ESTUDIO DE INUNDABILIDAD DEL ARROYO LARIJA EN EL TÉRMINO MUNICIPAL DE MARTOS (JAÉN)

FECHA
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ENCARGO

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ARQUITECTOS

REDACCIÓN DEL ESTUDIO

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DOCUMENTO NÚMERO 1. MEMORIA

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CAPÍTULO 1. GENERALIDADES

1.1.- ANTECEDENTES Y OBJETO

El presente Estudio de Inundabilidad se redacta como complemento al documento del Plan General de Ordenación Urbanística del Término Municipal de Martos en la provincia de Jaén.

El objetivo del mismo es el de estudiar las llanuras de inundación de las avenidas ordinaria y extraordinaria de periodo de retorno 5 y 500 años respectivamente, del arroyo Larija del término municipal de Martos.

1.2.- ENCARGO

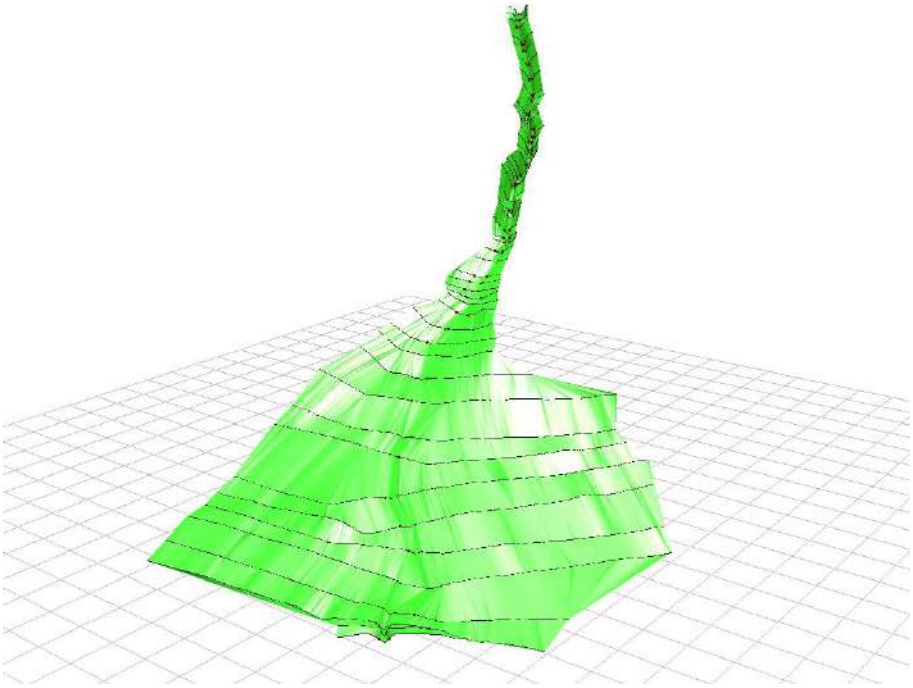
El presente documento se realiza por iniciativa de los arquitectos Antonio Estrella Lara y Jacinta Ortiz Miranda, redactores del mencionado Plan General de Ordenación Urbanística.

1.3.- ENTORNO DE ACTUACIÓN

El Arroyo Larija se encuentra ubicado al sureste del núcleo urbano de Martos. El tramo de estudio se inicia en la sección 1040 y finaliza en la 0, antes de la desembocadura del arroyo a la cuneta de la carretera JA-3305 (actual calle Príncipe Felipe), de Martos a Fuensanta de Martos. Se han modelizado 1040,92 metros de arroyo.

En total se han obtenido de la cartografía 51 secciones transversales con las que se ha generado el modelo digital del terreno para el cálculo de la llanura de inundación.

Ilustración 1. Modelo 3D del tramo del Arroyo Larija



La geometría media de este arroyo varía a lo largo del tramo debido a la orografía de la zona ya que pasa de ser un cauce muy encajado con una pendiente longitudinal muy elevada (cerca del

15%) a otra sección de menos profundidad y más abierta que ha obligado a la toma de secciones transversales de gran longitud y geometría heterogénea.

Las pendientes longitudinales, obtenidas a partir de la topografía con que contamos, resultan ser las siguientes:

- Pendiente media del tramo 8,40 %
- Pendiente inicial 17,00 %
- Pendiente final 5,00%

La vegetación, como puede comprobarse en las imágenes que siguen, no es excesiva en el cauce de aguas bajas. En cuanto a las márgenes son en su mayoría mosaicos de cultivos y olivares.

Se ha tenido en cuenta la presencia de estas masas arbustivas para la determinación del coeficiente de rugosidad, distinguiendo cauce principal y llanuras de inundación.

A continuación se muestran varias imágenes que caracterizan la zona.

Ilustración 2. Aspecto del cauce del arroyo Larija

Ilustración 3. Desembocadura a la cuneta de la carretera JA-3305

1.4.- BASES DE PARTIDA Y NORMATIVA DE APLICACIÓN

Como premisas previas se citan las isolíneas, en nuestro caso de precipitaciones máximas en 24h, publicados por la Dirección General de Carreteras en el texto "Máximas Precipitaciones de la España Peninsular" y el período de retorno a considerar.

Como es habitual se ha adoptado el período de retorno de 500 años para la avenida extraordinaria. A partir de ellos se realiza el cálculo del caudal de avenida.

En cuanto a normativa es de aplicación la Instrucción 5.2.IC, Orden de 14 de Mayo de 1.990 del Ministerio de Obras Públicas y Urbanismo.

CAPÍTULO 2. TRABAJOS REALIZADOS

2.1.- TOPOGRAFÍA

Se ha empleado la cartografía digital 1:2.000 de la Junta de Andalucía, proporcionada por el cliente. Concretamente se han utilizado las hojas E-946 27-29 y 27-30 para el Arroyo Larija.

2.2.- ESTUDIO HIDROLÓGICO

Partiendo, como ya se ha comentado, de las isolíneas, en nuestro caso de precipitaciones máximas en 24h, publicados por la Dirección General de Carreteras en el texto "Máximas Precipitaciones de la España Peninsular", se ha obtenido la lluvia de cálculo para el período de retorno considerado

Como la superficie de la cuencas es de 1 Km^2, se ha considerado un único punto de control o característico. La extrapolación se realiza para los periodos de retorno de 5 y 500 años A continuación transcribimos la tabla con los valores adoptados:

Tabla 1. Resumen de valores

COORDENADAS UTM DE PTOS ANALIZADOS		PRECIP. MAX DIARIAS PARA LOS PERIODOS DE RETORNO (mm/día)
PERIODOS DE RETORNO 5	416.848	57
	4.174.390	
PERIODOS DE RETORNO 500	416.848	140
	4.174.390	

Conocida la lluvia de cálculo, es preciso determinar las características físicas de la cuenca receptora.

Tabla 2. Caracterización de la cuenca

CUENCA	SUPERFICIE (HA)	PTO. ALTO CUENCA (M)	DISTANCIA (M)	PTO. ALTO CAUCE (M)	DIS.CAUCE (M)	PTO.BAJO (M)
ARROYO LARIJA	104	914	2150	835	1500	690

Careciéndose, como es lógico, de datos de aforo, el cálculo de caudal lo realizaremos por diversos métodos del tipo de los hidrometeorológicos, de forma que obtengamos una visión lo más amplia posible, que nos permita una definición acertada de los caudales previsibles.

Estos son los caudales resultantes para las avenidas de periodo de retorno 5 y 500 años:

Tabla 3. Resultados de cálculo

CUENCA	Q_5 (m^3/s)		Q_{500} (m^3/s)	
	Método Racional	Método 5.2-IC	Método Racional	Método 5.2-IC
Arroyo Larija	4,01	6,31	9,84	14,94

Adoptamos como valor de cálculo para el cálculo del DPH el proporcionado por el método de la Instrucción 5.2 I.C para el periodo de retorno de 5 años, fijando por tanto el caudal de cálculo en **6,31 m^3/s,** y para la llanura de inundación **14,94 m^3/s.**

2.3.- ESTUDIO HIDRÁULICO

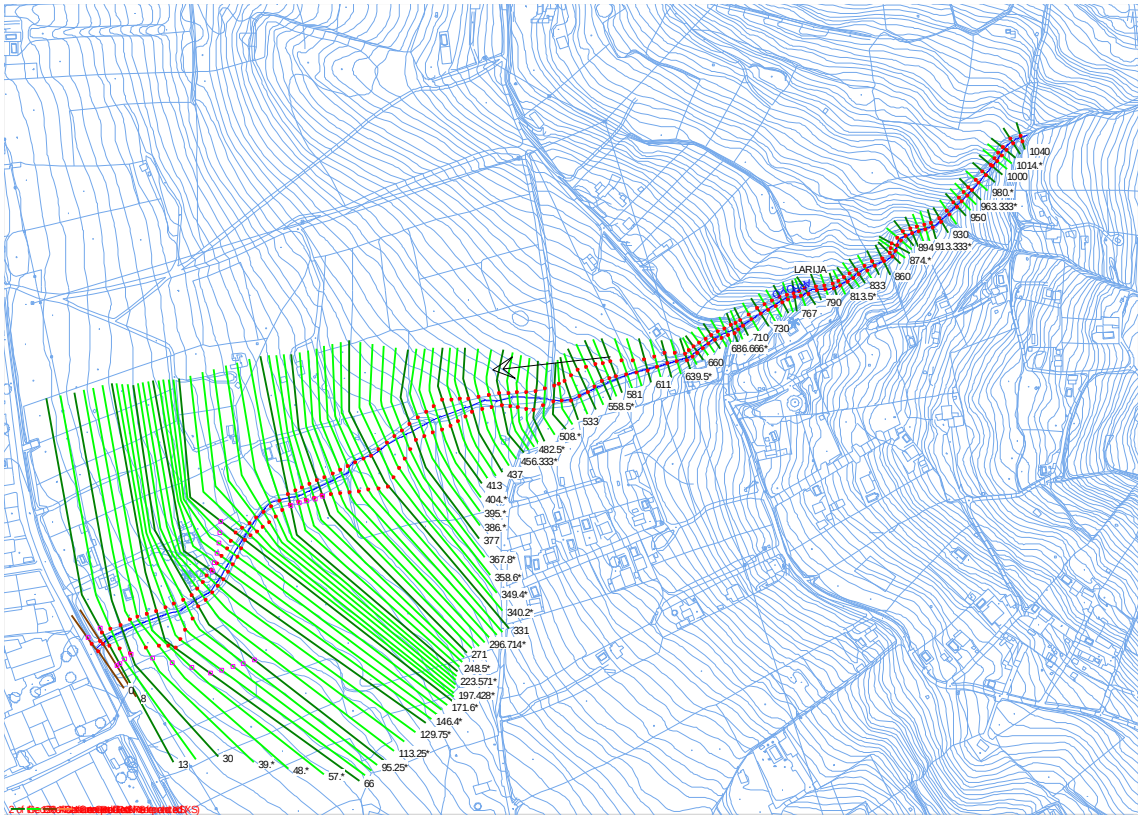
Determinados los caudales circulantes para las avenidas de periodo de retorno 5 y 500 años, procede el cálculo de la vehiculación de los tramos de estudio, empleando los programas informáticos HEC-Geo Ras y Hec-Ras (Sistema de Análisis de Río).

Para el cálculo anterior se ha de partir, además de la topografía del cauce y del caudal circulante, de otro parámetro básico y determinante, el coeficiente de Manning, valor dependiente de las condiciones físicas actuales de toda la llanura de inundación de los arroyos en los tramos de estudio.

Comentar que en el caso del Arroyo Larija la modelización ha sido bastante compleja debido a la topografía de la zona, que, en los últimos metros presenta un cauce poco encajado y por tanto, la llanura inunda buena parte de las márgenes.

Para afinar el modelo, se han interpolado secciones transversales a partir de las obtenidas en cartografía cada 10 m, tal y como muestra la siguiente imagen.

Ilustración 4.- Modelo interpolado empleado en el cálculo. En verde claro se muestran las secciones interpoladas.



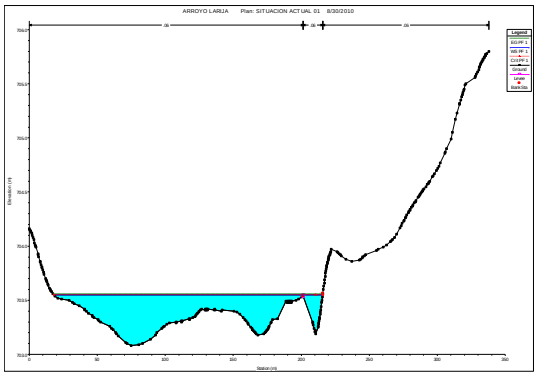
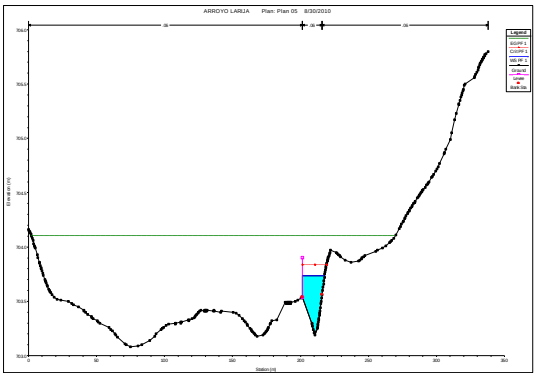
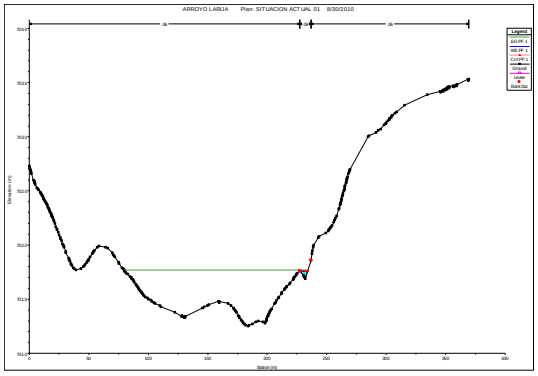
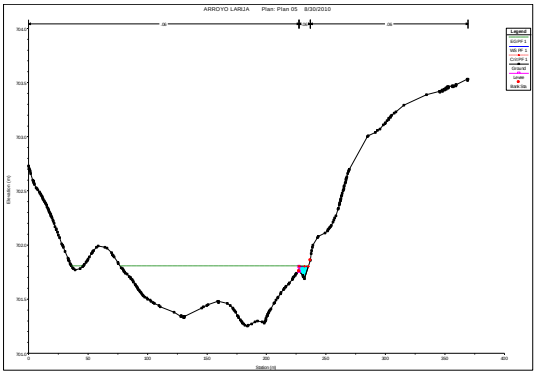
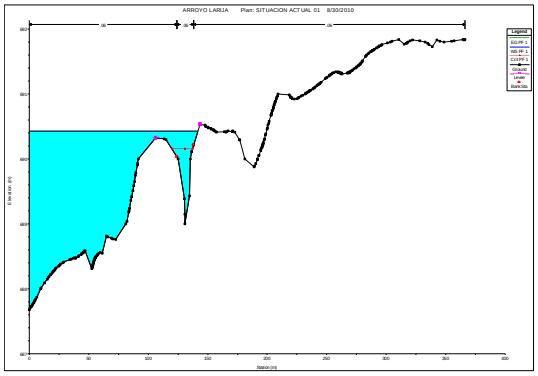
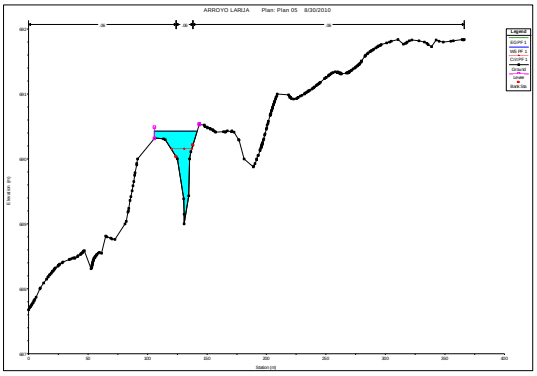
Antes de comentar los resultados obtenidos, es necesario aclarar que la precisión del modelo hidráulico no se corresponde con la precisión de la cartografía empleada, es decir, que como se ha partido de una cartografía a escala 1:2.000, con curvas de nivel equidistantes 1 metro, no podemos adoptar la escala milimétrica del modelo como valor absoluto.

