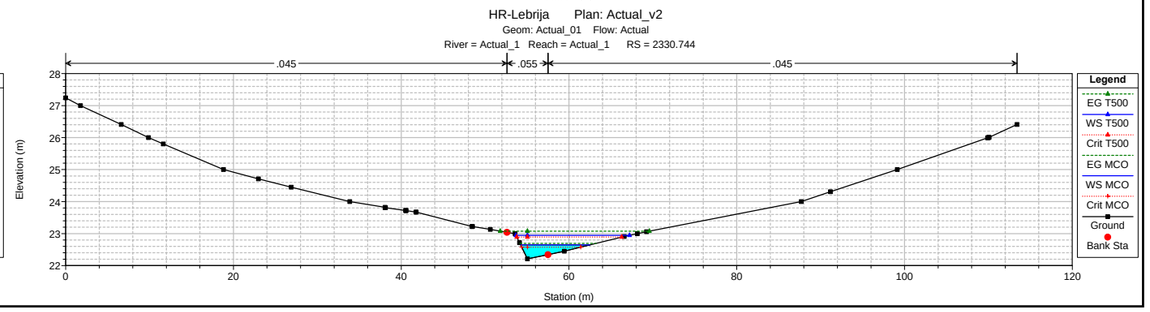

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2475.476
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
Crit T500
WS T500
EG MCO
Crit MCO
WS MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2450.021
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
Crit T500
WS T500
EG MCO
Crit MCO
WS MCO
Ground
Bank Sta

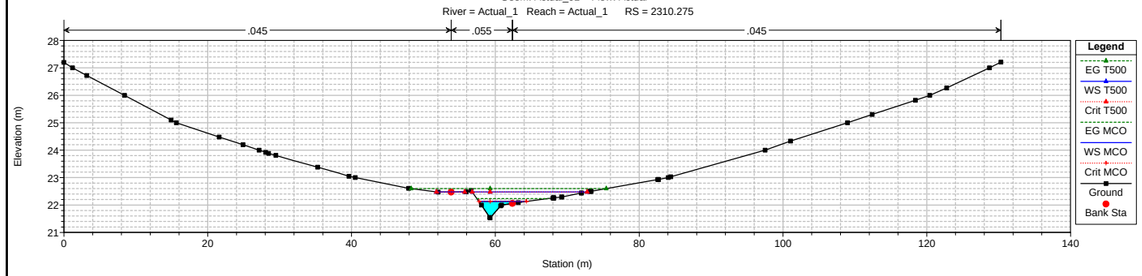

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2416.810
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
Crit T500
WS T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2389.874
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
Crit T500
WS T500
EG MCO
Crit MCO
WS MCO
Ground
Bank Sta

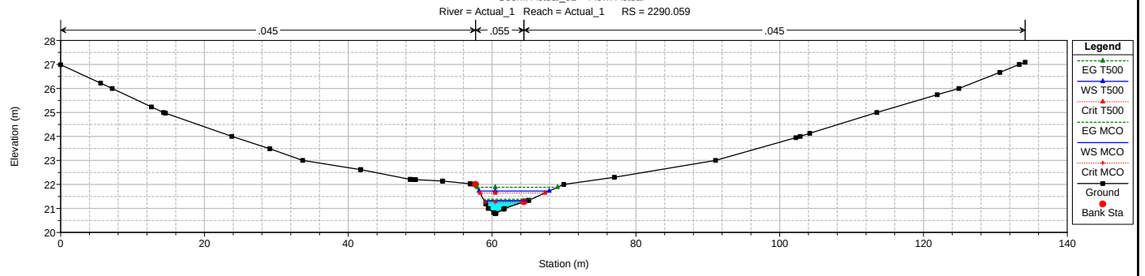

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2358.024
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
Crit T500
WS T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2330.744
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

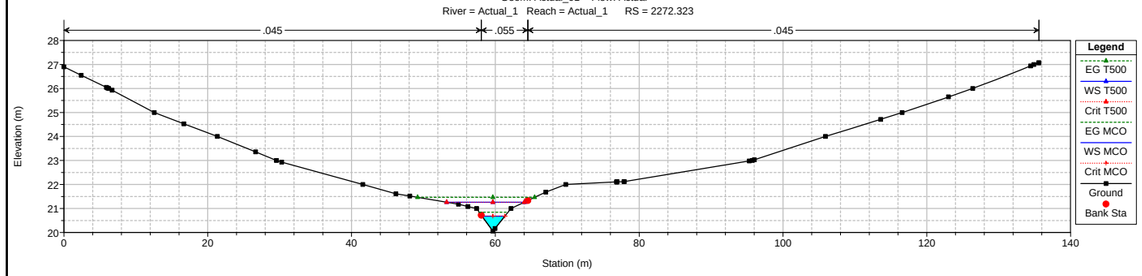
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2310.275



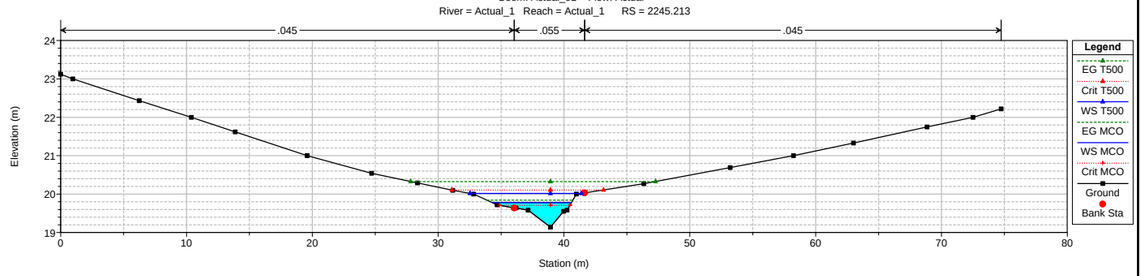
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2290.059



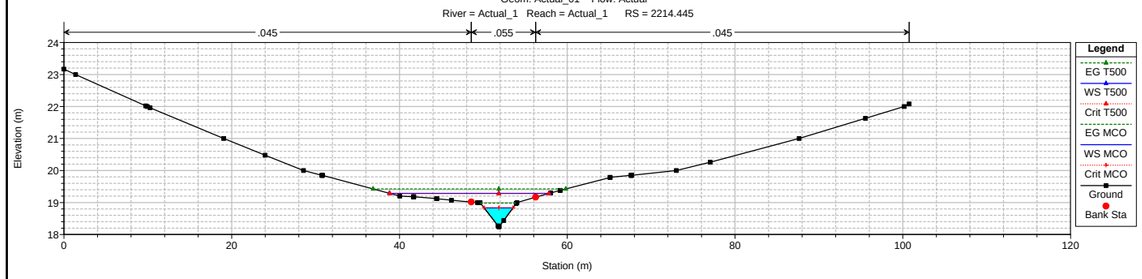
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2272.323



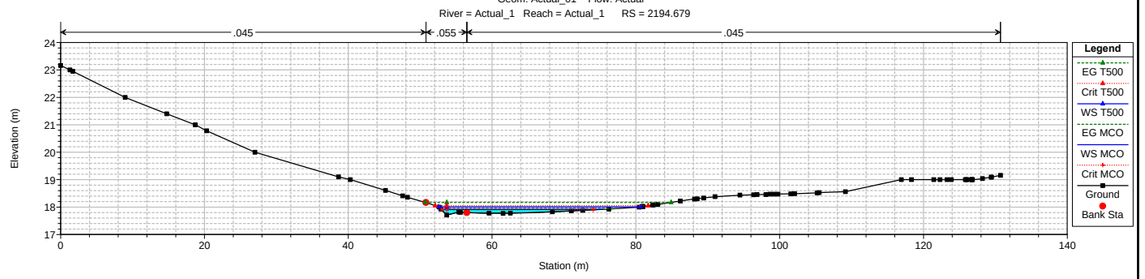
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2245.213



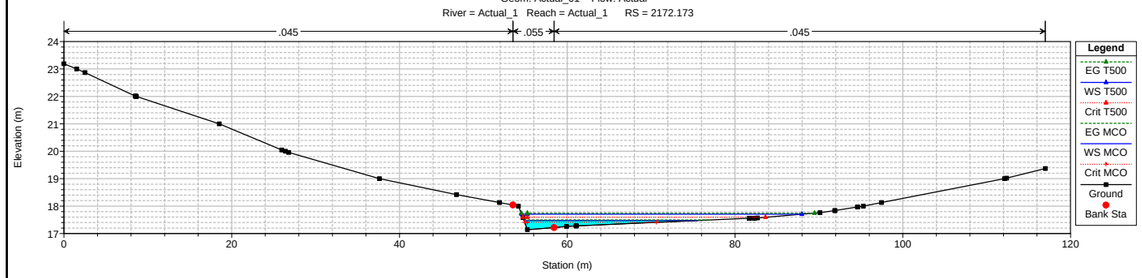
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2214.445



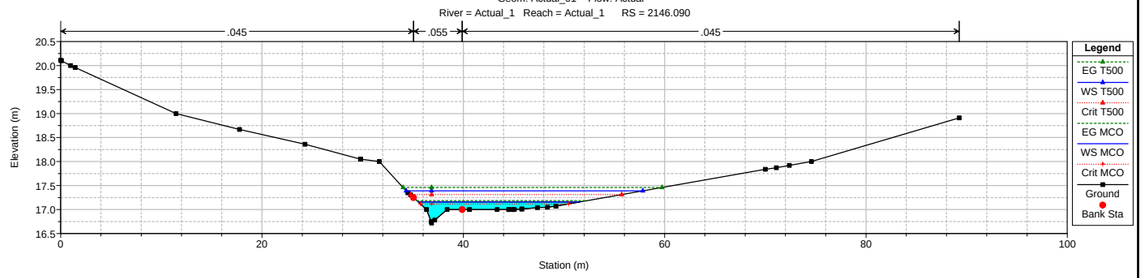
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2194.679



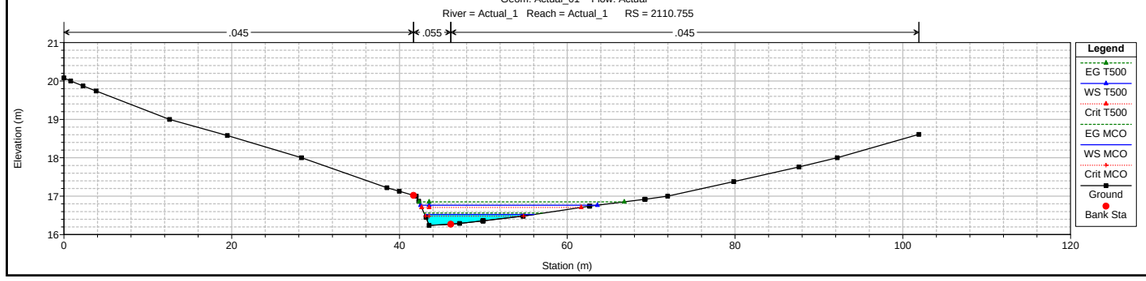
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2172.173



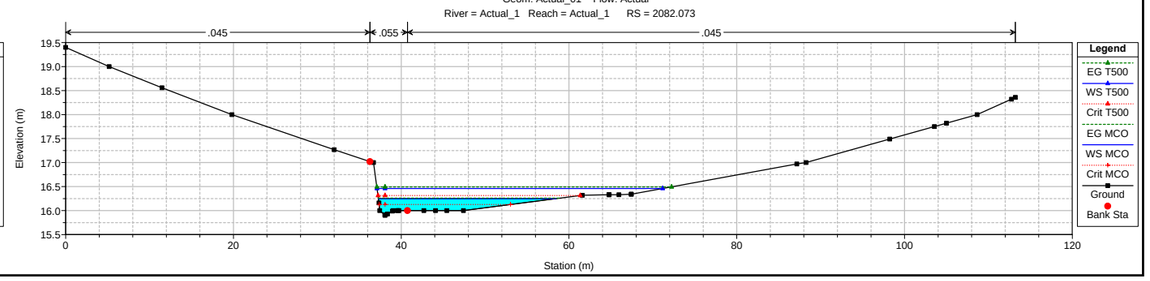
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2146.090

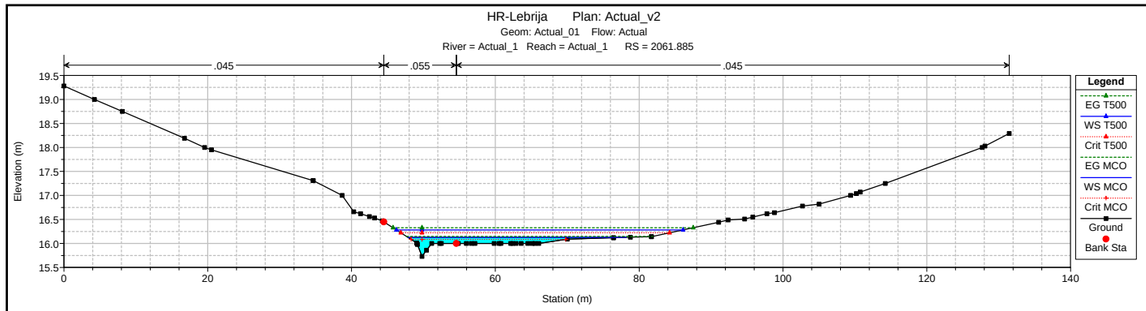


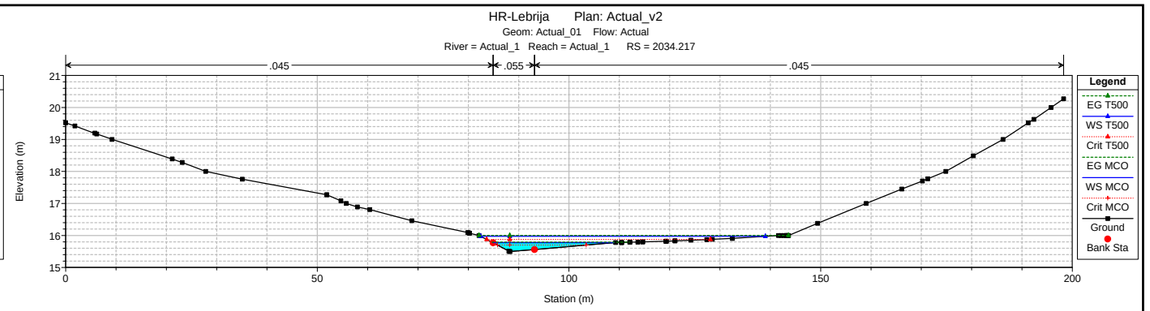
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2110.755

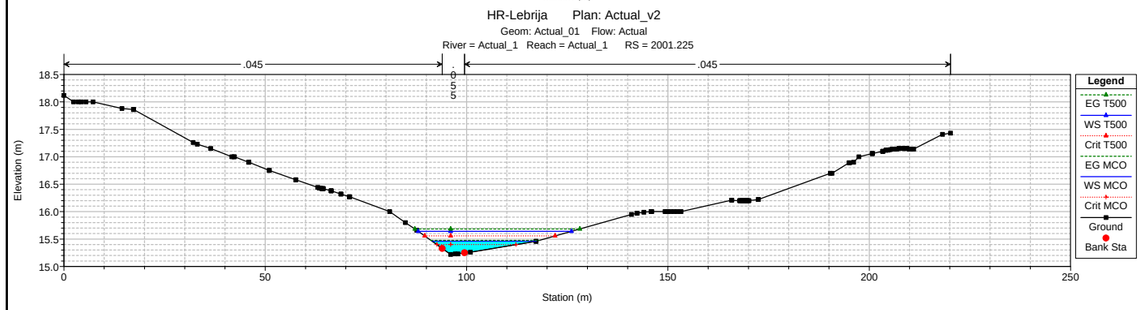


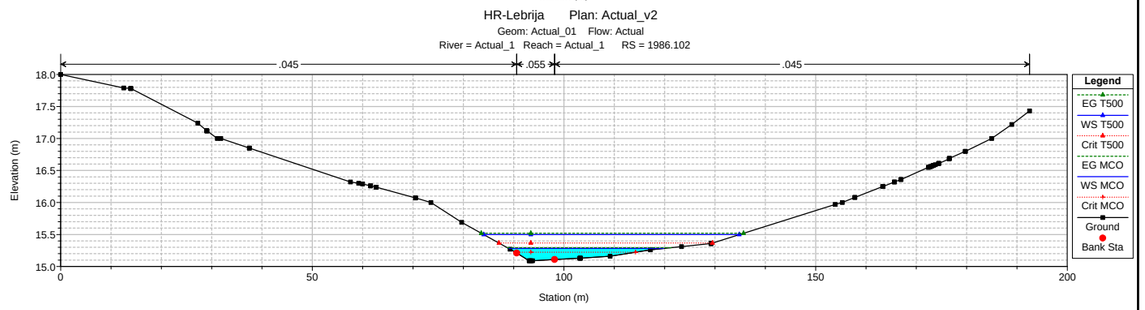
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2082.073

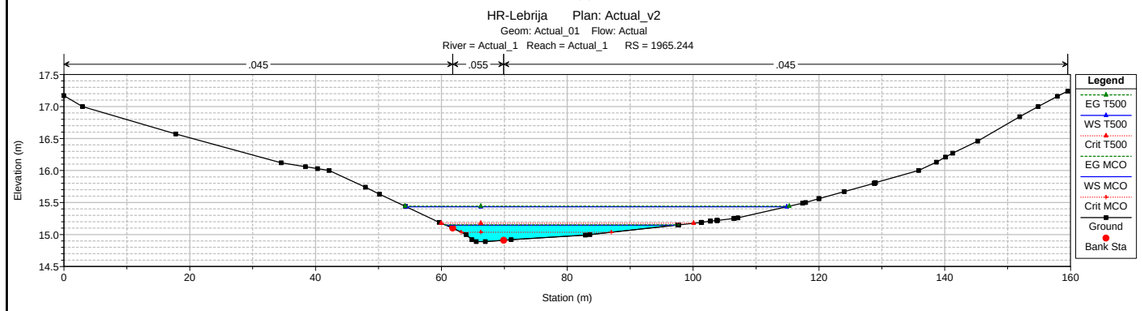


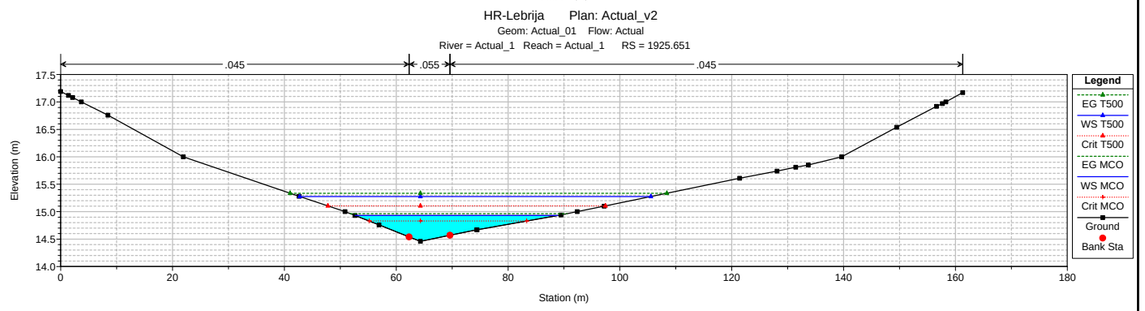

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2061.885
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

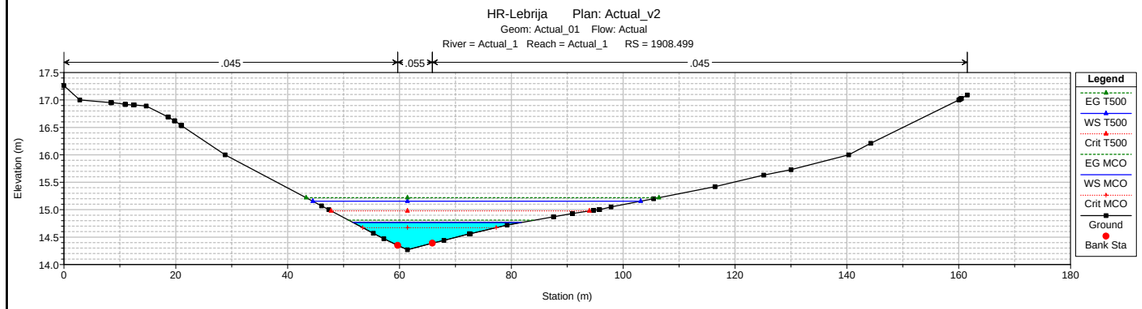

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2034.217
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

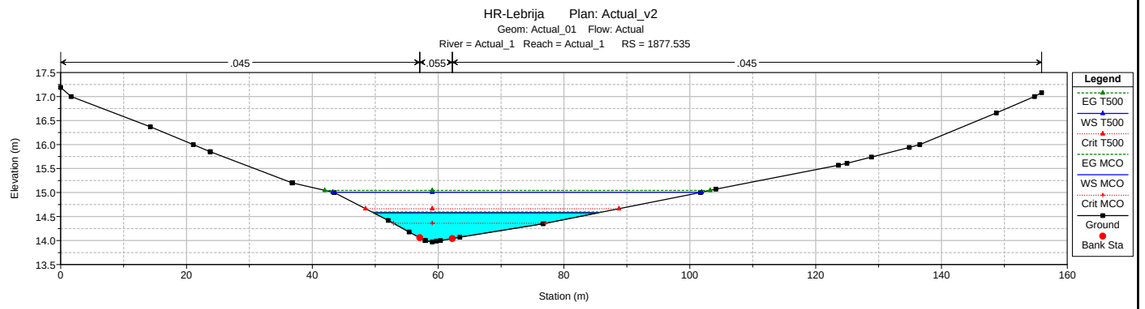

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2001.225
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

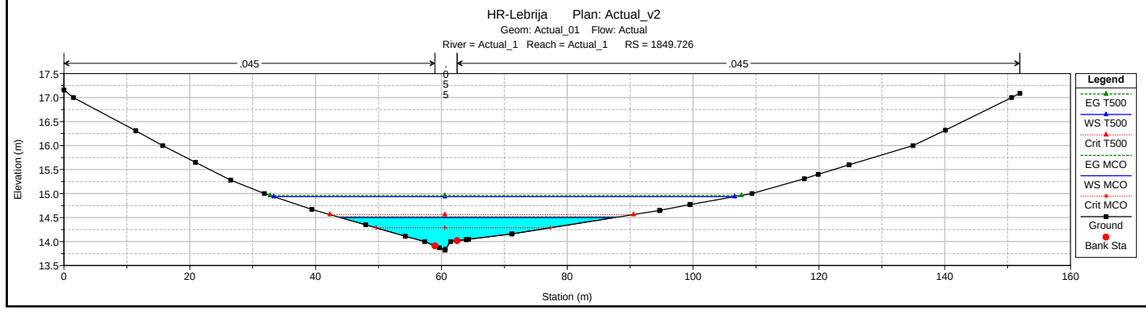

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1986.102
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

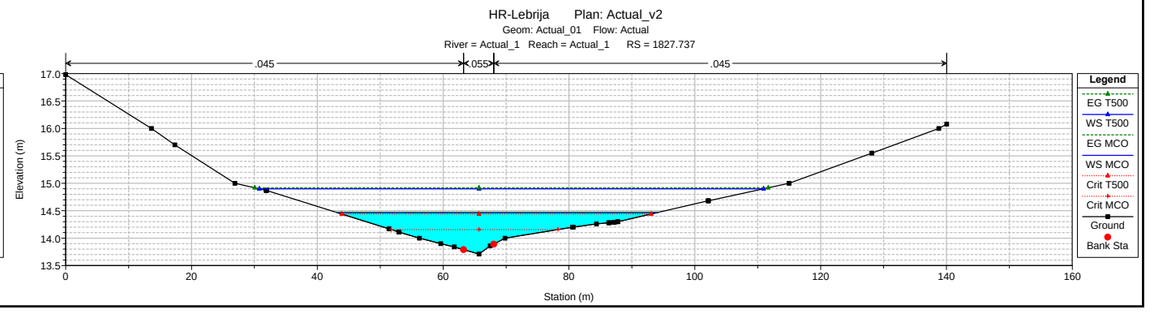

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1965.244
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

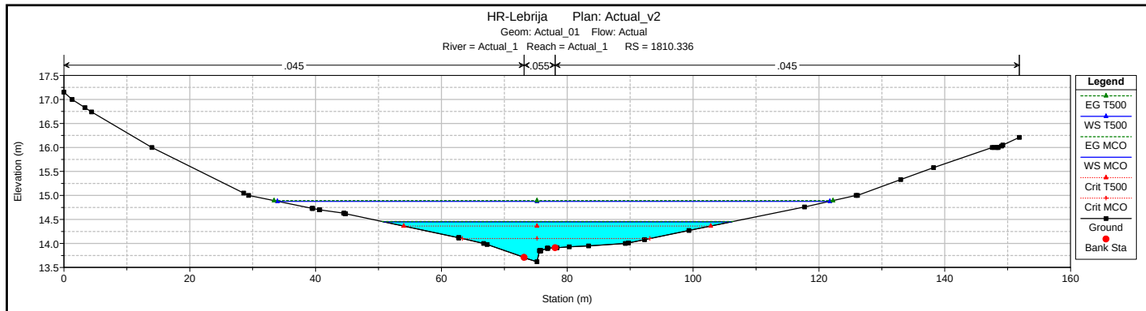

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1925.651
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

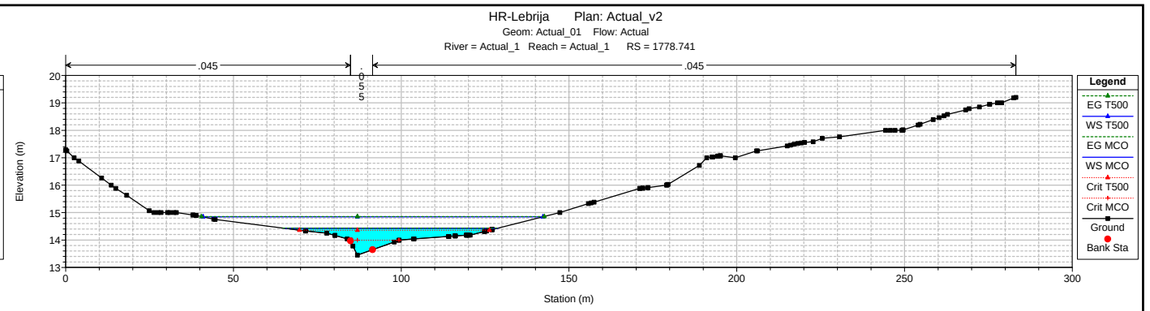

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1908.499
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

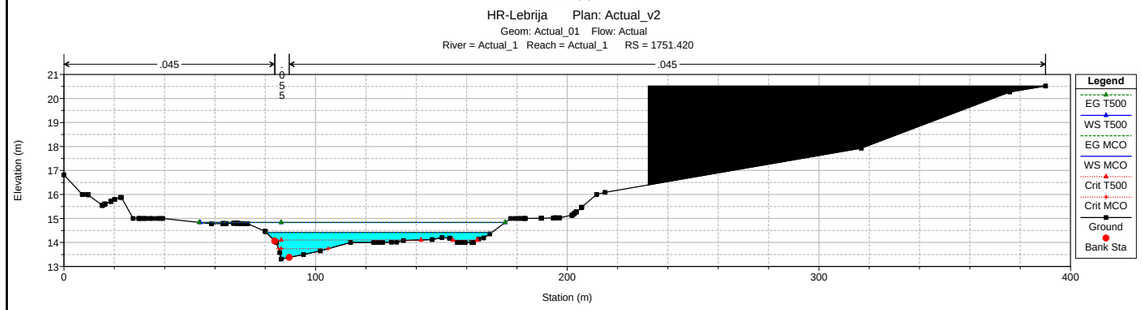

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1877.535
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

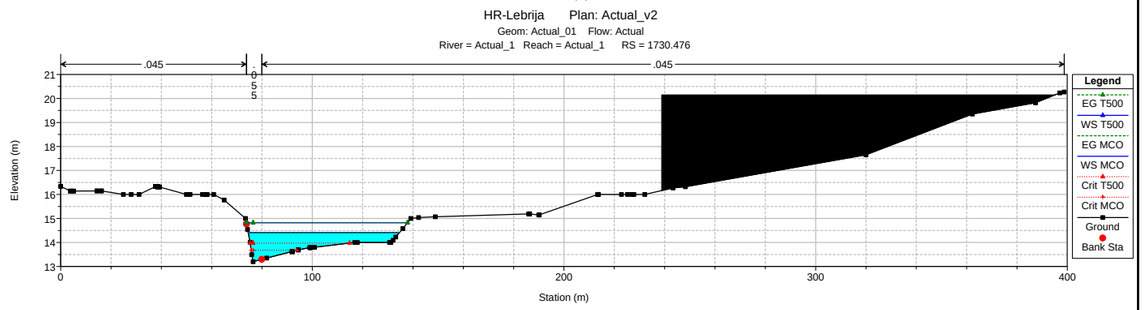

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1849.726
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

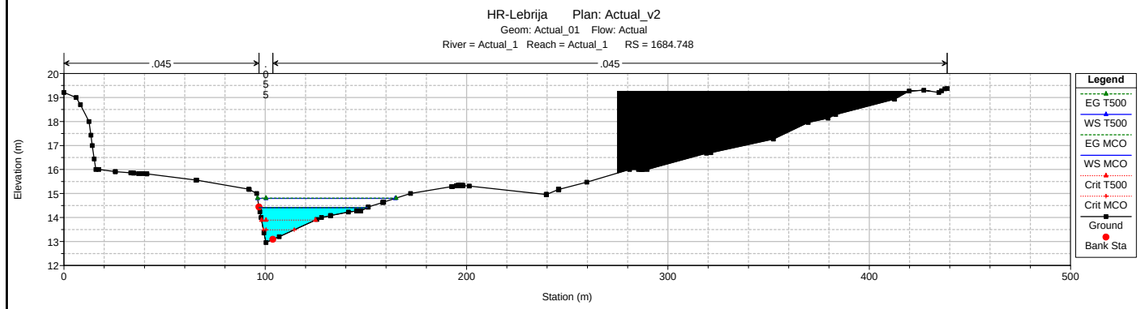

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1827.737
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

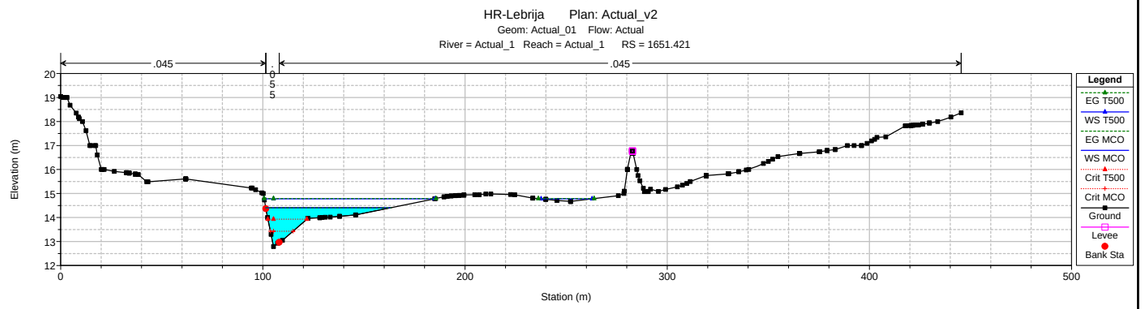

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1810.336
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Bank Sta

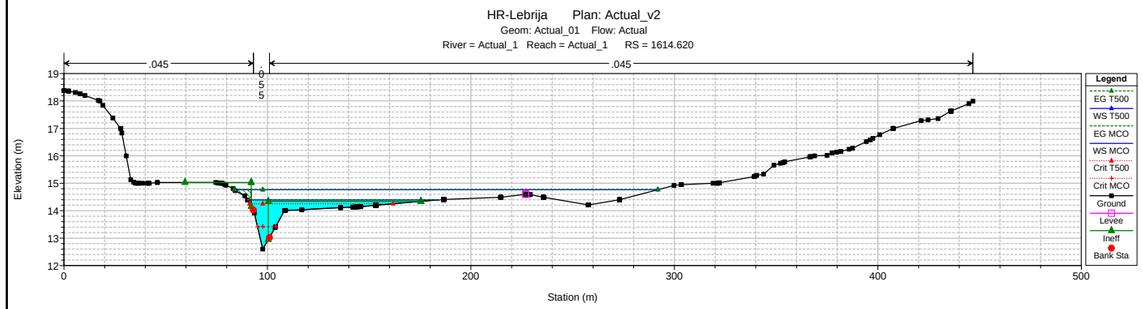

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1778.741
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Bank Sta

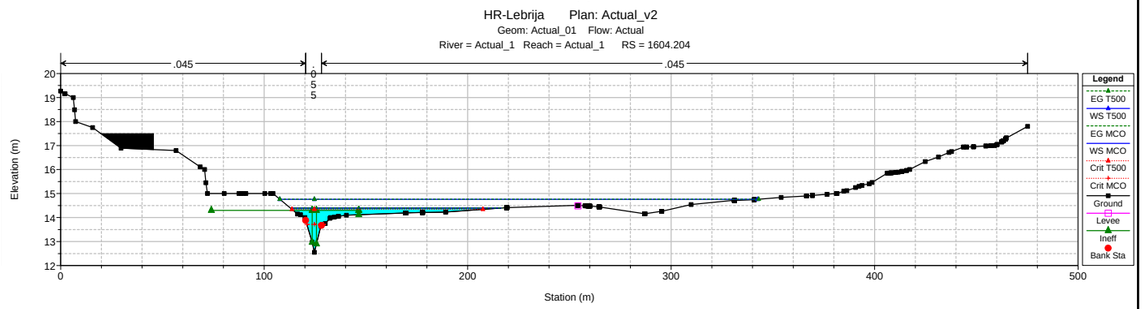

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1751.420
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Bank Sta

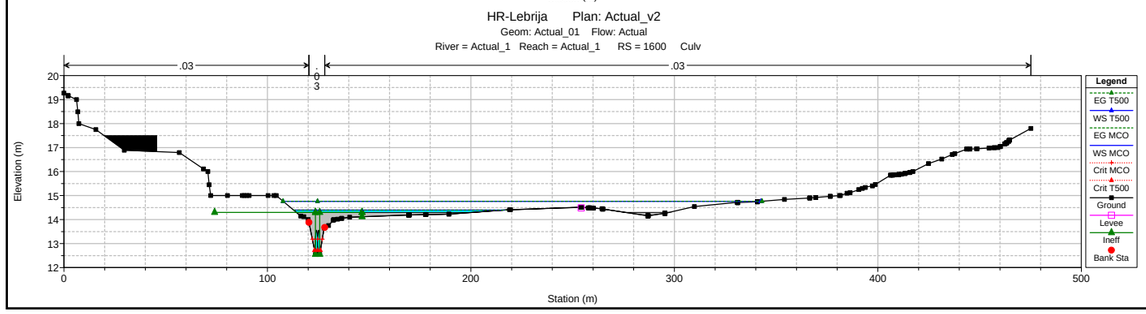

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1730.476
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Bank Sta

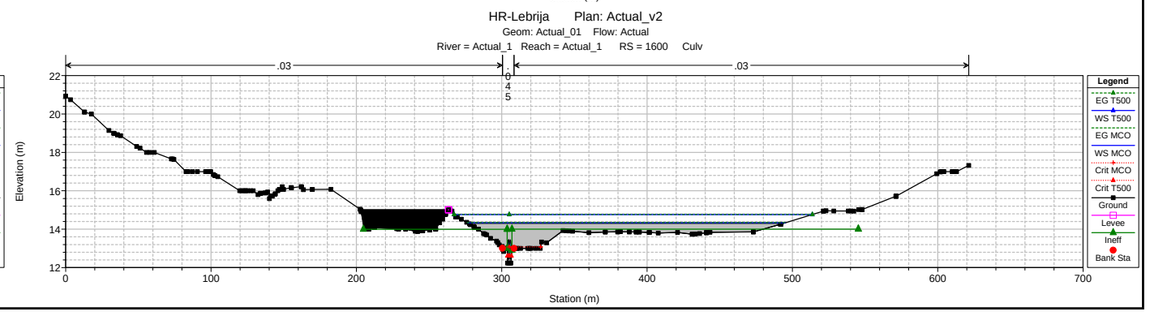

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1684.748
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1651.421
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Levee
Bank Sta

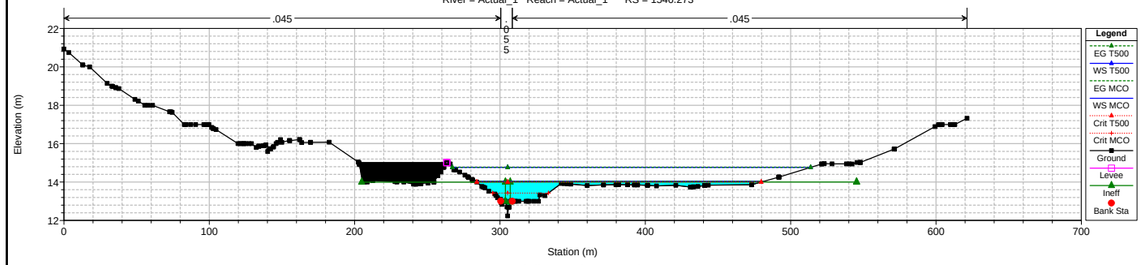

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1614.620
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Levee
Ineff
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1604.204
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Levee
Ineff
Bank Sta

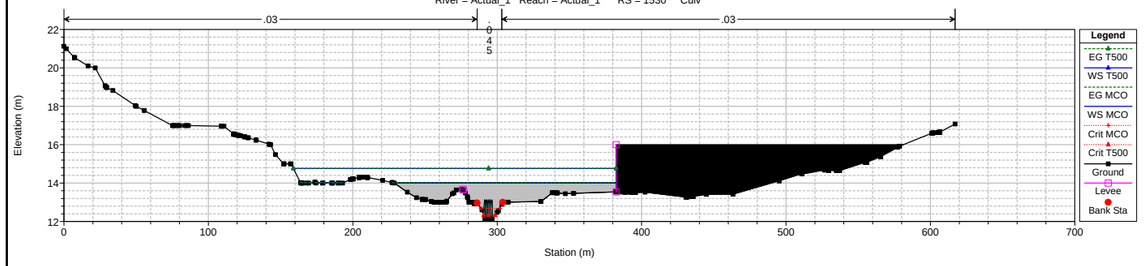

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1600 Culv
.03
.03
.03
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit MCO
Crit T500
Ground
Levee
Ineff
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1600 Culv
.03
.045
.03
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit MCO
Crit T500
Ground
Levee
Ineff
Bank Sta

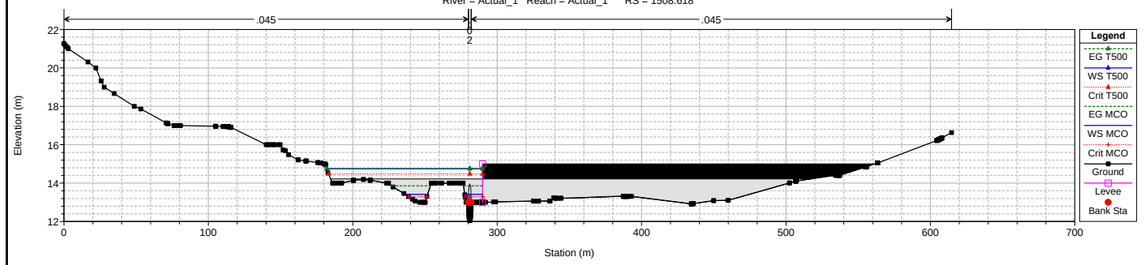
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1546.273



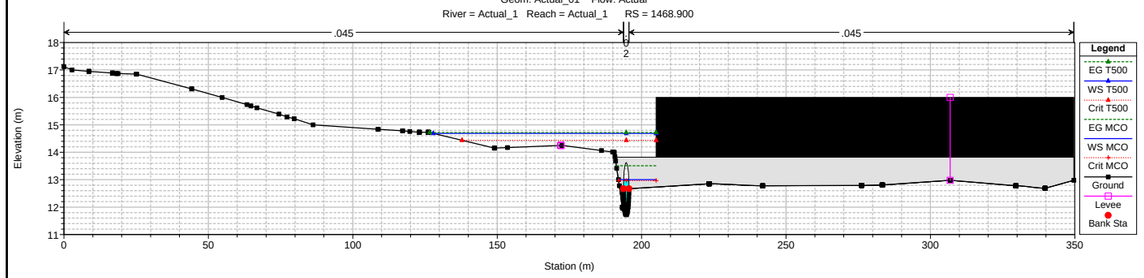
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1530 Culv



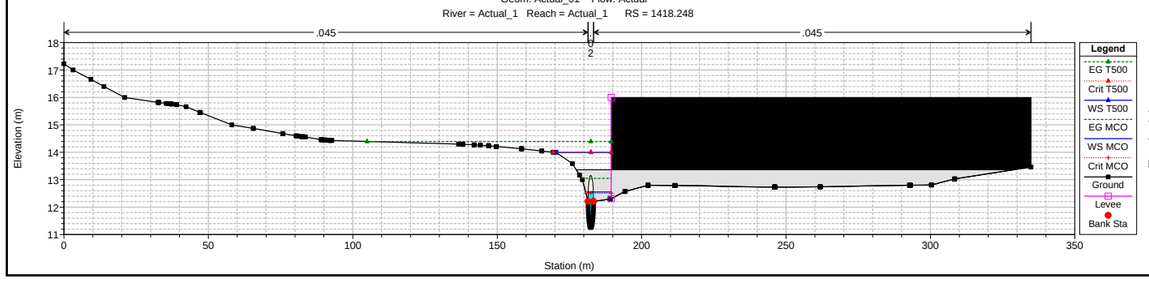
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1508.618



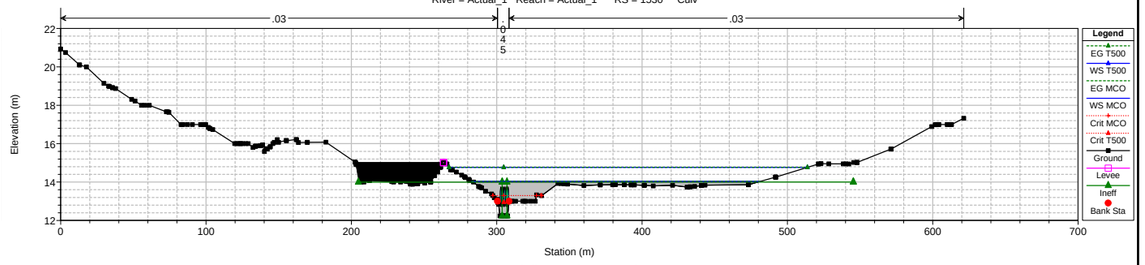
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1468.900



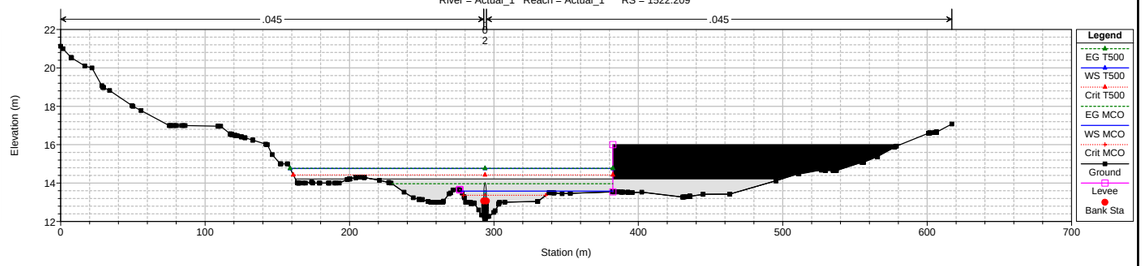
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1418.248



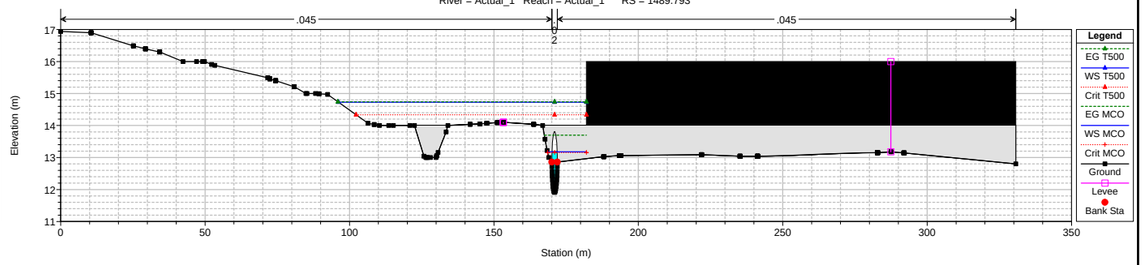
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1530 Culv



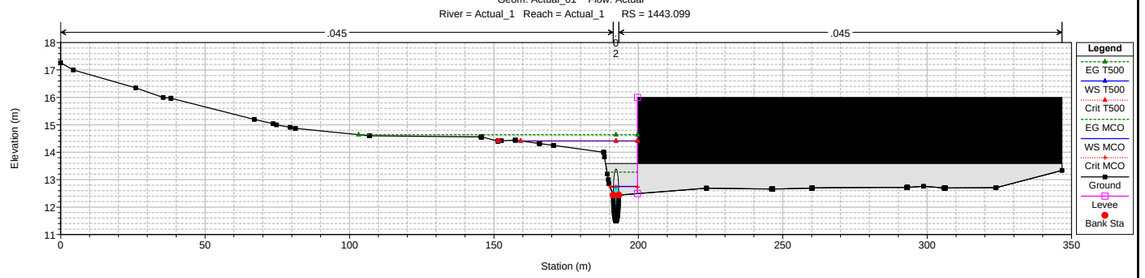
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1522.209



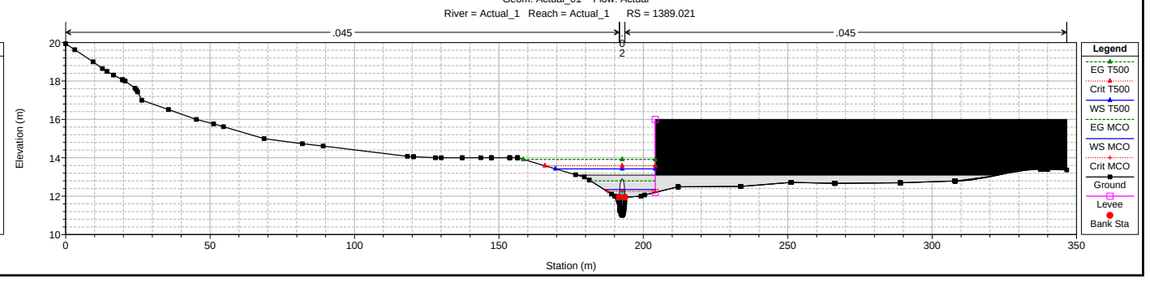
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1489.793

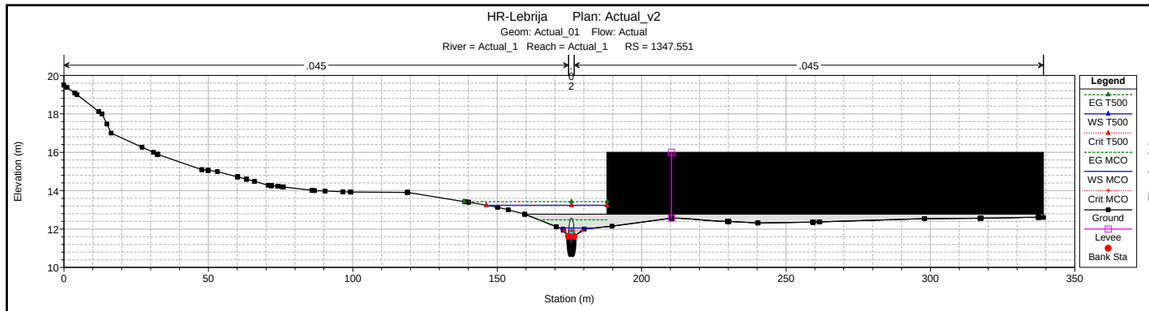


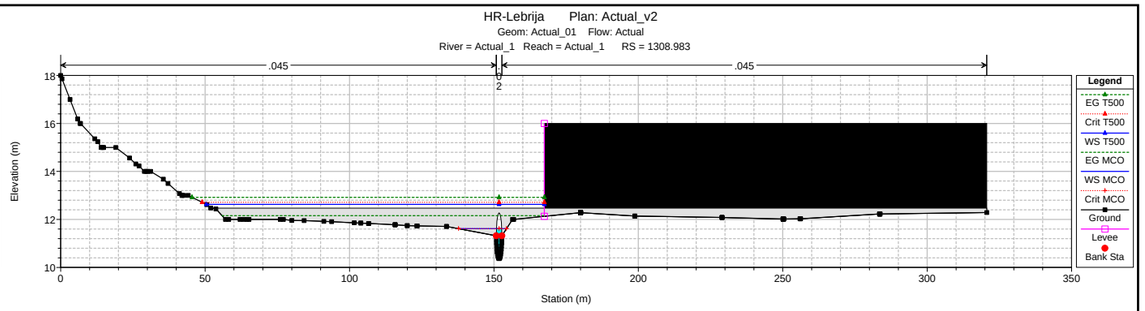
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1443.099

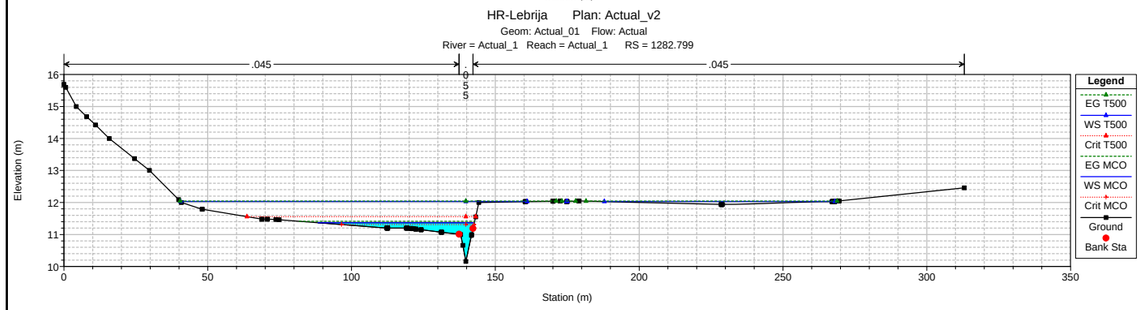


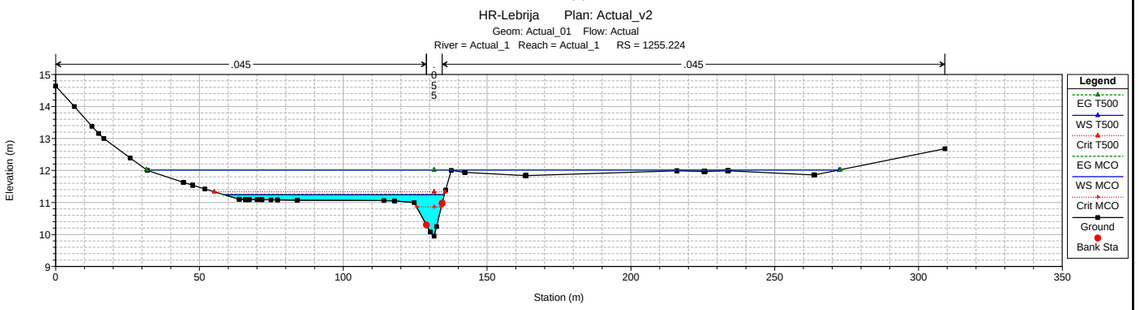
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1389.021

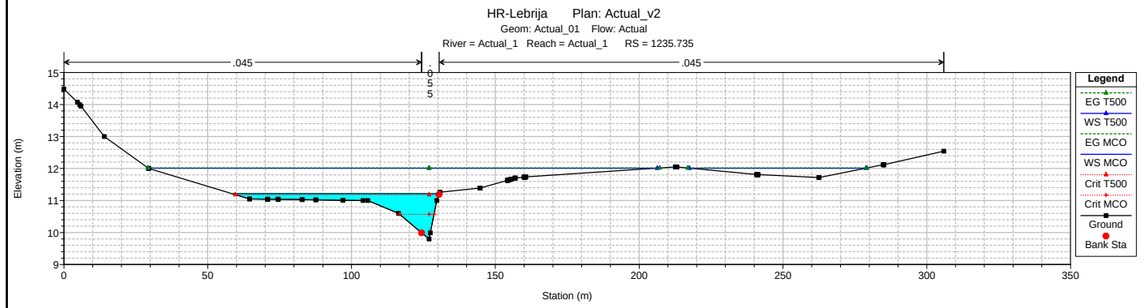


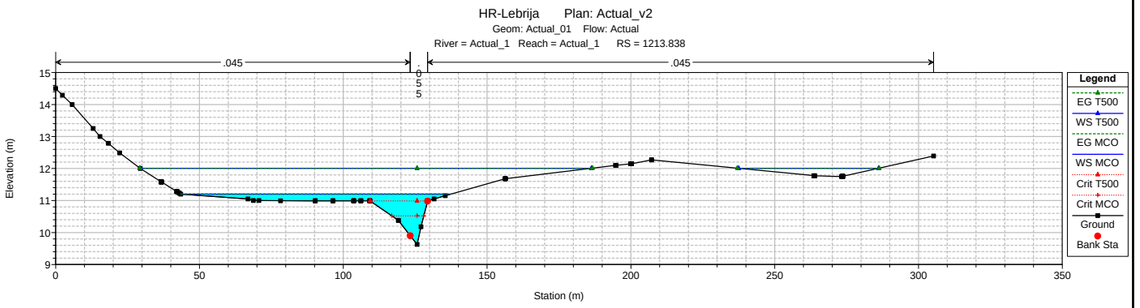

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1347.551
.045
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Levee
Bank Sta

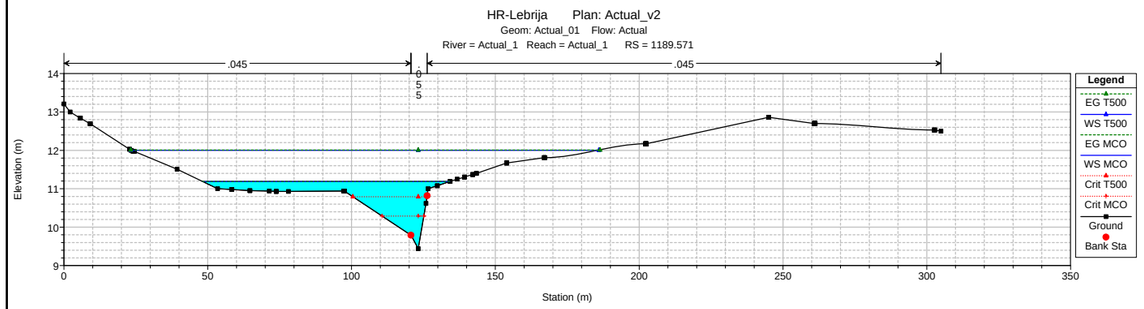

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1308.983
.045
.045
Elevation (m)
Station (m)
Legend
EG T500
Crit T500
WS T500
EG MCO
WS MCO
Crit MCO
Ground
Levee
Bank Sta

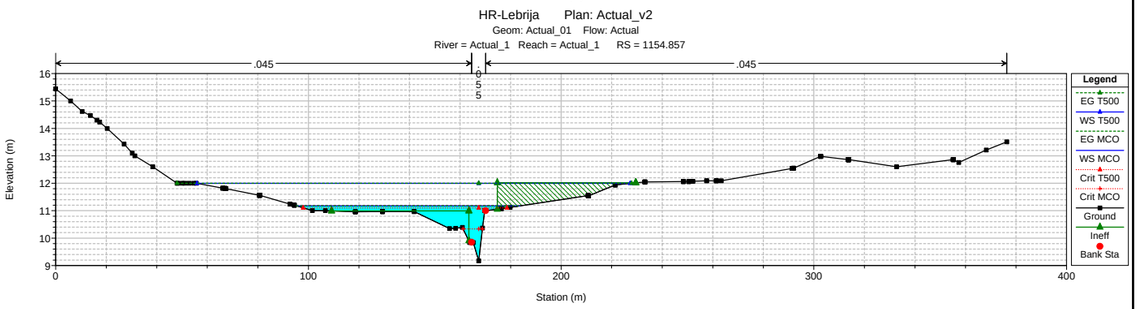

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1282.799
.045
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

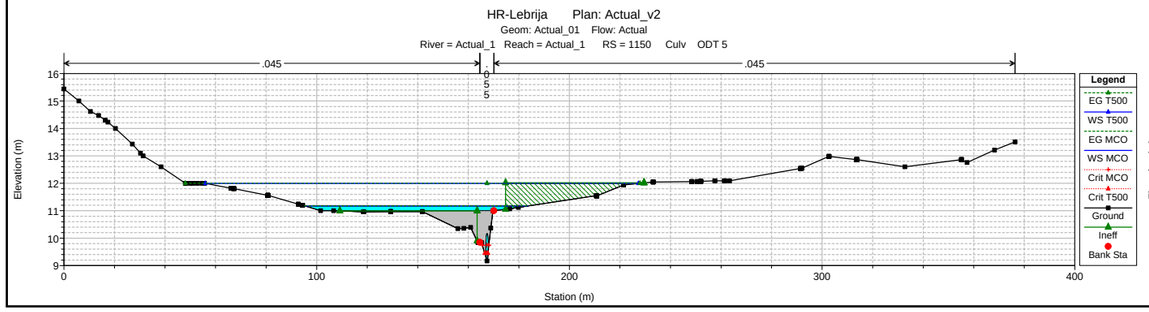

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1255.224
.045
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

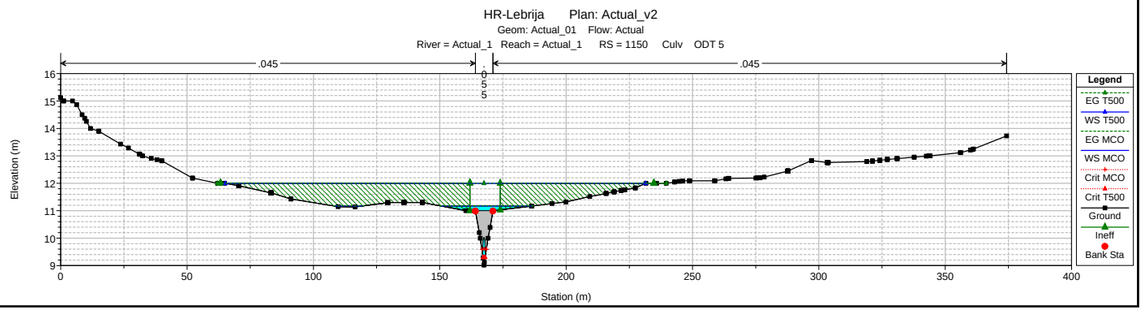

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1235.735
.045
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1213.838
.045
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Bank Sta

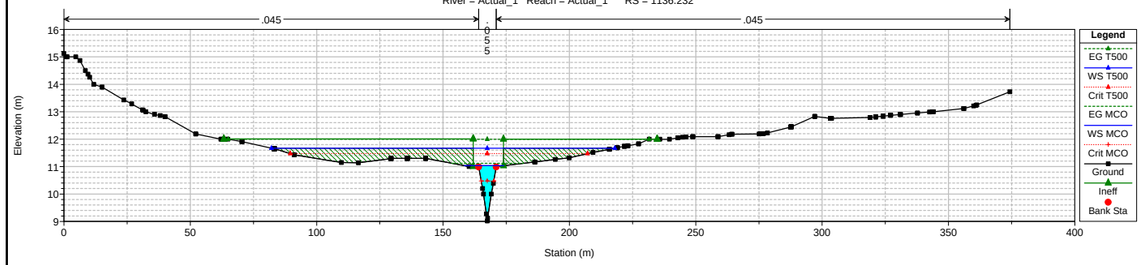

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1189.571
.045
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1154.857
.045
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Ineff
Bank Sta

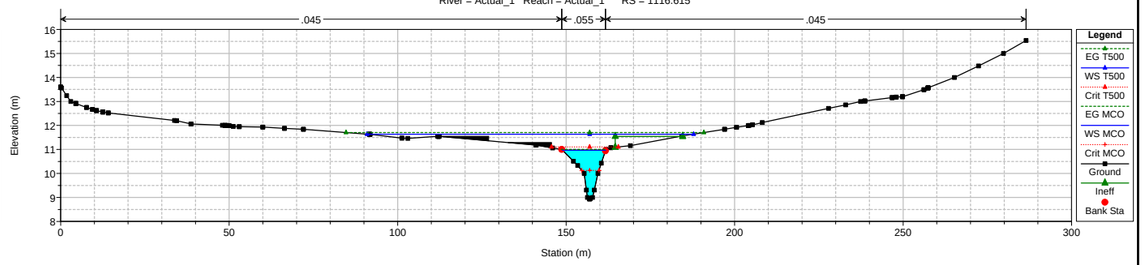

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1150 Culv ODT 5
.045
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit MCO
Crit T500
Ground
Ineff
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1150 Culv ODT 5
.045
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit MCO
Crit T500
Ground
Ineff
Bank Sta

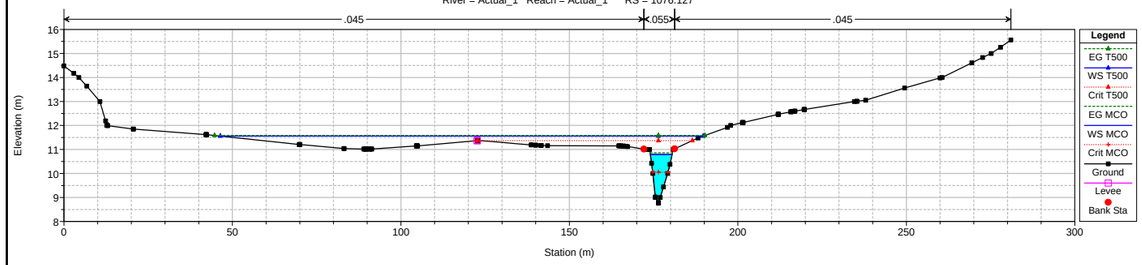
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1136.232



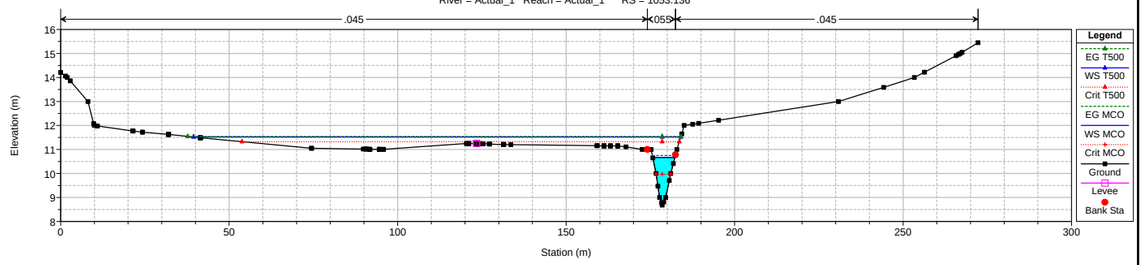
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1116.615



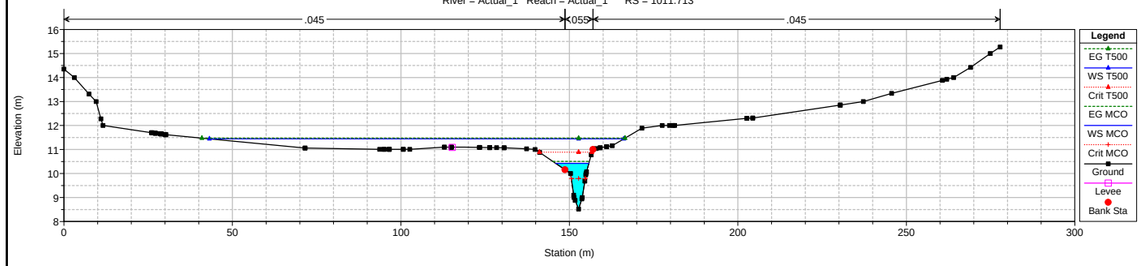
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1076.127



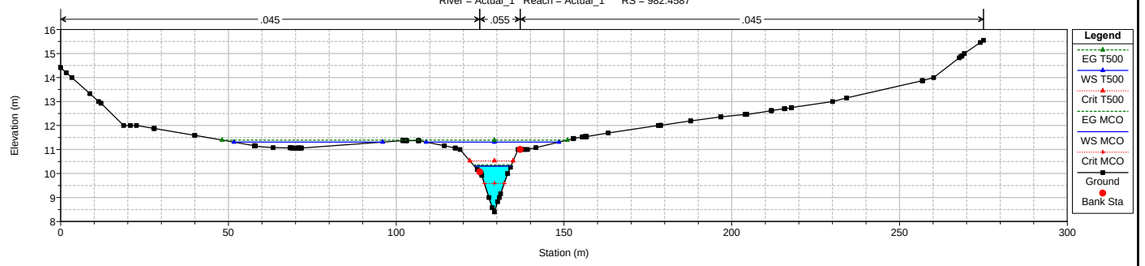
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1053.136



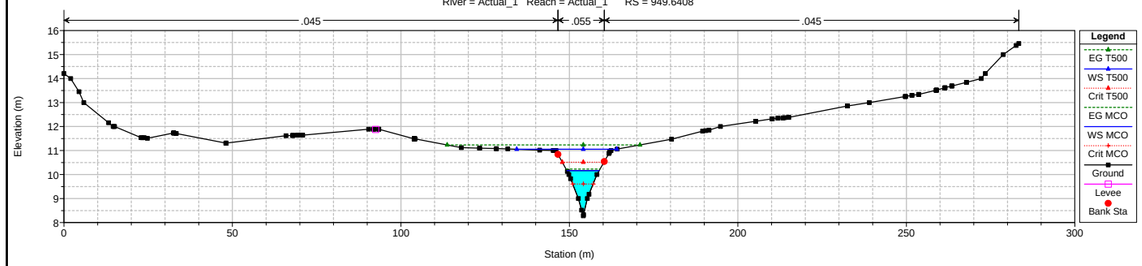
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1011.713



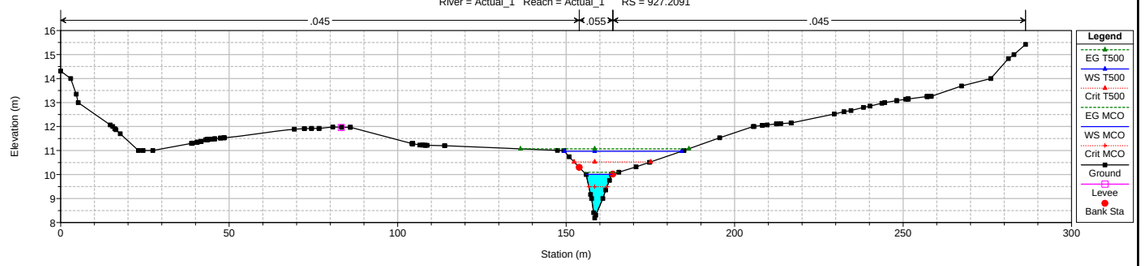
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 982.4587



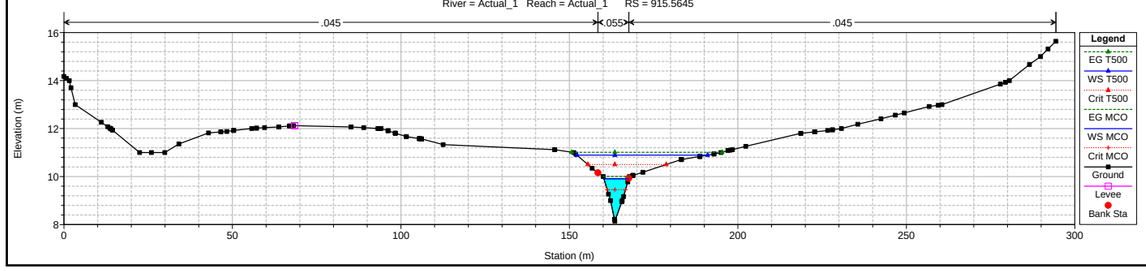
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 949.6408



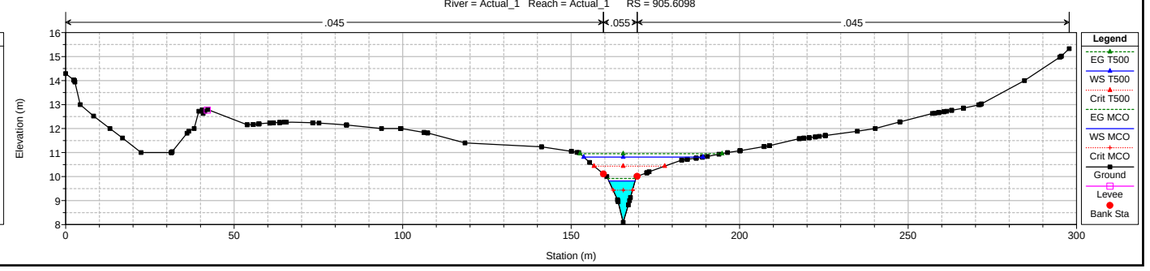
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 927.2091

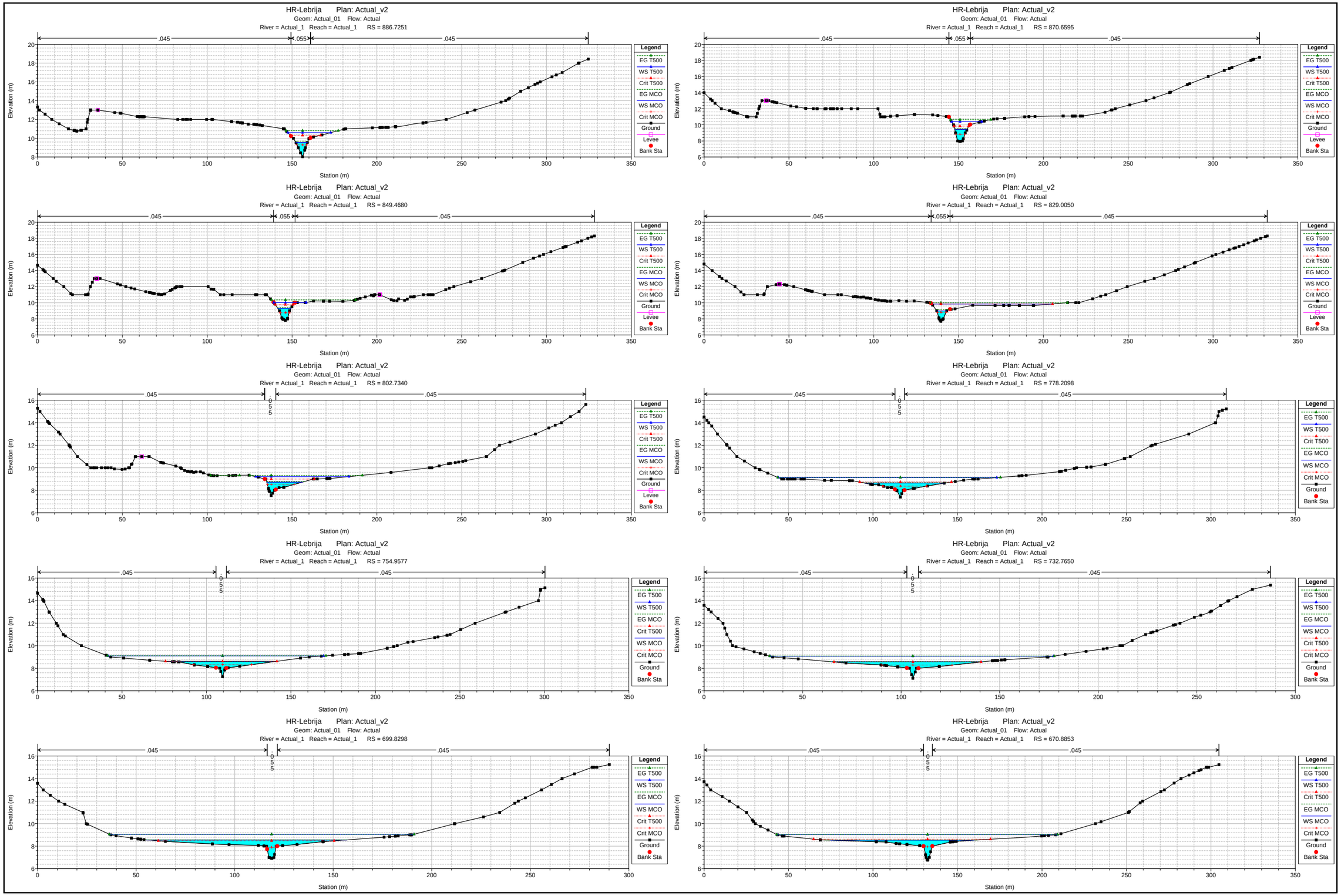


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 915.5645

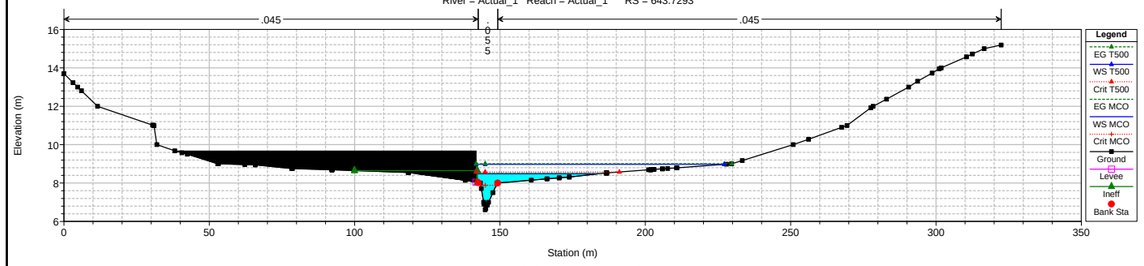


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 905.6098

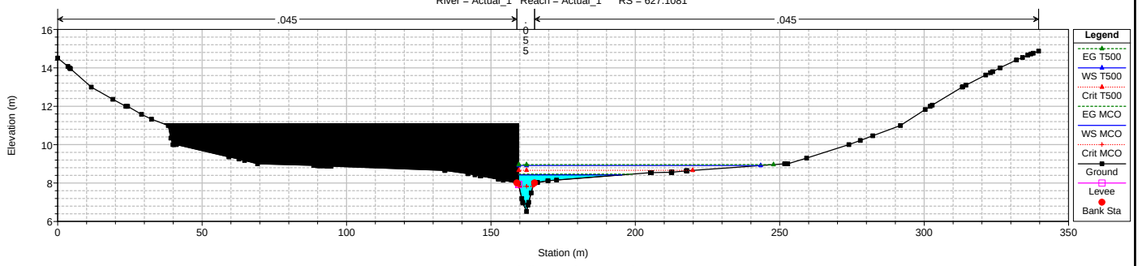



HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 886.7251
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 870.6595
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 849.4680
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 829.0050
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 802.7340
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 778.2098
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 754.9577
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 732.7650
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 699.8298
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 670.8853
.045
.055
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Levee
Bank Sta

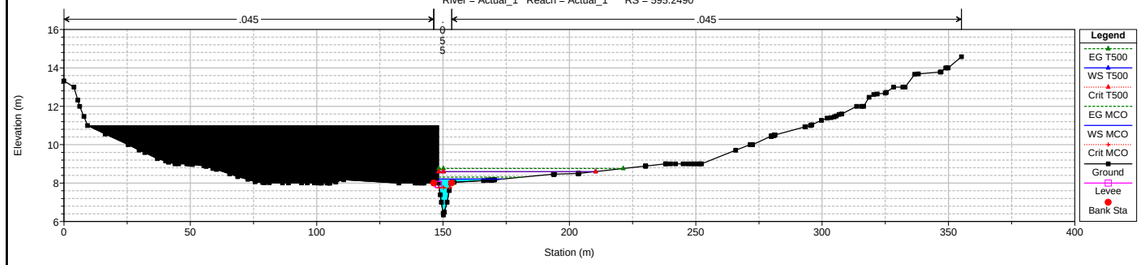
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 643.7293



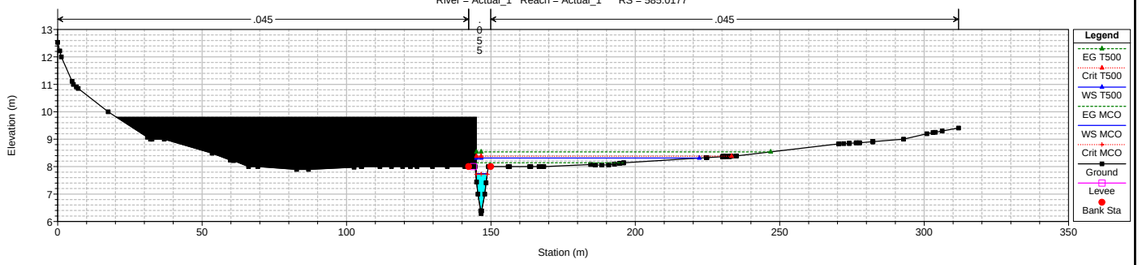
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 627.1081



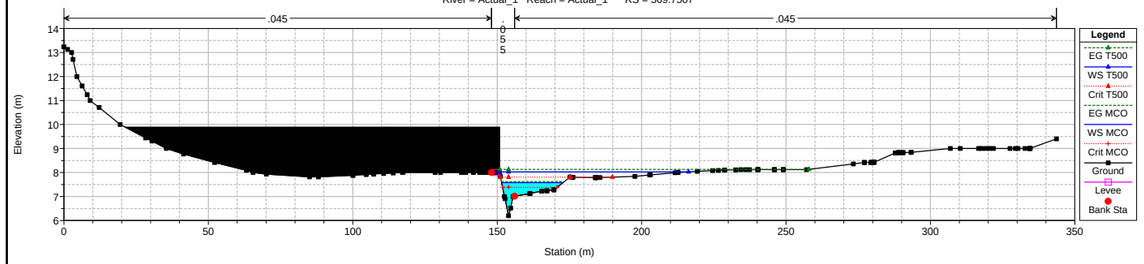
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 595.2490



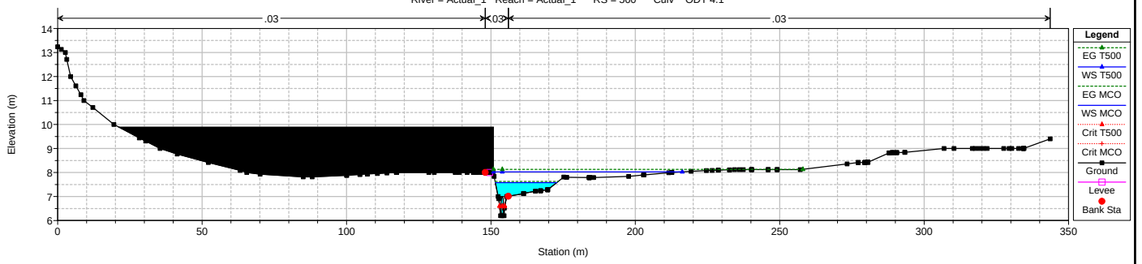
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 585.0177



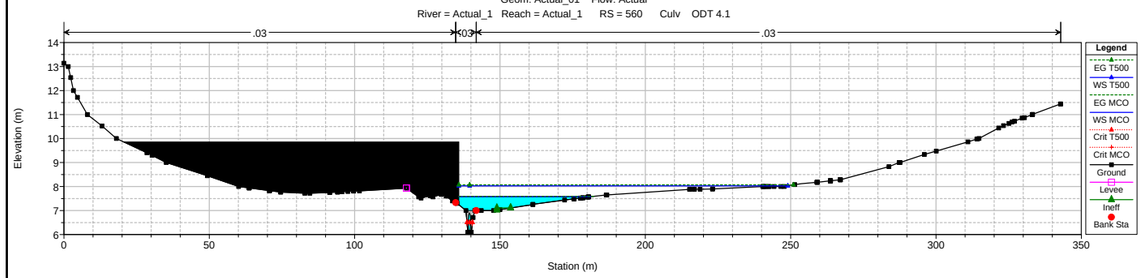
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 569.7507



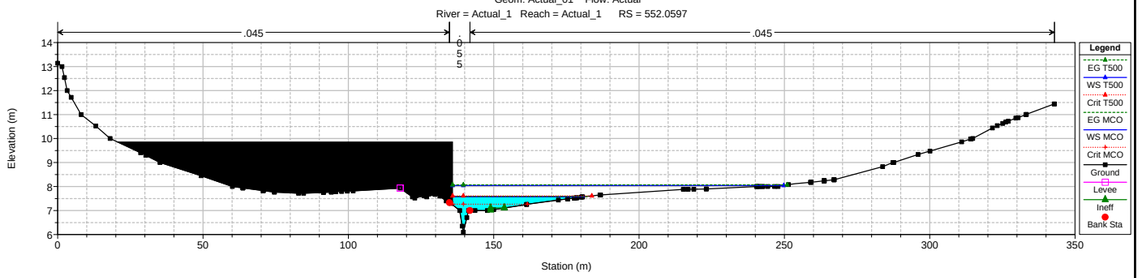
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 560 Culv ODT 4.1



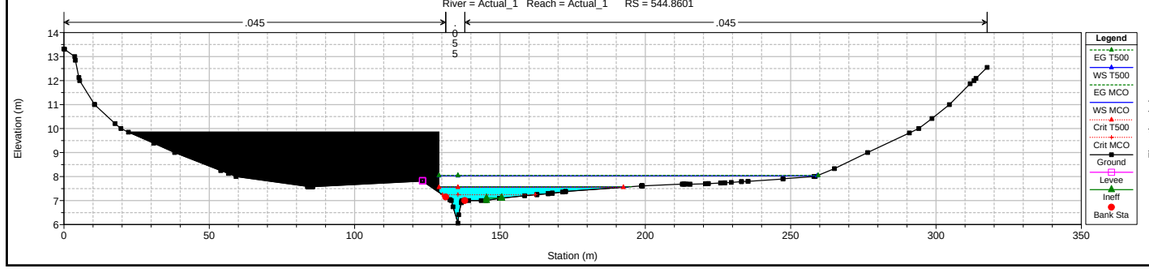
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 560 Culv ODT 4.1



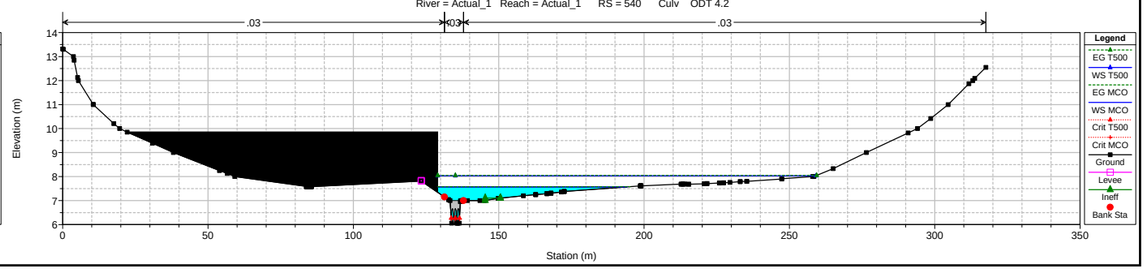
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 552.0597



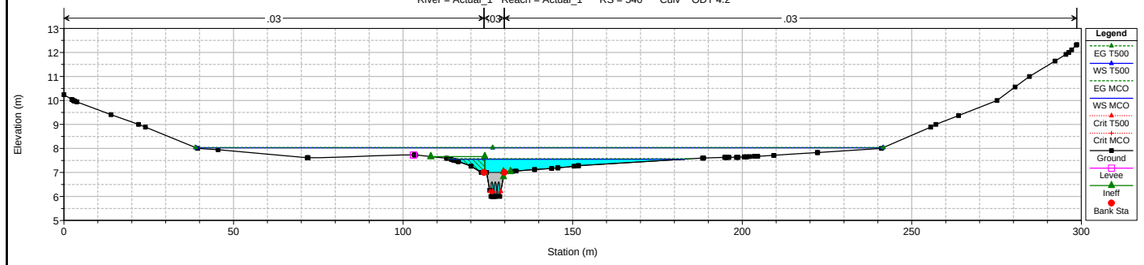
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 544.8601



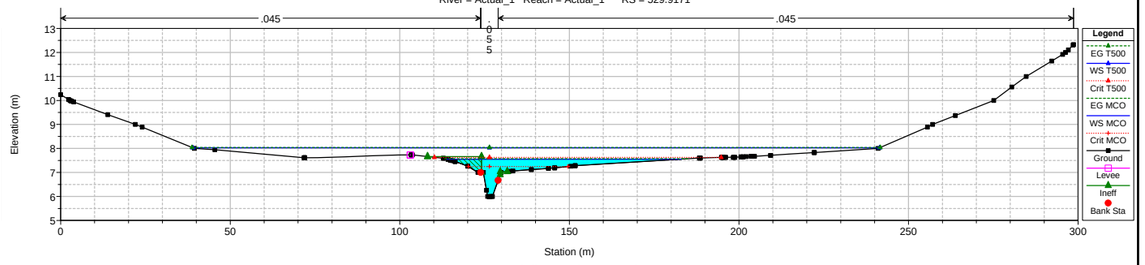
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 540 Culv ODT 4.2



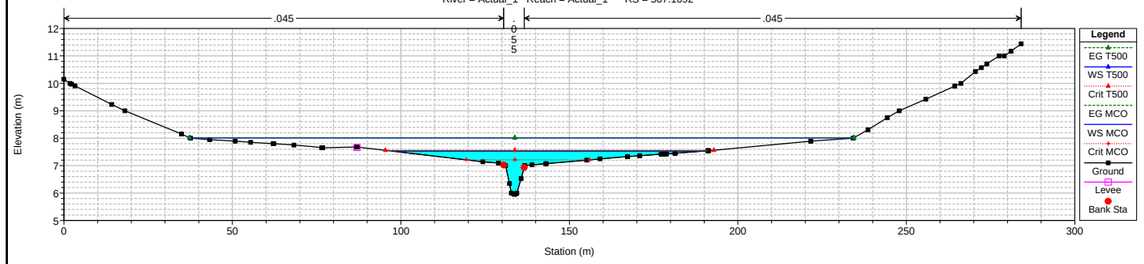
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 540 Culv ODT 4.2



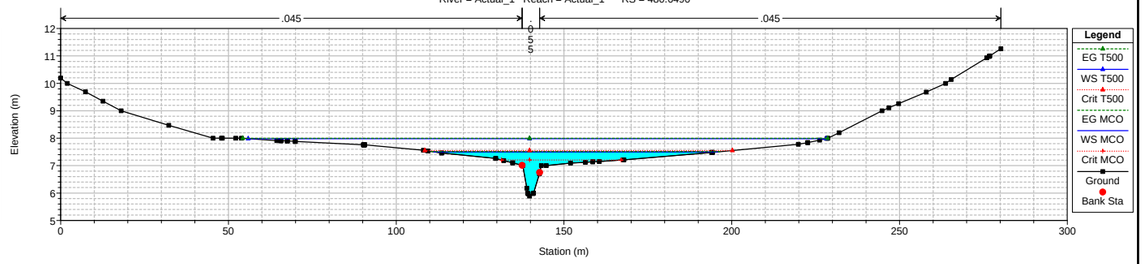
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 529.9171



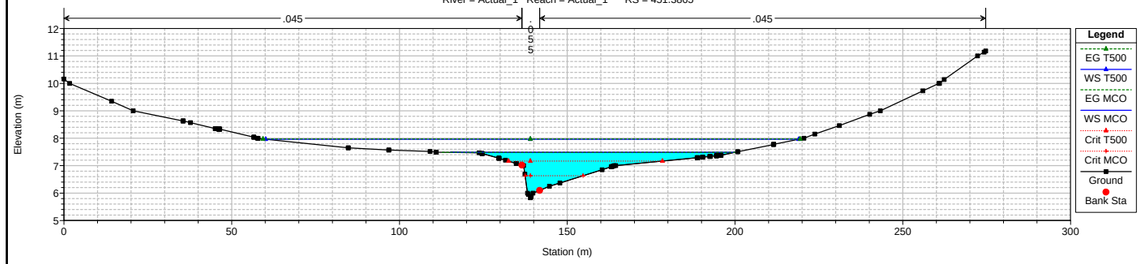
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 507.1692



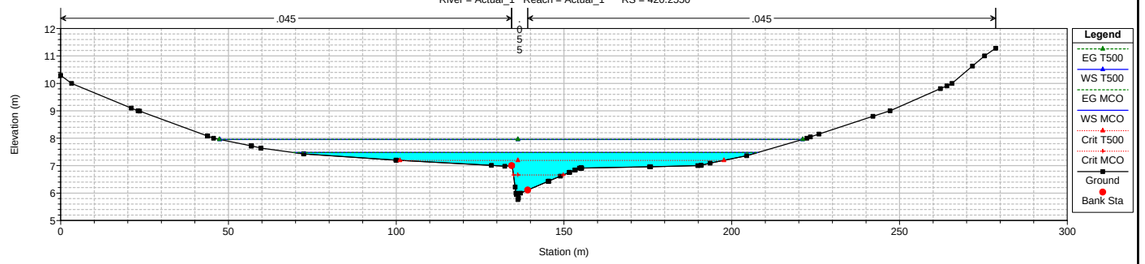
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 480.6490



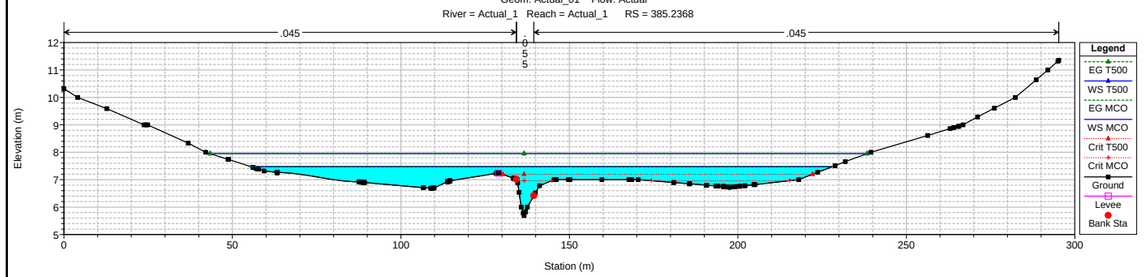
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 451.3865



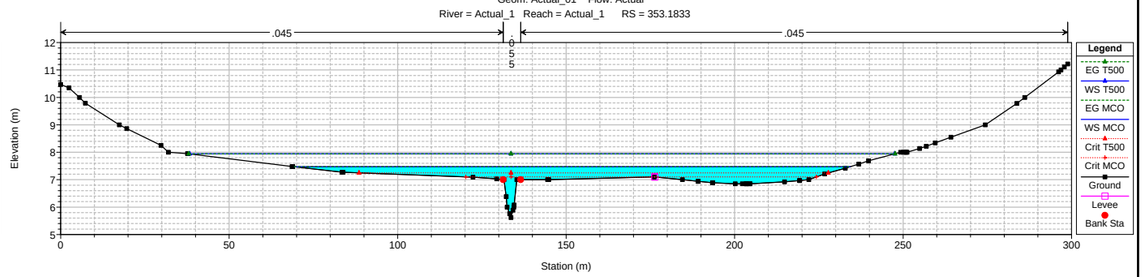
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 420.2550



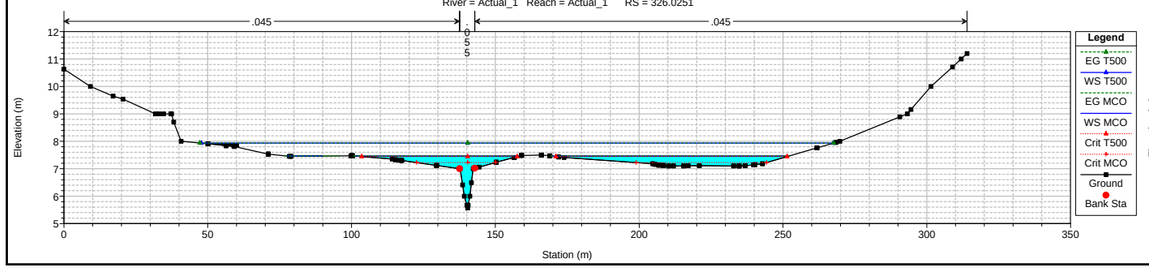
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 385.2368



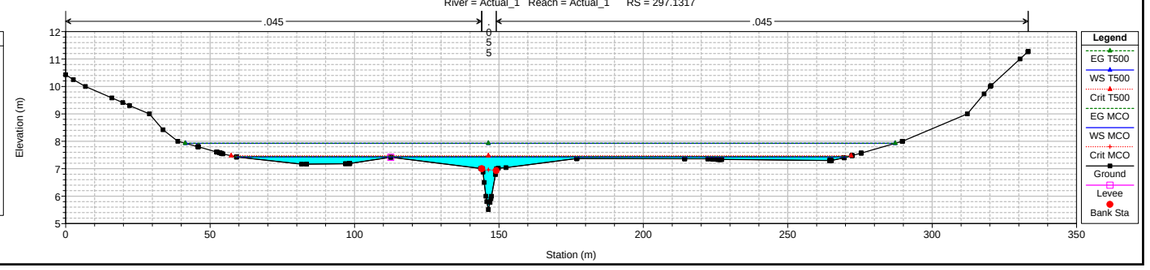
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 353.1833

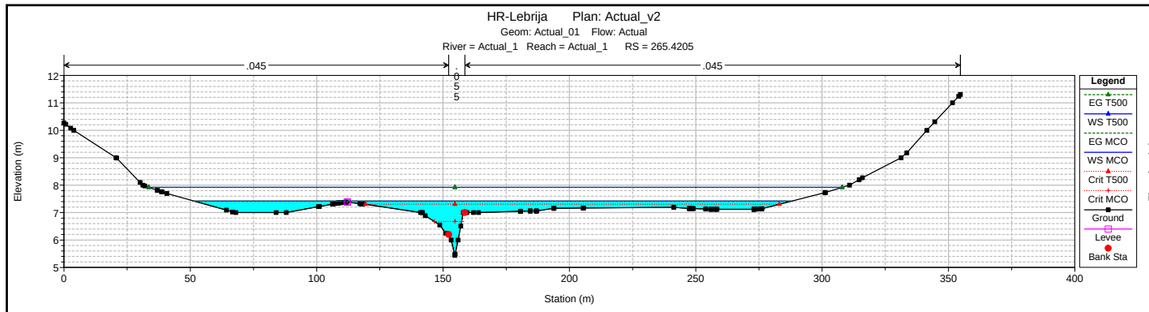


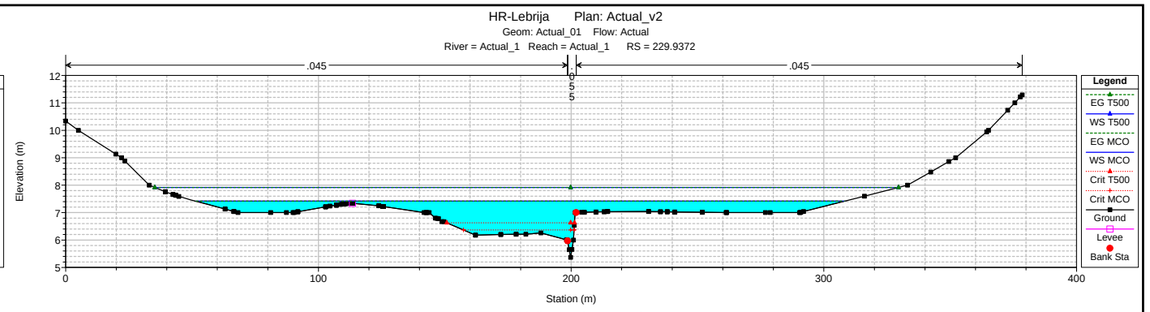
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 326.0251

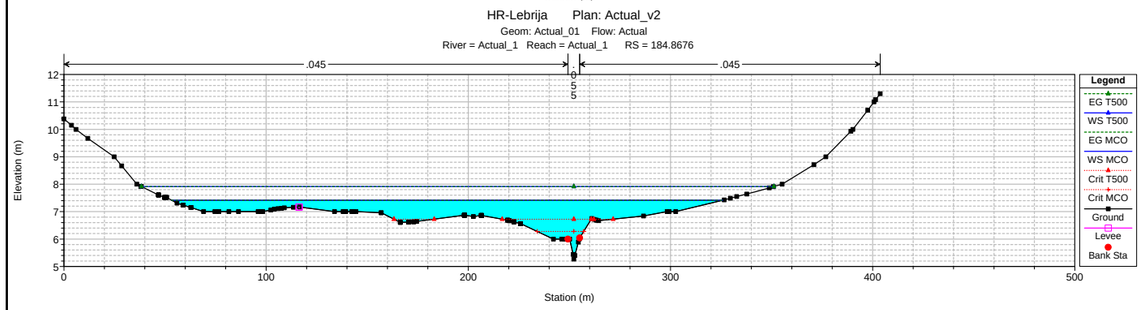


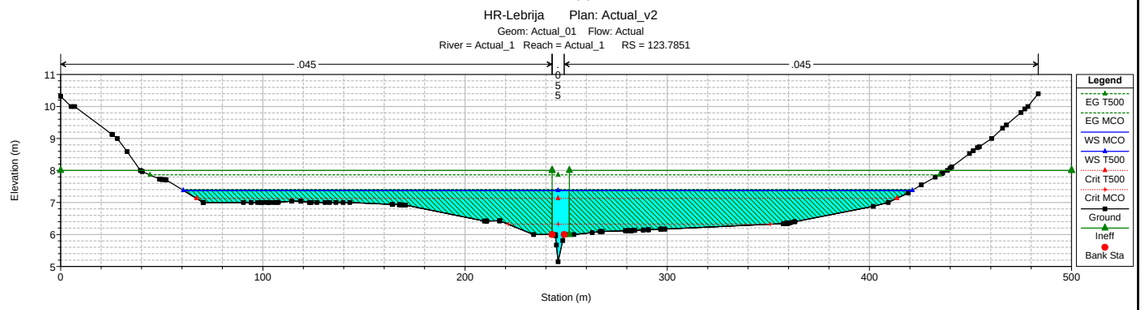
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 297.1317

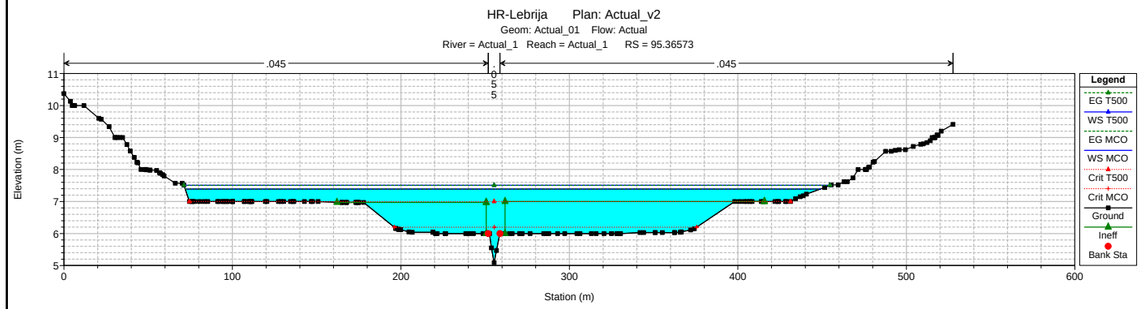


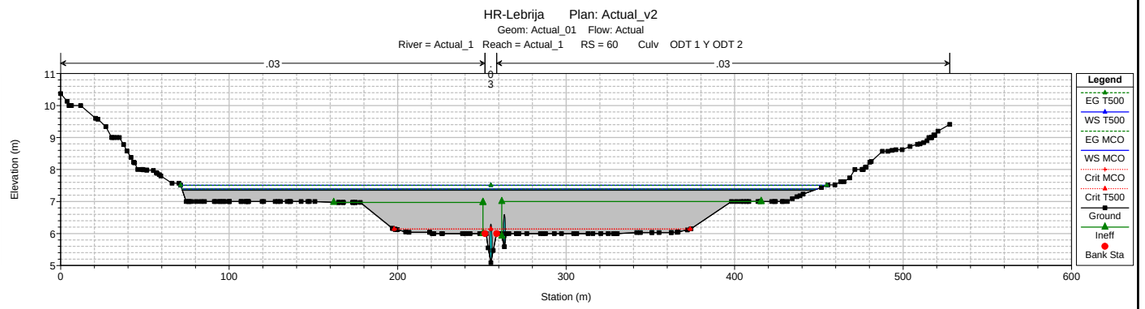

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 265.4205
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Levee
Bank Sta

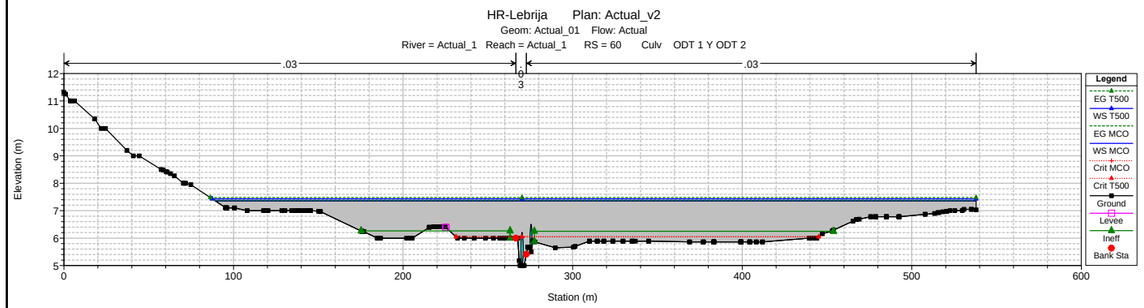

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 229.9372
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Levee
Bank Sta

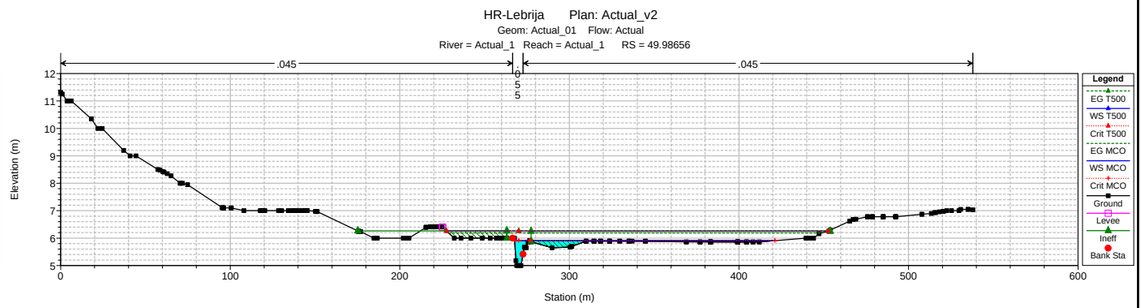

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 184.8676
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Levee
Bank Sta

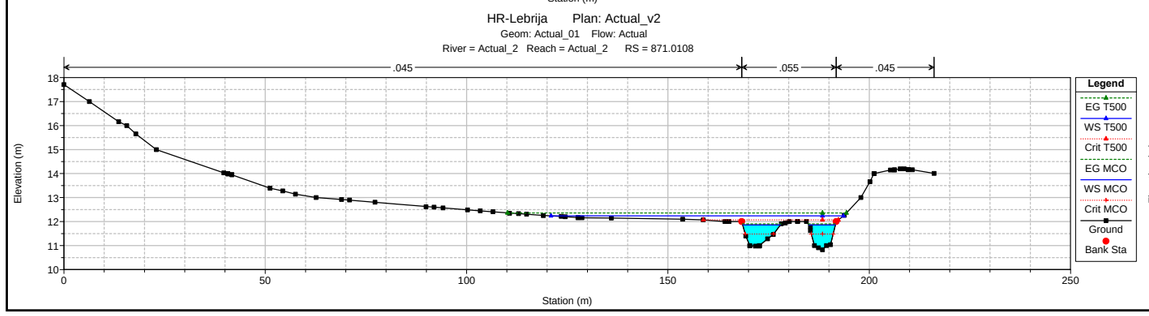

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 123.7851
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
EG MCO
WS MCO
WS T500
Crit T500
Crit MCO
Ground
Ineff
Bank Sta

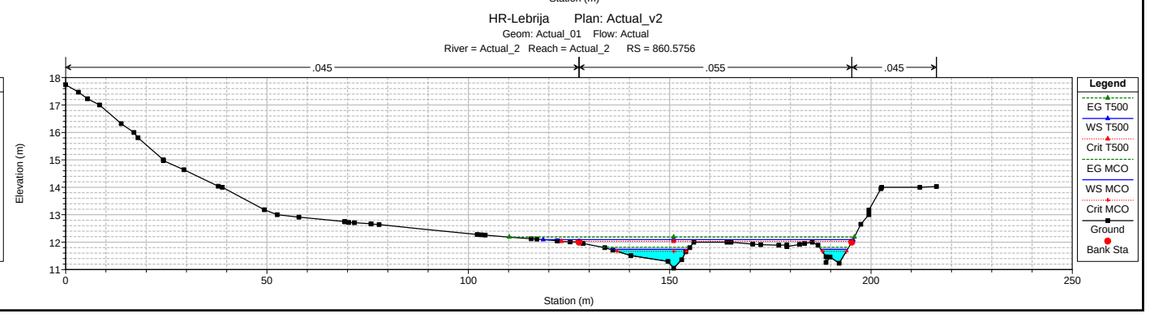

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 95.36573
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Ineff
Bank Sta

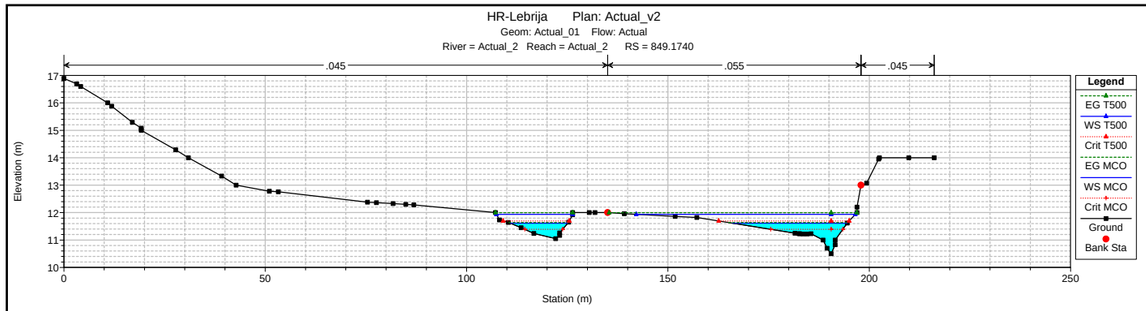

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 60 Culv ODT 1 Y ODT 2
.03
.03
.03
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit MCO
Crit T500
Ground
Ineff
Bank Sta

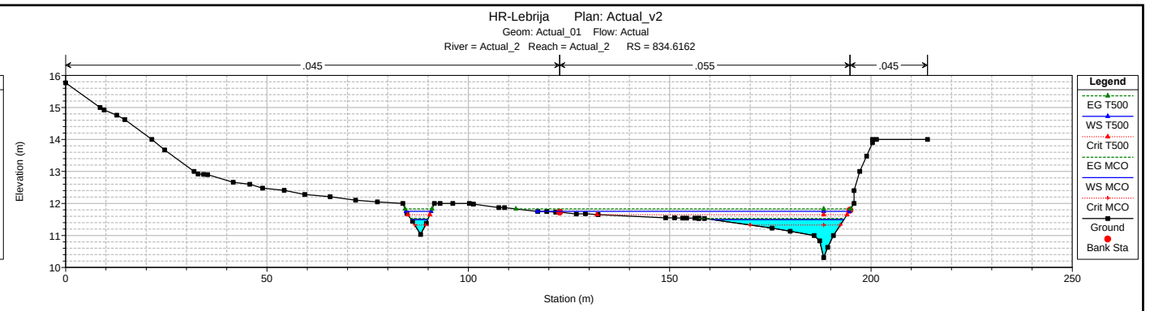

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 60 Culv ODT 1 Y ODT 2
.03
.03
.03
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit MCO
Crit T500
Ground
Levee
Ineff
Bank Sta

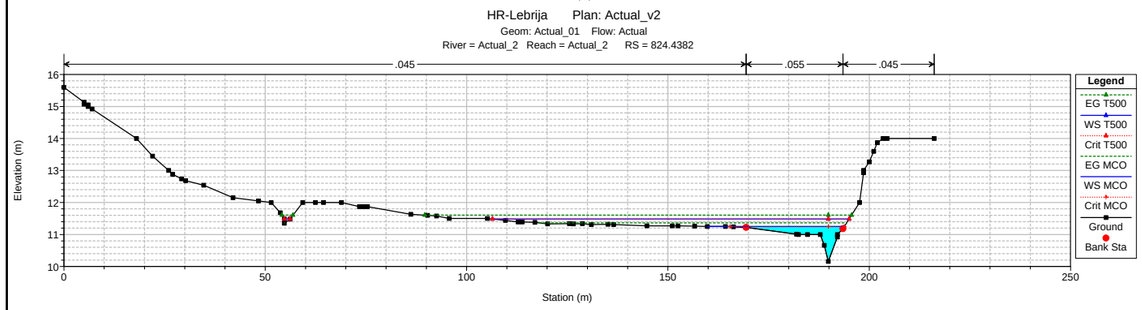

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 49.98656
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Levee
Ineff
Bank Sta

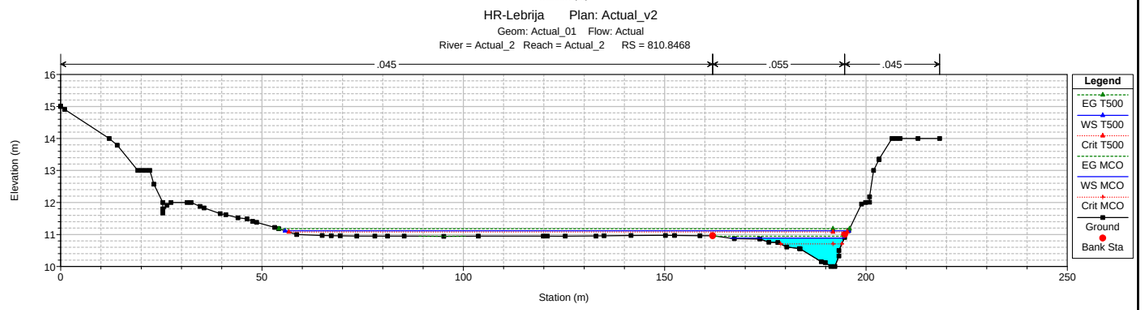

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 871.0108
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

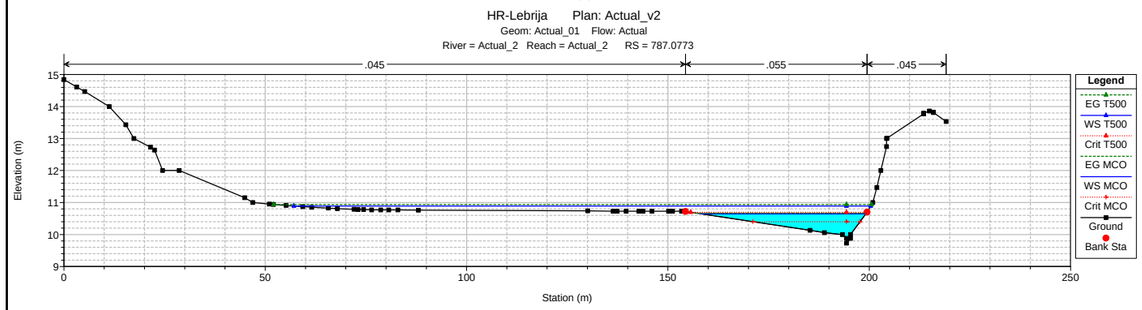

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 860.5756
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

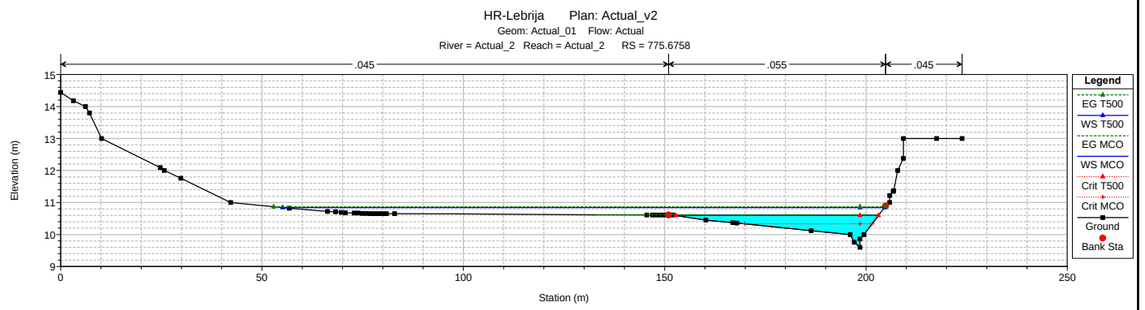

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 849.1740
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

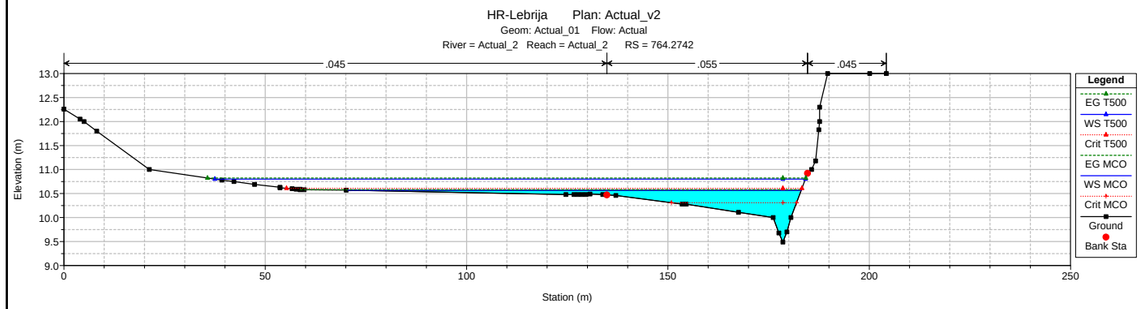

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 834.6162
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

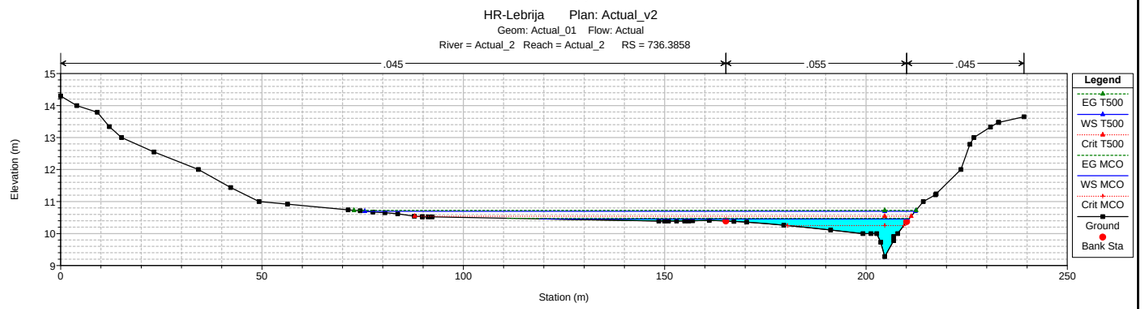

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 824.4382
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

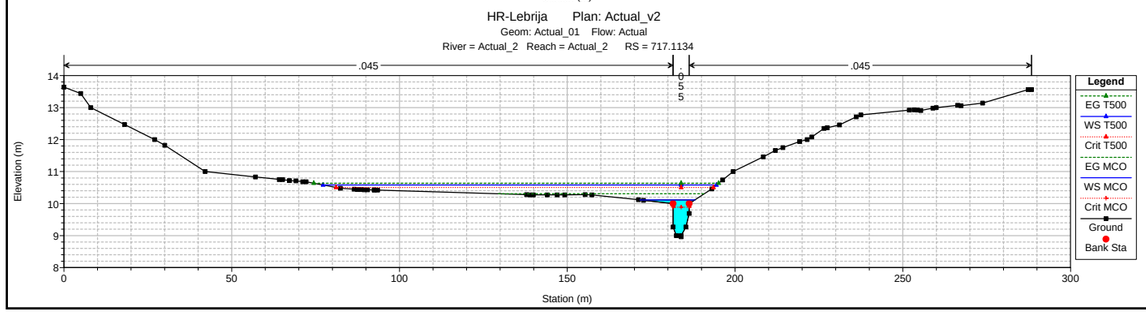

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 810.8468
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

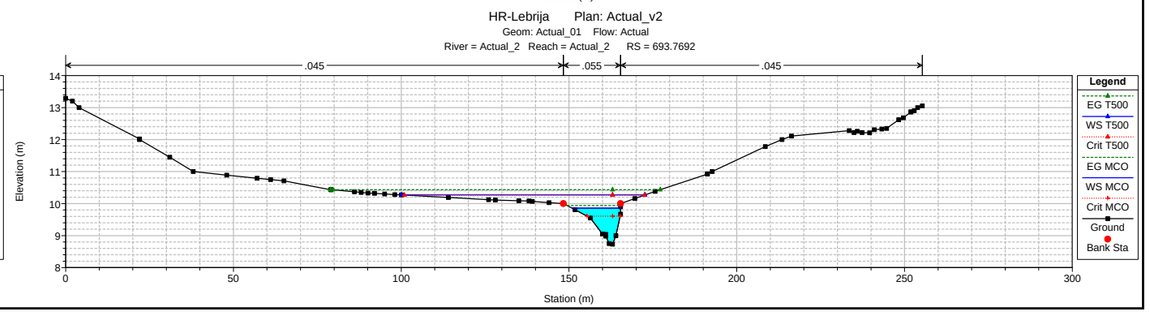

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 787.0773
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

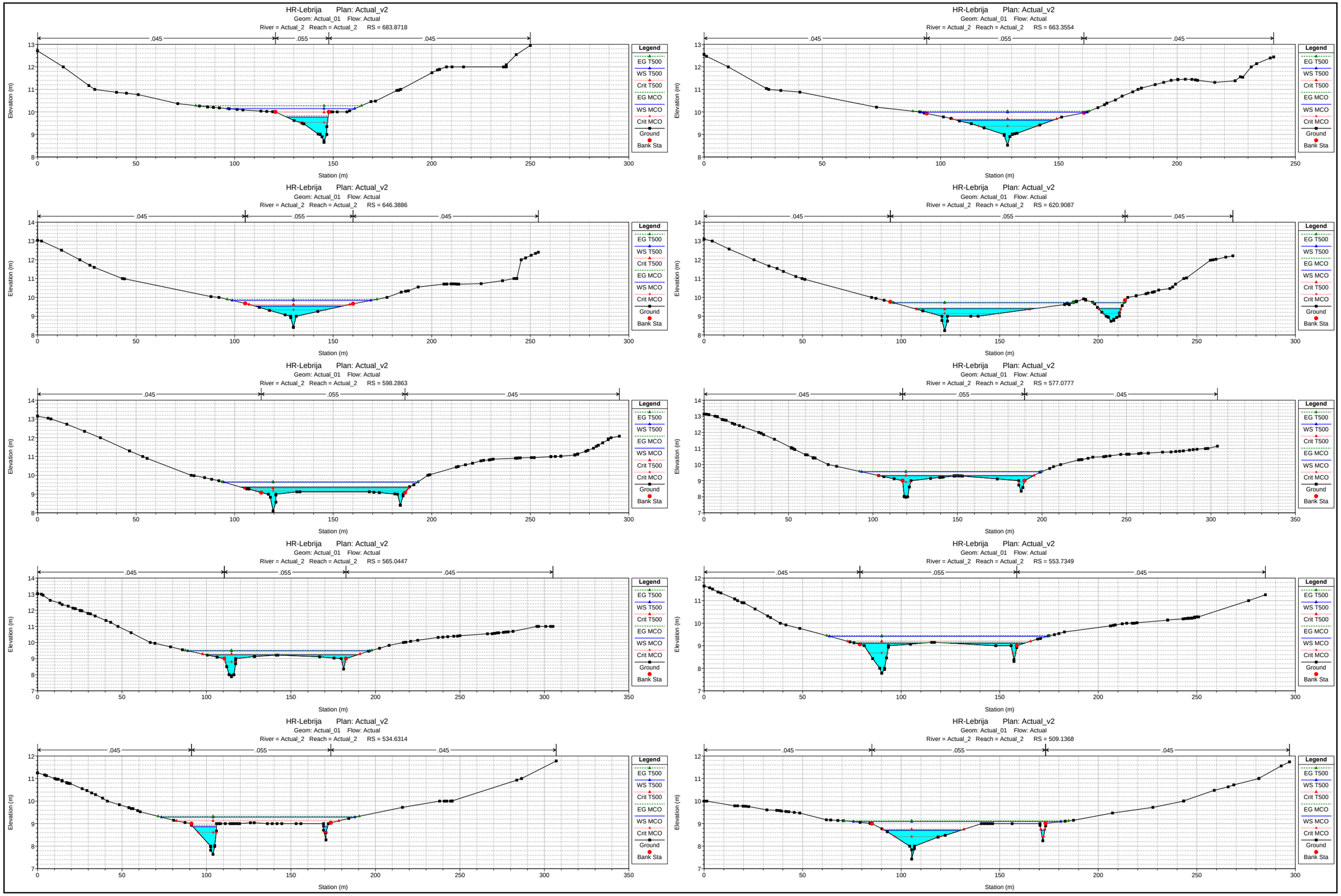

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 775.6758
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

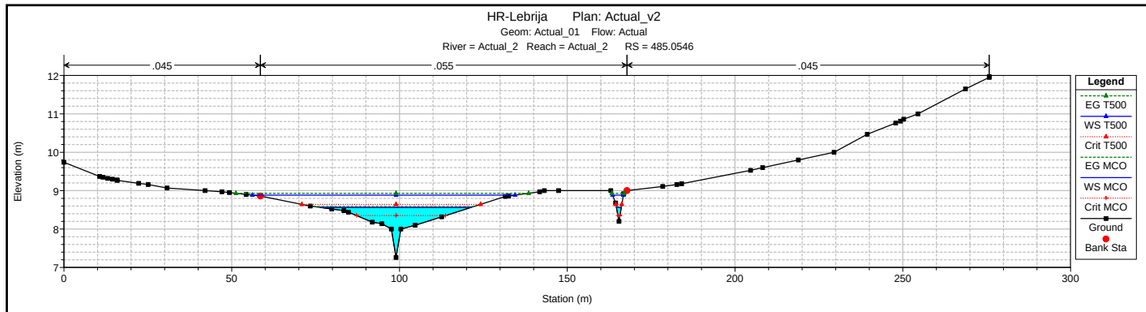

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 764.2742
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

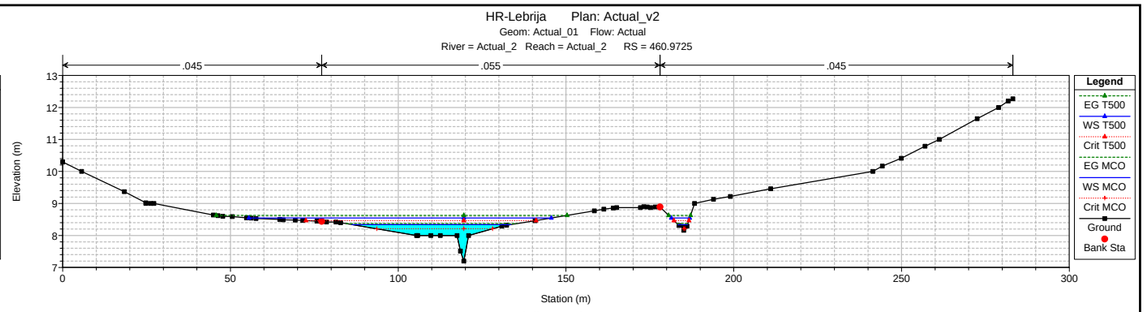

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 736.3858
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 717.1134
.045
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 693.7692
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 683.8718
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 663.3554
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 646.3886
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 620.9087
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 598.2863
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 577.0777
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 565.0447
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 553.7349
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 534.6314
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 509.1368
.045
.055
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 485.0546
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 460.9725
.045
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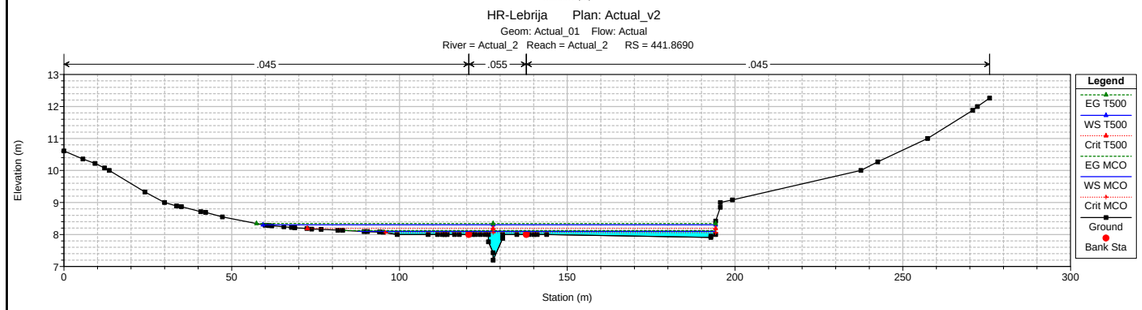
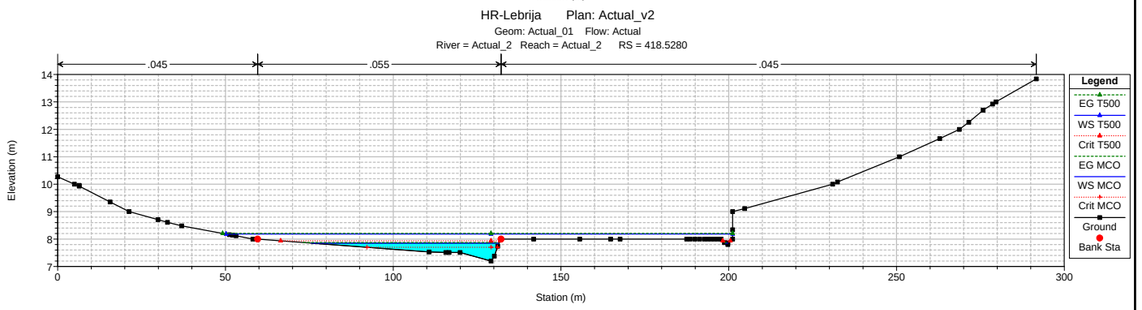
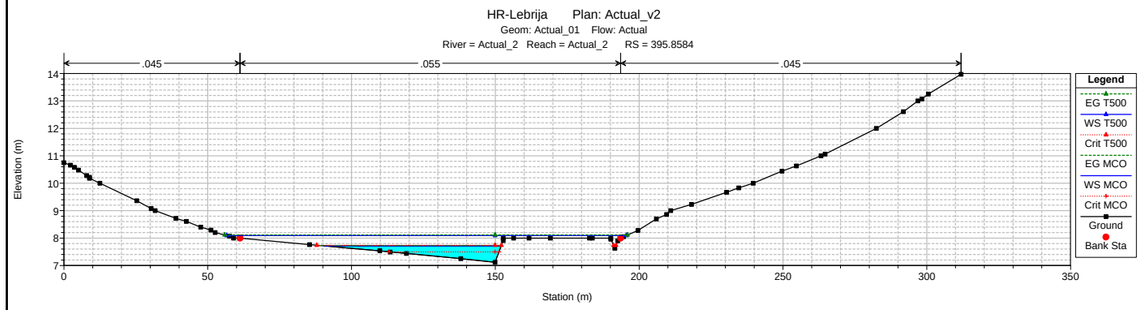
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 441.8690
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 418.5280
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 395.8584
.045
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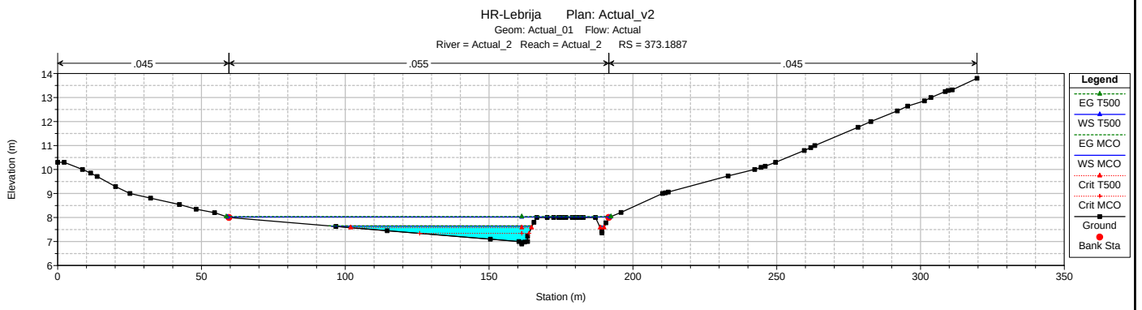
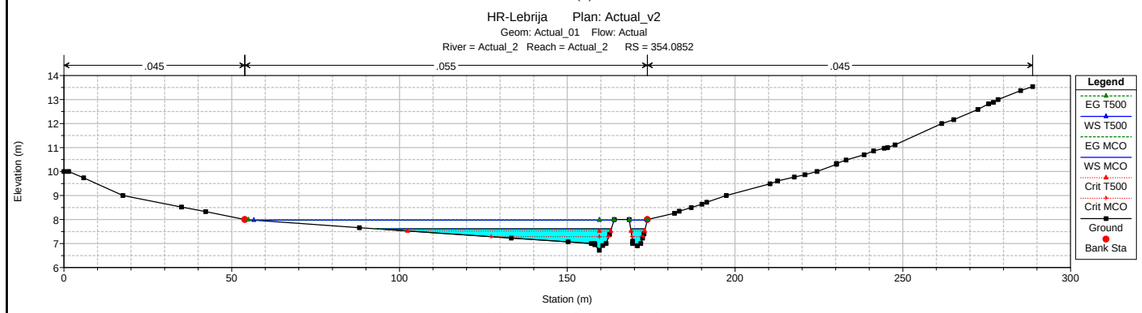
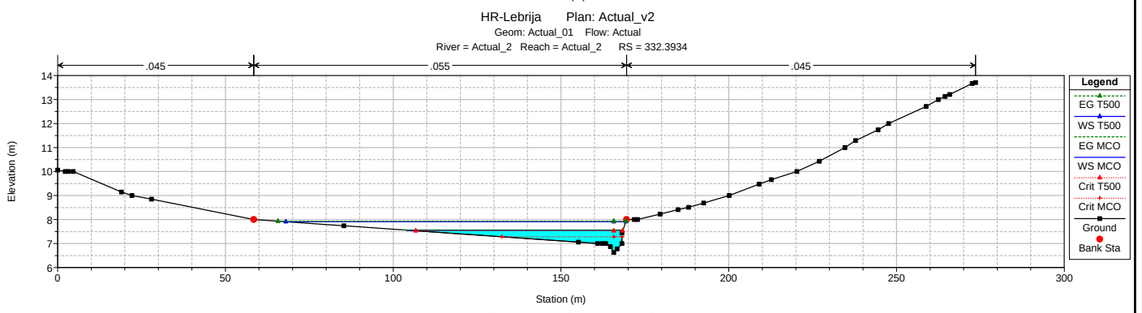
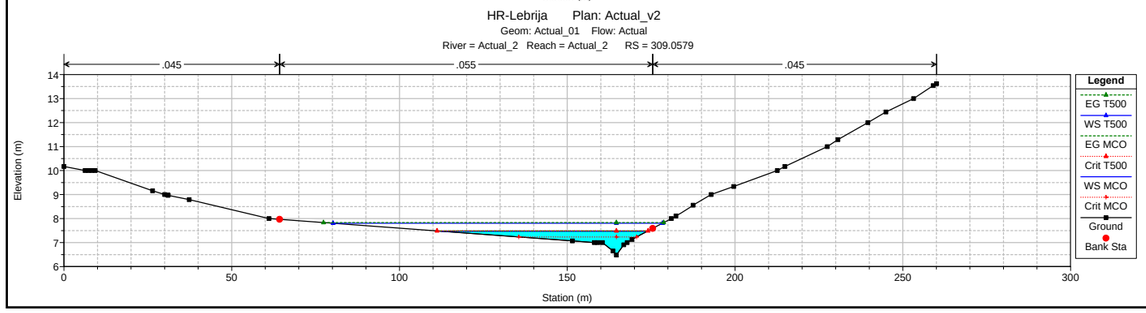
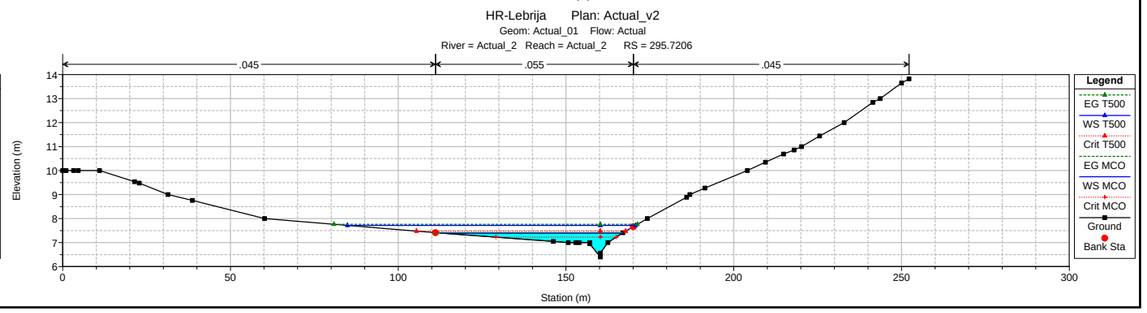
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

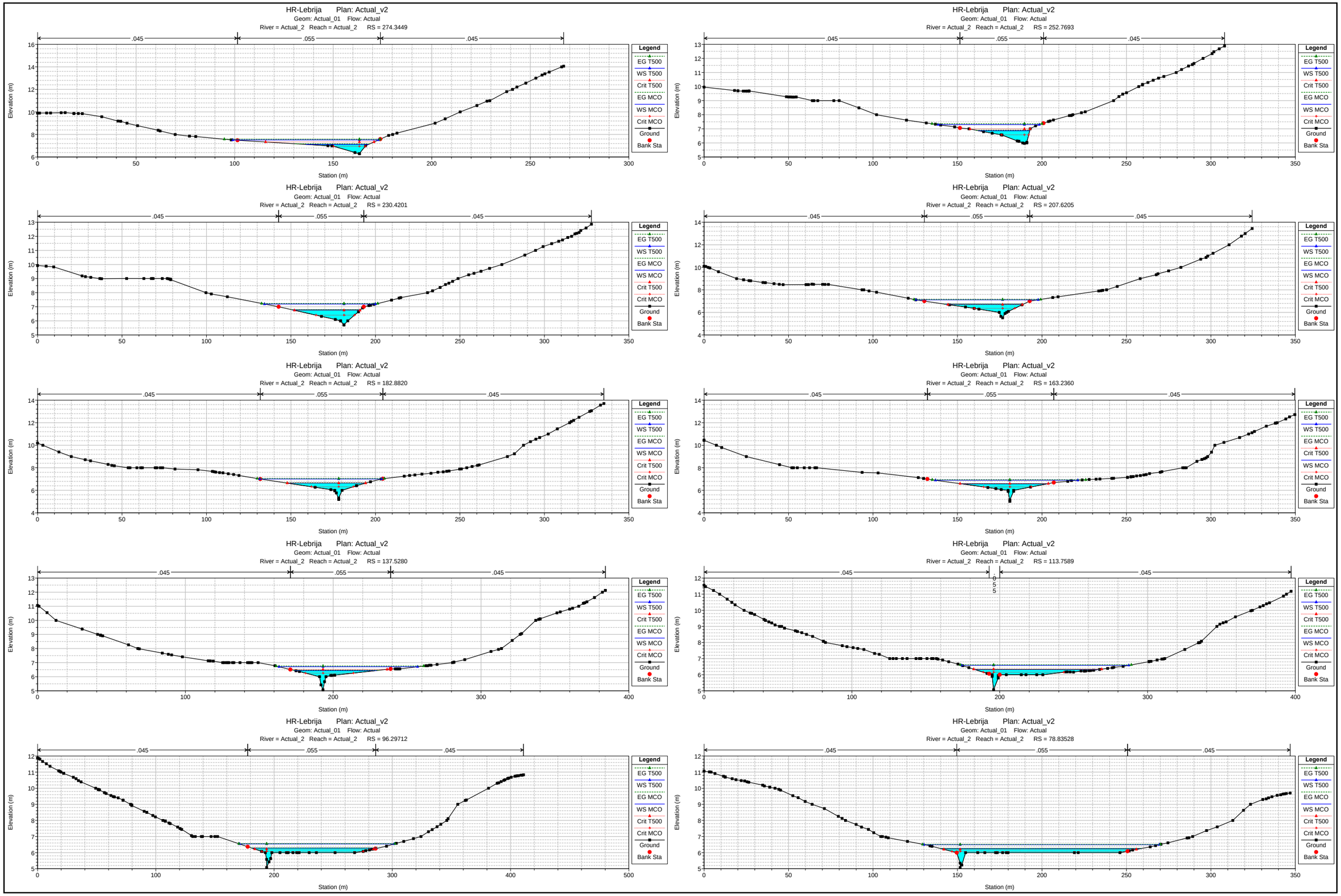

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 373.1887
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Bank Sta

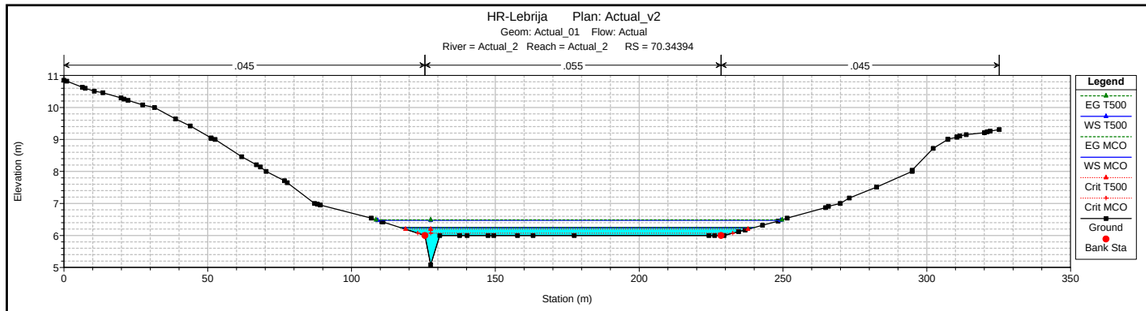

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 354.0852
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 332.3934
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 309.0579
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
Crit T500
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 295.7206
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 274.3449
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 252.7693
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 230.4201
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 207.6205
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 182.8820
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 163.2360
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 137.5280
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 113.7589
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 96.29712
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 78.83528
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 70.34394
.045
.055
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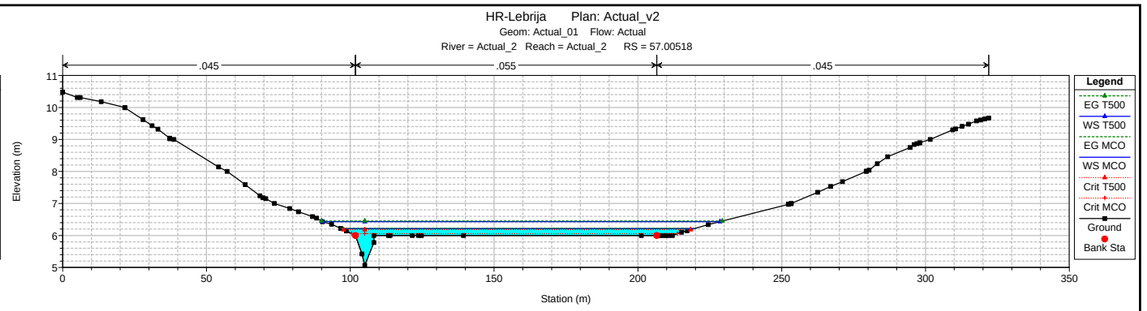
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 57.00518
.045
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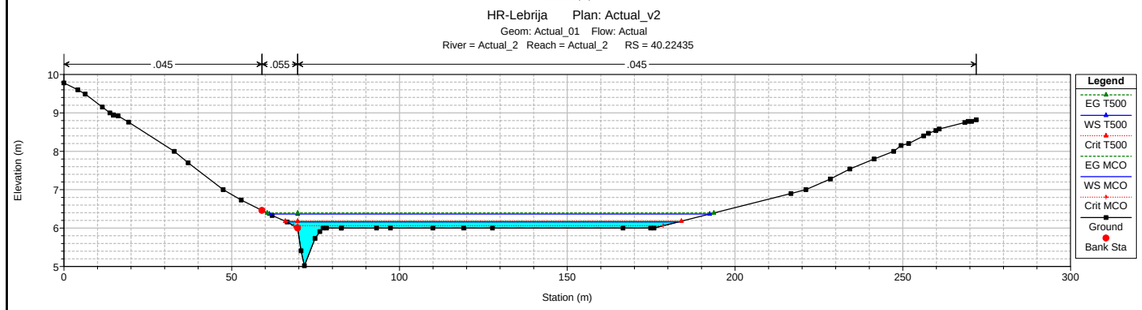
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 40.22435
.045
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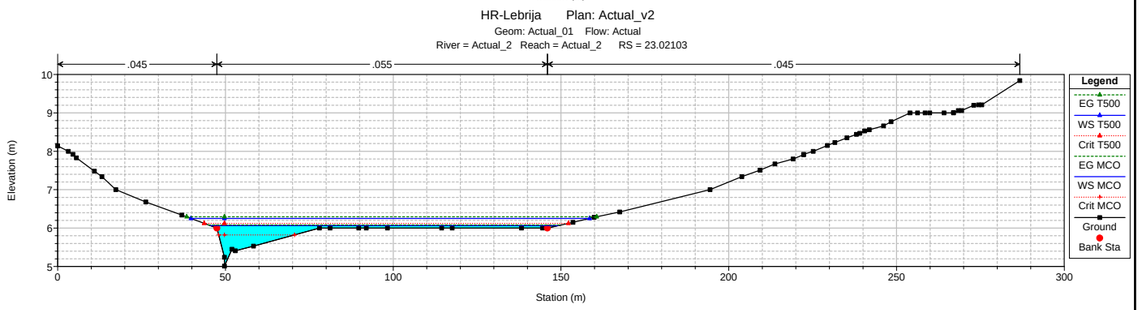
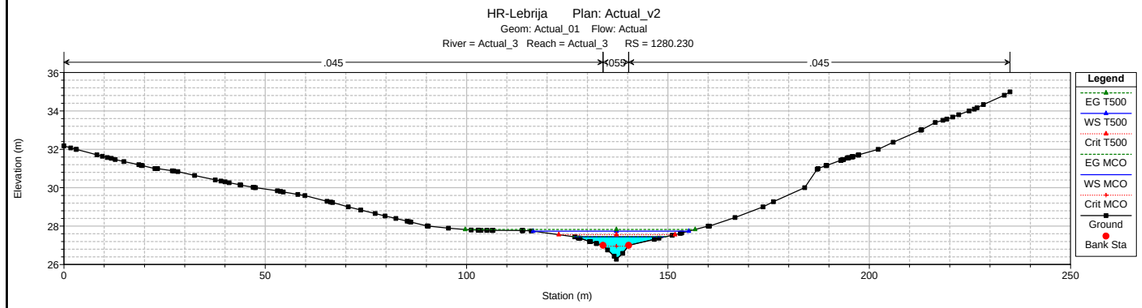
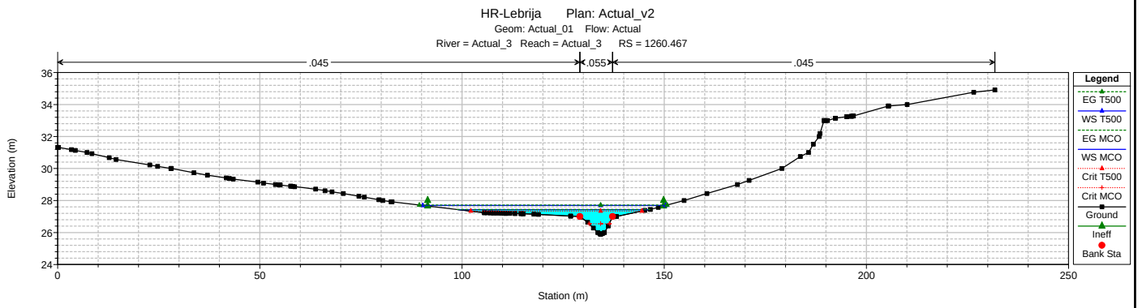
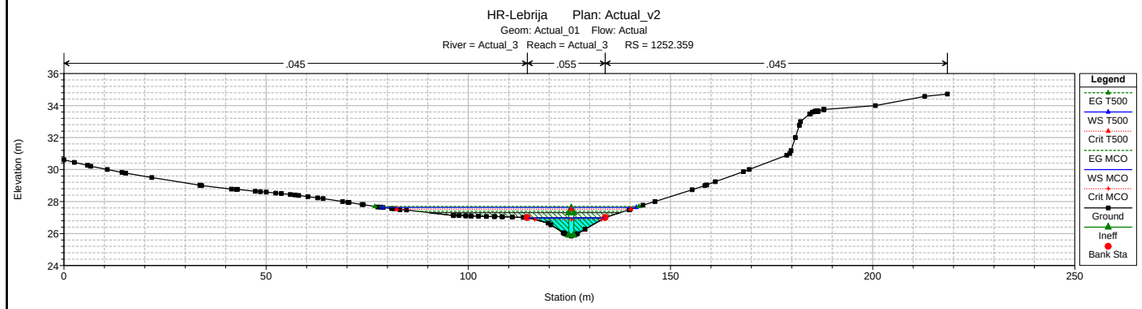
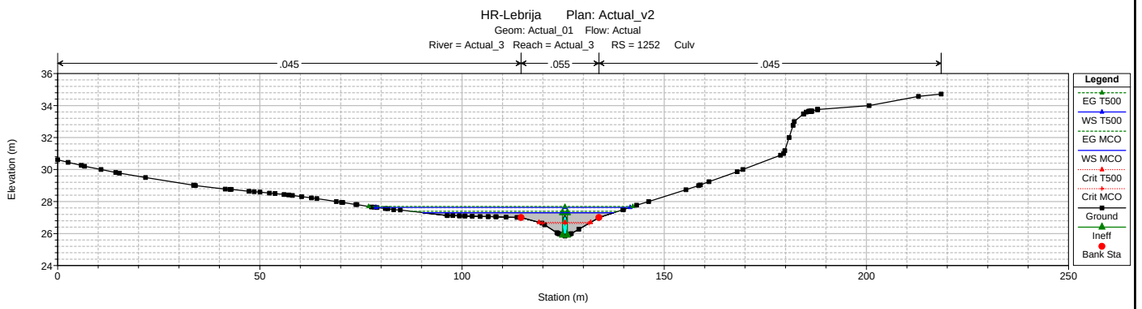
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

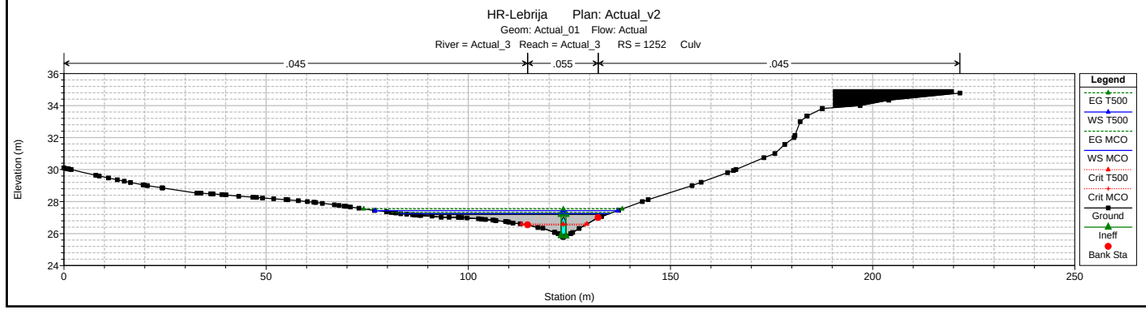

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 23.02103
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

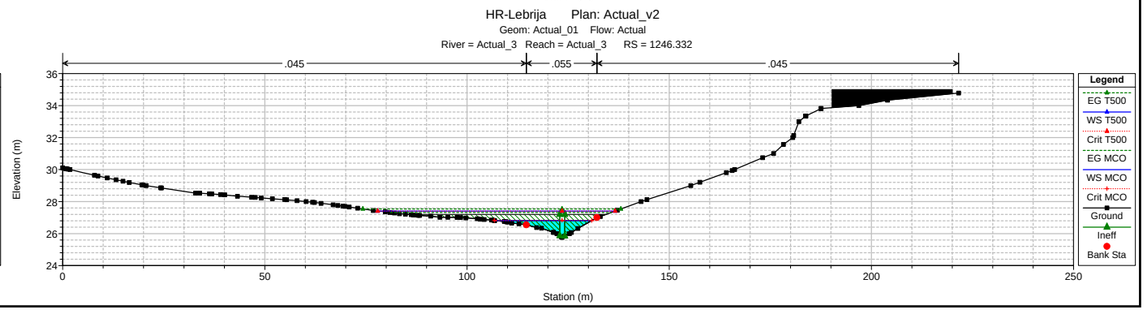

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1280.230
.045
.059
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1260.467
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Ineff
Bank Sta

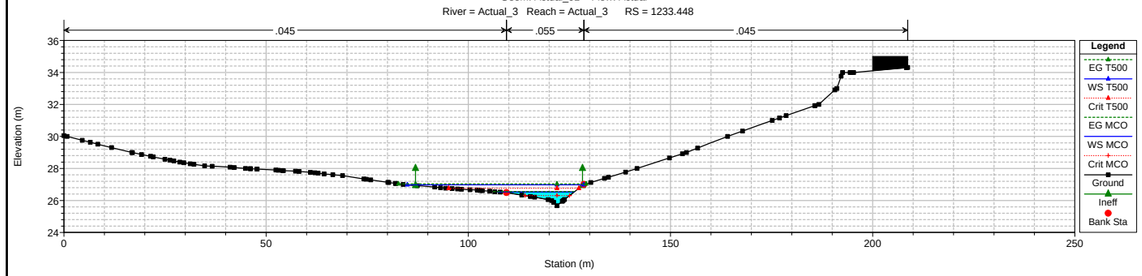

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1252.359
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Ineff
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1252 Culv
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Ineff
Bank Sta

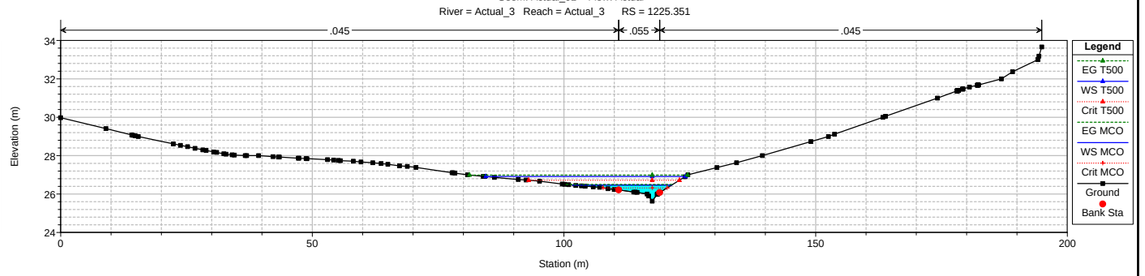

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1252 Culv
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Ineff
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1246.332
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Ineff
Bank Sta

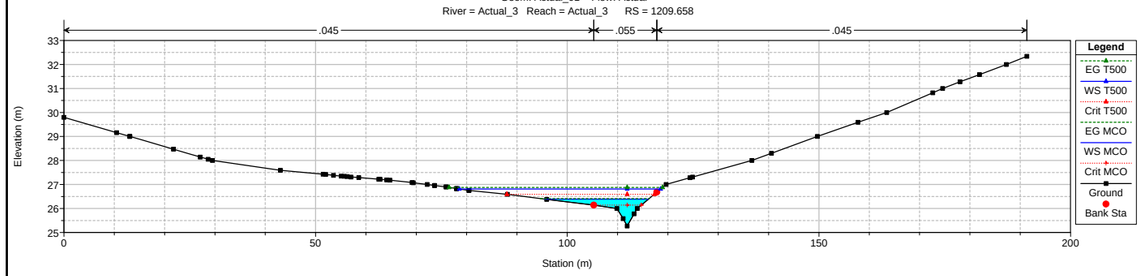
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1233.448



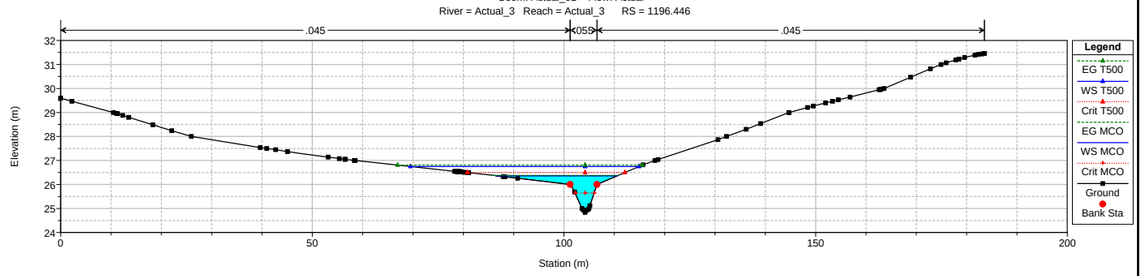
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1225.351



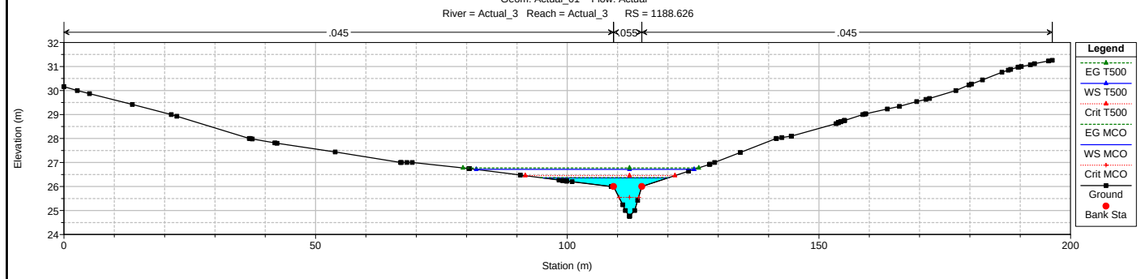
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1209.658



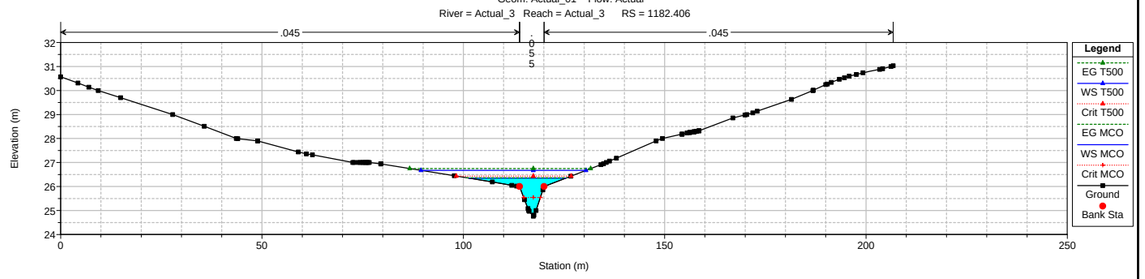
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1196.446



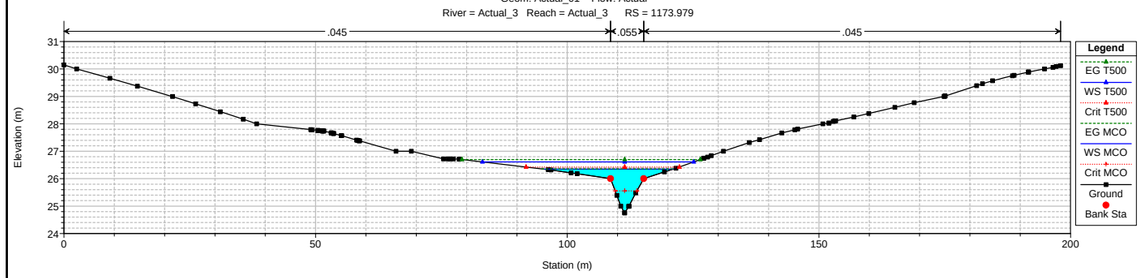
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1188.626



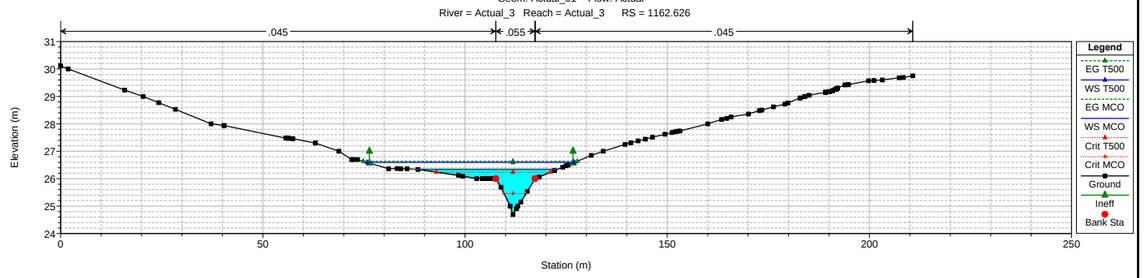
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1182.406



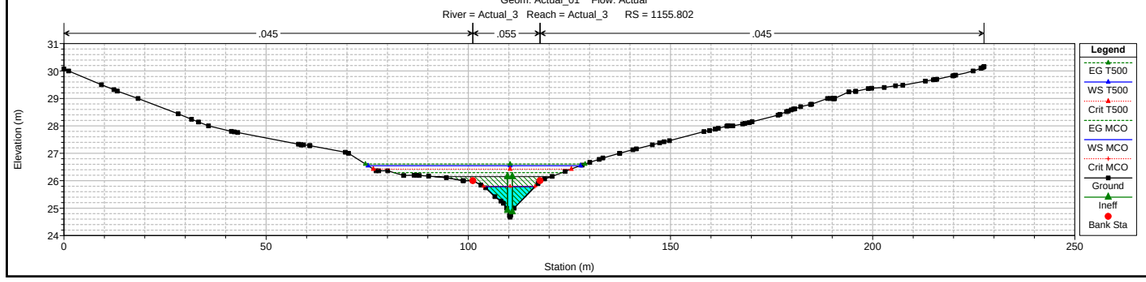
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1173.979



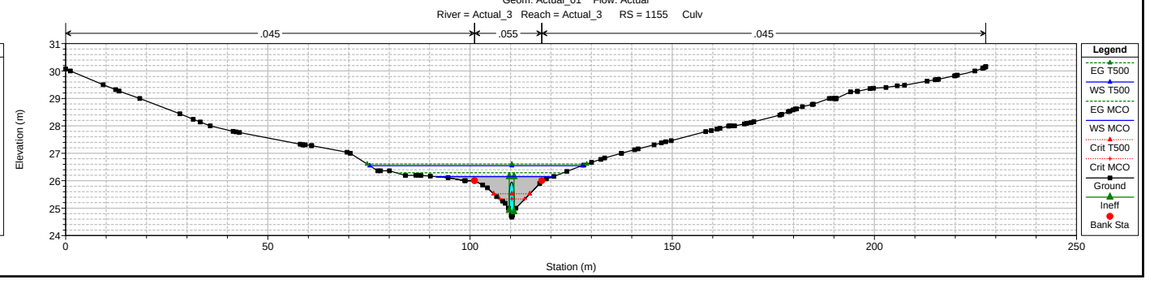
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1162.626

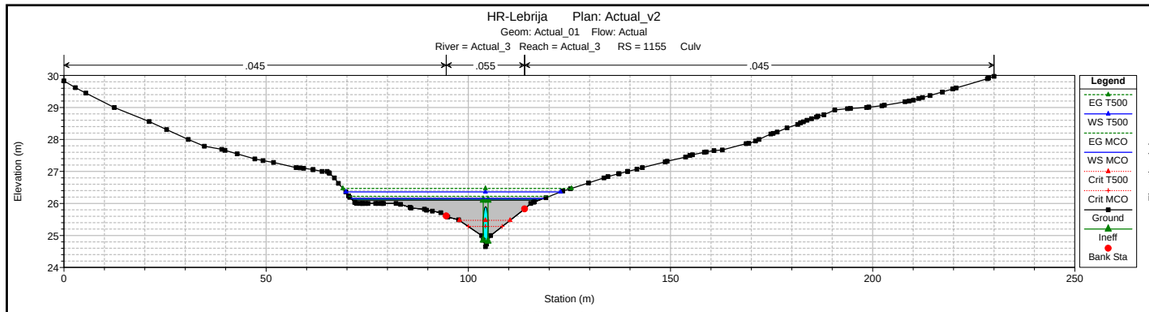


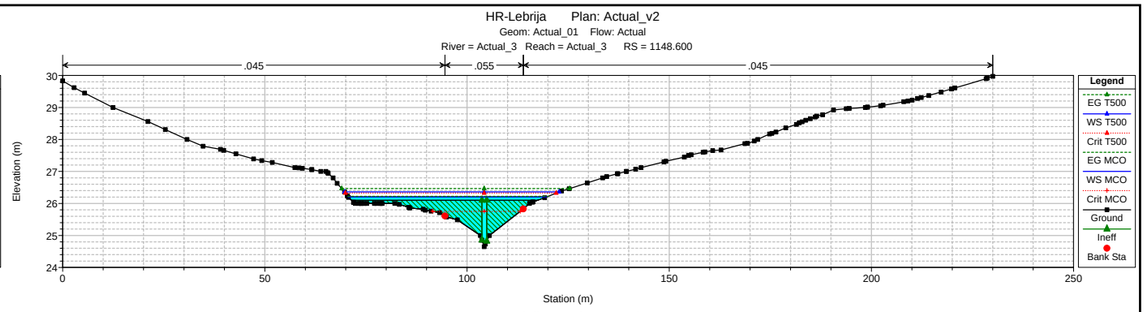
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1155.802

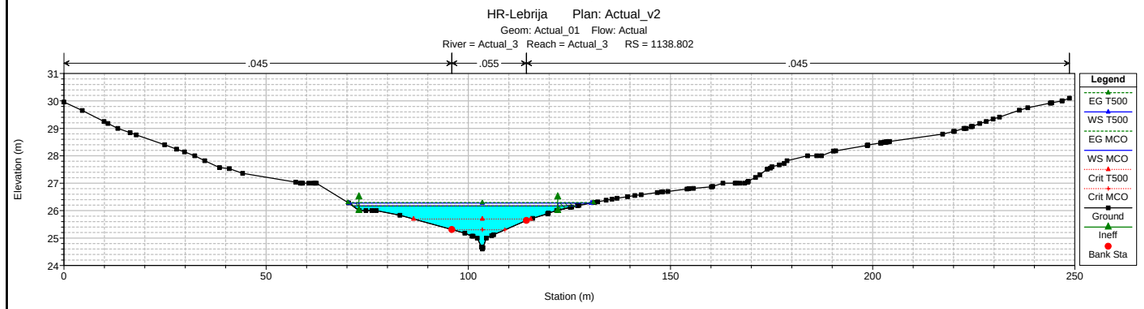


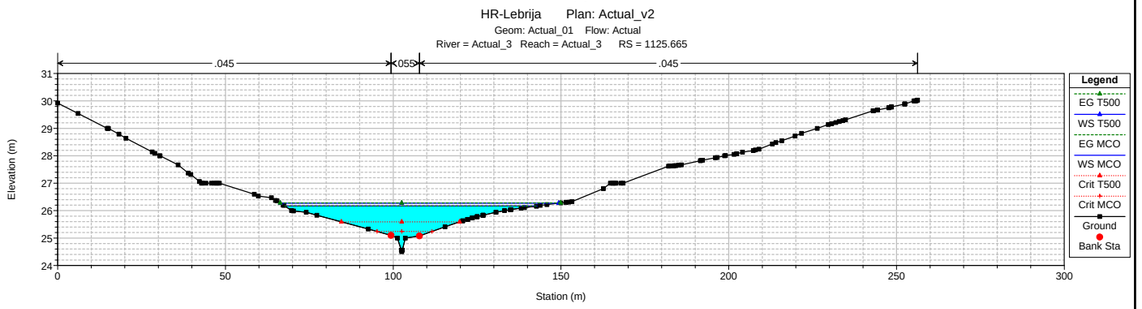
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1155 Culv

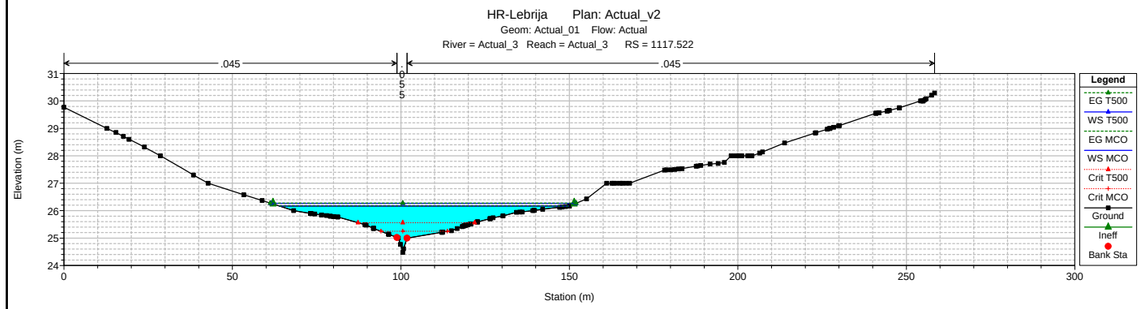


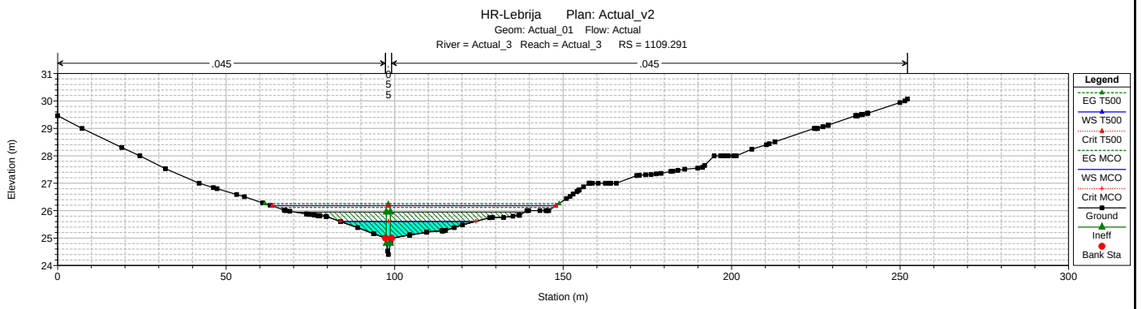

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1155 Culv
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Ineff
Bank Sta

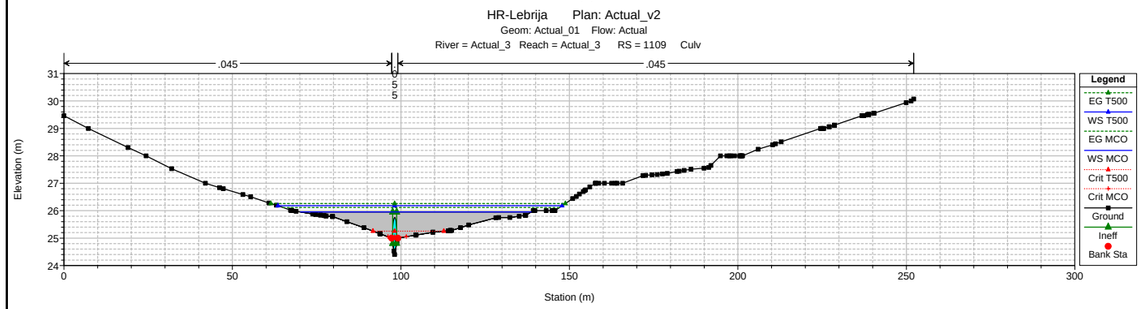

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1148.600
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Ineff
Bank Sta

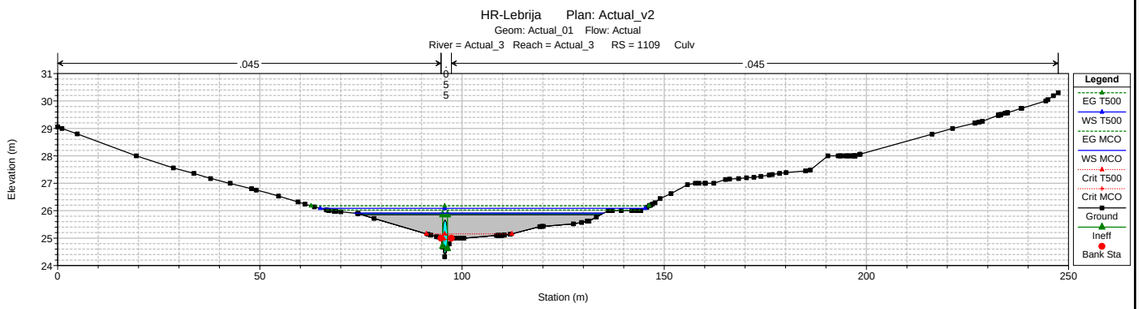

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1138.802
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Ineff
Bank Sta

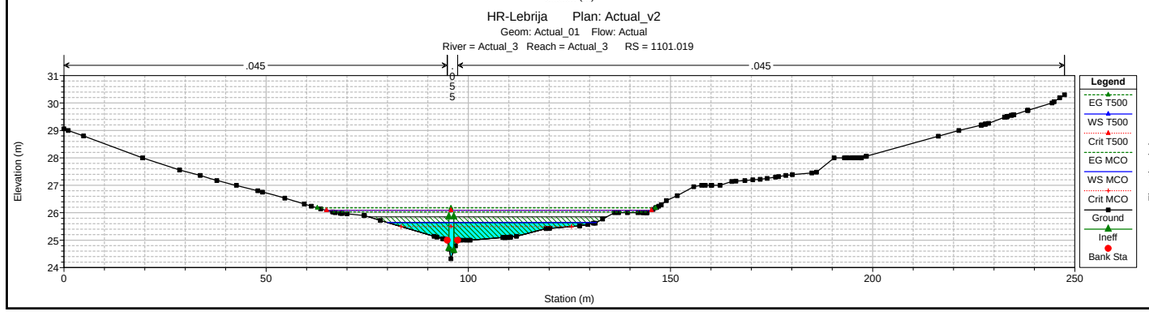

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1125.665
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Bank Sta

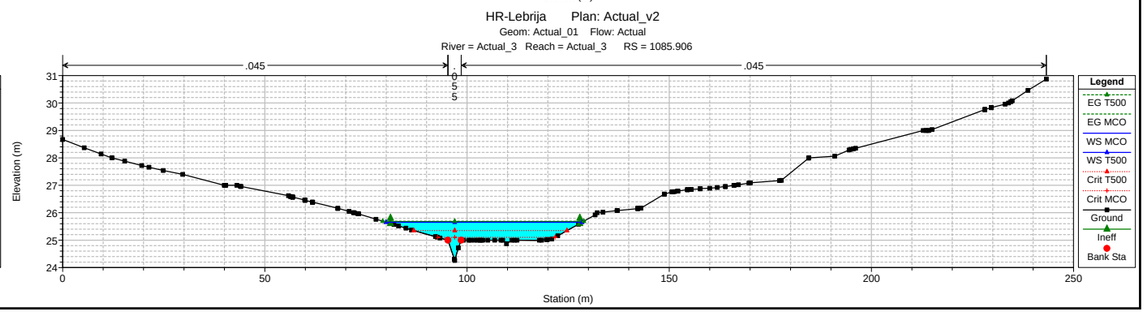

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1117.522
.045
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Ineff
Bank Sta

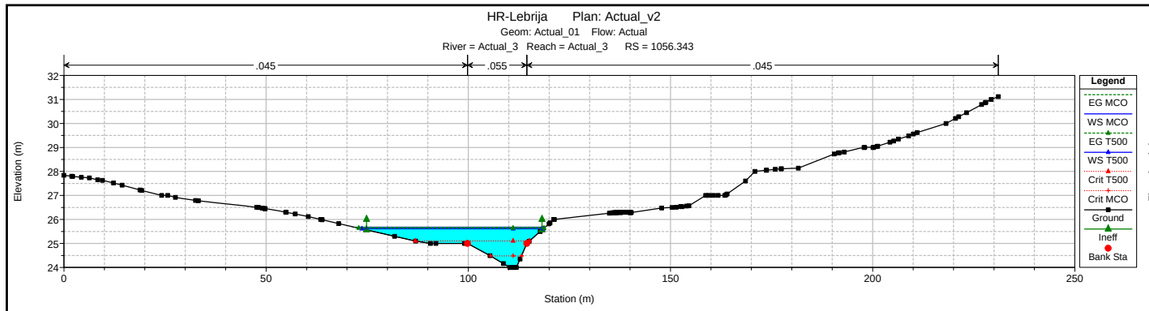

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1109.291
.045
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Ineff
Bank Sta

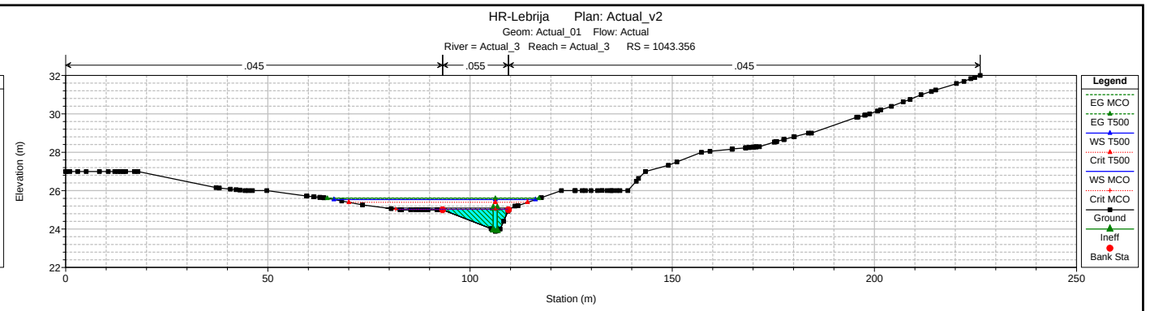

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1109 Culv
.045
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Ineff
Bank Sta

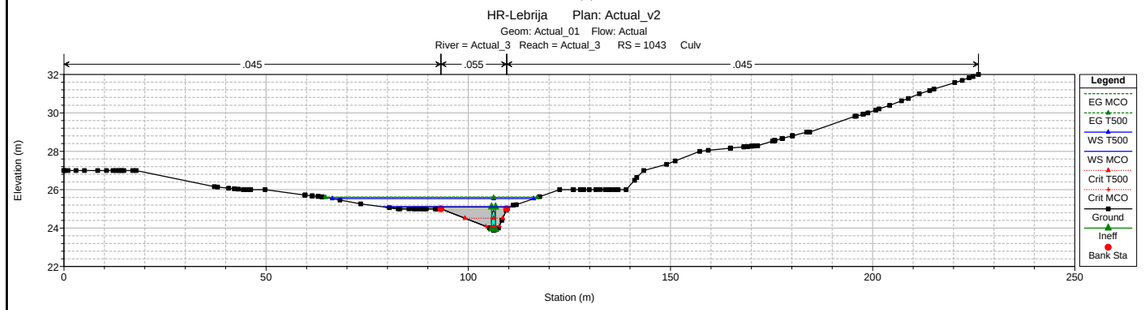

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1109 Culv
.045
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Ineff
Bank Sta

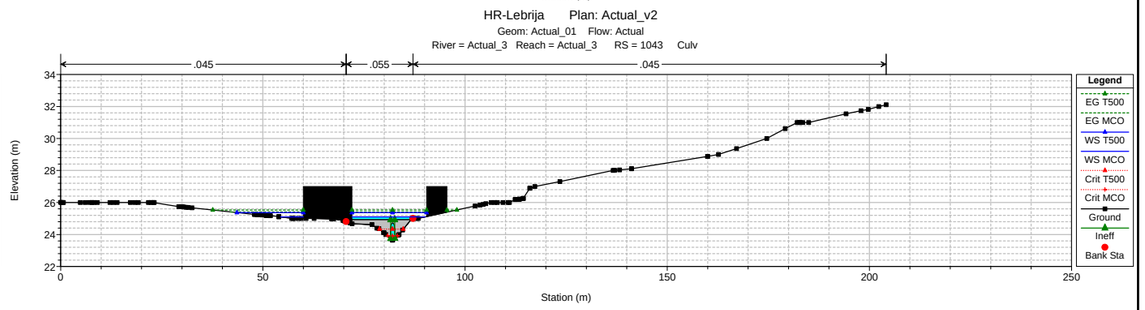

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1101.019
.045
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Ineff
Bank Sta

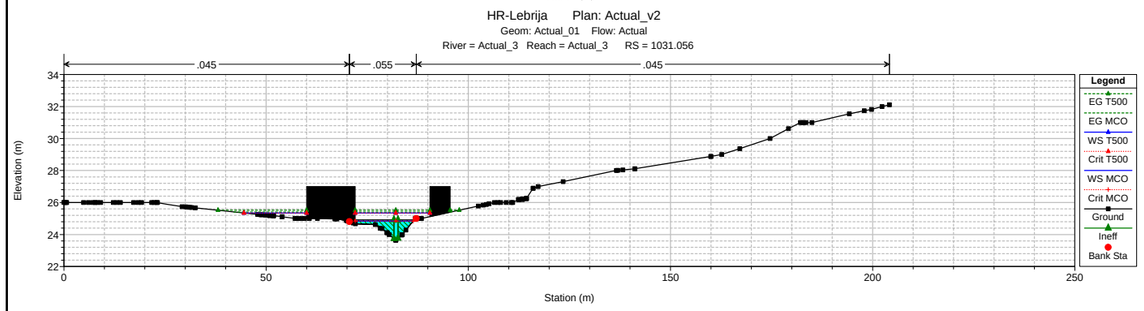

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1085.906
.045
.045
Elevation (m)
Station (m)
Legend
EG T500
EG MCO
WS MCO
WS T500
Crit T500
Crit MCO
Ground
Ineff
Bank Sta

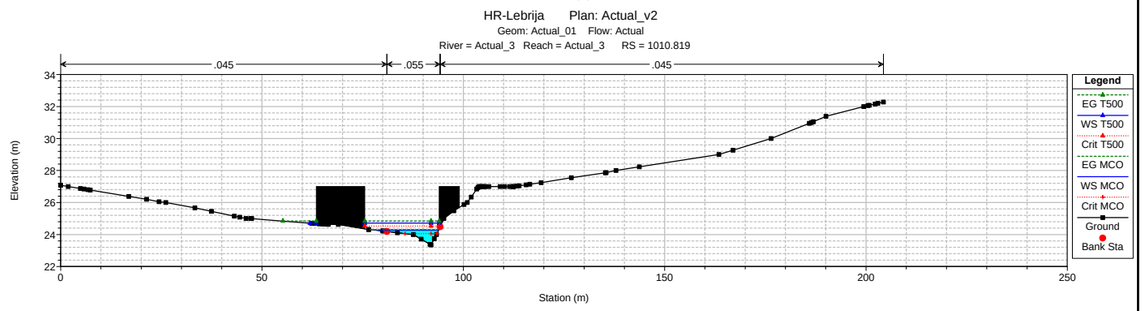

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1056.343
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG MCO
WS MCO
EG T500
WS T500
Crit T500
Crit MCO
Ground
Ineff
Bank Sta

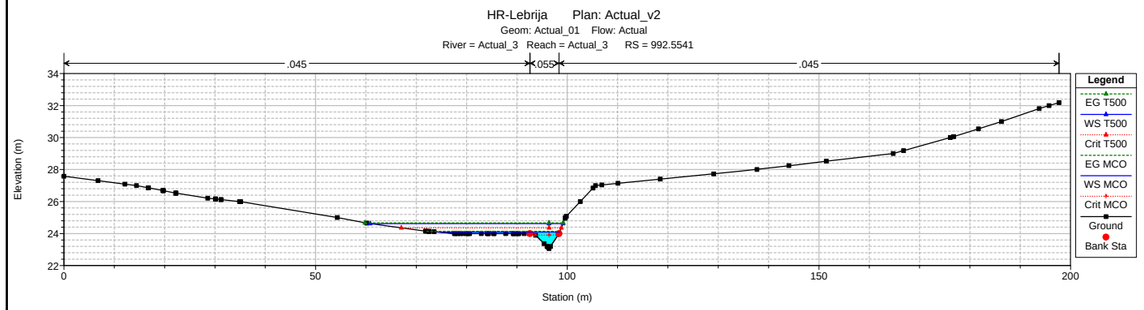

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1043.356
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG MCO
EG T500
WS T500
Crit T500
WS MCO
Crit MCO
Ground
Ineff
Bank Sta

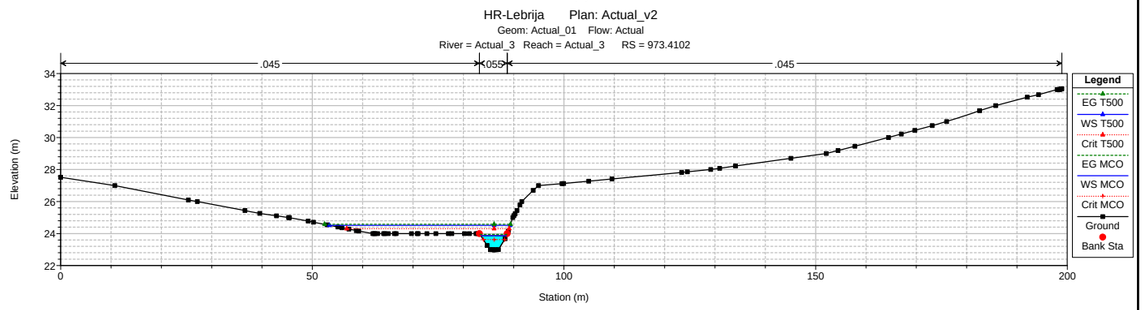

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1043 Culv
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG MCO
EG T500
WS T500
WS MCO
Crit T500
Crit MCO
Ground
Ineff
Bank Sta

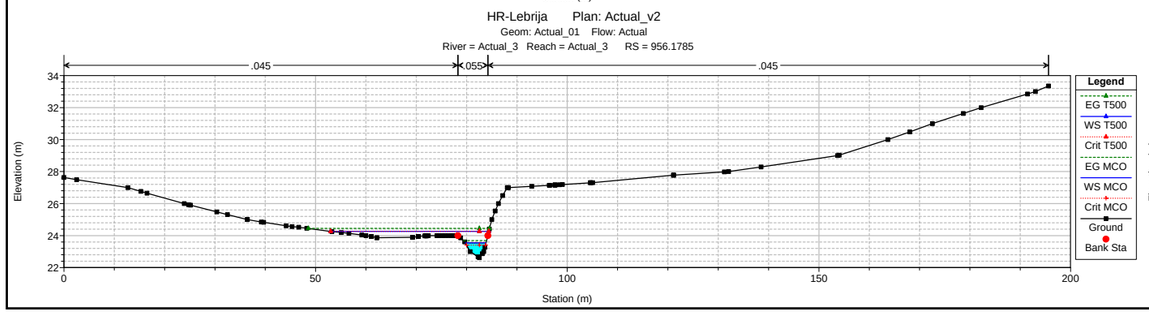

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1043 Culv
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
EG MCO
WS T500
WS MCO
Crit T500
Crit MCO
Ground
Ineff
Bank Sta

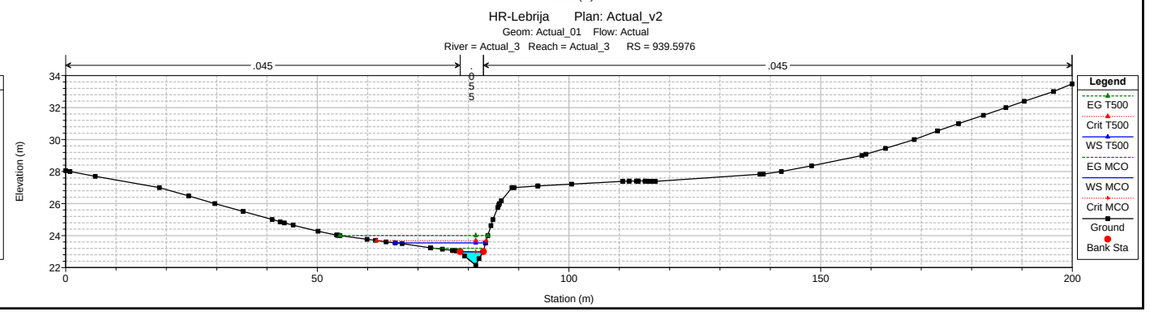

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1031.056
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
EG MCO
WS T500
Crit T500
WS MCO
Crit MCO
Ground
Ineff
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1010.819
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

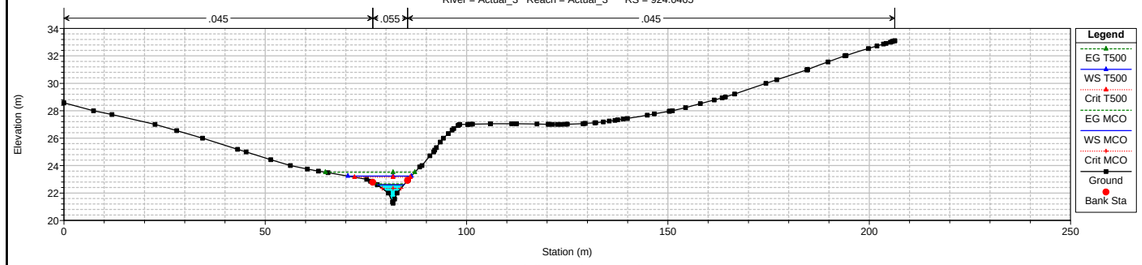

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 992.5541
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 973.4102
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

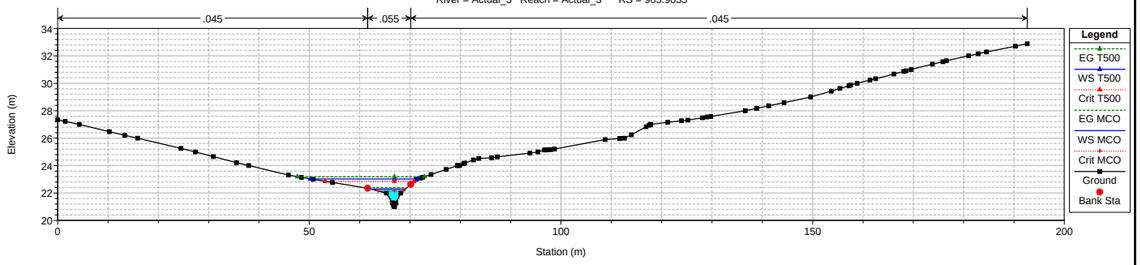

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 956.1785
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 939.5976
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
Crit T500
WS T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

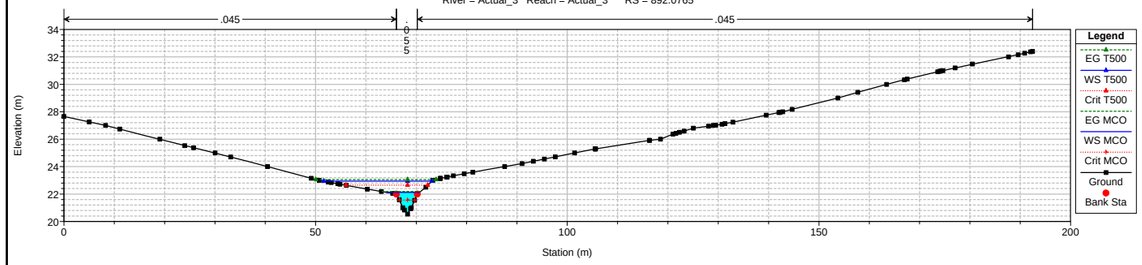
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 924.0465