Ello nos ha llevado a adoptar motas en varias secciones para evitar que diferencias centimétricas entre el límite del cauce actual y la lámina de agua, extendiera la llanura de inundación varias decenas de metros. Estas motas se pueden consultar en el Apéndice 3, y en ningún caso superan los 20 cm, valor que entendemos razonable para el estudio de inundabilidad que nos ocupa, en el que se pretende delimitar la llanura de inundación de periodo de retorno 500 años.

A modo de ejemplo, transcribimos las tres secciones más representativas de este fenómeno:

MODELO SIN MOTAS

MODELO CON MOTAS ≤ 25cm

2.3.1.- AVENIDA ORDINARIA DE PERIODO DE RETORNO 5 AÑOS

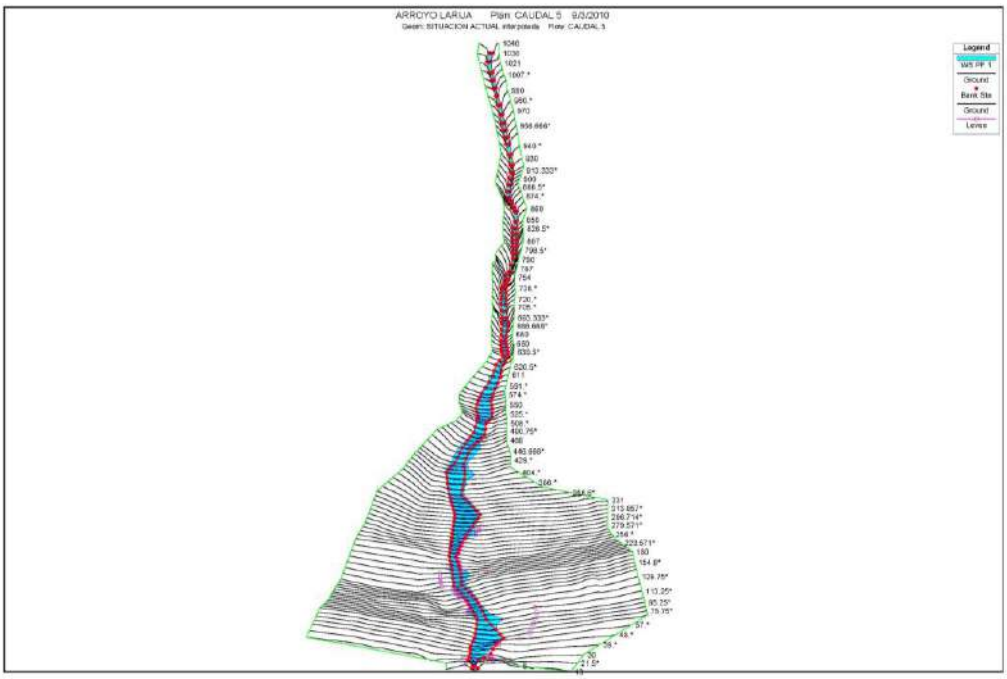
El resumen de los datos obtenidos para el arroyo Larija modelizado se adjunta en la tabla e ilustraciones siguientes. Asimismo, se representa esquemáticamente la llanura de inundación para 5 años, remitiendo a los planos del presente Estudio para consulta de detalle.

Tabla 4. Caracterización del modelo del Arroyo Larija

HEC-RAS Plan: 5 River: ARROYO Reach: LARIJA Profile: PF 1

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
LARIJA	1040	PF 1	6.31	774.70	775.19	775.36	776.74	0.170007	3.94	1.97	6.81	1.83
LARIJA	1030	PF 1	6.31	773.00	773.59	773.60	774.16	0.145117	3.43	1.92	6.14	1.71
LARIJA	1021	PF 1	6.31	771.00	771.52	771.76	772.32	0.247268	3.94	1.60	4.75	2.16
LARIJA	1000	PF 1	6.31	766.66	767.31	767.62	768.30	0.184208	4.48	1.47	3.18	1.90
LARIJA	990	PF 1	6.31	765.00	765.62	765.84	766.33	0.197292	3.72	1.71	5.05	1.96
LARIJA	970	PF 1	6.31	761.96	762.47	762.68	763.14	0.172553	3.61	1.76	4.66	1.83
LARIJA	950	PF 1	6.31	758.00	758.55	758.76	759.26	0.193801	3.79	1.69	4.44	1.93
LARIJA	930	PF 1	6.31	754.00	754.59	755.14	755.64	0.182244	3.65	1.64	3.71	1.85
LARIJA	920	PF 1	6.31	753.00	753.65	753.97	754.31	0.092164	3.00	2.11	4.56	1.37
LARIJA	900	PF 1	6.31	750.00	750.50	750.69	751.11	0.173638	3.46	1.83	5.13	1.82
LARIJA	894	PF 1	6.31	749.00	749.53	749.69	750.05	0.128306	3.17	2.01	5.44	1.60
LARIJA	879	PF 1	6.31	748.00	748.76	748.82	749.09	0.070182	2.57	2.48	6.83	1.20
LARIJA	869	PF 1	6.31	746.72	747.42	747.56	747.91	0.112729	3.11	2.03	4.62	1.49
LARIJA	860	PF 1	6.31	745.00	745.68	745.84	746.53	0.198275	4.06	1.57	4.10	1.99
LARIJA	850	PF 1	6.31	744.00	744.67	744.79	745.09	0.093975	2.90	2.20	5.44	1.39
LARIJA	833	PF 1	6.31	742.00	742.66	742.79	743.13	0.109986	3.06	2.06	4.70	1.48
LARIJA	820	PF 1	6.31	741.00	741.74	741.83	742.12	0.083300	2.73	2.31	6.03	1.29
LARIJA	807	PF 1	6.31	739.00	739.74	739.90	740.29	0.129877	3.28	1.92	4.21	1.66
LARIJA	790	PF 1	6.31	737.00	737.67	737.84	738.22	0.129322	3.30	1.91	4.42	1.69
LARIJA	780	PF 1	6.31	736.60	737.46	737.46	737.72	0.048866	2.27	2.79	5.44	1.01
LARIJA	767	PF 1	6.31	735.00	735.86	735.99	736.39	0.095662	3.20	1.97	3.82	1.33
LARIJA	754	PF 1	6.31	735.00	735.64	735.64	735.91	0.050040	2.32	2.72	5.03	1.01
LARIJA	730	PF 1	6.31	733.00	733.51	733.60	733.96	0.105000	2.62	2.41	7.07	1.42
LARIJA	710	PF 1	6.31	730.92	731.47	731.60	731.93	0.110146	2.98	2.12	5.04	1.46
LARIJA	700	PF 1	6.31	730.00	730.46	730.57	730.82	0.119622	2.63	2.40	7.69	1.50
LARIJA	680	PF 1	6.31	727.00	727.65	727.80	728.16	0.129913	3.18	1.99	4.84	1.68
LARIJA	660	PF 1	6.31	726.00	726.66	726.66	726.89	0.051270	2.14	2.95	6.69	1.03
LARIJA	649	PF 1	6.31	725.00	725.59	725.65	725.93	0.073443	2.59	2.44	5.29	1.21
LARIJA	630	PF 1	6.31	724.00	724.89	724.89	725.04	0.051309	2.02	3.12	7.63	1.01
LARIJA	611	PF 1	6.31	723.00	723.43	723.46	723.60	0.058720	1.86	3.58	15.48	1.06
LARIJA	591	PF 1	6.31	720.65	721.03	721.07	721.21	0.099384	1.90	3.34	16.55	1.30
LARIJA	567	PF 1	6.31	720.00	720.26	720.28	720.39	0.067876	1.62	3.99	20.05	1.08
LARIJA	550	PF 1	6.31	719.00	719.30	719.27	719.38	0.043123	1.28	4.91	21.70	0.86
LARIJA	533	PF 1	6.31	718.19	718.51	718.49	718.60	0.043755	1.35	4.78	22.59	0.89
LARIJA	517	PF 1	6.31	717.48	717.89	717.89	718.02	0.053232	1.59	4.01	16.58	0.98
LARIJA	499	PF 1	6.31	716.00	716.35	716.33	716.45	0.049354	1.45	4.38	19.02	0.93
LARIJA	466	PF 1	6.31	714.25	714.58	714.60	714.69	0.061821	1.64	4.65	29.19	1.05
LARIJA	437	PF 1	6.31	712.38	712.70	712.79	712.84	0.065960	1.73	4.03	21.44	1.09
LARIJA	413	PF 1	6.31	711.31	711.59	711.59	711.66	0.048669	1.23	5.60	42.52	0.89
LARIJA	377	PF 1	6.31	708.43	708.75	708.77	708.89	0.068265	1.64	4.03	21.45	1.09
LARIJA	331	PF 1	6.31	706.64	706.75	706.74	706.82	0.056863	1.17	5.43	80.99	0.93
LARIJA	271	PF 1	6.31	703.19	703.64	703.63	703.76	0.049595	1.57	4.05	15.34	0.95
LARIJA	241	PF 1	6.31	701.69	701.80	701.80	701.80	0.000229	0.04	51.76	186.65	0.05
LARIJA	180	PF 1	6.31	698.00	698.47	698.46	698.61	0.047041	1.70	3.91	18.41	0.95
LARIJA	138	PF 1	6.31	696.04	696.31	696.44	696.78	0.432770	3.02	2.09	14.52	2.53
LARIJA	105	PF 1	6.31	694.00	694.41	694.45	694.56	0.071676	1.76	4.43	36.50	1.13
LARIJA	66	PF 1	6.31	691.93	692.16	692.14	692.22	0.049395	1.06	5.98	39.26	0.86
LARIJA	30	PF 1	6.31	690.00	690.64	690.63	690.75	0.051572	1.43	4.41	18.94	0.95
LARIJA	19	PF 1	6.31	689.00	689.80	689.80	690.00	0.049713	1.94	3.26	8.35	0.99
LARIJA	0	PF 1	6.31	688.60	689.46	689.46	689.76	0.040266	2.48	2.71	5.02	0.96
LARIJA	0	PF 1	6.31	688.20	688.84	688.97	689.23	0.130267	2.76	2.27	7.10	1.57

Ilustración 5. Perspectiva de la llanura de inundación del Arroyo Larija



2.3.2.- AVENIDA ORDINARIA DE PERIODO DE RETORNO 500 AÑOS

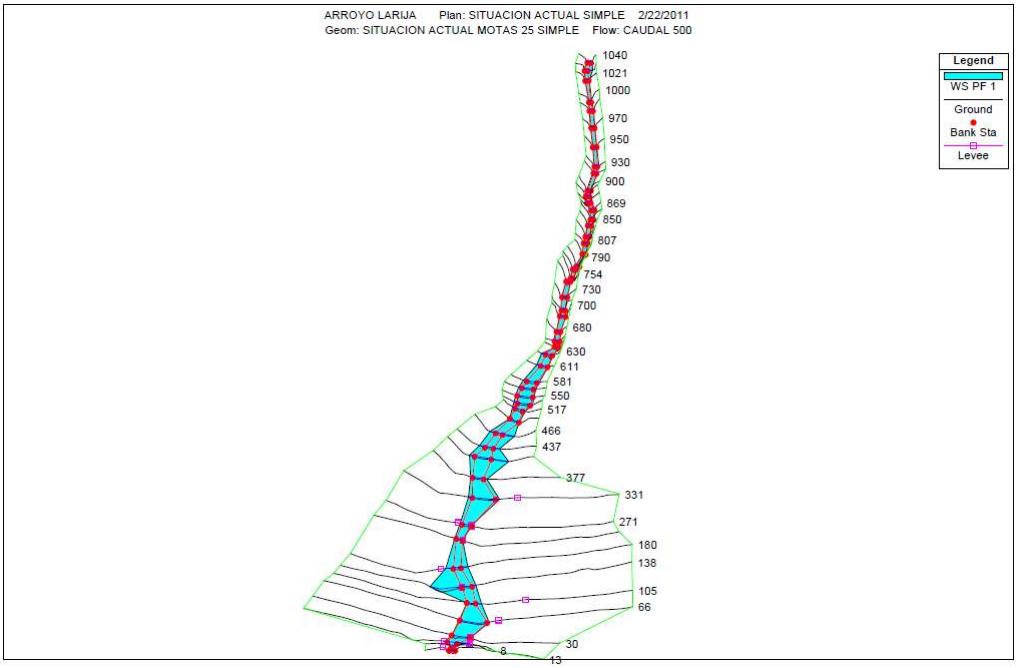
El resumen de los datos obtenidos para el arroyo Larija modelizado se adjunta en la tabla e ilustraciones siguientes. Asimismo, se representa esquemáticamente la llanura de inundación para 500 años, remitiendo a los planos del presente Estudio para consulta de detalle.