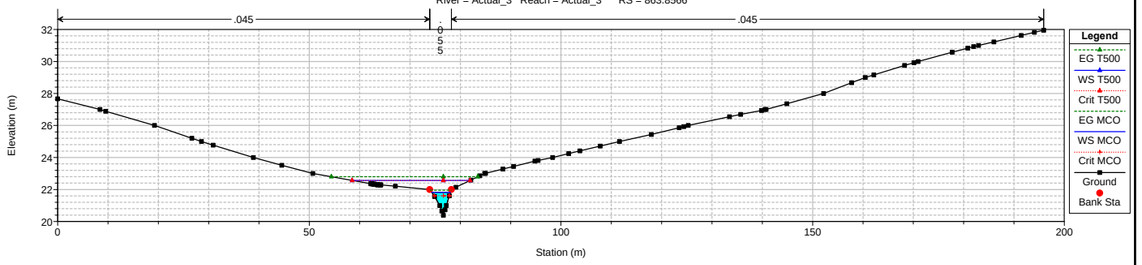
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 905.9035



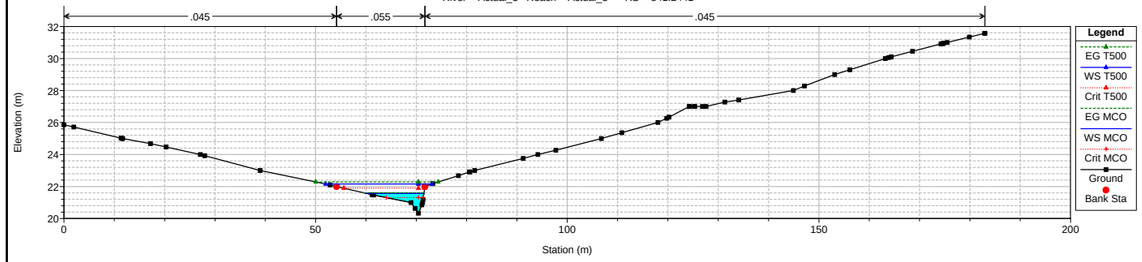
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 892.0765



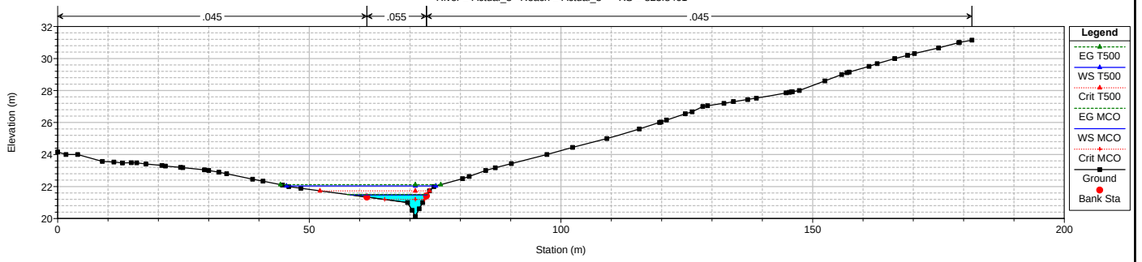
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 863.8566



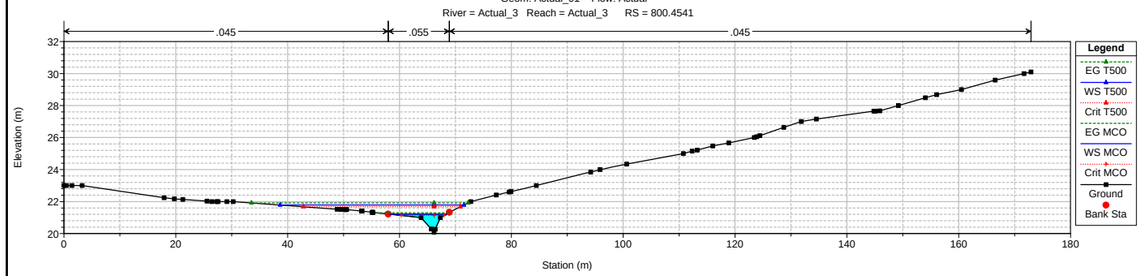
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 841.2441



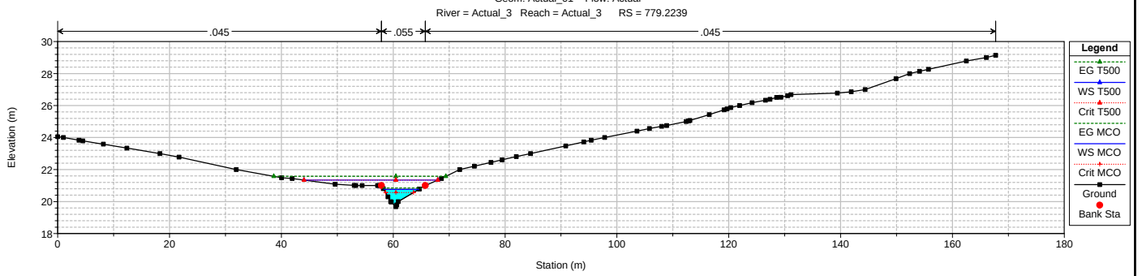
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 823.8461



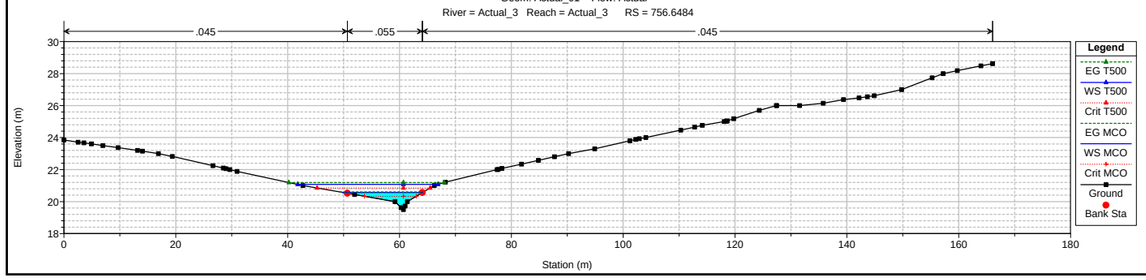
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 800.4541



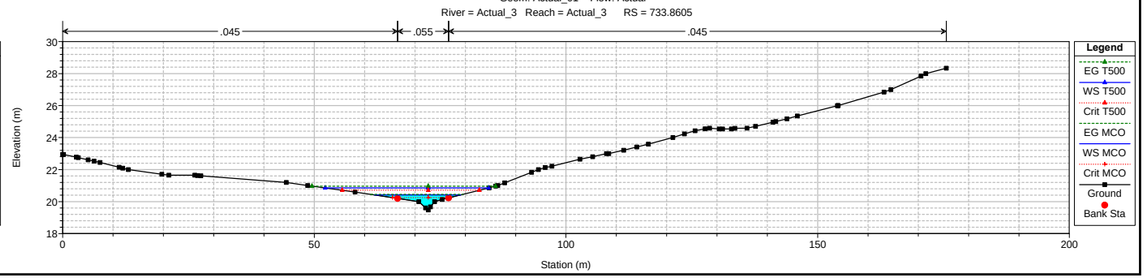
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 779.2239

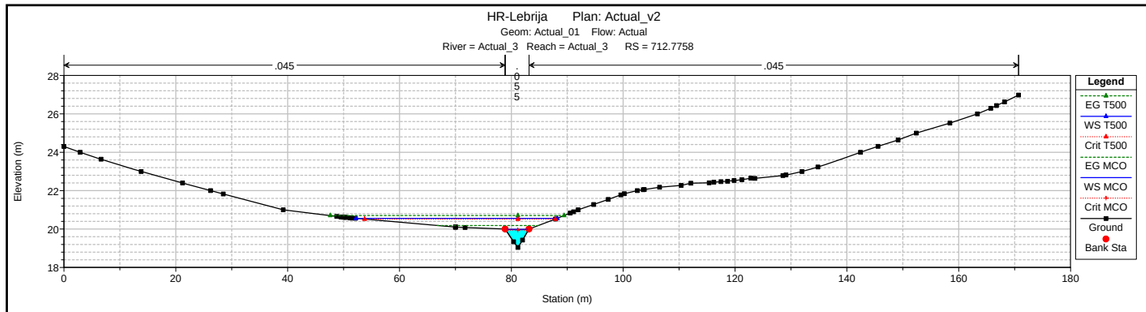


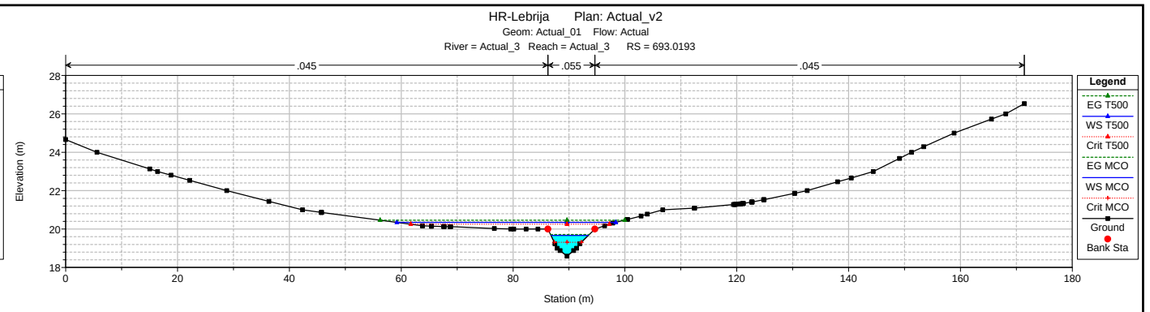
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 756.6484

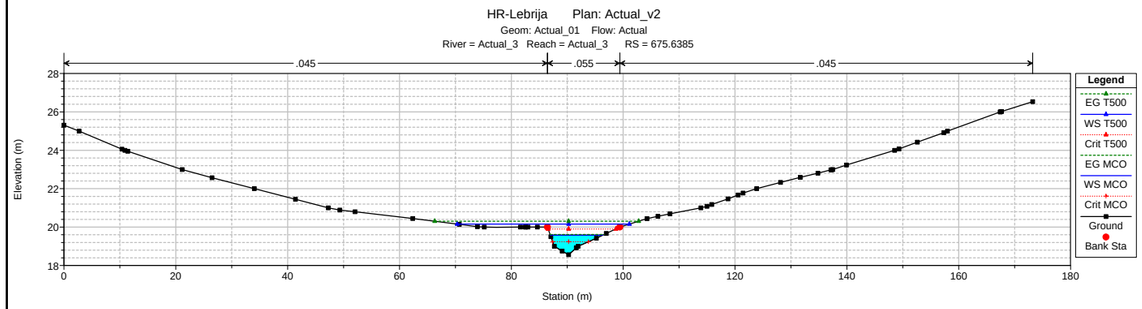


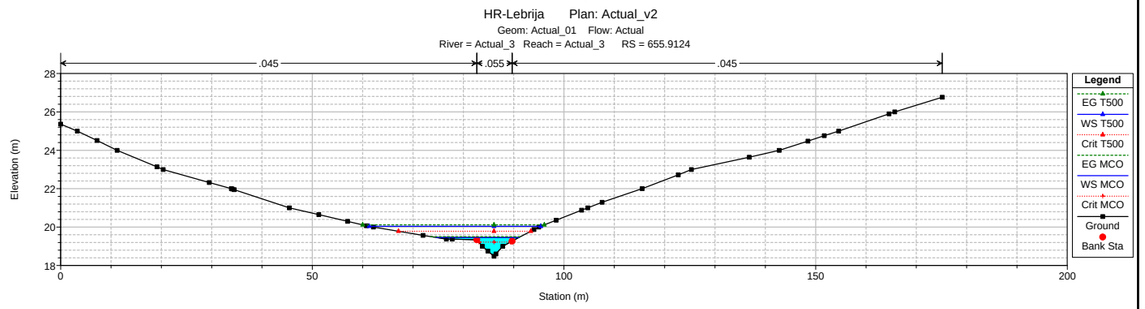
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 733.8605

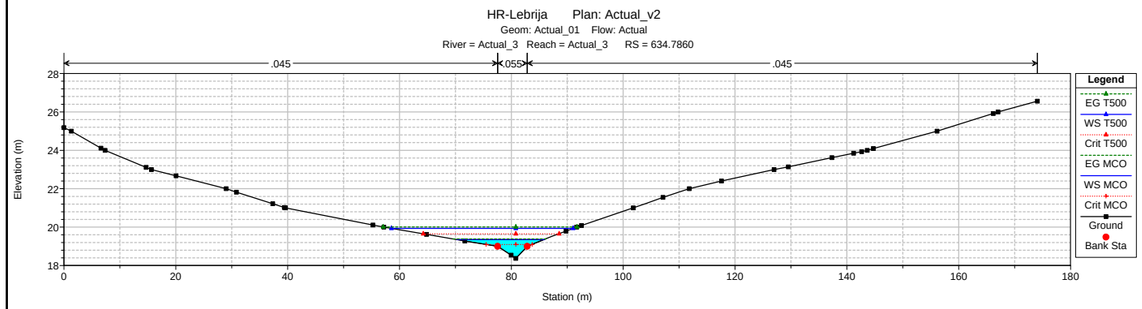


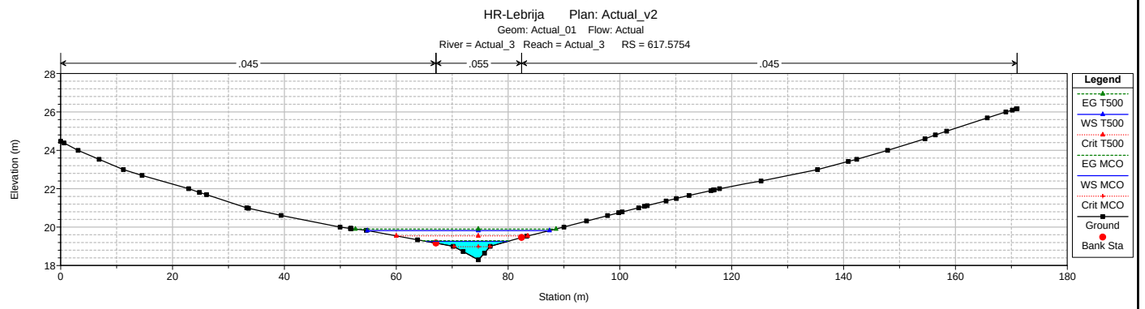

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 712.7758
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

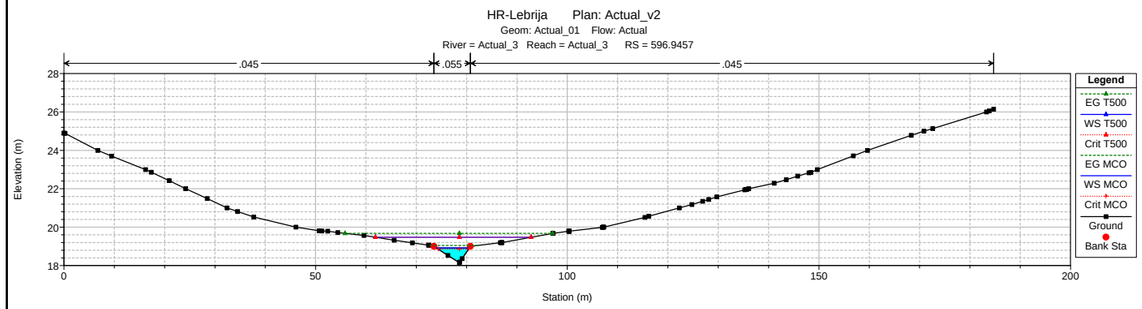

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 693.0193
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

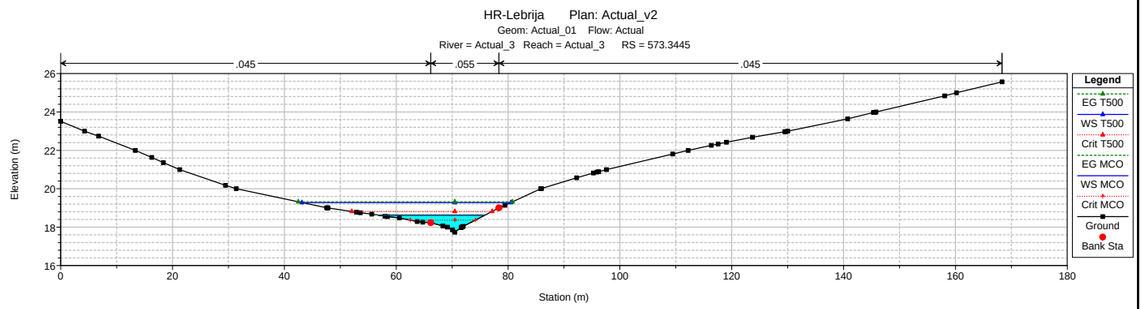

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 675.6385
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

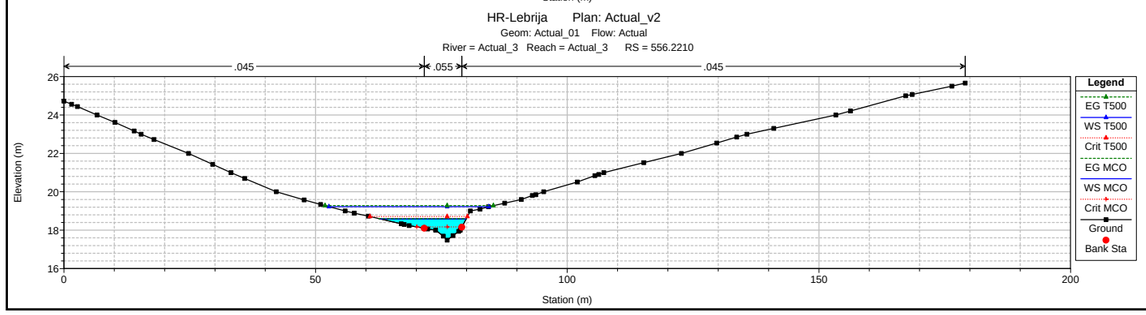

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 655.9124
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

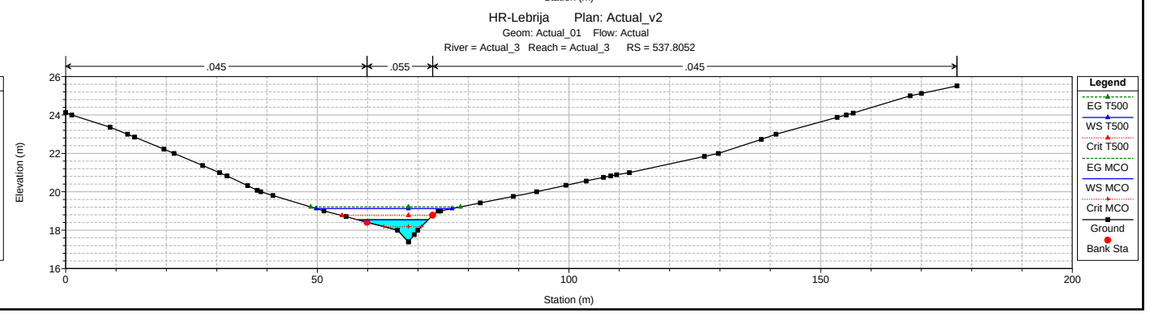

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 634.7860
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

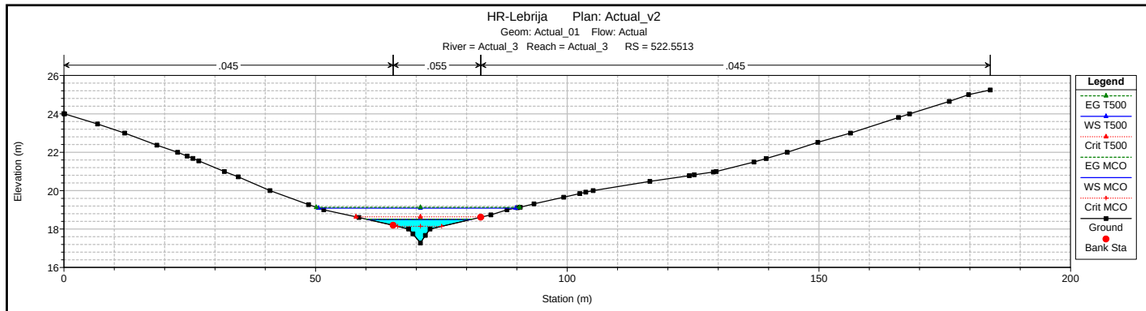

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 617.5754
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

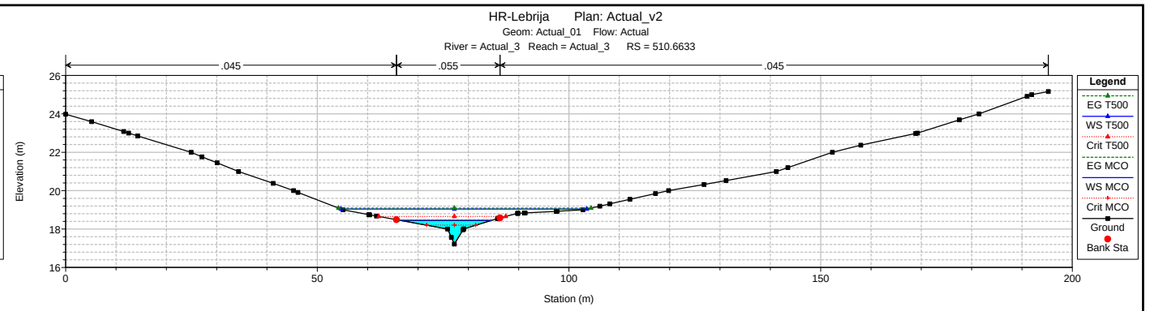

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 596.9457
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

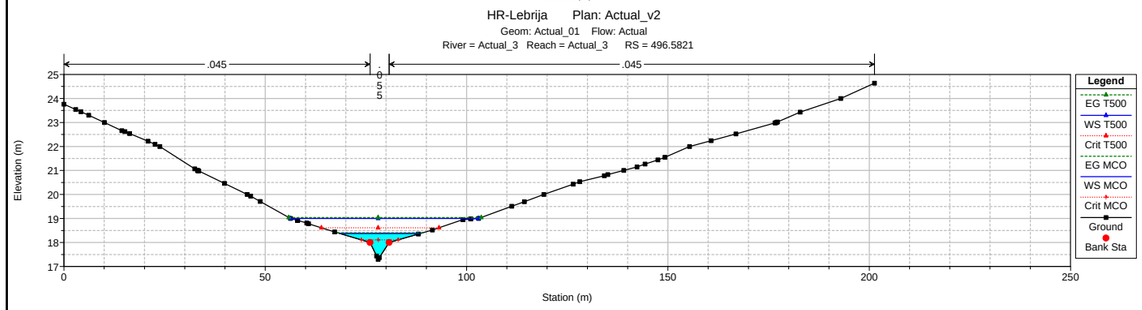

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 573.3445
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 556.2210
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

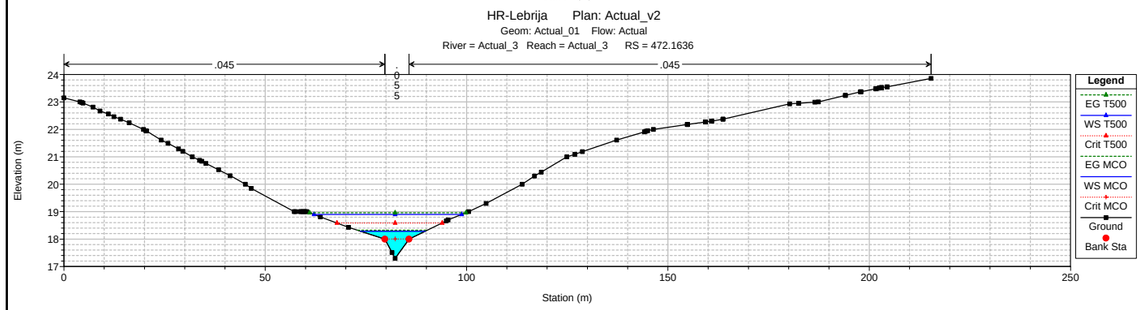

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 537.8052
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

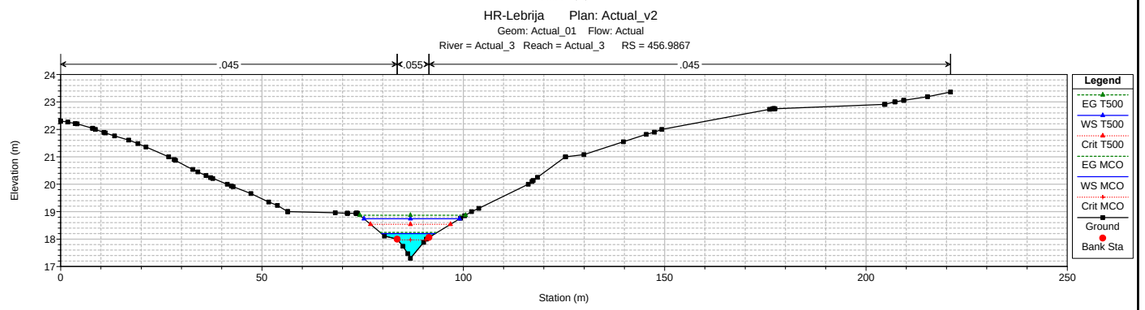

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 522.5513
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

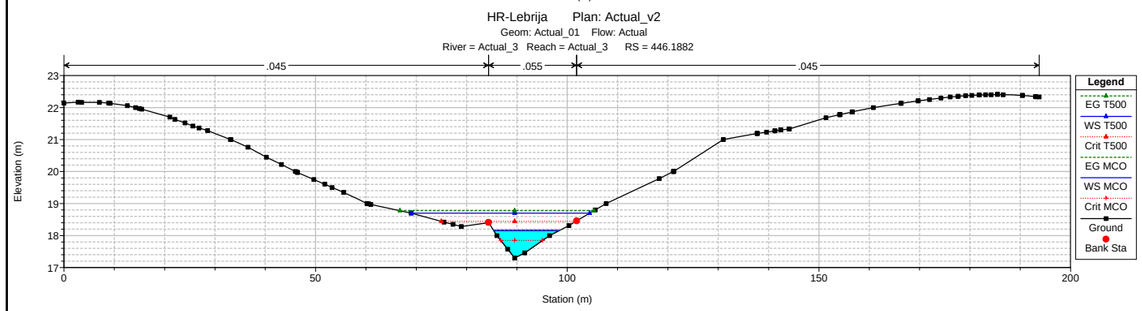

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 510.6633
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

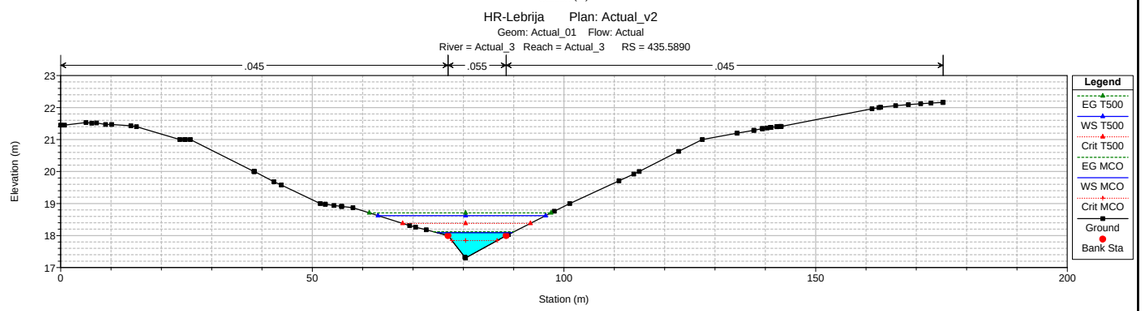

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 496.5821
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

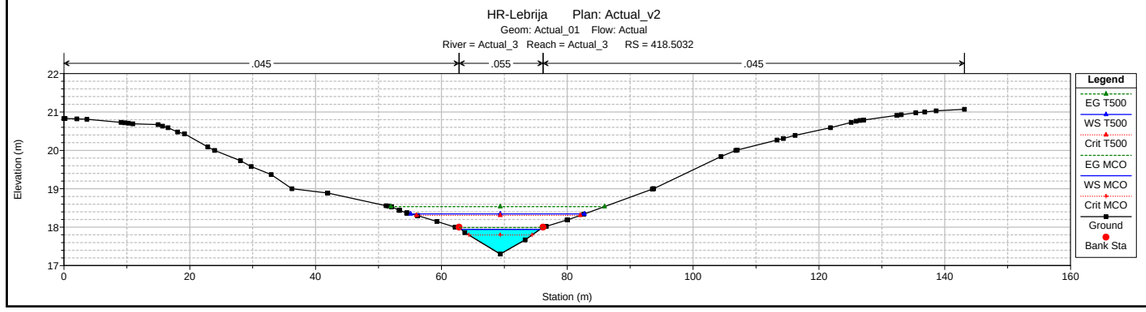
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 483.0792
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

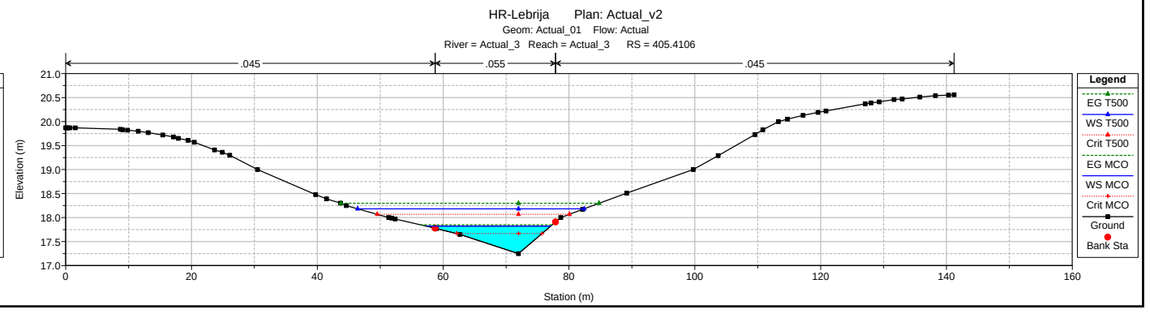

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 472.1636
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

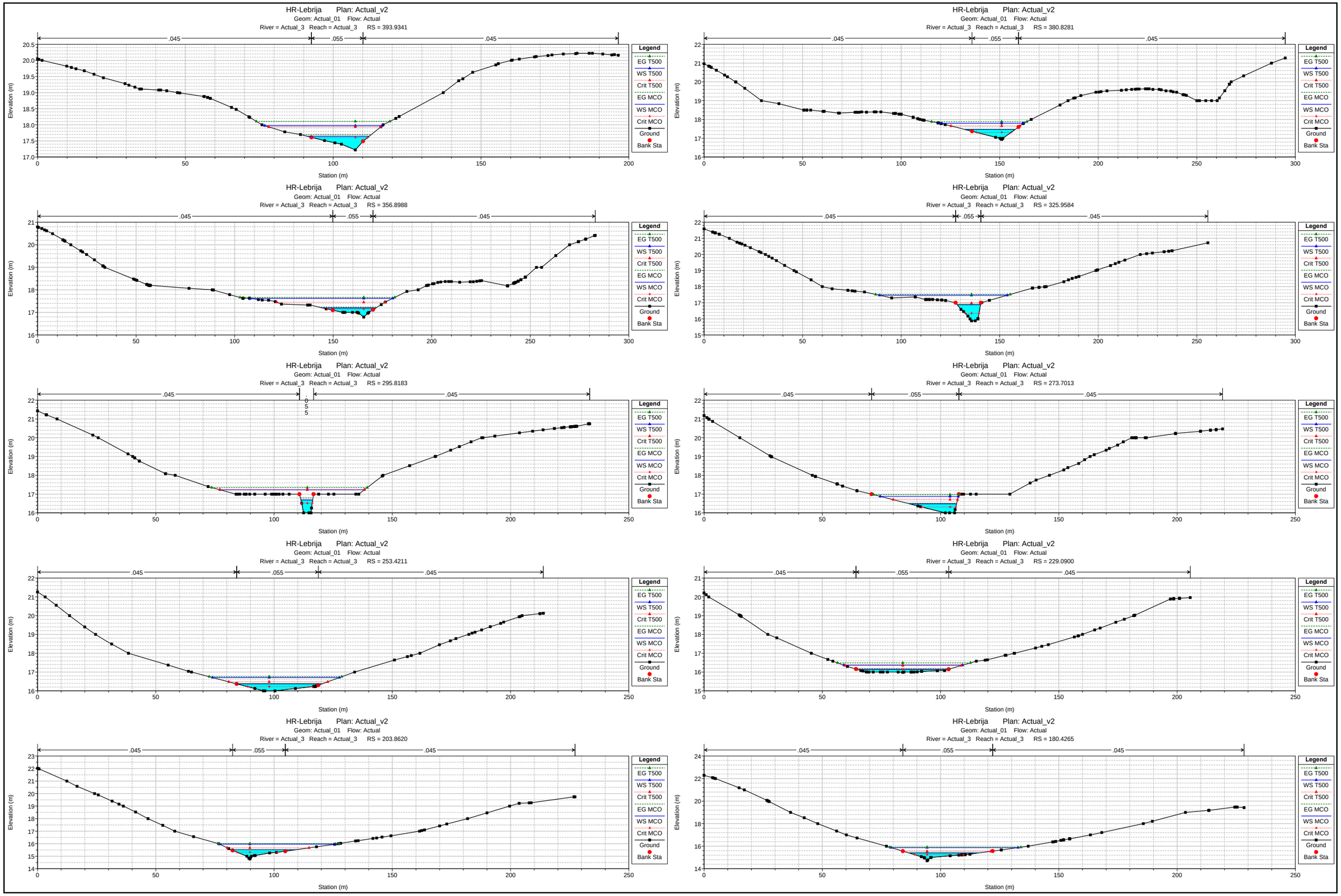

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 456.9867
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

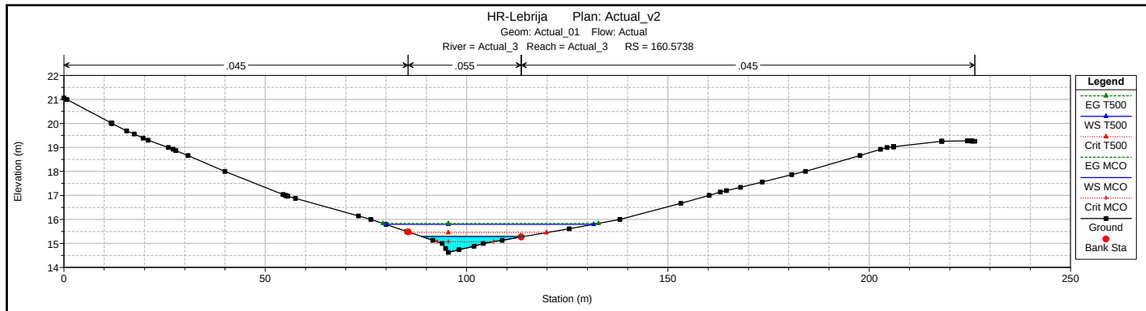

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 446.1882
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

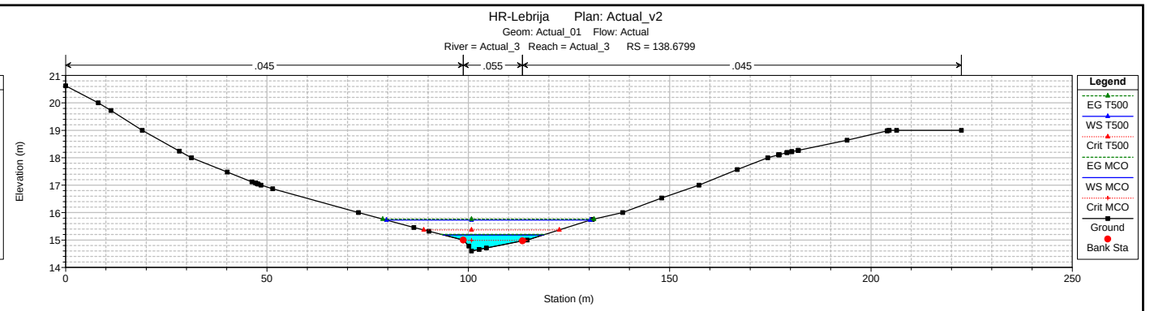

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 435.5890
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

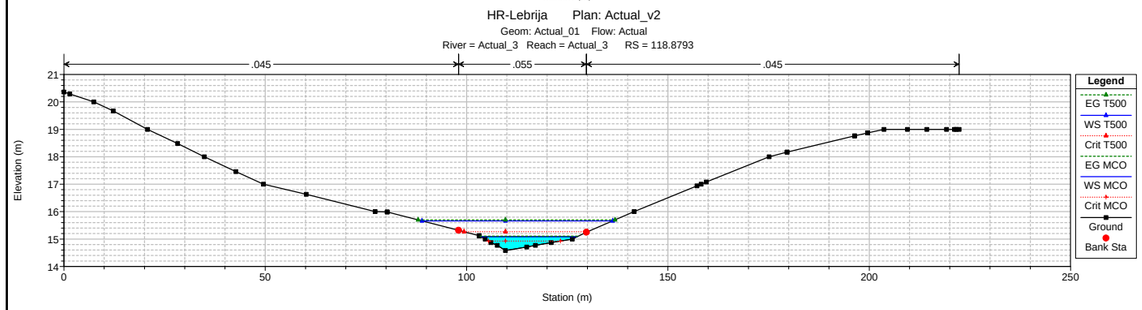

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 418.5032
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

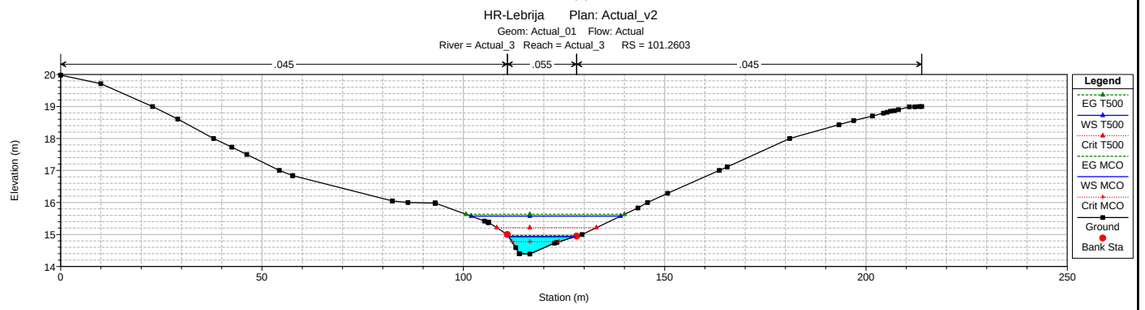

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 405.4106
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 393.9341
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 380.8281
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 356.8988
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 325.9584
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 295.8183
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 273.7013
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 253.4211
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 229.0900
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 203.8620
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 180.4265
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 160.5738
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 138.6799
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 118.8793
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 101.2603
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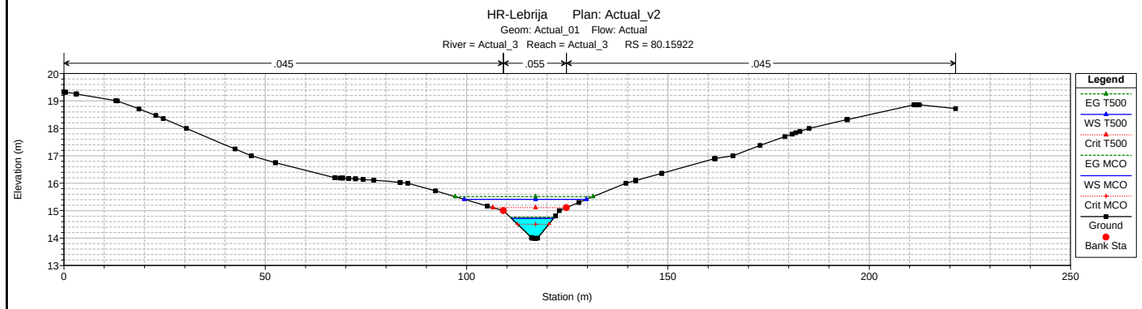
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 80.15922
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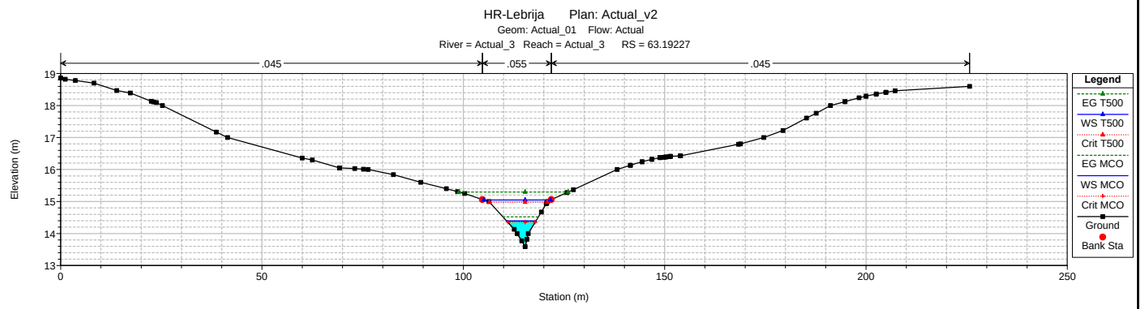
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 63.19227
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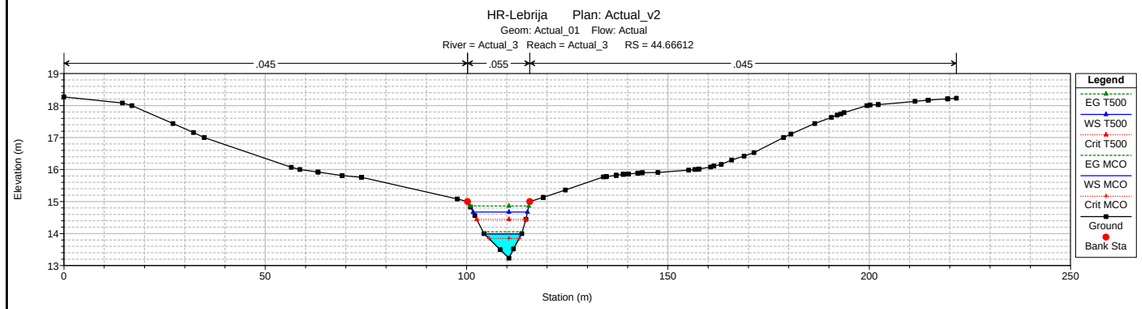
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 44.66612
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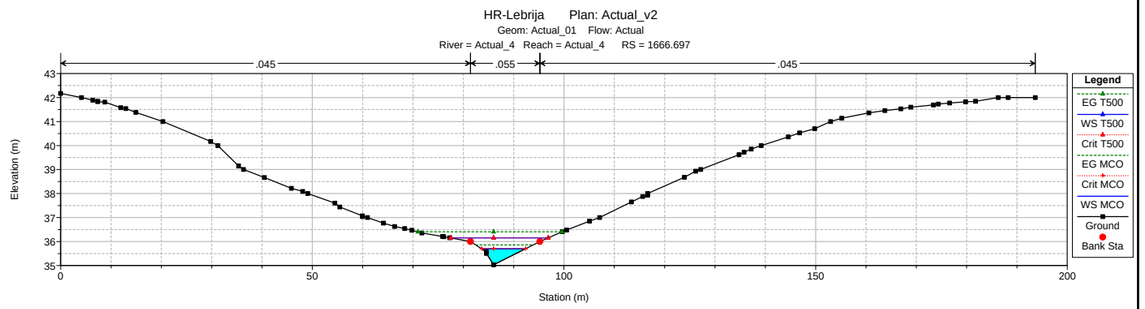
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1666.697
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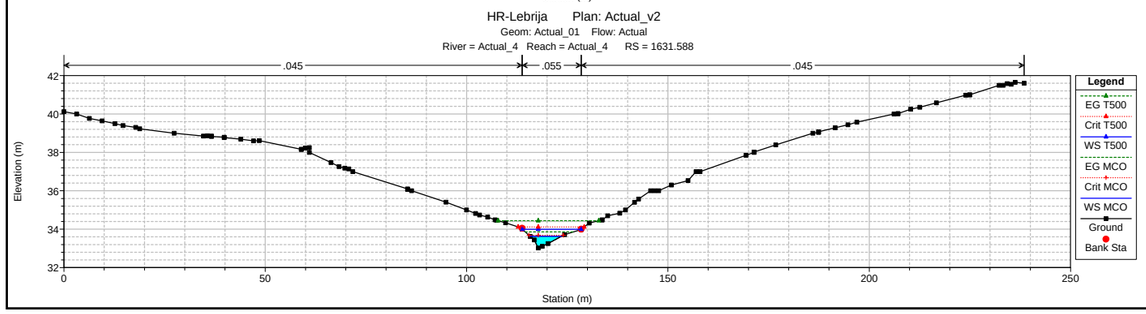
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1631.588
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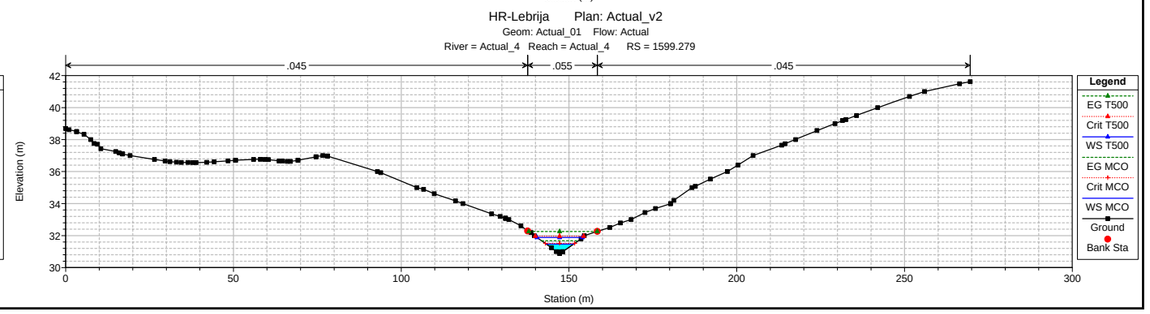
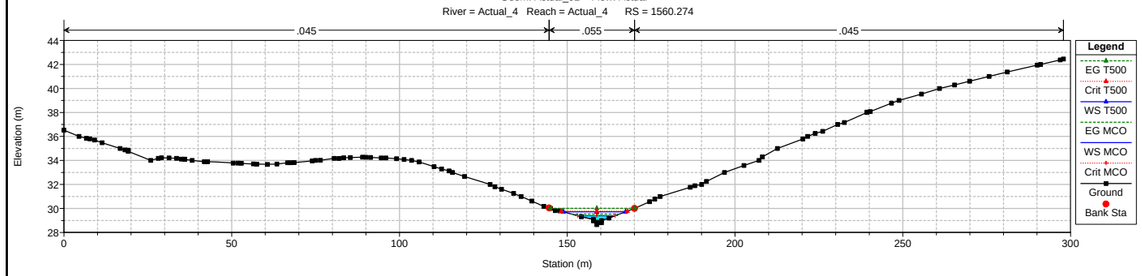
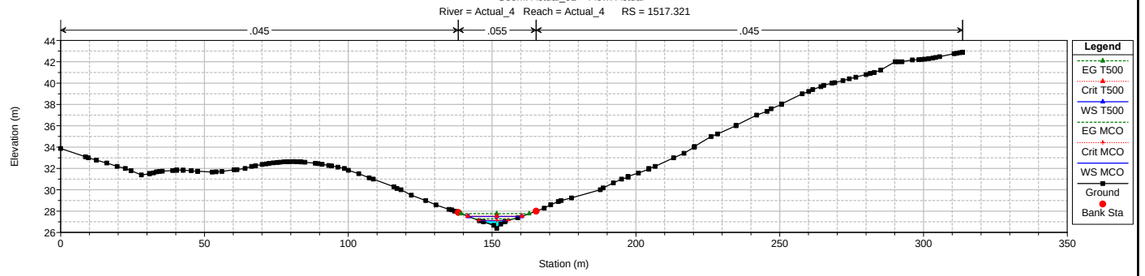
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
Crit T500
WS T500
EG MCO
Crit MCO
WS MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1599.279
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
Crit T500
WS T500
EG MCO
Crit MCO
WS MCO
Ground
Bank Sta

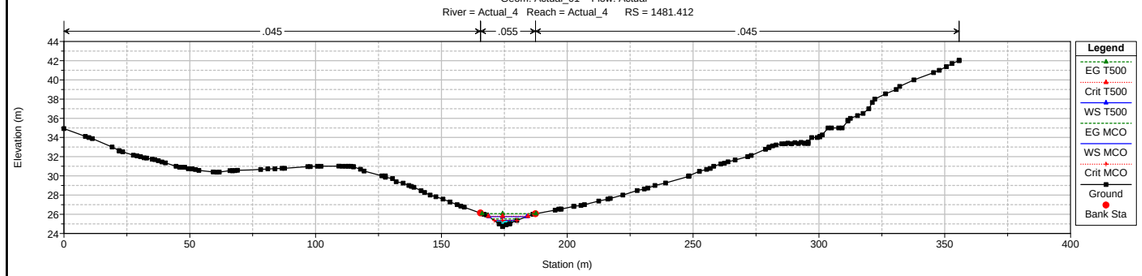
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1560.274



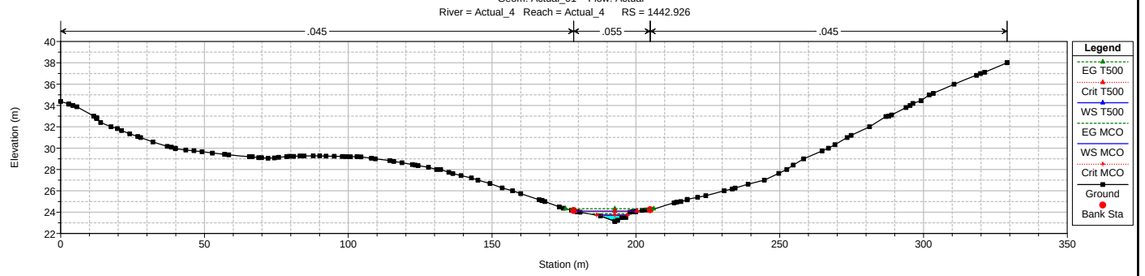
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1517.321



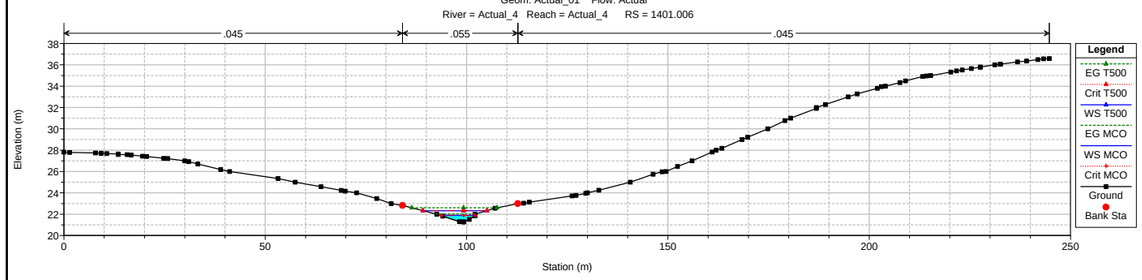
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1481.412



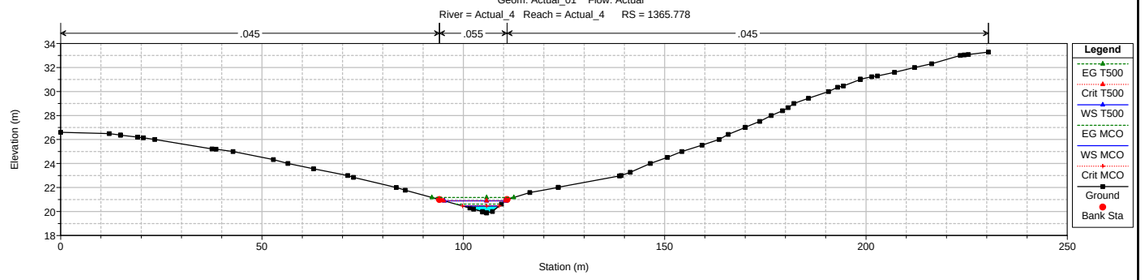
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1442.926



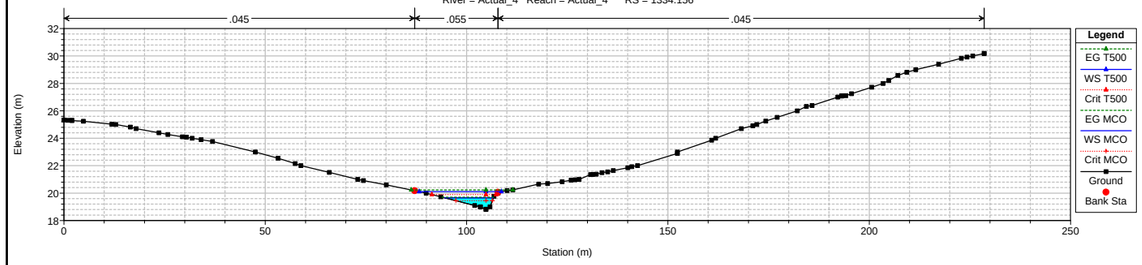
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1401.006



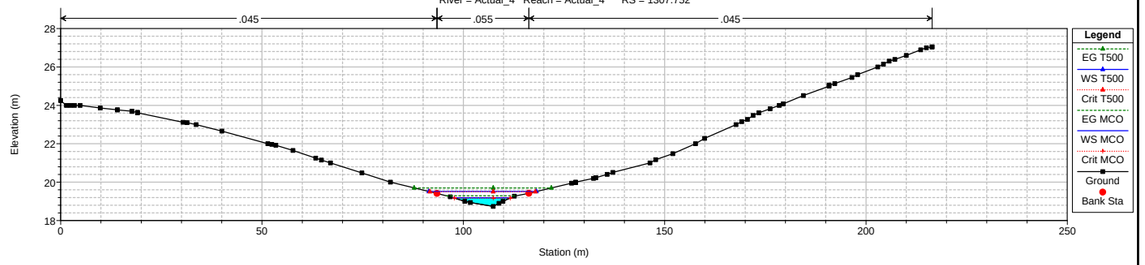
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1365.778



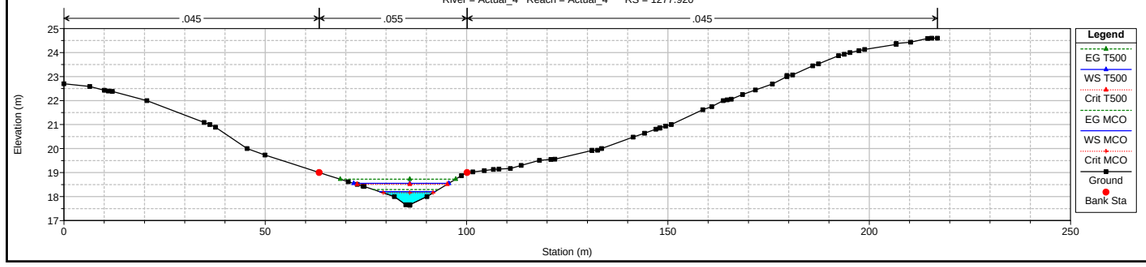
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1334.156



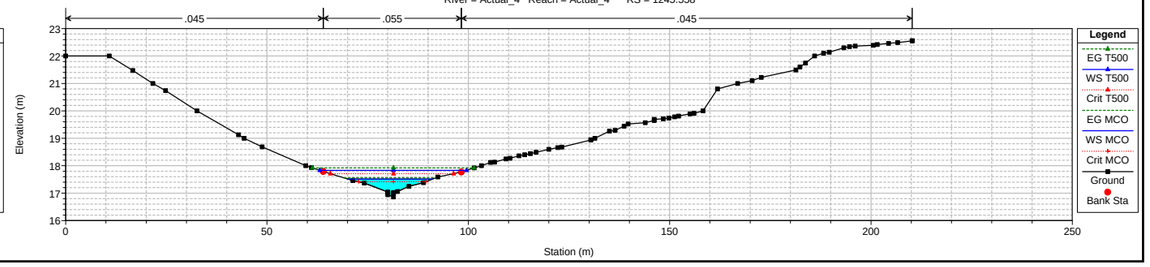
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1307.752

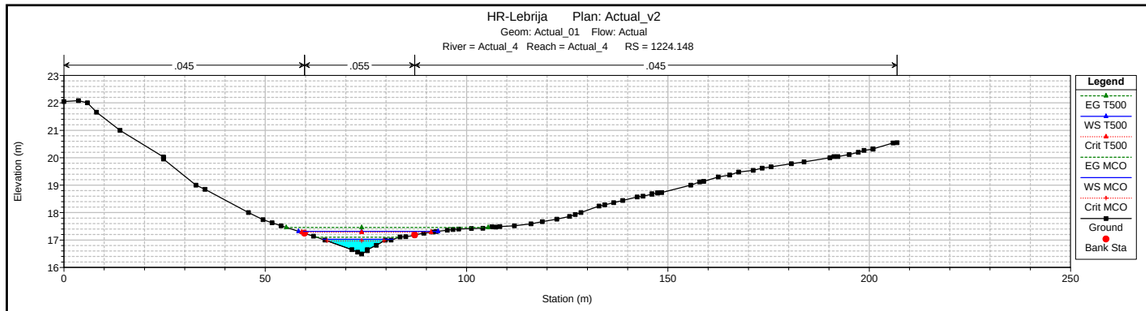


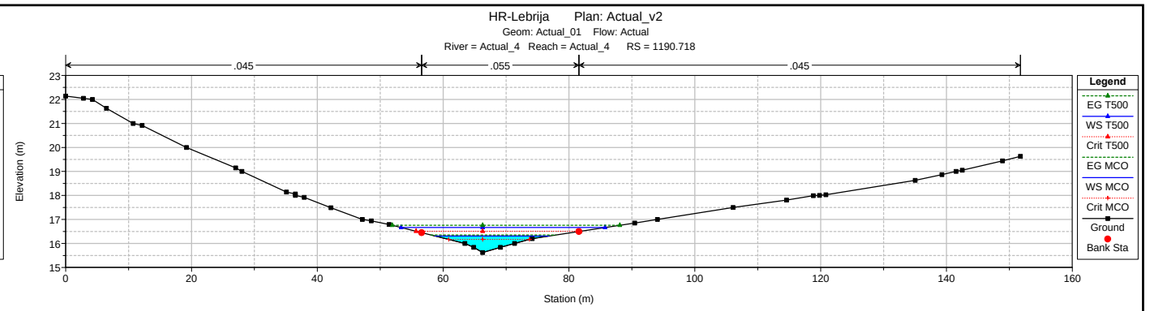
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1277.920

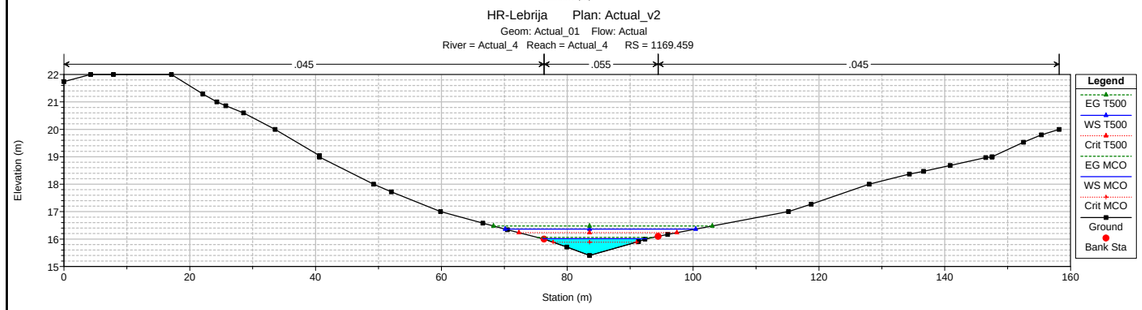


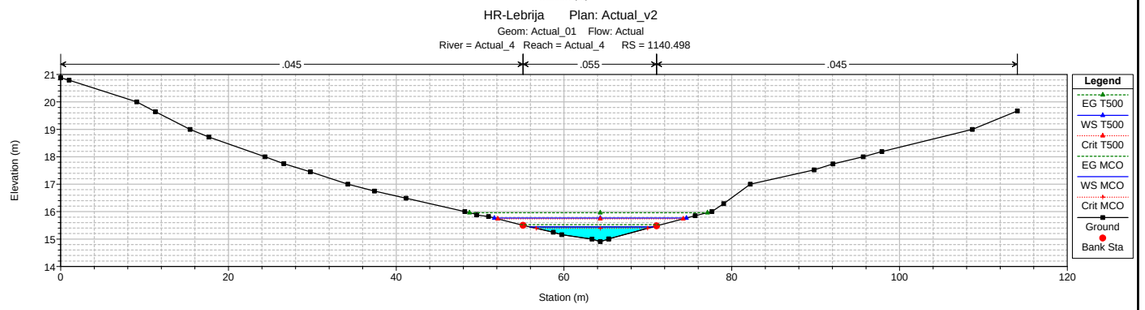
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1245.558

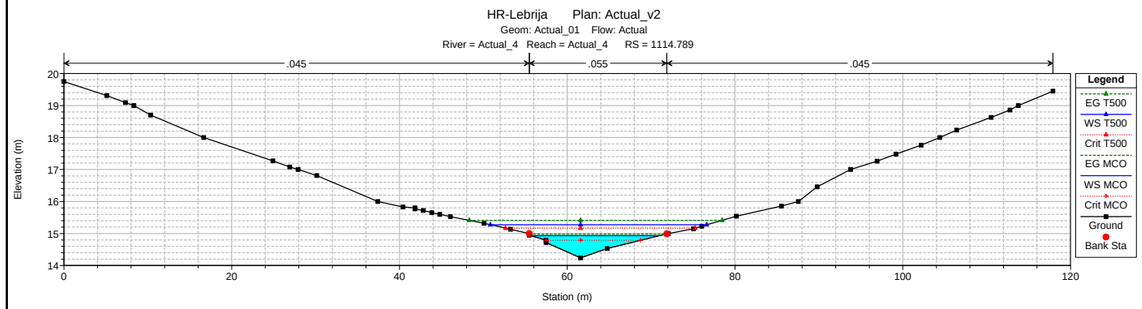


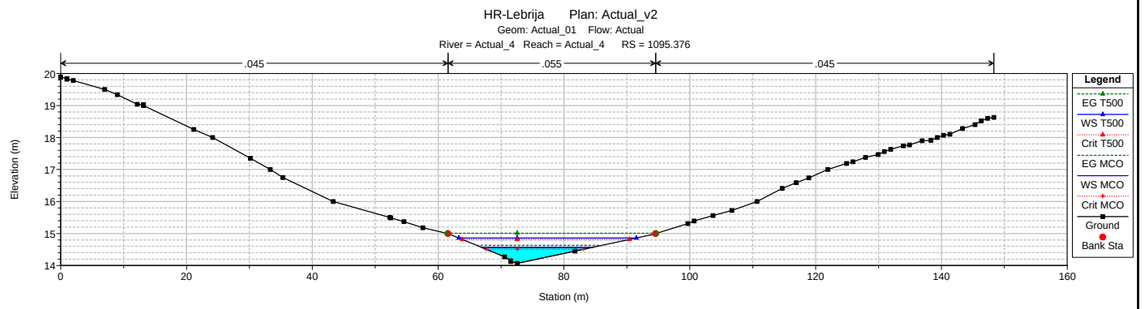

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1224.148
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

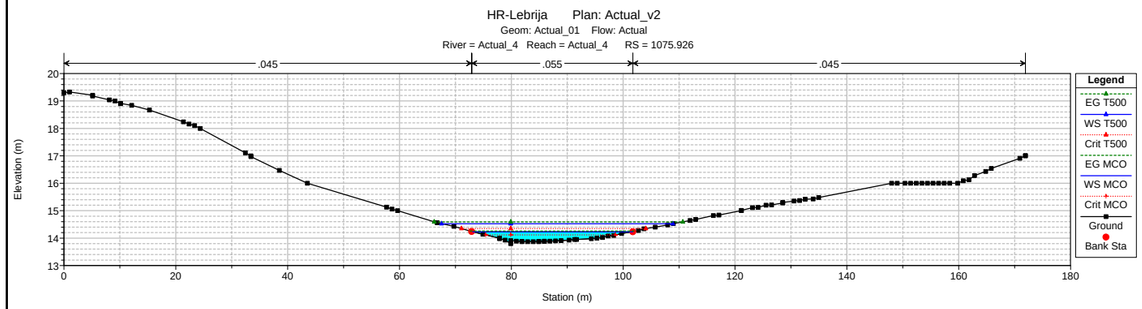

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1190.718
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

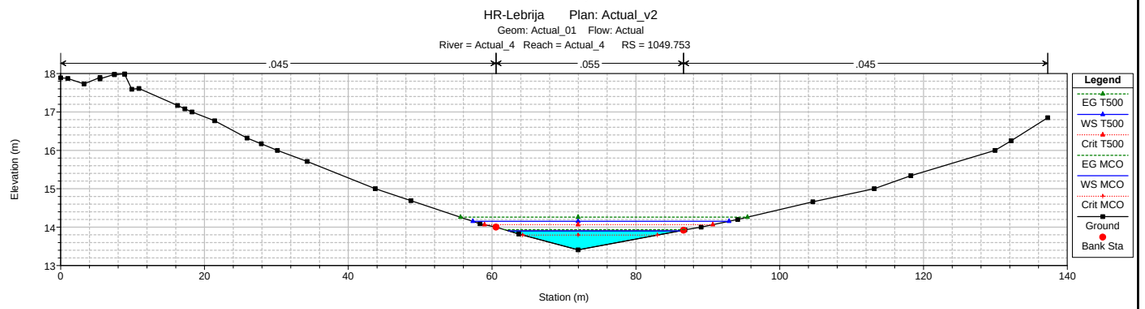

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1169.459
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

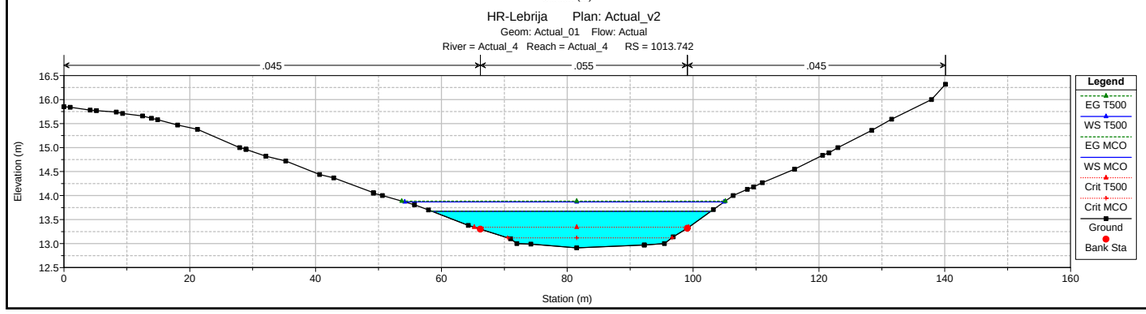

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1140.498
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

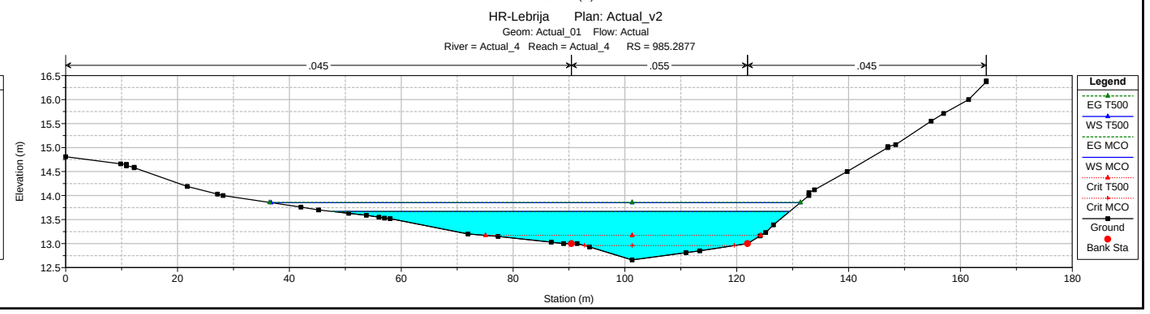

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1114.789
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1095.376
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

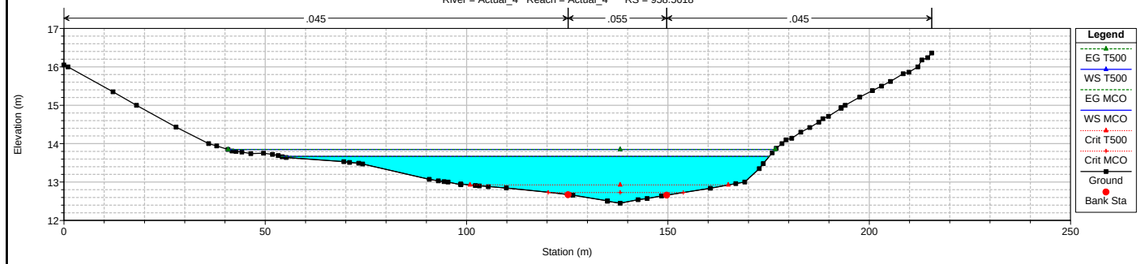

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1075.926
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1049.753
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

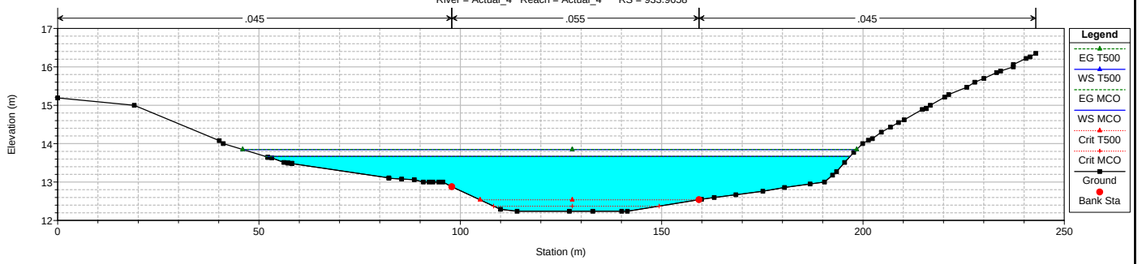

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1013.742
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 985.2877
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Bank Sta

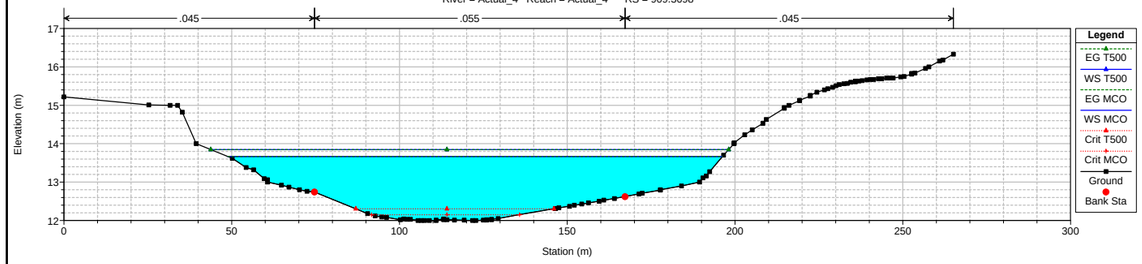
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 958.5618



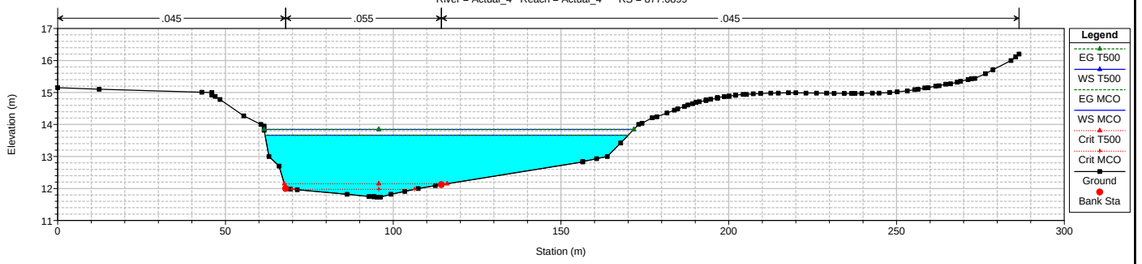
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 933.9658



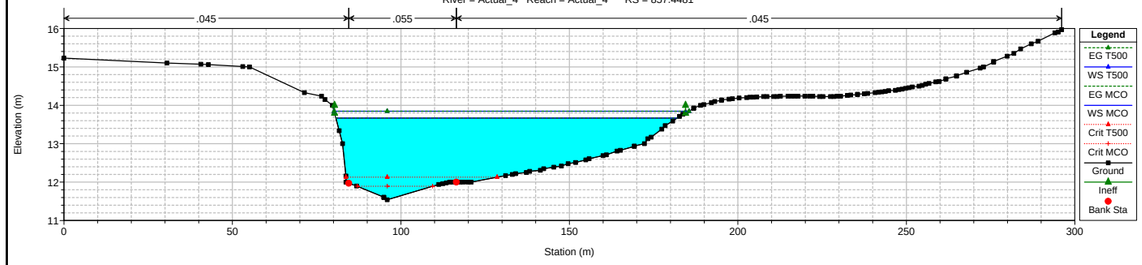
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 909.3698



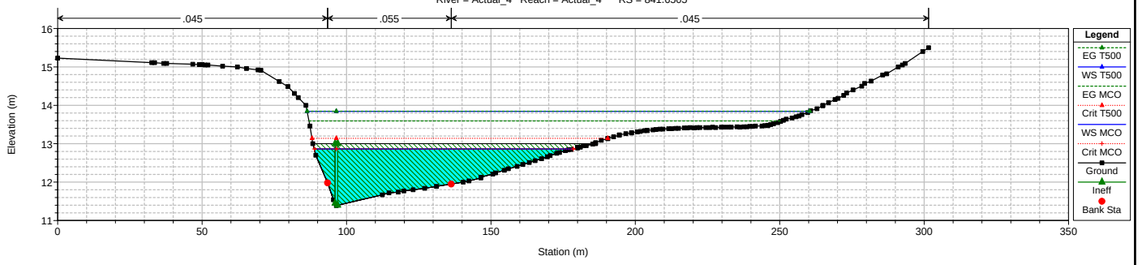
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 877.0899



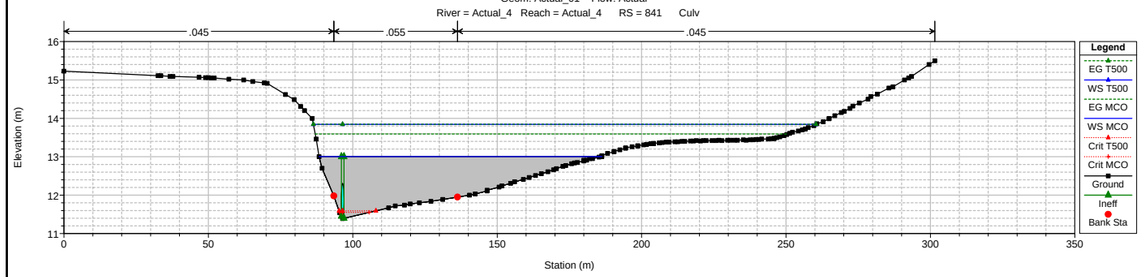
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 857.4481



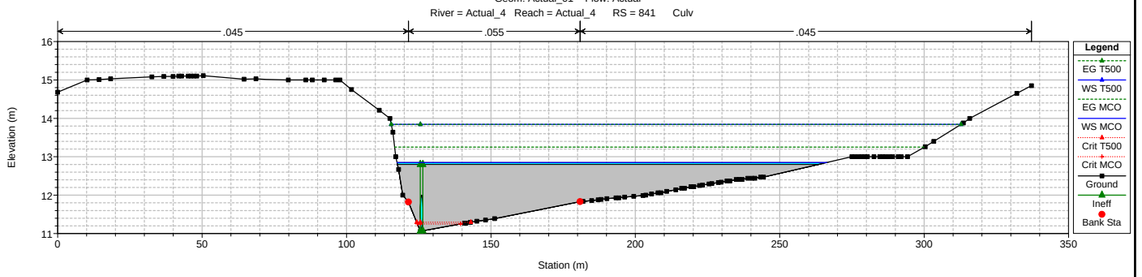
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 841.6505



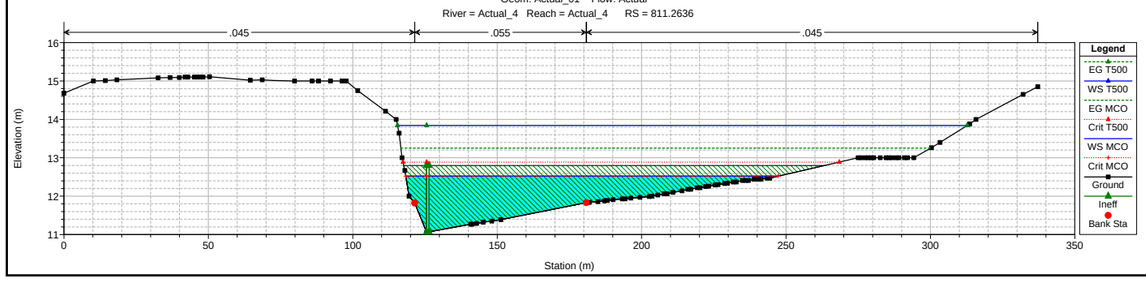
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 841 Culv



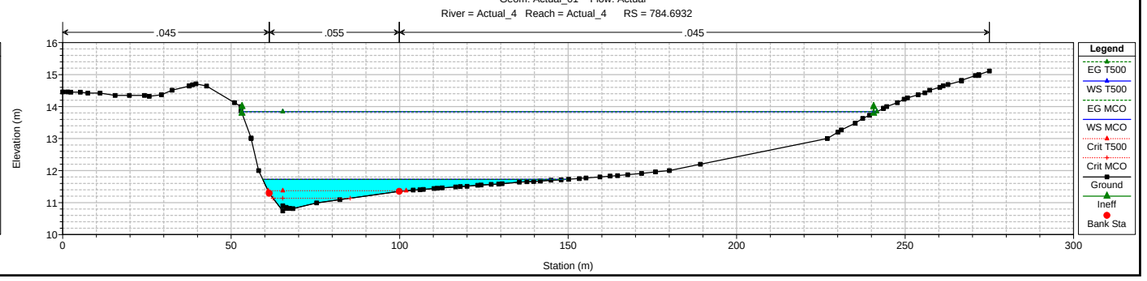
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 841 Culv



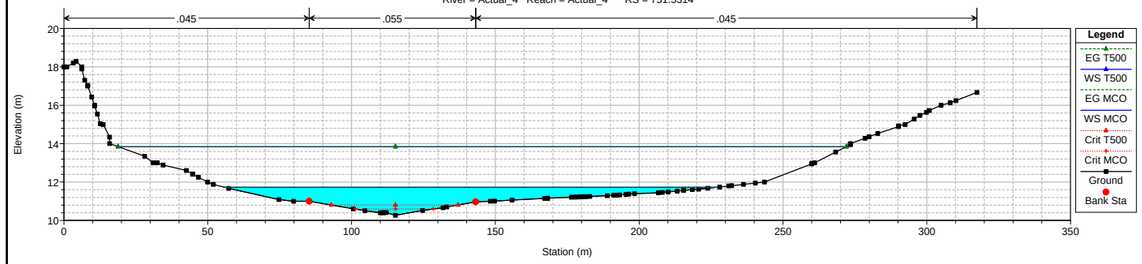
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 811.2636



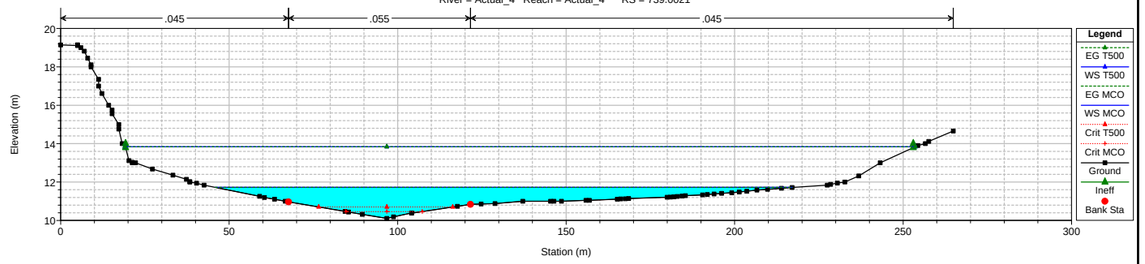
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 784.6932



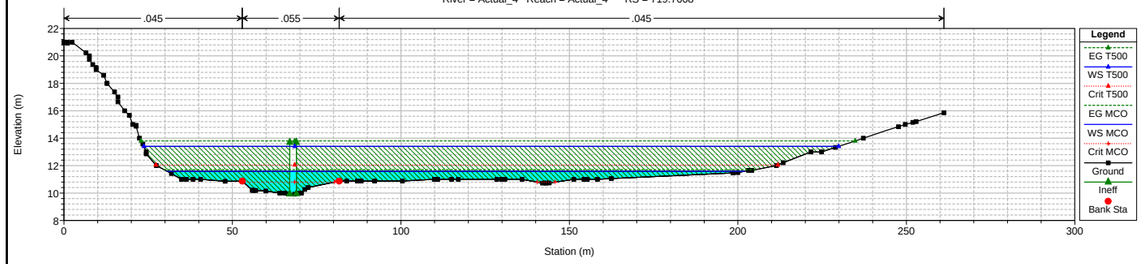
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 751.5314



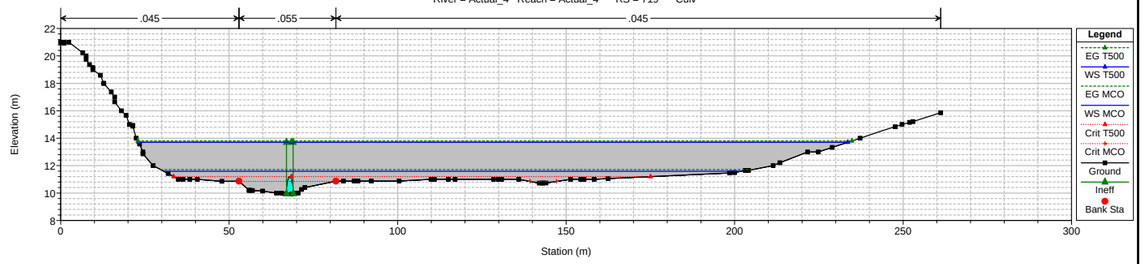
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 739.0021



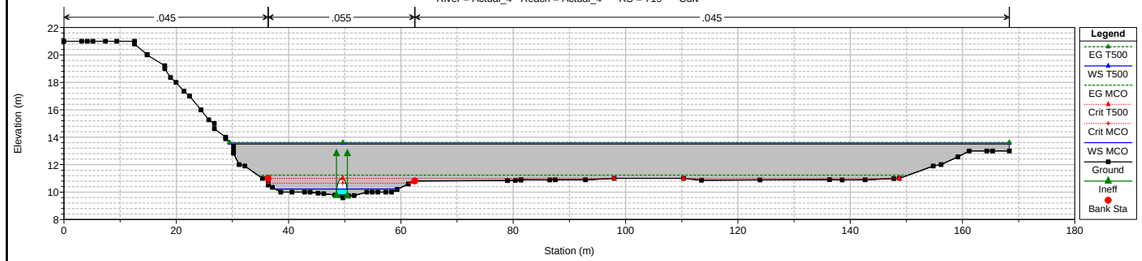
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 719.7668



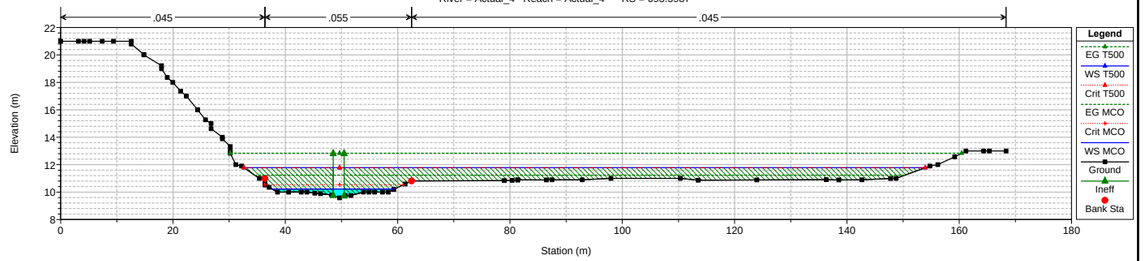
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 719 Culv



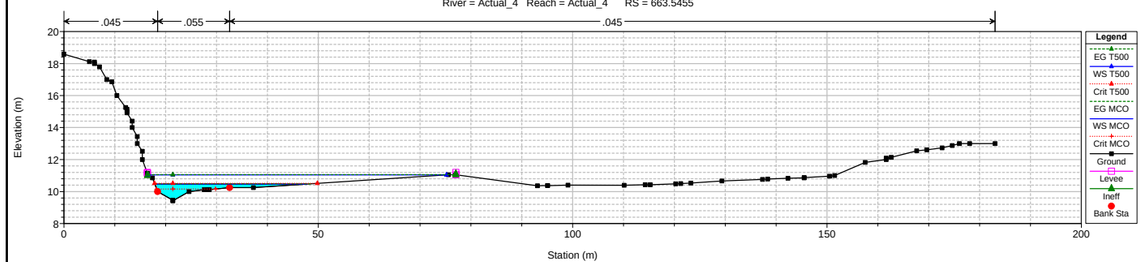
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 719 Culv



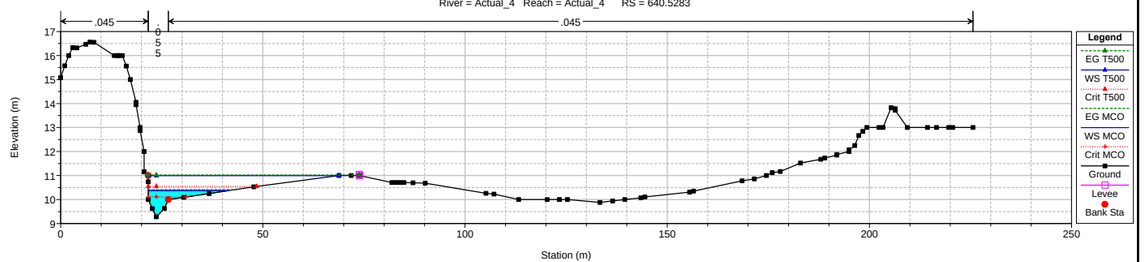
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 693.5987



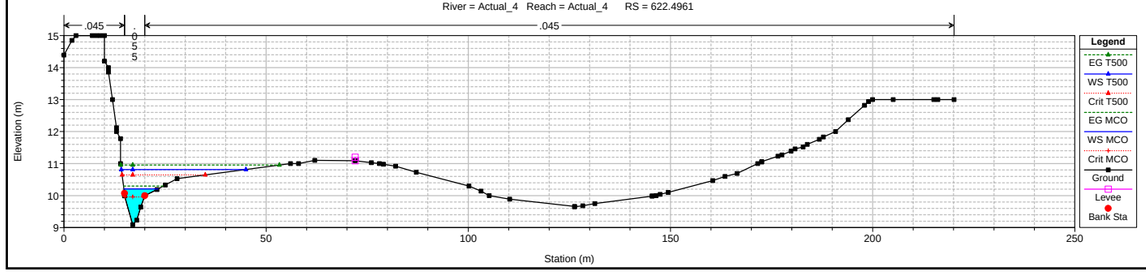
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 663.5455



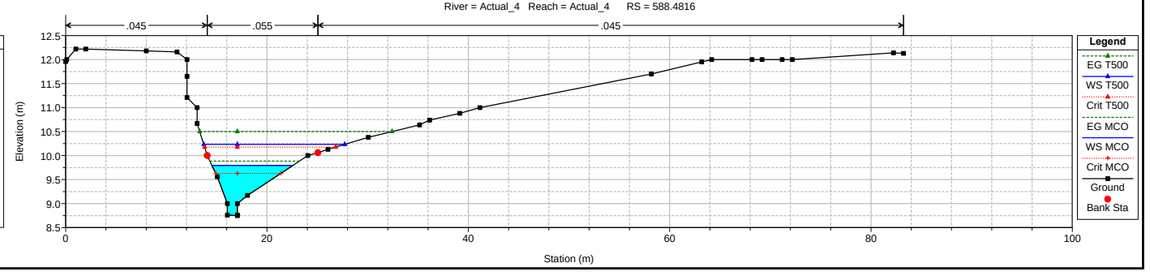
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 640.5283



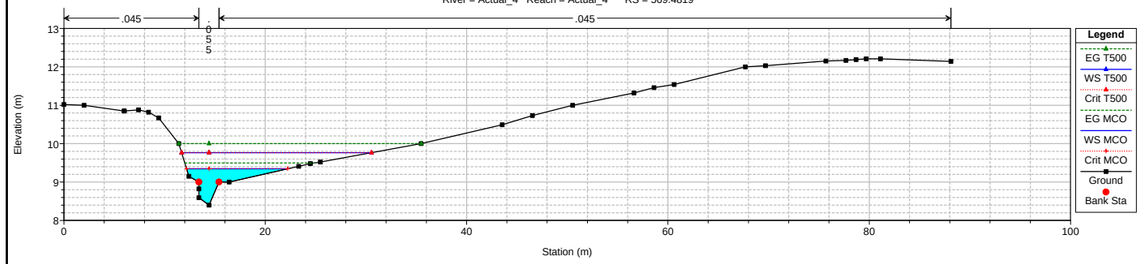
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 622.4961



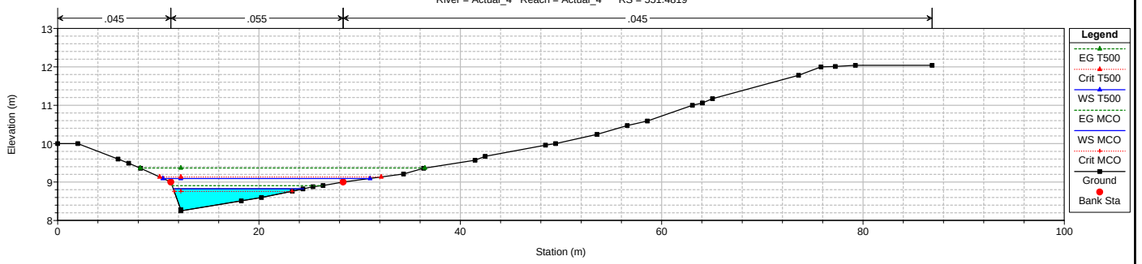
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 588.4816



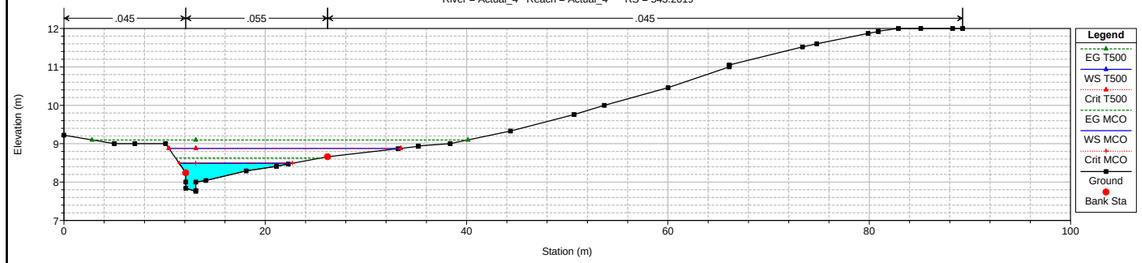
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 569.4819



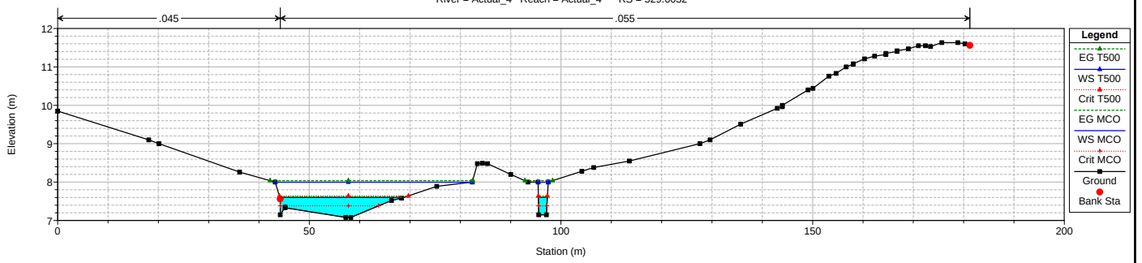
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 551.4819



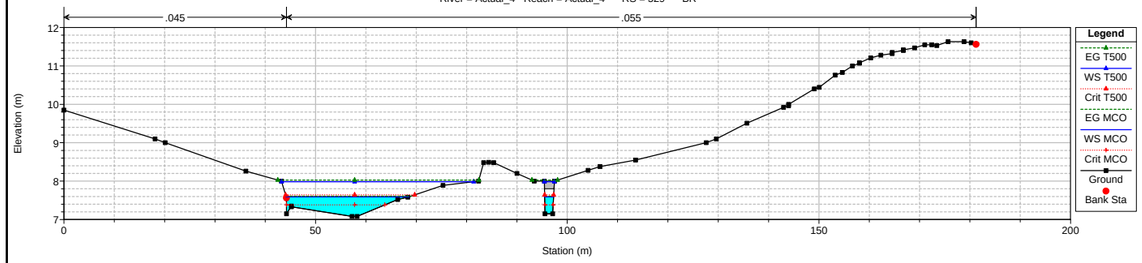
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 543.2019



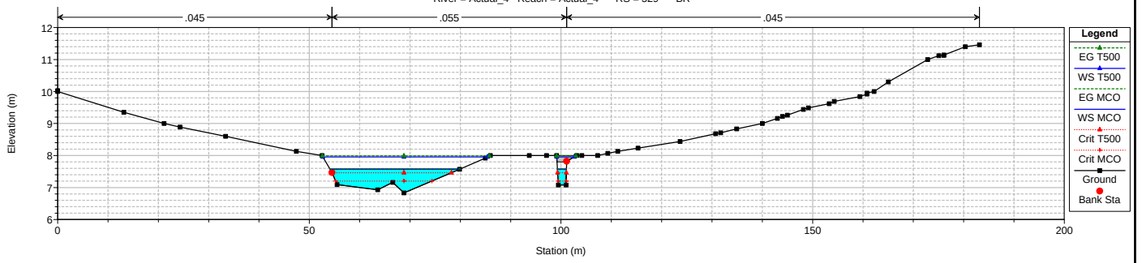
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 529.6032



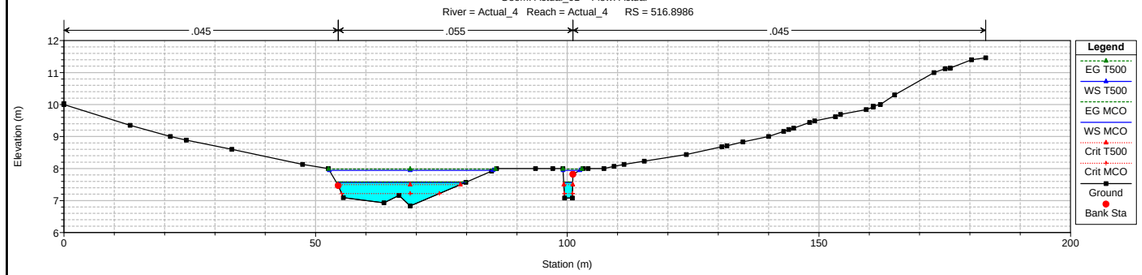
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 529 BR



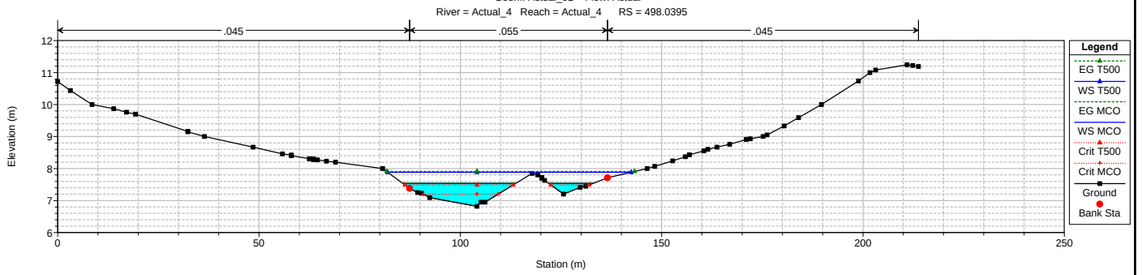
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 529 BR



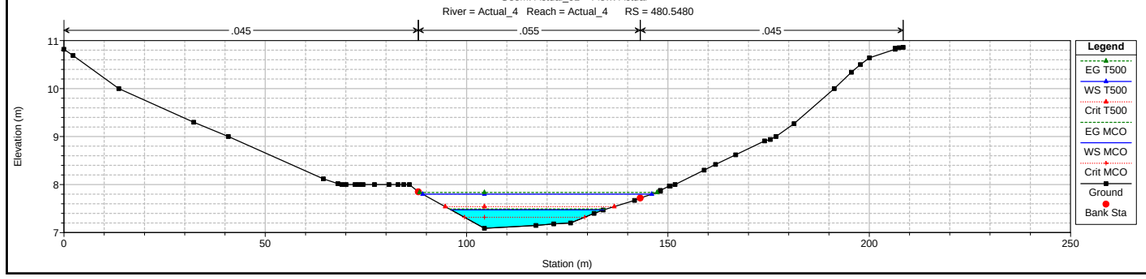
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 516.8986



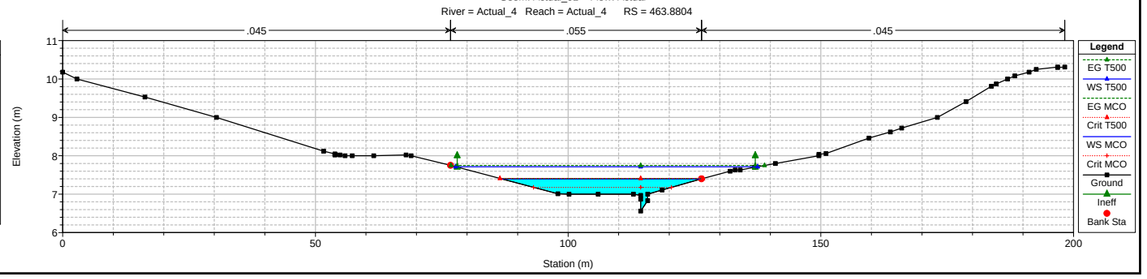
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 498.0395

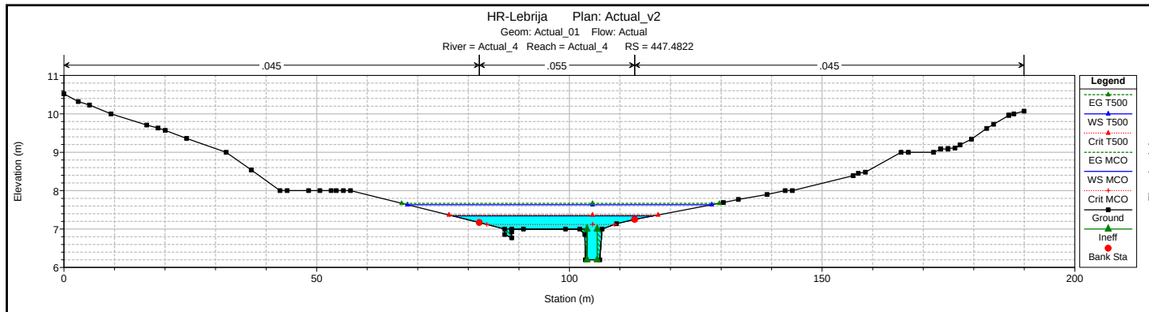


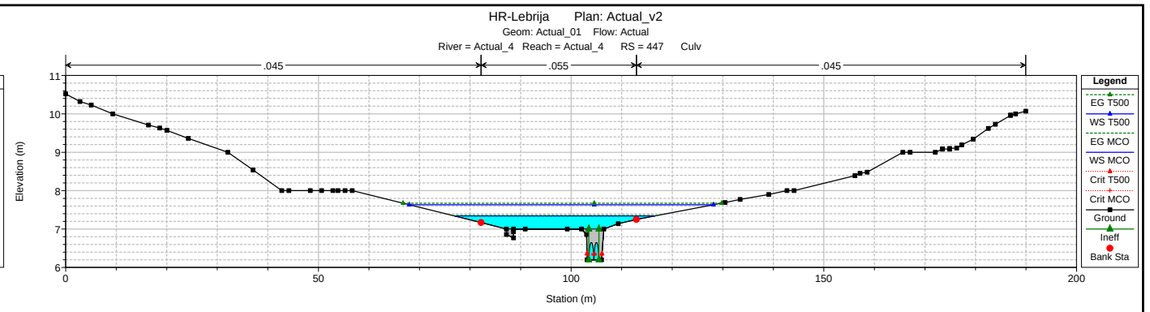
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 480.5480

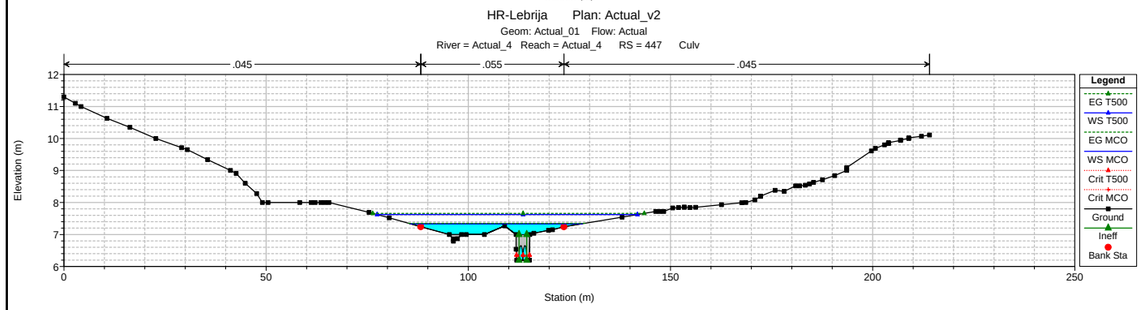


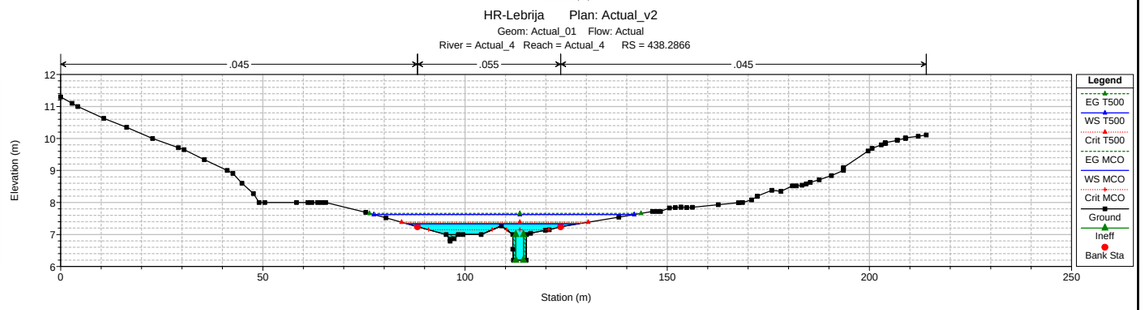
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 463.8804

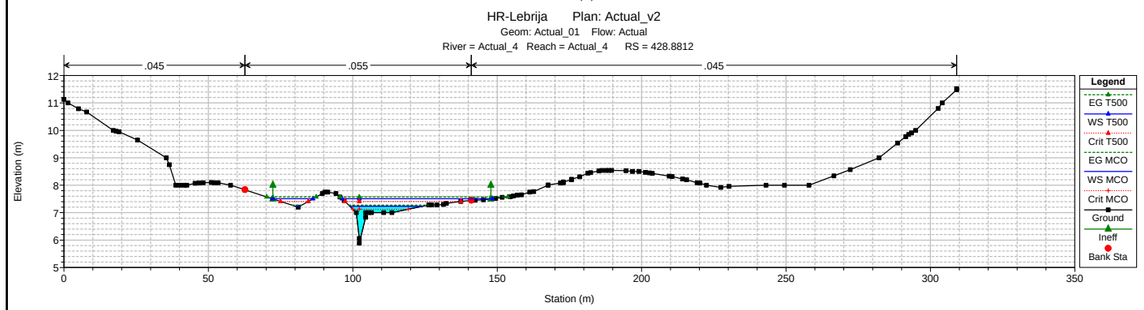


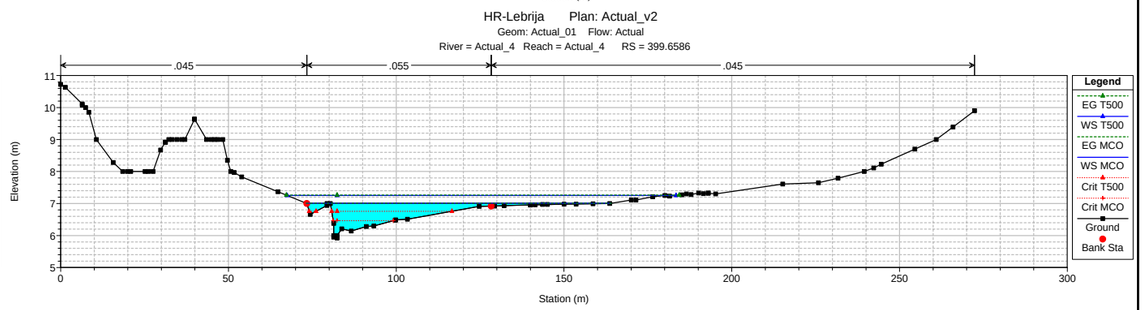

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 447.4822
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Ineff
Bank Sta

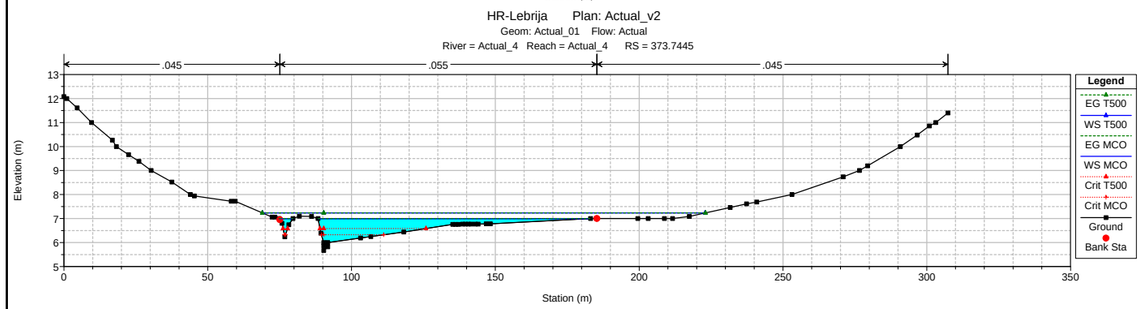

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 447 Culv
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Ineff
Bank Sta

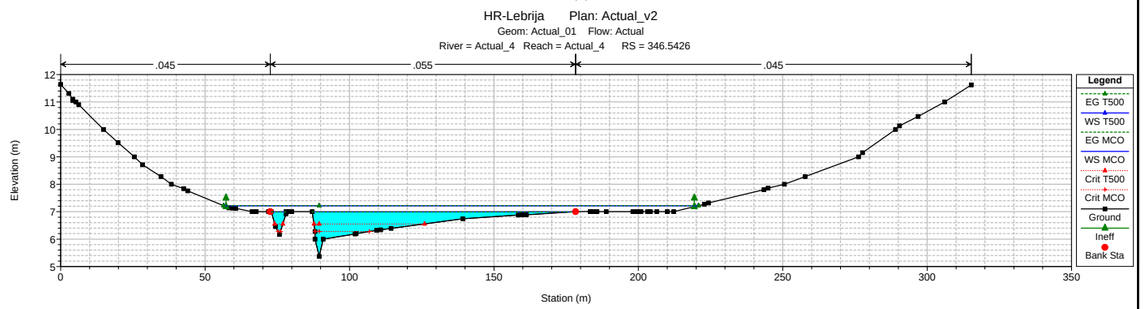

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 447 Culv
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Ineff
Bank Sta

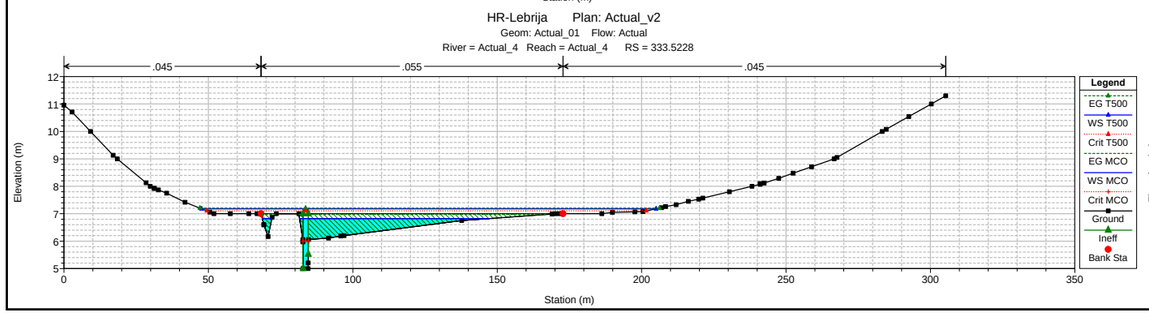

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 438.2866
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Ineff
Bank Sta

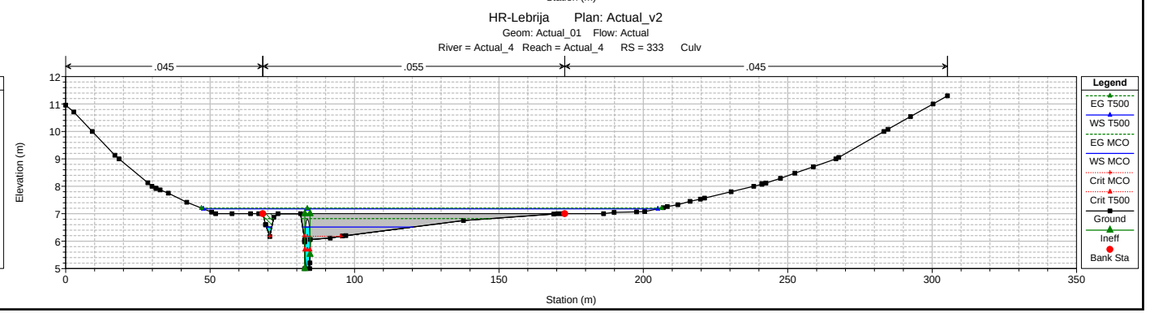

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 428.8812
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Ineff
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 399.6586
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Bank Sta

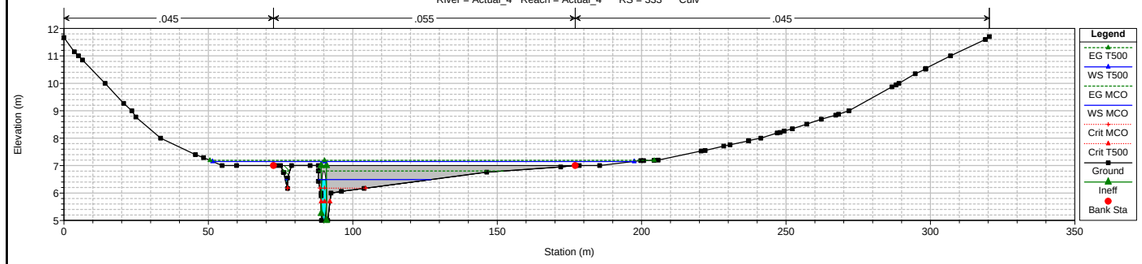

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 373.7445
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 346.5426
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit T500
Crit MCO
Ground
Ineff
Bank Sta

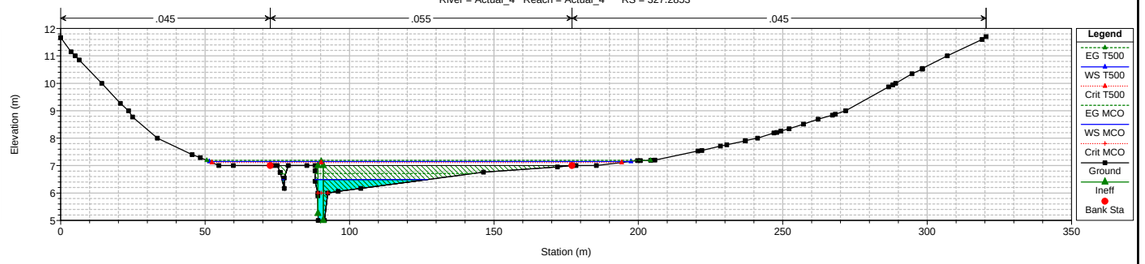

HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 333.5228
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Ineff
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 333 Culv
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
EG MCO
WS MCO
Crit MCO
Crit T500
Ground
Ineff
Bank Sta

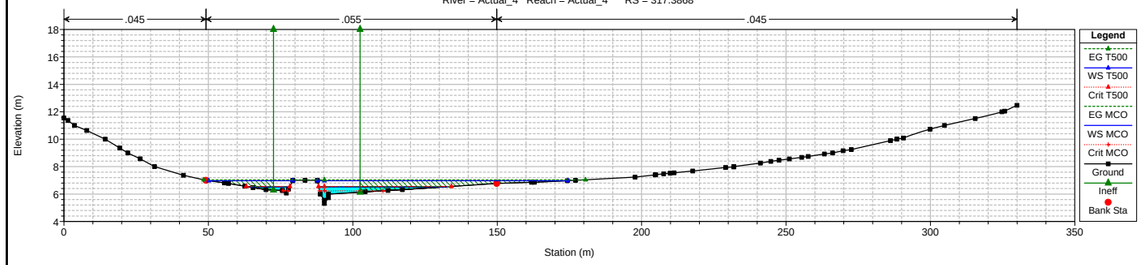
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 333 Culv



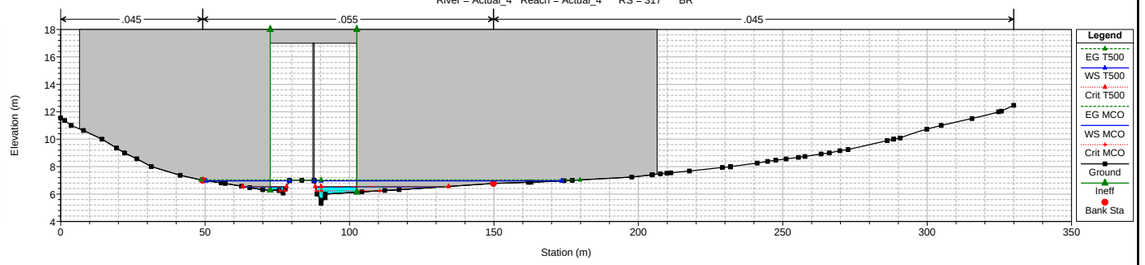
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 327.2853



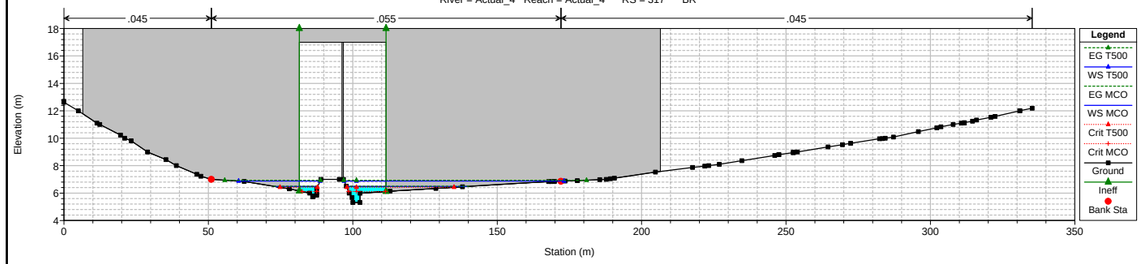
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 317.3868



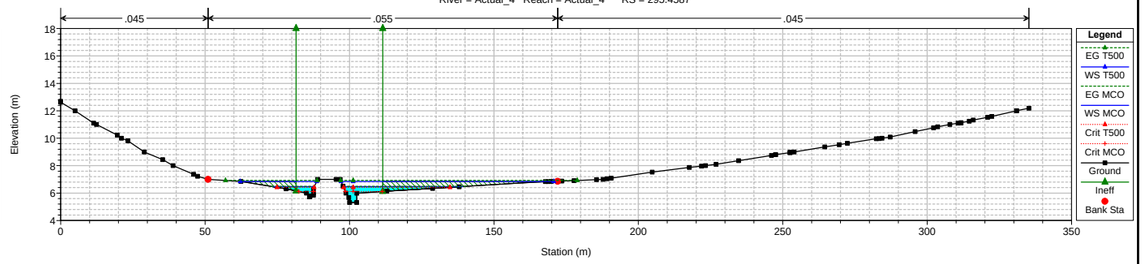
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 317 BR



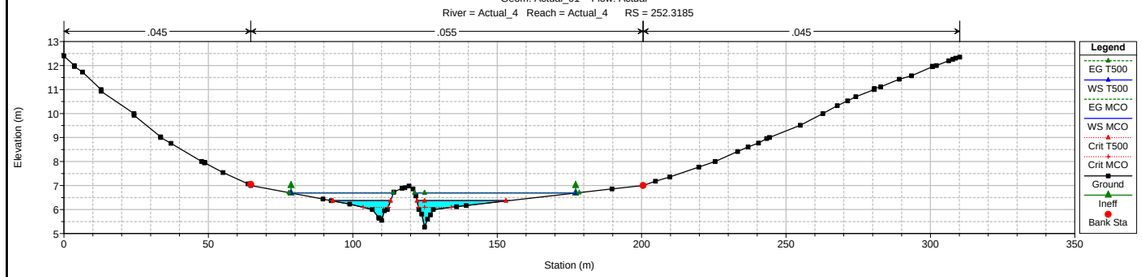
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 317 BR



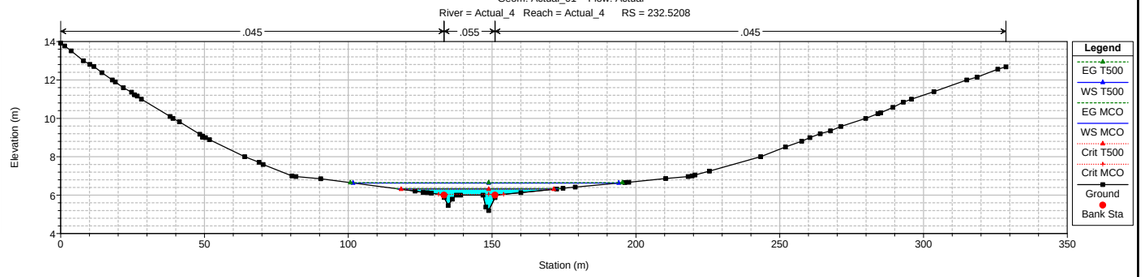
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 295.4587



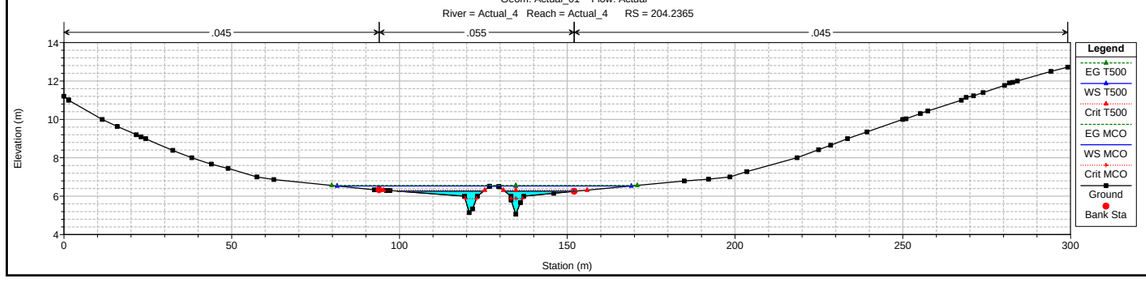
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 252.3185



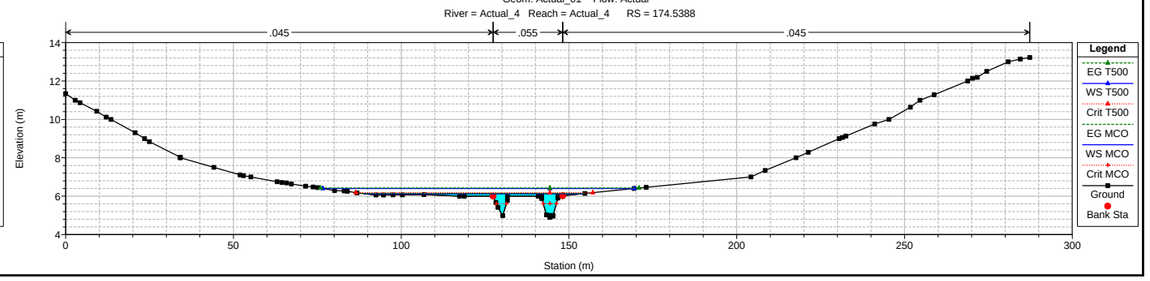
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 232.5208

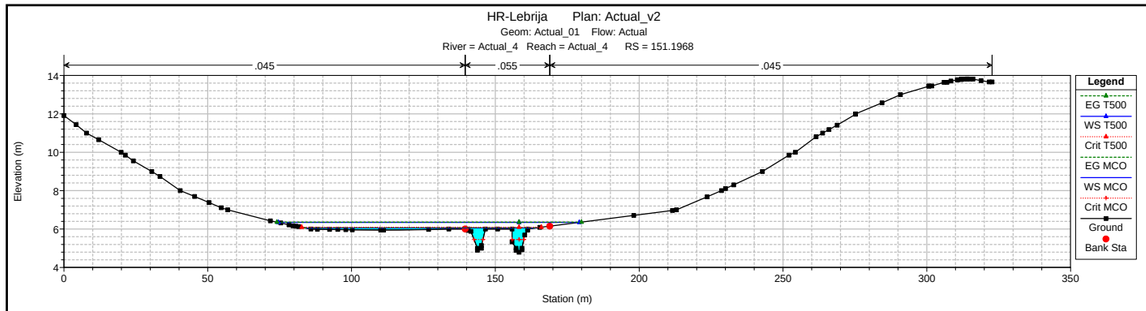


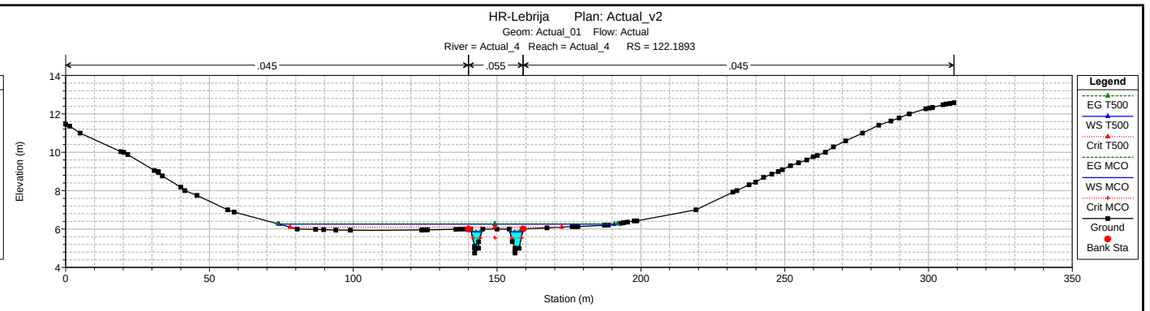
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 204.2365



HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 174.5388




HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 151.1968
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 122.1893
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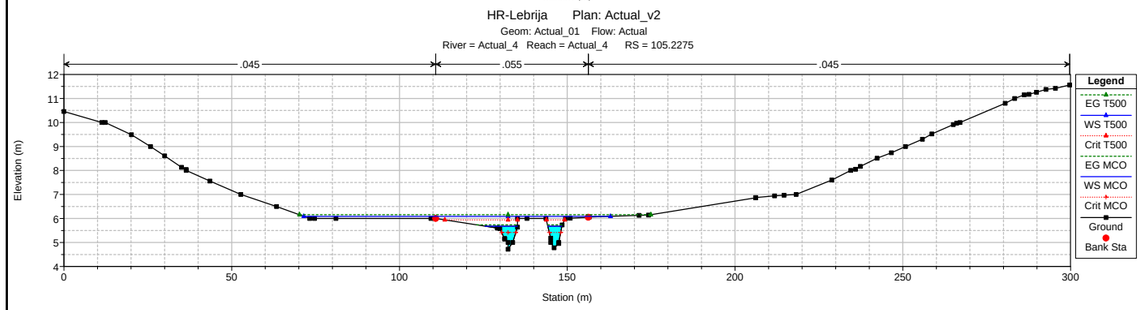
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 105.2275
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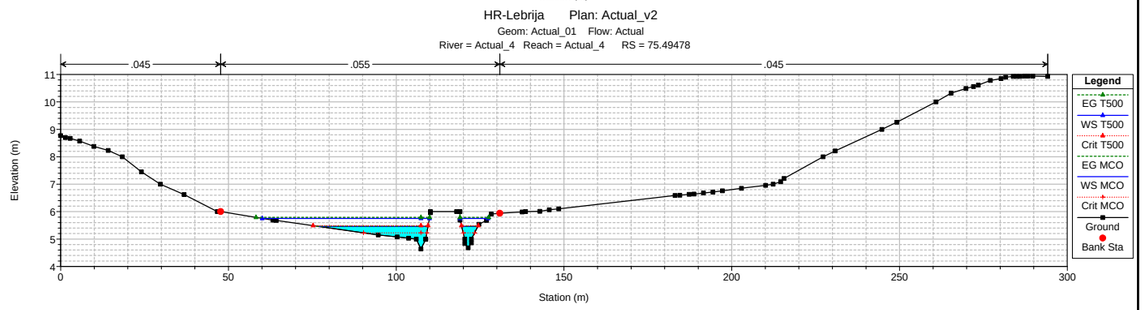
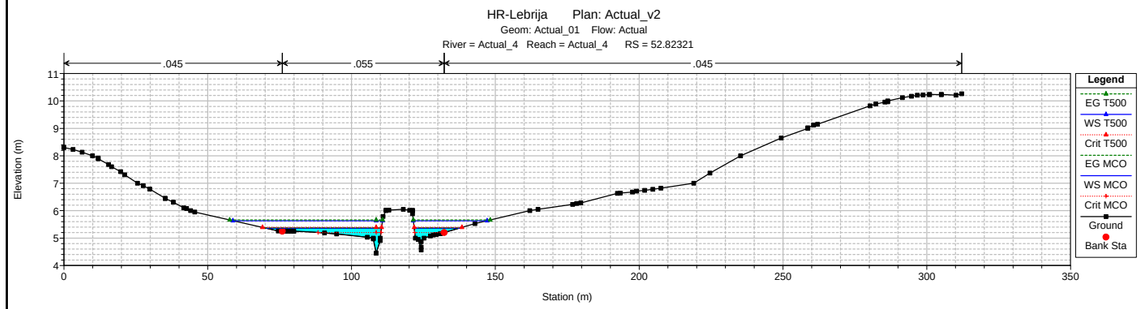
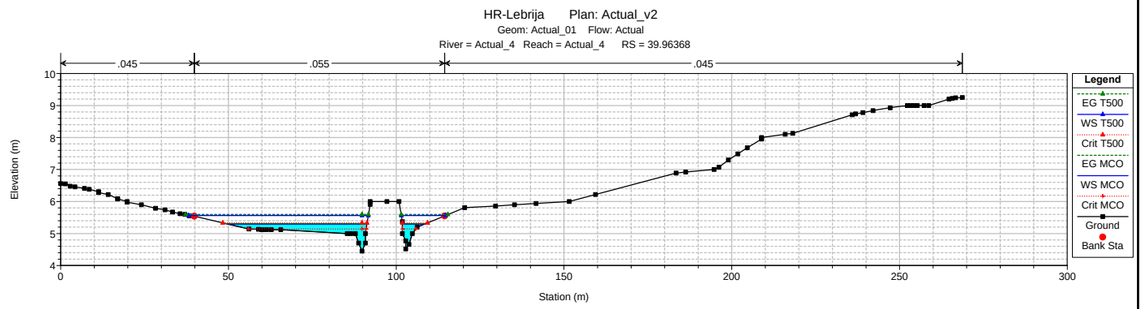
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 75.49478
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 52.82321
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 39.96368
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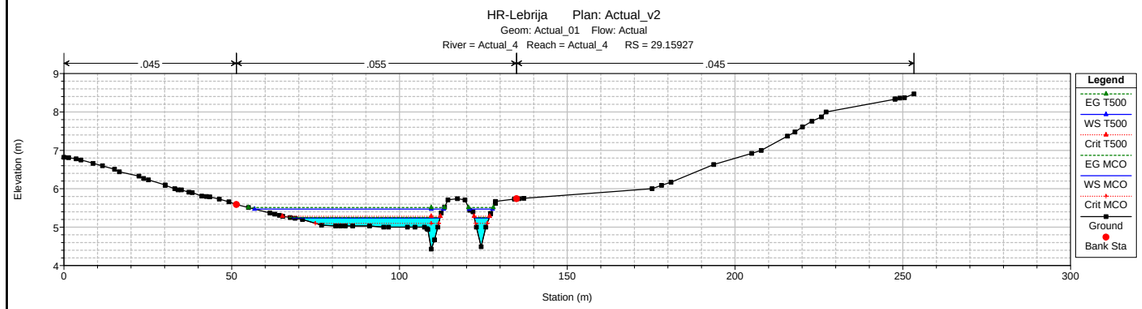
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 29.15927
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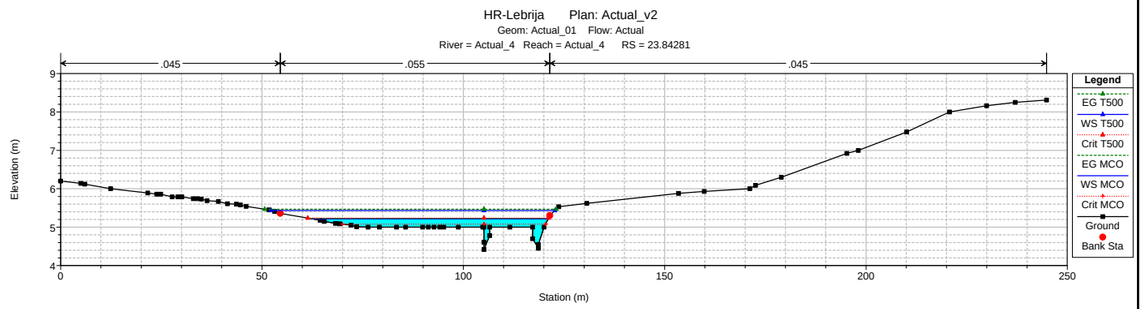
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 23.84281
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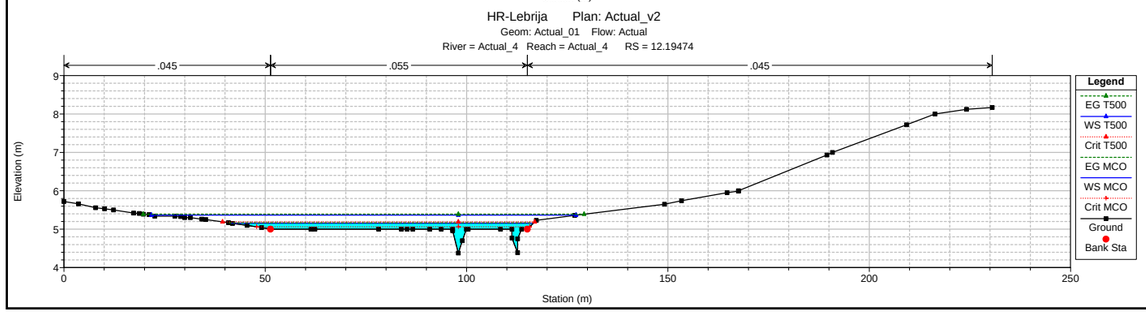
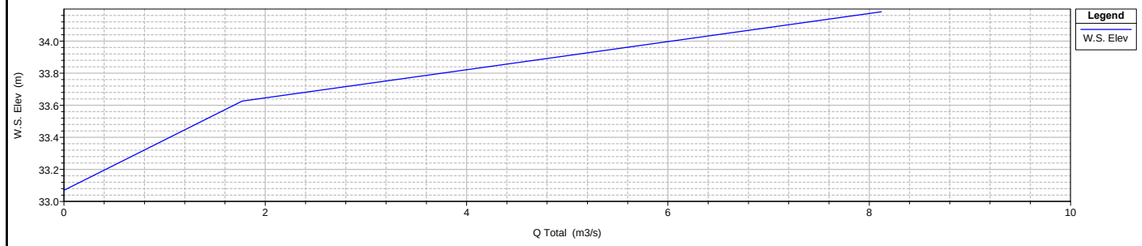
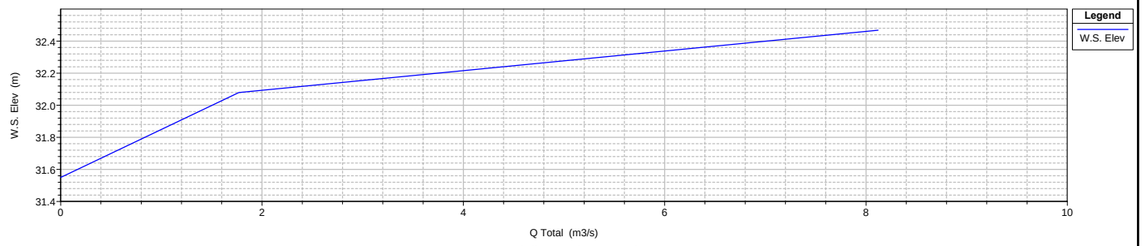
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta


HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 12.19474
.045
.055
.045
Elevation (m)
Station (m)
Legend
EG T500
WS T500
Crit T500
EG MCO
WS MCO
Crit MCO
Ground
Bank Sta

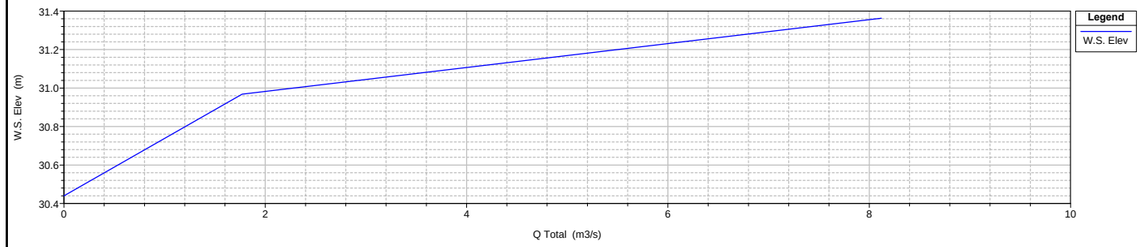
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2567.713



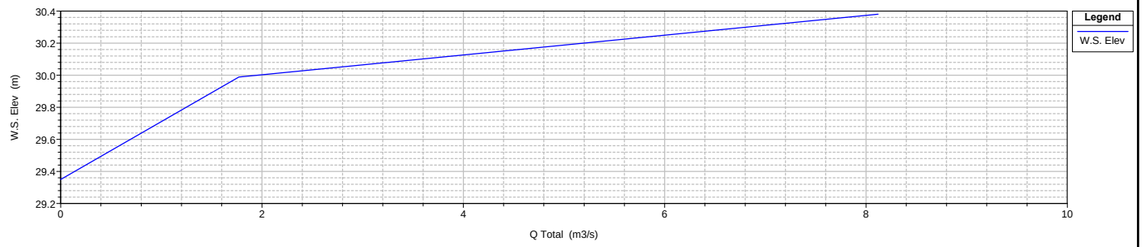
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2539.521



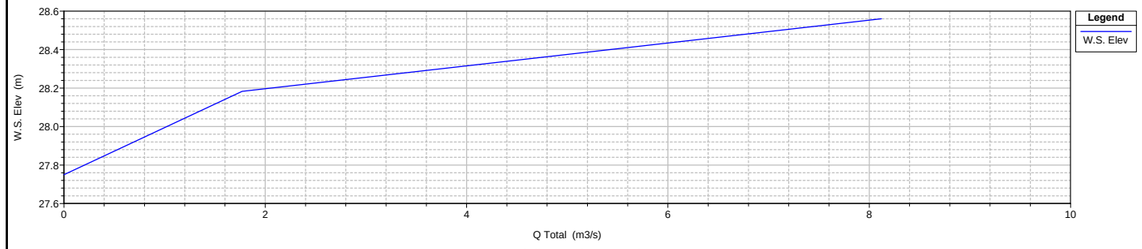
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2519.348



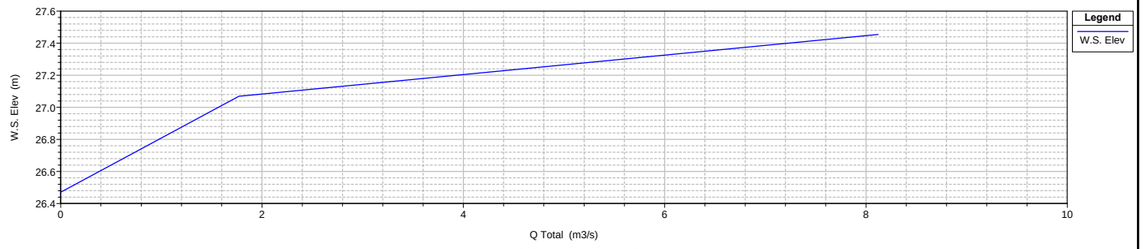
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2498.482



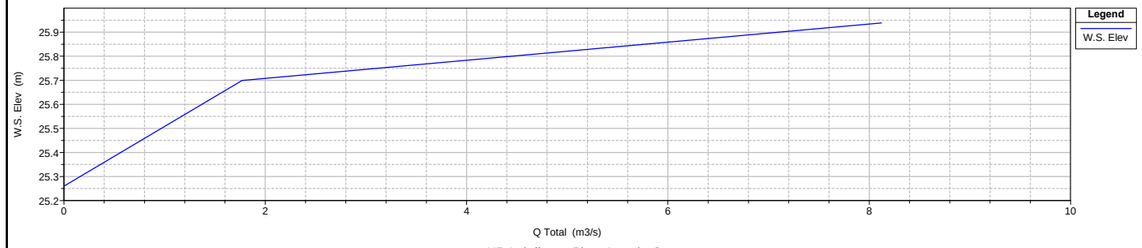
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2475.476



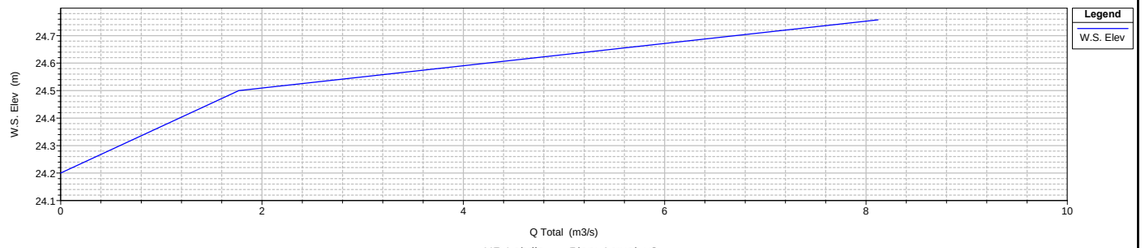
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2450.021



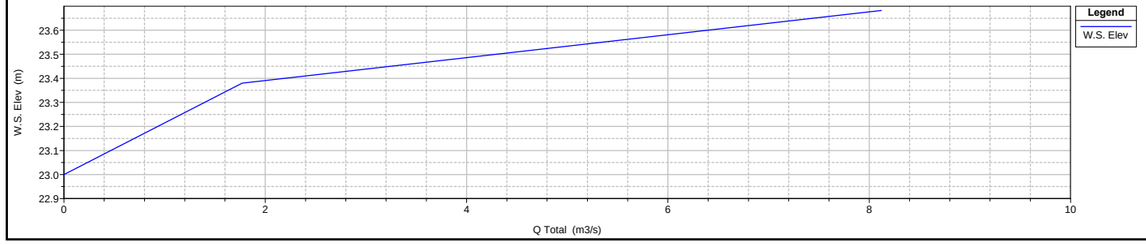
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2416.810



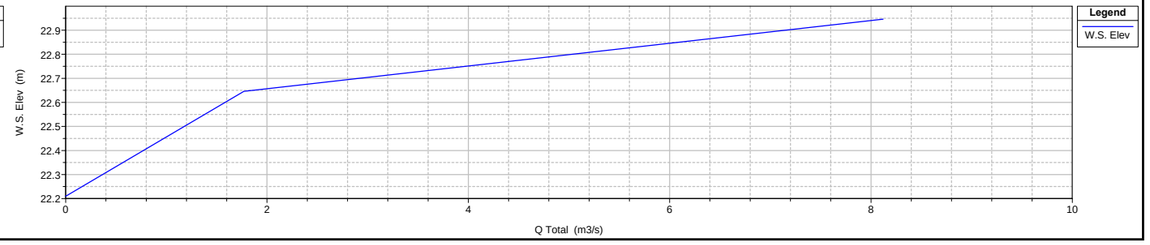
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2389.874



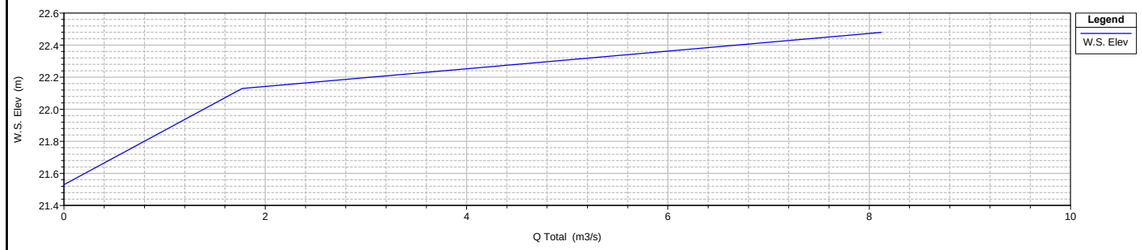
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2358.024



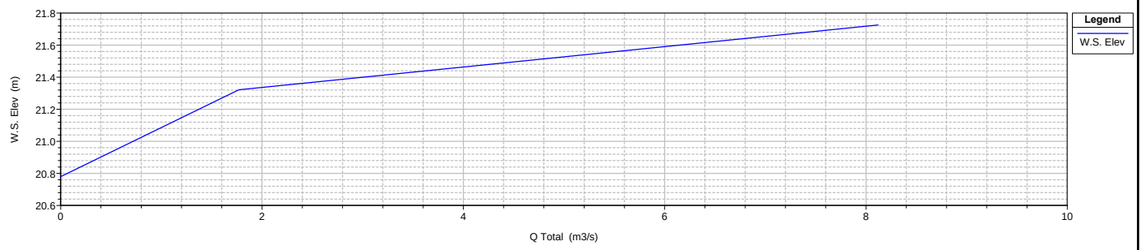
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2330.744



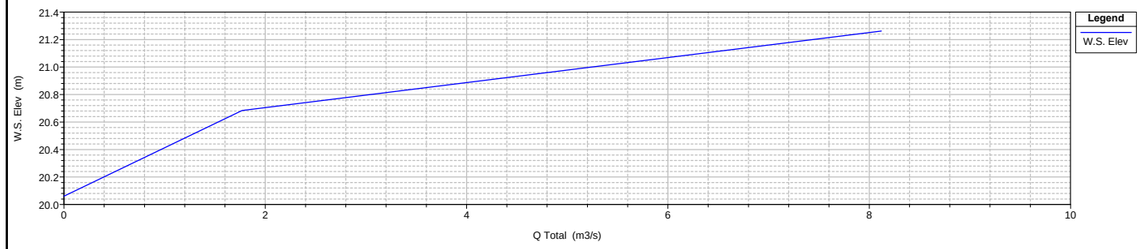
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2310.275



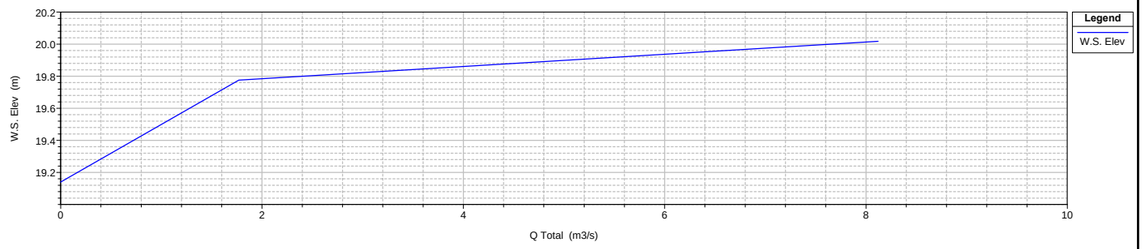
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2290.059



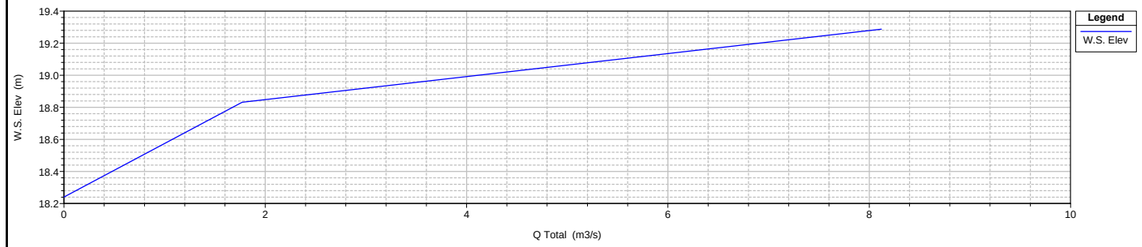
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2272.323



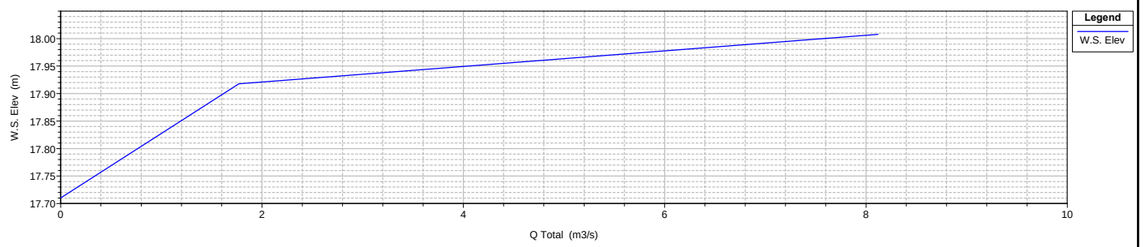
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2245.213



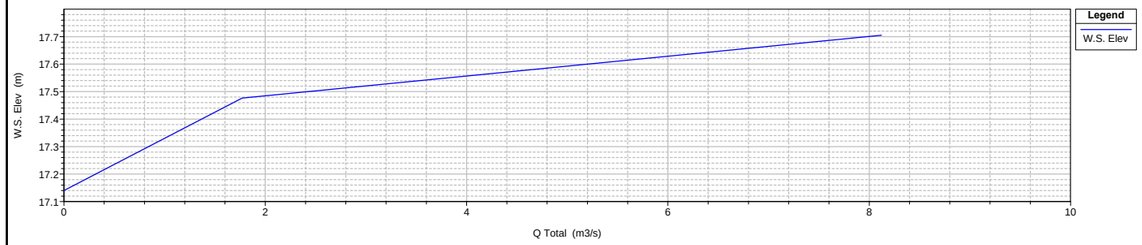
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2214.445



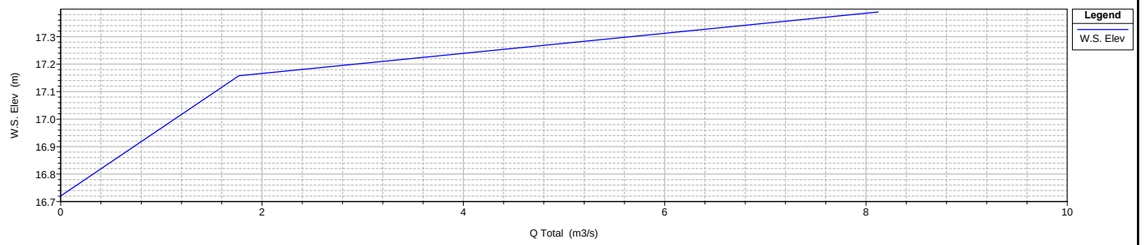
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2194.679



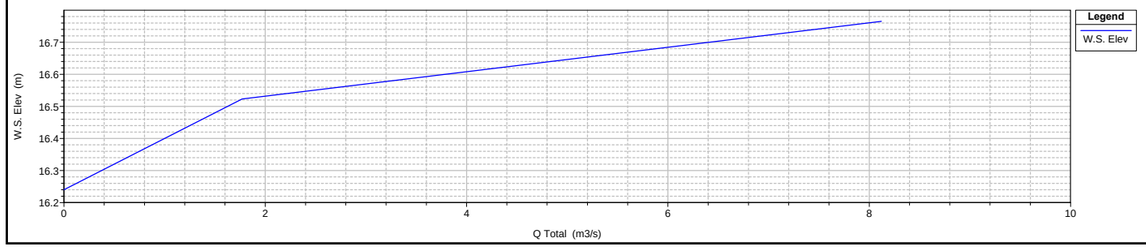
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2172.173



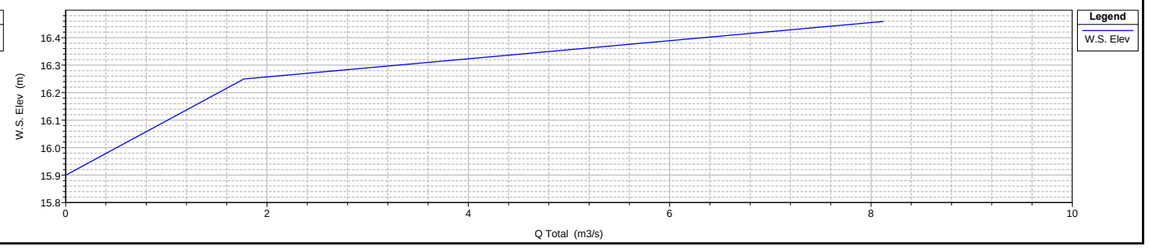
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2146.090



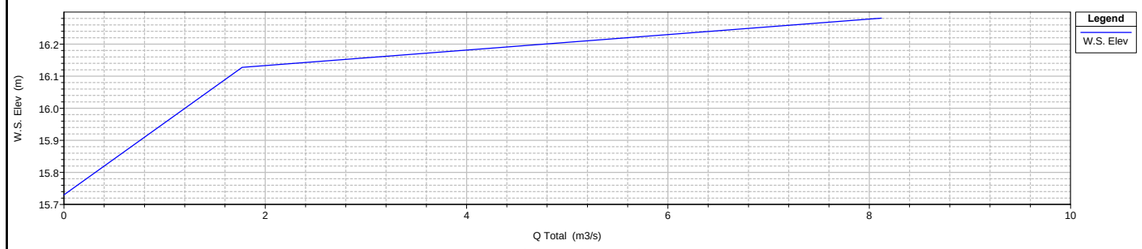
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2110.755



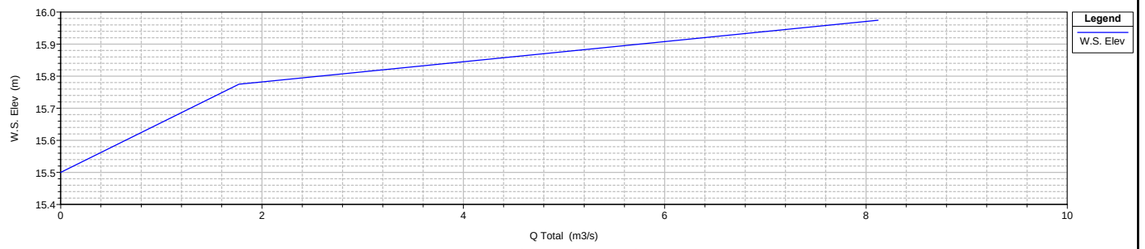
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2082.073



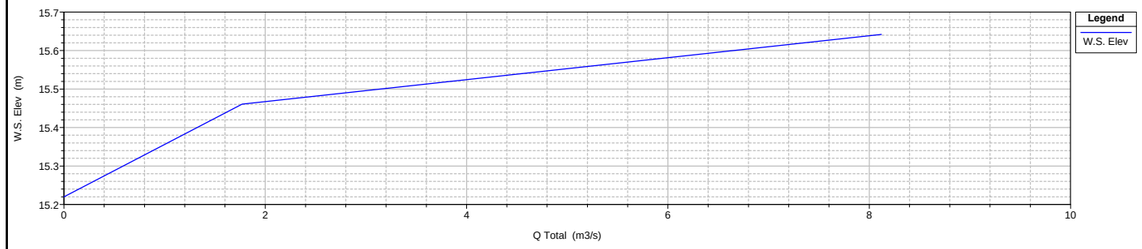
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2061.885



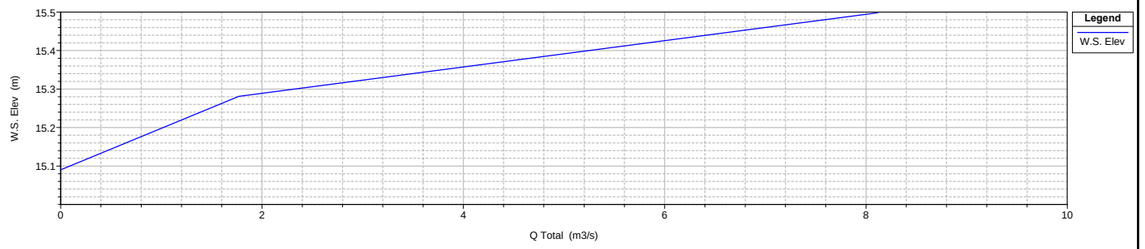
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2034.217



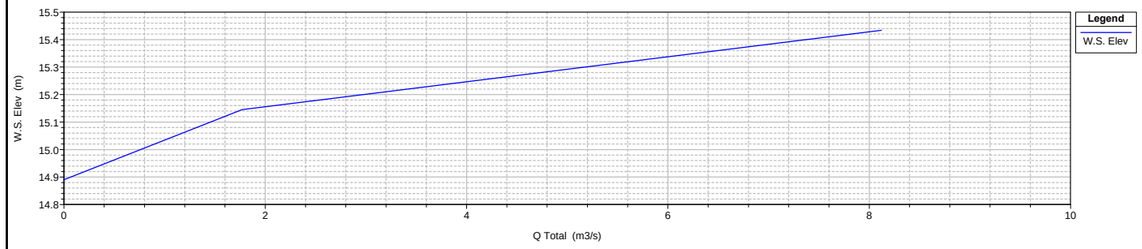
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 2001.225



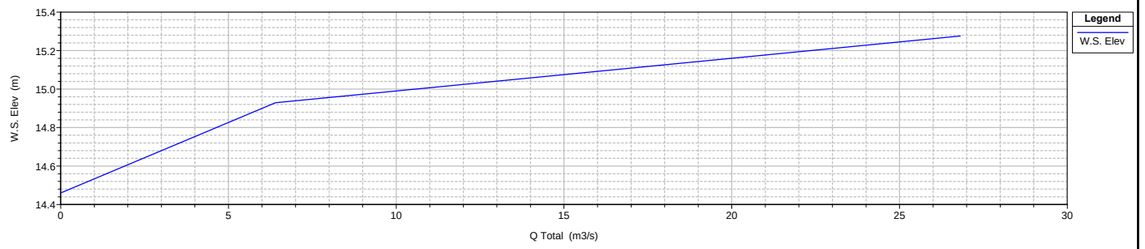
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1986.102



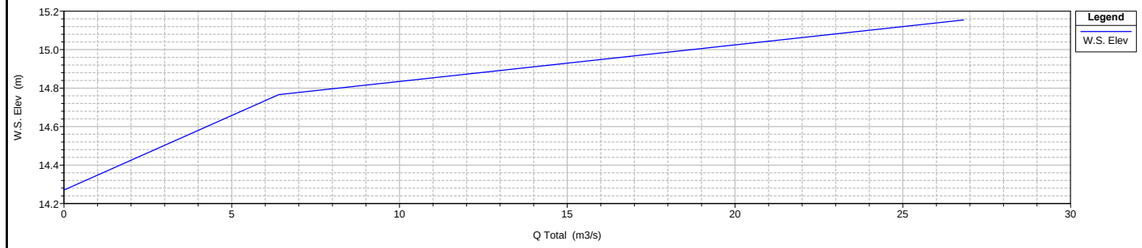
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1965.244



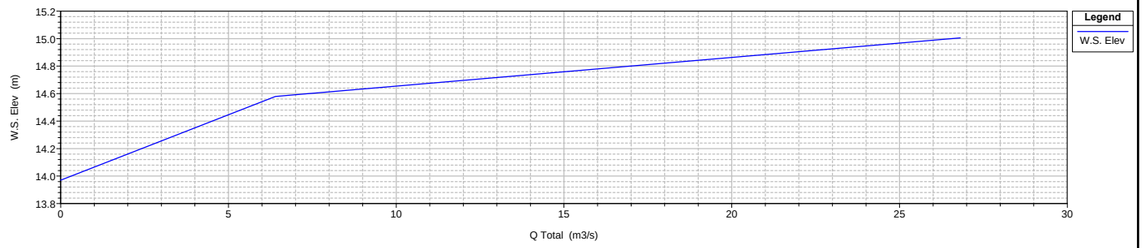
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1925.651



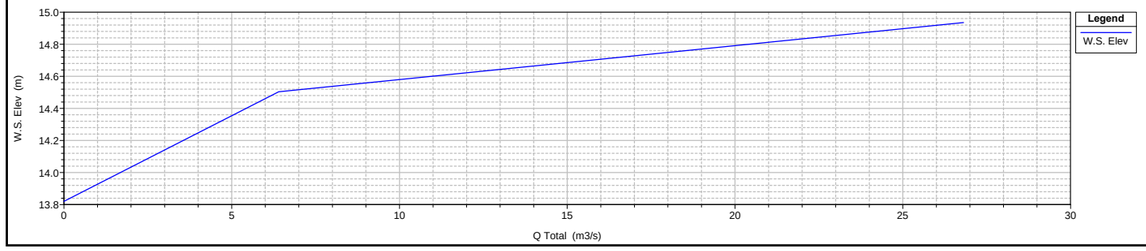
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1908.499



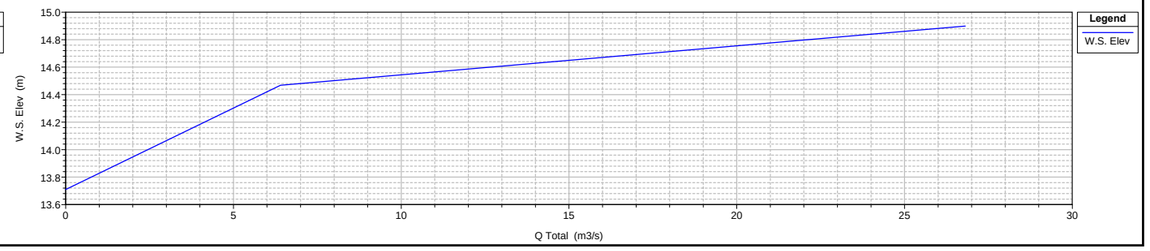
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1877.535



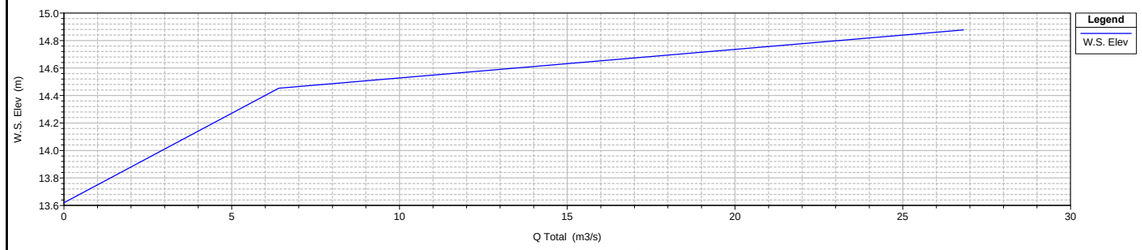
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1849.726



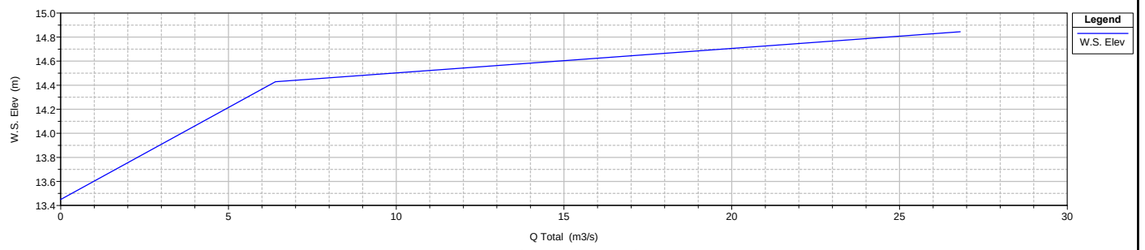
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1827.737



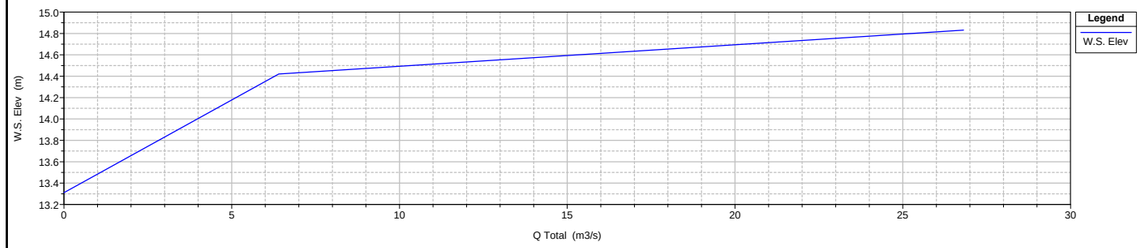
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1810.336



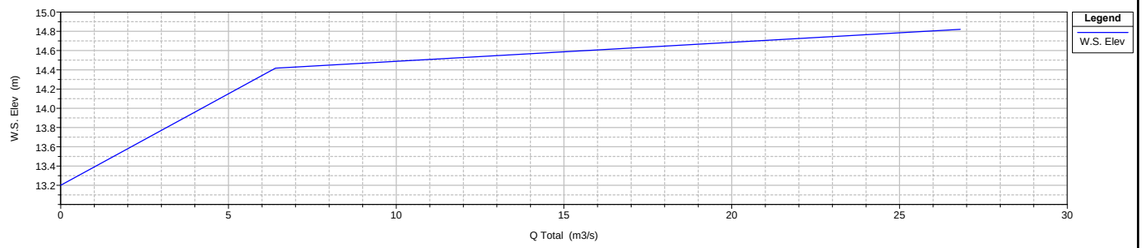
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1778.741



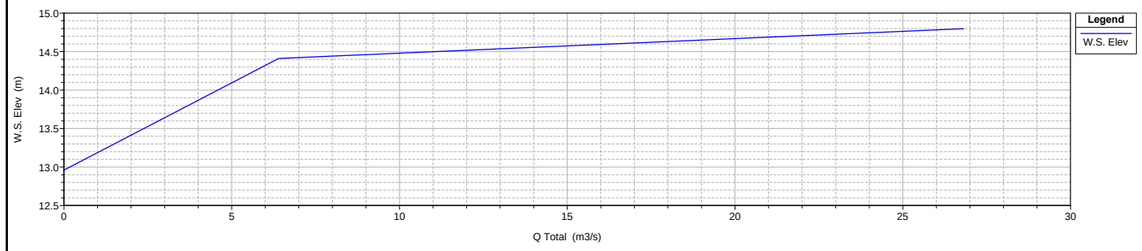
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1751.420



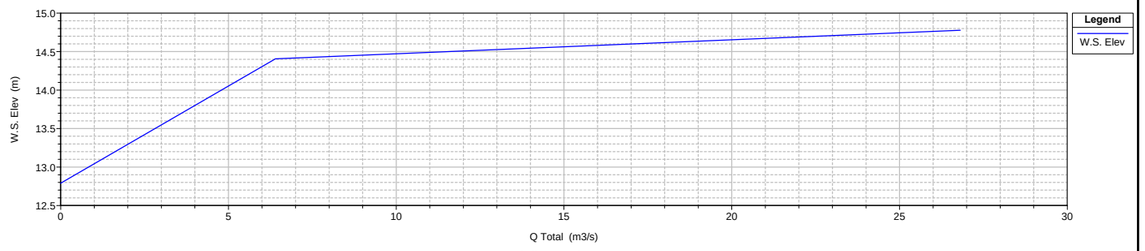
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1730.476



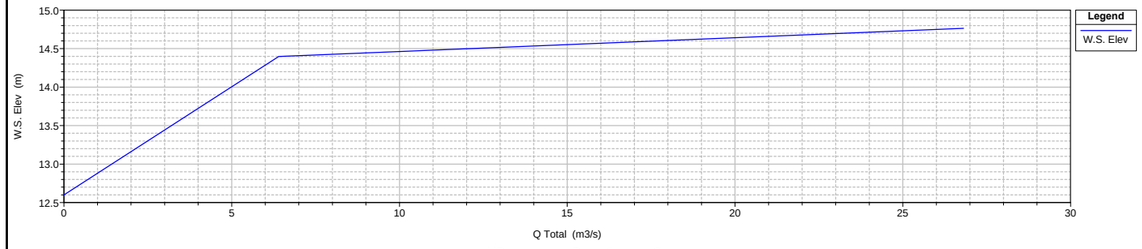
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1684.748



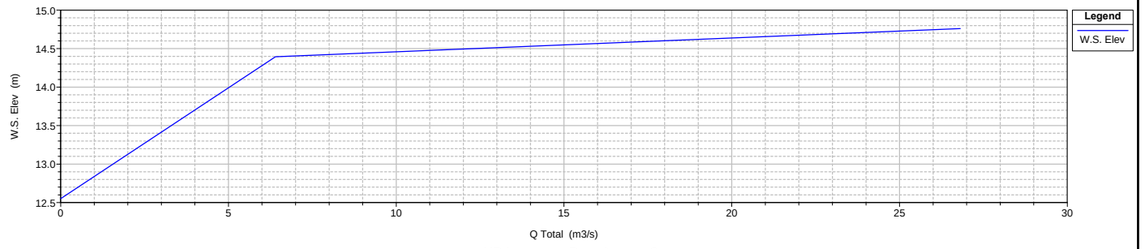
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1651.421



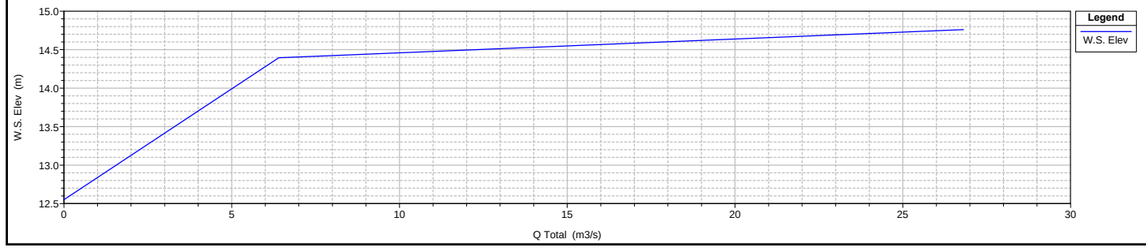
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1614.620



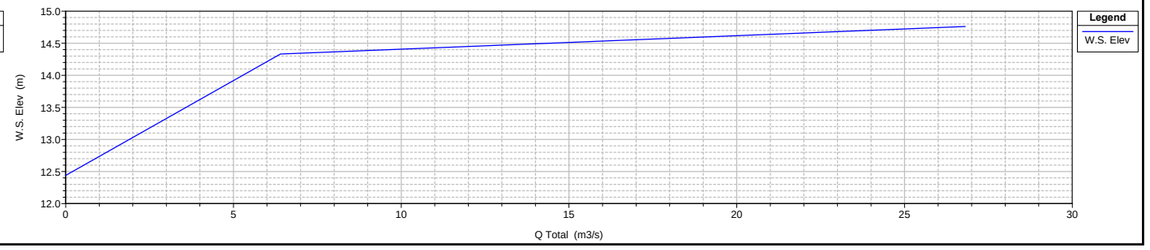
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1604.204



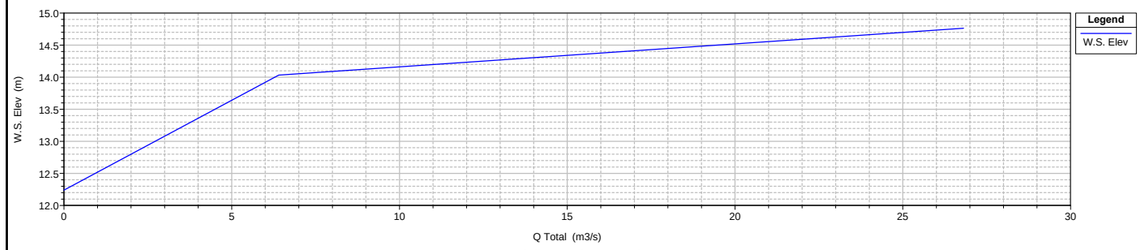
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1600 Culv



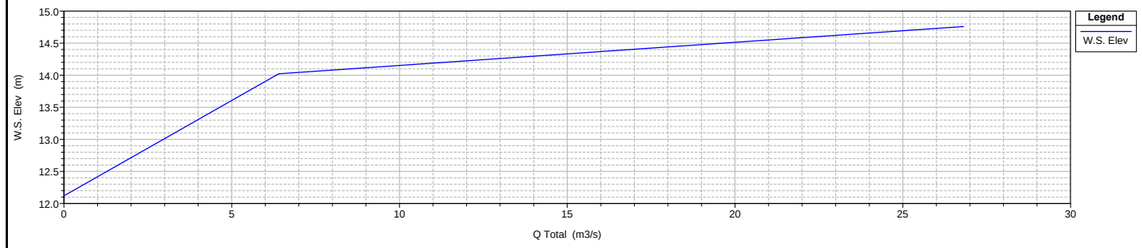
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1600 Culv



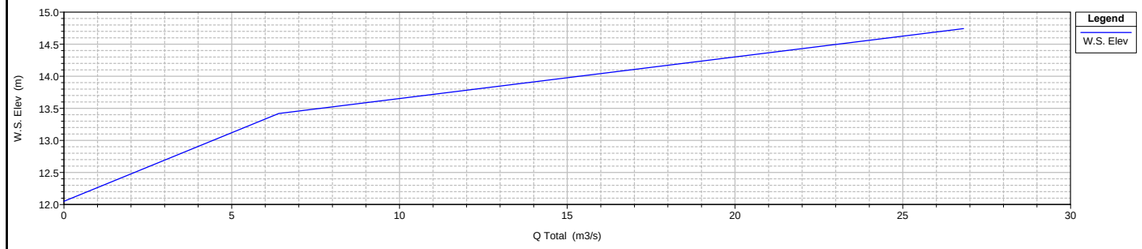
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1546.273



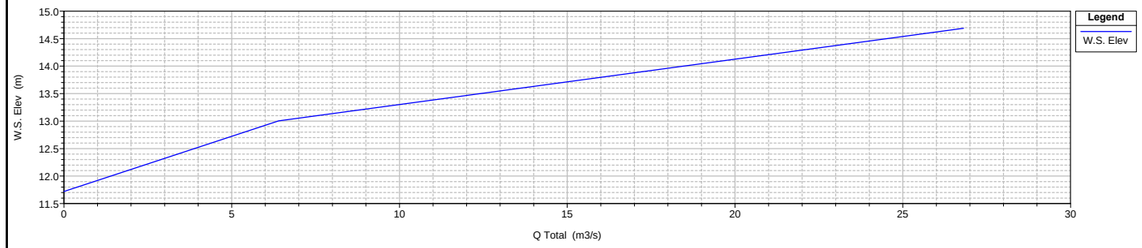
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1530 Culv



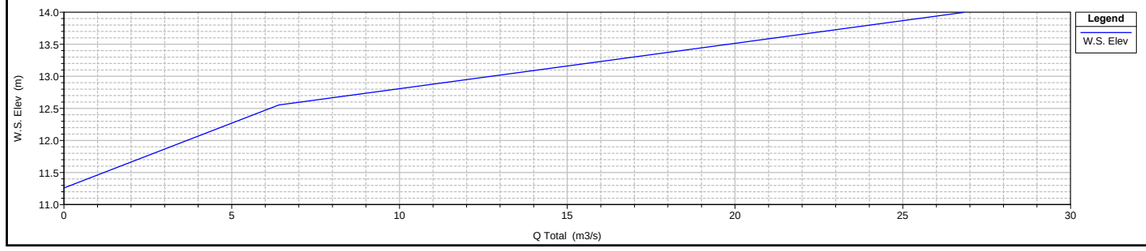
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1508.618



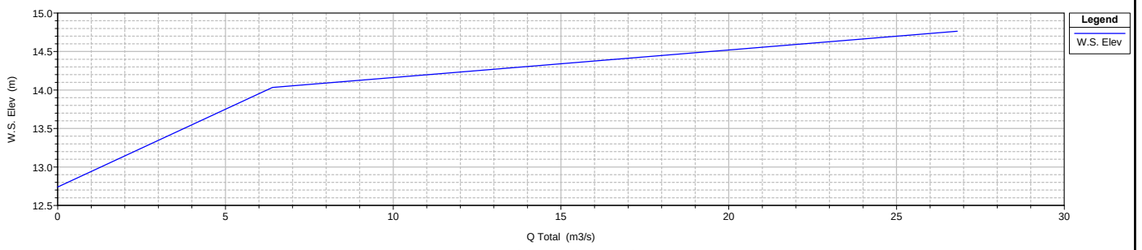
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1468.900



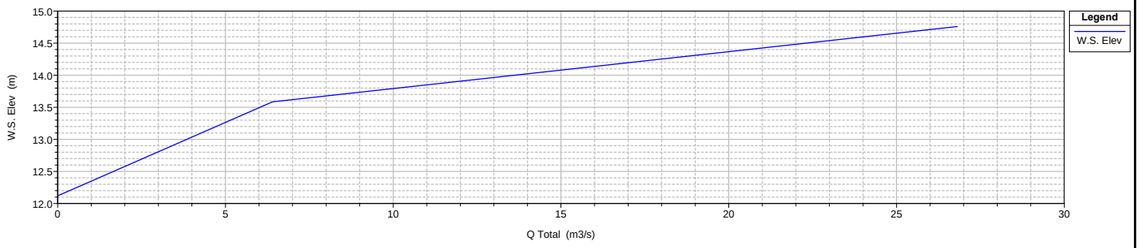
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1418.248



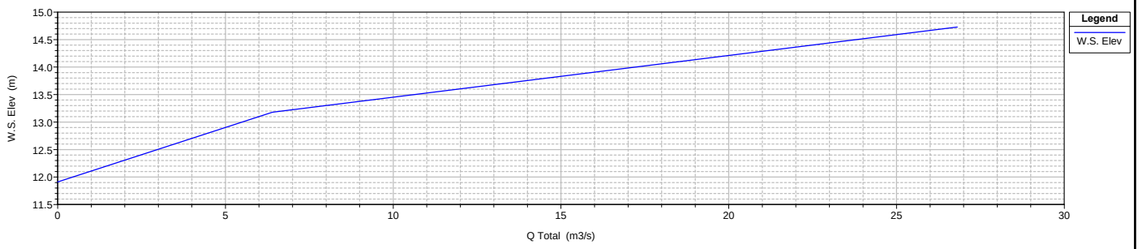
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1530 Culv



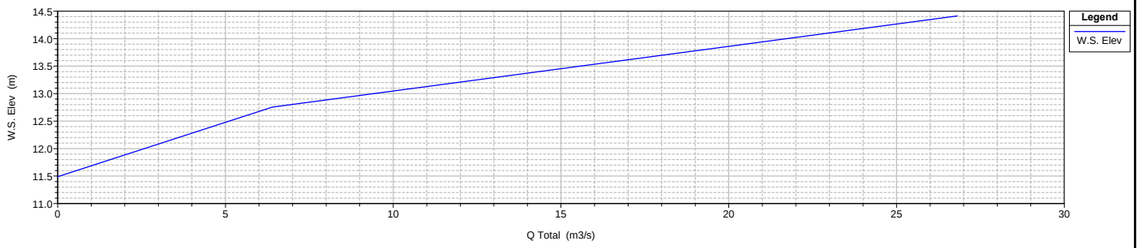
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1522.209



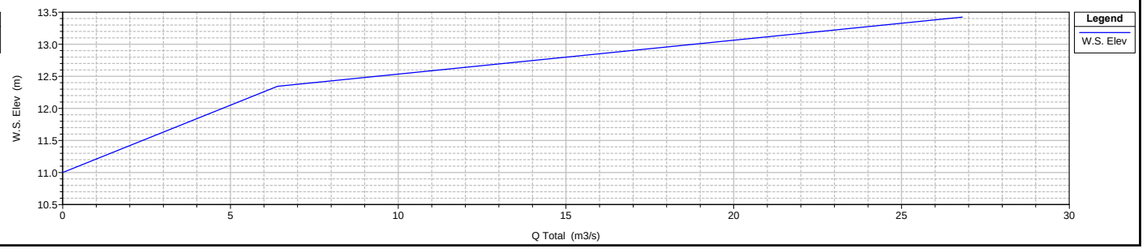
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1489.793



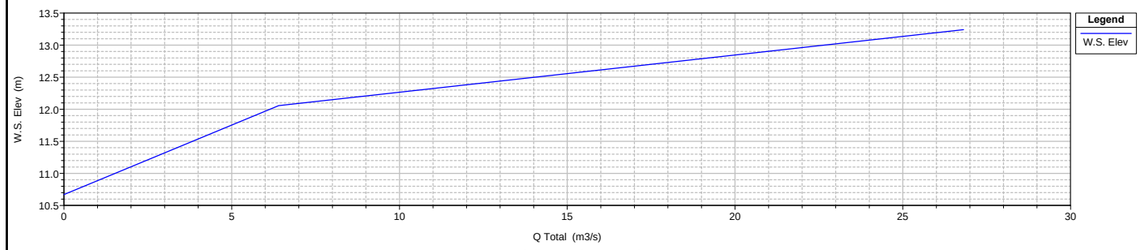
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1443.099



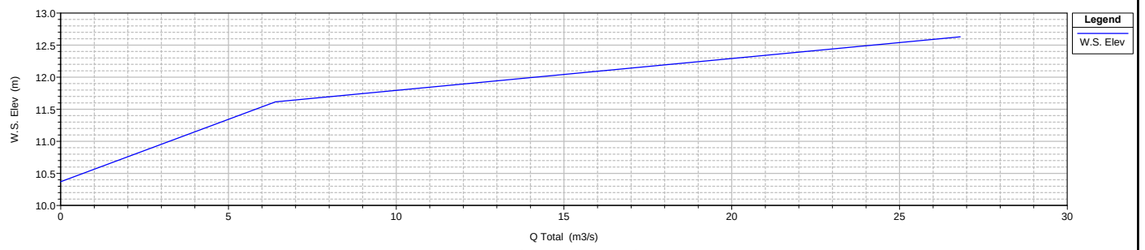
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1389.021



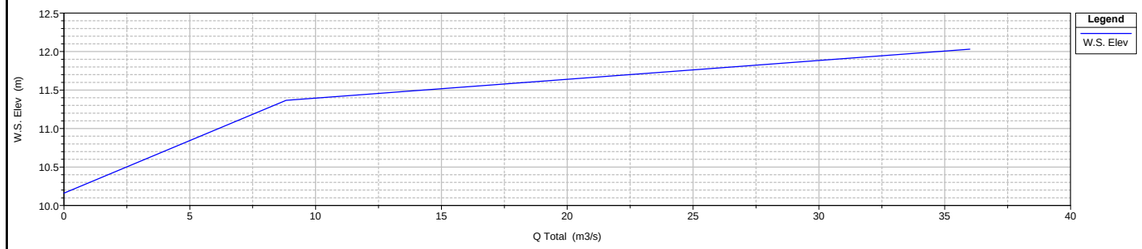
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1347.551



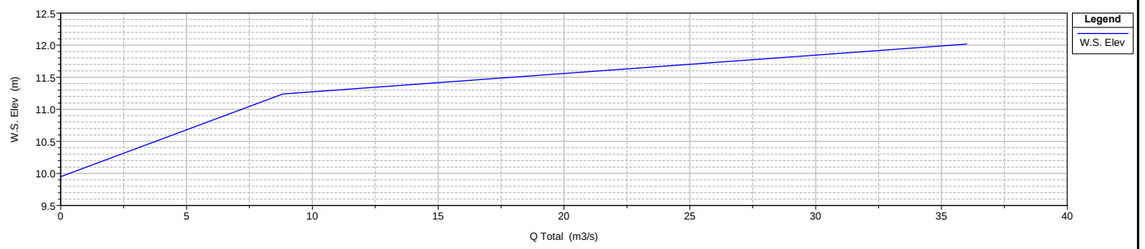
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1308.983



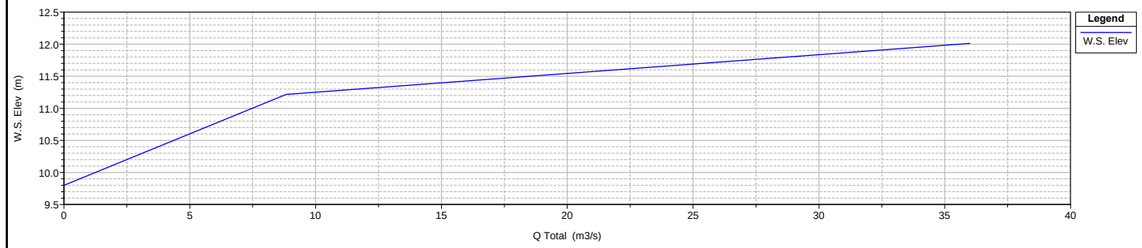
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1282.799



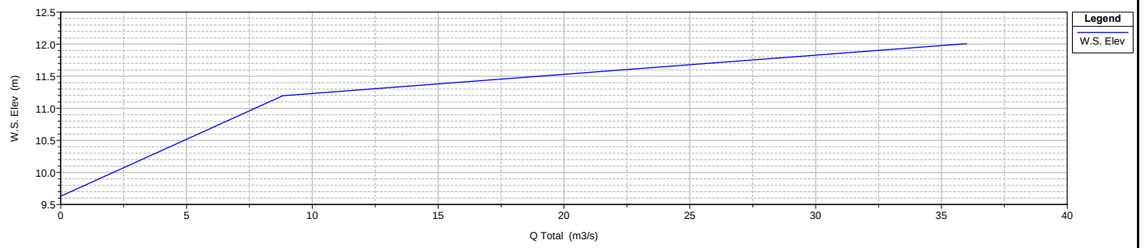
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1255.224



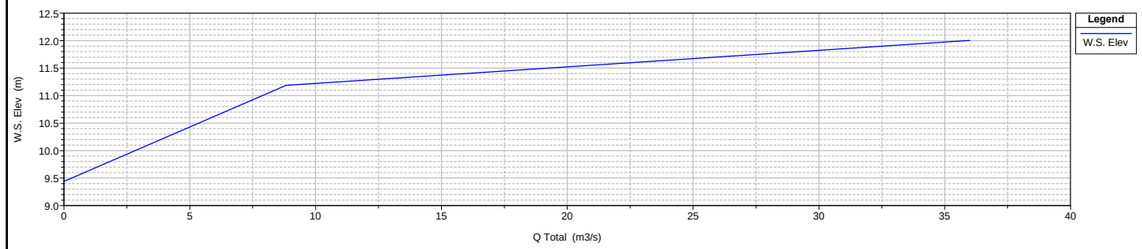
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1235.735



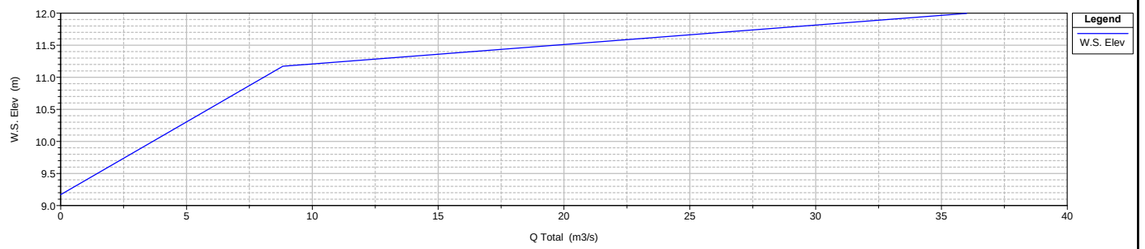
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1213.838



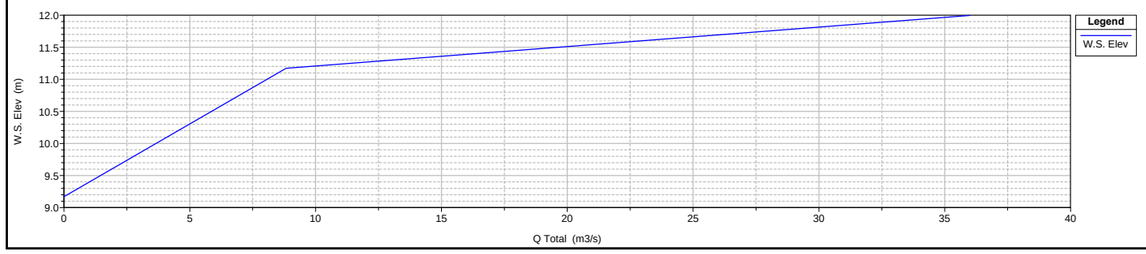
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1189.571



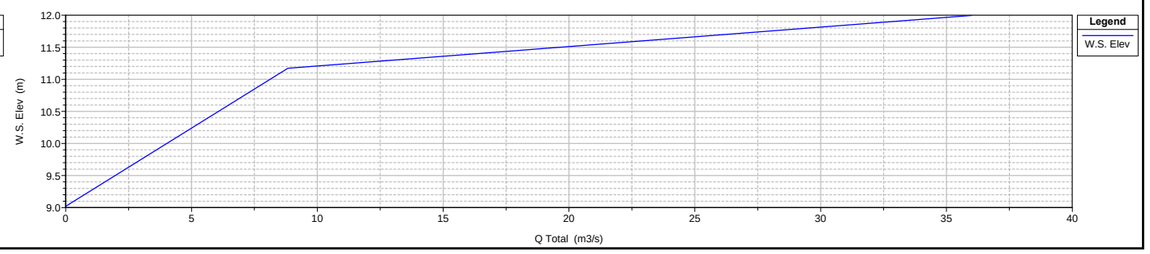
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1154.857



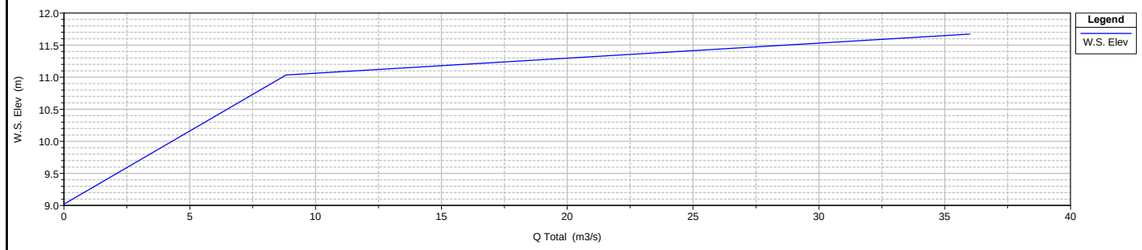
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1150 Culv ODT 5