Tabla 5. Caracterización del modelo del Arroyo Larija

HEC-RAS Plan: Simple River: ARROYO Reach: LARIJA Profile: PF 1

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
LARIJA	1040	PF 1	14.94	774.70	775.40	775.70	776.40	0.170008	4.59	3.55	8.27	1.98
LARIJA	1030	PF 1	14.94	773.00	773.80	774.09	774.79	0.156112	4.69	3.86	11.62	1.90
LARIJA	1021	PF 1	14.94	771.00	771.80	772.19	773.08	0.187674	5.07	3.06	6.01	2.07
LARIJA	1000	PF 1	14.94	766.56	767.66	768.17	769.36	0.176438	5.99	2.76	4.34	2.02
LARIJA	990	PF 1	14.94	765.00	765.83	766.24	767.29	0.231750	5.44	2.89	6.28	2.29
LARIJA	970	PF 1	14.94	761.96	762.79	763.13	763.82	0.126722	4.58	3.46	6.16	1.73
LARIJA	950	PF 1	14.94	758.00	758.77	759.20	760.24	0.256713	5.38	2.79	5.48	2.34
LARIJA	930	PF 1	14.94	754.00	755.20	755.57	756.34	0.147799	4.88	3.38	6.94	1.81
LARIJA	920	PF 1	14.94	753.00	754.14	754.46	755.06	0.101660	4.31	3.70	6.90	1.56
LARIJA	900	PF 1	14.94	750.00	750.69	751.10	752.09	0.228767	5.27	2.92	6.06	2.24
LARIJA	894	PF 1	14.94	749.00	749.78	750.09	750.77	0.133329	4.47	3.52	6.63	1.77
LARIJA	879	PF 1	14.94	748.00	749.16	749.23	749.62	0.043633	3.07	5.25	7.87	1.05
LARIJA	869	PF 1	14.94	746.72	747.65	748.01	748.79	0.151762	4.77	3.23	5.77	1.85
LARIJA	860	PF 1	14.94	745.00	746.00	746.40	747.34	0.160431	5.28	3.07	5.53	1.96
LARIJA	850	PF 1	14.94	744.00	744.90	745.21	745.84	0.120927	4.36	3.61	6.70	1.69
LARIJA	833	PF 1	14.94	742.00	742.95	743.22	743.83	0.116189	4.16	3.61	5.76	1.62
LARIJA	820	PF 1	14.94	741.00	742.16	742.25	742.68	0.055888	3.20	4.71	6.55	1.14
LARIJA	807	PF 1	14.94	739.00	739.96	740.37	741.30	0.216629	5.11	2.92	4.74	2.08
LARIJA	790	PF 1	14.94	737.00	738.02	738.30	738.91	0.095900	4.21	3.70	5.69	1.51
LARIJA	780	PF 1	14.94	736.60	737.87	737.87	738.28	0.037038	2.84	5.39	7.07	0.96
LARIJA	767	PF 1	14.94	735.00	736.17	736.59	737.34	0.135498	4.82	3.23	5.47	1.66
LARIJA	754	PF 1	14.94	735.00	736.08	736.08	736.51	0.042428	2.90	5.17	6.57	0.99
LARIJA	730	PF 1	14.94	733.00	733.65	733.94	734.61	0.184812	4.37	3.48	7.99	1.99
LARIJA	710	PF 1	14.94	730.92	731.88	732.02	732.49	0.063509	3.53	4.42	6.44	1.24
LARIJA	700	PF 1	14.94	730.00	730.62	730.88	731.46	0.184561	4.06	3.69	8.95	1.97
LARIJA	680	PF 1	14.94	727.00	727.99	728.25	728.78	0.100601	3.95	3.81	5.91	1.51
LARIJA	660	PF 1	14.94	726.00	726.98	727.03	727.38	0.044686	2.81	5.53	9.61	1.04
LARIJA	649	PF 1	14.94	725.00	725.84	726.10	726.59	0.105091	3.84	3.89	5.98	1.52
LARIJA	630	PF 1	14.94	724.00	725.17	725.18	725.42	0.033911	2.23	7.34	17.81	0.89
LARIJA	611	PF 1	14.94	723.00	723.49	723.68	724.10	0.170786	3.56	4.60	17.92	1.86
LARIJA	581	PF 1	14.94	720.65	721.24	721.27	721.46	0.050042	2.12	7.61	23.23	1.03
LARIJA	567	PF 1	14.94	720.00	720.40	720.46	720.65	0.070804	2.27	7.08	25.03	1.20
LARIJA	550	PF 1	14.94	719.00	719.43	719.44	719.61	0.052175	1.89	8.09	27.08	1.02
LARIJA	533	PF 1	14.94	718.19	718.71	718.66	718.84	0.028752	1.64	9.85	28.20	0.79
LARIJA	517	PF 1	14.94	717.48	718.10	718.10	718.29	0.038196	1.99	8.20	24.24	0.92
LARIJA	499	PF 1	14.94	716.00	716.36	716.52	716.90	0.238919	3.27	4.60	19.31	2.07
LARIJA	466	PF 1	14.94	714.25	714.74	714.74	714.87	0.042126	1.88	10.02	38.96	0.94
LARIJA	437	PF 1	14.94	712.38	712.81	712.90	713.10	0.092647	2.59	6.87	30.54	1.37
LARIJA	413	PF 1	14.94	711.31	711.71	711.71	711.81	0.039229	1.51	11.74	59.90	0.87
LARIJA	377	PF 1	14.94	708.43	708.81	708.95	709.24	0.164352	2.97	5.42	24.31	1.76
LARIJA	331	PF 1	14.94	706.54	706.87	706.87	706.99	0.048911	1.56	10.03	44.96	0.95
LARIJA	271	PF 1	14.94	703.19	703.79	703.79	703.79	0.000272	0.15	92.91	208.78	0.07
LARIJA	241	PF 1	14.94	701.69	702.01	702.01	703.60	0.719771	5.68	2.74	12.55	3.59
LARIJA	180	PF 1	14.94	698.00	698.65	698.65	698.87	0.043851	2.22	8.29	31.72	0.99
LARIJA	138	PF 1	14.94	696.04	696.56	696.56	696.57	0.001748	0.37	33.46	68.83	0.19
LARIJA	105	PF 1	14.94	694.00	694.34	694.59	696.21	1.325776	6.19	2.63	21.18	4.61
LARIJA	56	PF 1	14.94	691.93	692.30	692.25	692.38	0.030487	1.27	11.95	45.13	0.75
LARIJA	30	PF 1	14.94	690.00	690.82	690.82	690.97	0.051208	1.74	8.60	27.70	0.99
LARIJA	13	PF 1	14.94	689.00	690.42	690.15	690.49	0.008440	1.25	14.21	35.65	0.46
LARIJA	8	PF 1	14.94	688.60	689.95	689.95	690.38	0.029644	3.09	5.52	6.52	0.92
LARIJA	0	PF 1	14.94	688.20	689.01	689.29	689.87	0.202437	4.10	3.65	9.04	2.04

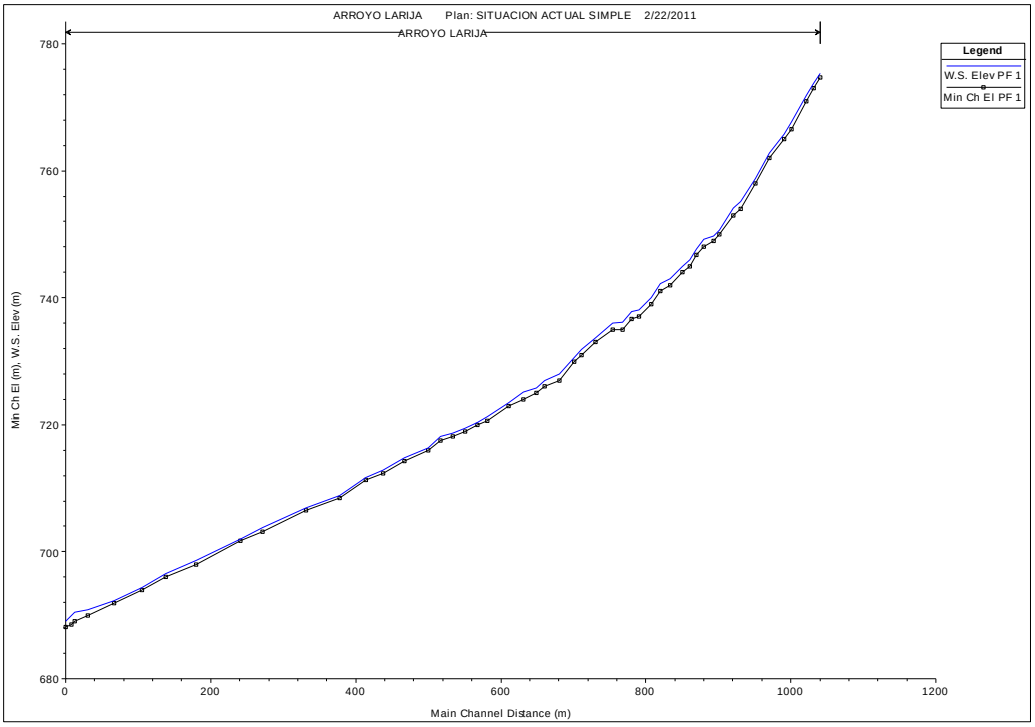
Ilustración 6. Perspectiva de la llanura de inundación del Arroyo Larija



2.4.- ANÁLISIS DE LOS RESULTADOS

A continuación se muestra el gráfico con las cotas de la llanura de inundación alcanzadas para la avenida extraordinaria de 500 años:

Ilustración 7. Cotas de inundación del modelo del Arroyo Larija



De este gráfico se extraen los valores de cota de lámina de agua en cada perfil para poder trasladarlos a planta y dibujar la llanura de inundación. Esta operación la realiza automáticamente la aplicación Geo-RAS, y el resultado ilustrativo queda recogido en el documento de Planos.

2.5.- INCIDENCIAS CON LA ORDENACIÓN EXISTENTE

Aunque este estudio complementa el documento del Plan General de Ordenación Urbanística en Martos y, por tanto, es en dicho documento donde se analizarán con detalle las posibles incidencias con la ordenación que se proponga, señalamos que, en el caso del Arroyo Larija, la llanura de inundación para la avenida extraordinaria afecta a lo largo de sus últimos 100 metros aproximadamente, a algunas edificaciones aisladas existentes en la zona.

La ordenación urbanística de los sectores de suelo urbanizable limítrofes al arroyo y a los terrenos inundables determinados en este estudio, tendrá en cuenta la integración paisajística con este espacio natural.

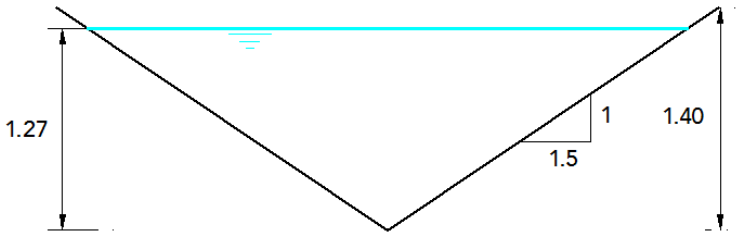
El modelo estudiado finaliza en la calle Príncipe Felipe, punto en el que el arroyo Larija se incorpora a la cuneta existente en la margen izquierda de la vía.

Ilustración 8. Desembocadura del Arroyo Larija a la cuneta de la JA-3305, denominada calle Príncipe Felipe

La capacidad actual de la cuneta no permite conducir la avenida extraordinaria de periodo de retorno 500 años del arroyo Larija.

Se hace necesaria, por tanto la ampliación de la cuneta. Se propone la siguiente sección tipo:

Ilustración 9. Propuesta acondicionamiento en tramo cuneta



Esta ampliación de la cuneta existente se integrará en el ámbito y en la ordenación de los sectores de suelo urbano no consolidado y urbanizable limítrofes.

2.6.- ORDENACIÓN DEL ESTUDIO Y DOCUMENTOS DE QUE CONSTA

El presente Estudio se ordena conforme a la siguiente documentación:

DOCUMENTO NÚMERO 1.- **MEMORIA** con 2 Anejos

Anejo número 1.- Estudio Hidrológico

Anejo número 2.- Estudio Hidráulico

DOCUMENTO NÚMERO 2.- **PLANOS**

2.1.- Plano de Situación e Índice

2.2.- Cartográfico de la zona

2.3.- Cuenca Hidrológica

2.4.- Delimitación del DPH

2.5.- Llanura de Inundación para T 500 años

2.7.- CONCLUSIÓN

Con cuanto antecede y el resto de documentación que se incorpora al presente Estudio, creemos haber explicitado suficientemente el alcance del presente trabajo y haber cumplimentado el encargo recibido, por lo que sometemos el Estudio a la tramitación correspondiente.

Córdoba, Agosto de 2.010
I N G E S A
LA INGENIERA DE CAMINOS, C. Y P.

Fdo: Lourdes Martínez Juguera
Colegiada nº 14.835

ANEJO NÚMERO 1. ESTUDIO HIDROLÓGICO

ANEJO NÚMERO 1. ESTUDIO HIDROLÓGICO

1. INTRODUCCIÓN

El objeto del presente anejo es calcular el caudal circulante para las avenidas ordinaria y extraordinaria de periodo de retorno 5 y 500 años respectivamente por el arroyo Larija, en Martos, a su paso por las posibles zonas de afección a la ordenación propuesta en el Plan General de Ordenación Urbana del municipio.

Para los cálculos que siguen a continuación, se hará uso de la información publicada por la Dirección General de Carreteras en el texto "Máximas Precipitaciones de la España Peninsular".

2. BASES DE CÁLCULO

2.1. LLUVIA DE CÁLCULO

Partiendo, como ya se ha comentado, de las isolíneas, en nuestro caso de precipitaciones máximas en 24h, publicados por la Dirección General de Carreteras en el texto "Máximas Precipitaciones de la España Peninsular", se ha obtenido la lluvia de cálculo para el período de retorno considerado.

2.2. PERIODO DE RETORNO

Al tratarse de un estudio de avenidas, se ha de definir el máximo período de retorno a considerar. Los valores que adoptan los diferentes autores varían según el tipo de cuenca y los daños previsibles, debiendo, además, tenerse en cuenta el criterio que establecen los Organismos competentes en materia hidrológica.