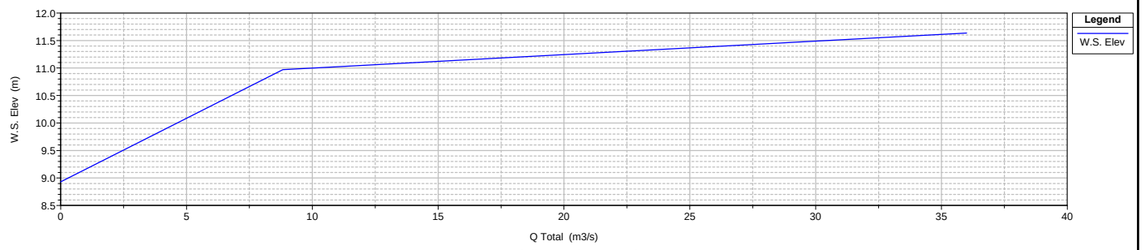
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1150 Culv ODT 5



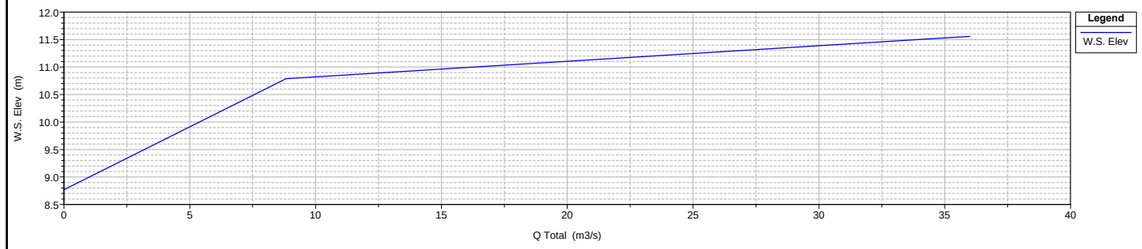
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1136.232



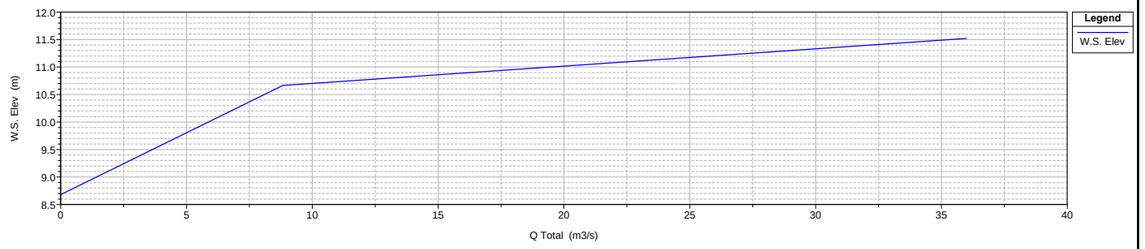
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1116.615



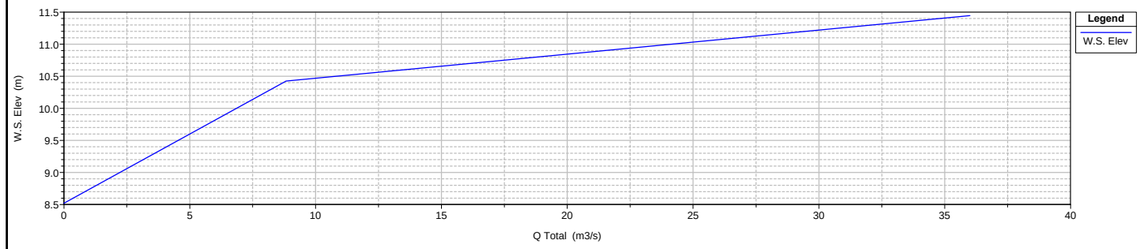
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1076.127



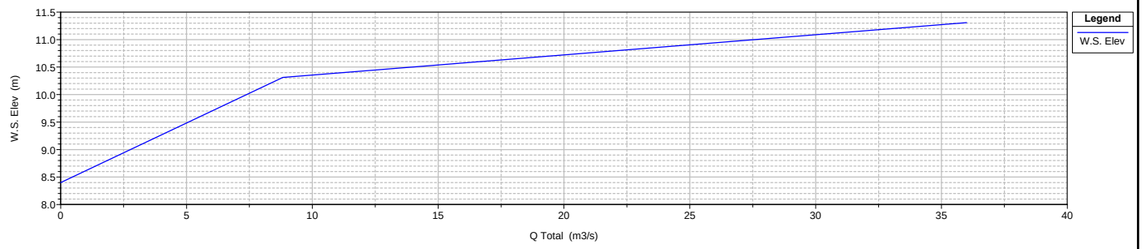
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1053.136



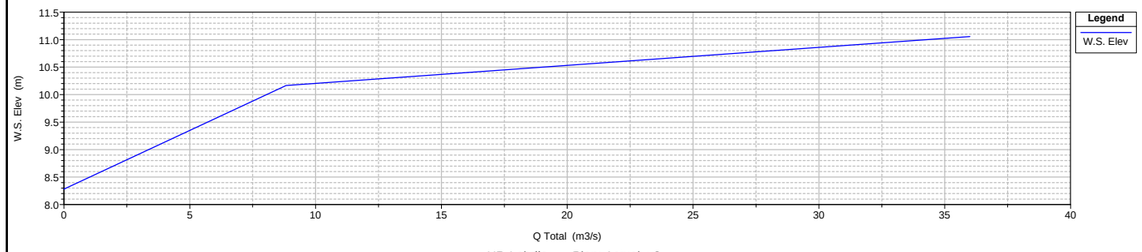
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 1011.713



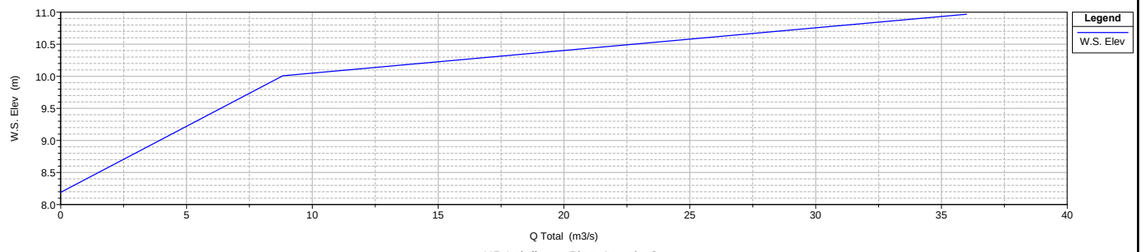
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 982.4587



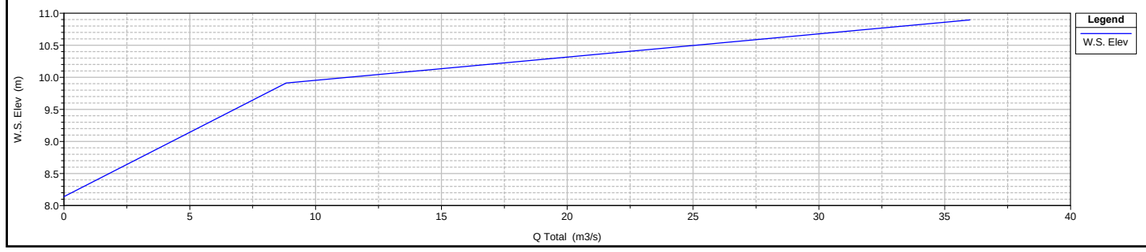
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 949.6408



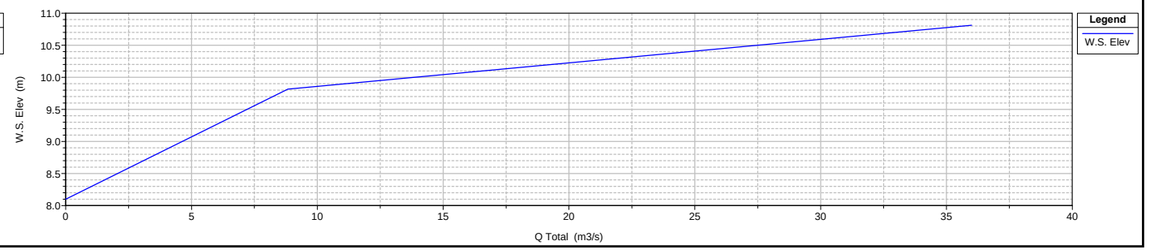
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 927.2091



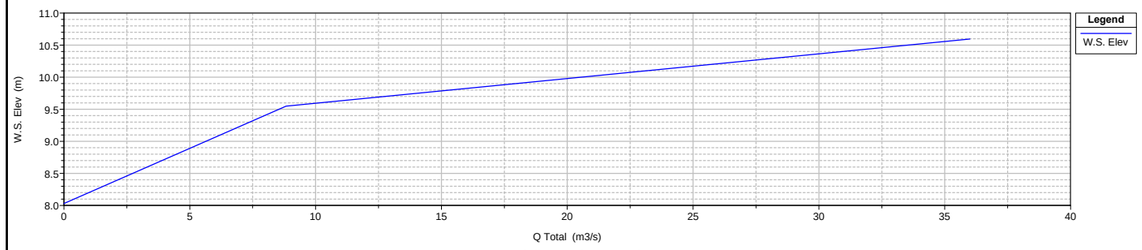
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 915.5645



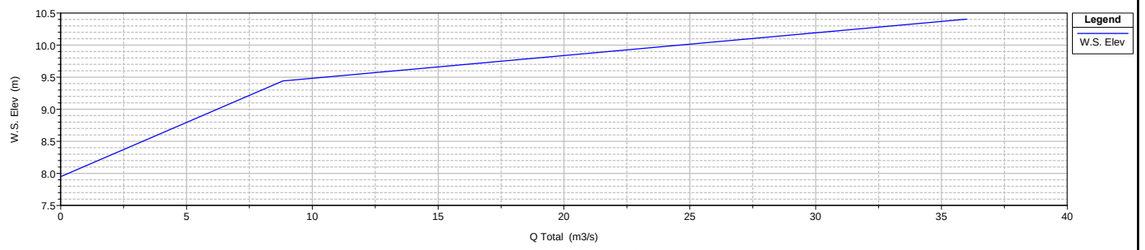
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 905.6098



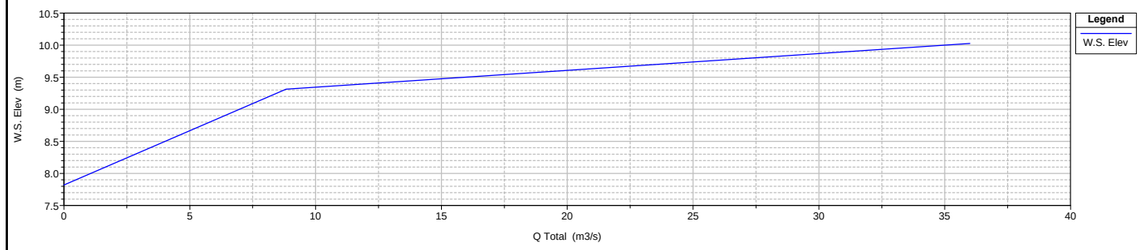
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 886.7251



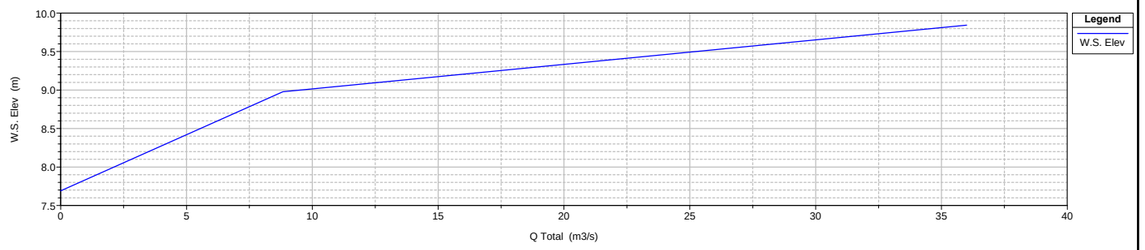
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 870.6595



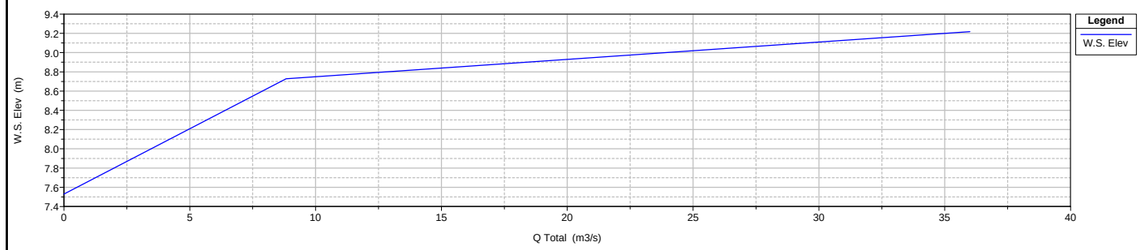
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 849.4680



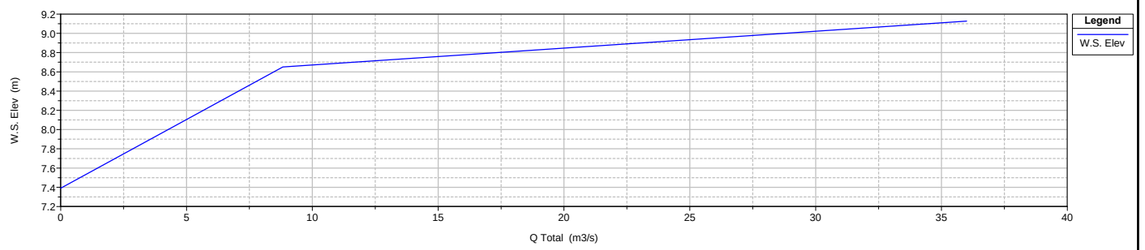
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 829.0050



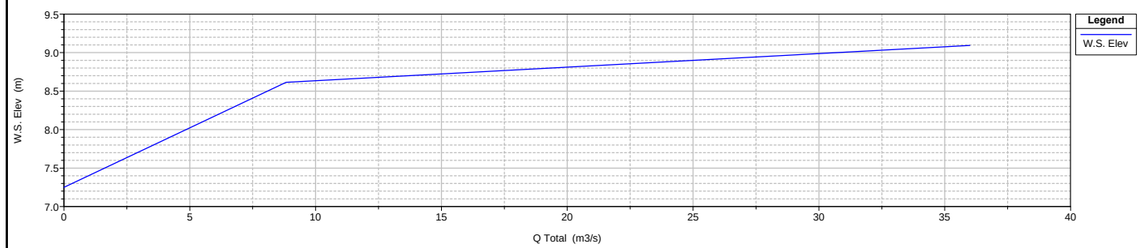
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 802.7340



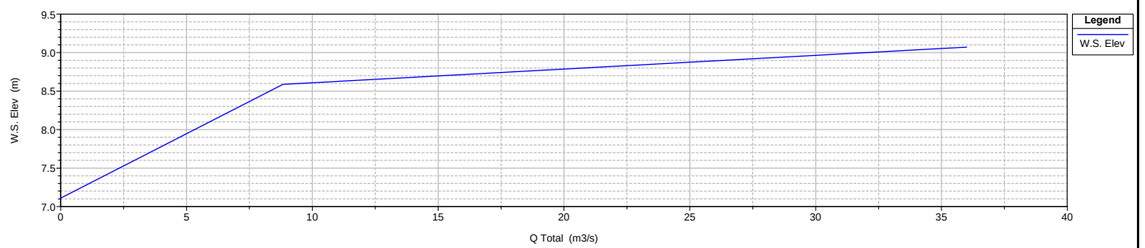
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 778.2098



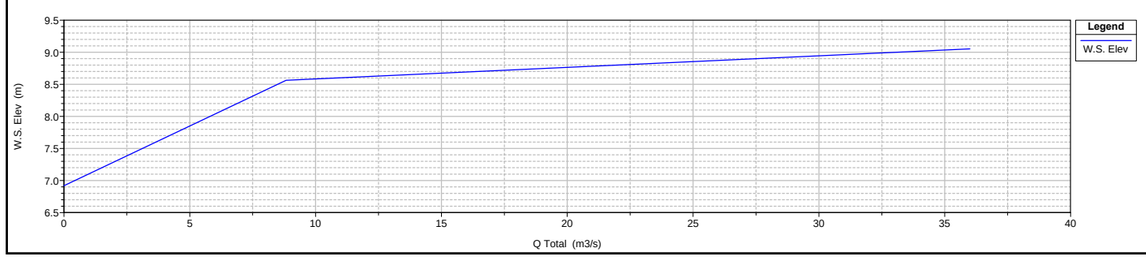
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 754.9577



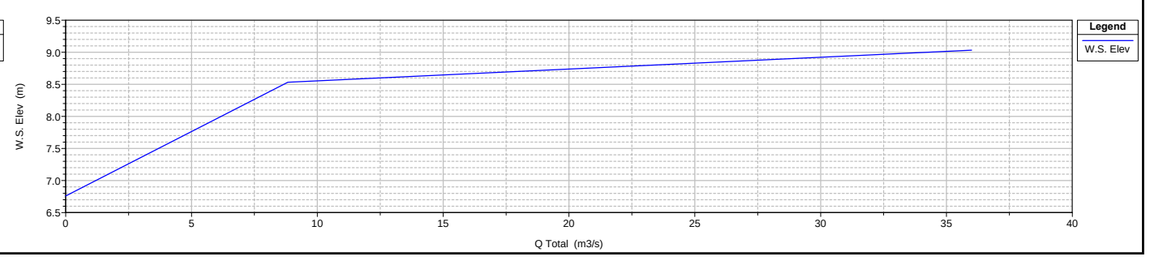
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 732.7650



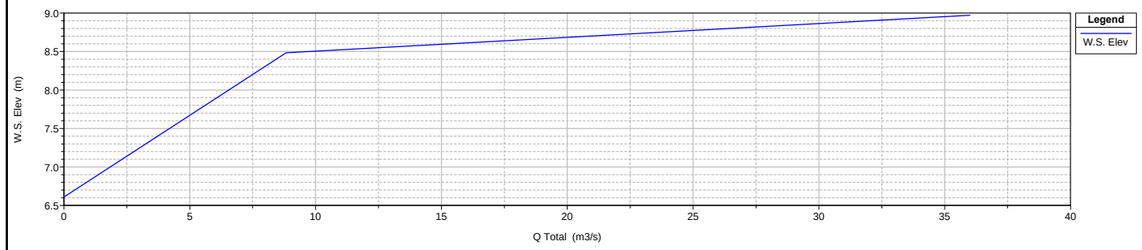
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 699.8298



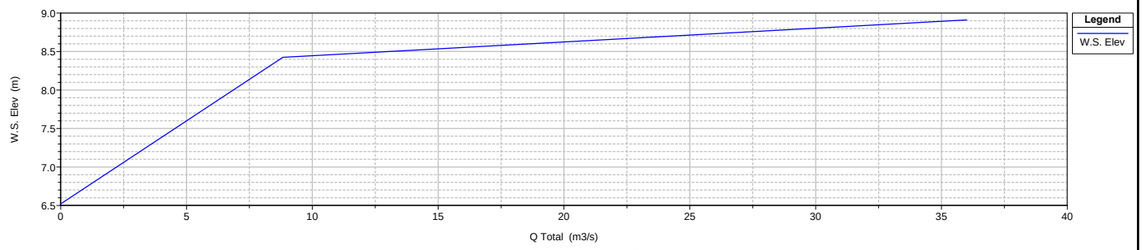
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 670.8853



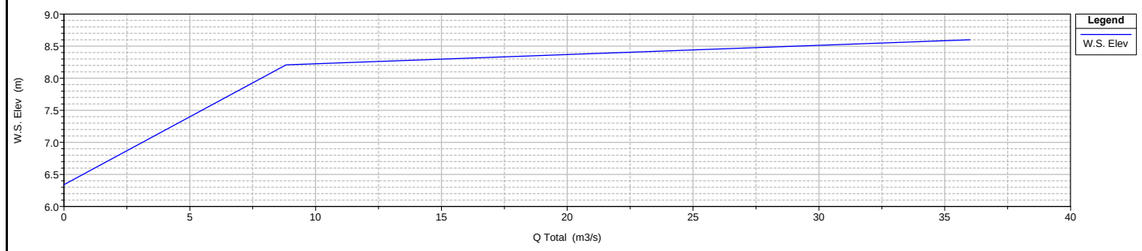
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 643.7293



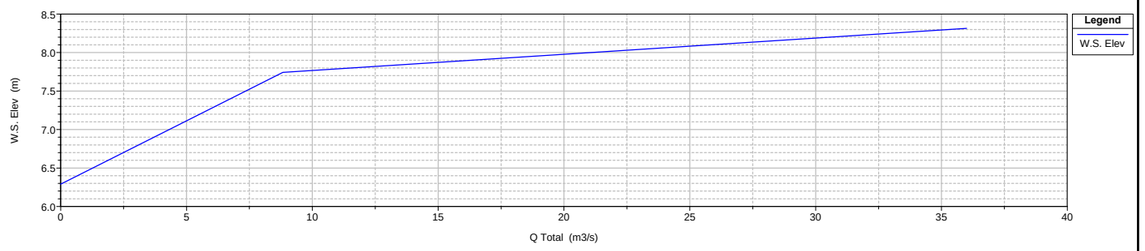
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 627.1081



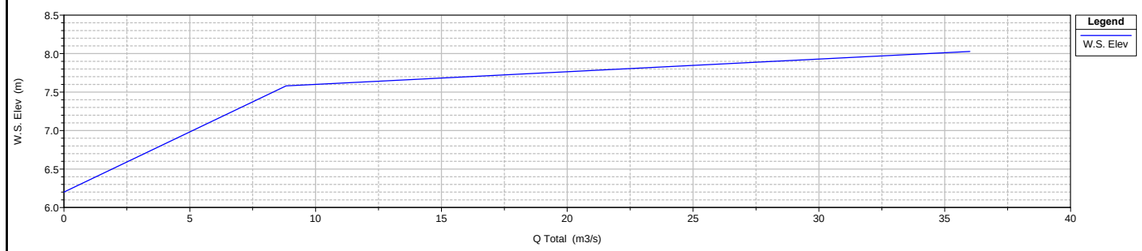
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 595.2490



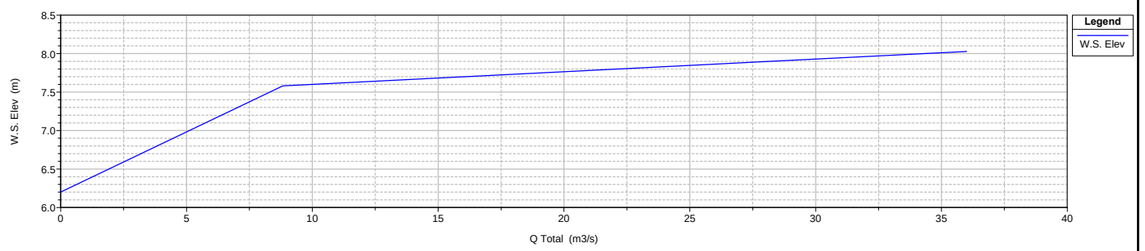
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 585.0177



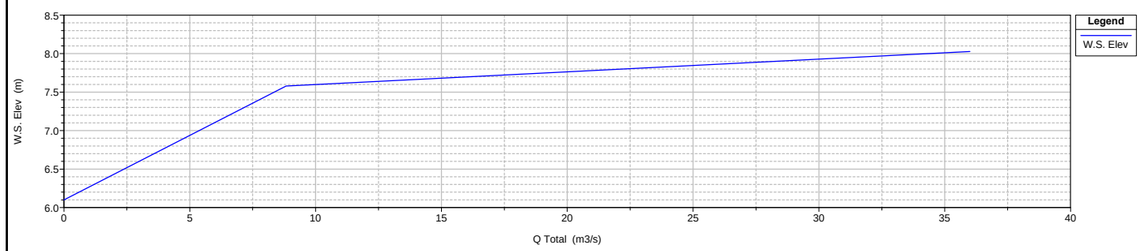
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 569.7507



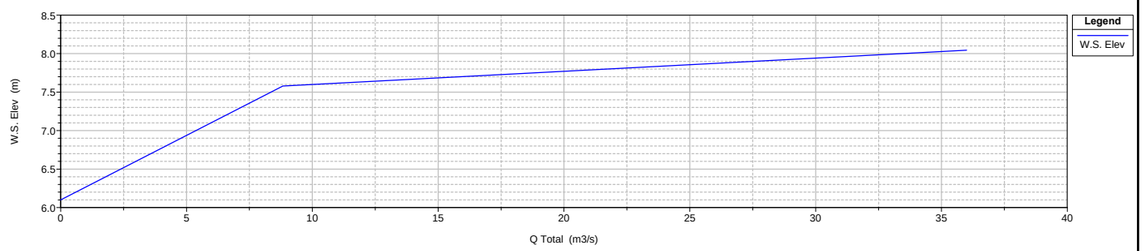
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 560 Culv ODT 4.1



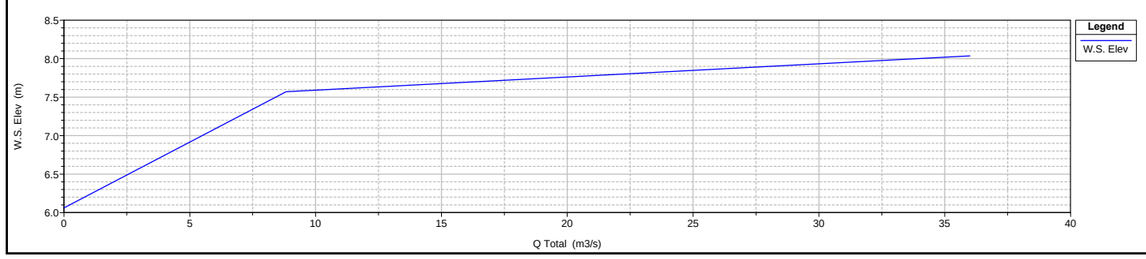
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 560 Culv ODT 4.1



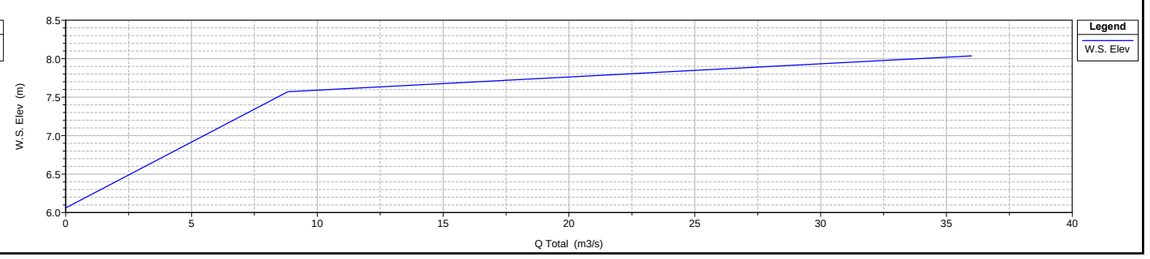
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 552.0597



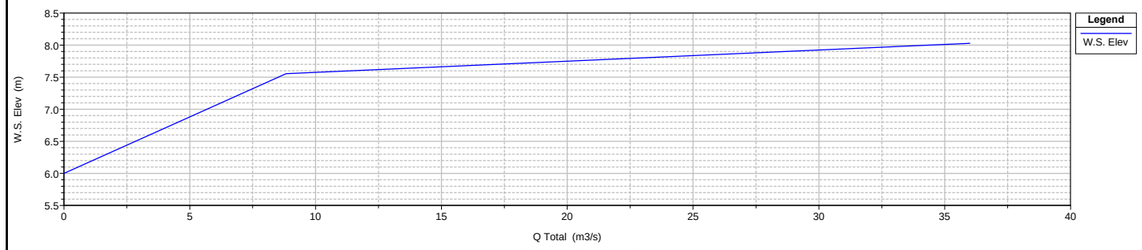
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 544.8601



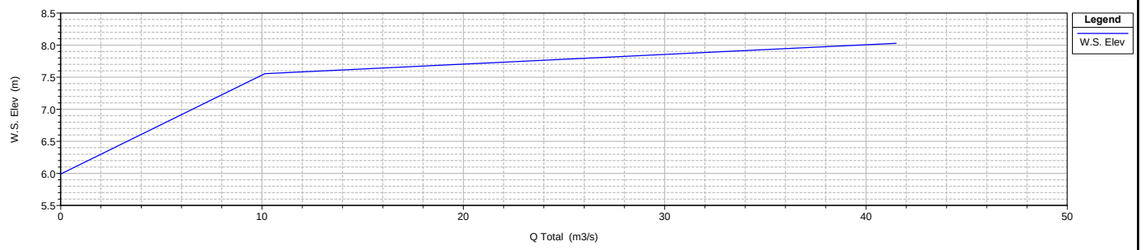
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 540 Culv ODT 4.2



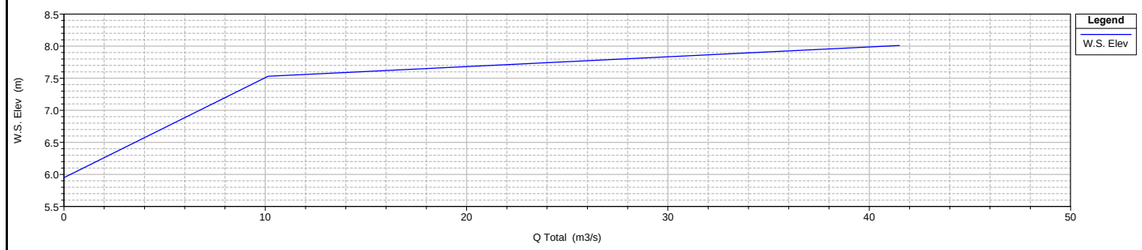
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 540 Culv ODT 4.2



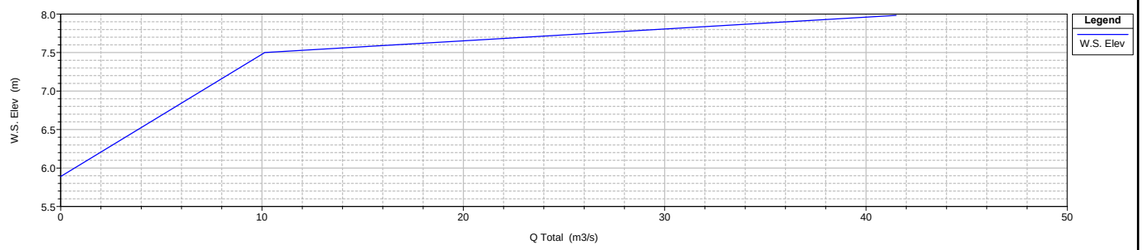
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 529.9171



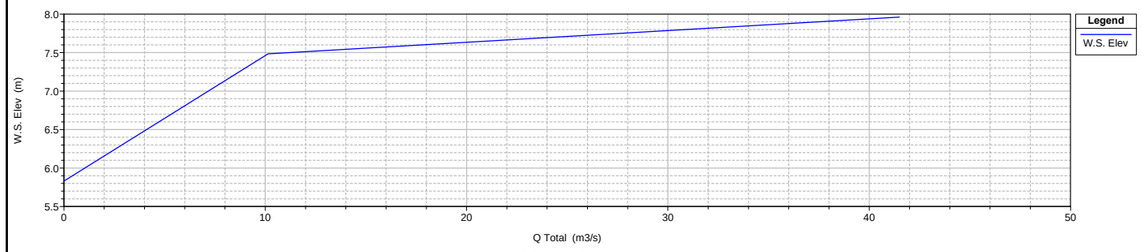
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 507.1692



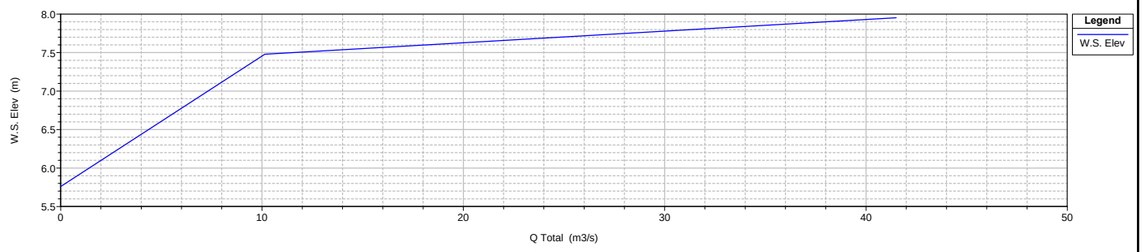
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 480.6490



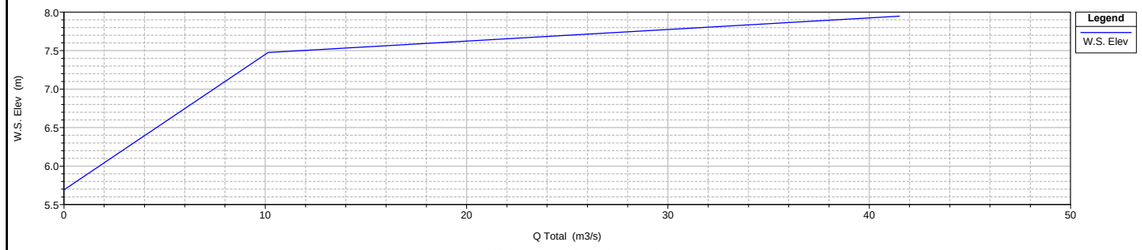
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 451.3865



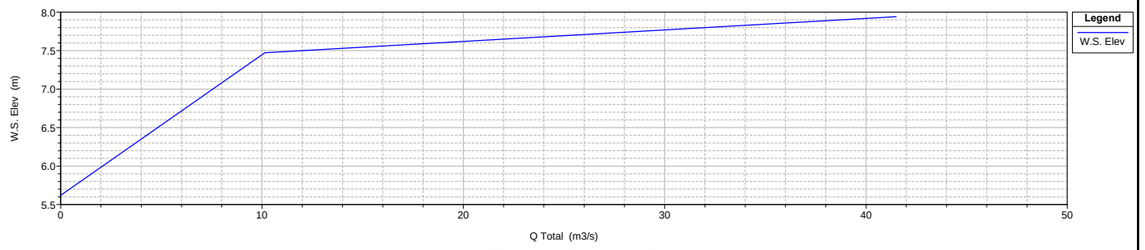
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 420.2550



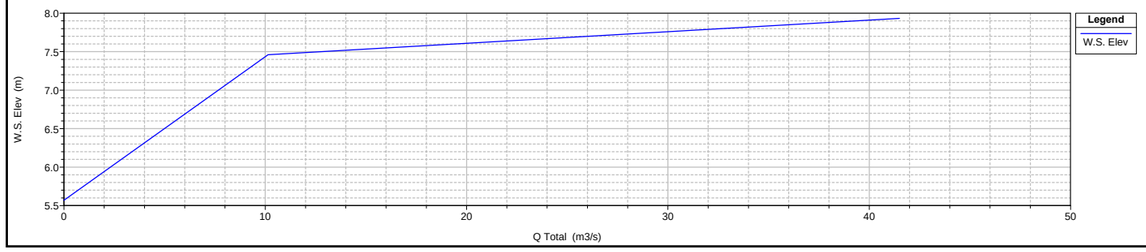
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 385.2368



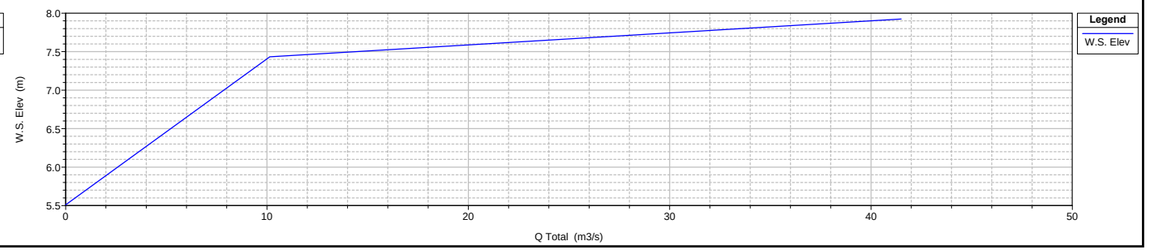
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 353.1833



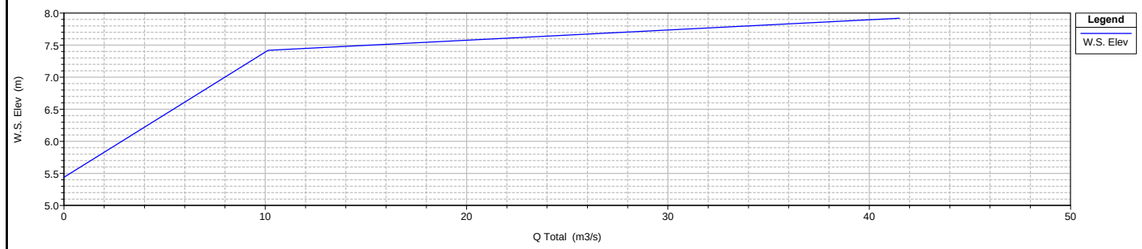
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 326.0251



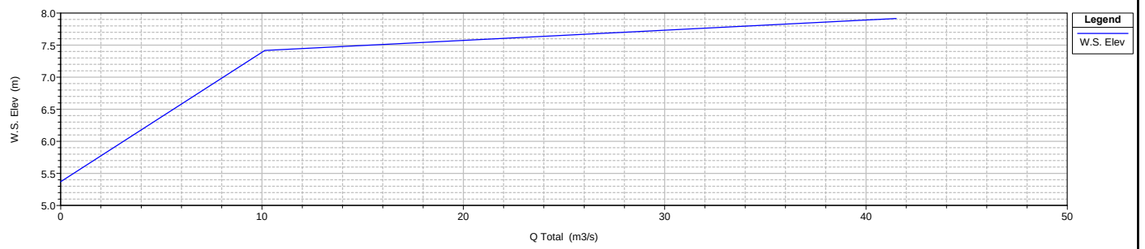
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 297.1317



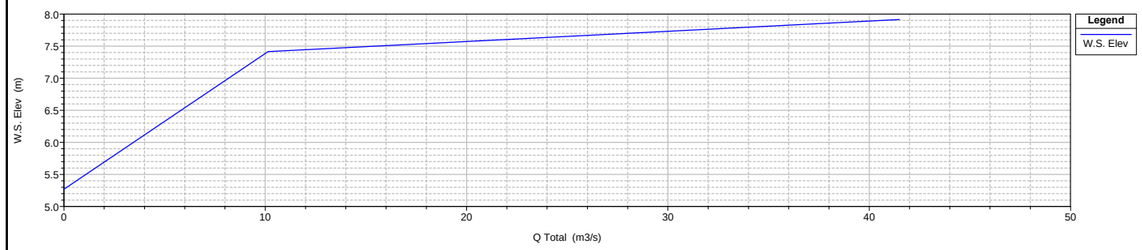
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 265.4205



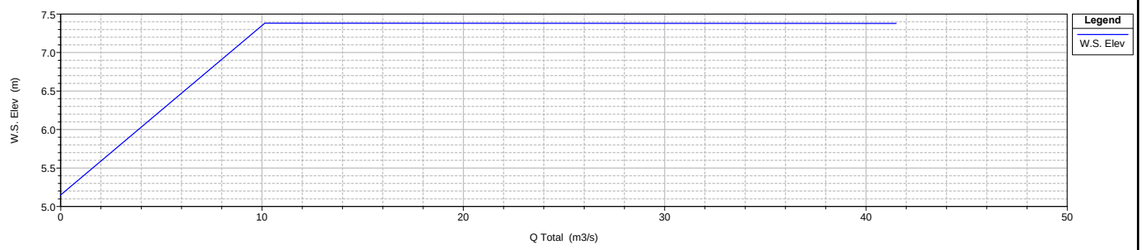
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 229.9372



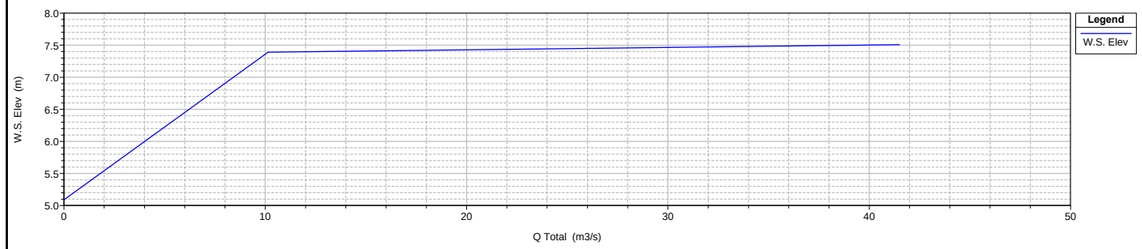
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 184.8676



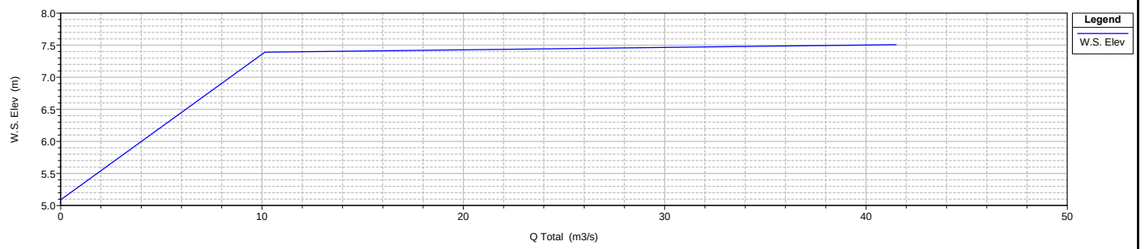
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 123.7851



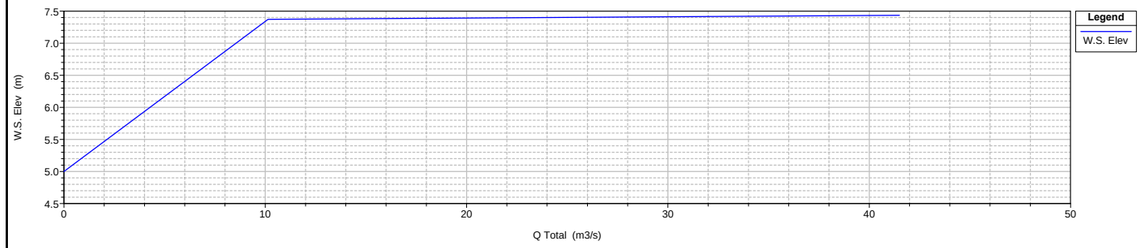
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 95.36573



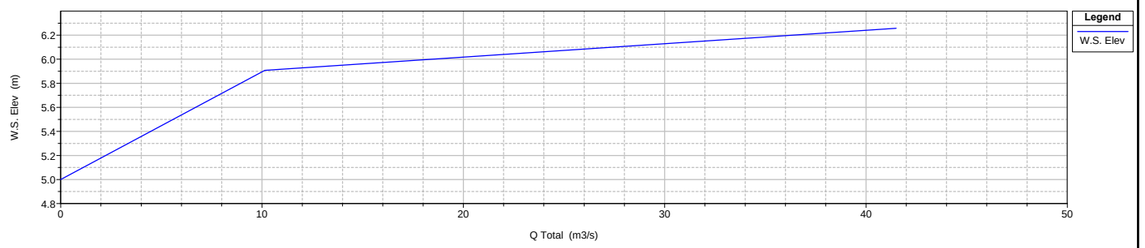
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 60 Culv ODT 1 Y ODT 2



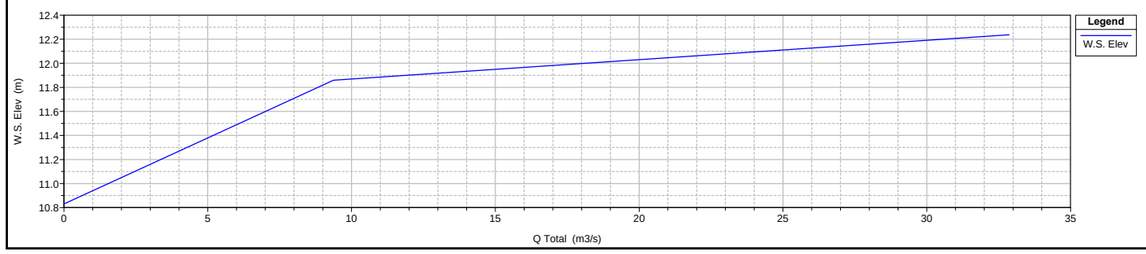
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 60 Culv ODT 1 Y ODT 2



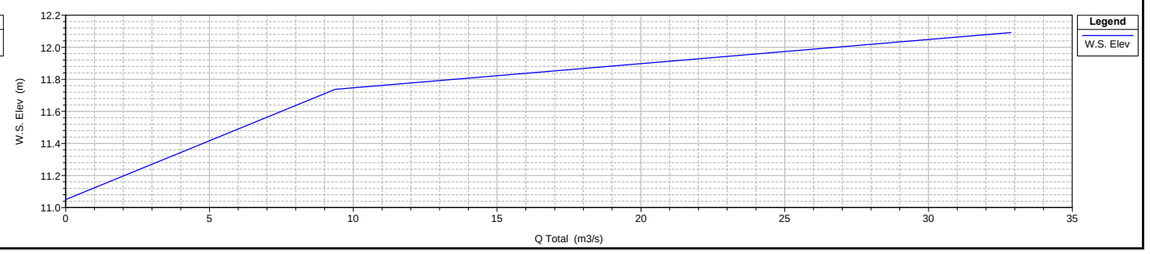
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_1 Reach = Actual_1 RS = 49.98656



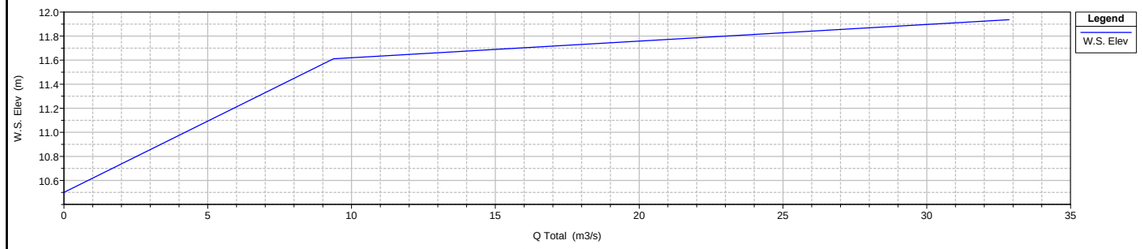
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 871.0108



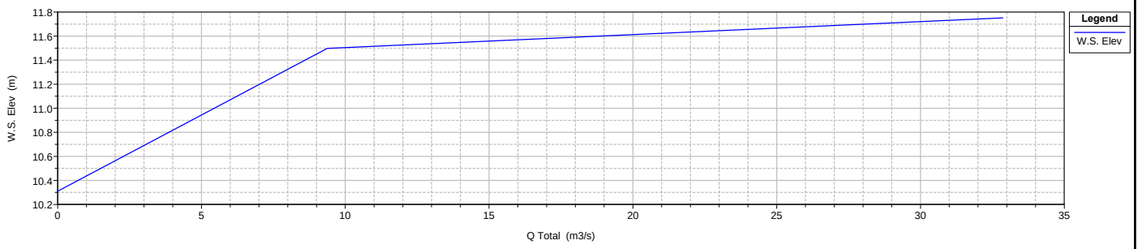
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 860.5756



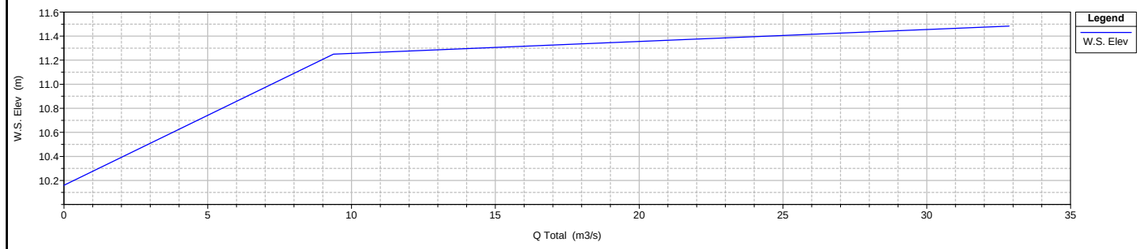
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 849.1740



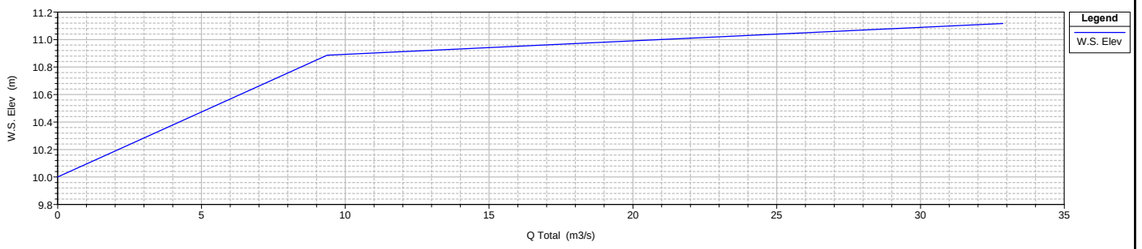
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 834.6162



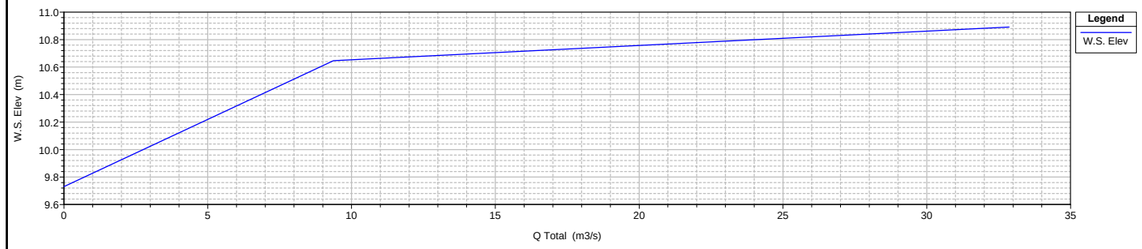
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 824.4382



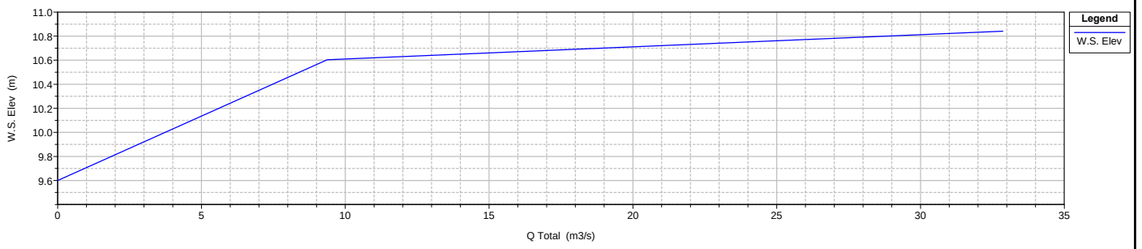
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 810.8468



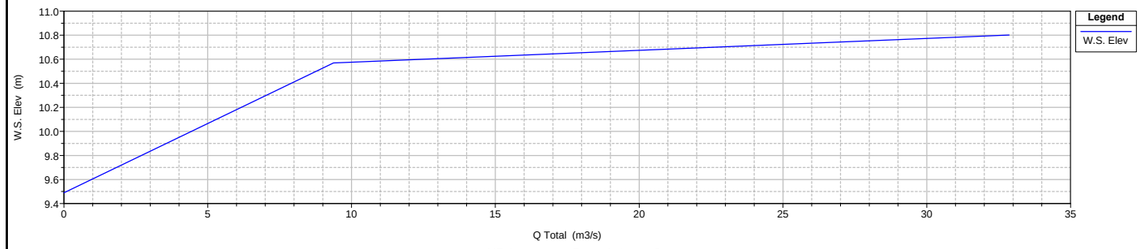
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 787.0773



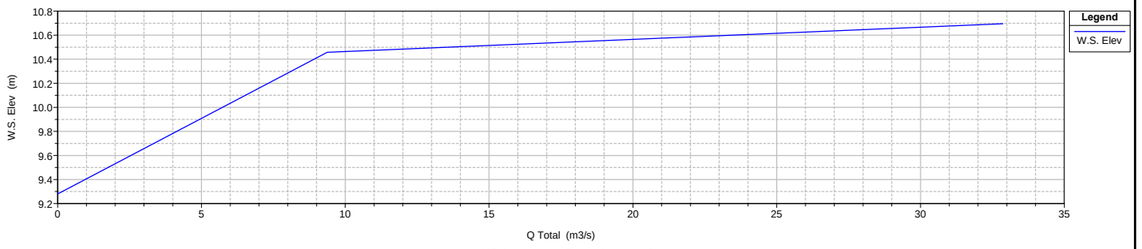
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 775.6758



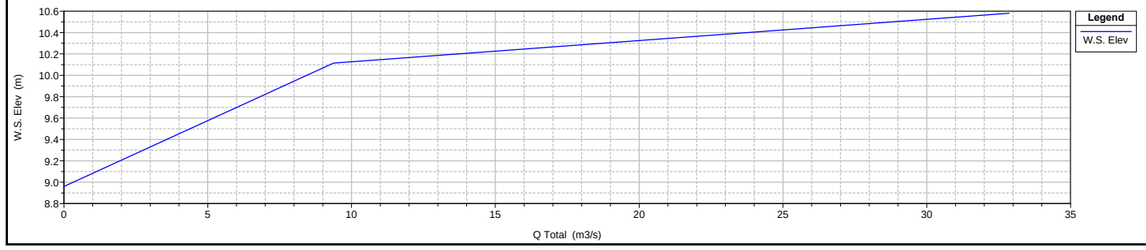
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 764.2742



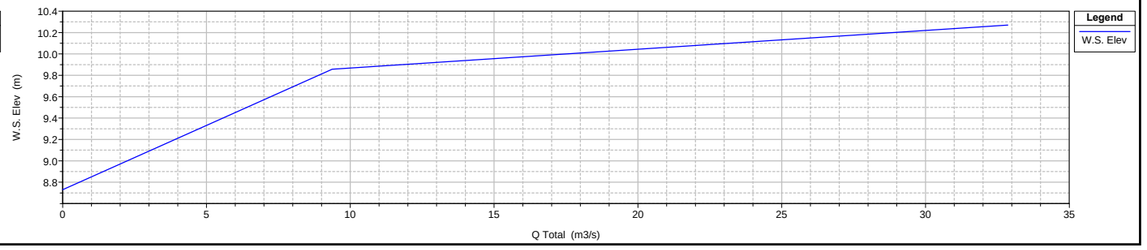
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 736.3858



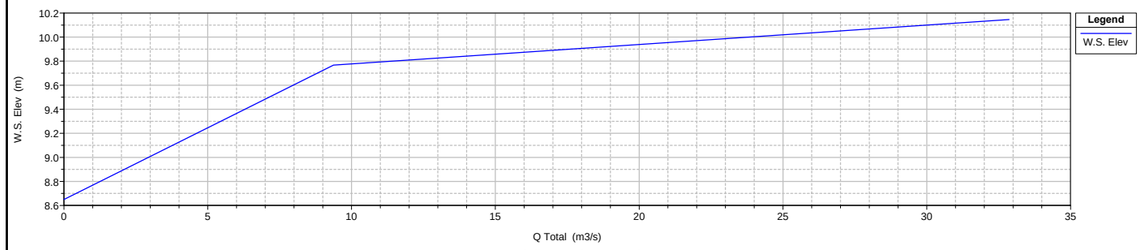
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 717.1134



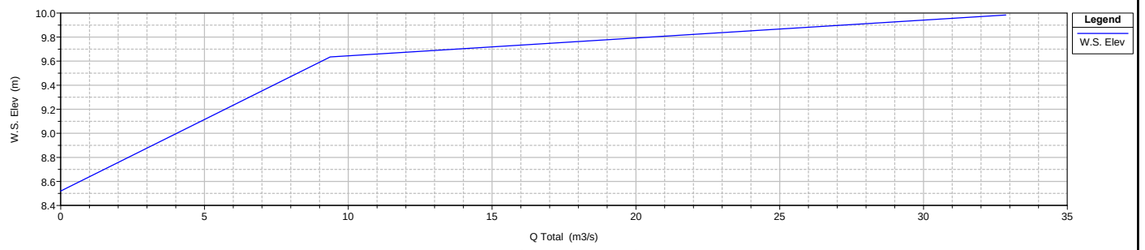
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 693.7692



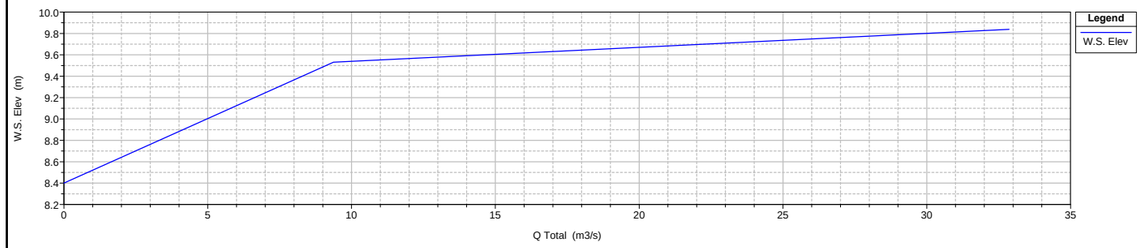
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 683.8718



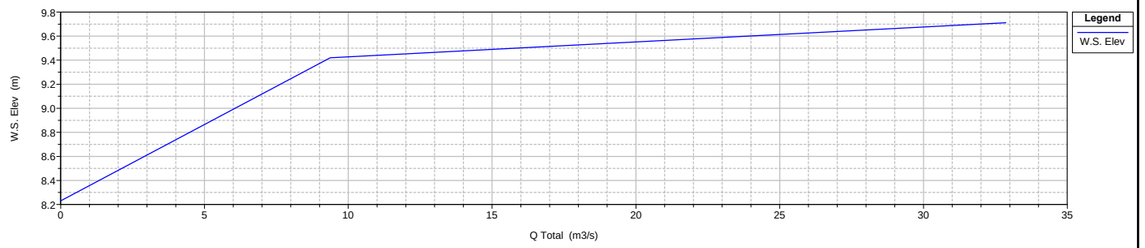
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 663.3554



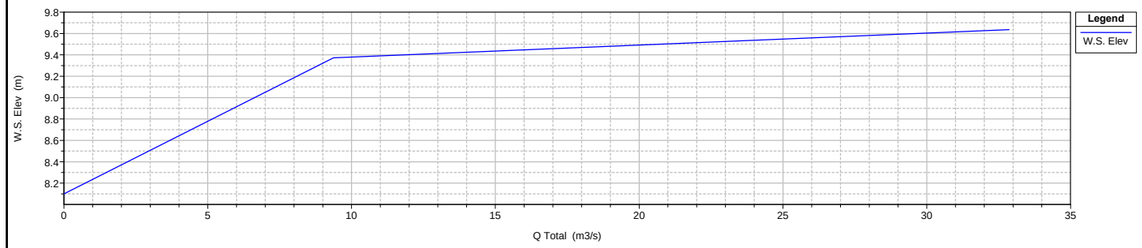
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 646.3886



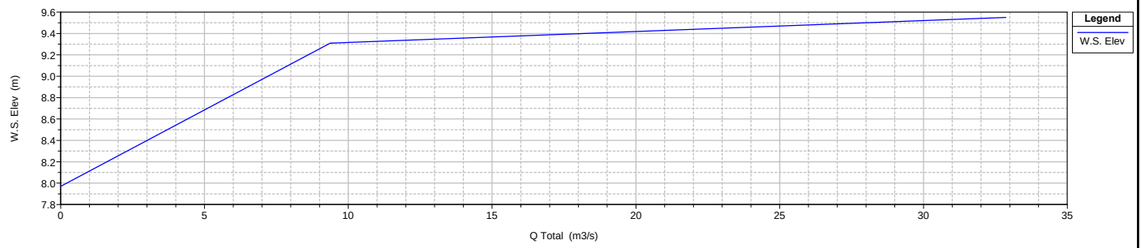
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 620.9087



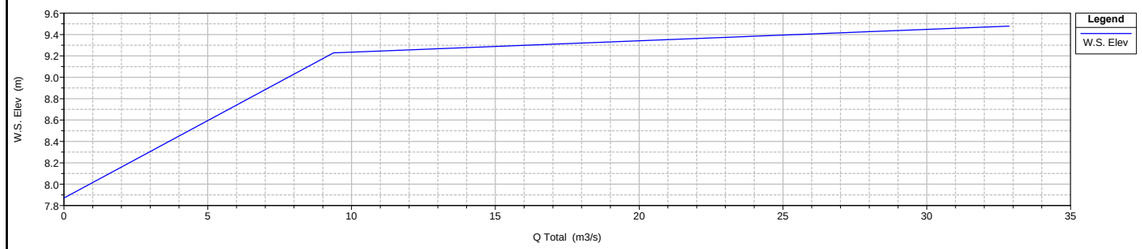
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 598.2863



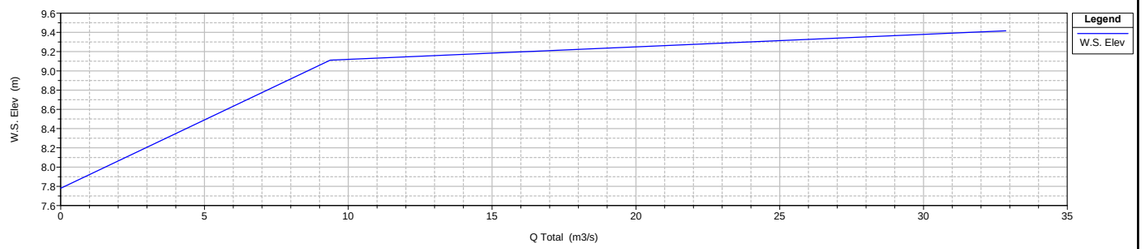
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 577.0777



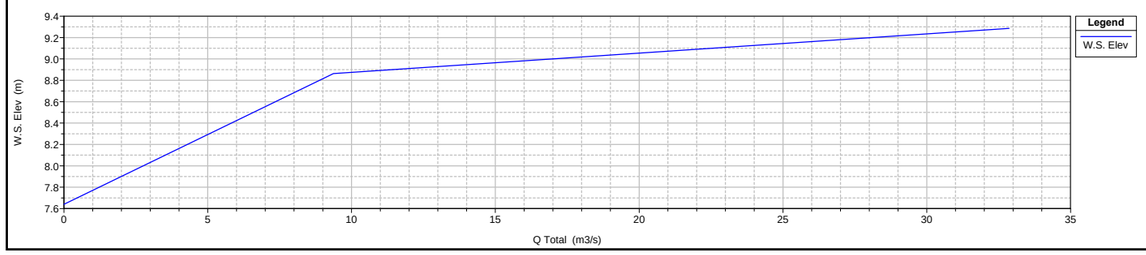
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 565.0447



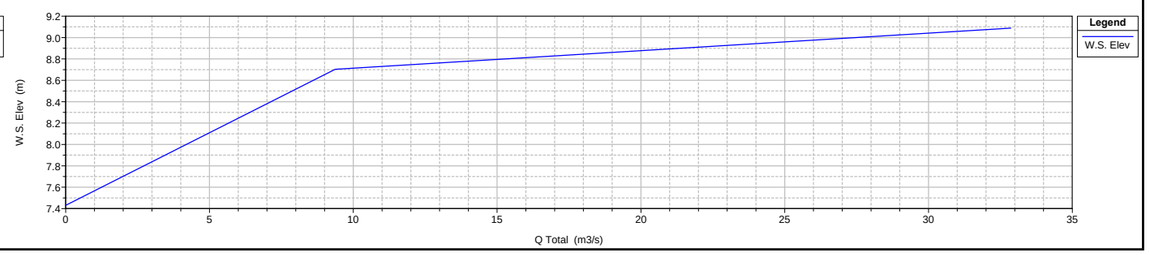
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 553.7349



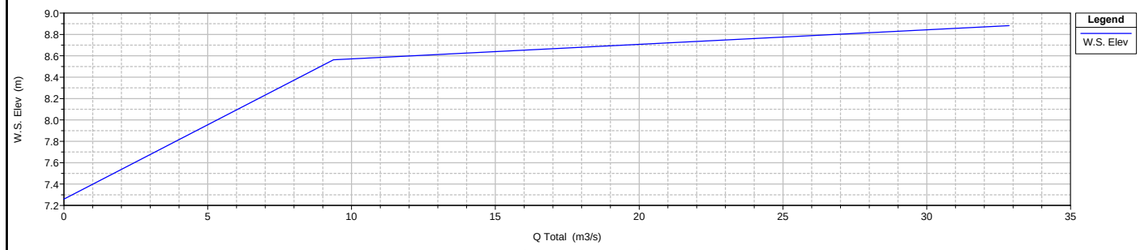
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 534.6314



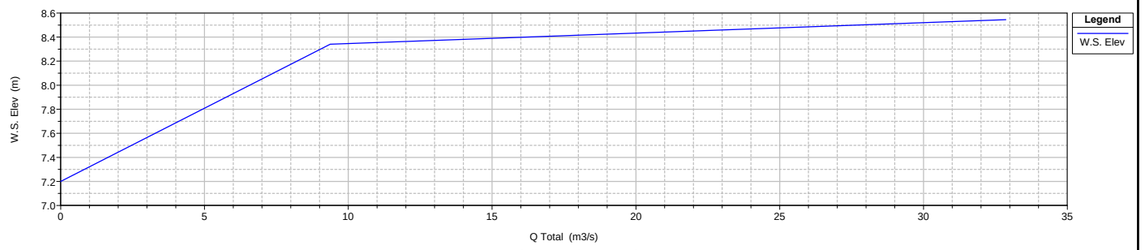
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 509.1368



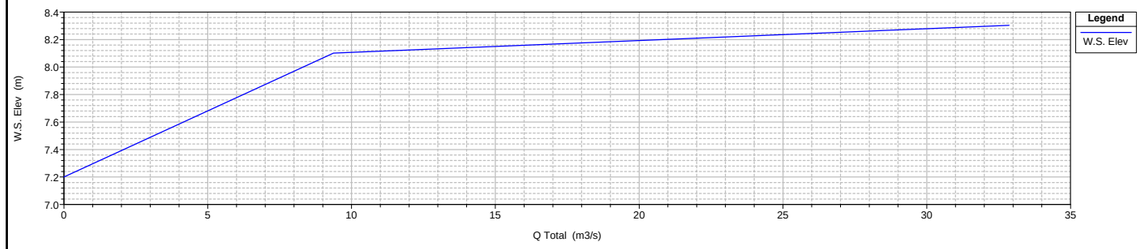
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 485.0546



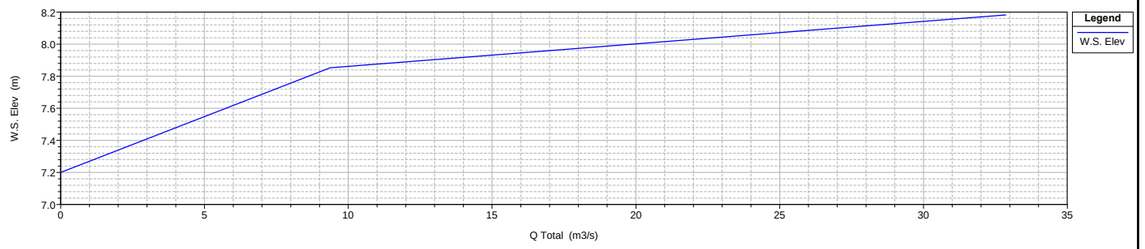
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 460.9725



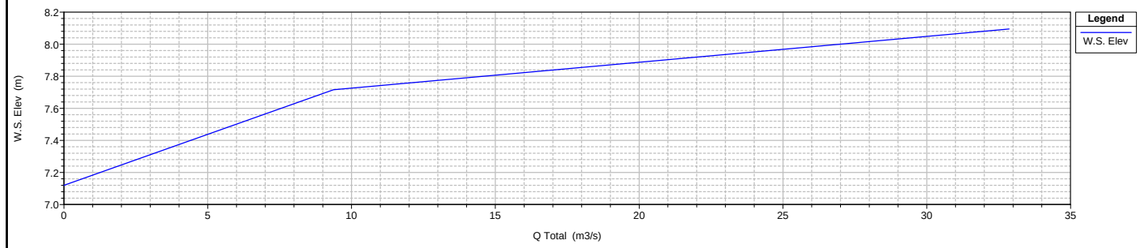
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 441.8690



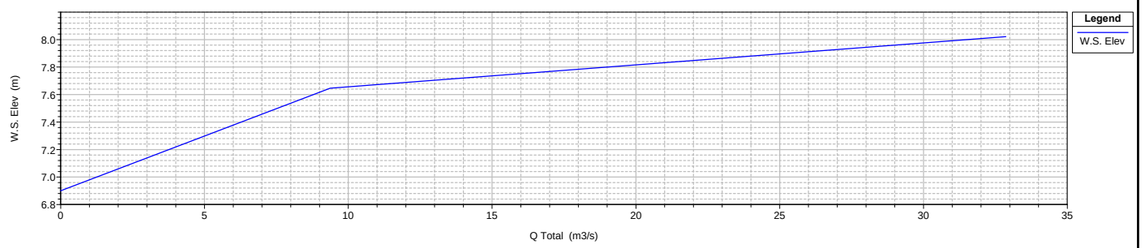
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 418.5280



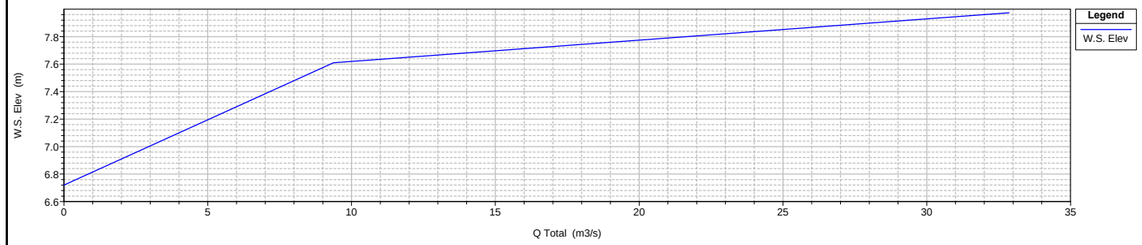
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 395.8584



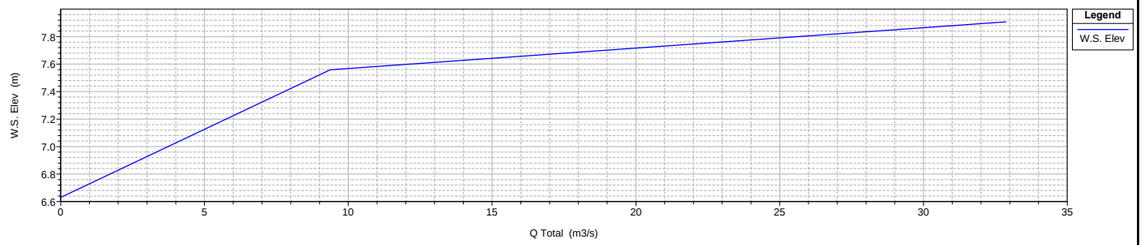
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 373.1887



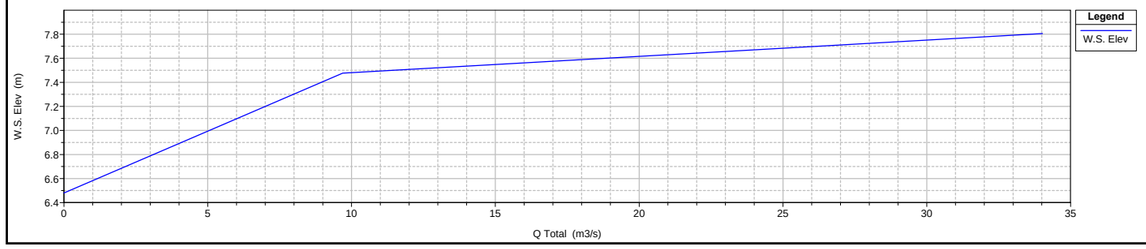
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 354.0852



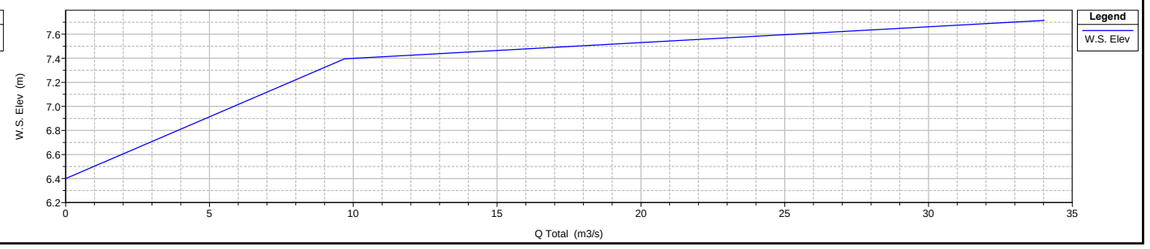
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 332.3934



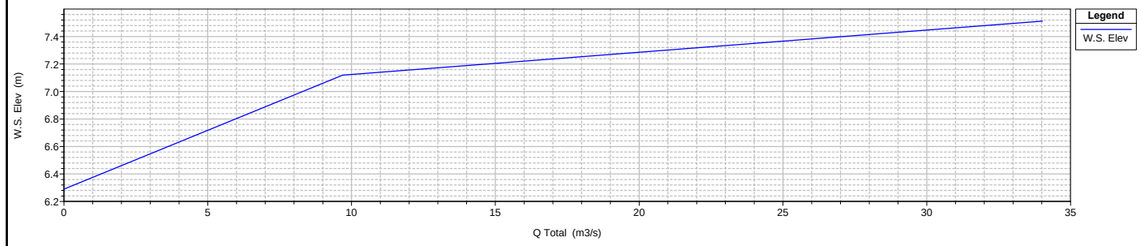
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 309.0579



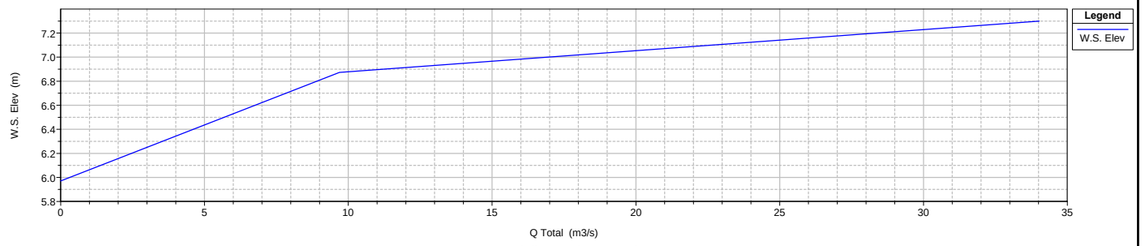
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 295.7206



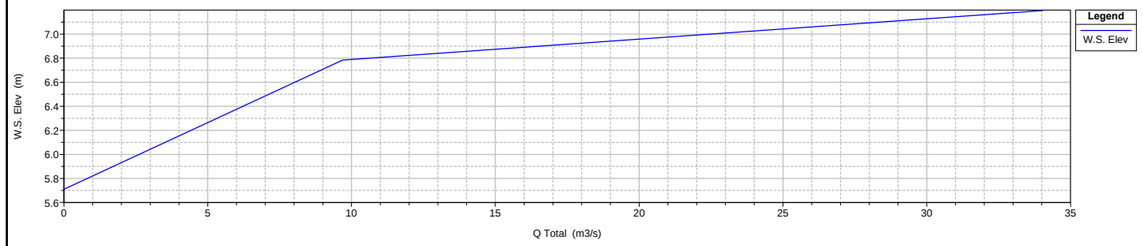
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 274.3449



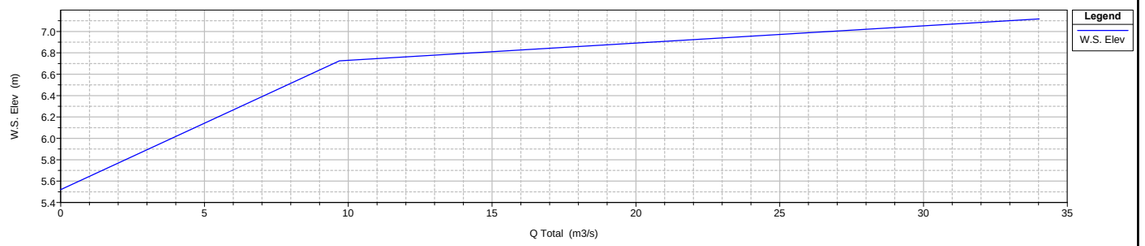
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 252.7693



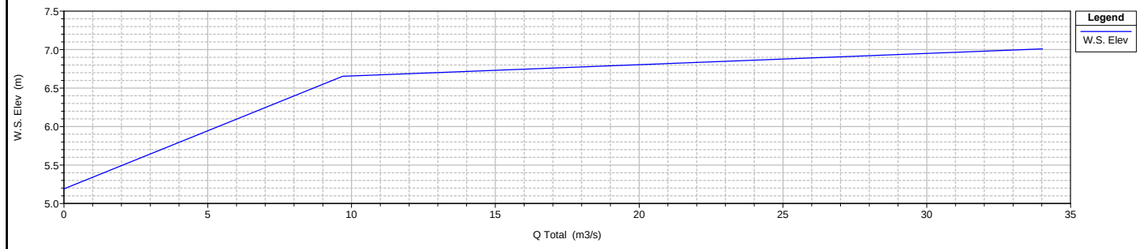
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 230.4201



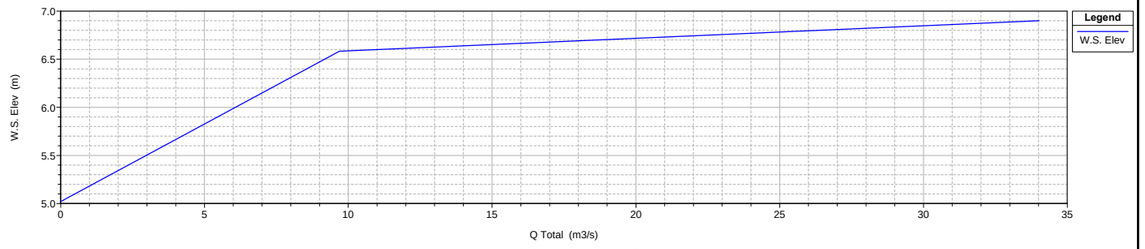
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 207.6205



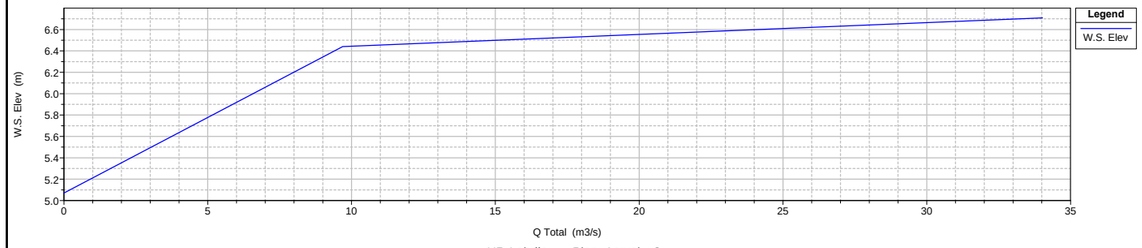
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 182.8820



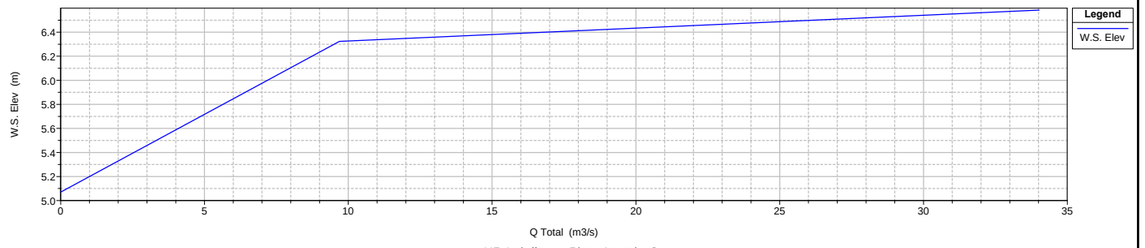
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 163.2360



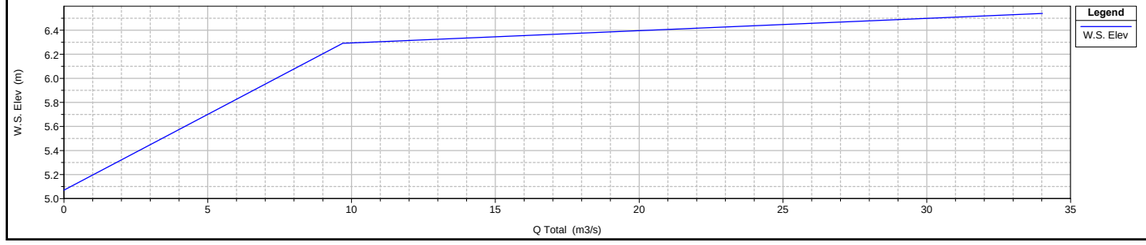
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 137.5280



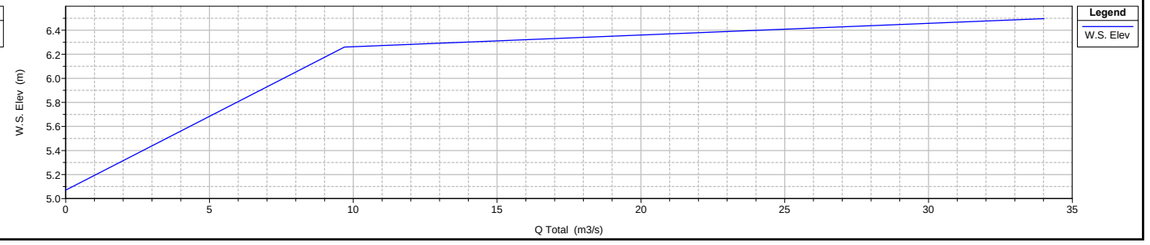
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 113.7589



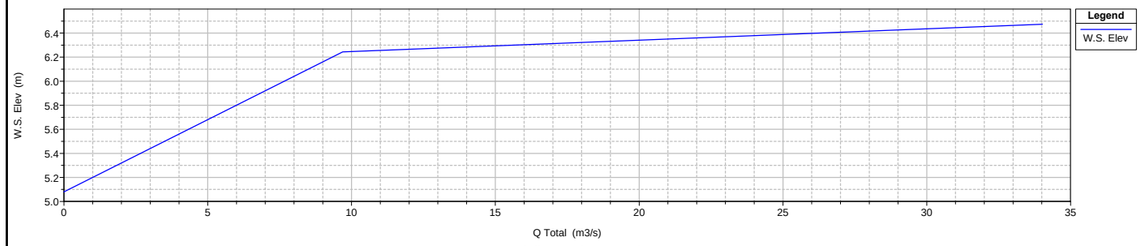
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 96.29712



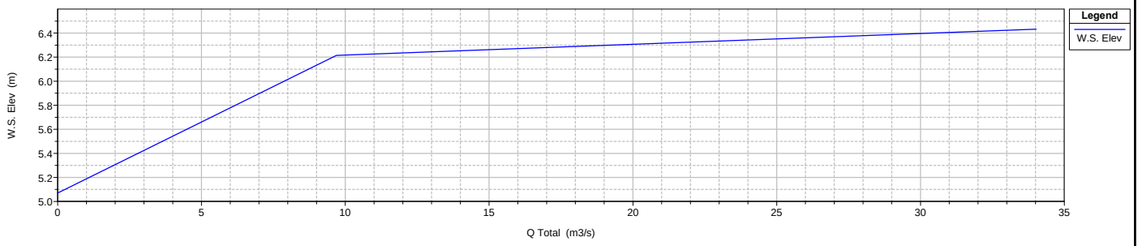
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 78.83528



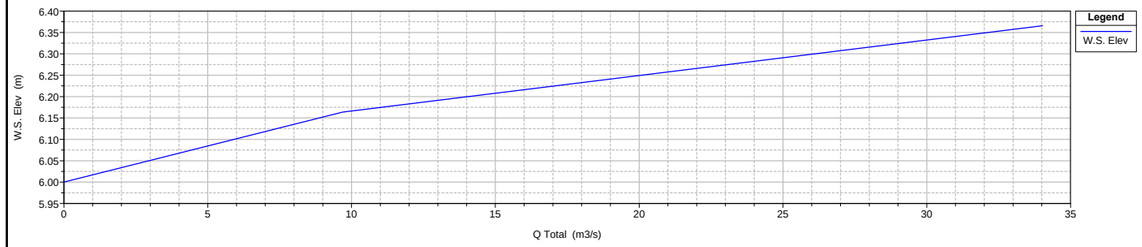
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 70.34394



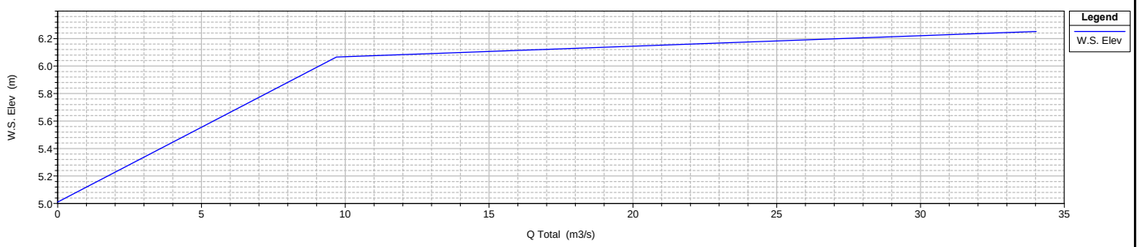
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 57.00518



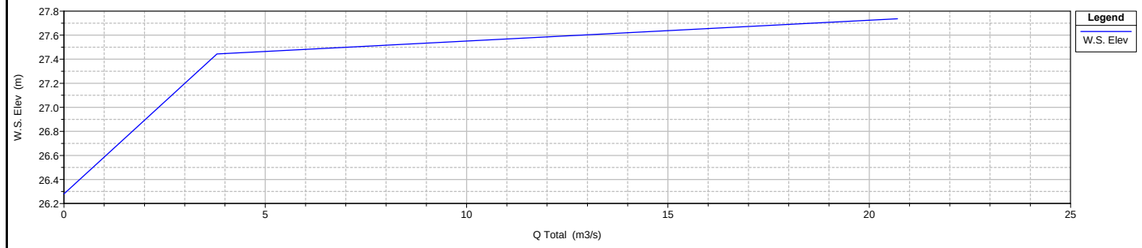
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 40.22435



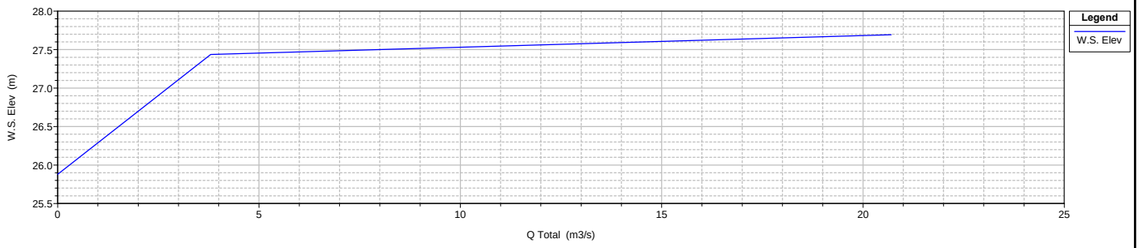
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_2 Reach = Actual_2 RS = 23.02103



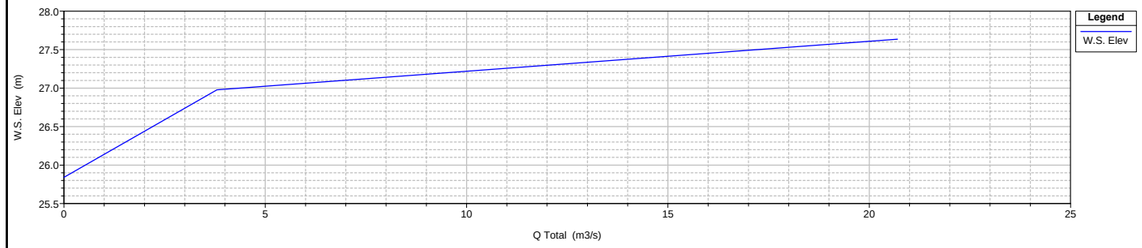
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1280.230



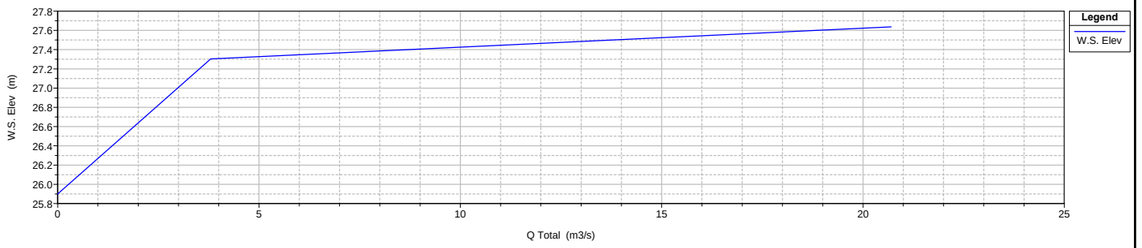
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1260.467



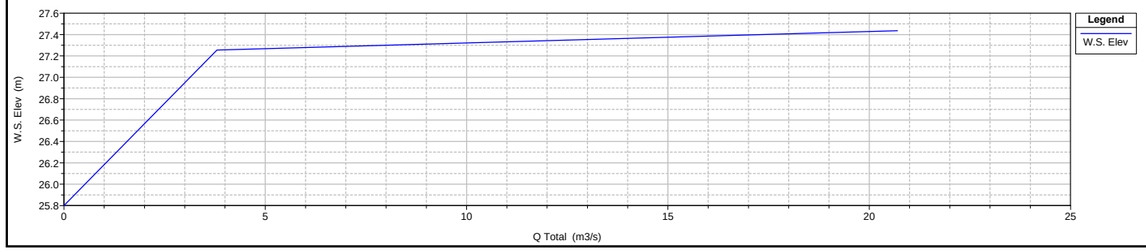
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1252.359



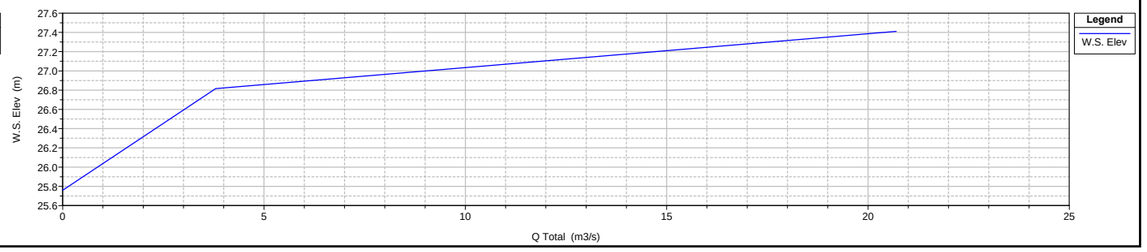
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1252 Culv



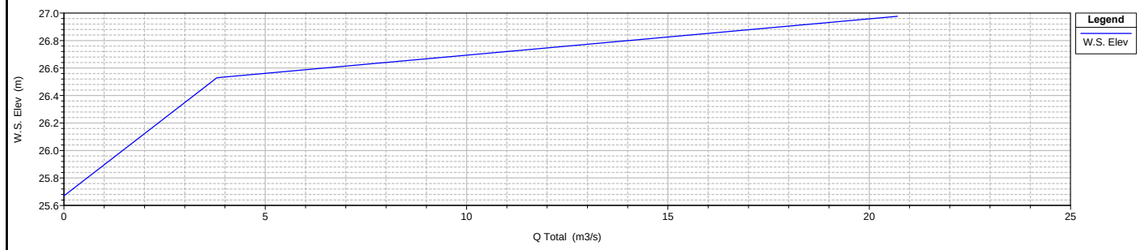
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1252 Culv



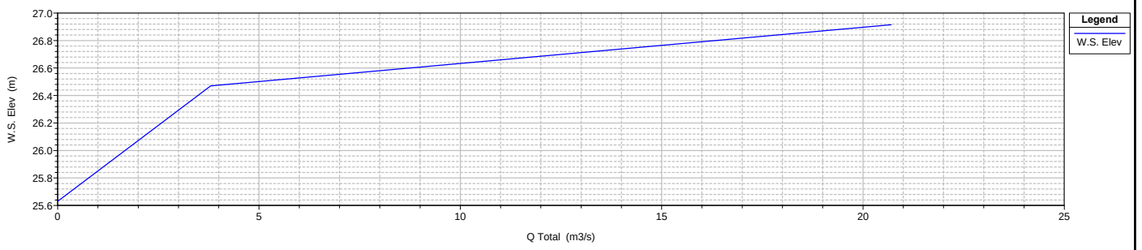
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1246.332



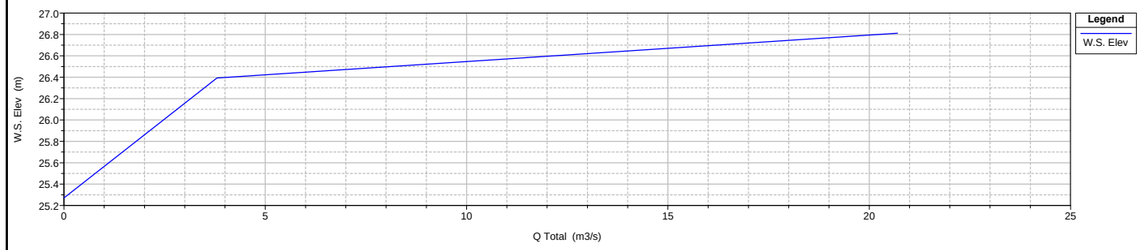
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1233.448



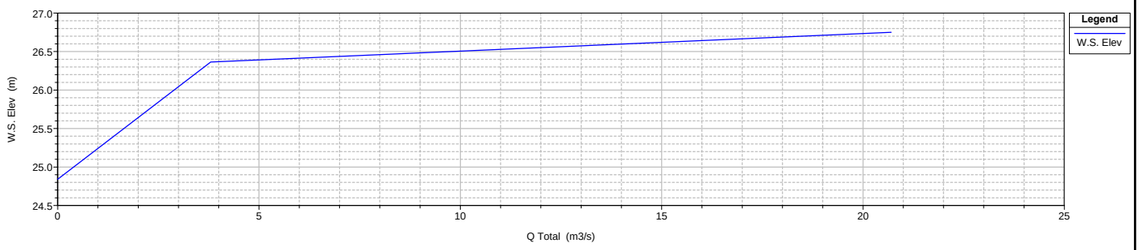
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1225.351



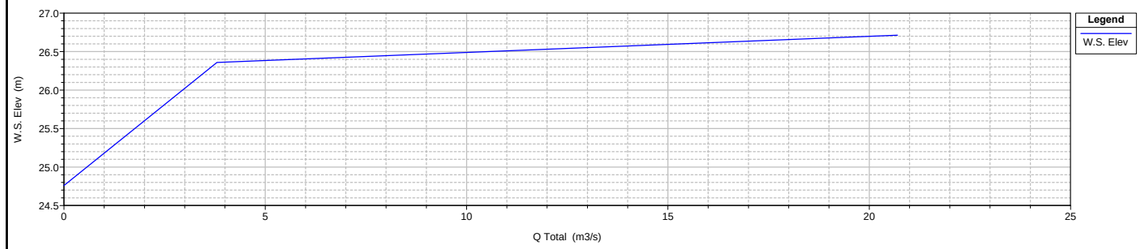
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1209.658



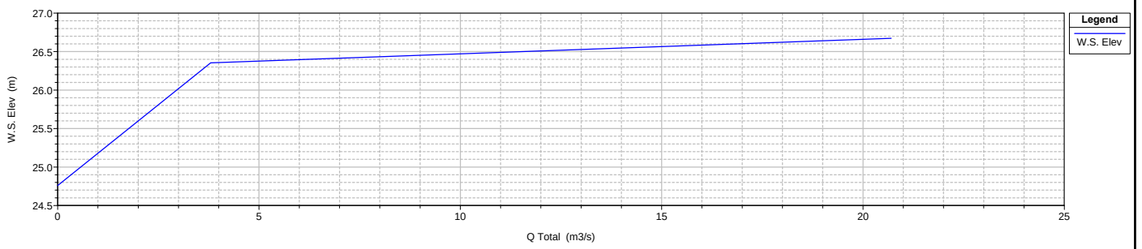
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1196.446



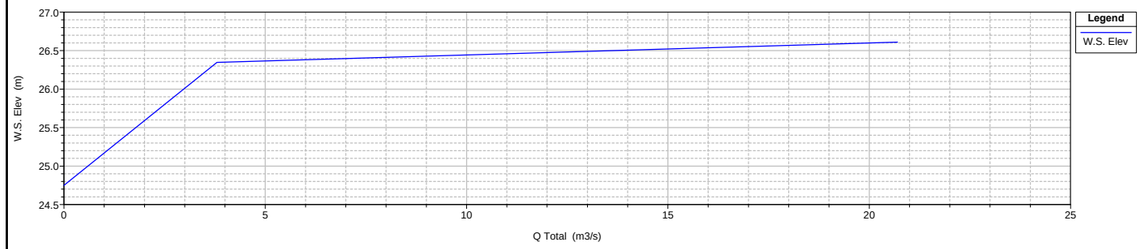
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1188.626



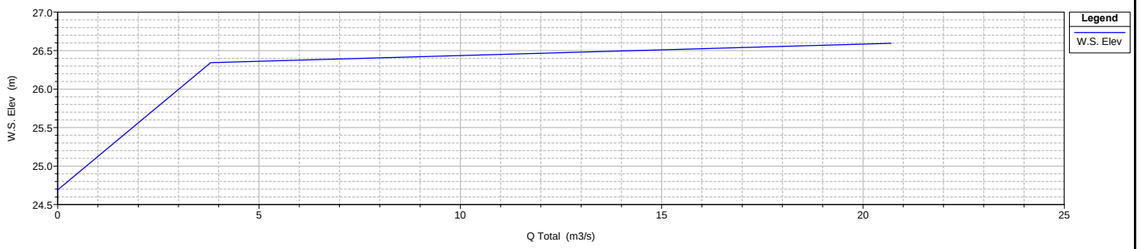
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1182.406



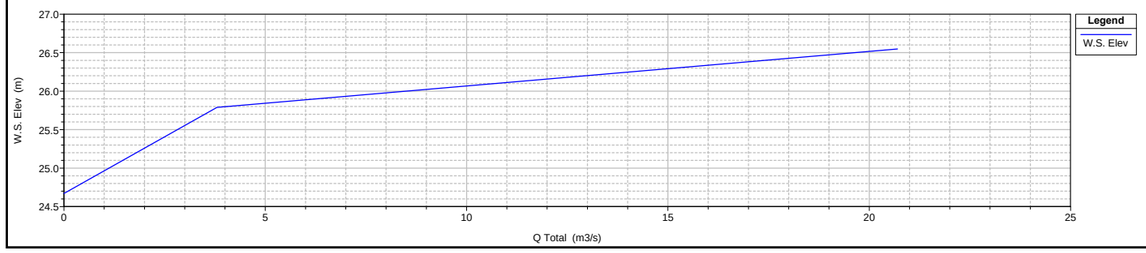
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1173.979



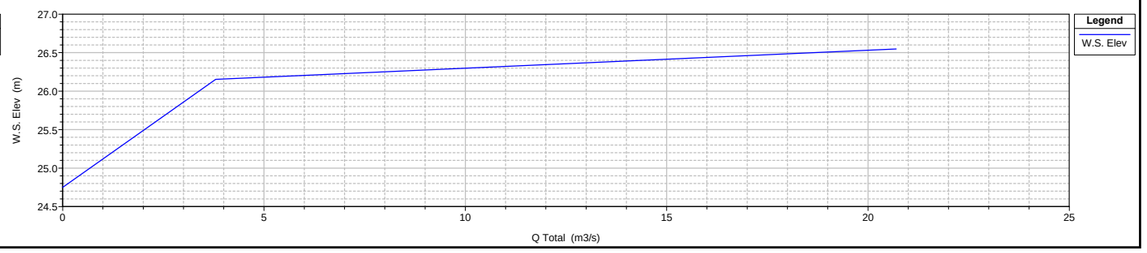
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1162.626



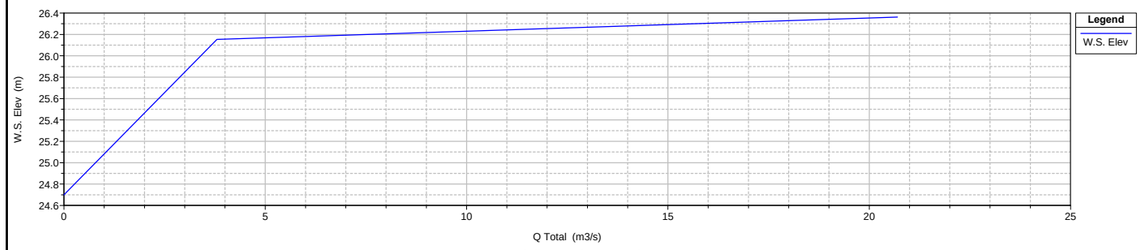
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1155.802



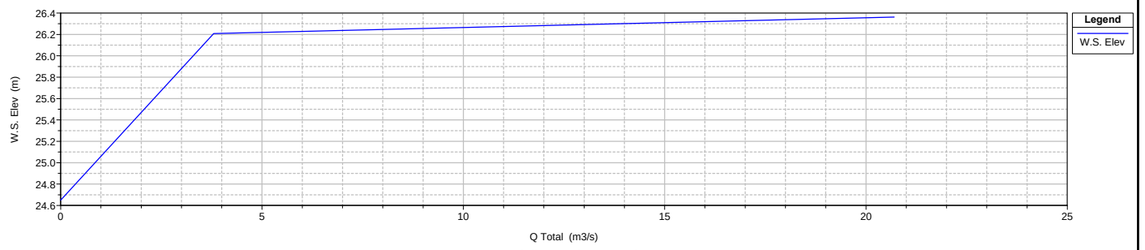
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1155 Culv



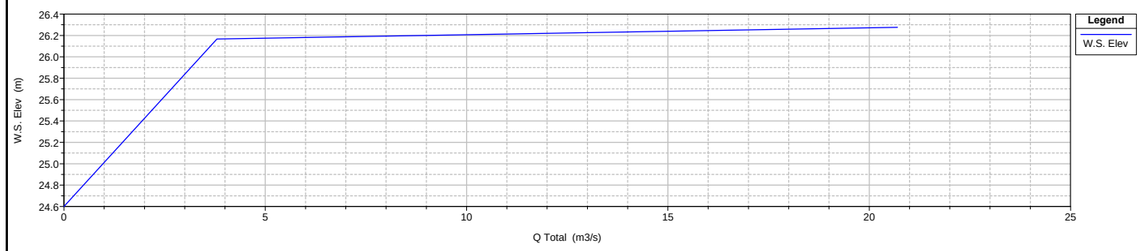
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1155 Culv



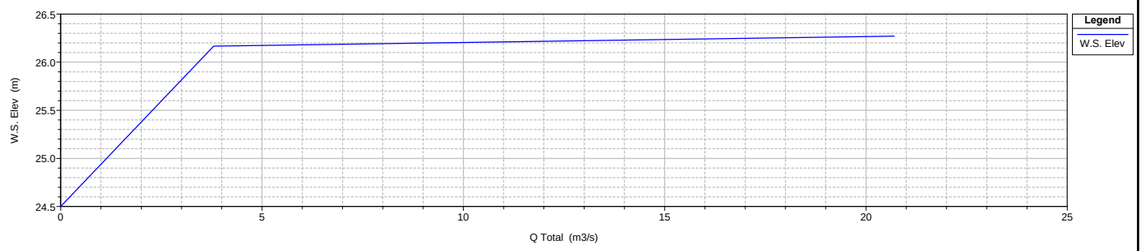
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1148.600



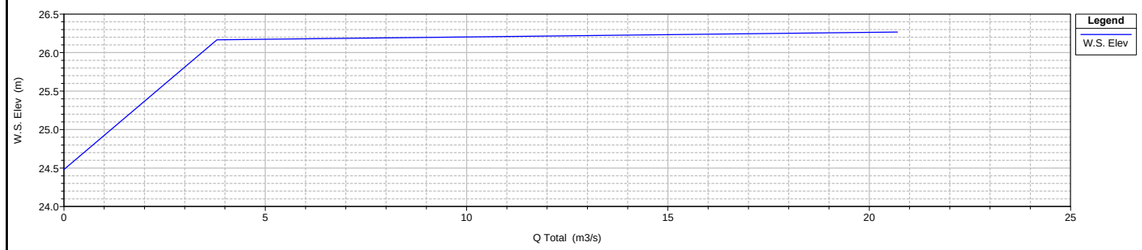
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1138.802



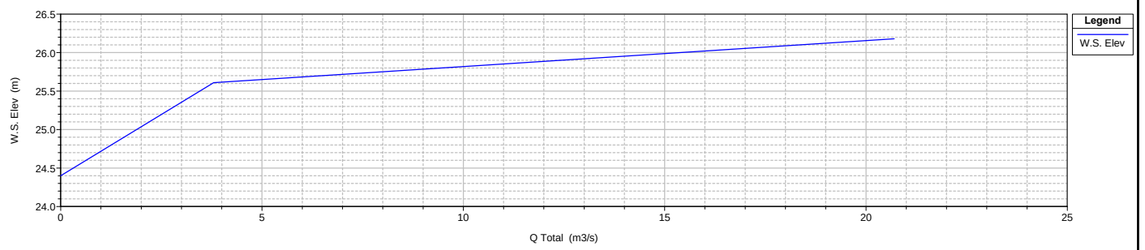
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1125.665



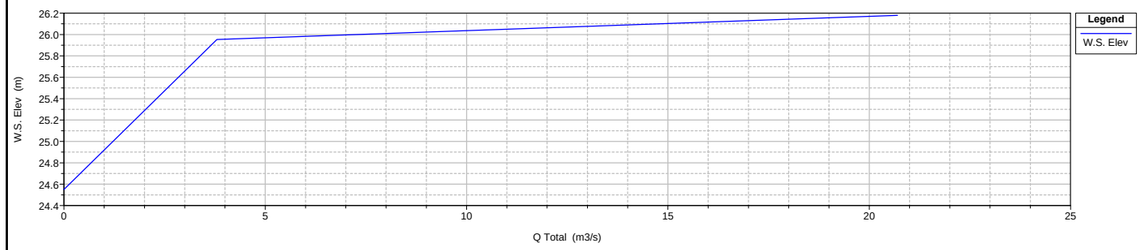
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1117.522



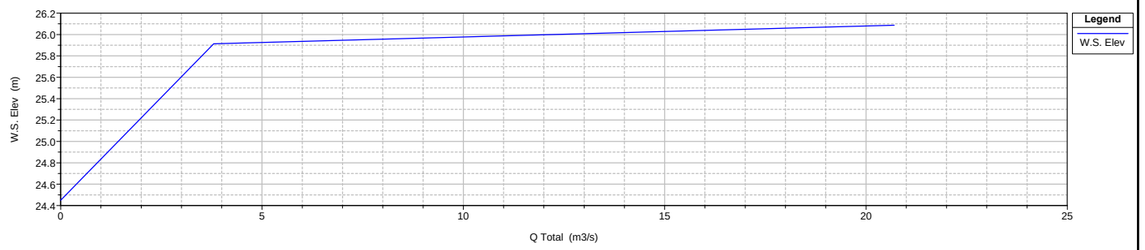
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1109.291



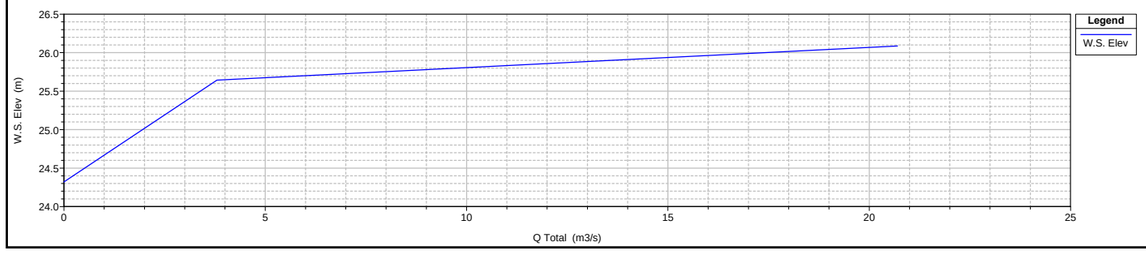
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1109 Culv



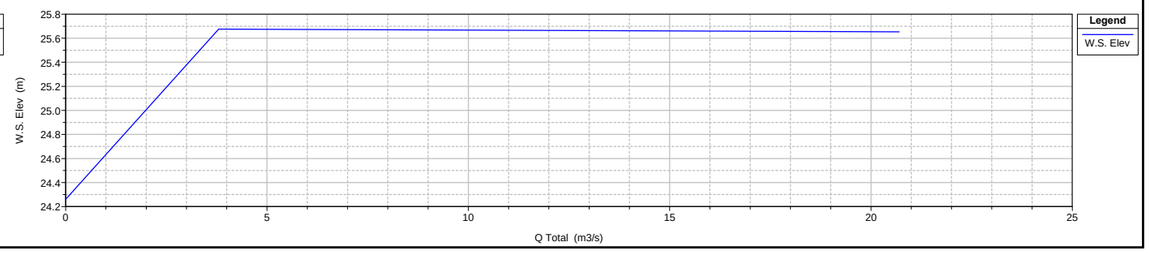
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1109 Culv



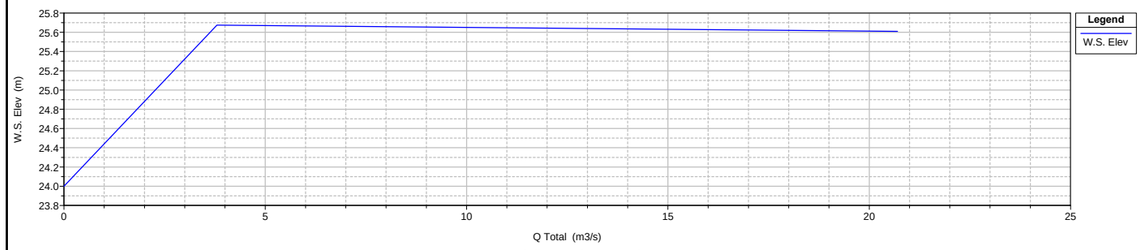
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1101.019



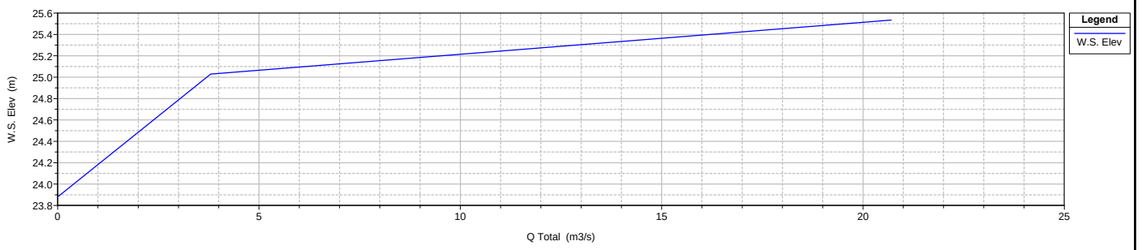
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1085.906



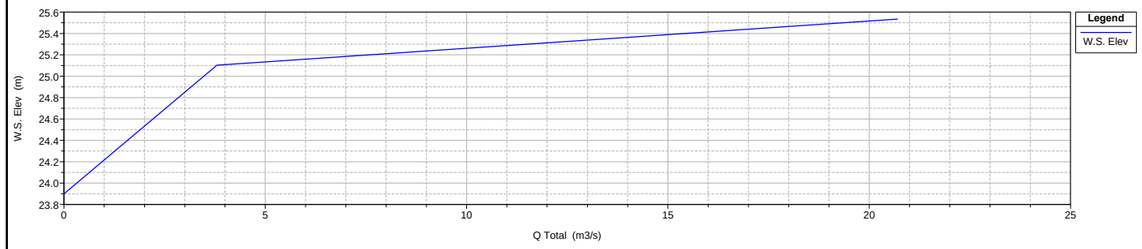
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1056.343



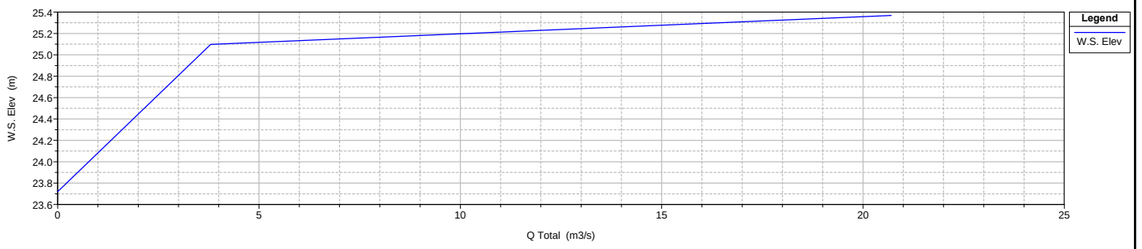
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1043.356



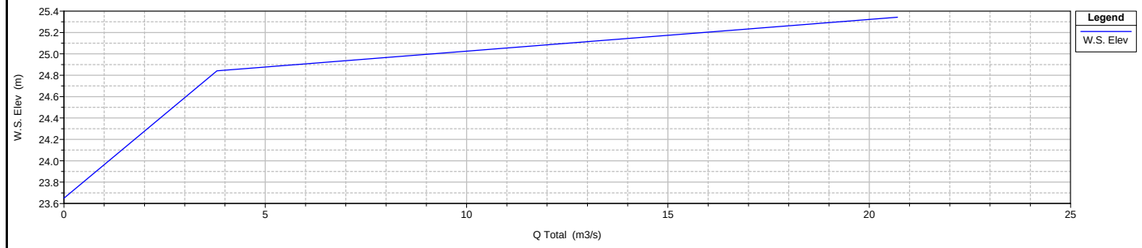
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1043 Culv



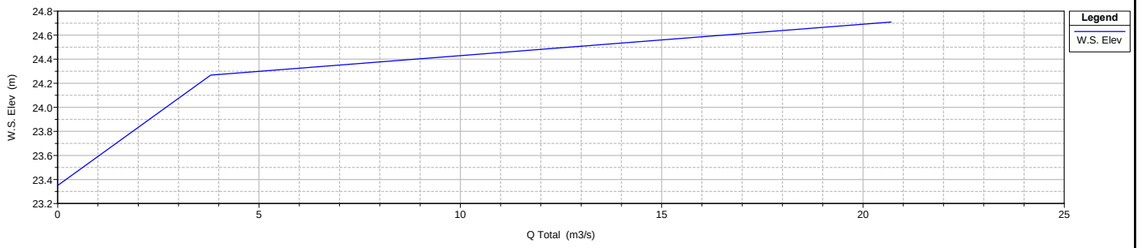
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1043 Culv



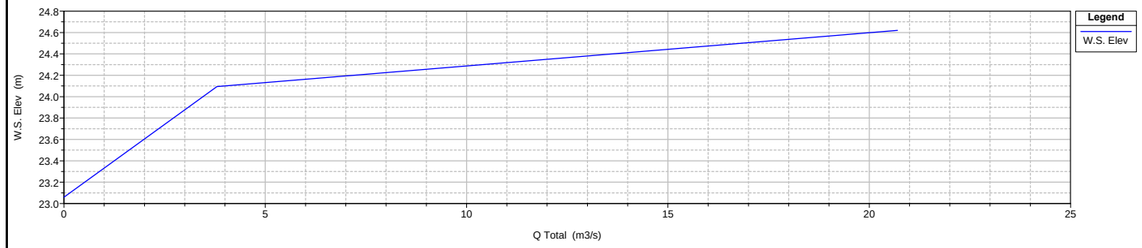
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1031.056



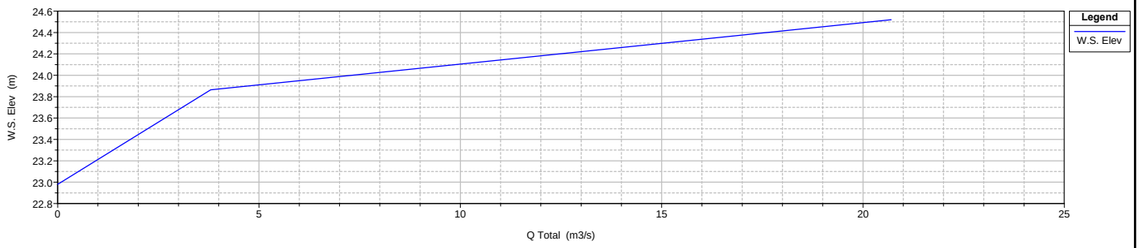
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 1010.819



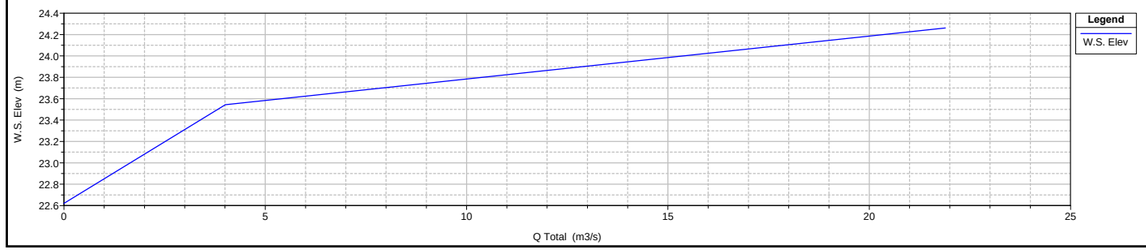
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 992.5541



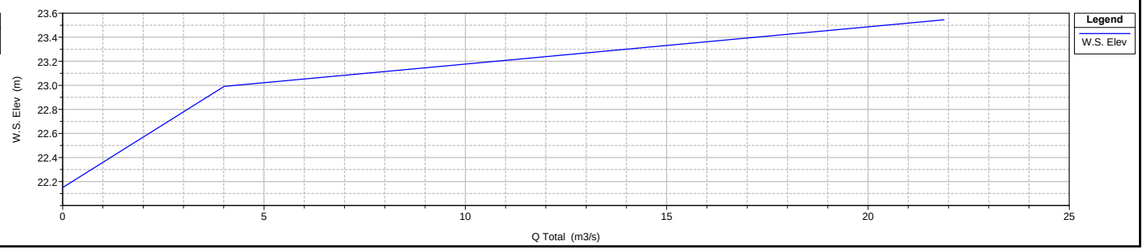
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 973.4102



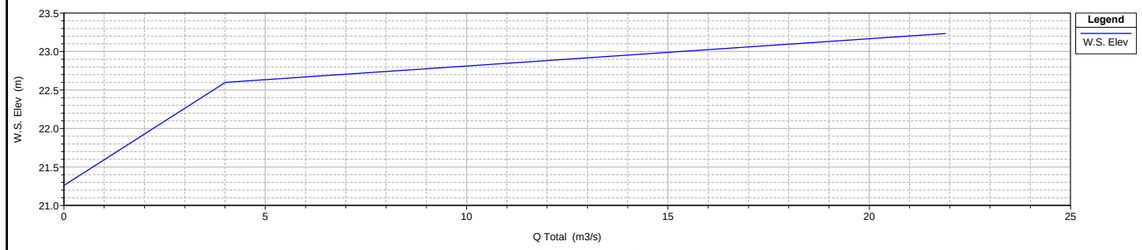
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 956.1785



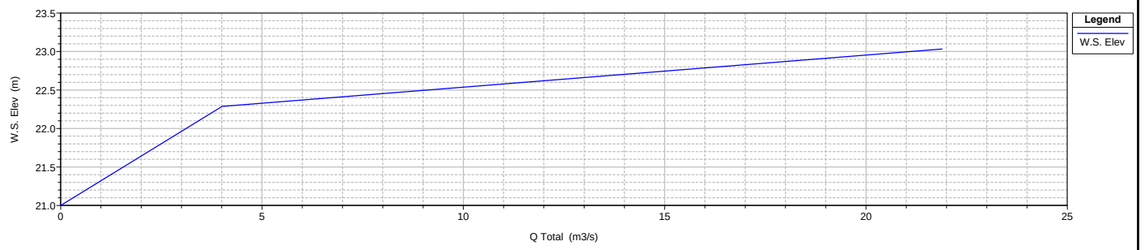
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 939.5976



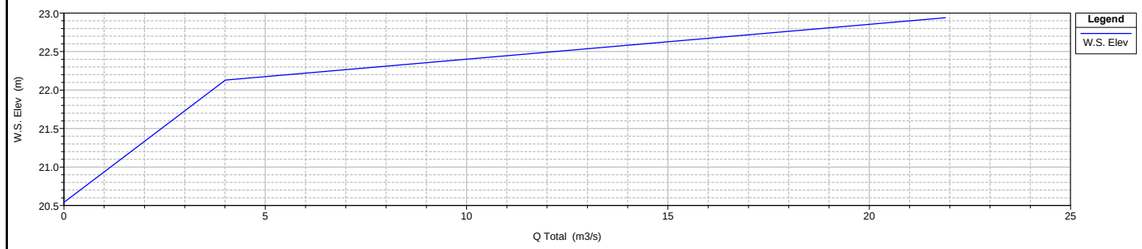
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 924.0465



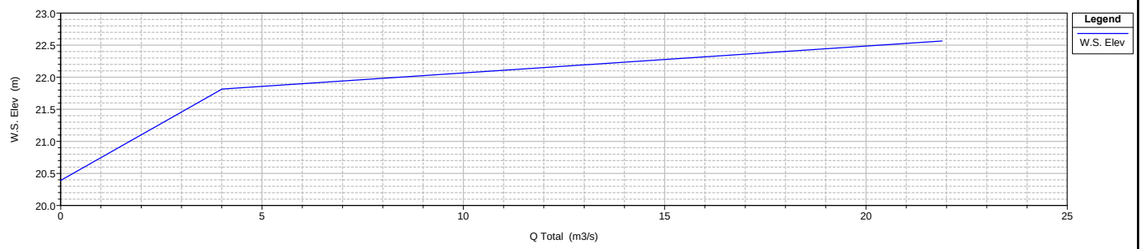
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 905.9035



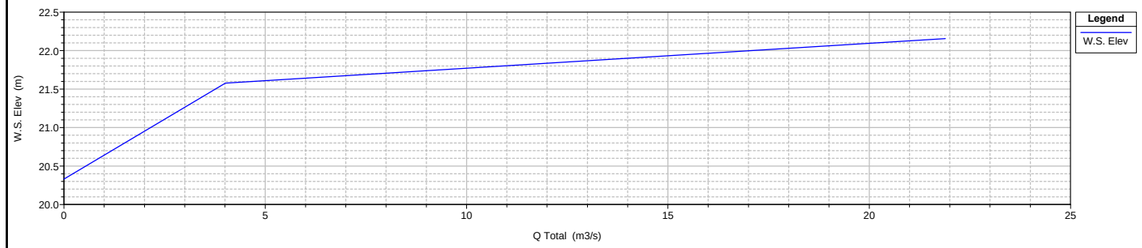
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 892.0765



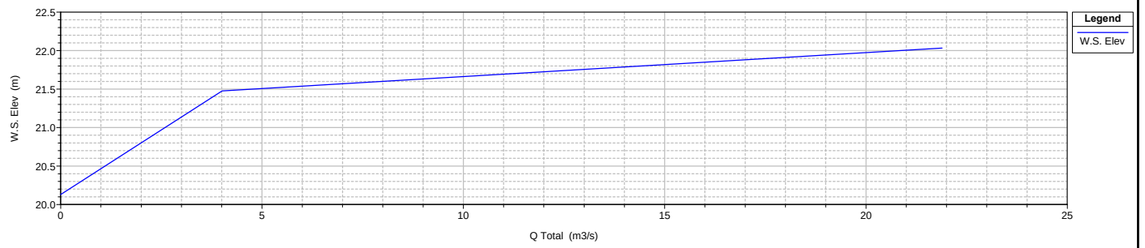
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 863.8566



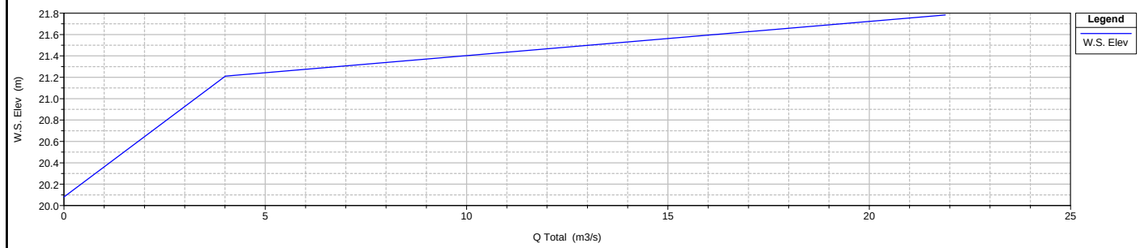
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 841.2441



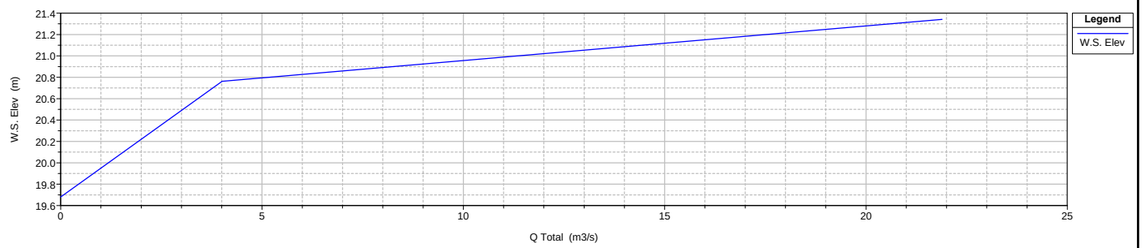
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 823.8461



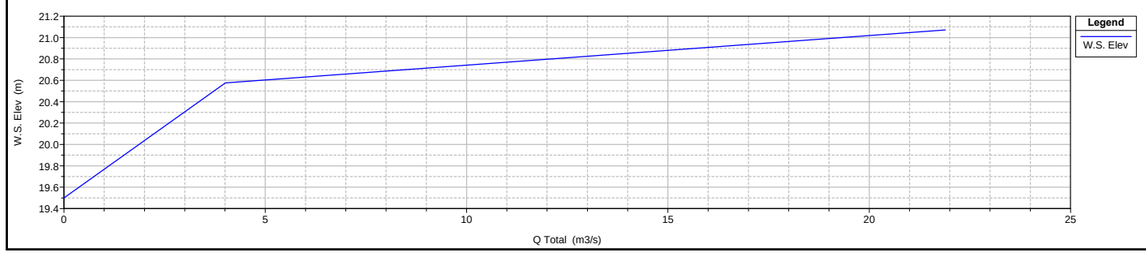
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 800.4541



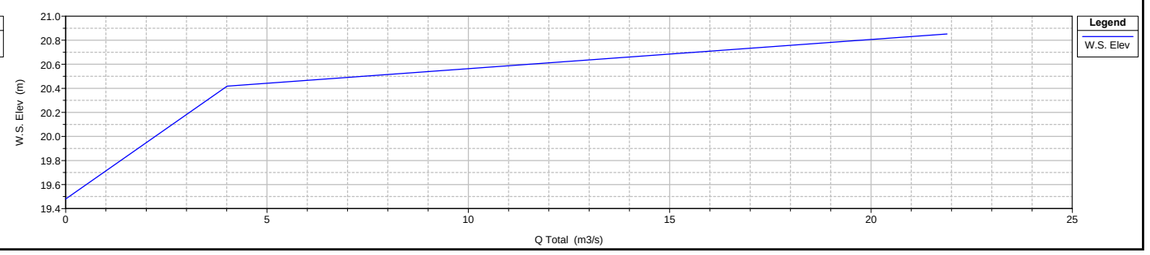
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 779.2239



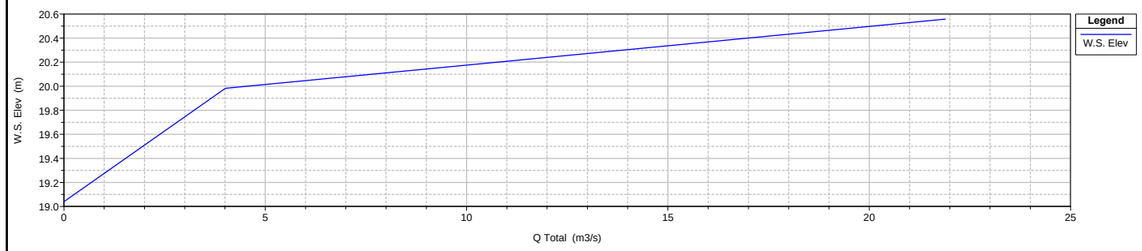
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 756.6484



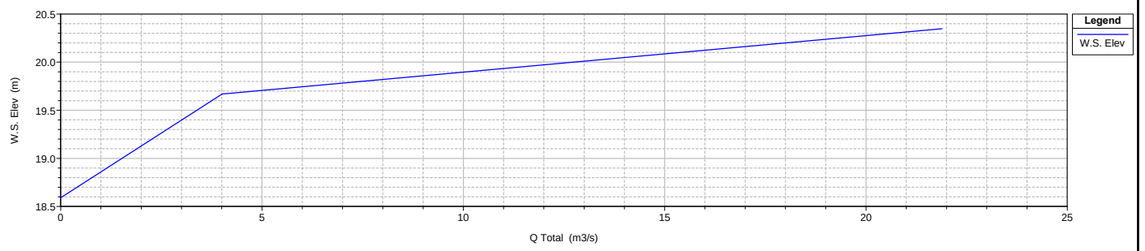
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 733.8605



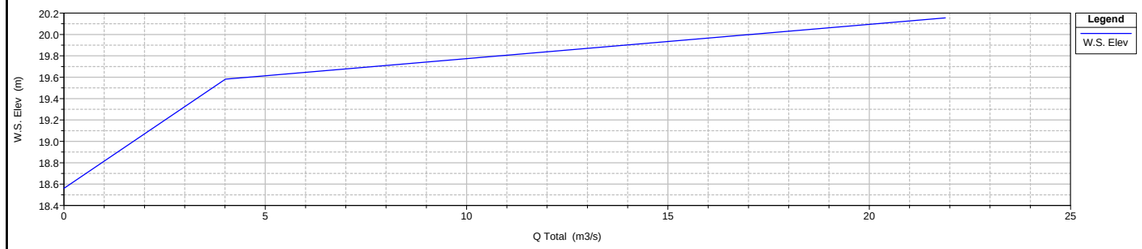
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 712.7758



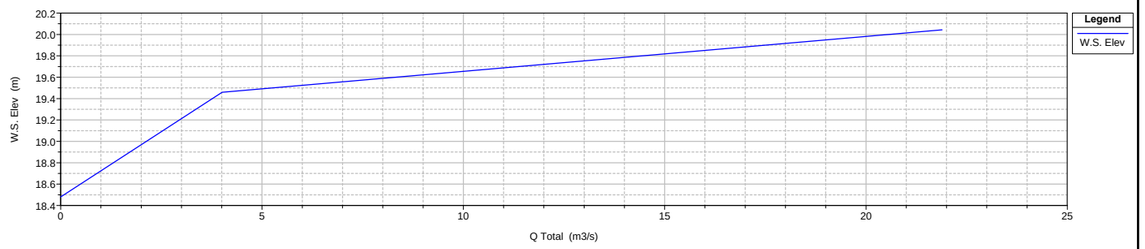
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 693.0193



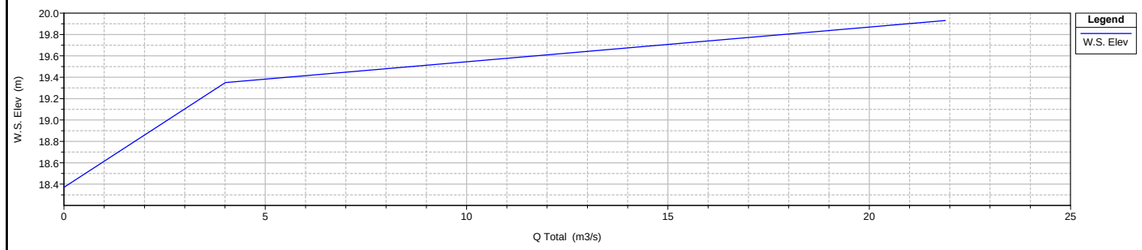
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 675.6385



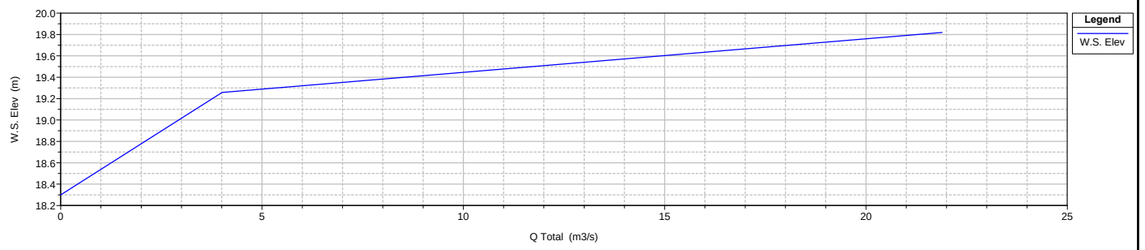
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 655.9124



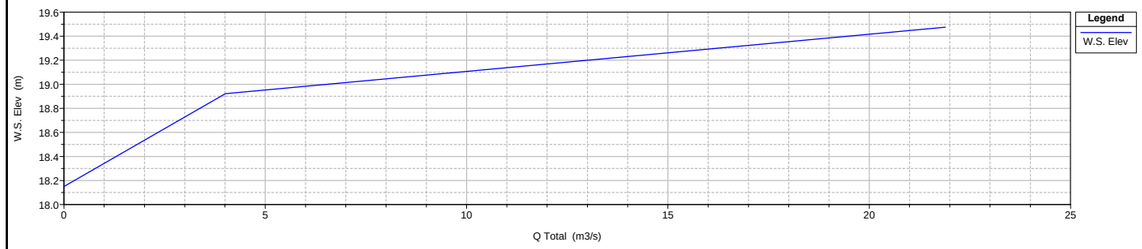
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 634.7860



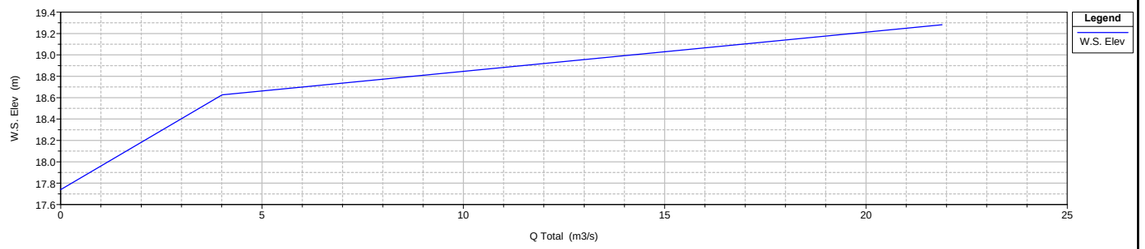
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 617.5754



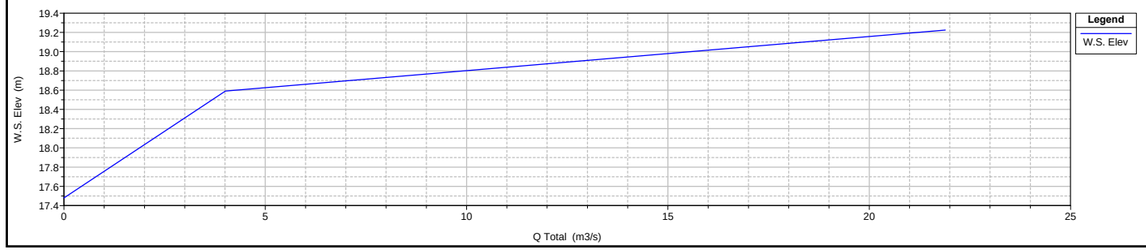
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 596.9457



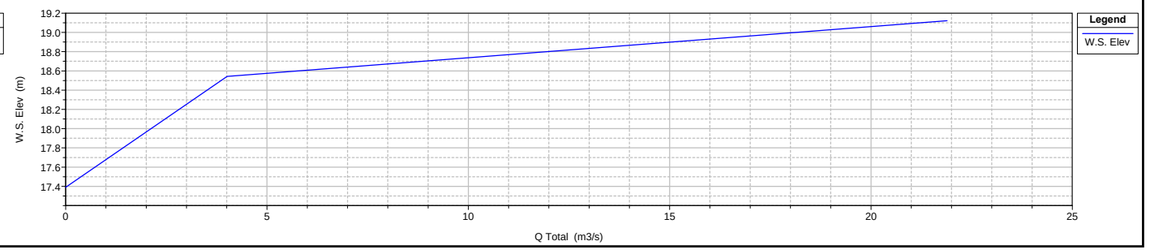
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 573.3445



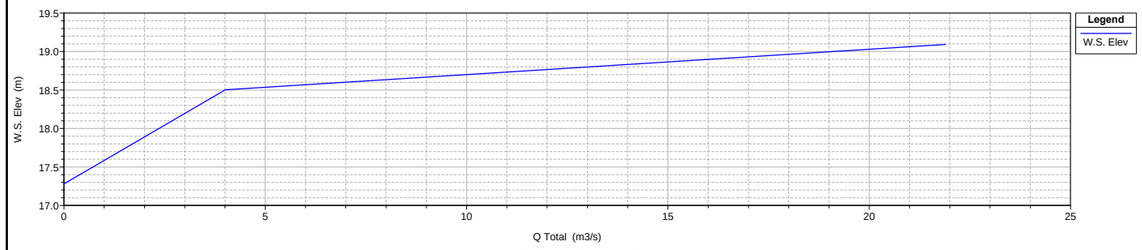
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 556.2210



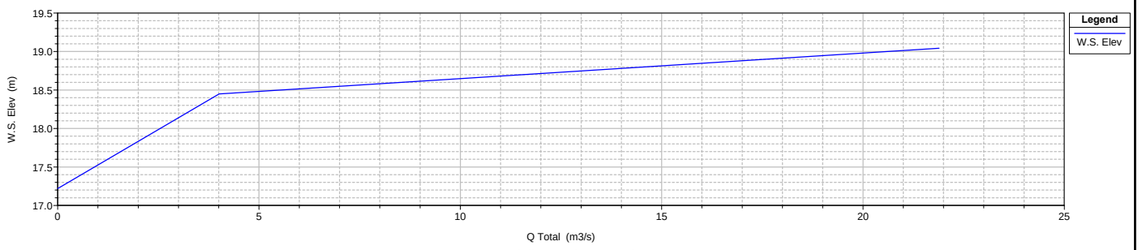
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 537.8052



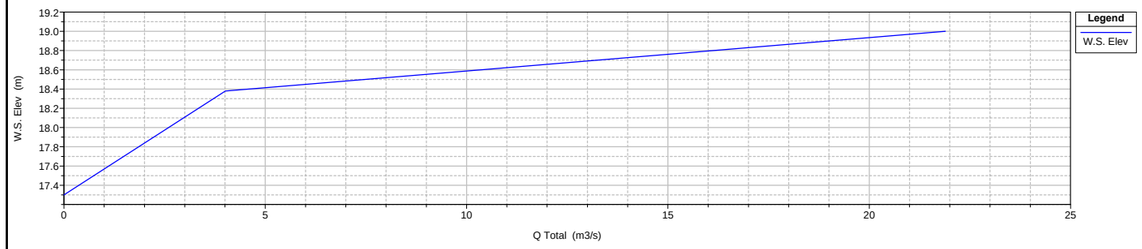
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 522.5513



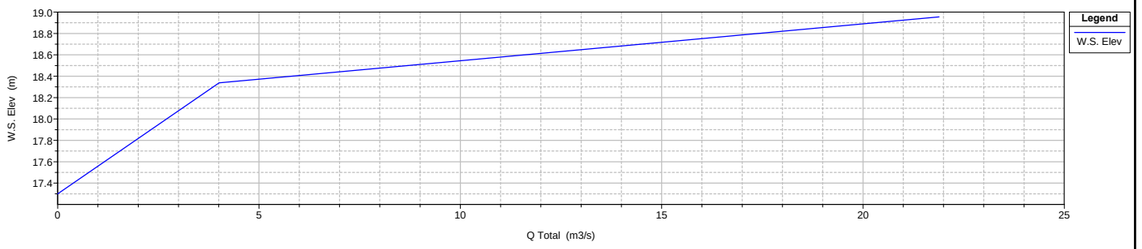
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 510.6633



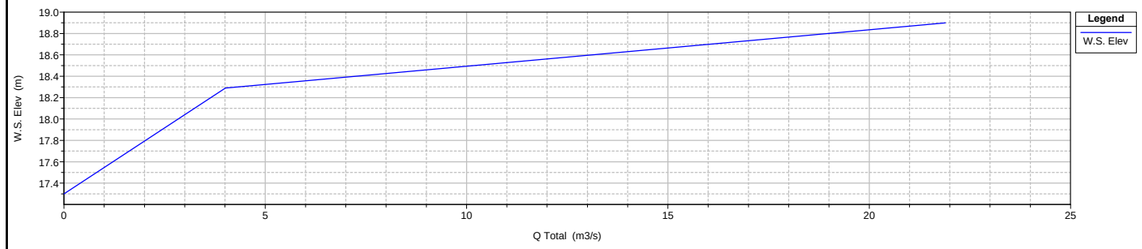
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 496.5821



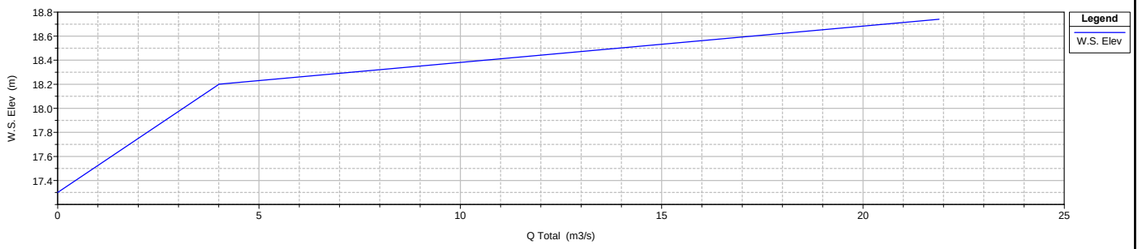
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 483.0792



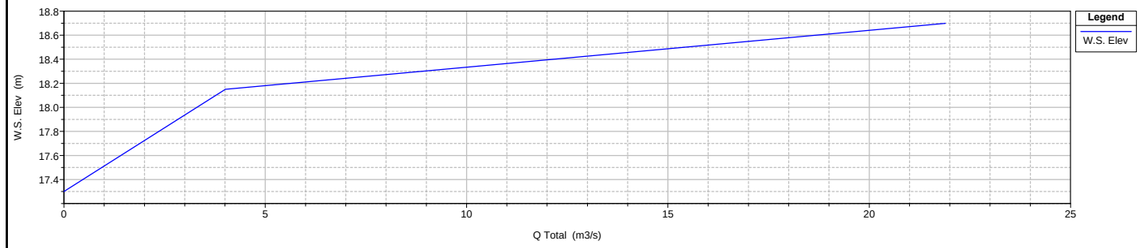
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 472.1636



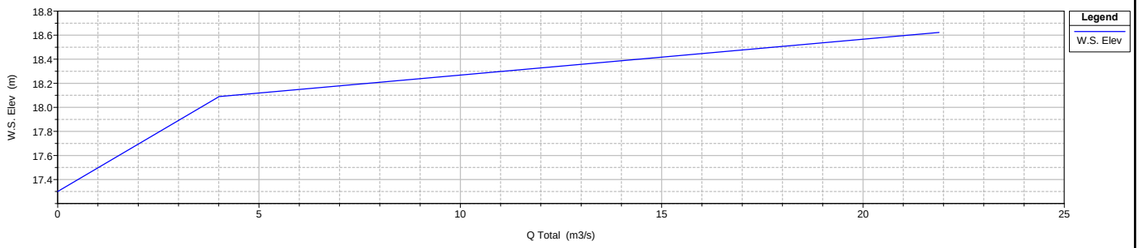
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 456.9867



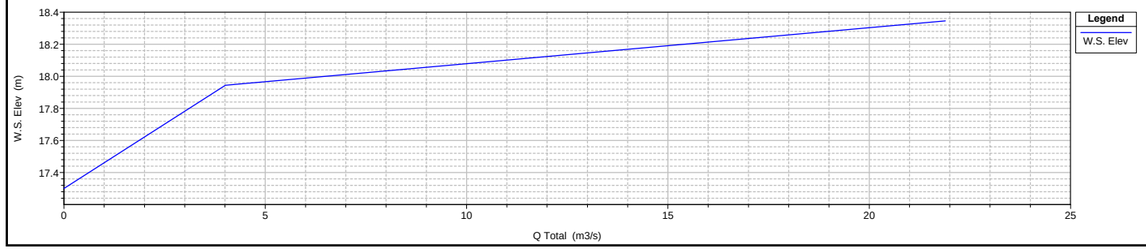
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 446.1882



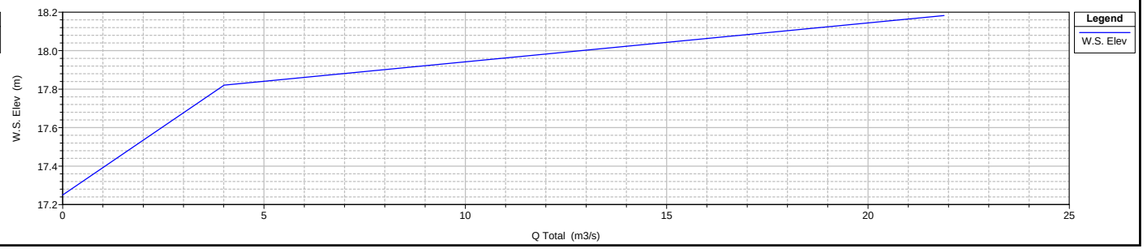
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 435.5890



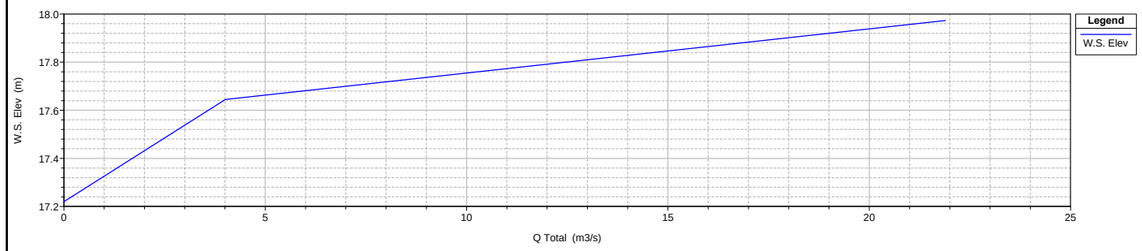
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 418.5032



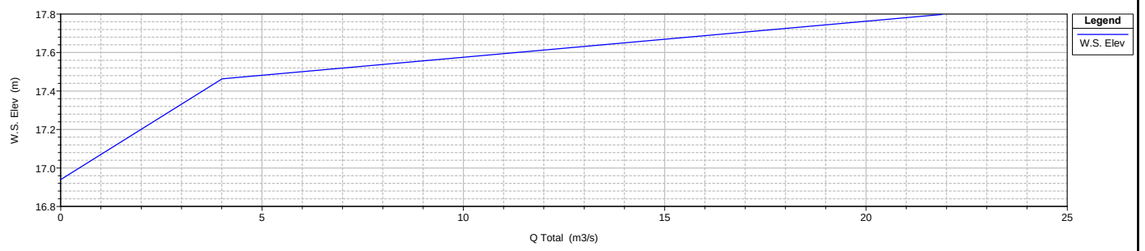
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 405.4106



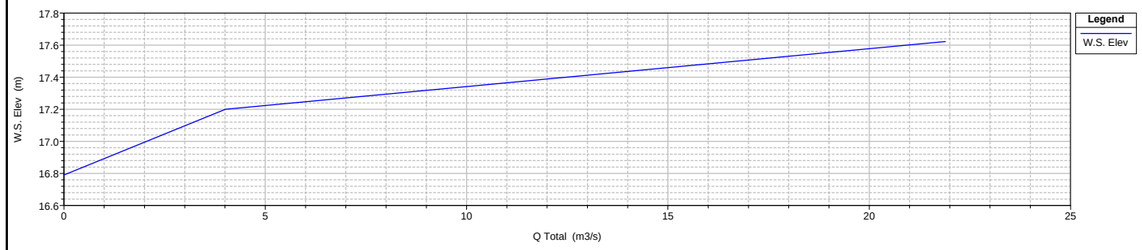
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 393.9341



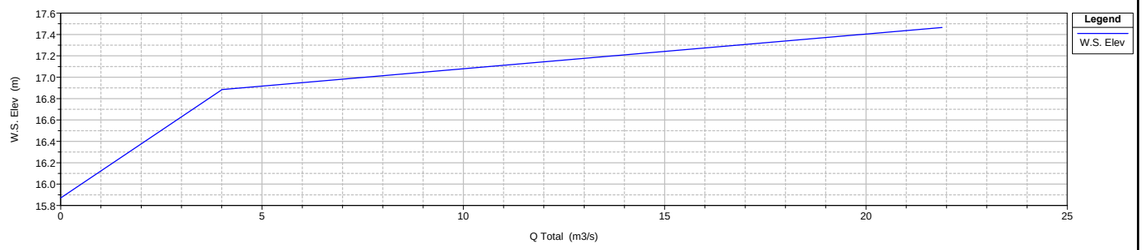
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 380.8281



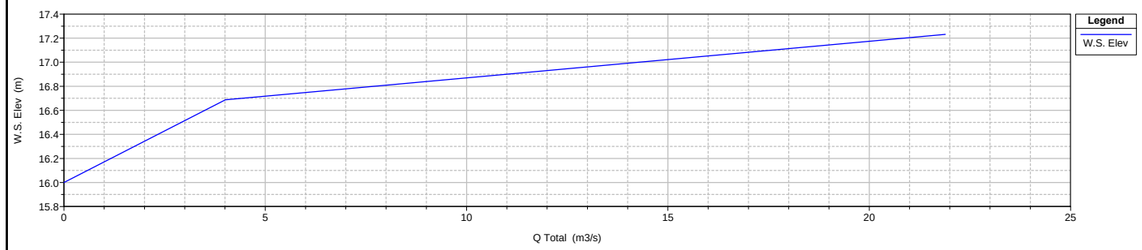
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 356.8988



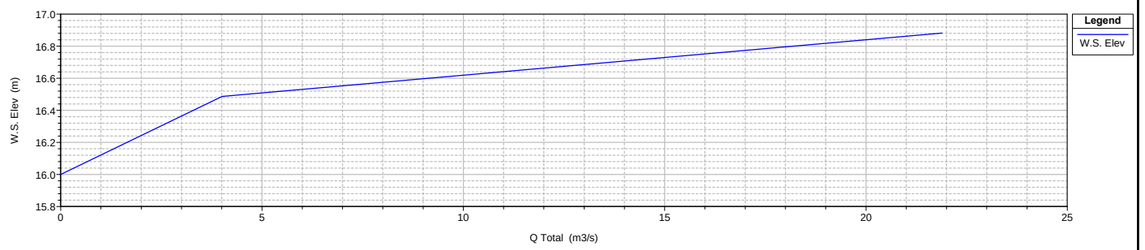
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 325.9584



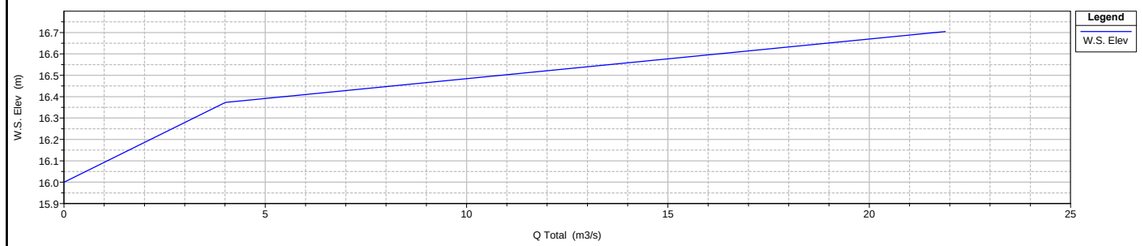
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 295.8183



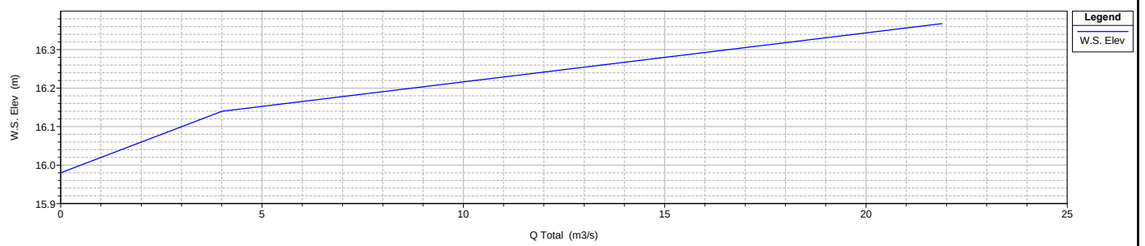
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 273.7013



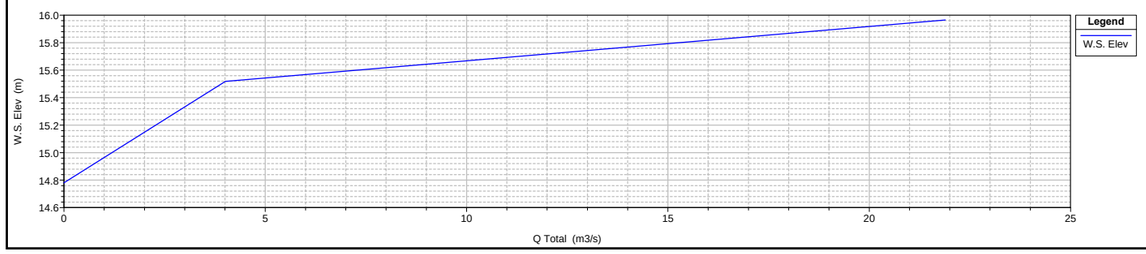
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 253.4211



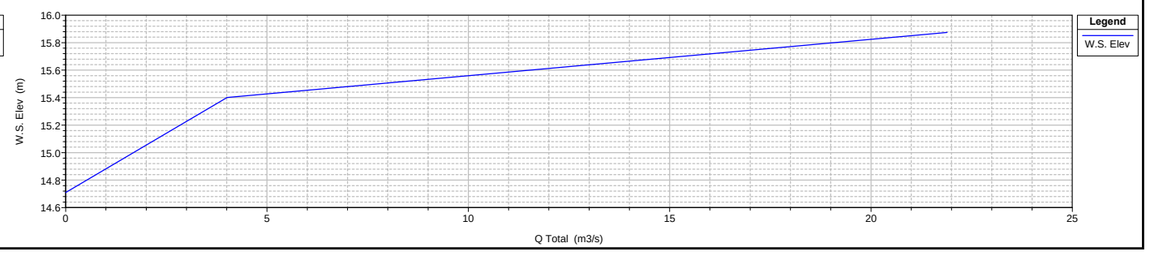
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 229.0900



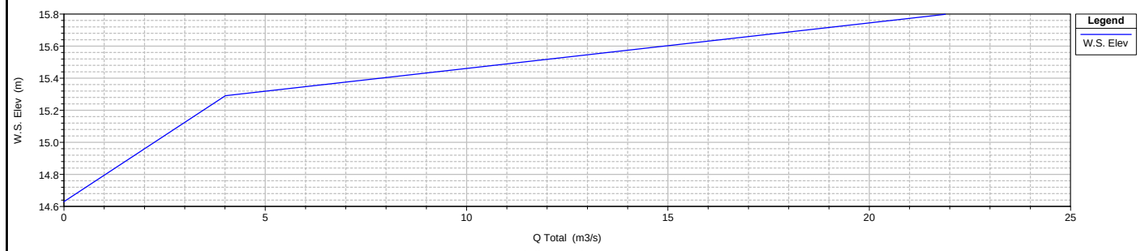
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 203.8620



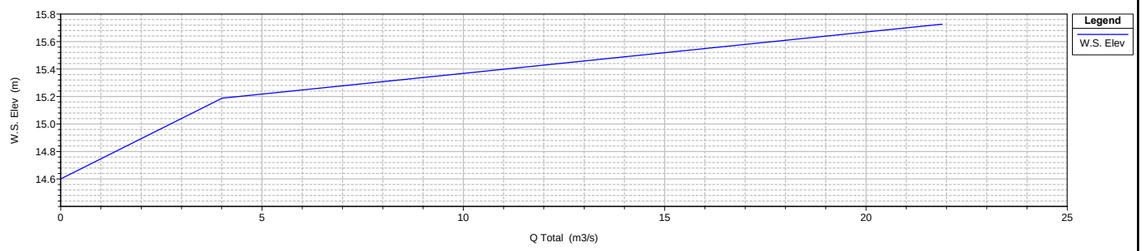
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 180.4265



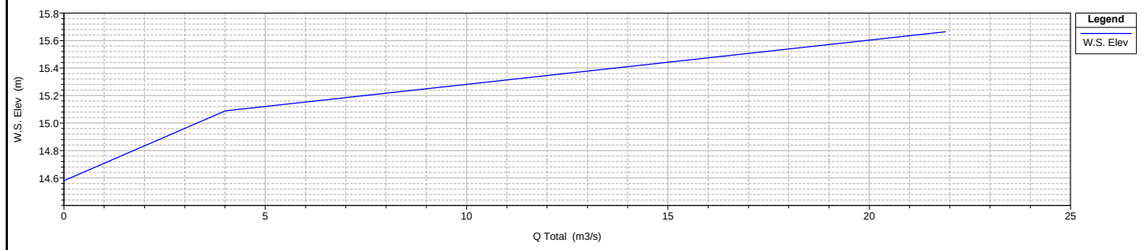
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 160.5738



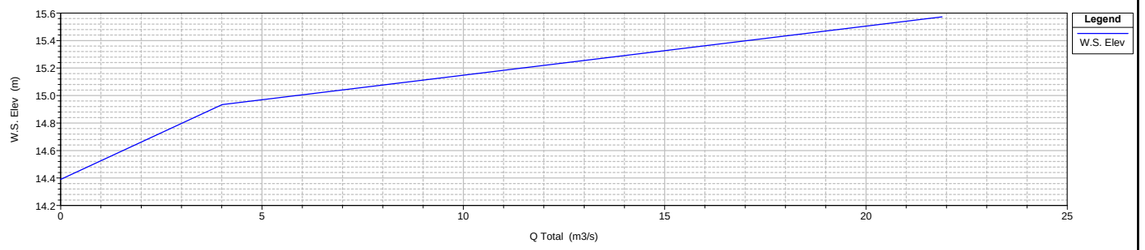
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 138.6799



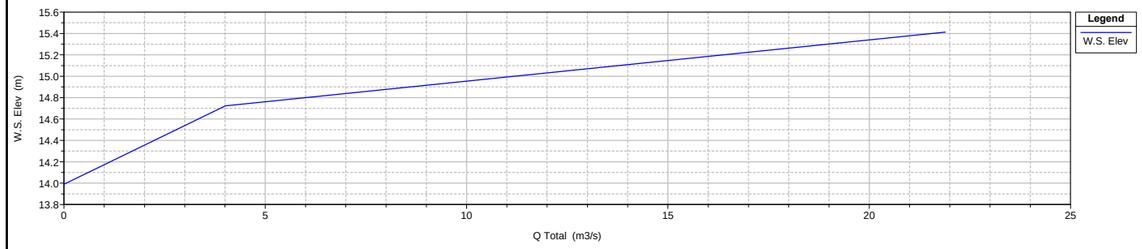
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 118.8793



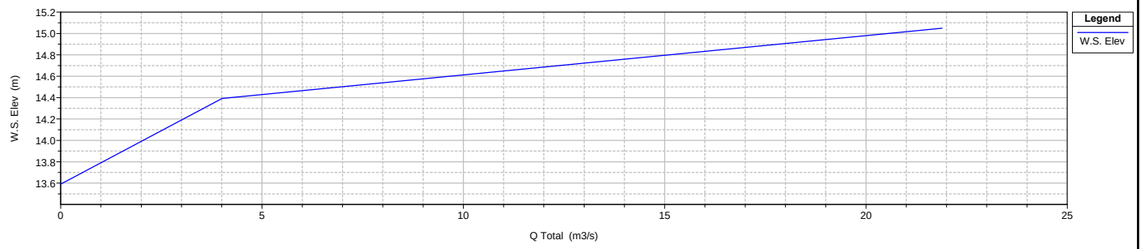
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 101.2603



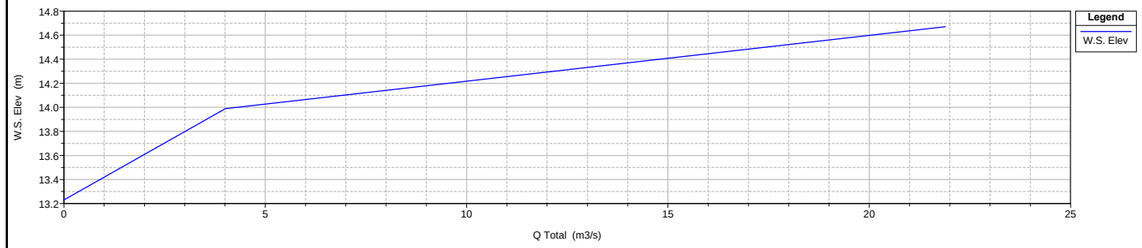
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 80.15922



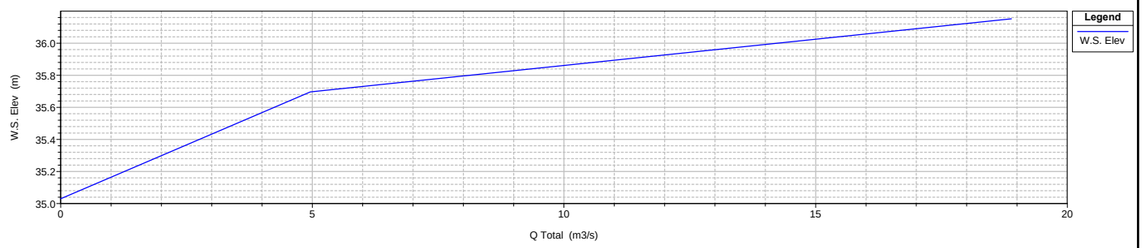
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 63.19227



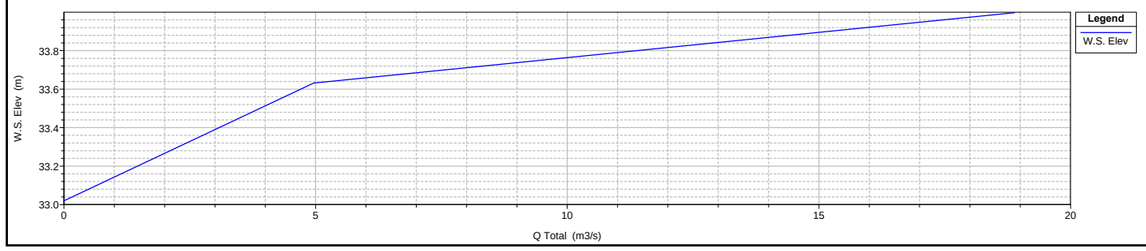
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_3 Reach = Actual_3 RS = 44.66612



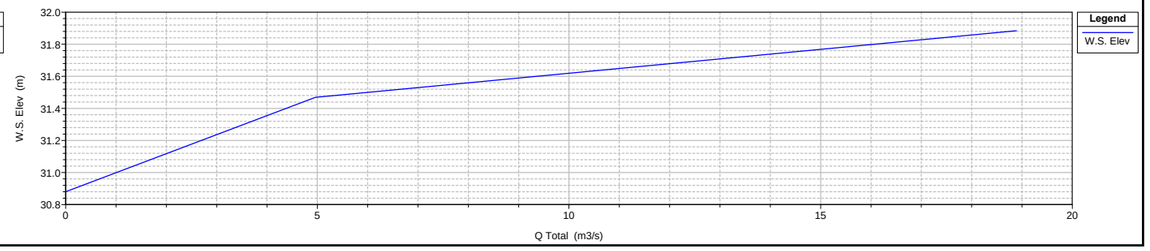
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1666.697



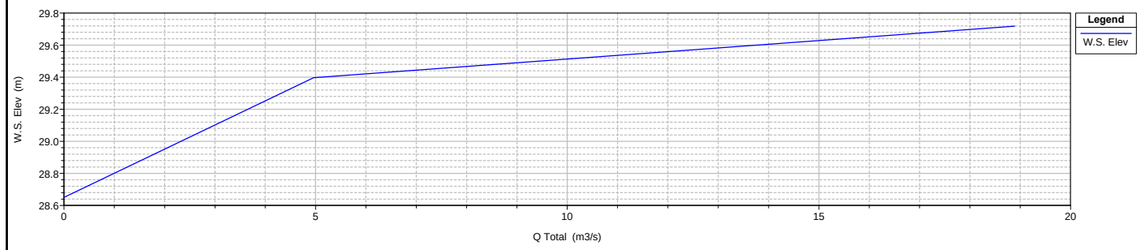
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1631.588



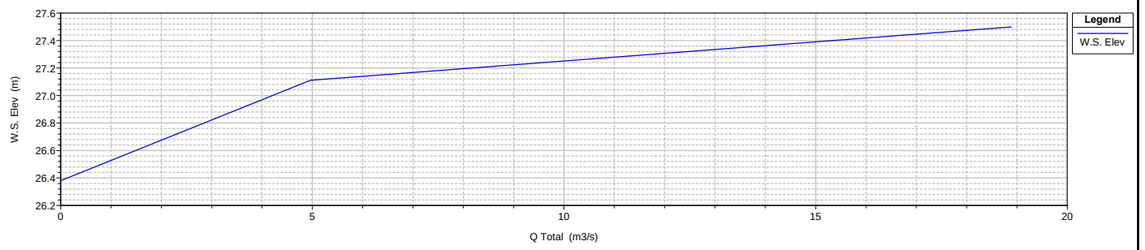
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1599.279



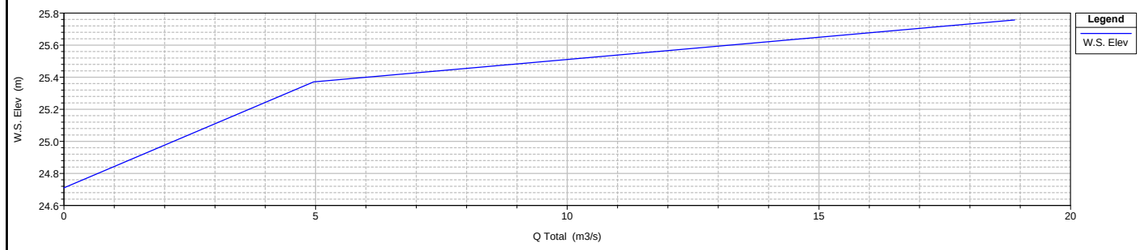
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1560.274



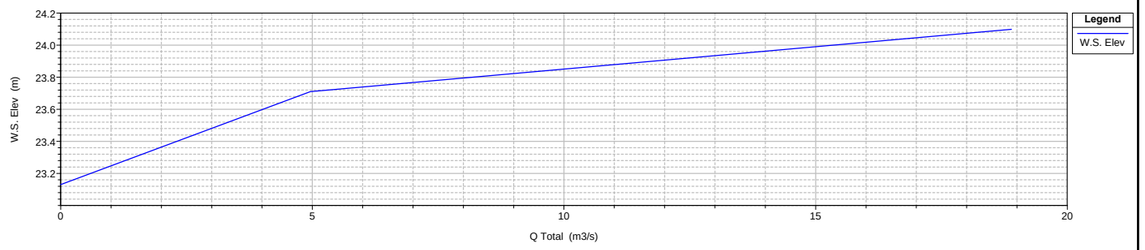
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1517.321



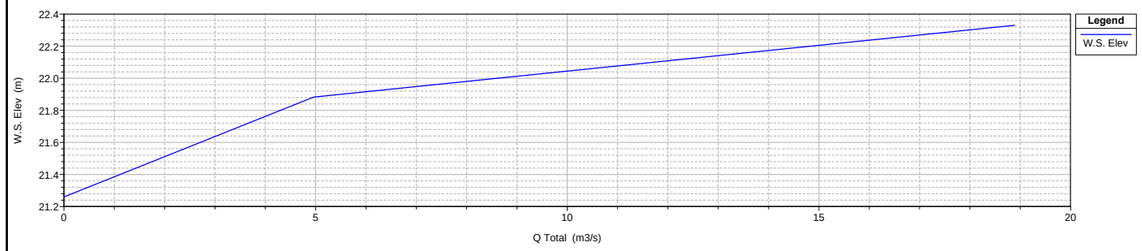
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1481.412



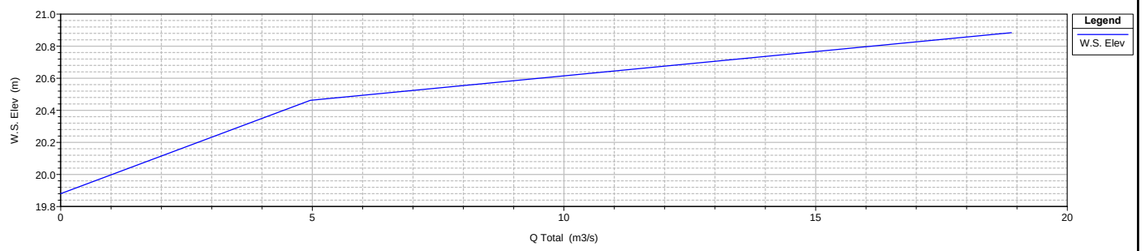
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1442.926



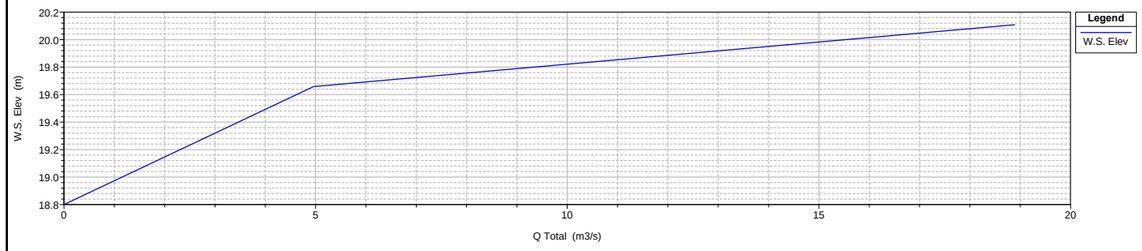
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1401.006



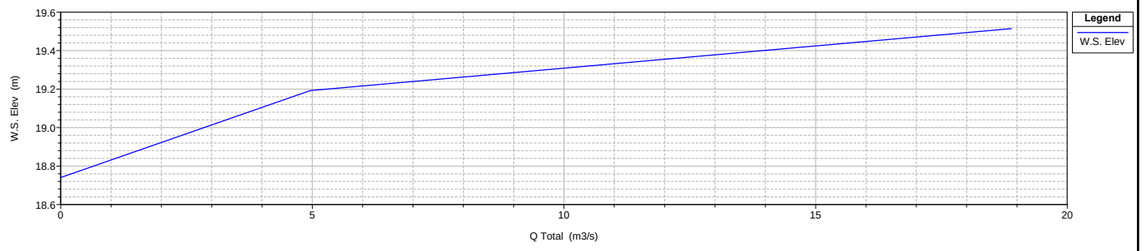
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1365.778



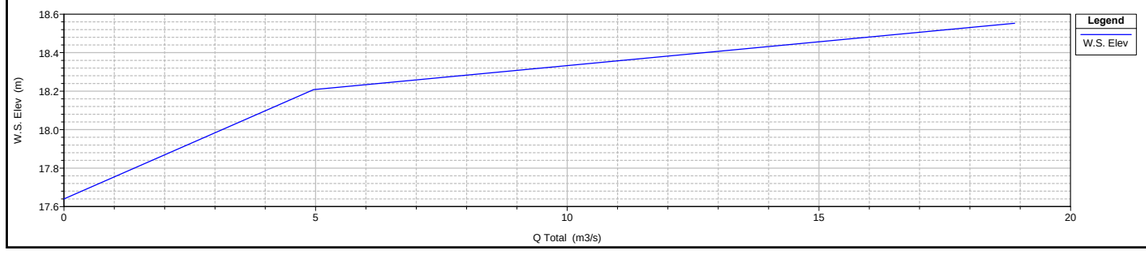
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1334.156



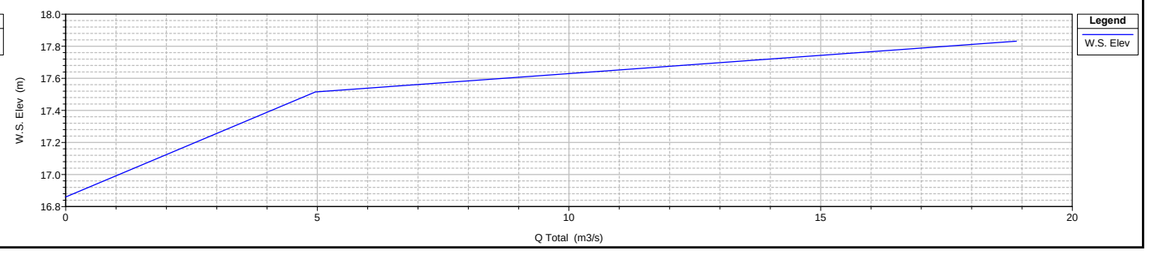
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1307.752



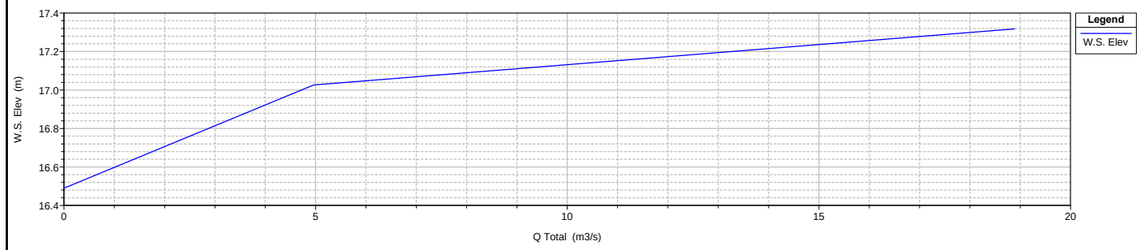
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1277.920



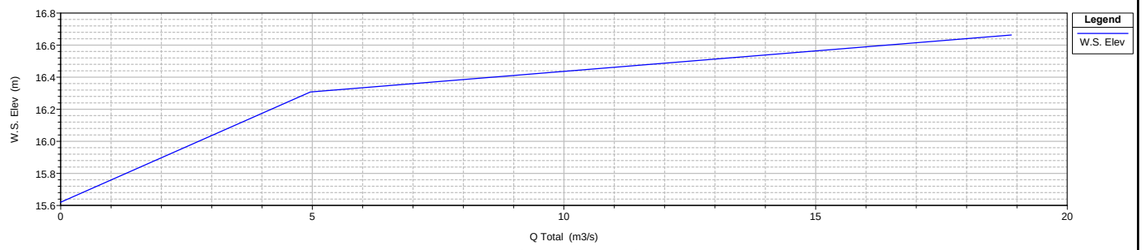
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1245.558



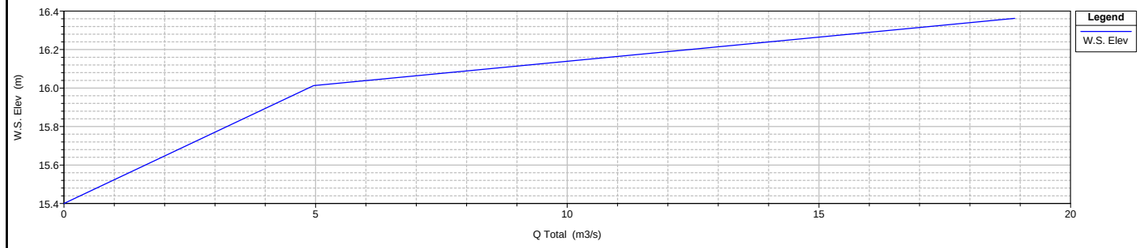
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1224.148



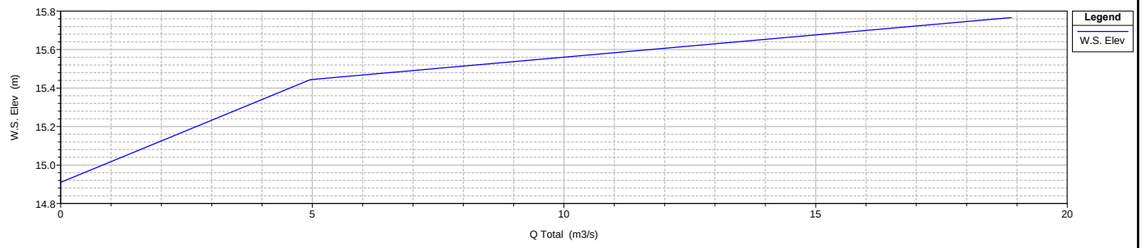
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1190.718



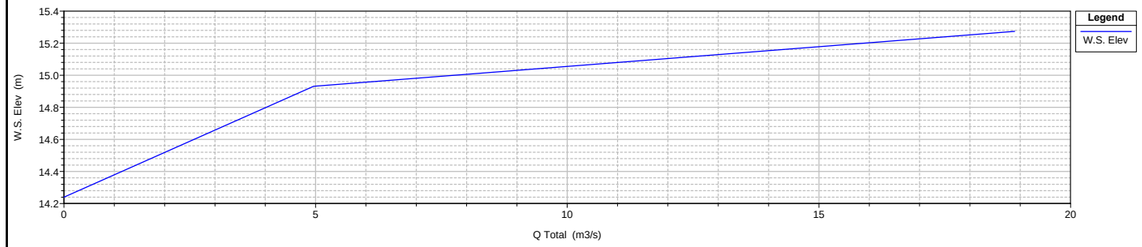
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1169.459



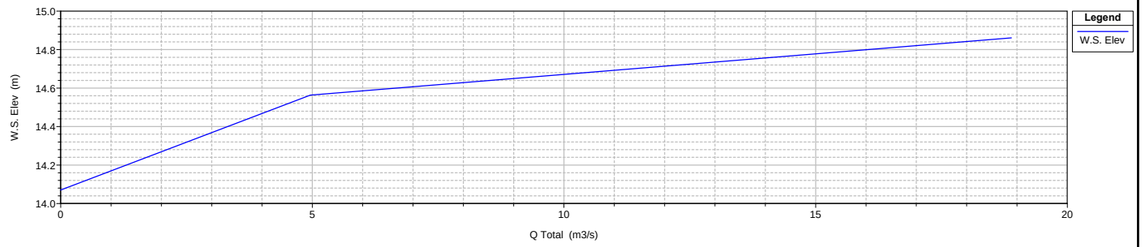
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1140.498



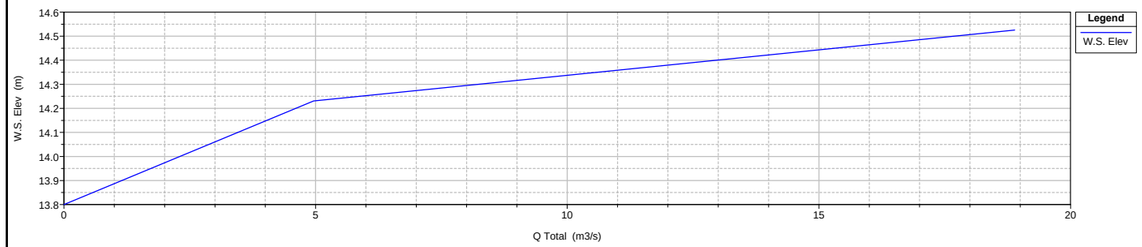
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1114.789



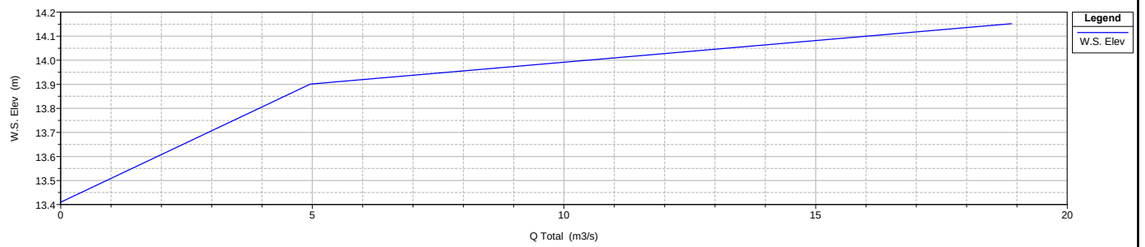
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1095.376



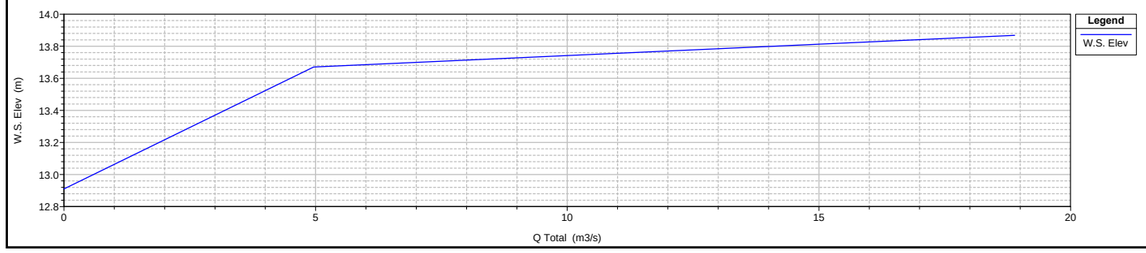
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1075.926



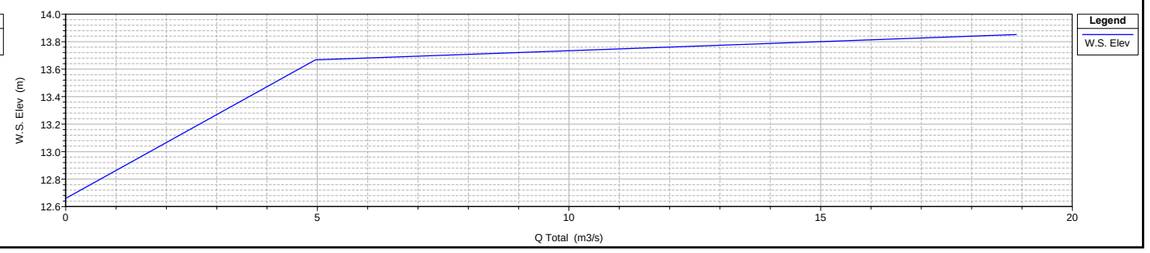
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1049.753



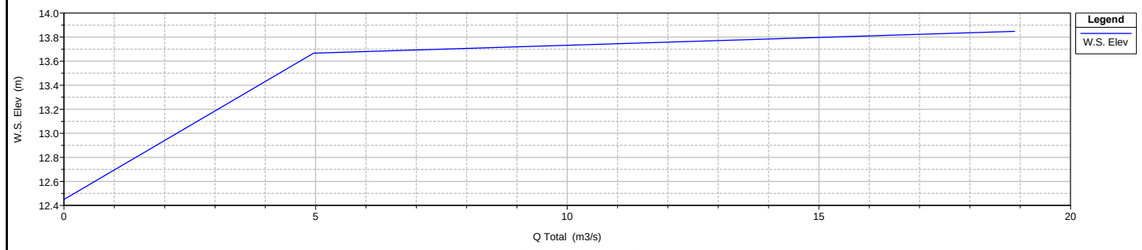
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 1013.742



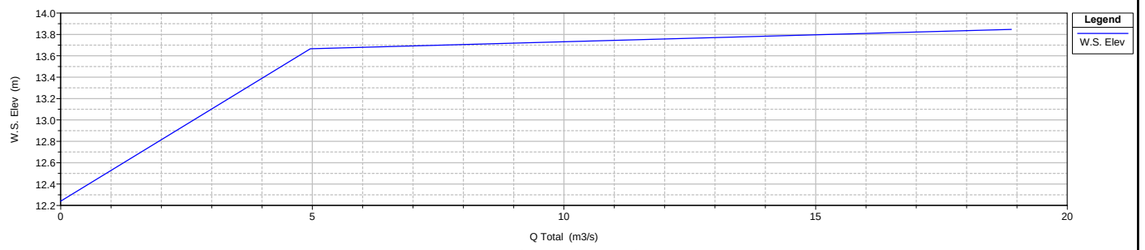
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 985.2877



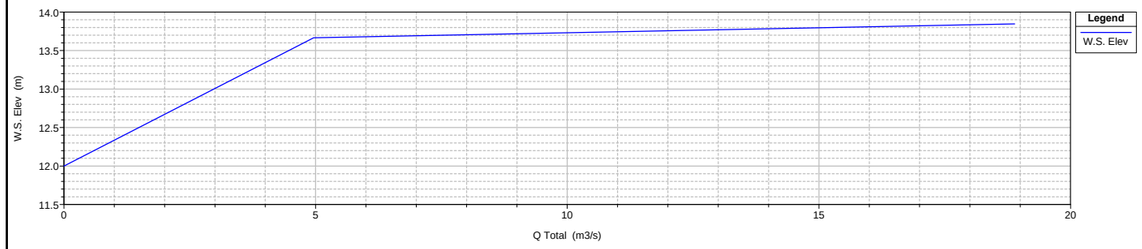
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 958.5618



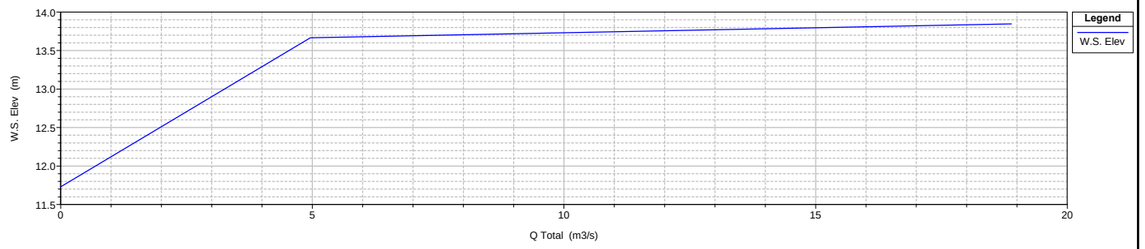
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 933.9658



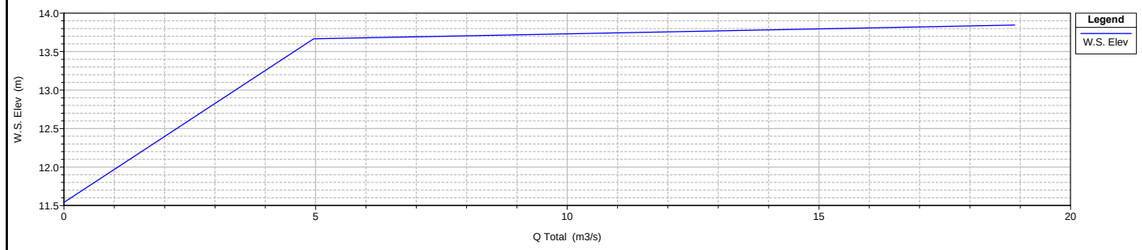
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 909.3698



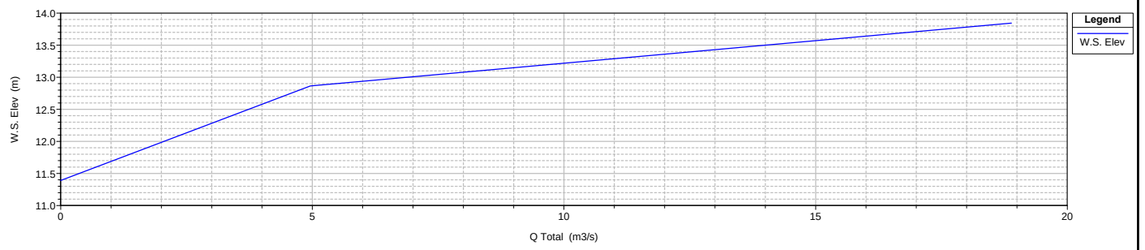
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 877.0899