En el caso de cuencas mayores, con cauces ya conformados como es nuestro caso, los períodos de retorno se establecen entre 50 y 100 años pero teniendo en cuenta la normativa de la Agencia Andaluza del Agua, (en adelante AAA), se adopta para este caso el valor límite de 500 años.

Por tanto será el valor correspondiente al periodo de retorno de 500 años el empleado para fijar la llanura de inundación.

Para la determinación del DPH del cauce se ha empleado el periodo de retorno 5 años, si bien según nos indica la AAA en Jaén, suele estar comprendido entre 2 y 5 años.

Recordar que según el R.D.L. 1/01de 20 de julio, por el que se aprueba el Texto Refundido de la Ley de Aguas, y el R. D. 849/86, de 11 de abril, por el que se aprueba el Reglamento del Dominio Público Hidráulico que desarrolla los títulos preliminar, I, IV, V, VI y VII de la Ley 29/85, de 2 de agosto, de Aguas:

- álveo o cauce natural de una corriente continua o discontinua es el terreno cubierto por las aguas en las máximas crecidas ordinarias.
- Se considerara como caudal de la máxima crecida ordinaria la media de los máximos caudales anuales, en su régimen natural producidos durante diez años consecutivos, que sean representativos del comportamiento hidráulico de la corriente
- Se entiende por riberas las fajas laterales de los cauces públicos situadas por encima del nivel de aguas bajas, y por márgenes los terrenos que lindan con los cauces. Las márgenes están sujetas, en toda su extensión longitudinal:

a) A una zona de servidumbre de cinco metros de anchura, para uso público que se regulará reglamentariamente.

b) A una zona de policía de 100 metros de anchura en la que se condicionará el uso del suelo y las actividades que se desarrollen.

2.3. MÉTODO DE LAS "MÁXIMAS PRECIPITACIONES DE LA ESPAÑA PENINSULAR

Para la determinación de estos valores de máximas lluvias diarias se han seguido las siguientes fases:

- Recopilación de datos de las estaciones pluviométricas más significativas
- Tratamiento estadístico de las series de datos, realizando un modelo regional de parámetros y cuantiles
- Análisis de la distribución del valor medio de las series de máximas anuales

Mediante el ajuste estadístico SQRT-ET max de las citadas series de precipitaciones, se han extrapolado los valores al periodo de retorno considerado que se adjuntan en el Apéndices 1, " *Método de las Máximas Precipitaciones de la España Peninsular* ", del presente Anejo, mediante la aplicación informática MAXPLU, desarrollada igualmente por la Dirección General de Carreteras.

Esta aplicación se basa en la utilización de un sistema GIS de información geográfica tal que, a partir de las coordenadas geográficas o UTM del punto a analizar, transmite los parámetros resultantes de la extrapolación de los resultados del tratamiento estadísticos de los datos reales de las estaciones pluviométricas.

Como la superficie de la cuencas es ligeramente superior a 1 Km^2, se ha considerado un único punto de control o característico. La extrapolación se realiza para el periodo de retorno de 500 años. El análisis de los datos anteriormente citados, así como los resultados numéricos y gráficos obtenidos se adjuntan en el Apéndice anteriormente citado. A continuación transcribimos la tabla con el valor adoptado:

Tabla 1. Resumen de valores

COORDENADAS UTM DE PTOS ANALIZADOS		PRECIP. MAX DIARIAS PARA LOS PERIODOS DE RETORNO (mm/día)
PERIODOS DE RETORNO 5	416.848 4.174.390	57
PERIODOS DE RETORNO 500	416.848 4.174.390	140

Conocida la lluvia de cálculo, es preciso determinar las características físicas de la cuenca receptora.

3. CARACTERÍSTICAS DE LA CUENCA

Calculados los valores de la lluvia máxima de cálculo en el apartado anterior, abordaremos la determinación del resto de factores que intervienen en el cálculo del caudal de avenida, en definitiva, las características de la cuenca.

Nos interesan

- la superficie, que se determina sobre los planos a escala 1:10.000 de la Cartografía oficial de la Junta de Andalucía.
- los datos geométricos que determinan la topografía de la cuenca y del cauce: puntos altos, punto bajo (el de cruce con la conducción lógicamente) y longitudes a recorrer por el agua. Todos ellos se determinan también a partir de la cartografía antes citada.
- el coeficiente de escorrentía, para el cual partimos de los distintos tipos de cultivos existentes en la cuenca con sus extensiones superficiales correspondientes y del tipo de suelo. La cartografía citada y la inspección visual "in situ" son nuestras bases de partida.

No entramos en el cálculo de cada uno de los valores anteriores, puesto que se resumen en la tabla siguiente, así como su correspondiente reseña gráfica materializada en el Plano de Cuencas que se acompaña en el Apéndice 2, donde se determina la divisoria en el punto más bajo del cauce que nos ocupa en la zona de actuación.

Tabla 2. Datos de la cuenca

CUENCA	SUPERFICIE (HA)	PTO. ALTO CUENCA (M)	DISTANCIA (M)	PTO. ALTO CAUCE (M)	DIS.CAUCE (M)	PTO.BAJO (M)
ARROYO LARIJA	104	914	2150	835	1500	690

4. CÁLCULO DEL CAUDAL DE AVENIDA

Teóricamente el caudal aportado por una cuenca en un punto vendrá determinado por la lluvia correspondiente al tiempo de concentración de la cuenca, afectando a la superficie de la cuenca y reducida por la aplicación de coeficientes de escorrentía.

Según el nivel de seguridad deseable, función lógicamente de los posibles riesgos, se adoptará para la lluvia un periodo de retorno menor o mayor, entre los 10 años y los 1.000 años como valores habituales, adoptados ingenierilmente.

La AAA exige que se considere la lluvia de periodo de retorno de 500 años por lo que es para este valor para el que desarrollaremos los cálculos del presente Estudio. Como ya se ha comentado, para la determinación del DPH se usará la lluvia de periodo de retorno de 5 años.

De los mapas de Usos del Suelo publicados por la Junta de Andalucía, se ha extraído la información sobre el tipo y uso de los suelos afectados por la cuenca anterior. Esta información se empleará para el cálculo del coeficiente de escorrentía, como más adelante se detallará.

4.1. MÉTODOS DE CÁLCULO

Careciéndose, como es lógico, de datos de aforo, el cálculo de caudal lo realizaremos por métodos empíricos, de acuerdo con las formulaciones habituales para este tipo de

estimaciones. Dada la inseguridad de los mismos realizamos el cálculo por diversos métodos del tipo de los hidrometeorológicos, de forma que obtengamos una visión lo más amplia posible, que nos permita una definición acertada de los caudales previsibles.

4.1.1. MÉTODO RACIONAL

La sencilla formulación del Método Racional lo hace muy atrayente para los casos en los que no es preciso estudiar laminación y sólo interese el valor del caudal punta, que en este caso será de cálculo.

La expresión para el cálculo del caudal con este método es la siguiente:

$$Q = \frac{C \times I \times S}{K} \times K' \qquad \text{siendo,}$$

Q = Caudal de cálculo en m^3/seg

C = Coeficiente medio de escorrentía de la cuenca o superficie drenada

I = Intensidad media de precipitación correspondiente al periodo de retorno considerado y a un intervalo igual al tiempo de concentración, en mm/h

S = área de la cuenca en Km^2, a no ser que existan perdidas o aportaciones de importancia, tales como resurgencias o sumideros, en cuyo caso el cálculo del caudal Q deberá justificarse convenientemente.

K = coeficiente que depende de las unidades en las que se consideren los parámetros anteriormente descritos, en nuestro caso y para las unidades consignadas $K = 3,6$

K' = factor de corrección que adopta el valor de 1,2, atendiendo a que la hipótesis de lluvia neta constante admitida en el método racional no es real y en la práctica, existen variaciones en su reparto temporal que favorecen el desarrollo de los caudales punta. Sin embargo, en cuencas pequeñas (Tiempo de Concentración < 6h), la influencia de la variación temporal de la lluvia neta es secundaria y se puede reflejar con el factor K', con lo que la expresión inicial quedaría como sigue:

$$Q = \frac{C \times I \times S}{3,6} \times 1,2$$

En el caso normal de cuencas en las que predomine el tiempo de recorrido de flujo caracterizado por una red de cauces definidos, el tiempo de concentración Tc (horas), se obtiene de la expresión:

$$Tc = 0,3 \times \left[\left(\frac{L}{J^{0,25}} \right)^{0,76} \right]$$

Tc = tiempo de concentración (horas)

L = longitud del cauce principal (kms)

J = pendiente media del cauce principal (m/m)

La intensidad de lluvia correspondiente a una duración t viene determinada por la aplicación de la fórmula de Yarnell y Hattaway, con los coeficientes deducidos por Jaime Nadal para el caso de España, conforme ha sido publicado por el entonces denominado Instituto Eduardo Torroja. Obtenemos:

$$I_t = 9{,}25 \times I_h \times t^{-0{,}55}$$, donde

I_t = Intensidad para una duración del aguacero de (t minutos), en mm

I_h = Intensidad horaria, en mm

t = Duración del aguacero en minutos

Del análisis de los datos de lluvia se obtiene el valor de precipitación máxima diaria para un periodo de retorno determinado, y que en nuestro caso es de 500 años. La distribución de esta lluvia a lo largo del día no es conocida, y como ya se ha citado es constante, es decir que se supone que pasaríamos de datos de precipitación a intensidad, sin más que dividir entre 24 horas. Esta suposición es bastante errónea pues una vez que el aguacero alcanza una duración igual al tiempo de concentración de la cuenca, el caudal aportado por la cuenca no aumenta considerando que no se interrumpe el normal discurrir de las aguas. Al no disponer de datos suficientes para configurar el hidrograma de la cuenca vertiente para aguaceros de distinta duración y trabajar con valores de precipitación y no de intensidad, diremos que para calcular la Intensidad correspondiente al tiempo de concentración por la fórmula de Yarnell y Hattaway consideraremos que la intensidad horaria es el 25% de la diaria con lo que estamos suponiendo que es posible que las precipitaciones recogidas a lo largo de un día pueden haberse concentrado en tan sólo seis horas. De este modo la expresión que nos permite calcular la intensidad correspondiente a un tiempo de concentración dado queda como sigue:

$$I_t = 9{,}25 \times 0{,}25 \times Pmax_{24h} \times t^{-0{,}55}$$, donde

I_{Tc} = Intensidad correspondiente al tiempo de concentración y periodo de retorno considerados, en mm

Pmáx = Precipitación máxima diaria para el periodo de retorno considerado, en mm

Tc = Tiempo de concentración de la cuenca en estudio, en minutos

El último parámetro que nos queda por definir es el coeficiente de escorrentía que define la proporción de la componente superficial de la precipitación de intensidad I, y depende en líneas generales de las características de suelo, vegetación, topografía y precipitación.

Dado el tipo de cuenca considerado y de conformidad con los valores habituales podemos estimar el coeficiente de escorrentía por:

$$C = \frac{0{,}3 * t}{20 + t}$$

En nuestro caso, y dado que la estimación anterior proporciona unos valores muy bajos de C (0,2), se ha tomado un coeficiente de escorrentía de 0,65 para el arroyo Larija.

Los resultados obtenidos por aplicación de este método a la cuenca estudiada se recogen en el apéndice 2 del presente Documento. A continuación se presenta un resumen:

Tabla 3. Resumen de resultados por el Método Racional

T	Tc (h)	It (mm)	C	Q (m³/s)
5	0,64	17,78	0,65	4,01
500	0,64	43,67	0,65	9,84

4.1.2. MÉTODO DE LA INSTRUCCIÓN DE DRENAJE

Con fecha 23 de Mayo de 1.990, el B.O.E. publicaba la orden de 14 de mayo por la que se aprobaba la Instrucción 5.2 I.C. de Drenaje Superficial, que con independencia de ser concebida para la aplicación al drenaje de Carreteras, significa una aportación, a nuestro juicio muy valiosa, a los métodos de cálculo de avenidas, en casos simplificados de cuencas pequeñas.

Aplicamos también este método a los diferentes casos que nos ocupan, diferenciando como es lógico cada una de las cuencas estudiadas.

El tiempo de concentración es, según este método:

$$Tc = 0.3 \cdot \left(\frac{L}{J^{0.25}} \right)^{0.76}$$

La intensidad que recoge el método de la Instrucción de Carreteras, siempre considerando el periodo de retorno y tiempo de concentración considerados para el cálculo, adopta la siguiente expresión:

$$\frac{I_t}{I_d} = \left(\frac{I_1}{I_d} \right)^{\left(\frac{28^{0,1} - t^{0,1}}{28^{0,1} - 1} \right)}$$ donde,

I_t = intensidad media correspondiente al intervalo de duración t, en mm/h

I_d = intensidad media diaria correspondiente al periodo de retorno considerado Id=Pd/24 en mm/h

P_d = precipitación máxima diaria correspondiente al periodo de retorno considerado

I_1 = la intensidad horaria de precipitación correspondiente a dicho periodo de retorno

El valor del ratio $\frac{I_1}{I_d}$ se determina de la figura 2.2. de la Instrucción 5.2.- I.C, y si hacemos Tc=t en la expresión anterior se obtiene el valor de intensidad a emplear en el cálculo.

Ya se ha citado en a descripción del Método Racional, que el coeficiente de escorrentía, define la proporción de la componente superficial de la precipitación de intensidad, y que depende de la razón entre la precipitación diaria P_d correspondiente al periodo de retorno y el umbral de escorrentía P_0 a partir del cual se inicia esta, este umbral de escorrentía es característico de cada cuenca.

La formulación usada en este método está basada en el método propuesto por la Ley del Soil Conservation Service (USA) para las relaciones lluvia-escorrentía y que se corresponde a las siguientes expresiones:

$$E/P = 0 \qquad \text{si } (P/P_0)<1$$

$$E/P_0 = \frac{\left[\left(\frac{P}{P_0}\right)-1\right]^2}{\left(\frac{P}{P_0}\right)+4} \qquad \text{si } (P/P_0)>=1$$

Siendo:

E(mm) = escorrentía igualmente acumulada y provocada por P

P(mm) = precipitación acumulada desde el comienzo del aguacero hasta el instante dado

P_0(mm) = parámetro o umbral de escorrentía que define la precipitación total por debajo de la cual no se produce escorrentía.