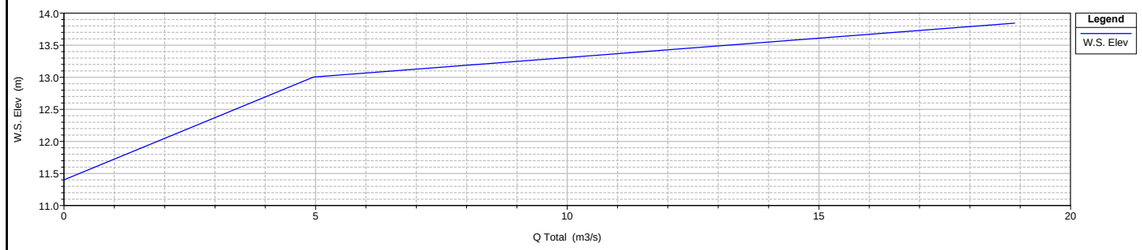
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 857.4481



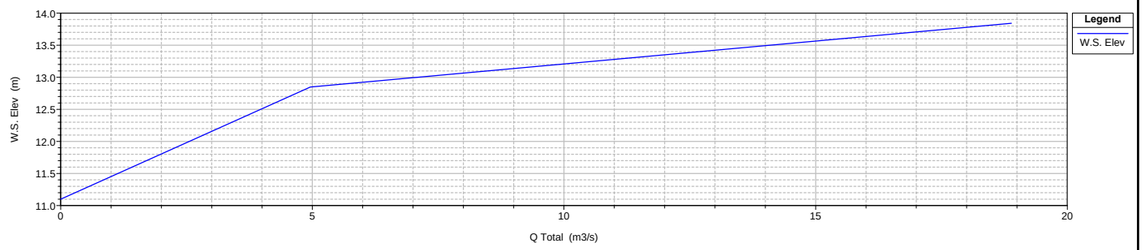
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 841.6505



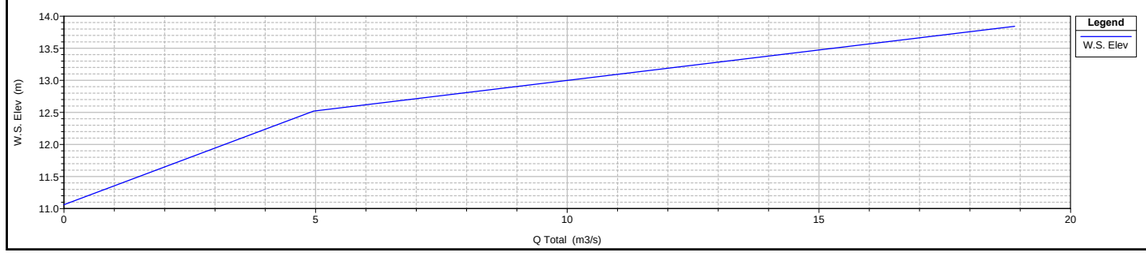
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 841 Culv



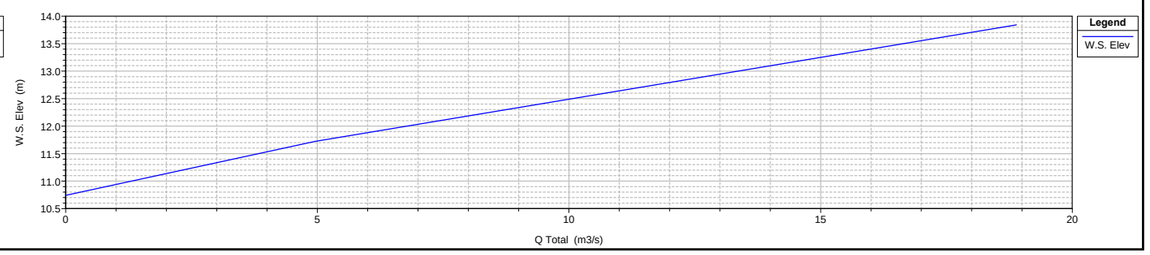
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 841 Culv



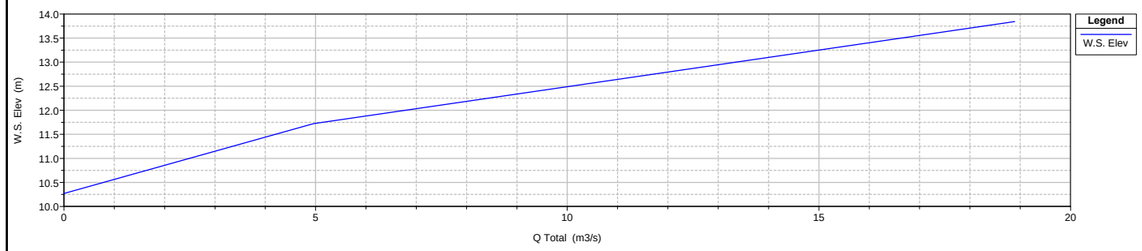
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 811.2636



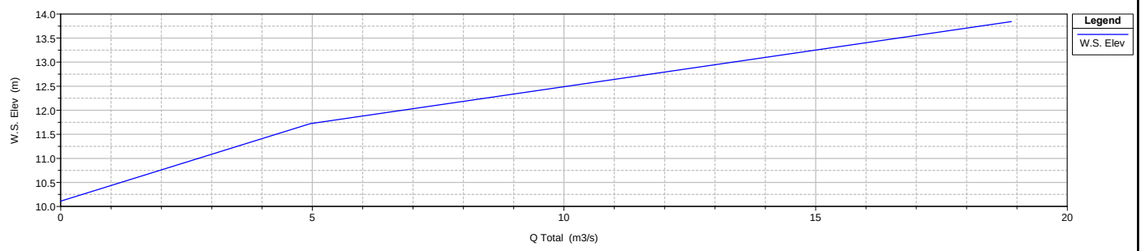
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 784.6932



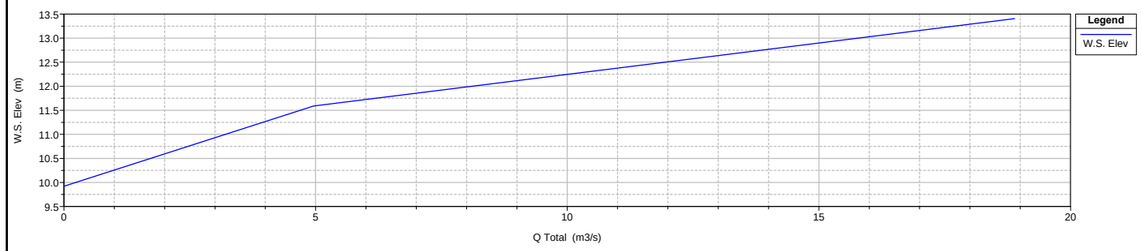
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 751.5314



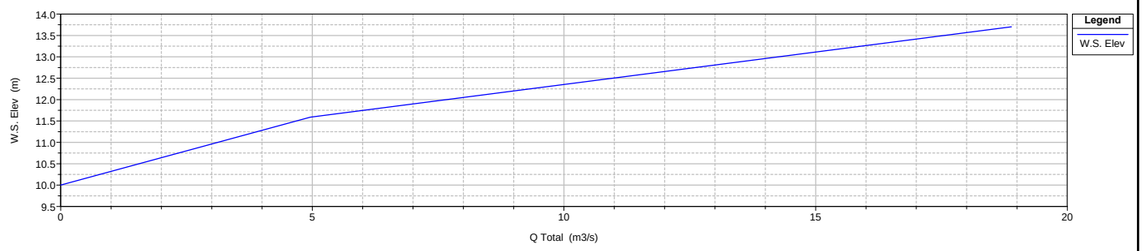
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 739.0021



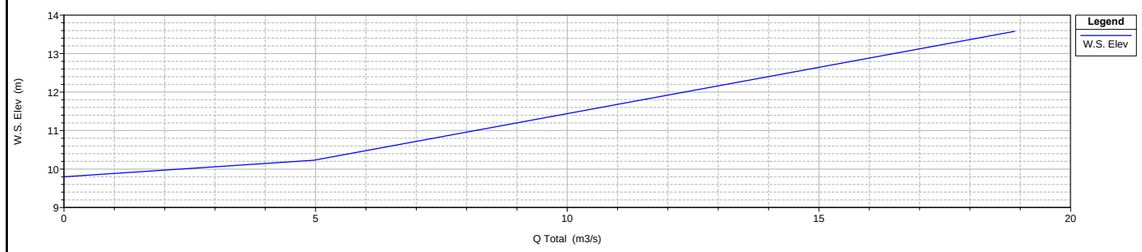
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 719.7668



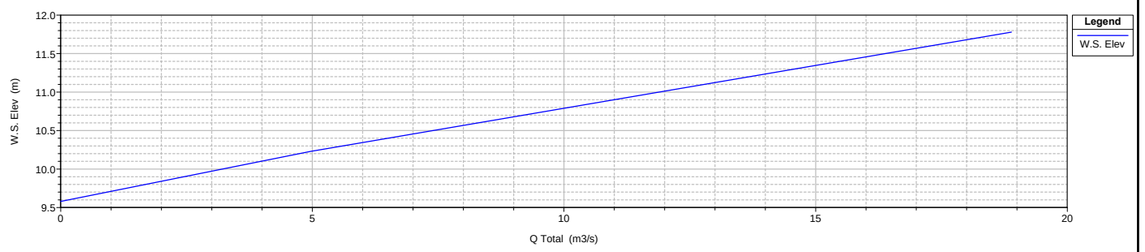
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 719 Culv



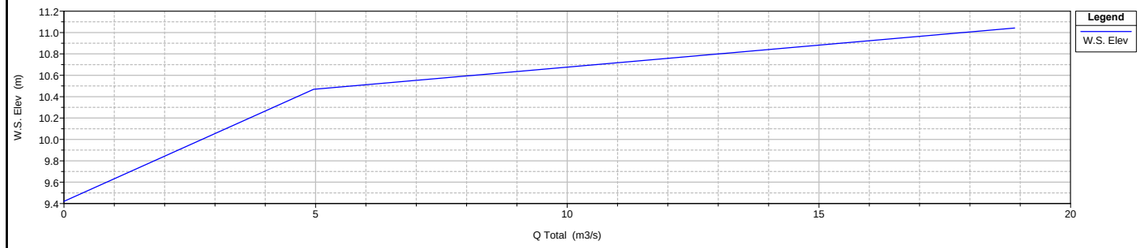
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 719 Culv



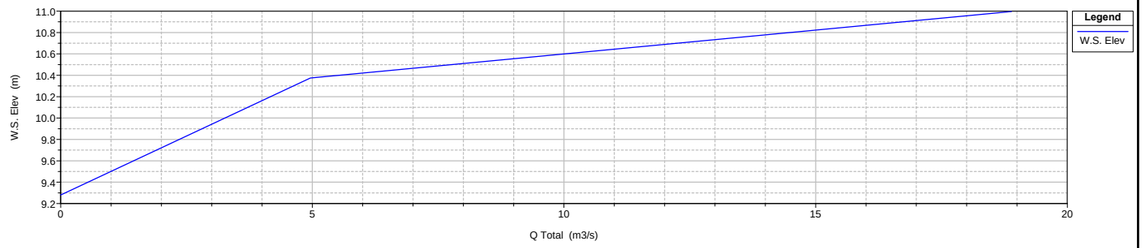
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 693.5987



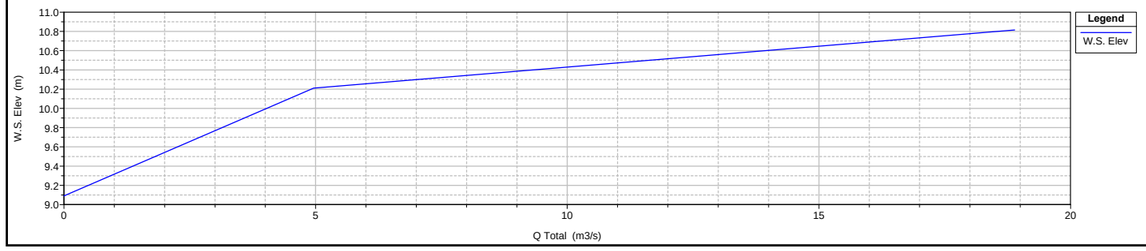
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 663.5455



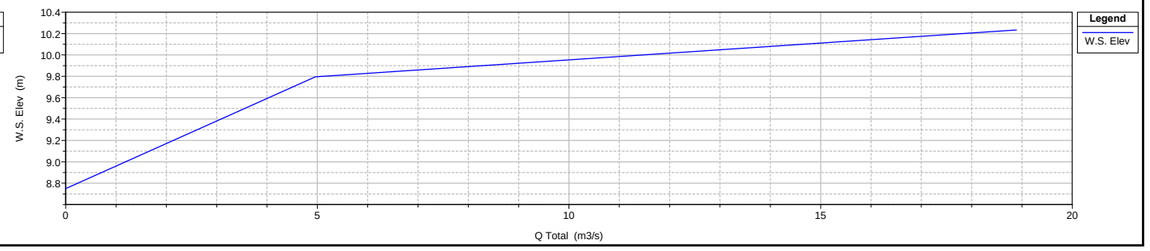
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 640.5283



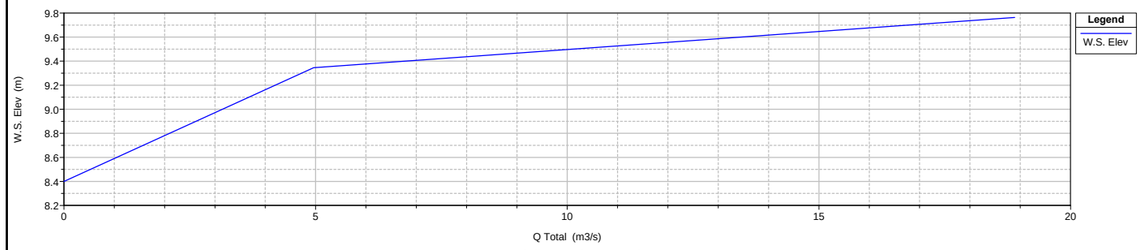
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 622.4961



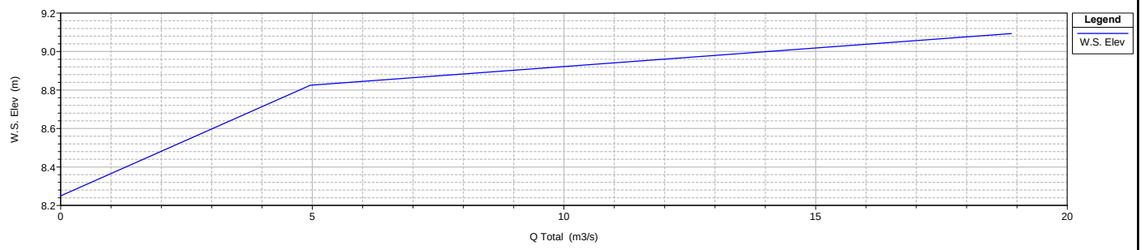
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 588.4816



HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 569.4819



HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 551.4819



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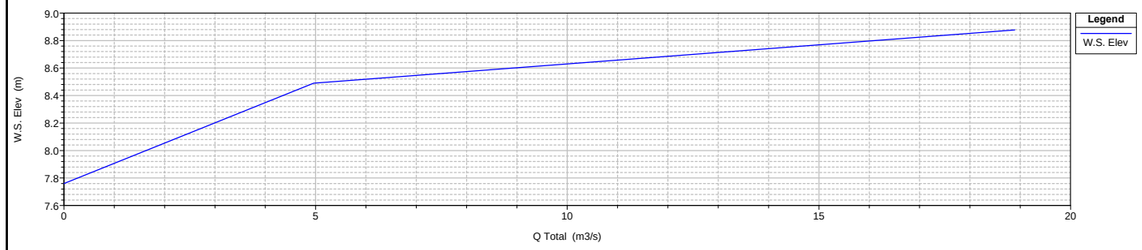
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 543.2019



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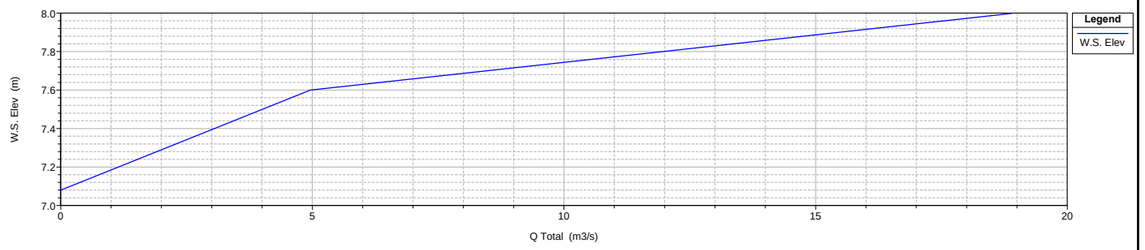
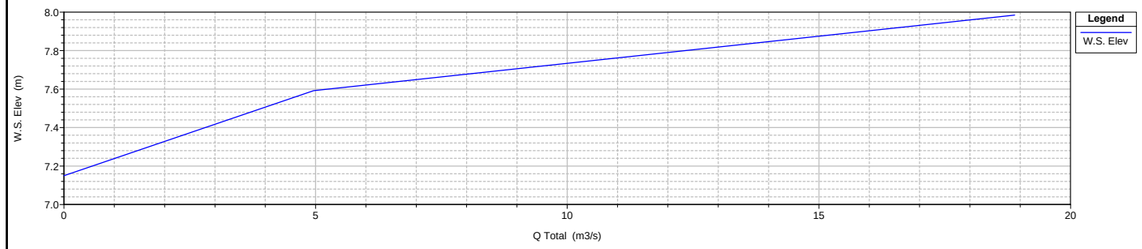
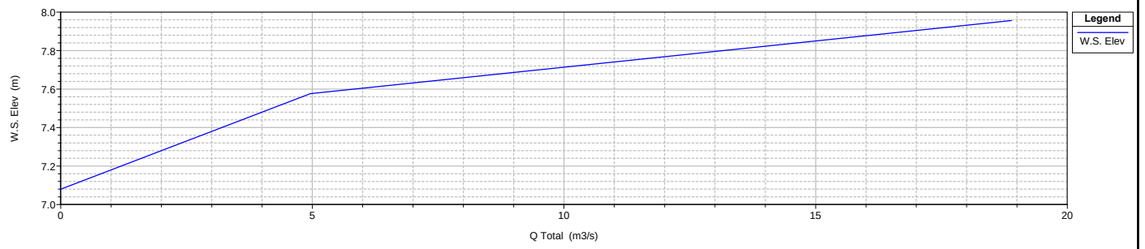
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 529.6032



HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 529 BR



HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 529 BR



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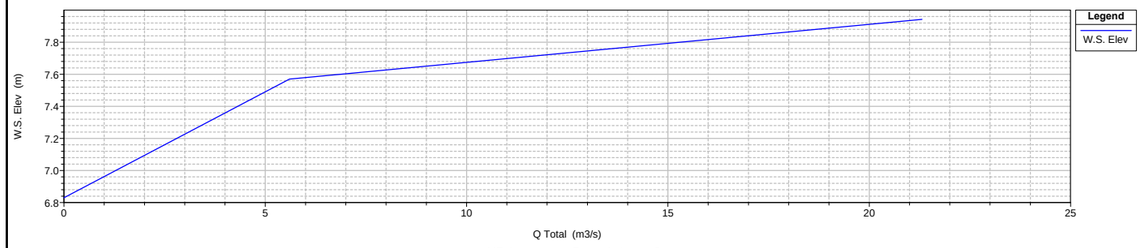
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 516.8986



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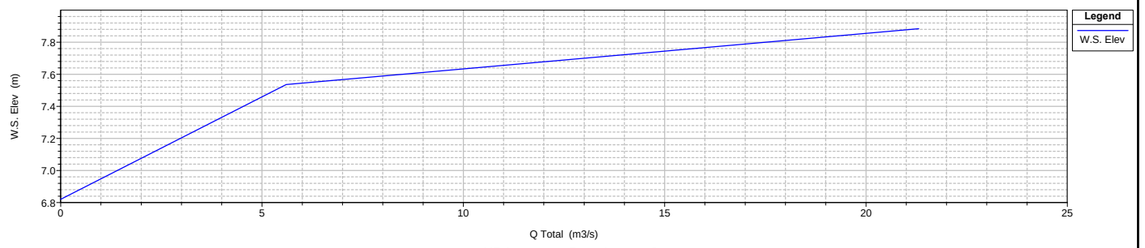
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 498.0395



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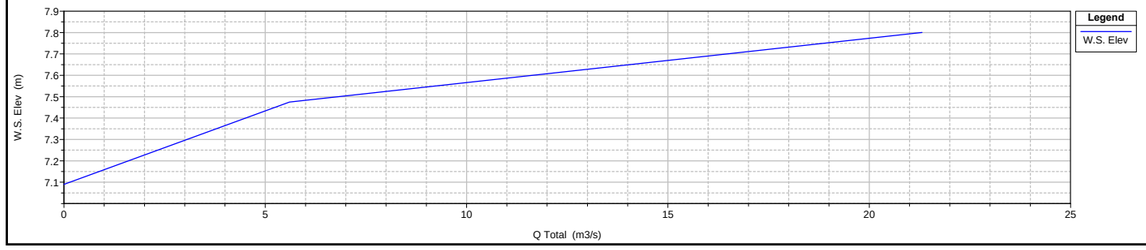
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 480.5480



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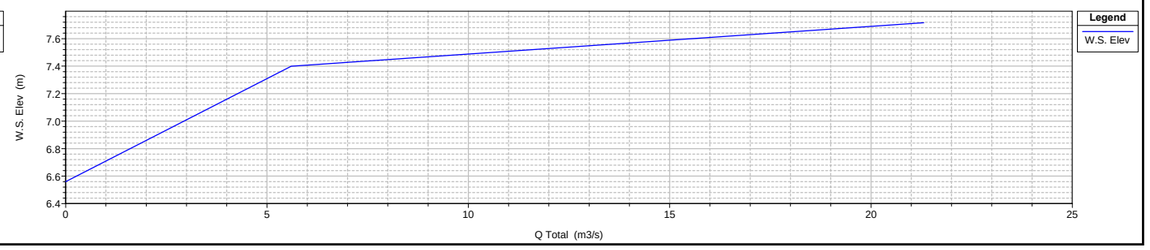
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 463.8804



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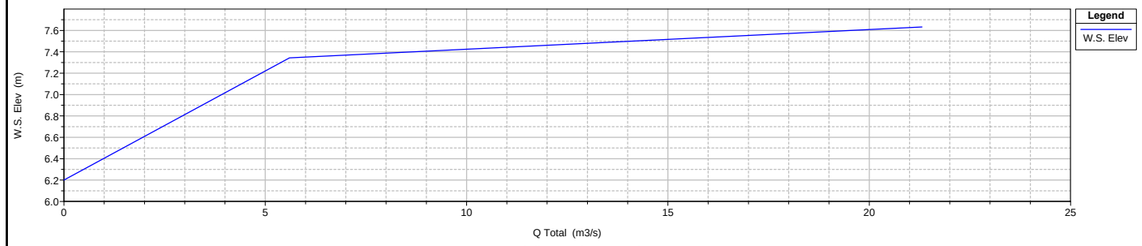
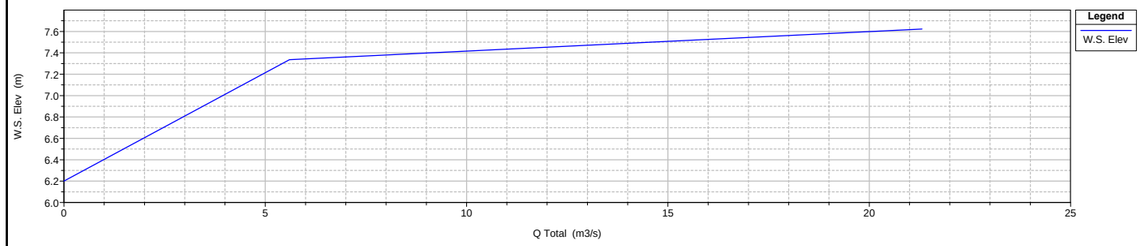
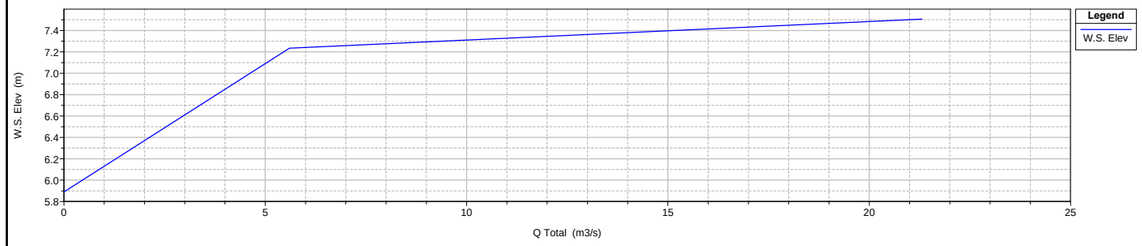
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 447.4822



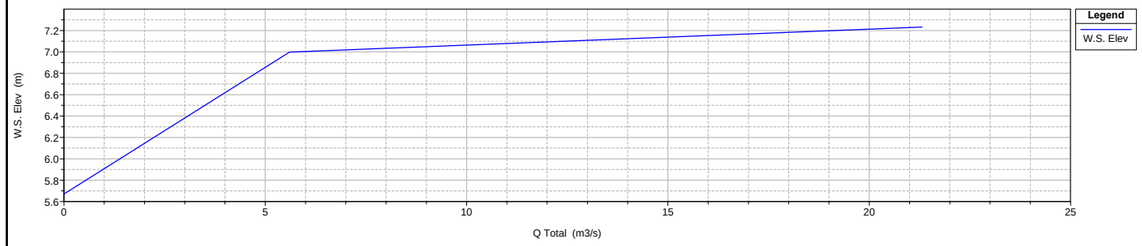
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 447 Culv



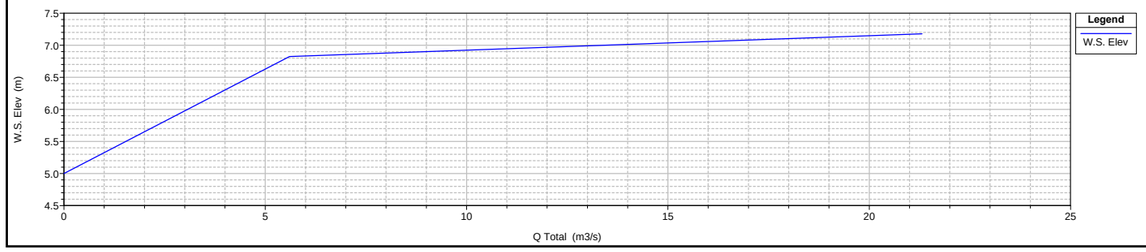
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 428.8812



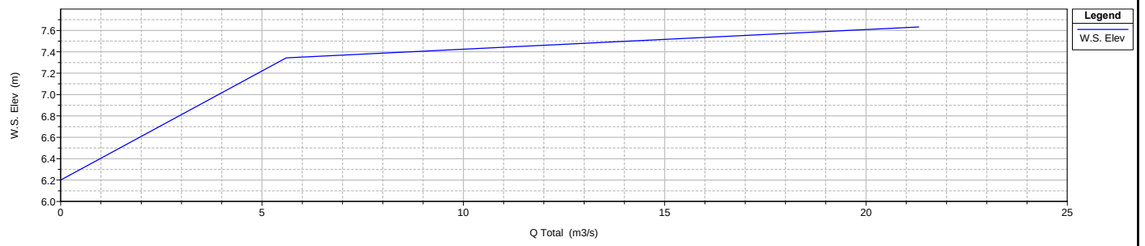
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 373.7445



HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 333.5228



HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 447 Culv



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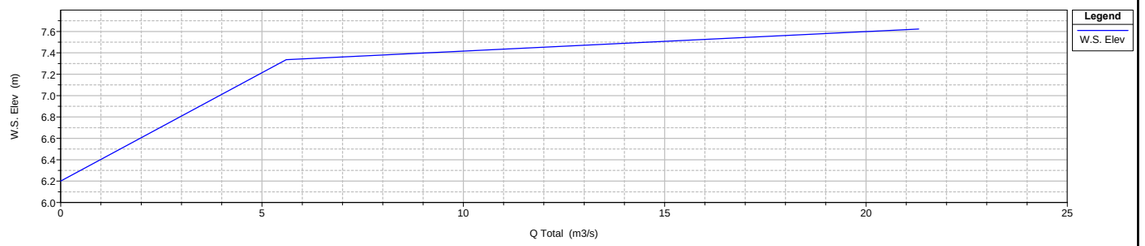
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 438.2866



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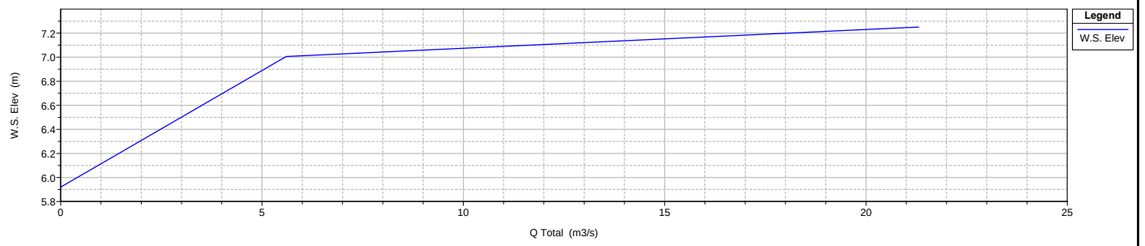
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 399.6586



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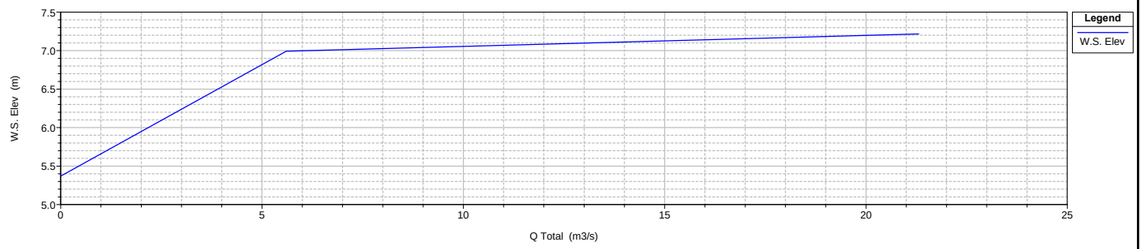
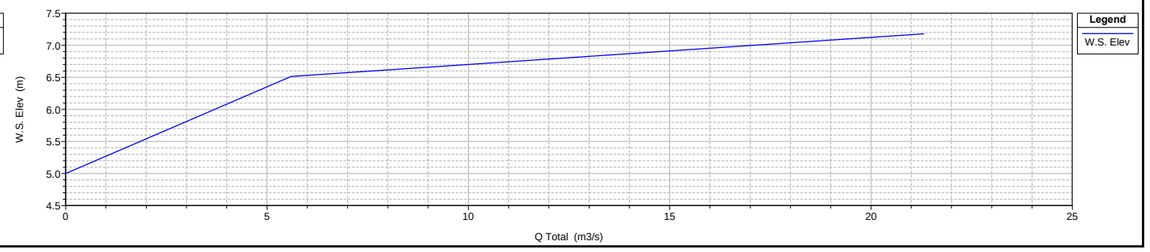
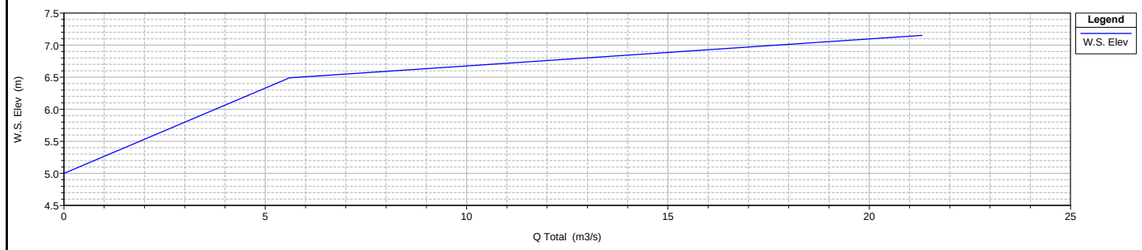
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 346.5426



HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 333 Culv



HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 333 Culv



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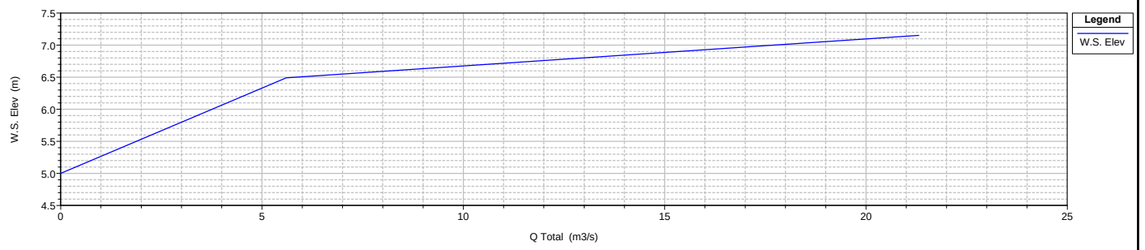
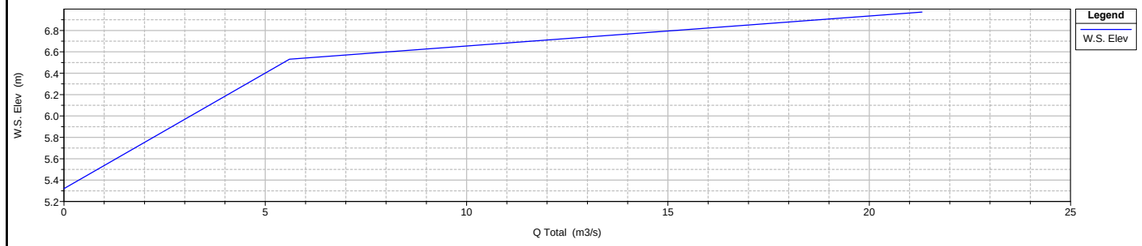
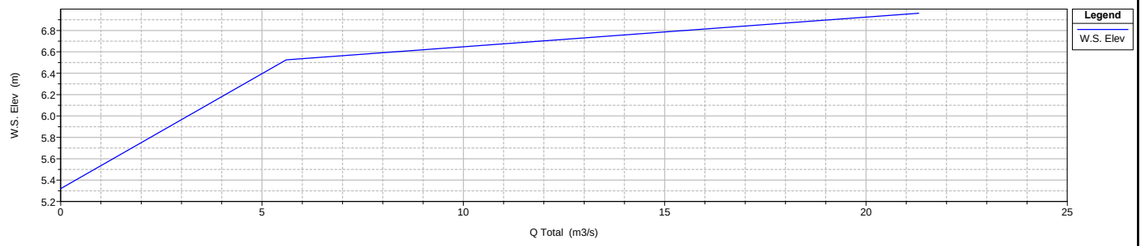
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 327.2853



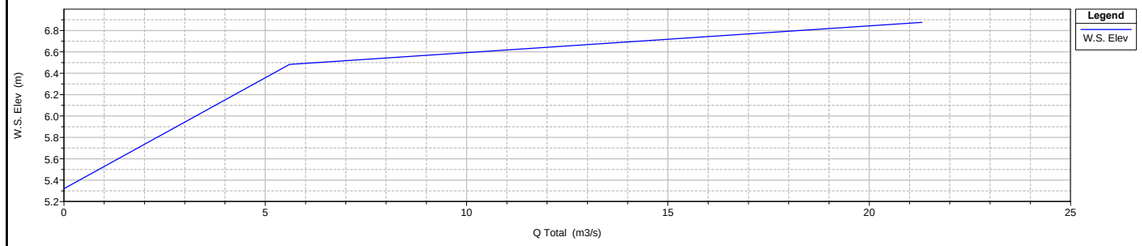
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 317.3868



HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 317 BR



HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 317 BR



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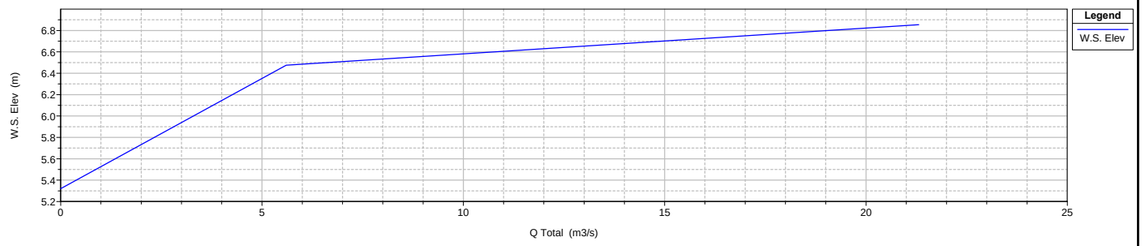
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 295.4587



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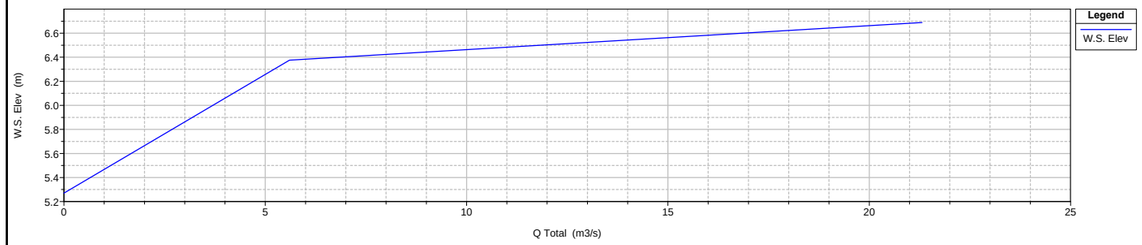
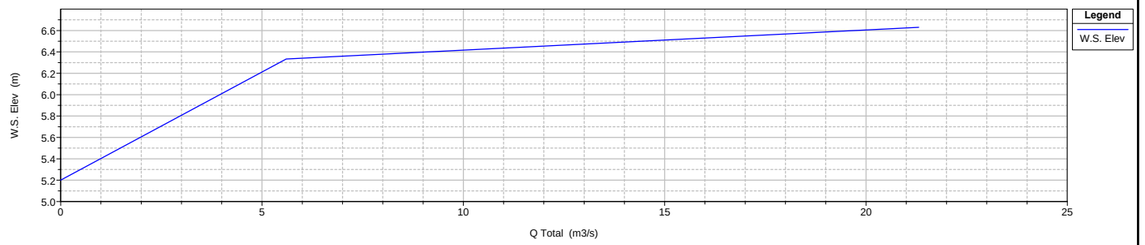
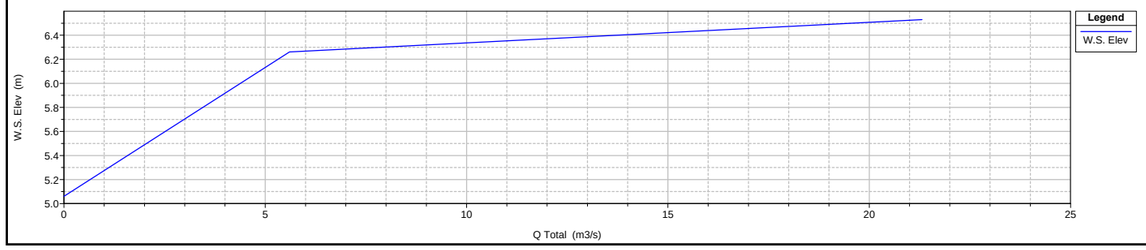
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 252.3185



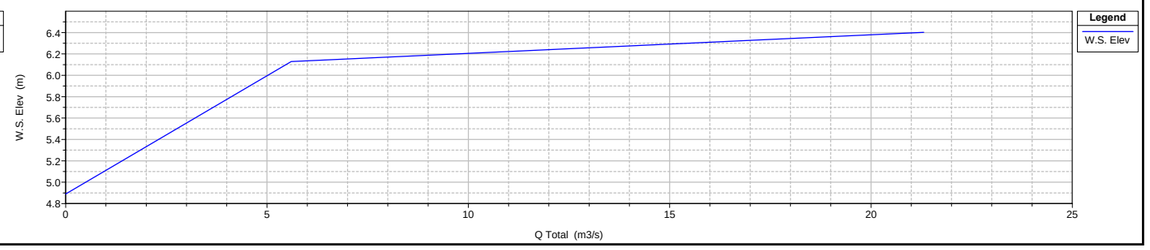
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 232.5208



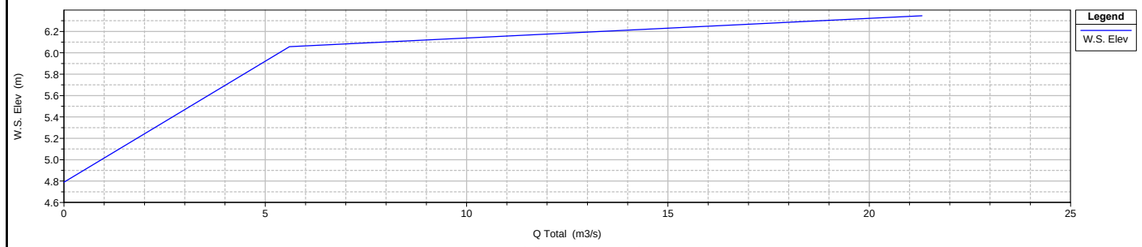
HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 204.2365



HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 174.5388



HR-Lebrija Plan: Actual_v2
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 151.1968



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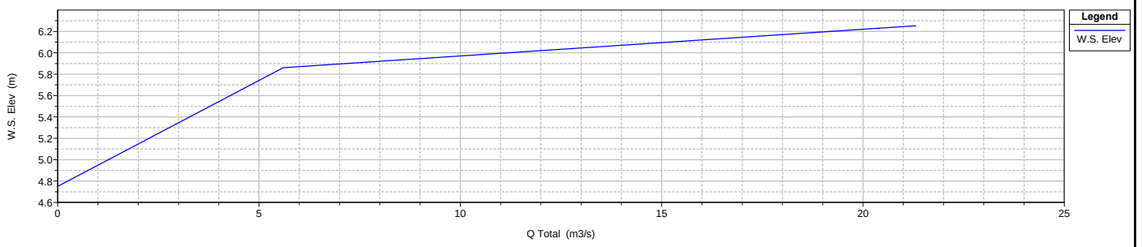
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 122.1893



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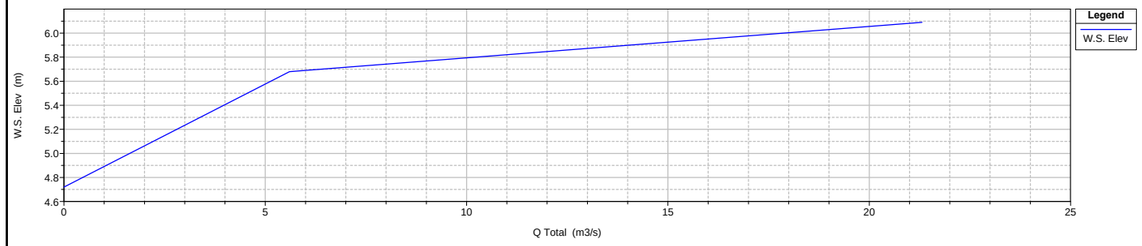
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 105.2275



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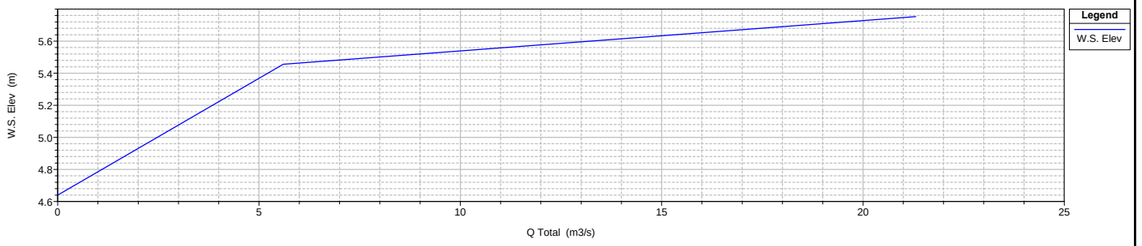
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 75.49478



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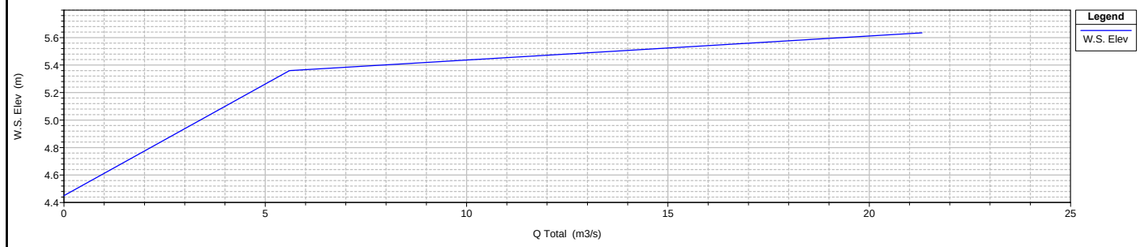
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 52.82321



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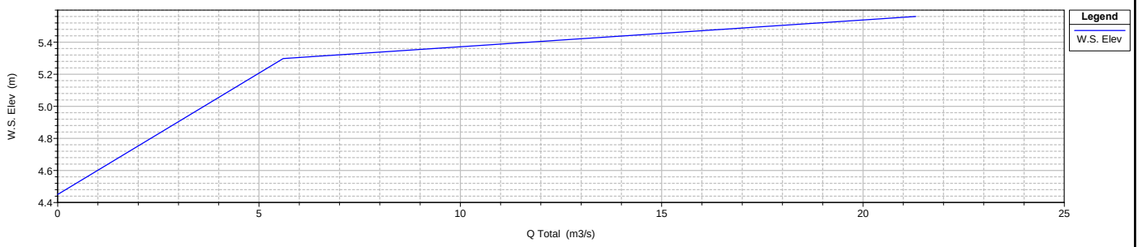
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 39.96368



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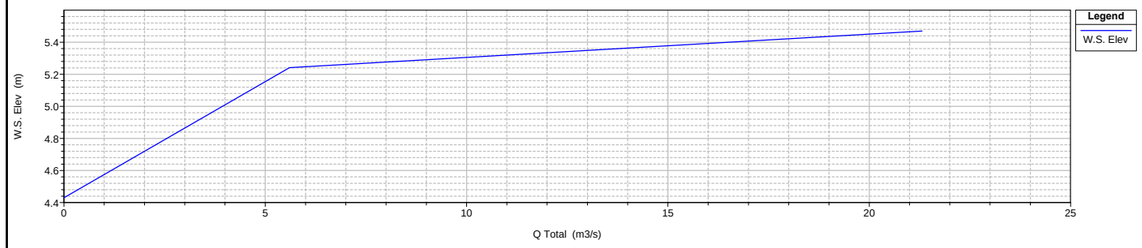
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 29.15927



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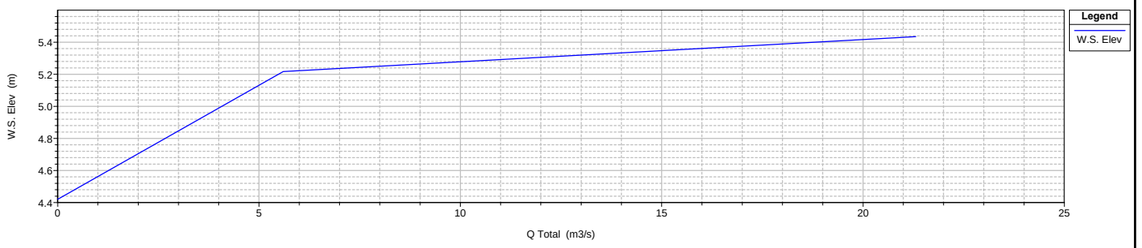
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 23.84281



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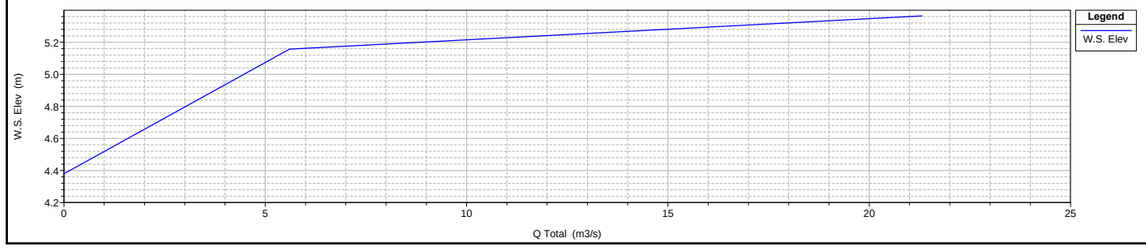
Geom: Actual_01 Flow: Actual
River = Actual_4 Reach = Actual_4 RS = 12.19474

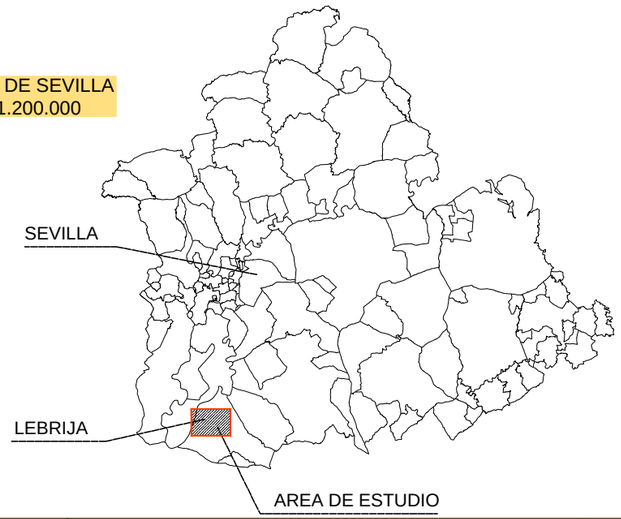


Documento nº2: Planos

ÁREA DE ESTUDIO
ESCALA: 1:50.000

COMUNIDAD ANDALUZA
ESCALA: 1:2.000.000

PROVINCIA DE SEVILLA
ESCALA: 1:1.200.000



Nº PLANO	DESIGNACIÓN
2.1	SITUACIÓN E ÍNDICE
2.2	ESTADO ACTUAL
2.2.1	PLANEAMIENTO URBANO - ESTADO ACTUAL Y PREVISIÓN
2.2.2	CUENCAS DE ESTUDIO
2.2.3	ESCORRENTIA
2.2.3.1	PENDIENTES
2.2.3.2	TIPOS DE SUELO
2.2.3.3	USOS DE SUELO
2.2.3.4	NÚMERO DE CURVA / UMBRAL DE ESCORRENTÍA
2.2.4	LEVANTAMIENTO TOPOGRÁFICO
2.2.5	SECCIONES DE CÁLCULO
2.2.6	INUNDABILIDAD
2.2.6.1.1	LLANURAS DE INUNDACIÓN
2.2.6.1.2	LLANURAS DE INUNDACIÓN + PLANEAMIENTO
2.2.6.2	MAPA DE CALADOS
2.2.6.3	MAPA DE VELOCIDADES

CONSULTORA: Civile www.civil-e.com

CLIENTE: ALFREDO LINARES AGÜERA

INGENIERO DIRECTOR DEL ESTUDIO: D. Fernando Alguacil Duarte
Ingeniero de Montes. Nº Colegiado 4.423
Ingeniero de Caminos, Canales y Puertos. Nº Colegiado 28.142

INGENIERO AUTOR DEL ESTUDIO: D. Javier Merino Crespín
Ingeniero Agrónomo. Nº Colegiado 2.382
Ingeniero Técnico de Obras Públicas. Nº Colegiado 19.615

FECHA: Abril 2012

TITULO: ***ESTUDIO DE INUNDABILIDAD DEL PGOU DE LEBRIJA (SEVILLA)***

ESCALAS: INDICADAS
FORMATO ORIGINAL UNE A-3

DESIGNACION: SITUACIÓN E ÍNDICE

Nº DE PLANO: 2.1

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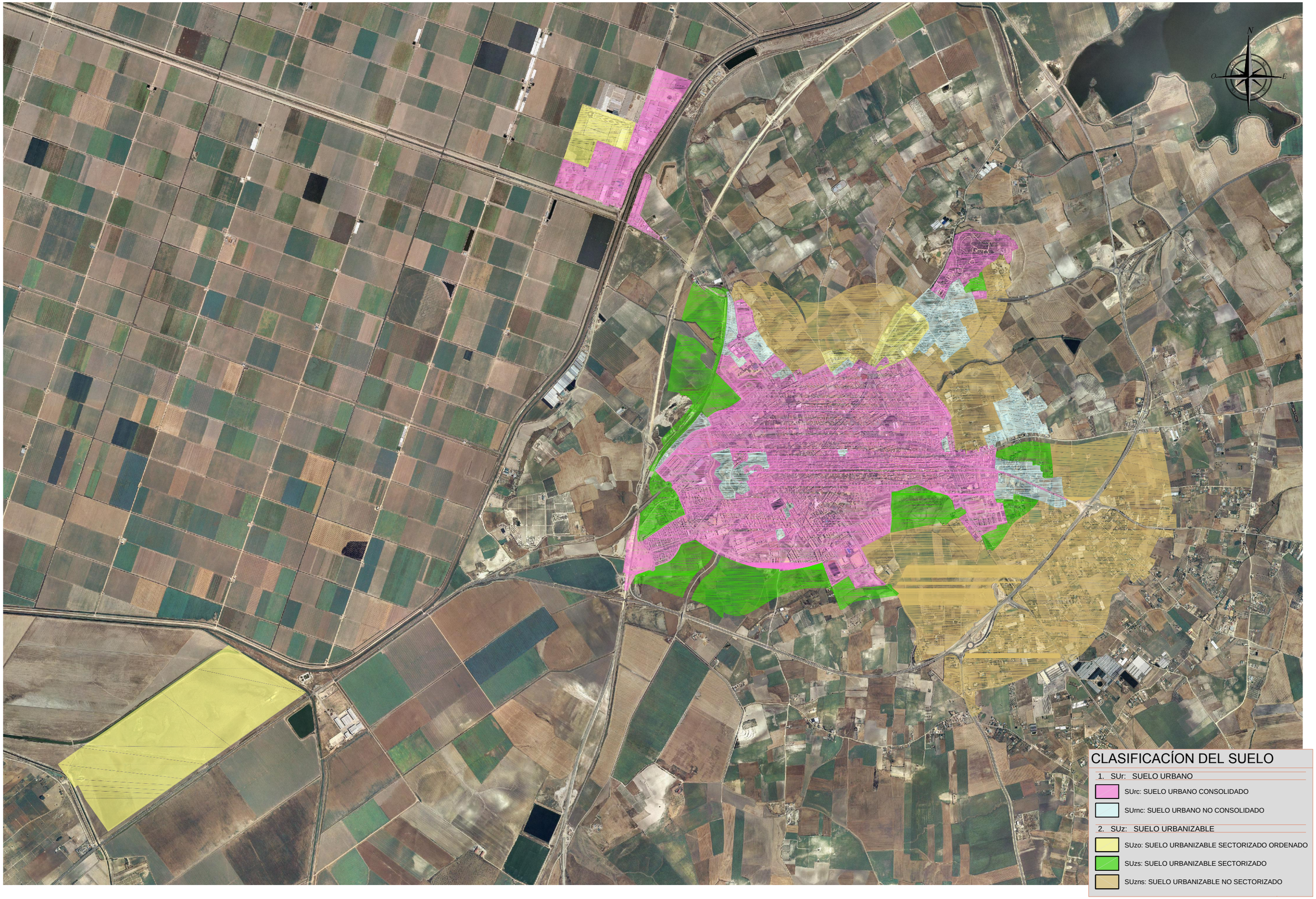

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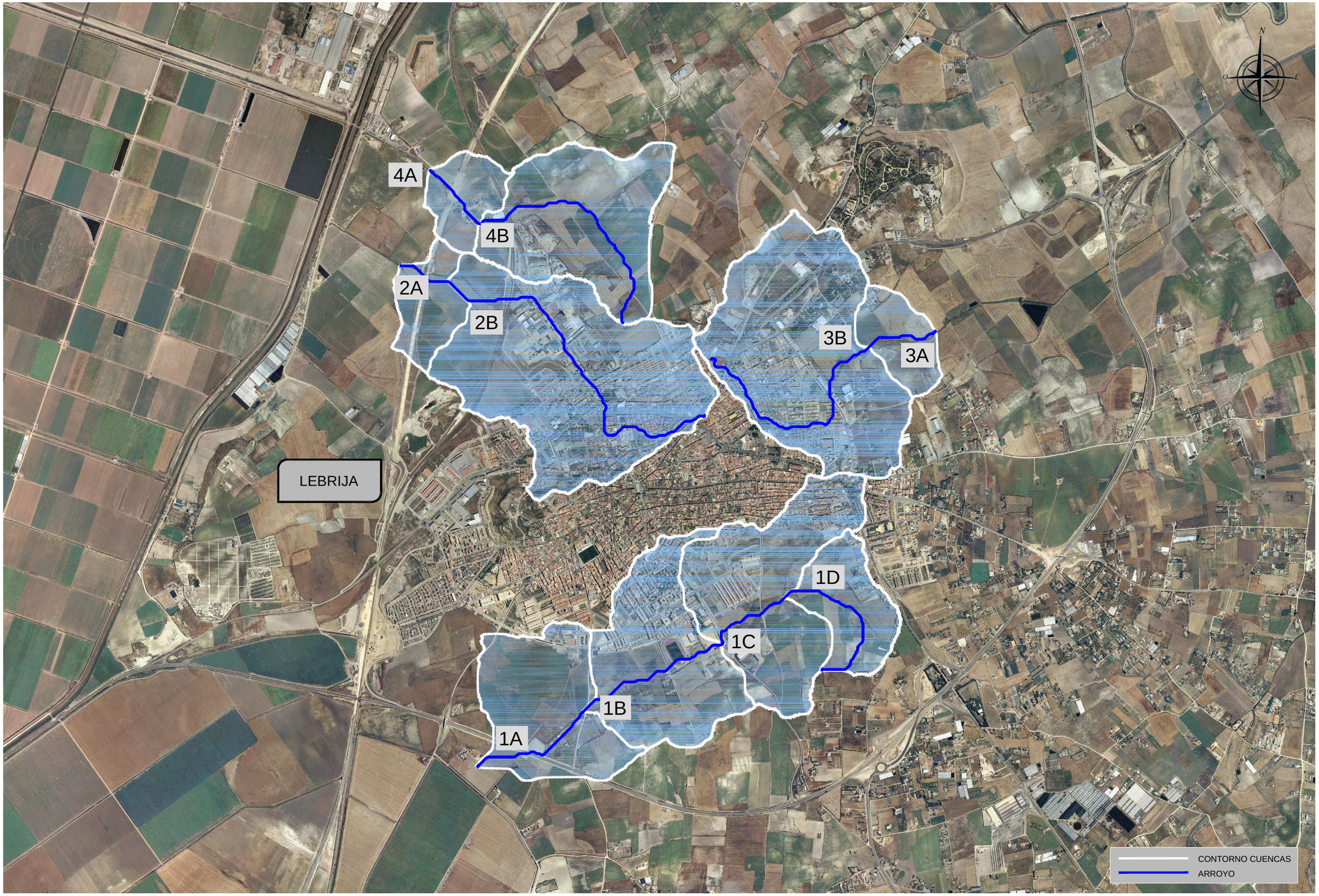

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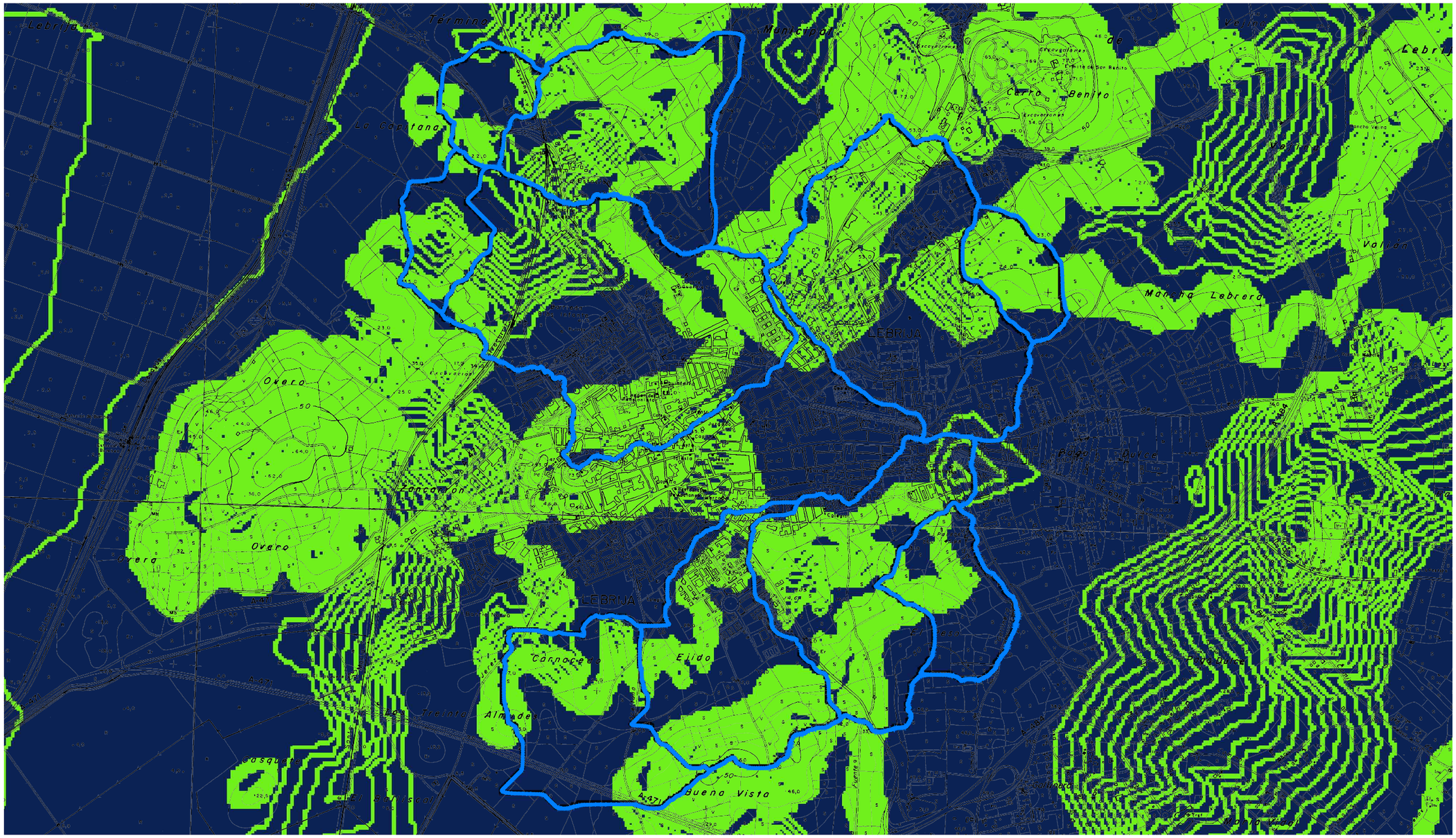

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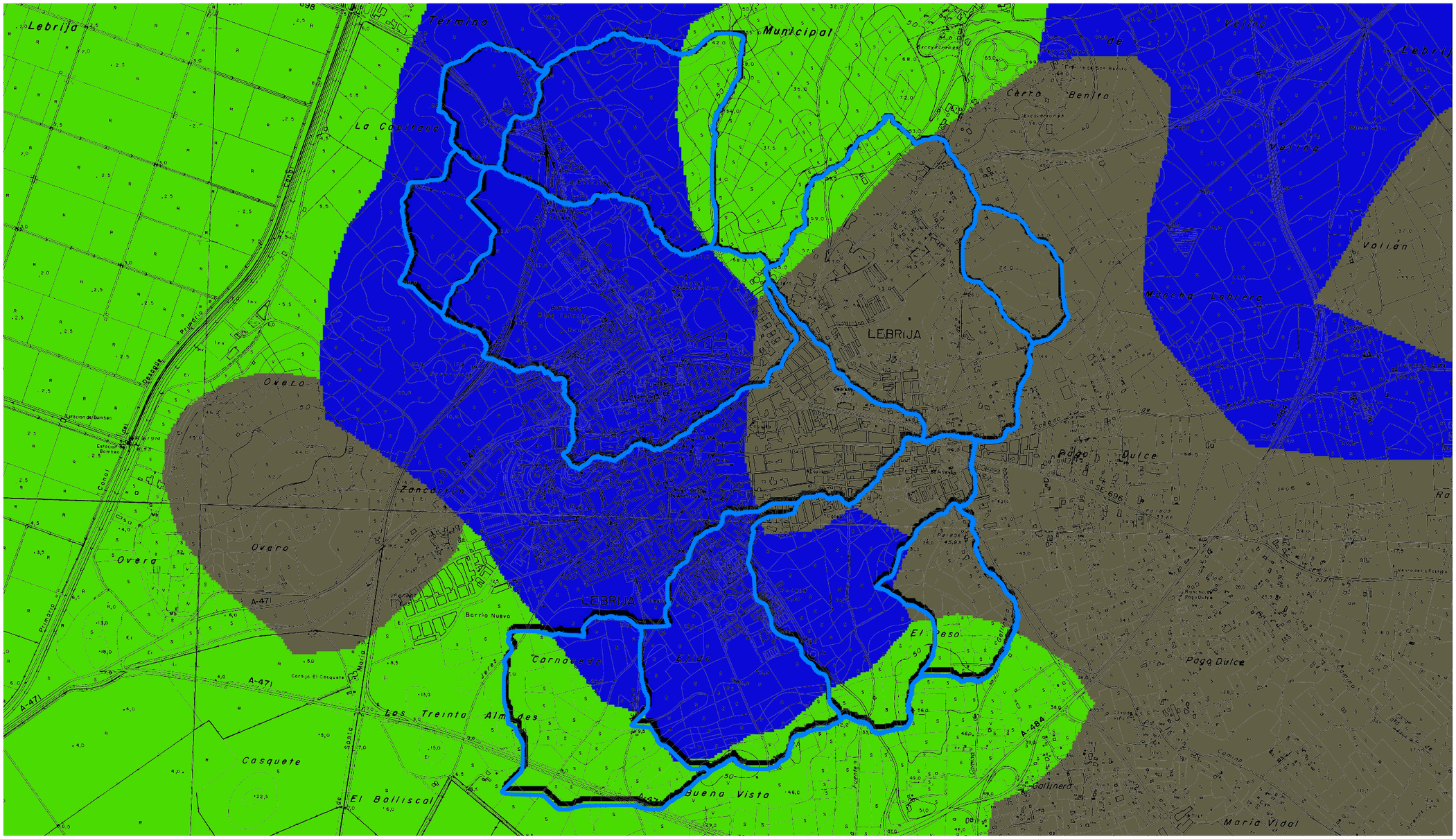

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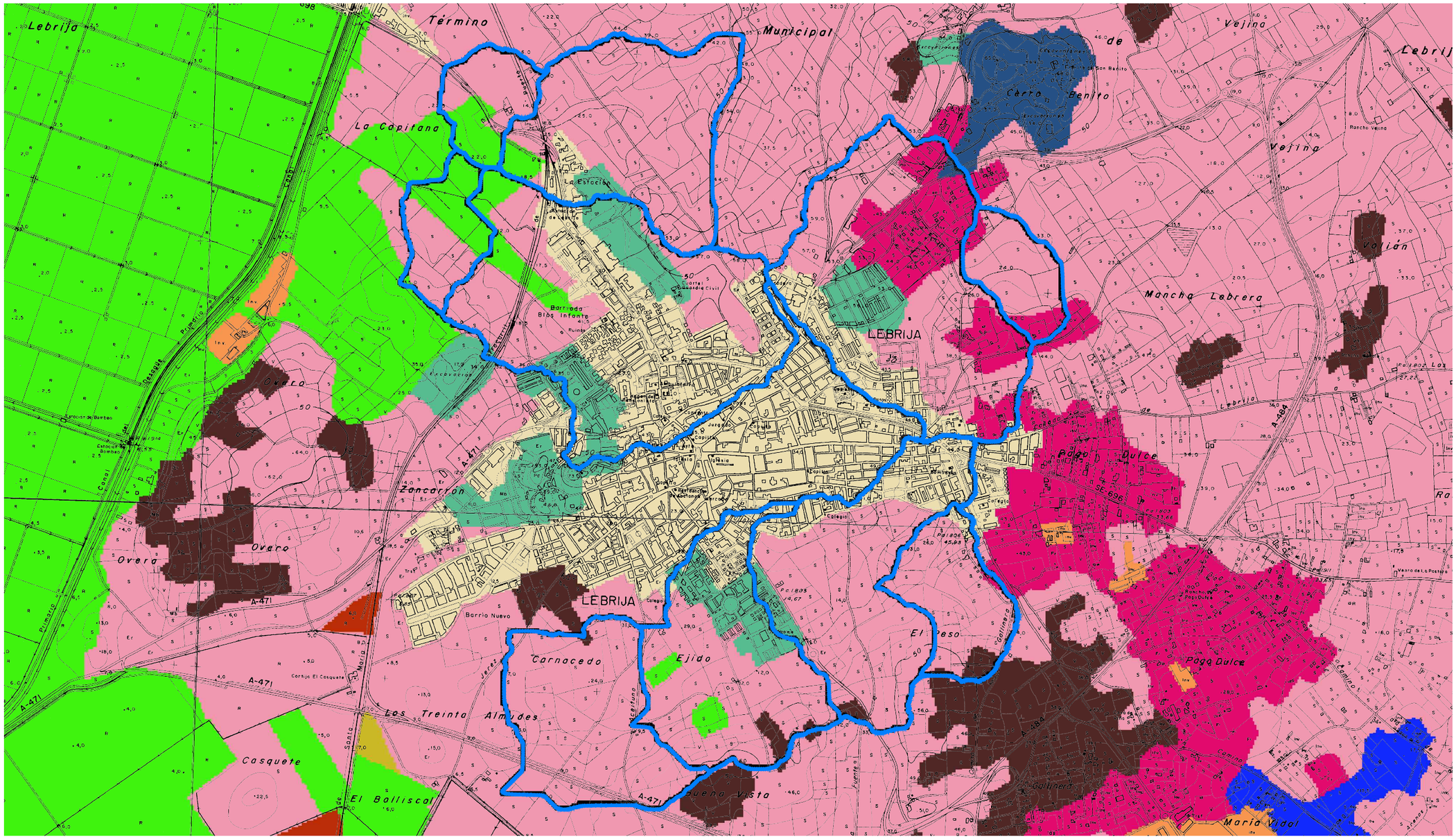

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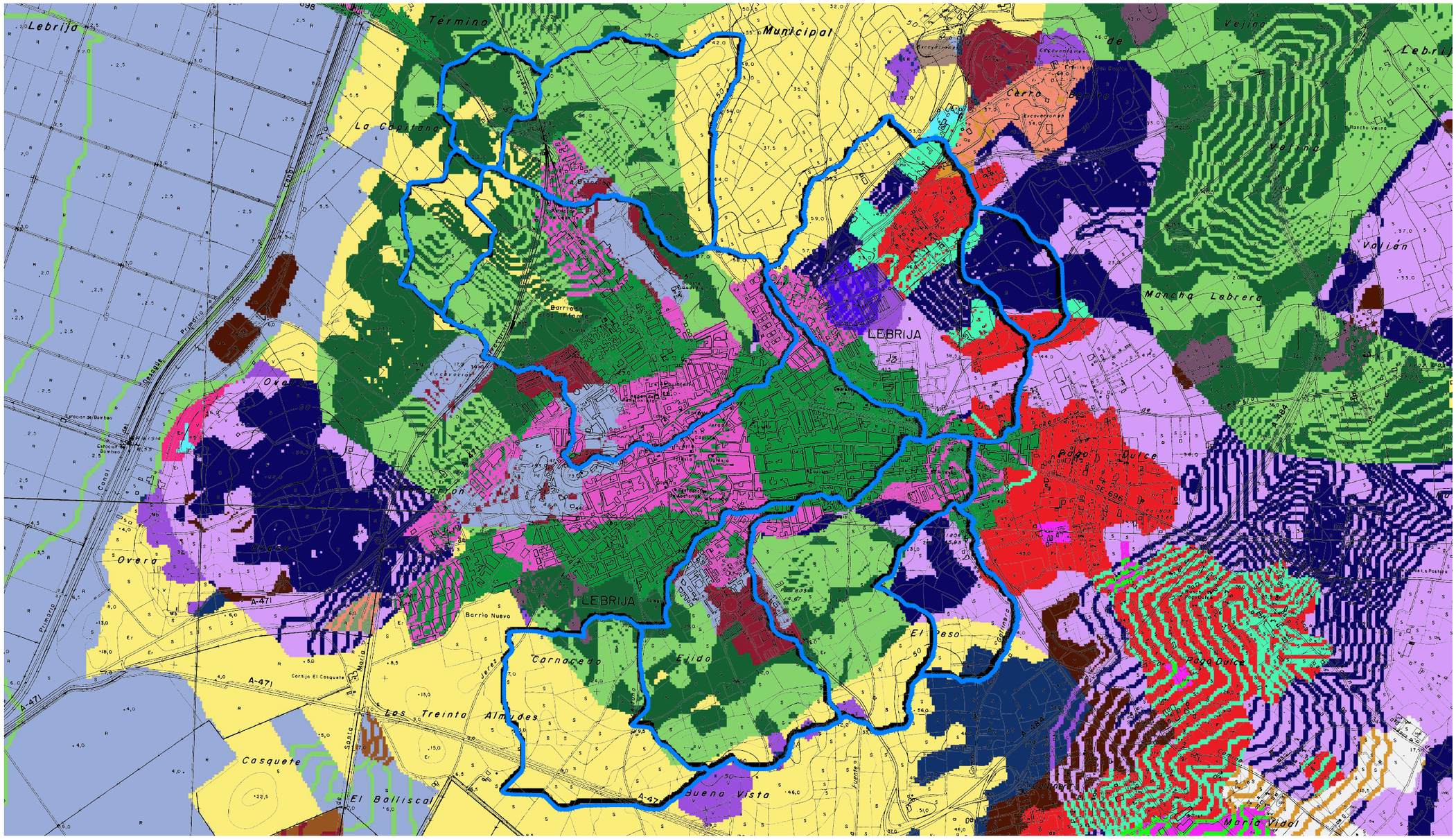

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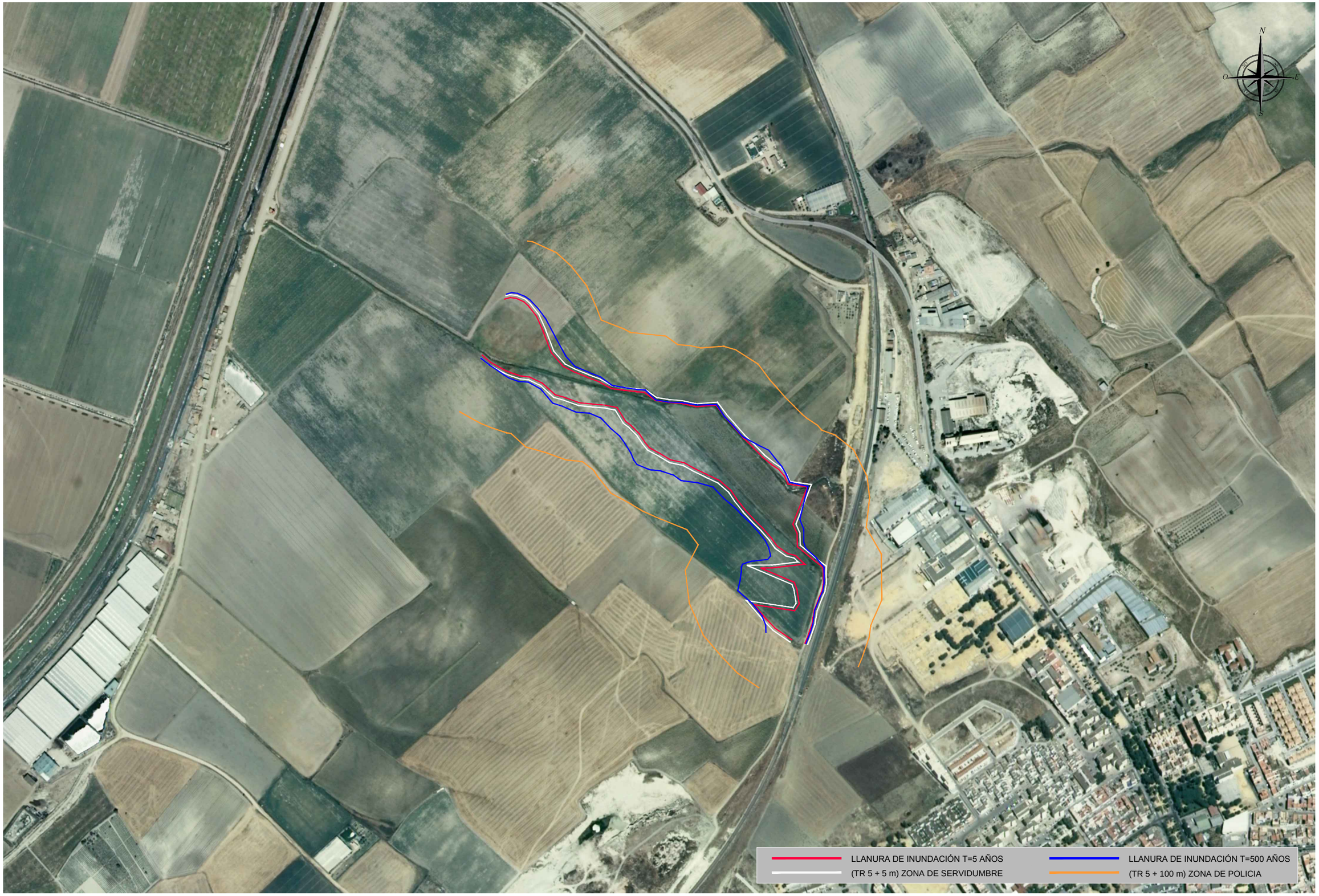

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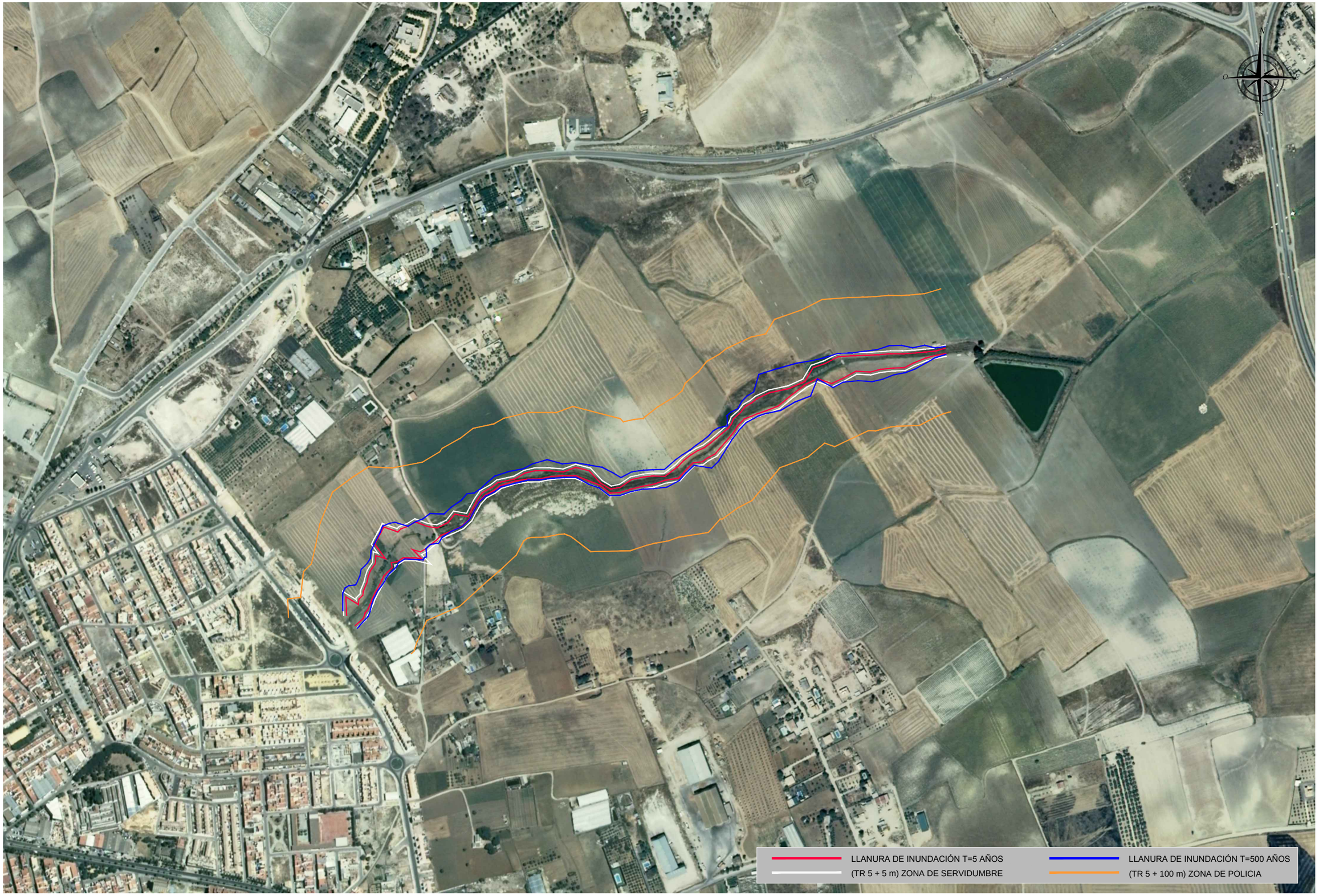

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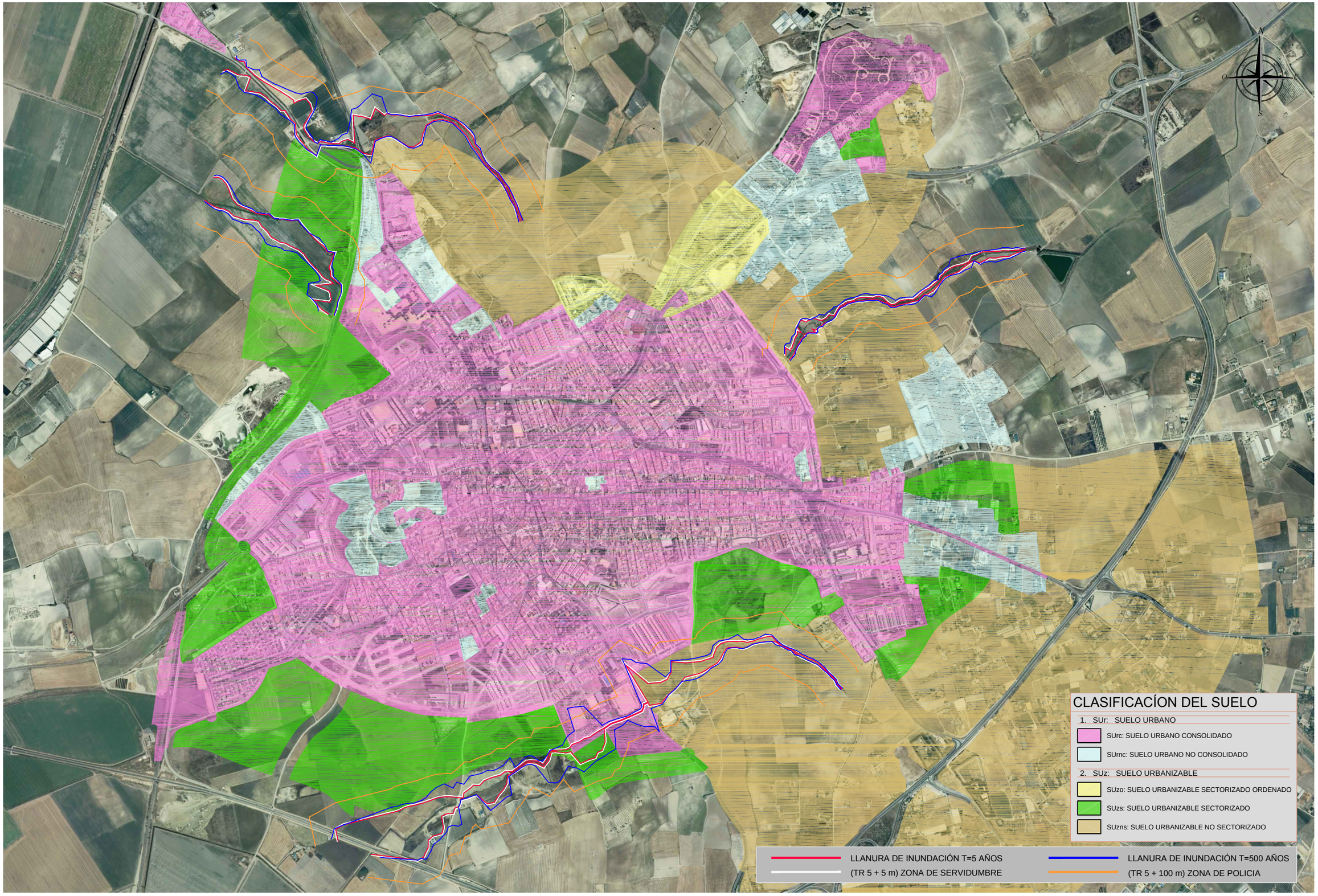

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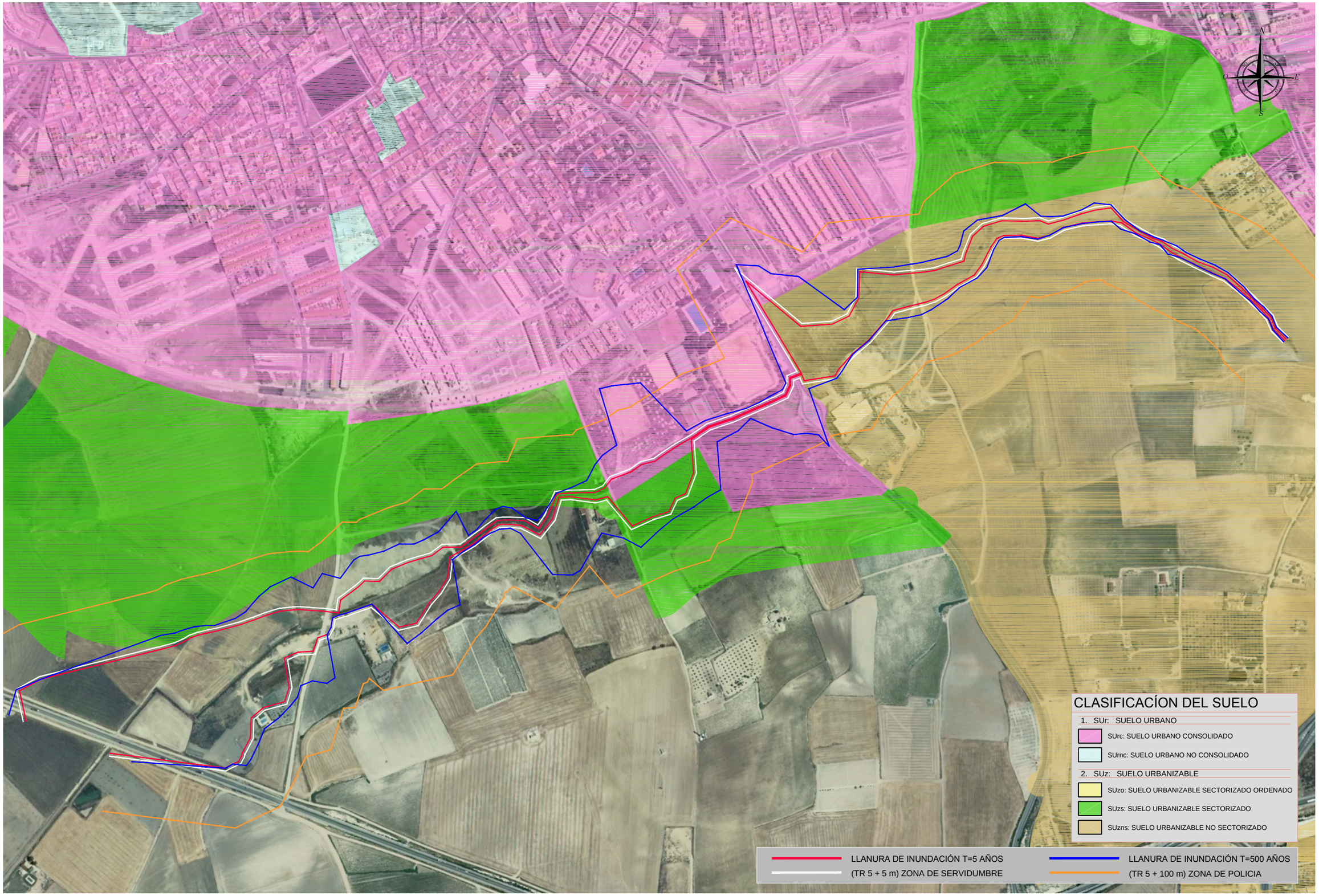

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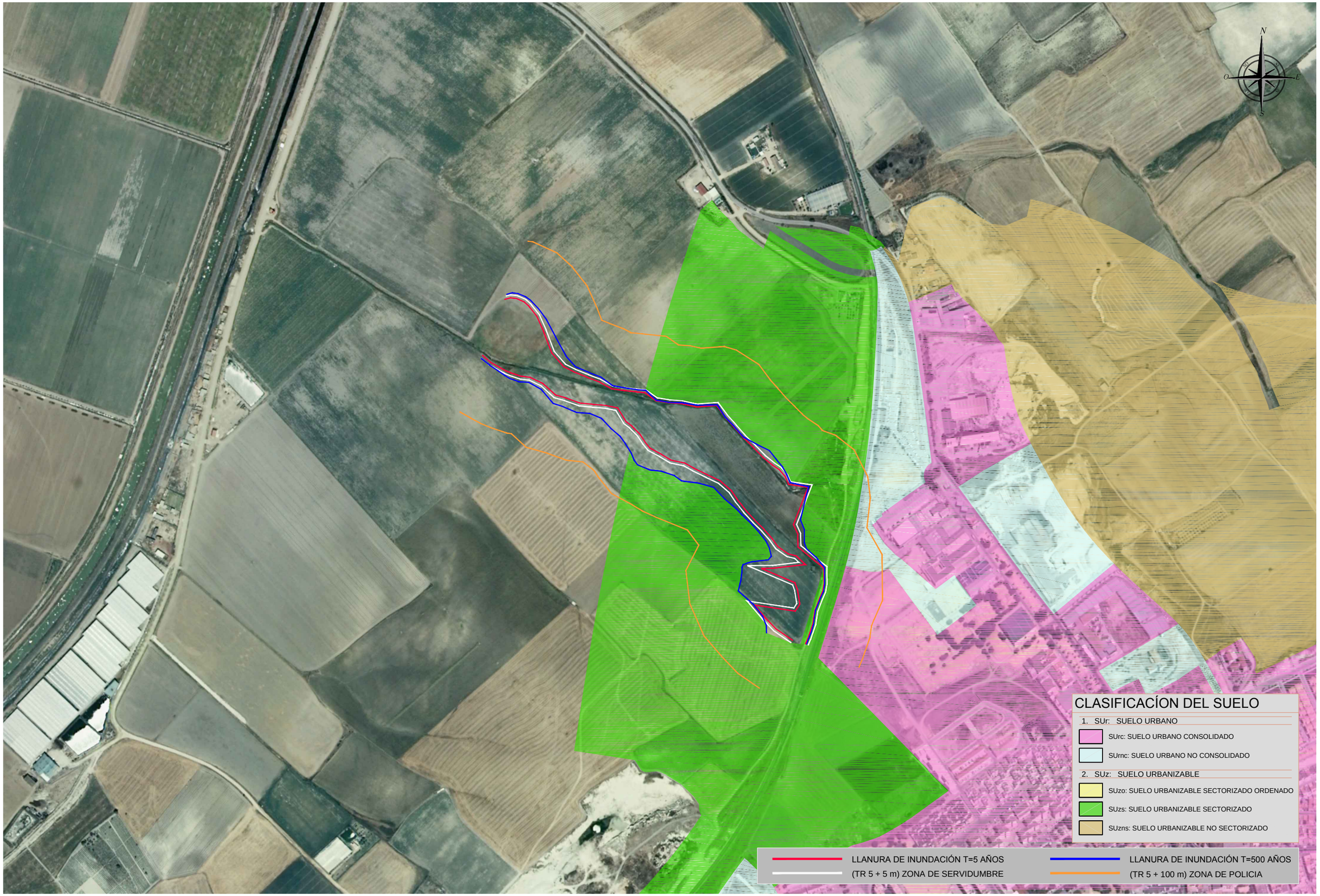

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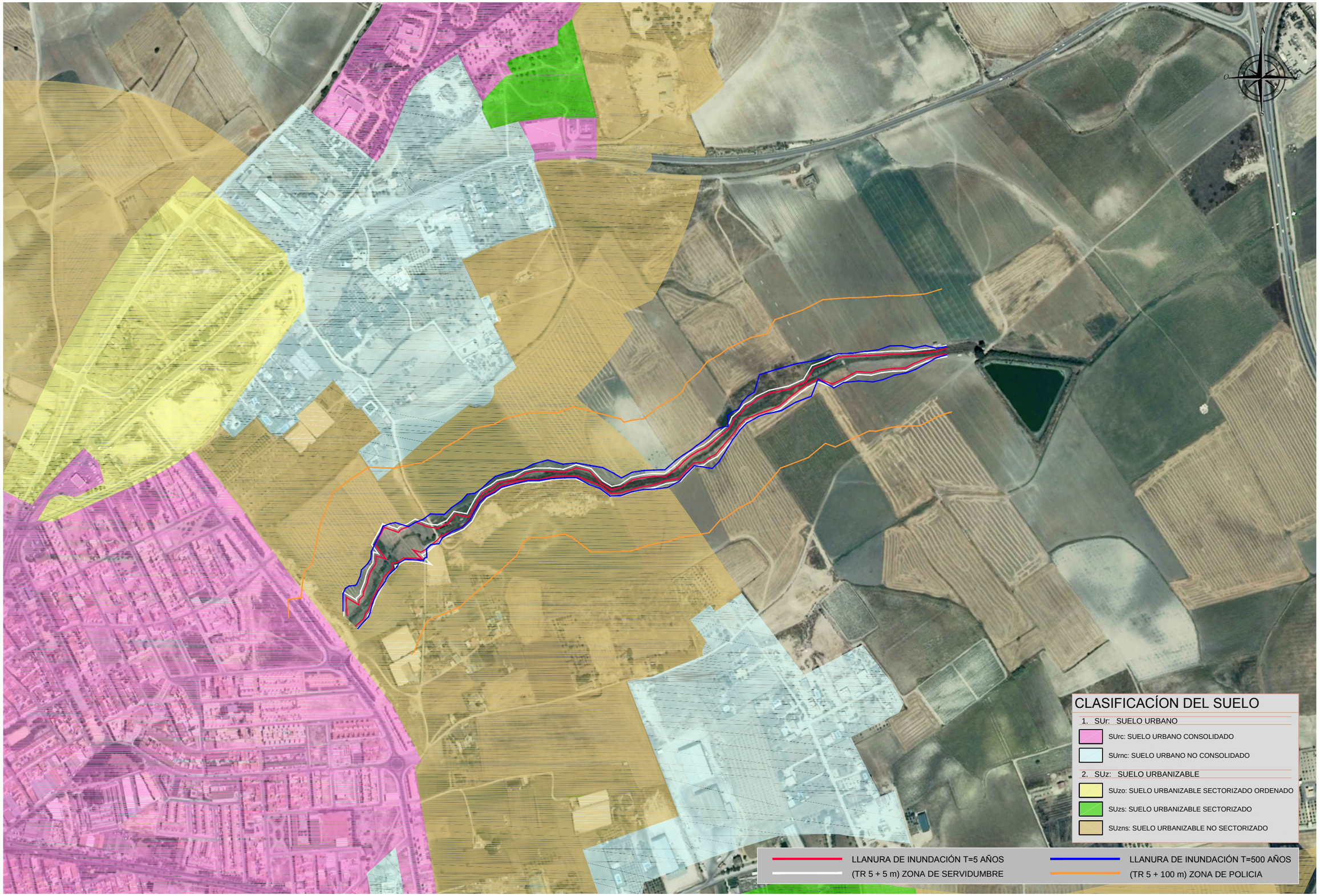

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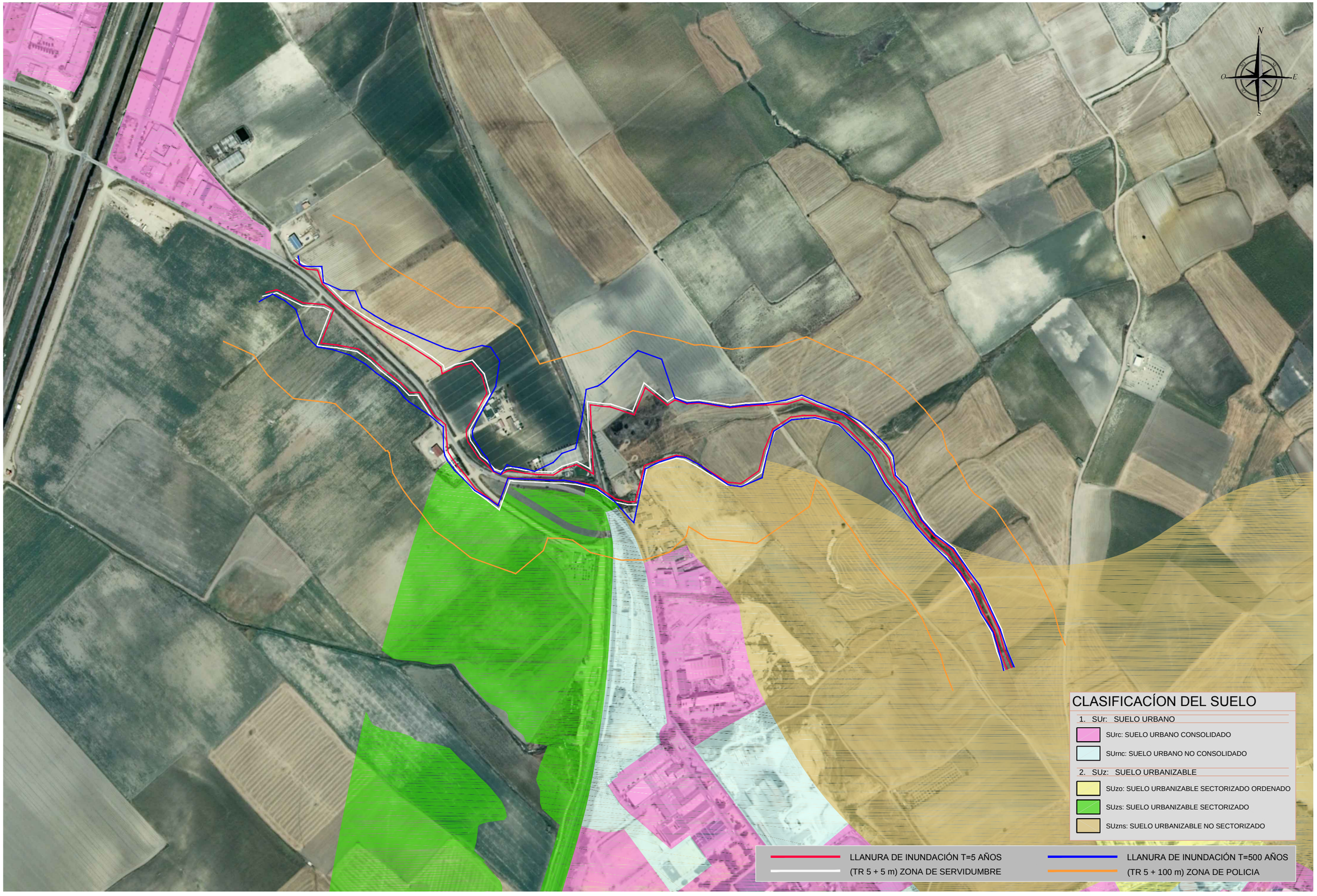

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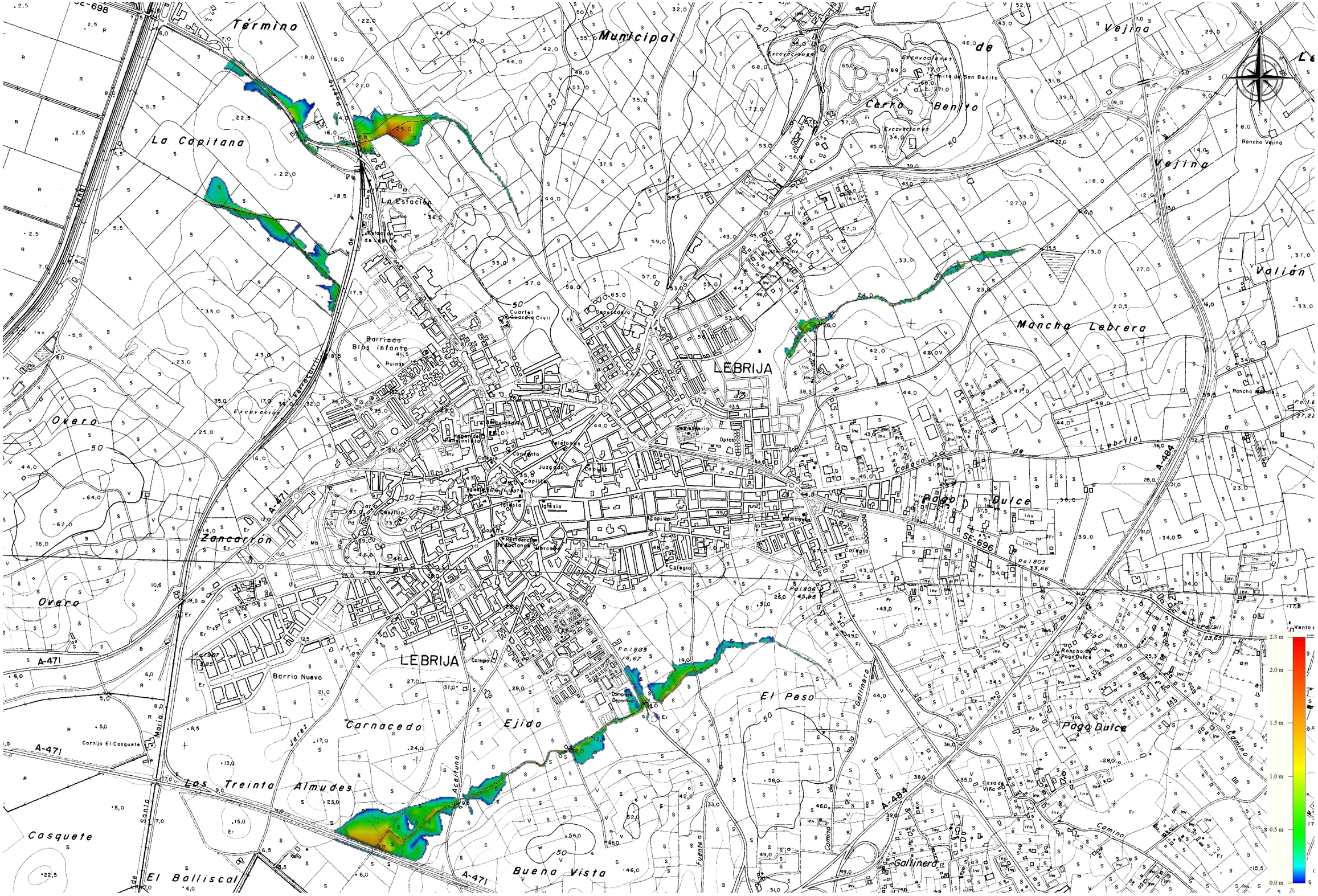

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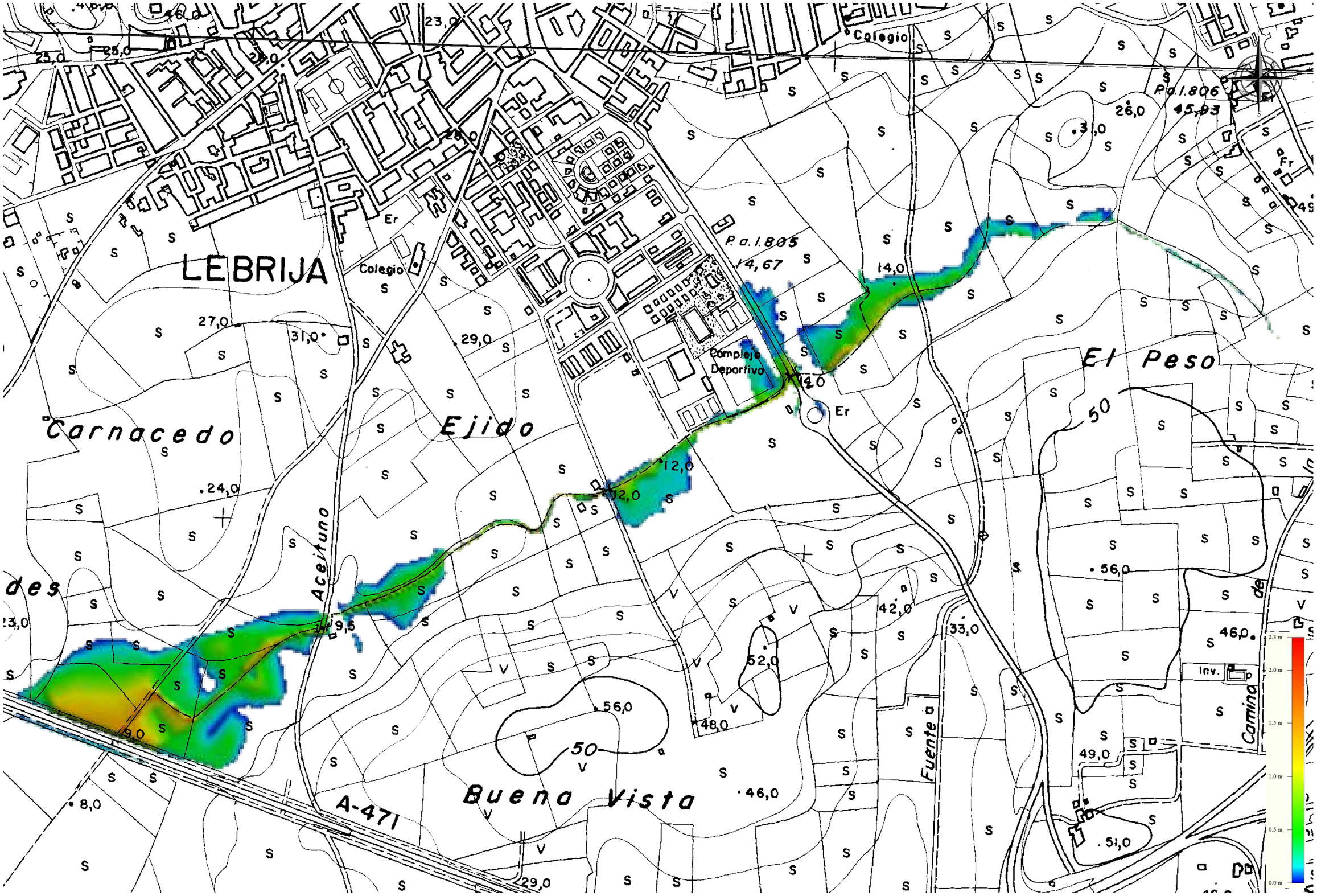

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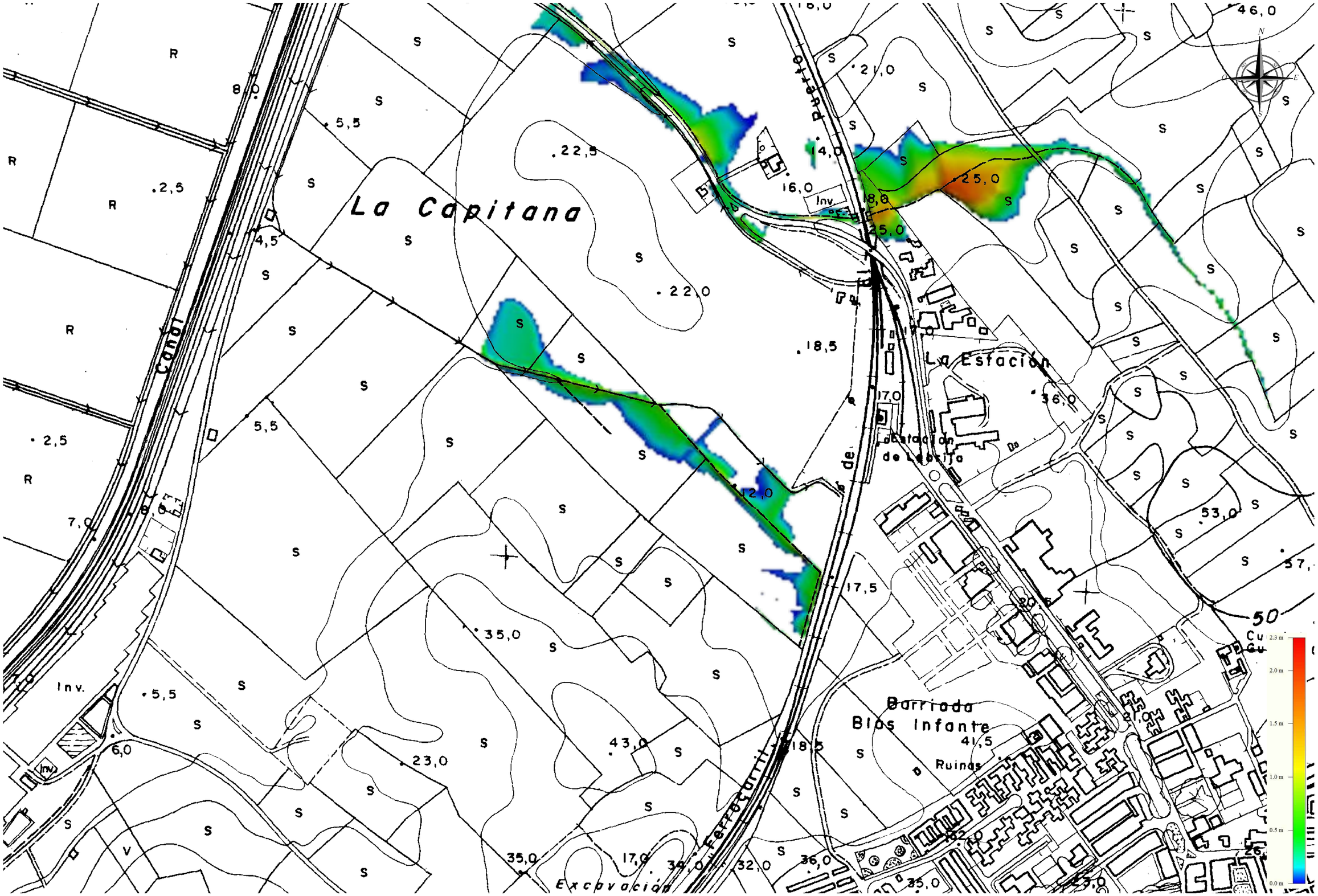

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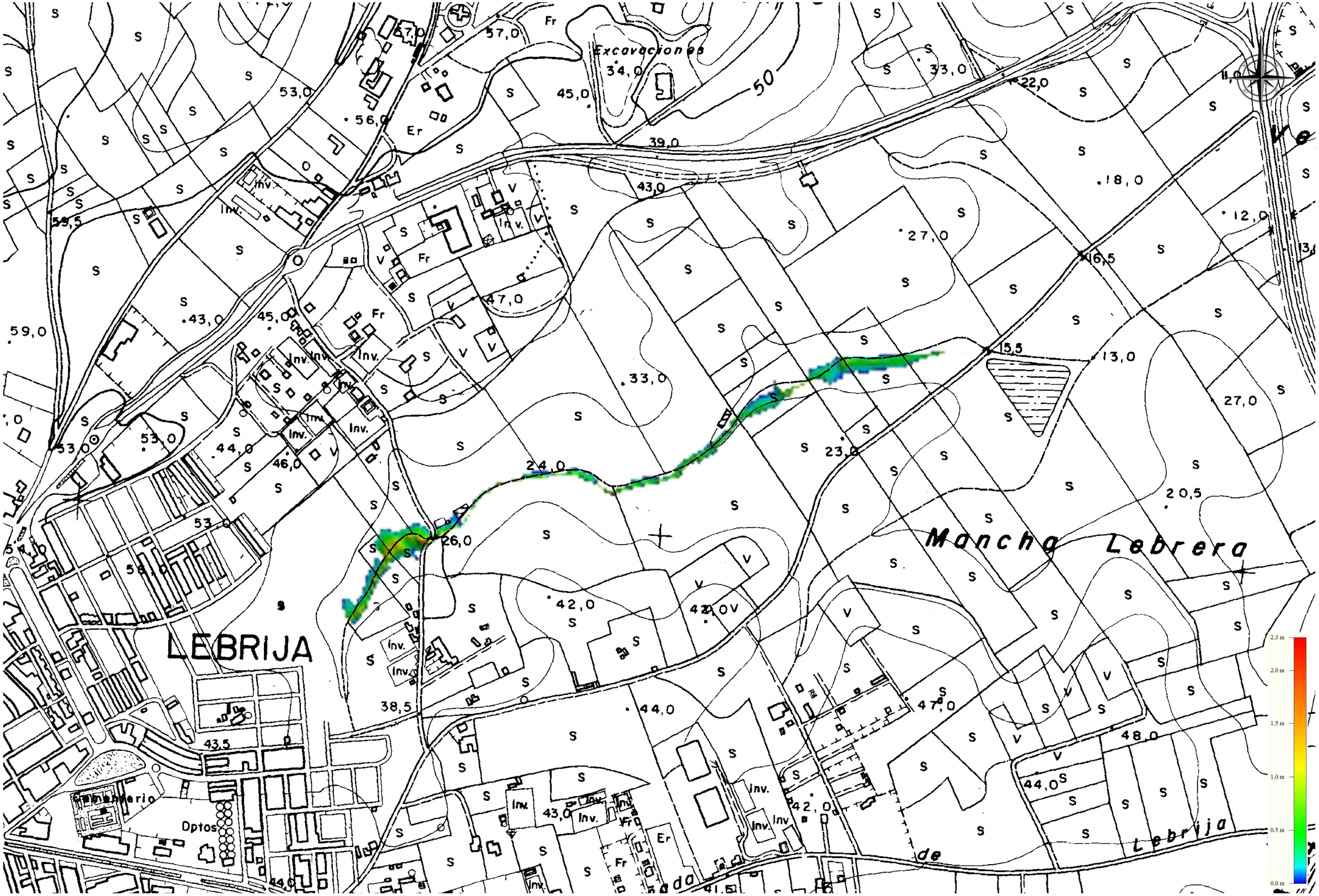

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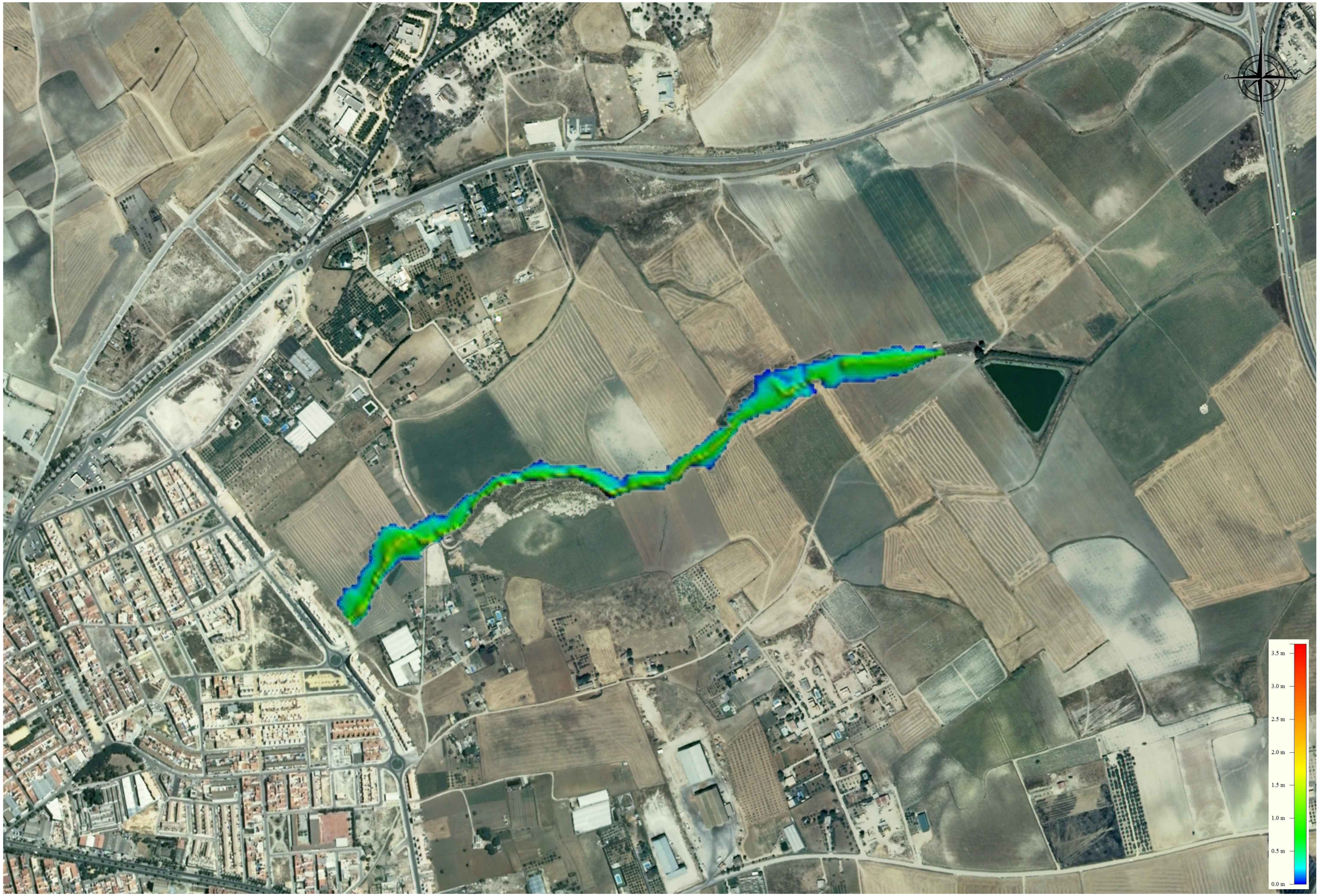

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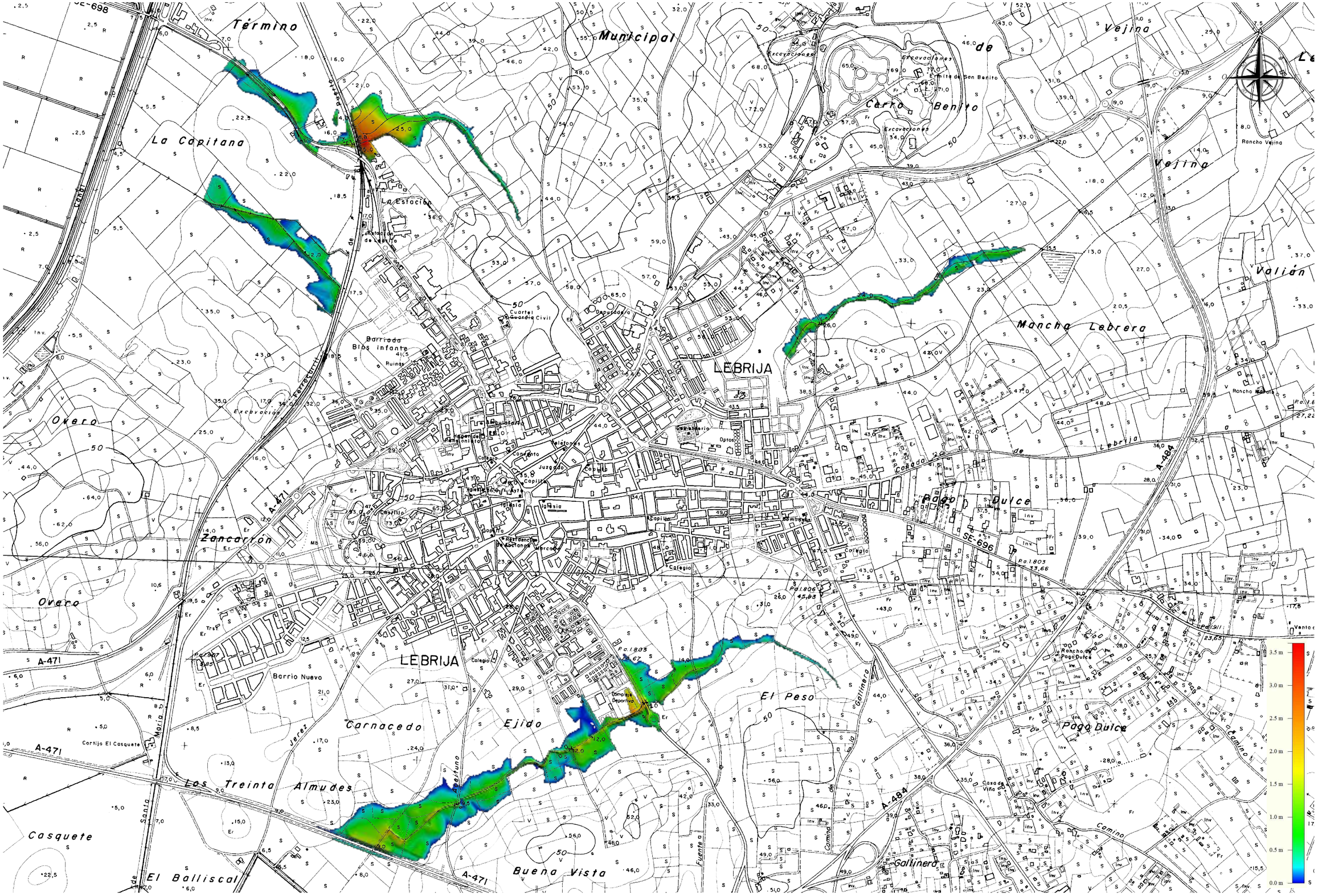

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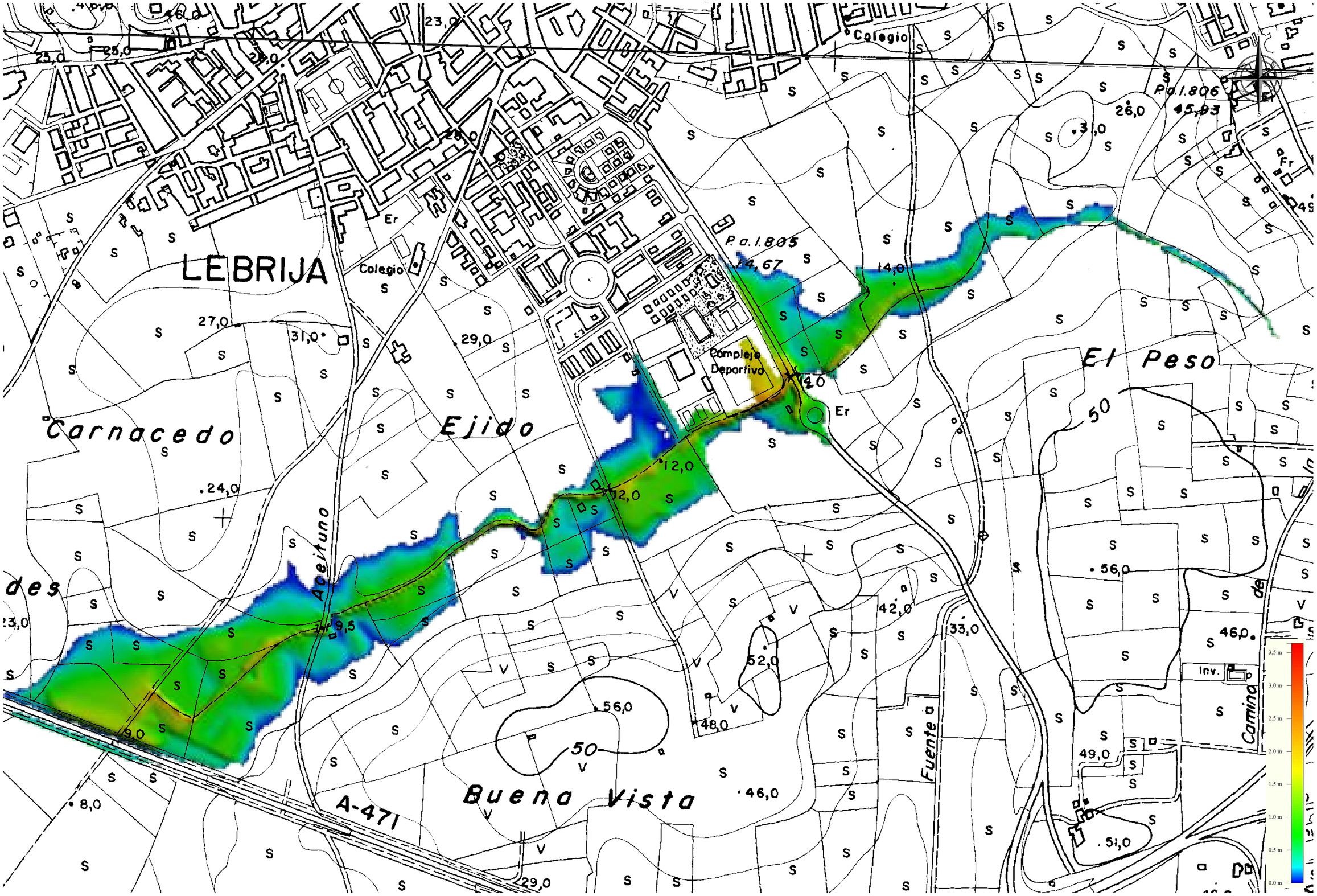

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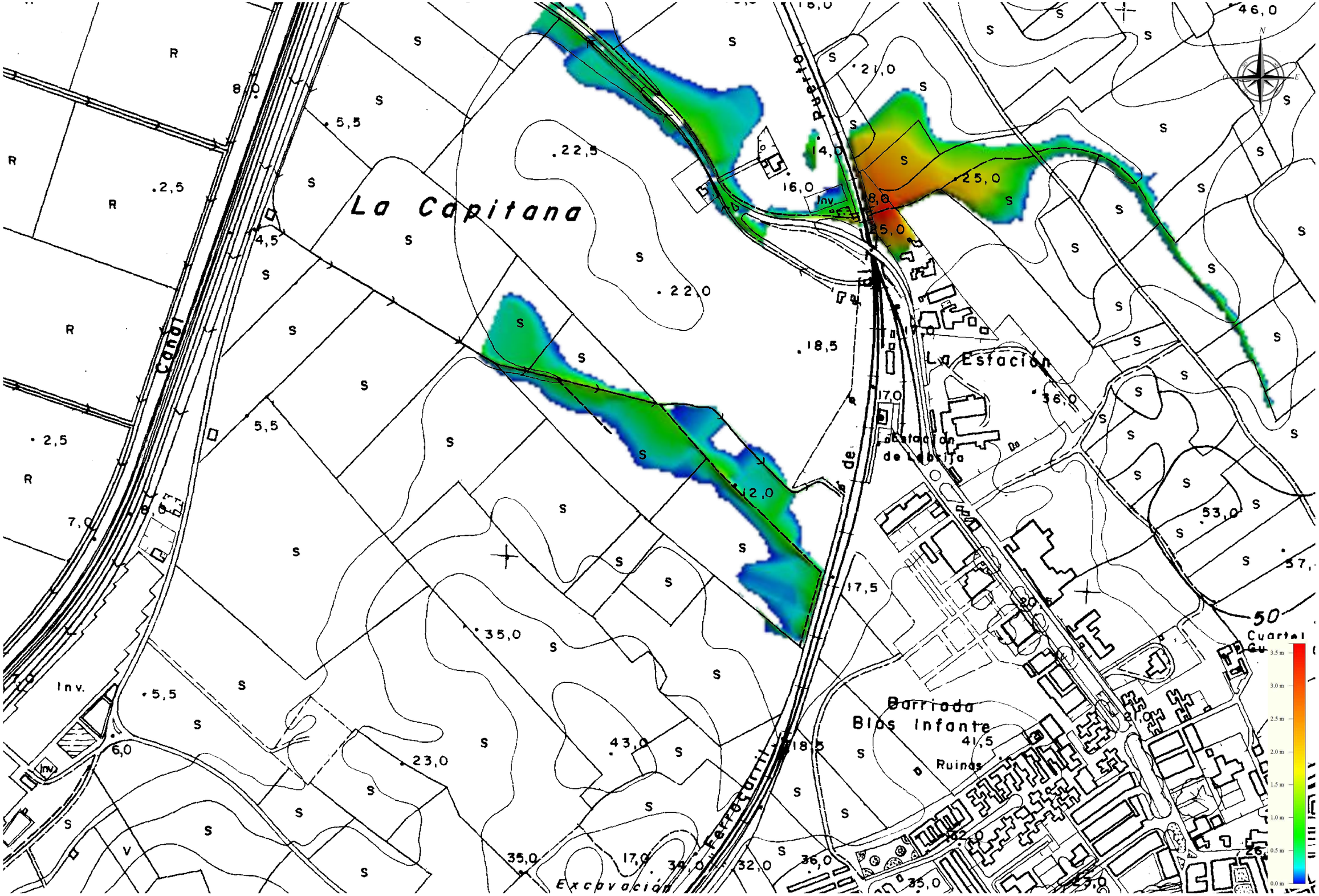

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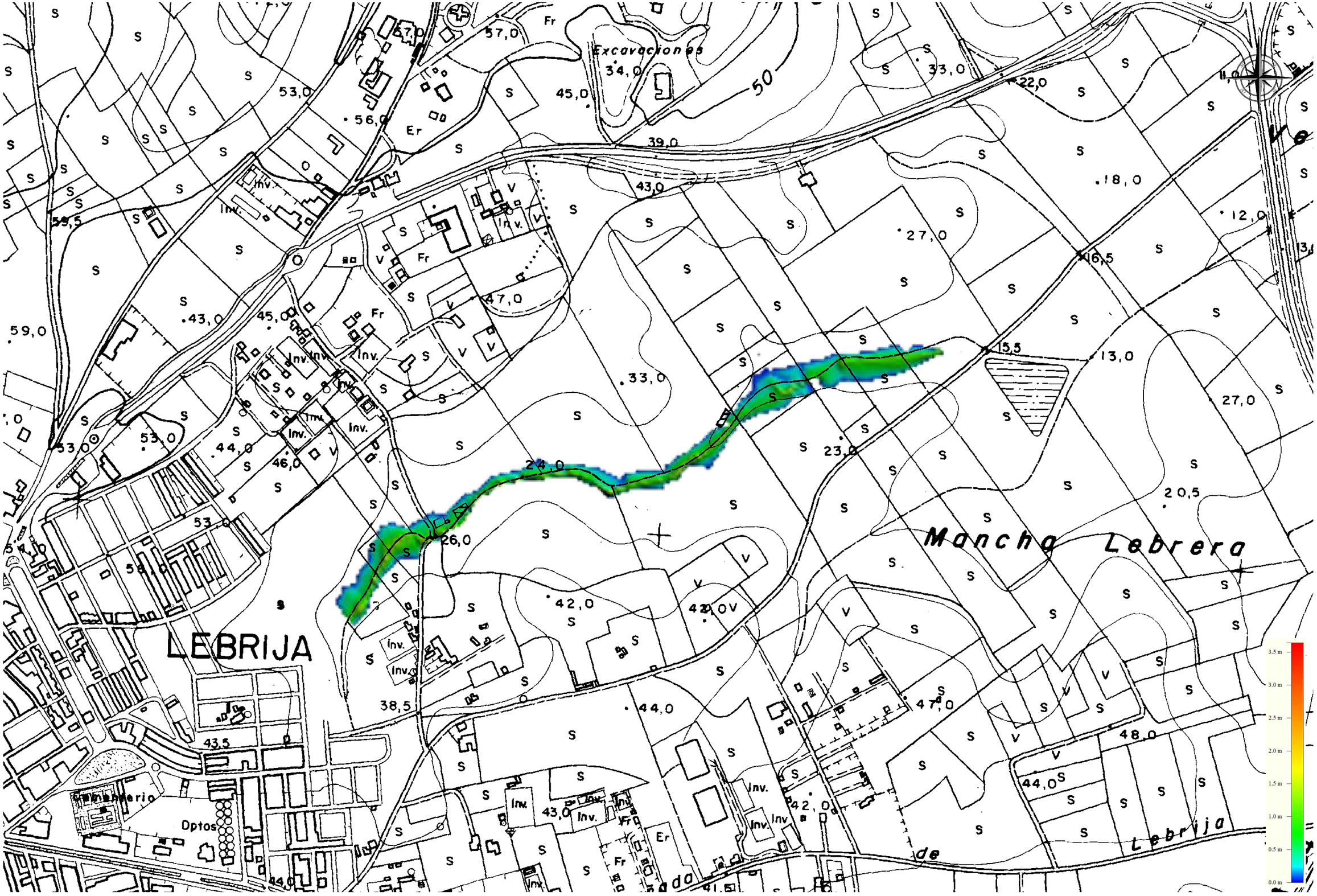

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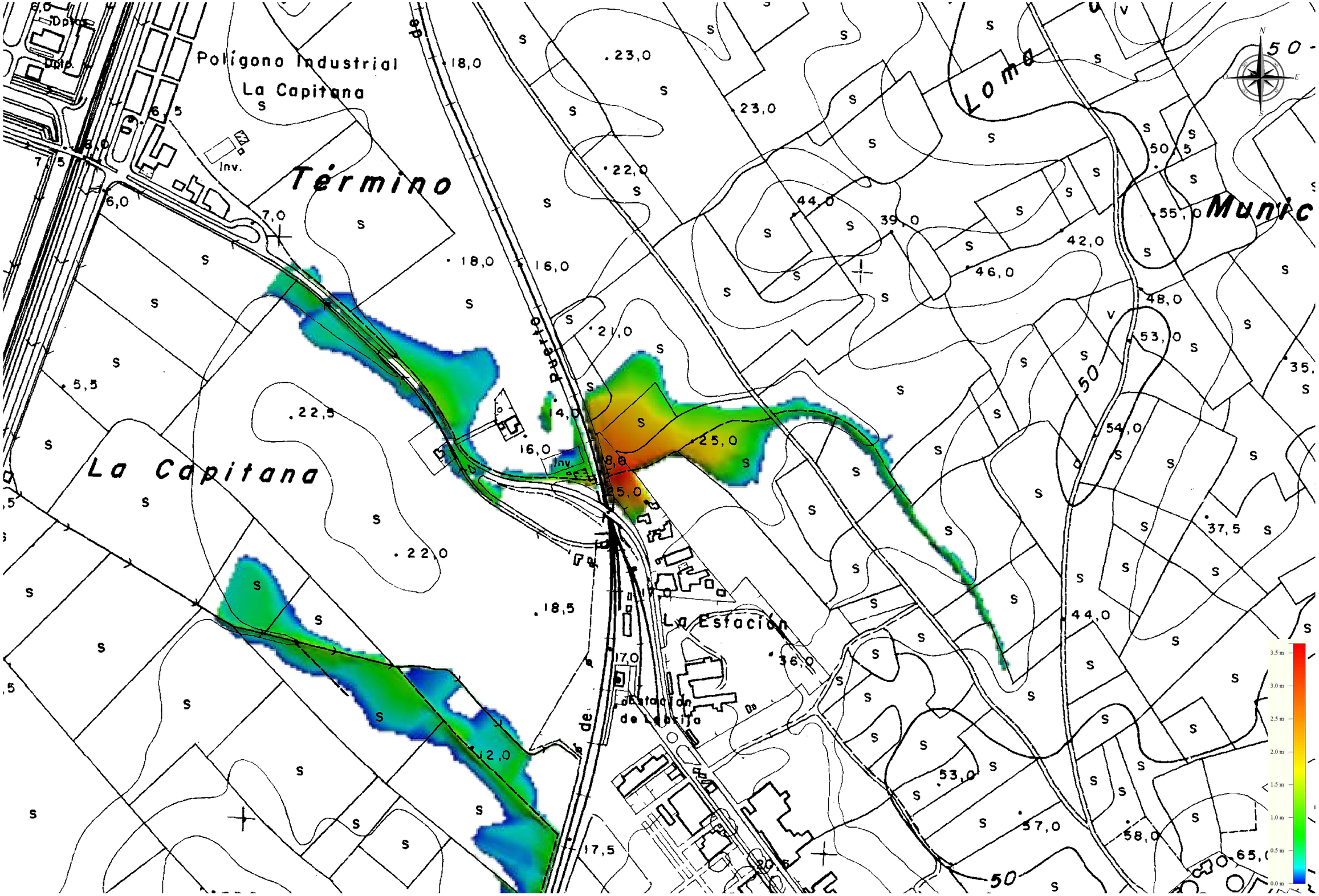

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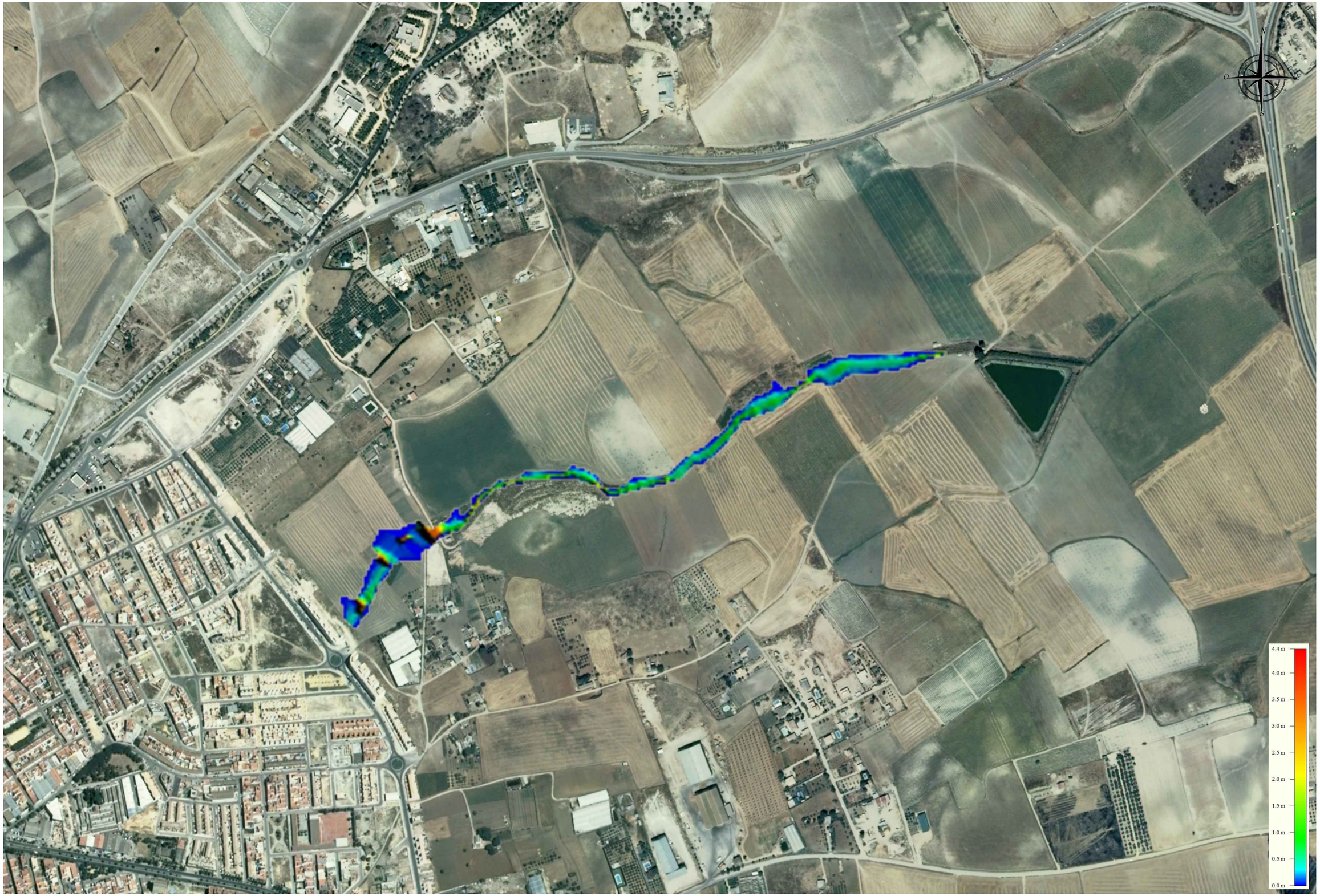

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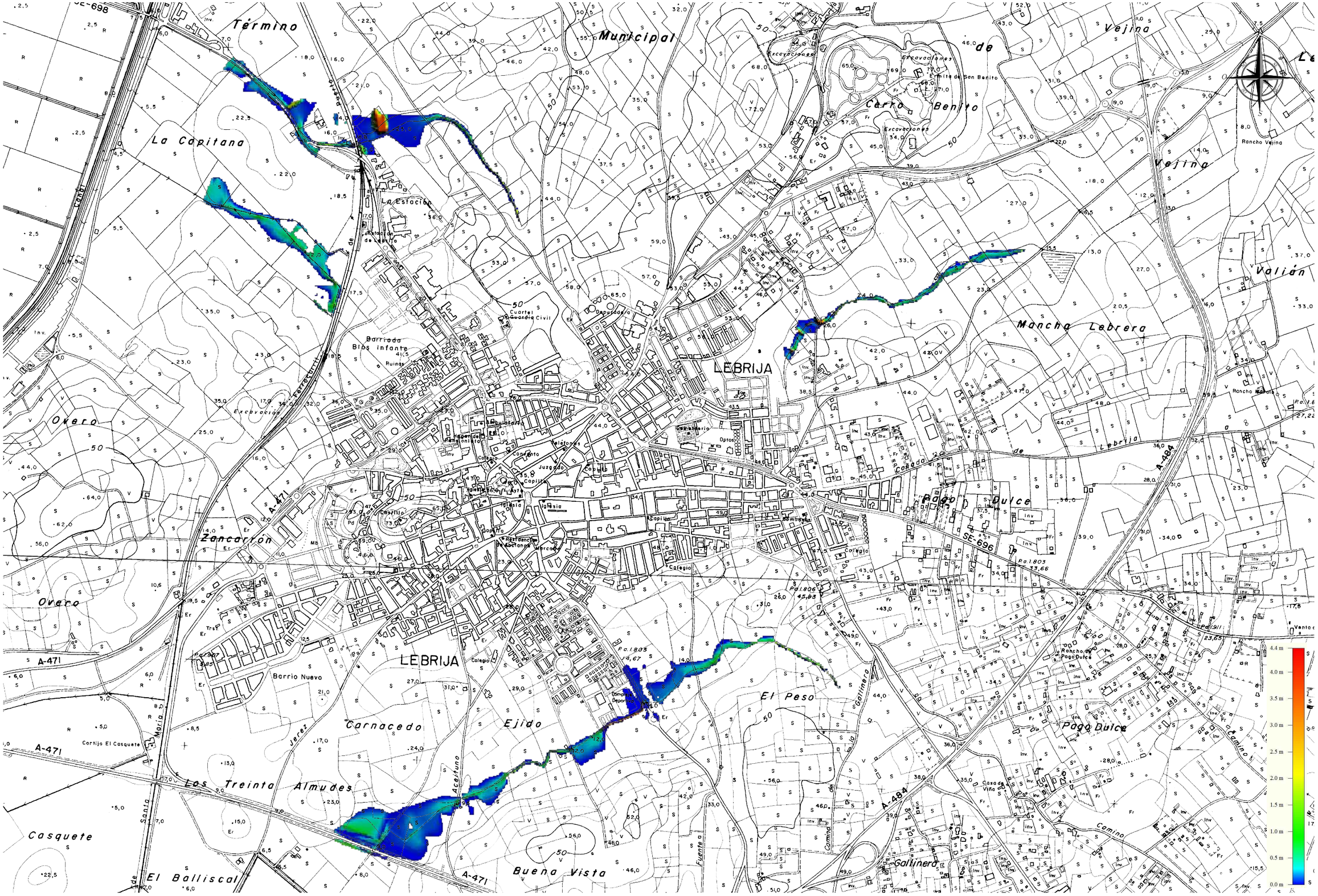

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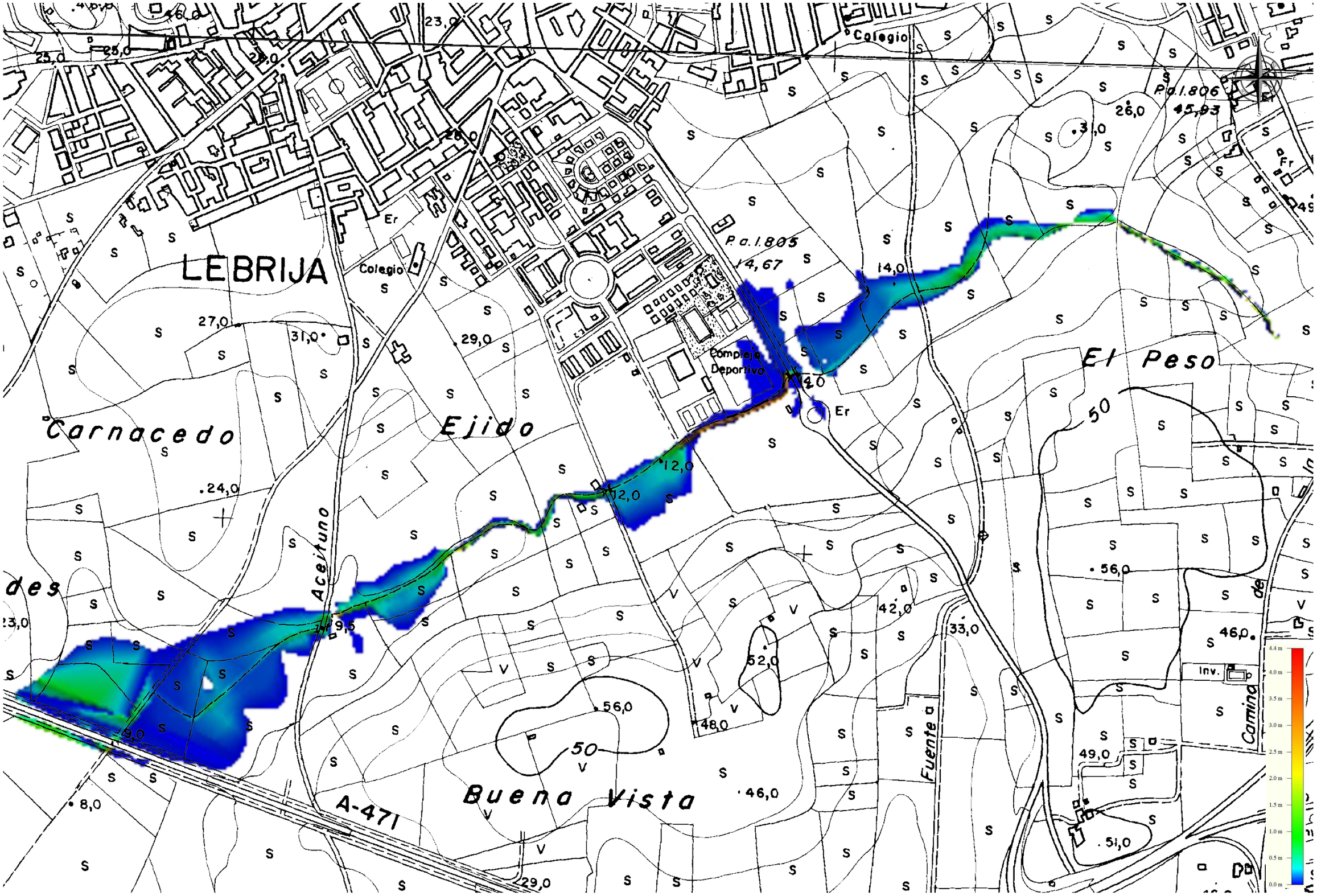

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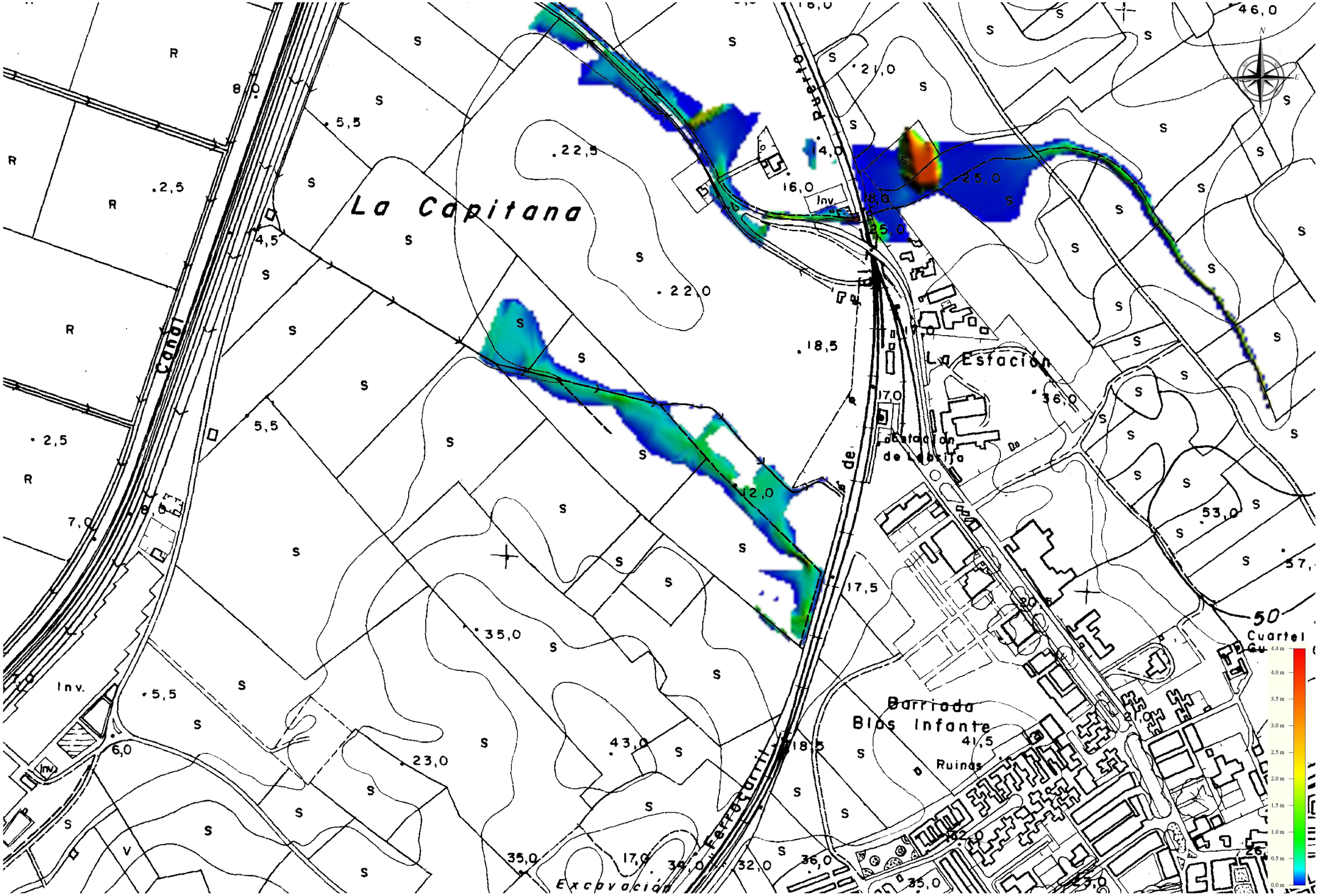

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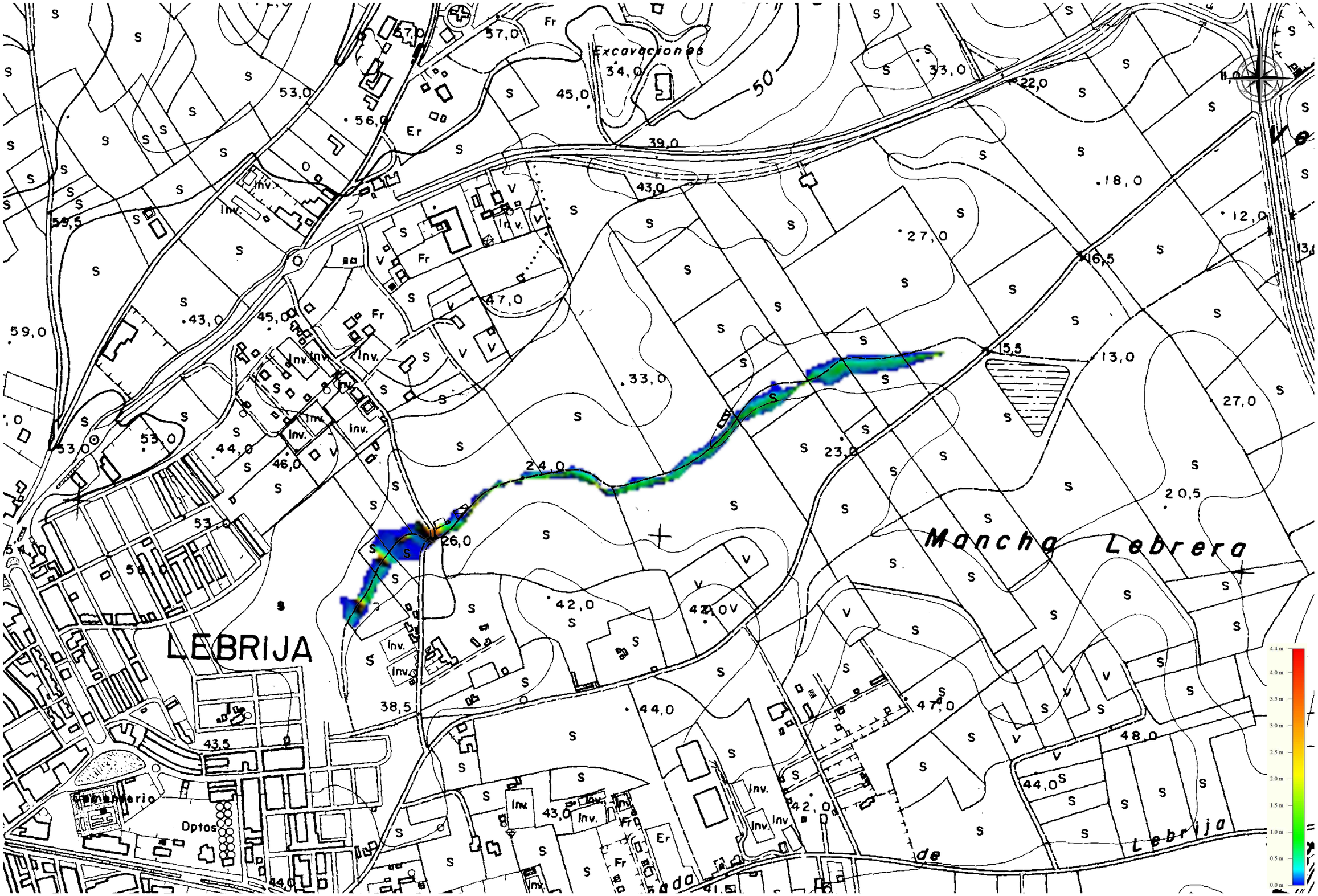

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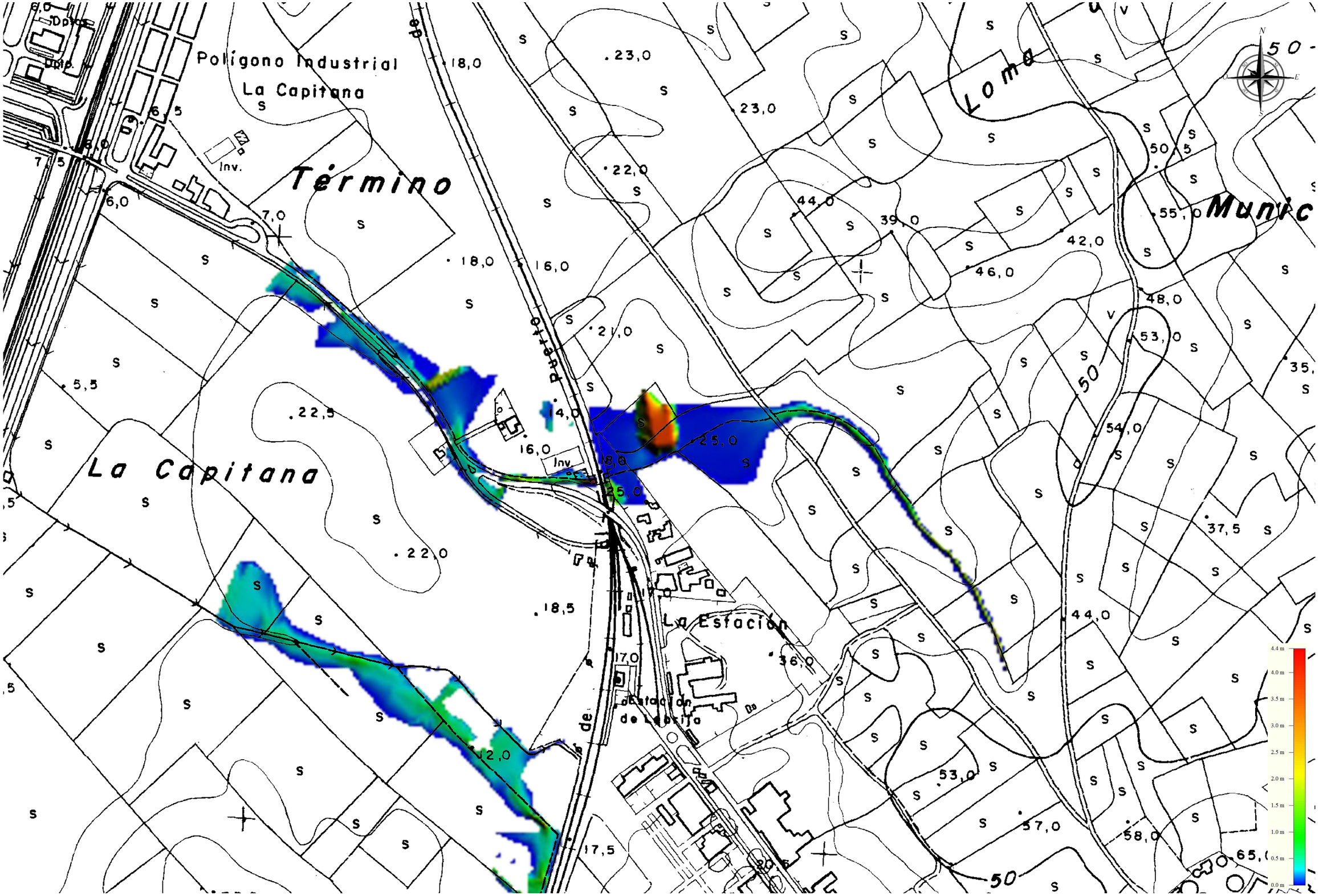

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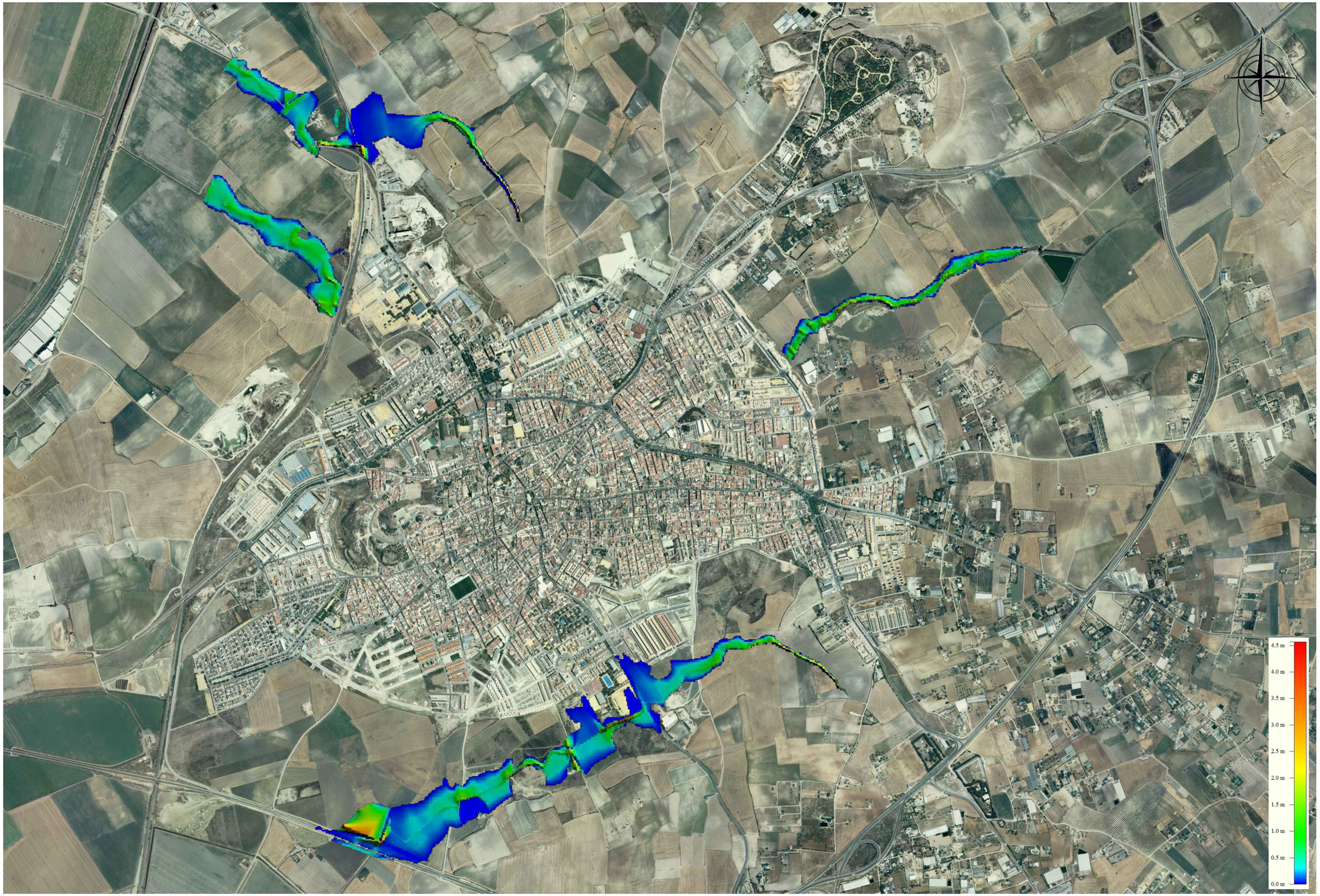

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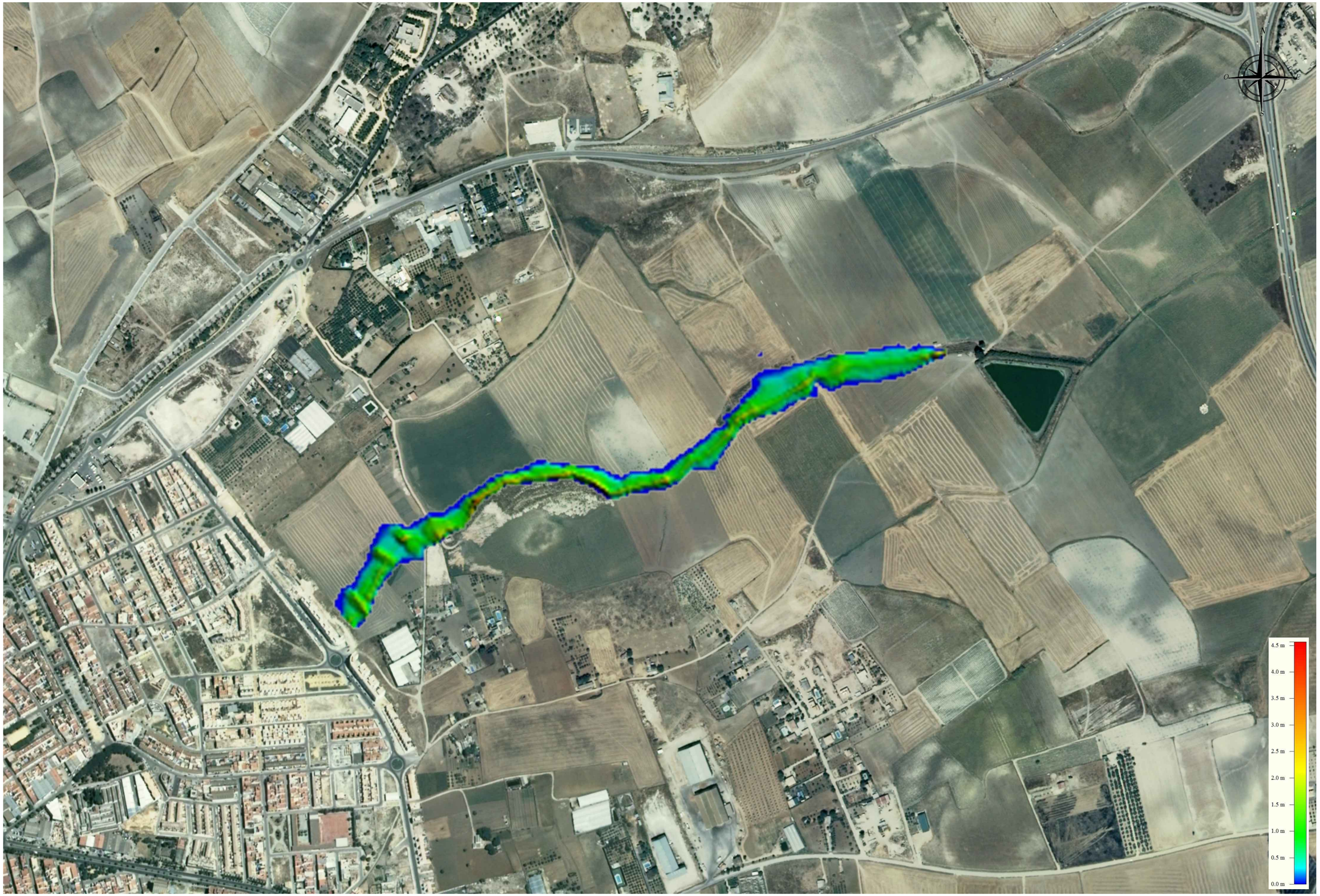

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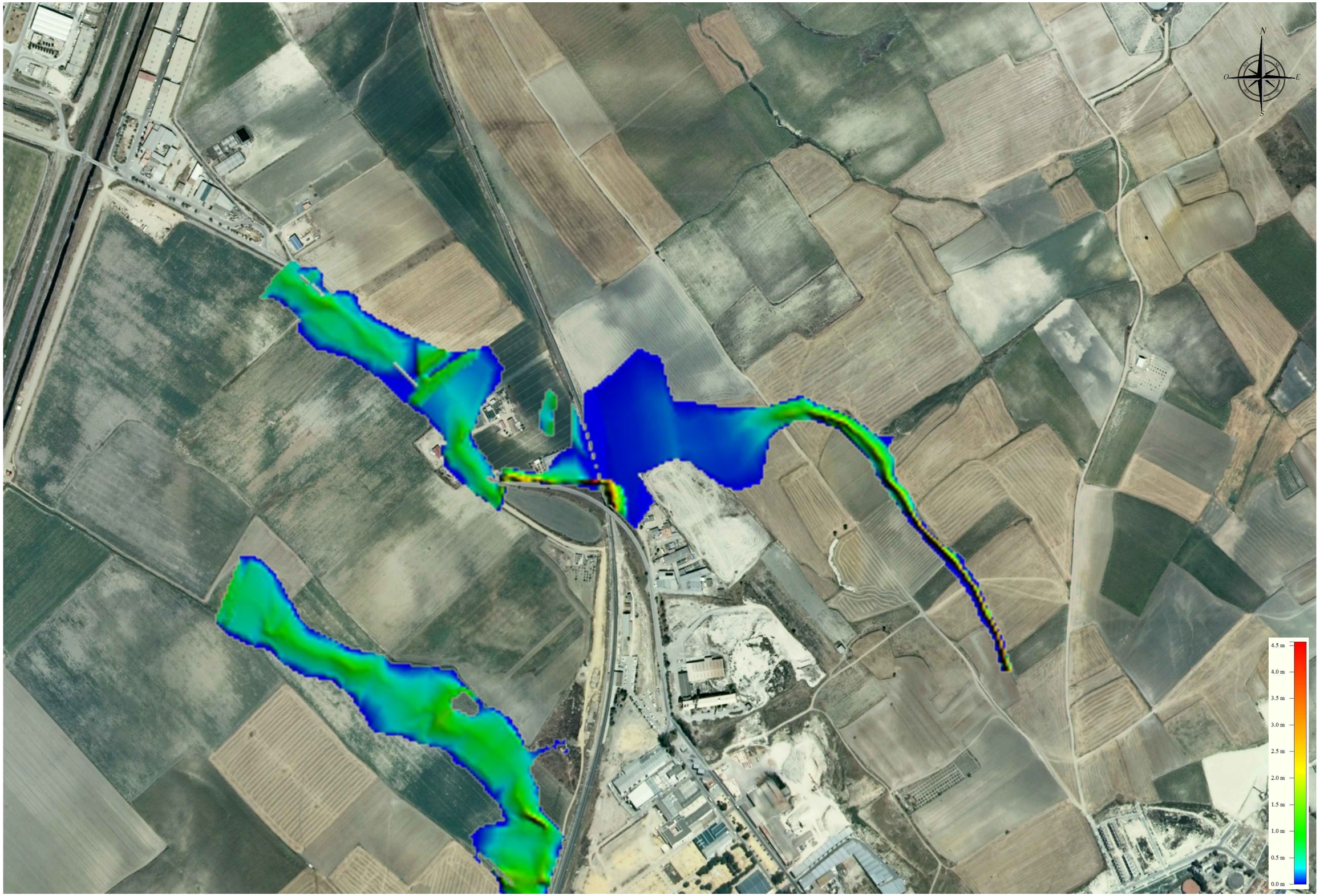

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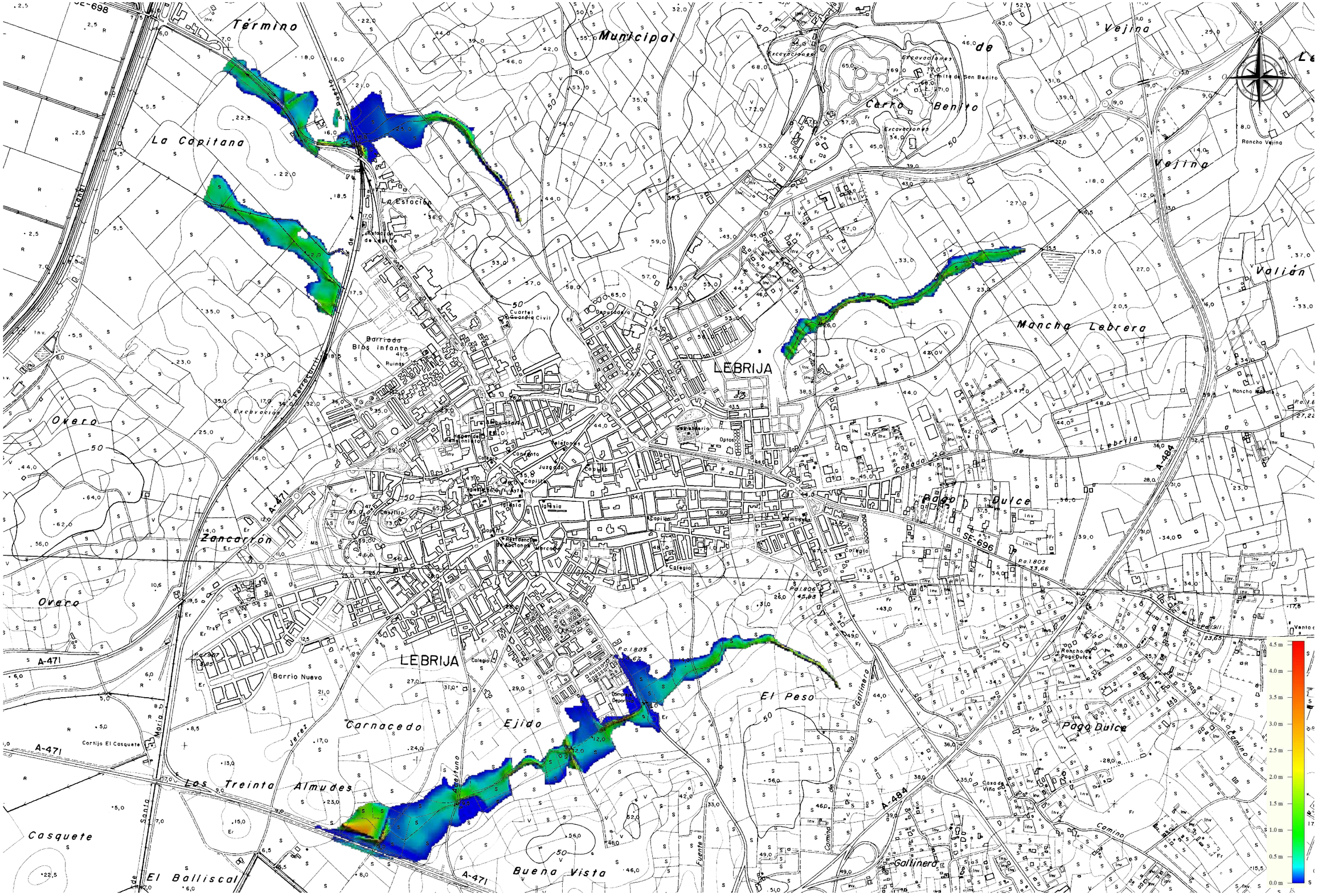

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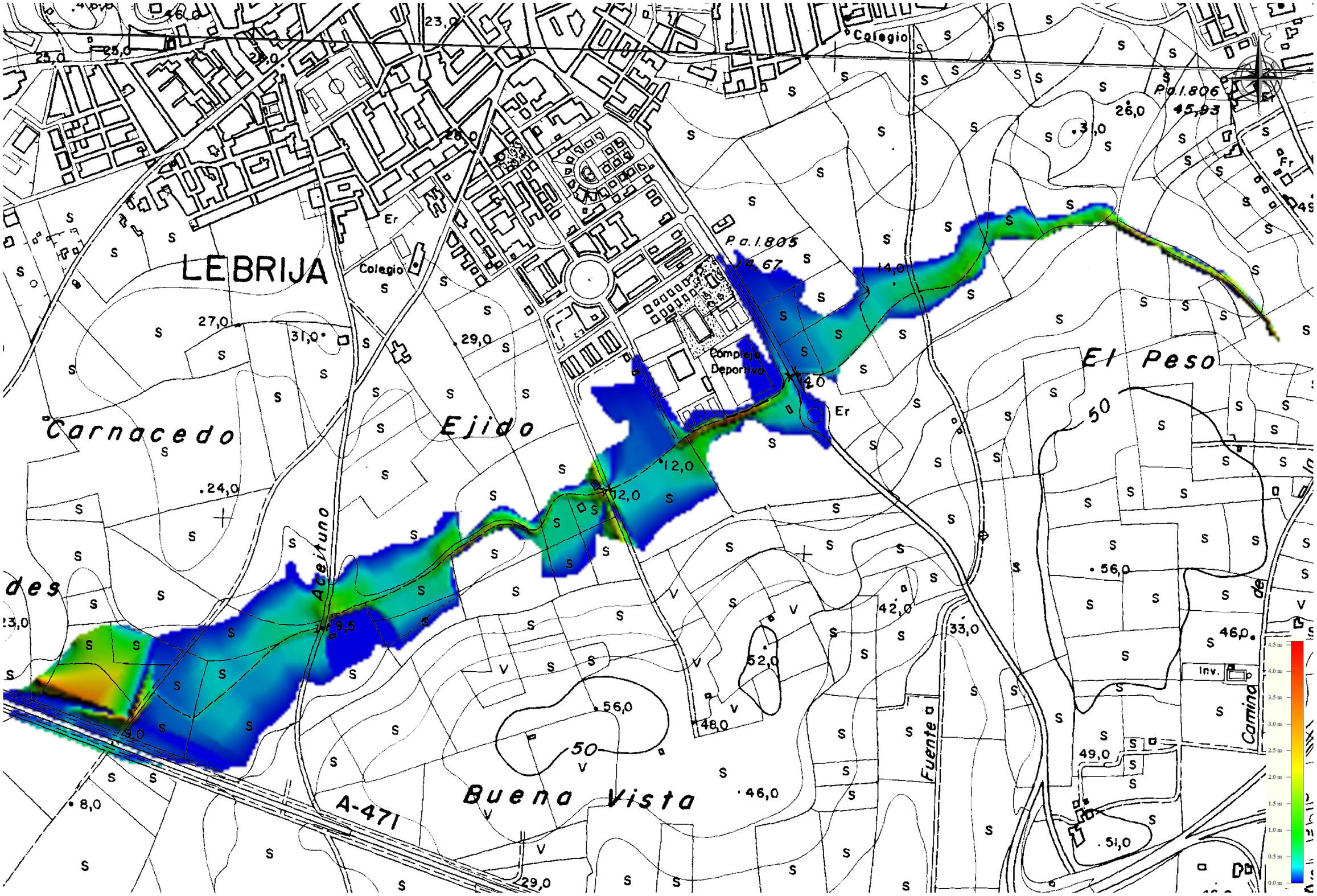

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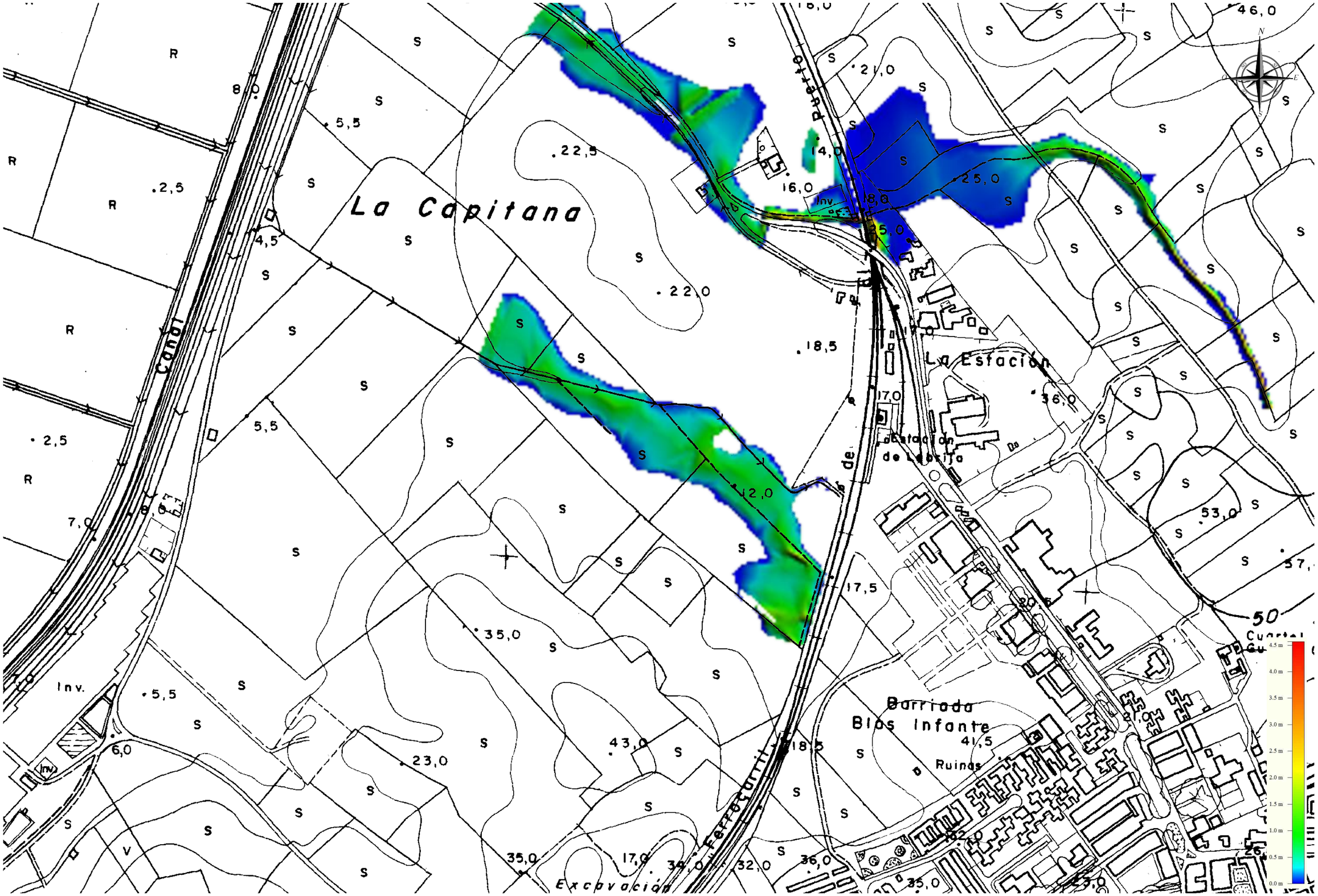

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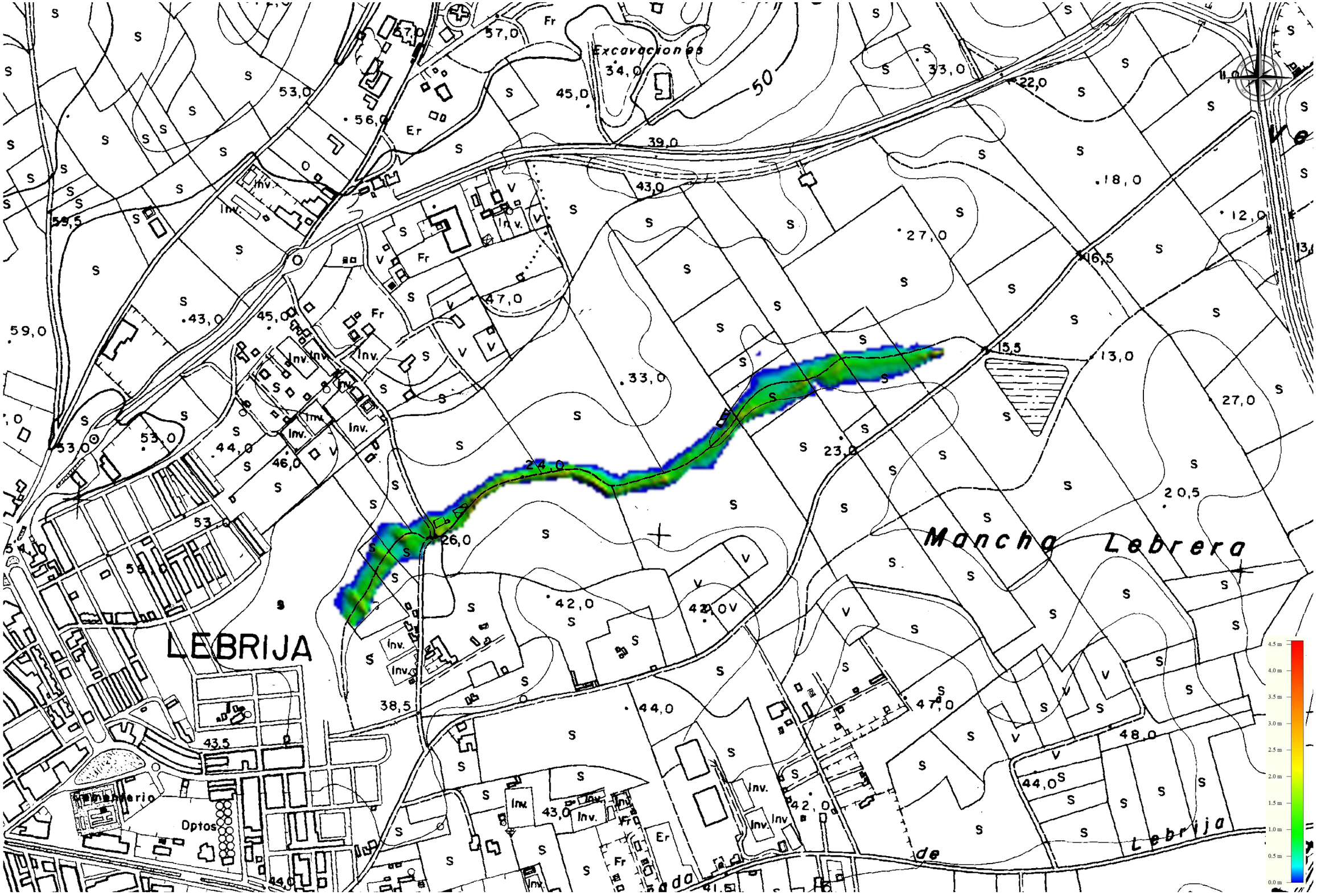

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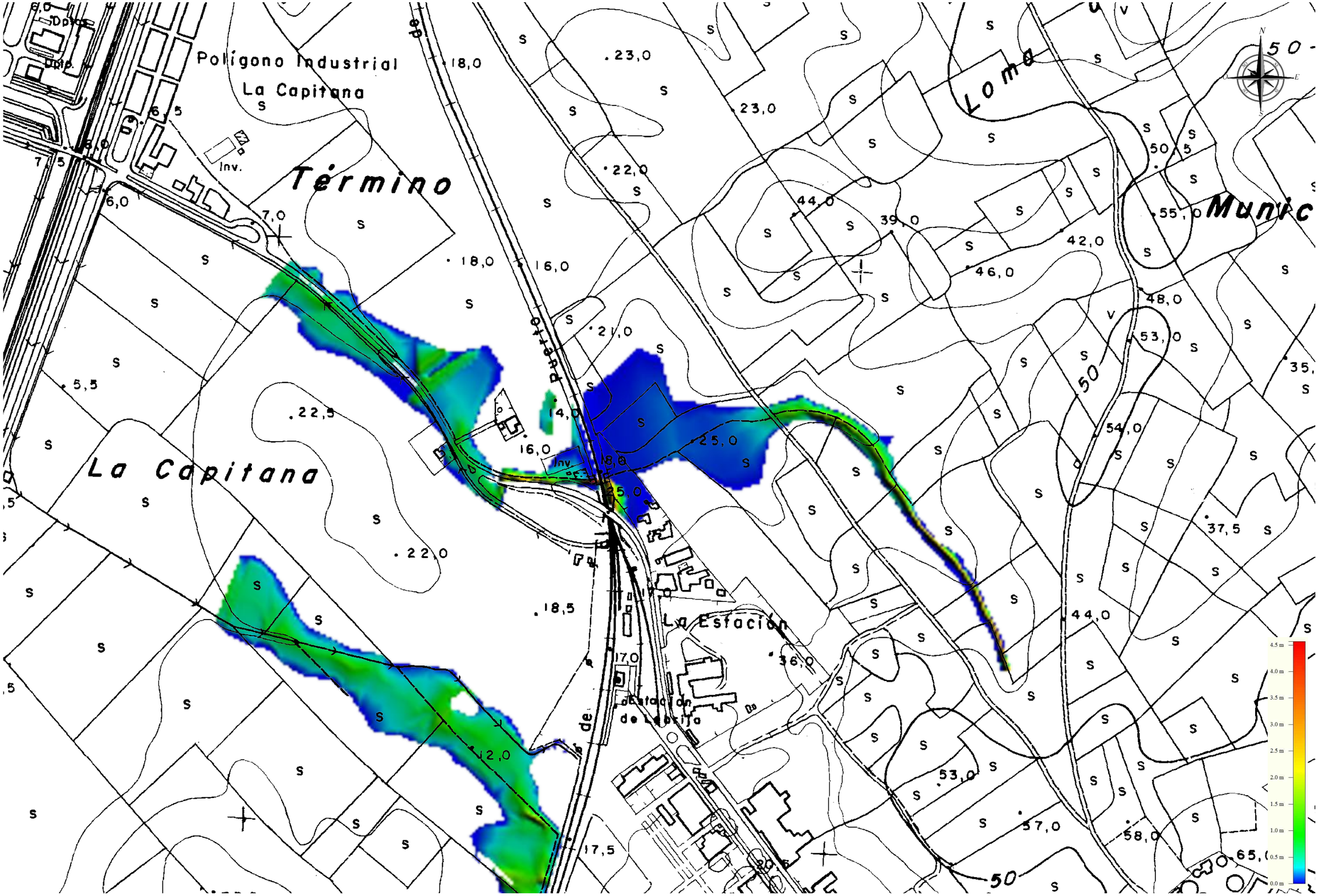

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