El coeficiente de escorrentía C, en un instante dado hasta el cual ha precipitado P y se ha provocado una escorrentía E, se puede obtener derivando las expresiones anteriores:

$$C = \frac{dE}{dP} = \frac{d\left(\frac{E}{P_0}\right)}{d\left(\frac{P}{P_0}\right)} = \frac{\left(\frac{P}{P_0}-1\right)\times\left[\left(\frac{P}{P_0}+9\right)\right]}{\left[\left(\frac{P}{P_0}\right)+4\right]^2}$$

C va creciendo a lo largo del aguacero y su valor medio en un intervalo será mayor que el correspondiente a su origen y menor que el del final. El intervalo objeto de estudio es aquel que proporciona mayor escorrentía y se admite que corresponde al de duración igual al tiempo de concentración y que contiene al máximo del hietograma. Si se conoce el valor de P en dicho instante, la expresión anterior permitirá obtener el coeficiente de escorrentía buscado.

Se ha testado en varias estaciones pluviométricas españolas que puede admitirse una ley del tipo:

$$P_{máx.intensidad} = b \times P_d$$

donde b es un parámetro que refleja la posición relativa del intervalo de máxima intensidad dentro del pluviograma diario, y que puede admitirse que toma un valor de 0,5. Con esto, quedaría fijado el valor del coeficiente de escorrentía a utilizar en función de P_d.

Esta formulación debe ser corregida en los casos de aguaceros con pequeño periodo de retorno puesto que en estos casos no se cumple sistemáticamente la hipótesis básica: el máximo caudal no está asociado al intervalo de máxima intensidad y duración Tc, ya que dicha precipitación quedará absorbida íntegramente por el terreno al ser menor que el umbral de escorrentía.

En estos casos, el intervalo generador del máximo caudal, y con él, el punto intermedio indicativo del coeficiente de escorrentía, se desplazan en el tiempo hacia la zona final del aguacero, en espera de condiciones más desfavorables de la humedad del suelo que las correspondientes al intervalo de máxima intensidad.

Este problema se aborda modificando la ley anterior, resultado de la función derivada, en los entornos de los pequeños valores, haciéndola despegar del eje C = 0 para $P_d = P_0$, para tender posteriormente a confundirse con la curva primitiva, proponiéndose finalmente:

$$C = 0 \qquad \text{si } (P_d/P_0)<1$$

$$C = \frac{dE}{dP} = \frac{d\left(\frac{E}{P_0}\right)}{d\left(\frac{P}{P_0}\right)} = \frac{\left(\frac{P}{P_0}-1\right)\times\left[\left(\frac{P}{P_0}+23\right)\right]}{\left[\left(\frac{P}{P_0}\right)+11\right]^2}$$

La expresión propuesta en la Instrucción de Carreteras 5.2. para el cálculo del caudal, que se recoge en el apartado 2.2., es igual a usada en el método racional descrito en el apartado anterior y es:

$$Q = \frac{C \times I \times S}{3,6} \times 1,2 = Q = \frac{C \times I \times S}{3}$$

Los significados y unidades de las variables son los mismos que se han descrito anteriormente.

Siguiendo con las consideraciones del cálculo del coeficiente de escorrentía diremos que para el caso de cuencas heterogéneas deberán dividirse estas en cuencas parciales cuyos coeficientes parciales de escorrentía se calcularán por separado, reemplazando luego el término C x S de la fórmula anterior por la sumatoria de las cuencas parciales Σ(C x S).

El valor del umbral de escorrentía (P_0), en un sentido determinista, depende de las características de la cuenca y puede obtenerse (basándose en el concepto de "número de curva" del Soil Conservation Service) a partir de la tabla 2-1 de la Instrucción 5.2 I.C. de Drenaje superficial y de los siguientes datos:

- pendiente
- capacidad de infiltración del suelo
- vegetación
- características del laboreo

El valor obtenido de dicha tabla se deberá multiplicar por el coeficiente corrector dado en la figura 2.5. de la mencionada instrucción.

Este coeficiente refleja la variación regional de la humedad habitual en el suelo al comienzo de aguaceros significativo e incluye una mayoración (del orden del 100 %) para evitar sobrevaloraciones del caudal de referencia a causa de ciertas simplificaciones del tratamiento estadístico del Método Hidrometeorológico.

En el caso de que no se conozca con certeza el tipo de terrenos de la cuenca de estudio, se puede tomar simplificadamente un valor conservador de P_0 (sin tener que multiplicarlo luego por el coeficiente de la figura 2-5) igual a 20 mm, salvo en cuencas con rocas o suelos arcillosos muy someros, en las que se podrá tomar igual a 10 mm.

Tabla 4. Resumen de resultados por el Método de la 5.2-IC

T	Tc (h)	It (mm)	C	Q (m^3/s)
5	0,64	27,99	0,65	6,31
500	0,64	68,76	0,65	14,94

Los resultados obtenidos para la cuenca del arroyo Larija para cada uno de los periodos de retorno estudiados se recogen en el Apéndice 3 del presente Anejo.

4.2. VALOR ADOPTADO PARA EL QCAL

Se acompañan en el Apéndice 3 adjunto las salidas correspondientes a los diferentes métodos antedichos, conforme al cálculo numérico realizado por ordenador.

Es de mencionar que los cálculos realizados para la obtención en el Método Racional del Coeficiente de Escorrentía, dan como resultado valores inferiores a 0,65, considerado a juicio del proyectista demasiado bajo dado el entorno en el que nos encontramos, por lo que se ha realizado igualmente los cálculos considerando el valor del Coeficiente de Escorrentía 0,65 para el Arroyo Larija.

Por tanto, para una misma cuenca, se han considerado los valores de coeficiente de escorrentía teórico para el Método Racional (y viendo que son muy reducidos, se han adoptado unos valores superiores), y el valor obtenido por el Método de la Instrucción 5.2 I.C.

Como consecuencia de los cálculos antedichos resultan los siguientes caudales para la avenida de periodo de retorno de 500 años:

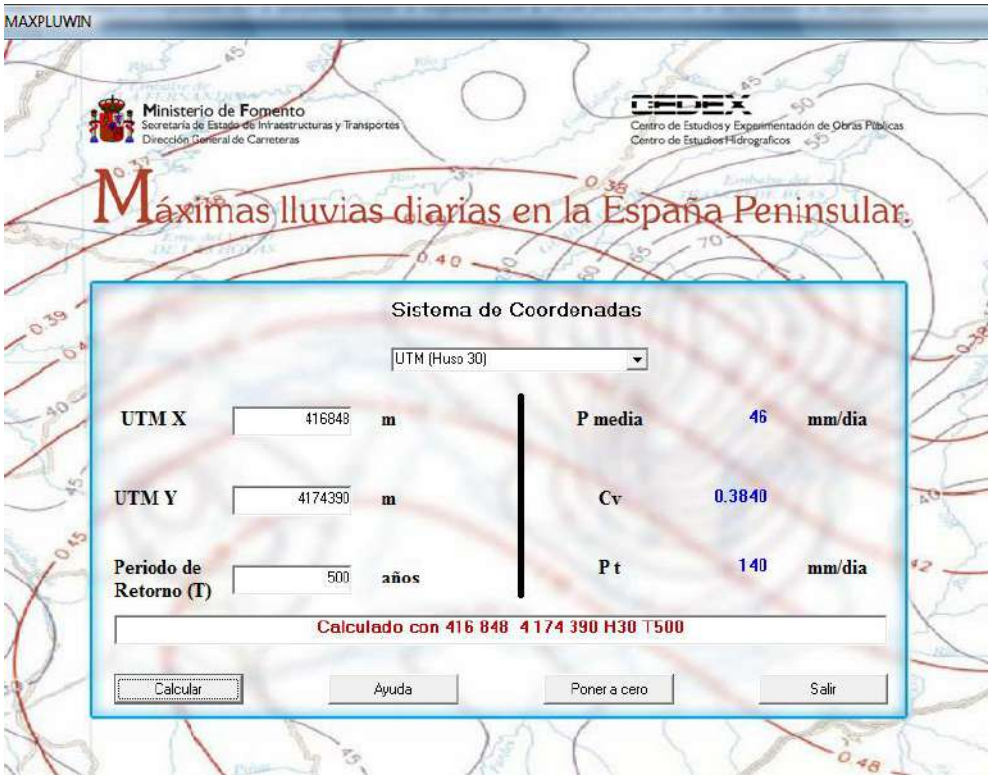
Tabla 5. Resultados de cálculo

CUENCA	Q_5 (m^3/s)		Q_{500} (m^3/s)	
	Método Racional	**Método 5.2-IC**	**Método Racional**	**Método 5.2-IC**
Arroyo Larija	4,01	6,31	9,84	14,94

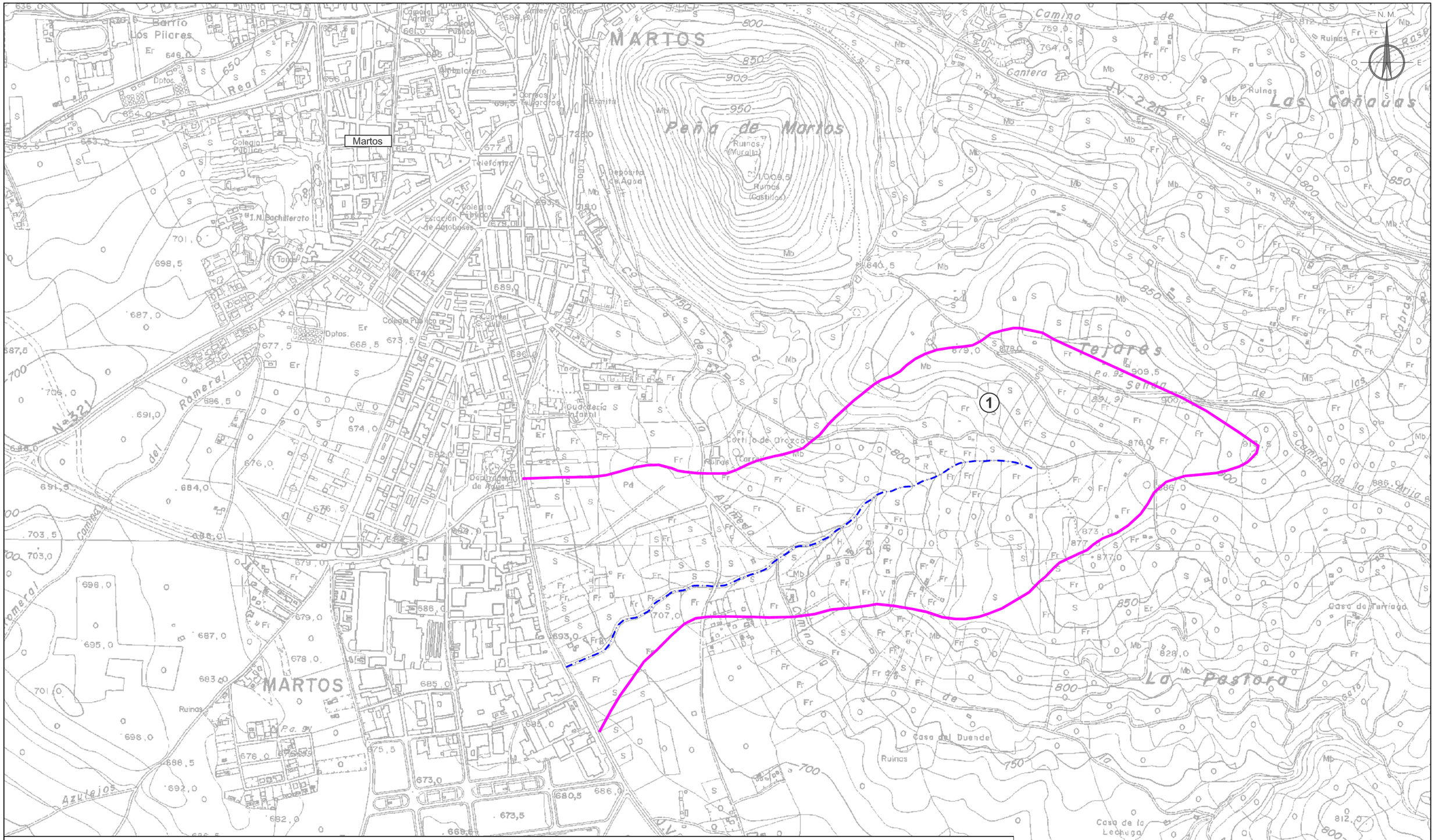
Adoptamos como valor de cálculo para el cálculo del DPH el proporcionado por el método de la Instrucción 5.2 I.C para el periodo de retorno de 5 años, fijando por tanto el caudal de cálculo en **6,31 m^3/s,** y para la llanura de inundación **14,94 m^3/s.**

APÉNDICE 1. MÉTODO DE LAS "MÁXIMAS PRECIPITACIONESDE LA ESPAÑA PENINSULAR"

CUENCA DEL ARROYO LARIJA A SU PASO POR MARTOS



APÉNDICE 2. PLANO DE CUENCAS Y USOS DEL SUELO



DATOS CUENCA ARROYO LARIJA

CUENCA	NOMBRE ARROYO	COTA PUNTO BAJO CAUCE	COTA PUNTO ALTO CAUCE	COTA PUNTO ALTO CUENCA	LONGITUD CUENCA	LONGITUD CAUCE Km	PENDIENTE %	SUPERFICIE Km²
1	Arroyo Larija	690	835	914	2.15	1.50	9.67	1.04

ENCARGO ANTONIO ESTRELLA LARA JACINTA ORTIZ MIRANDA ARQUITECTOS	INGESA	REDACCIÓN DEL ESTUDIO LOURDES MARTÍNEZ JUGUERA INGENIERO DE CAMINOS C.Y P.	ESTUDIO DE INUNDABILIDAD DEL ARROYO LARIJA EN EL TÉRMINO MUNICIPAL DE MARTOS (JAÉN)	ESCALA 1:10.000	DOCUMENTO PLANOS	TITULO ARROYO LARIJA CUENCA HIDROLÓGICA	Nº DE PLANO 2.3	FECHA AGOSTO 2010 DE

APÉNDICE 3. CÁLCULO DEL CAUDAL DE AVENIDA

CÁLCULO DE CAUDALES

Proyecto/Estudio: *INUNDABILIDAD DEL ARROYO LARIJA*
Identificación de la Cuenca: *Arroyo Larija*
Período de retorno (T): *5 años*
Precipitación máx. correspondiente a T en mm: *57,00*

Características de la Cuenca

Superficie (km^2)	Cota Punto Alto Cuenca (m)	Cota Punto Alto Cauce (m)	Cota Punto Bajo Cauce (m)	Long. Cuenca (m)	Long. Cauce (m)
1,040	*914,0*	*835,0*	*690,0*	*2.150,0*	*1.500,0*

	(m/m)	%
Pendiente media de la Cuenca (J)	0,104	10,419
Pendiente Media del Arroyo	0,097	9,667

Cálculo de Caudales por el Método Racional

1.- Tiempo de Concentración

$$Tc = 0{,}3 \times \left[\left(\frac{L}{J^{0{,}25}} \right)^{0{,}76} \right]$$

Longitud máxima Cauce (*L*) en km	1,50
Pendiente media (*J*) m/m	0,10
Tiempo de Concentración (*Tc*) en horas	**0,64**

2.- Intensidad por Yarnell y Hattaway

$$I_t = 9{,}25 \times I_h \times t^{-0{,}55}$$

$Pmax_{24h}$	57,00
Intensidad horaria (I_h) =0,25 x $Pmax_{24h}$	14,25
Tc (minutos)	38,19
Intensidad para Tc (I_t) mm	**17,78**

3.- Caudal de cálculo

$$Q = \frac{C \times I \times S}{3{,}6} \times 1{,}2$$

S= Superficie de la cuenca en km^2	1,04
Intensidad para Tc (I_t)	17,78
C= Coeficiente de Escorrentía	0,65
Q por el método Racional(m^3/seg)	**4,01**

CÁLCULO DE CAUDALES

Proyecto/Estudio: *INUNDABILIDAD DEL ARROYO LARIJA*
Identificación de la Cuenca: *Arroyo Larija*
Período de retorno (T): *5 años*
Precipitación máx. correspondiente a T en mm: *57,00*

Cálculo de Caudales por el Método de la Instrucción de Carreteras 5.2-IC de Drenaje Superficial

Precipitación máx. correspondiente a T en mm:

1.- Tiempo de Concentración

$$Tc = 0{,}3 \times \left[\left(\frac{L}{J^{0{,}25}} \right)^{0{,}76} \right]$$

Longitud máxima Cauce (*L*) en km	1,50
Pendiente media (*J*) m/m	0,10
Tiempo de Concentración (*Tc*) en horas	**0,64**

2.- Intensidad de cálculo

$$\frac{I_t}{I_d} = \left(\frac{I_1}{I_d} \right)^{\left(\frac{28^{0{,}1} - t^{0{,}1}}{28^{0{,}1} - 1} \right)}$$

Intensidad media diaria = Pmax/24	2,375
Relación Intensidades I_1/I_d fig. 2.2	9,2
=*Tc tiempo de concentración en horas*	0,64
Intensidad de cálculo, para *T* y *Tc mm*	**27,99834168**

3.- Coeficiente de Escorrentía

$$C = \frac{dE}{dP} = \frac{d\left(\frac{E}{P_0}\right)}{d\left(\frac{P}{P_0}\right)} = \frac{\left(\frac{P}{P_0} - 1\right) \times \left[\left(\frac{P}{P_0} + 23\right)\right]}{\left[\left(\frac{P}{P_0}\right) + 11\right]^2}$$

Pendiente Media de la Cuenca % 10,42 >3%

Tipo de Tereno-Suelo		S_i (Km^2)	P_{oi}	P_{oi} x Corrector	C_i	$C_i \times S_i$
Barbecho		0,000	4	10,80	0,00	0,0000
Cultivos en hilera		0,275	6	16,20	0,32	0,0871
Cereales de invierno		0,000	10	27,00	0,00	0,0000
Rotación de cultivos pobres		0,765	6	16,20	0,32	0,2424
Rotación de cultivos densos		0,000	9	24,30	0,00	0,0000
Praderas	Pobre	0,000	6	16,20	0,00	0,0000
	Media	0,000	9	24,30	0,00	0,0000
	Buena	0,000	13	35,10	0,00	0,0000
	Muy buena	0,000	15	40,50	0,00	0,0000
Plantaciones regulares de aprovechamiento forestal	Pobre	0,000	10	27,00	0,00	0,0000
	Media	0,000	14	37,80	0,00	0,0000
	Buena	0,000	15	40,50	0,00	0,0000
Masas forestales (bosque, monte bajo, etc.)	Muy clara	0,000	5	13,50	0,00	0,0000
	Clara	0,000	10	27,00	0,00	0,0000
	Media	0,000	16	43,20	0,00	0,0000
	Espesa	0,000	23	62,10	0,00	0,0000
	Muy espesa	0,000	33	89,10	0,00	0,0000
Rocas permeables		0,000	3	8,10	0,00	0,0000
Rocas impermeables		0,000	2	5,40	0,00	0,0000
Superficie Urbanizada		0,000	1,5	4,05	0,00	0,0000
Superficie Viales		0,000	1	2,70	0,00	0,0000
Terreno desconocido		0,000	20	20,00	0,00	0,0000
	Totales	1,040		***C medio***	**0,32**	**0,3295**

Nota: Se toman las condiciones más desfavorables en cuanto al suelo y la pendiente, es decir Grupo de Suelo D y pendiente > 3%

Coeficiente Corrector del Umbral de Escorrentía fig. 2-5 2,700

$$Q = \frac{\sum(S \times C) \times I}{3}$$

Caudal por el método de la Instrucción de Carreteras (m^3/seg) **6,31**

CÁLCULO DE CAUDALES

Proyecto/Estudio: *INUNDABILIDAD DEL ARROYO LARIJA*
Identificación de la Cuenca: *Arroyo Larija*
Período de retorno (T): *500 años*
Precipitación máx. correspondiente a T en mm: *140,00*

Características de la Cuenca

Superficie (km^2)	Cota Punto Alto Cuenca (m)	Cota Punto Alto Cauce (m)	Cota Punto Bajo Cauce (m)	Long. Cuenca (m)	Long. Cauce (m)
1,040	*914,0*	*835,0*	*690,0*	*2.150,0*	*1.500,0*

	(m/m)	%
Pendiente media de la Cuenca (J)	0,104	10,419
Pendiente Media del Arroyo	0,097	9,667

Cálculo de Caudales por el Método Racional

1.- Tiempo de Concentración

$$Tc = 0{,}3 \times \left[\left(\frac{L}{J^{0{,}25}} \right)^{0{,}76} \right]$$

Longitud máxima Cauce (*L*) en km	1,50
Pendiente media (*J*) m/m	0,10
Tiempo de Concentración (*Tc*) en horas	**0,64**

2.- Intensidad por Yarnell y Hattaway

$$I_t = 9{,}25 \times I_h \times t^{-0{,}55}$$

$Pmax_{24h}$	140,00
Intensidad horaria (I_h) =0,25 x $Pmax_{24h}$	35,00
Tc (minutos)	38,19
Intensidad para Tc (I_t) mm	**43,67**

3.- Caudal de cálculo

$$Q = \frac{C \times I \times S}{3{,}6} \times 1{,}2$$

S= Superficicie de la cuenca en km^2	1,04
Intensidad para Tc (I_t)	43,67
C= Coeficiente de Escorrentía	0,65
***Q* por el método Racional(m^3/seg)**	**9,84**

CÁLCULO DE CAUDALES

Proyecto/Estudio: *INUNDABILIDAD DEL ARROYO LARIJA*
Identificación de la Cuenca: *Arroyo Larija*
Período de retorno (T): *500 años*
Precipitación máx. correspondiente a T en mm: *140,00*

Cálculo de Caudales por el Método de la Instrucción de Carreteras 5.2-IC de Drenaje Superficial

Precipitación máx. correspondiente a T en mm:

1.- Tiempo de Concentración

$$Tc = 0{,}3 \times \left[\left(\frac{L}{J^{0{,}25}} \right)^{0{,}76} \right]$$

Longitud máxima Cauce (*L*) en km	1,50
Pendiente media (*J*) m/m	0,10
Tiempo de Concentración (*Tc*) en horas	**0,64**

2.- Intensidad de cálculo

$$\frac{I_t}{I_d} = \left(\frac{I_1}{I_d} \right)^{\left(\frac{28^{0{,}1} - t^{0{,}1}}{28^{0{,}1} - 1} \right)}$$

Intensidad media diaria = Pmax/24	5,833333333
Relación Intensidades I_1/I_d fig. 2.2	9,2
=Tc tiempo de concentración en horas	0,64
Intensidad de cálculo, para *T* y *Tc mm*	**68,768**

3.- Coeficiente de Escorrentía

$$C = \frac{dE}{dP} = \frac{d\left(\frac{E}{P_0}\right)}{d\left(\frac{P}{P_0}\right)} = \frac{\left(\frac{P}{P_0} - 1\right) \times \left[\left(\frac{P}{P_0} + 23\right)\right]}{\left[\left(\frac{P}{P_0}\right) + 11\right]^2}$$

Pendiente Media de la Cuenca % 10,42 >3%

Tipo de Tereno-Suelo		$S_i (Km^2)$	P_{oi}	P_{oi} x Corrector	C_i	$C_i \times S_i$
Barbecho		0,000	4	10,80	0,00	0,0000
Cultivos en hilera		0,275	6	16,20	0,63	0,1724
Cereales de invierno		0,000	10	27,00	0,00	0,0000
Rotación de cultivos pobres		0,765	6	16,20	0,63	0,4795
Rotación de cultivos densos		0,000	9	24,30	0,00	0,0000
Praderas	Pobre	0,000	6	16,20	0,00	0,0000
	Media	0,000	9	24,30	0,00	0,0000
	Buena	0,000	13	35,10	0,00	0,0000
	Muy buena	0,000	15	40,50	0,00	0,0000
Plantaciones regulares de aprovechamiento forestal	Pobre	0,000	10	27,00	0,00	0,0000
	Media	0,000	14	37,80	0,00	0,0000
	Buena	0,000	15	40,50	0,00	0,0000
	Muy clara	0,000	5	13,50	0,00	0,0000
Masas forestales (bosque, monte bajo, etc.)	Clara	0,000	10	27,00	0,00	0,0000
	Media	0,000	16	43,20	0,00	0,0000
	Espesa	0,000	23	62,10	0,00	0,0000
	Muy espesa	0,000	33	89,10	0,00	0,0000
Rocas permeables		0,000	3	8,10	0,00	0,0000
Rocas impermeables		0,000	2	5,40	0,00	0,0000
Superficie Urbanizada		0,000	1,5	4,05	0,00	0,0000
Superficie Viales		0,000	1	2,70	0,00	0,0000
Terreno desconocido		0,000	20	20,00	0,00	0,0000
	Totales	1,040		*C medio*	0,63	0,6518

Nota: Se toman las condiciones más desfavorables en cuanto al suelo y la pendiente, es decir Grupo de Suelo D y pendiente > 3%

Coeficiente Corrector del Umbral de Escorrentía fig. 2-5 2,700

$$Q = \frac{\sum (S \times C) \times I}{3}$$

Caudal por el método de la Instrucción de Carreteras (m^3/seg) **14,94**

ANEJO NÚMERO 2. ESTUDIO HIDRÁULICO

ANEJO NÚMERO 2. ESTUDIO HIDRÁULICO

1. INTRODUCCIÓN

El objeto del presente Anejo es crear un modelo hidráulico del arroyo Larija, en Martos, para prever el régimen de flujo del mismo para la avenida ordinaria y para la máxima avenida extraordinaria o, lo que es lo mismo, para los caudales de cálculo. De este modo se fijarán parámetros tales como resguardos, velocidades, alturas de lámina de agua, etc.

Enumerados los datos de partida empleados en la modelización, se expondrán con detalle los pasos dados para obtener los niveles de avenida del arroyo en el tramo de estudio (en especial, modelado de secciones transversales, obras de fábrica, etc.), datos finales que nos permitirán obtener la llanura de inundación.

2. DATOS DE PARTIDA

2.1. CAUDALES

En el Anejo 1 del presente Estudio se realiza una exposición detallada de los distintos estudios hidrológicos realizados para determinar los caudales circulantes para las avenidas ordinaria y extraordinaria. Los caudales finalmente adoptados son:

Tabla 1. Caudales de cálculo para T=500 años

T	Q_{500} (m^3/s)
5	6,31
500	14,94

2.2. TOPOGRAFÍA

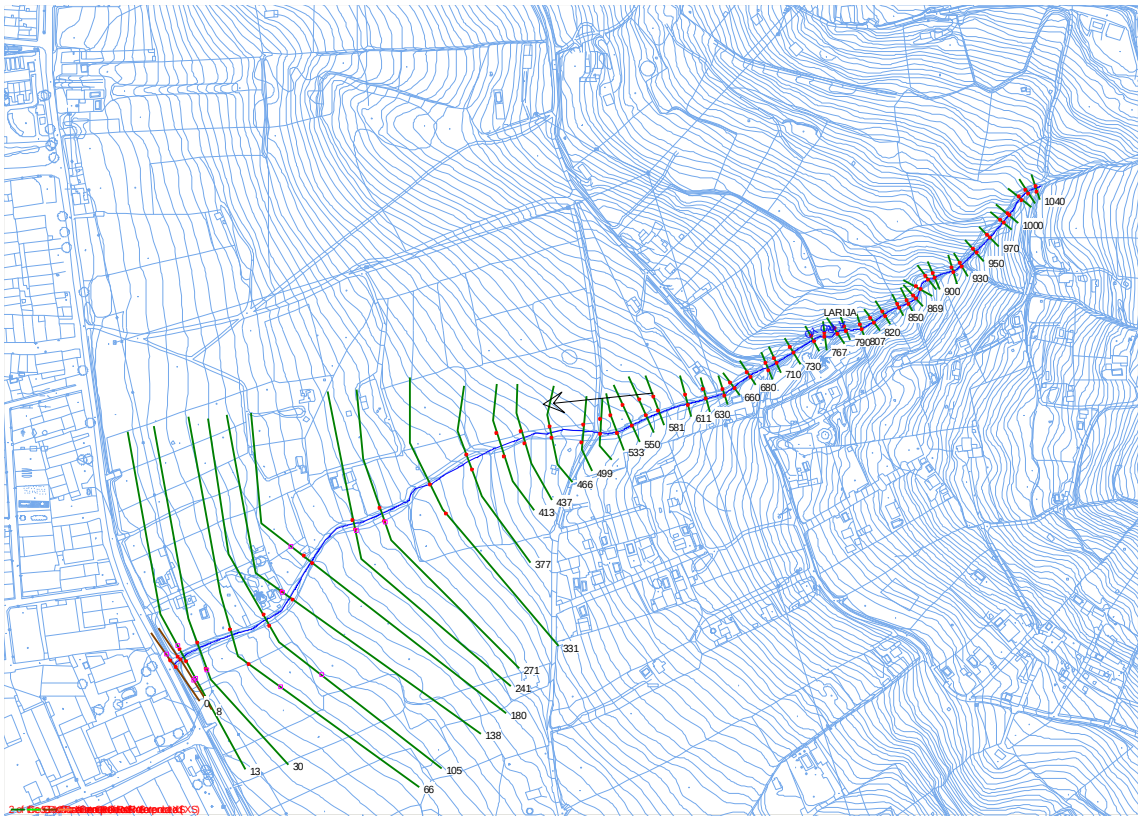
Se ha empleado la cartografía digital 1:2.000 de la Junta de Andalucía, proporcionada por el cliente. Concretamente se han utilizado las E-946 27-29 y 27-30 para el Arroyo Larija.

2.3. MODELO HIDRÁULICO DEL ARROYO LARIJA

2.3.1. SECCIONES MODELIZADAS

La descripción del modelo se efectúa en el sentido aguas arriba-aguas abajo. Las situaciones y secciones actuales del cauce (perfiles transversales) quedan reflejadas en el siguiente croquis:

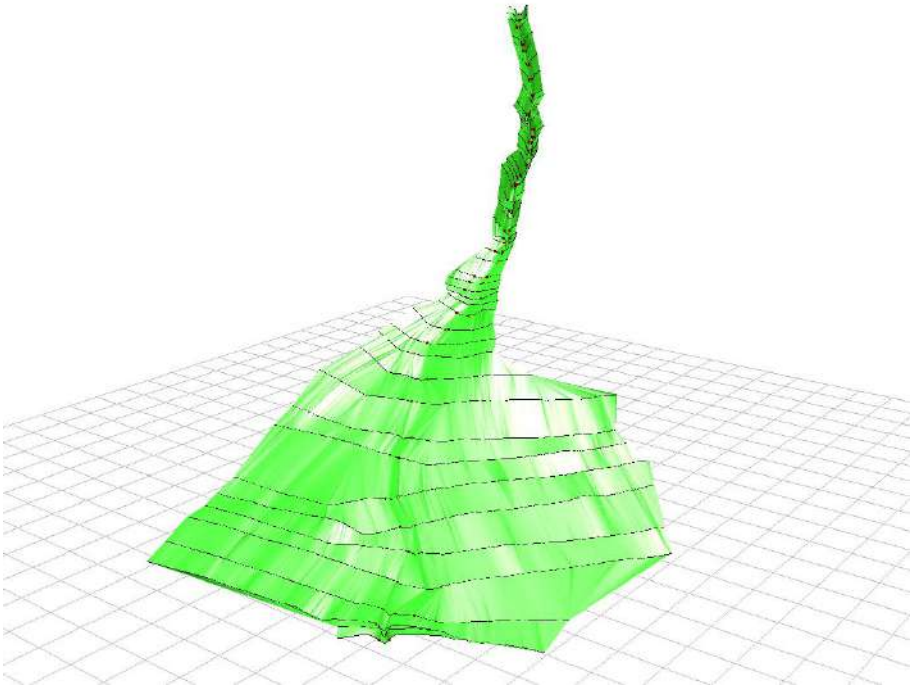
Ilustración 1. Esquema del Modelo Hidráulico del Arroyo Larija



El tramo se inicia en la sección 1040 y finaliza en la 0, habiéndose modelizado 1040,92 metros de arroyo. El tramo finaliza en la desembocadura del arroyo a la cuneta de la carretera JA-3305, de Martos a Fuensanta de Martos.

En total se han obtenido de la cartografía 51 secciones transversales con las que se ha generado el modelo digital del terreno para el cálculo de la llanura de inundación.

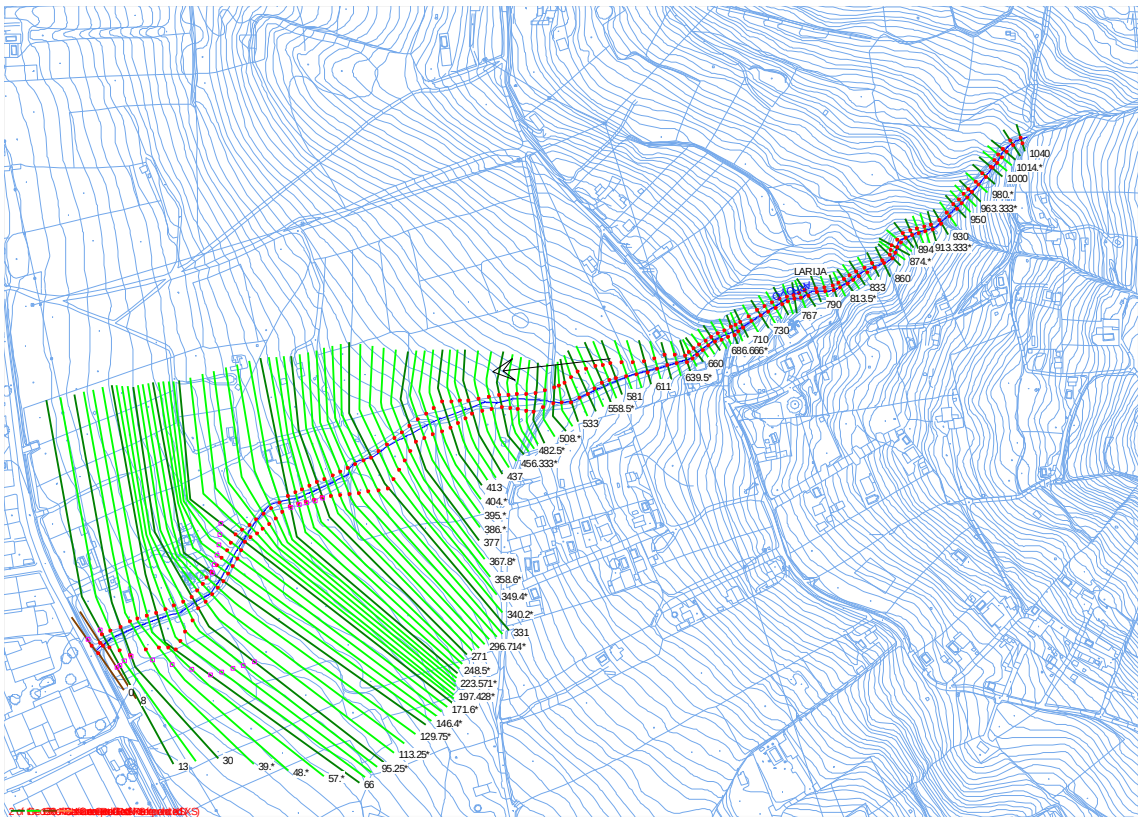
Ilustración 2. Modelo 3D del tramo



La geometría media de este arroyo varía a lo largo del tramo debido a la orografía de la zona ya que pasa de ser un cauce muy encajado con una pendiente longitudinal muy elevada (cerca del 15%) a otra sección de menos profundidad y más abierta que ha obligado a la toma de secciones transversales de gran longitud.

Para afinar el modelo, se han interpolado secciones transversales a partir de las obtenidas en cartografía cada 10 m, tal y como muestra la siguiente imagen.

Ilustración 3.- Modelo interpolado empleado en el cálculo. En verde claro se muestran las secciones interpoladas.



2.3.2. PENDIENTE LONGITUDINAL

Las pendientes longitudinales, obtenidas a partir de la topografía con que contamos, resultan ser las siguientes:

- Pendiente media del tramo 8,40 %
- Pendiente inicial 17,00 %
- Pendiente final 5,00%

Las pendientes de los tramos inicial y final serán las que se empleen como condiciones de contorno por ser las que mejor describen el comportamiento del río.

2.3.3. VEGETACIÓN

La vegetación, como puede comprobarse en las imágenes que siguen, no es excesiva en el cauce de aguas bajas. En cuanto a las márgenes son en su mayoría mosaicos de cultivos y olivares.

Se ha tenido en cuenta la presencia de estas masas arbustivas para la determinación del coeficiente de rugosidad, distinguiendo cauce principal y llanuras de inundación. Más adelante se detallarán los cálculos realizados.

A continuación se muestran varias imágenes que caracterizan la zona.

Ilustración 4. Aspecto del cauce del arroyo Larija

Ilustración 5. Desembocadura a la cuneta de la carretera JA-3305

3. METODOLOGÍA DE LA MODELIZACIÓN HIDRÁULICA

3.1. INTRODUCCIÓN

Se ha modelizado el régimen hidráulico del tramo de estudio del arroyo Larija a través del programa informático HEC-RAS 4.1.0. del U.S. Arms Corps Of Engineers.

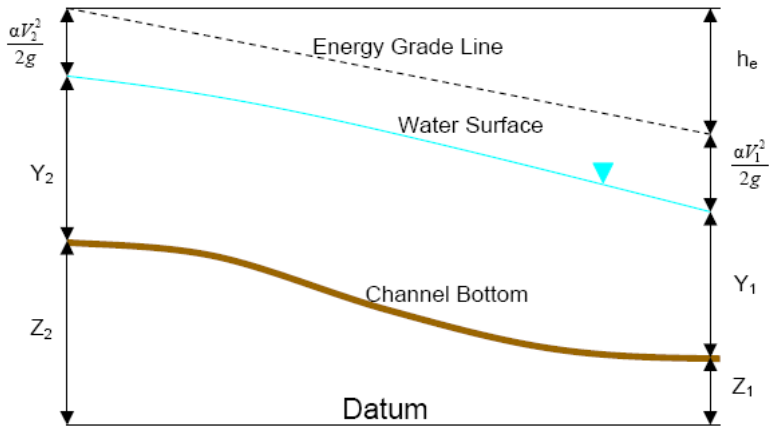
Los cálculos se realizan en régimen estacionario para las avenidas de 5 y 500 años. La primera simulación permitirá determinar el DPH, y la segunda, la llanura de inundación.

3.2. BASES DE CÁLCULO

El software utilizado realiza los cálculos para un nivel de agua unidimensional en cada sección transversal del cauce en régimen de flujo gradualmente variado. Las hipótesis básicas de partida son:

- Pérdidas de carga valoradas según Manning
- Flujo estacionario, el tiempo no interviene en los cálculos
- Flujo gradualmente variado
- Flujo unidimensional, la altura de la curva de energía es la misma en todos los puntos de la sección
- No se admite cambio de régimen en un mismo cálculo
- La pendiente de la línea de energía es constante entre dos secciones transversales

Ilustración 6. Modelo de Cálculo



Los niveles del agua en cada sección se calculan a partir de una sección transversal hacia la siguiente mediante la resolución de la ecuación de la Energía con un proceso iterativo llamado "Método de Grados Estándar". La ecuación de la energía se escribe como sigue:

Ecuación 1

$$WS_2 + \frac{\alpha_2 \cdot V_2^2}{2g} = WS_1 + \frac{\alpha_1 \cdot V_1^2}{2g} + h_e$$

donde:

WS_1, WS_2 elevaciones de superficie de agua en secciones transversales

V_1, V_2 velocidad media (descarga total/área total de caudal)

α_1, α_2 coeficientes de medida de velocidad

g aceleración gravitatoria

h_e pérdidas de energía en cabeza

Las pérdidas de energía principales entre dos secciones transversales se calculan como la suma de las pérdidas de fricción y las de contracción o expansión, y vienen dadas por la expresión:

Ecuación 2

$$h_e = LS_f + C\left|\frac{\alpha_2 \cdot V_2^2}{2g} - \frac{\alpha_1 \cdot V_1^2}{2g}\right|$$

donde

L longitud del tramo de desagüe

S_f pendiente de fricción representativa entre dos secciones

C coeficiente de pérdida por expansión o contracción (hace referencia al trazado en planta del tramo estudiado)

La determinación de la vehiculación total y el coeficiente de velocidad para una sección transversal requieren que el flujo sea subdividido en unidades para las que la velocidad esté uniformemente distribuida, unidades que vienen marcadas por los puntos de salto del valor n de Manning. La conducción se calcula dentro de cada subdivisión por la siguiente ecuación:

Ecuación 3

$$k = \frac{1.486}{n} \cdot AR^{2/3}$$

donde

K conducción por subdivisión

n coeficiente de rugosidad de Manning por subdivisión

A área de caudal por subdivisión

R radio hidráulico por subdivisión

El coeficiente de velocidad α se calcula basándose en la vehiculación en los tres elementos de caudal: margen izquierdo, margen derecho y canal. Se obtiene con la siguiente ecuación:

Ecuación 4

$$\alpha = \frac{(A_t)^2 \left[\frac{(K_{lob})^3 + (K_{ch})^3 + (K_{rob})^3}{(A_{lob})^2 \cdot (A_{ch})^2 \cdot (A_{rob})^2} \right]}{(K_t)^3}$$

donde

A_t área total de caudal de sección transversal

A_{lob}, A_{ch}, A_{rob}, áreas de caudal de margen izquierdo, canal principal y margen derecho, respectivamente

K_t conducción total de sección transversal

K_{lob}, K_{ch}, K_{rob}, conducción de margen izquierdo, canal principal y margen derecho, respectivamente

La pérdida de fricción se evalúa como el producto de S_f y L, donde S_f es la pendiente de fricción representativa para un tramo y se calcula como sigue:

Ecuación 5

$$S_f = \left(\frac{Q_1 + Q_2}{K_1 + K_2} \right)$$

La elevación de la superficie del agua desconocida en una sección se determina por una solución iterativa de las Ecuaciones 1 y 2. El procedimiento seguido es el siguiente:

1. Se supone una elevación de superficie de agua en la sección aguas arriba
2. Basándose en ese supuesto, se determina la conducción total correspondiente y el frente de velocidad
3. Con los valores del paso 2, se calcula S_f y se resuelve la ecuación 2 para h_e
4. Con los valores de 2 y 3 se resuelve la ecuación 1 para WS_2
5. Comparación del valor calculado de WS_2, con el valor supuesto en el paso 1, repitiendo los pasos hasta que los valores concuerden dentro de 0,003 m

El programa usado está restringido a un número máximo de iteraciones, 40 como máximo, para equilibrar la superficie del agua. Cuando se ha obtenido una cota elevación de superficie de agua 'equilibrada' para una sección transversal, se hacen las revisiones para asegurar que la elevación está en la zona correcta respecto de la profundidad crítica calculada.

En los apéndices que se incluyen al final del presente documento se adjuntan los listados y salidas del programa informático HEC-RAS. Estos constan de: descripción general de los datos de partida del modelo hidráulico, gráficas de las secciones de control introducidas, perfil hidráulico del tramo y perspectiva de la llanura de inundación.

3.3. COEFICIENTES DE ROZAMIENTO

El principal problema que se plantea al analizar un curso de agua natural, como ya hemos comentado, es la estimación del coeficiente de Manning, n, pues son muchos los factores que intervienen en su cálculo.

Al fijar un valor de n, lo que se está estimando es la resistencia al 'escurrimiento' del arroyo, algo realmente intangible.

Los factores que intervienen con mayor influencia son:

Rugosidad de la superficie: se refiere al tamaño y a la forma de los granos del material que forma el perímetro mojado. En corrientes aluviales en donde el material de los granos es fino, tal como la arena, arcilla, marga o cieno, el efecto retardante es mucho menor que donde el material es grueso, tal como cantos rodados o piedras. Cuando el material es fino, el valor de n es bajo y relativamente poco afectado por los cambios de flujo.

Vegetación: puede ser vista como una clase de rugosidad superficial, pues reduce en marcada forma la capacidad del canal y retarda el flujo. Este efecto depende principalmente de la altura, densidad, distribución y tipo de vegetación.

Irregularidad del cauce: comprende irregularidades en el perímetro mojado y variaciones en la sección transversal, tamaño y forma a lo largo de la longitud del cauce. En general, un cambio gradual y uniforme en la sección transversal, tamaño y forma no afectará apreciablemente al valor de n, pero cambios bruscos o alternación de secciones pequeñas y grandes justifican el uso de un valor superior de n.

Alineación del cauce: curvaturas suaves con radios grandes darán un valor relativamente bajo de n, mientras que curvaturas agudas con meandros severos lo aumentarán.

Depósitos y socavaciones: en términos generales, los depósitos pueden cambiar un cauce irregular en uno comparativamente suave y disminuir n, mientras que la erosión puede hacer al revés y aumentar n. Ahora bien, depósitos disparejos tales como barras y ondas de arena son irregularidades del cauce y aumentarán la rugosidad.

Obstrucción: la presencia de pilares de puentes tiende a aumentar n. Depende la naturaleza de la obstrucción, tamaño, forma, número y distribución.

Nivel y caudal: el valor de n en la mayoría de los cauces decrece con el aumento en el nivel y en el caudal.

En cada sección transversal del modelo se han fijado dos valores del rozamiento de Manning, siguiendo las recomendaciones del manual "Hidráulica de los Canales Abiertos" de Ven Te Chow.

$$n = (n_0 + n_1 + n_2 + n_3 + n_4) \cdot m_5$$

Son los que se describen a continuación:

ARROYO LARIJA

Tabla 2. Coeficientes de rozamiento para el canal central

MÁRGENES		
Variable	Tipo	Valor
Material	Tierra	$n_0 = 0.02$
Irregularidad	Moderada	$n_1 = 0.01$
Variaciones	Ocasionales	$n_2 = 0.005$
Obstrucciones	Menor	$n_3 = 0.01$
Vegetación	Media	$n_4 = 0.015$
Meandros	Menor	$m_5 = 1.00$
n = 0.06		

Tabla 3. Coeficientes de rozamiento para el canal central

CANAL CENTRAL		
Variable	Tipo	Valor
Material	Tierra	$n_0 = 0.02$
Irregularidad	Moderada	$n_1 = 0.01$
Variaciones	Ocasionales	$n_2 = 0.005$
Obstrucciones	Menor	$n_3 = 0.01$
Vegetación	Media	$n_4 = 0.01$
Meandros	Apreciable	$m_5 = 1.15$
n = 0.06		

3.4. CONDICIONES DE CONTORNO

Las condiciones de contorno se introducen tanto aguas arriba como aguas abajo del tramo modelizado. Son necesarias para el inicio del proceso iterativo de cálculo.

De las alternativas que contempla el programa se ha elegido la pendiente del eje del arroyo tanto para el inicio como para el final del tramo, descritas en el apartado 2 del presente Anejo.

4. ANÁLISIS DE LOS RESULTADOS OBTENIDOS

4.1. RESTRICCIONES DEL MODELO

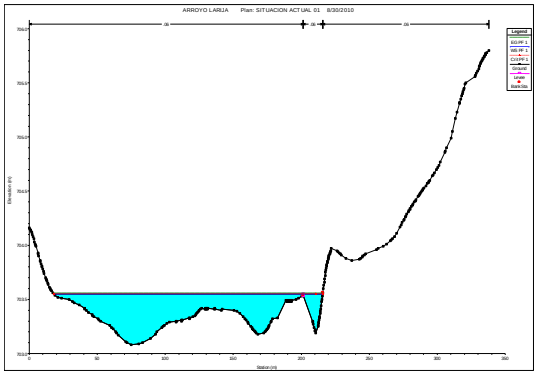
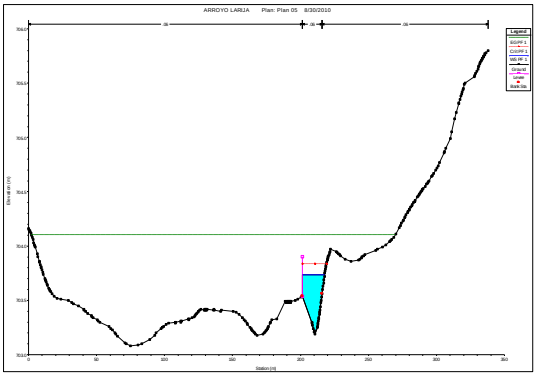
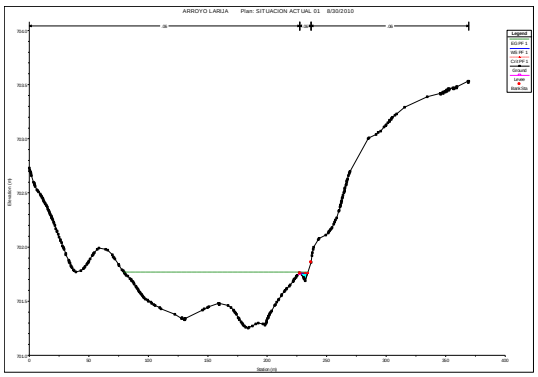
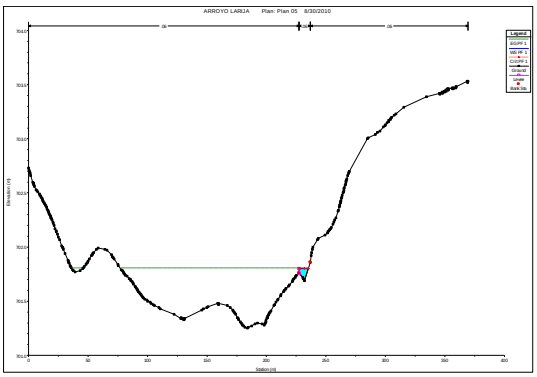
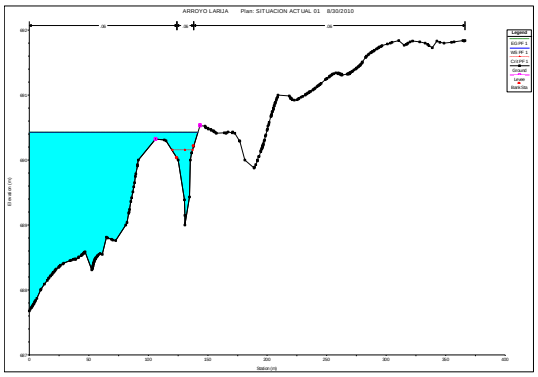
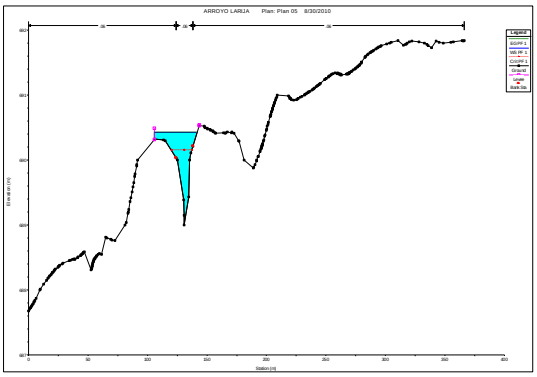
Antes de comentar los resultados obtenidos, es necesario aclarar que la precisión del modelo hidráulico no se corresponde con la precisión de la cartografía empleada, es decir, que como se ha partido de una cartografía a escala 1:2.000, con curvas de nivel equidistantes 1 metro, no podemos adoptar la escala milimétrica del modelo como valor absoluto.

Ello nos ha llevado a adoptar motas en varias secciones para evitar que diferencias centimétricas entre el límite del cauce actual y la lámina de agua, extendiera la llanura de inundación varias decenas de metros. Estas motas se pueden consultar en el Apéndice 2, y en ningún caso superan los 25 cm, valor que entendemos razonable para el estudio de inundabilidad que nos ocupa, en el que se pretende delimitar la llanura de inundación de periodo de retorno 500 años.

A modo de ejemplo, transcribimos las tres secciones más representativas de este fenómeno:

MODELO SIN MOTAS

MODELO CON MOTAS ≤ 25cm

4.2. AVENIDA ORDINARIA DE PERIODO DE RETORNO 5 AÑOS

4.2.1. TABLA RESUMEN DE LOS RESULTADOS

Se adjunta la tabla resumen de los resultados obtenidos, así como las gráficas de velocidades y del nº de Froude.

Tabla 4.- Resumen del modelo para T=5años

HEC-RAS Plan: 5 River: ARROYO Reach: LARIJA Profile: PF 1

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
LARIJA	1049	PF 1	6.31	774.70	775.19	775.36	775.74	0.170007	3.34	1.97	6.81	1.83
LARIJA	1038	PF 1	6.31	773.00	773.59	773.80	774.18	0.145117	3.43	1.92	6.14	1.71
LARIJA	1021	PF 1	6.31	771.00	771.62	771.76	772.32	0.247258	3.94	1.60	4.75	2.16
LARIJA	1009	PF 1	6.31	766.56	767.31	767.62	768.30	0.184208	4.43	1.47	3.18	1.90
LARIJA	990	PF 1	6.31	765.00	765.62	765.84	766.33	0.197292	3.72	1.71	5.05	1.96
LARIJA	970	PF 1	6.31	761.96	762.47	762.68	763.14	0.172553	3.61	1.76	4.66	1.83
LARIJA	950	PF 1	6.31	758.00	758.55	758.76	759.25	0.193301	3.73	1.69	4.44	1.93
LARIJA	930	PF 1	6.31	754.00	754.69	755.14	755.64	0.182044	3.85	1.64	3.71	1.85
LARIJA	920	PF 1	6.31	753.00	753.85	753.97	754.31	0.092164	3.00	2.11	4.56	1.37
LARIJA	900	PF 1	6.31	750.00	750.50	750.69	751.11	0.173538	3.46	1.83	5.13	1.92
LARIJA	894	PF 1	6.31	749.00	749.53	749.69	750.05	0.126306	3.17	2.01	5.44	1.60
LARIJA	879	PF 1	6.31	748.00	748.76	748.82	749.09	0.070182	2.57	2.48	5.83	1.20
LARIJA	869	PF 1	6.31	746.72	747.42	747.56	747.91	0.112729	3.11	2.03	4.62	1.49
LARIJA	860	PF 1	6.31	745.00	745.68	745.94	746.53	0.196275	4.08	1.57	4.10	1.99
LARIJA	850	PF 1	6.31	744.00	744.67	744.79	745.05	0.093375	2.90	2.20	5.44	1.35
LARIJA	833	PF 1	6.31	742.00	742.66	742.79	743.13	0.109906	3.06	2.06	4.70	1.48
LARIJA	820	PF 1	6.31	741.00	741.74	741.83	742.12	0.083300	2.73	2.31	5.03	1.29
LARIJA	807	PF 1	6.31	739.00	739.74	739.90	740.29	0.129377	3.28	1.92	4.21	1.55
LARIJA	790	PF 1	6.31	737.00	737.67	737.84	738.22	0.128322	3.30	1.91	4.42	1.59
LARIJA	780	PF 1	6.31	736.60	737.46	737.46	737.72	0.048866	2.27	2.79	5.44	1.01
LARIJA	767	PF 1	6.31	735.00	735.66	735.99	736.39	0.095552	3.20	1.97	3.92	1.33
LARIJA	754	PF 1	6.31	735.00	735.64	735.64	735.91	0.050640	2.32	2.72	5.00	1.01
LARIJA	730	PF 1	6.31	733.00	733.51	733.60	733.86	0.105000	2.62	2.41	7.07	1.42
LARIJA	710	PF 1	6.31	730.92	731.47	731.60	731.93	0.110146	2.98	2.12	5.04	1.46
LARIJA	700	PF 1	6.31	730.00	730.46	730.57	730.82	0.119822	2.63	2.40	7.69	1.50
LARIJA	680	PF 1	6.31	727.00	727.65	727.80	728.18	0.129813	3.18	1.99	4.84	1.58
LARIJA	660	PF 1	6.31	726.00	726.66	726.66	726.88	0.051270	2.14	2.95	6.69	1.03
LARIJA	649	PF 1	6.31	725.00	725.59	725.65	725.93	0.073443	2.59	2.44	5.28	1.21
LARIJA	630	PF 1	6.31	724.00	724.83	724.83	725.04	0.051309	2.02	3.12	7.63	1.01
LARIJA	611	PF 1	6.31	723.00	723.43	723.46	723.60	0.058720	1.86	3.39	15.46	1.06
LARIJA	581	PF 1	6.31	720.65	721.03	721.07	721.21	0.099384	1.90	3.34	16.55	1.30
LARIJA	567	PF 1	6.31	720.00	720.26	720.36	720.39	0.067876	1.62	3.99	20.05	1.08
LARIJA	550	PF 1	6.31	719.00	719.30	719.27	719.38	0.043123	1.28	4.91	21.70	0.86
LARIJA	533	PF 1	6.31	718.19	718.51	718.49	718.60	0.043755	1.35	4.76	22.59	0.89
LARIJA	517	PF 1	6.31	717.48	717.89	717.89	718.02	0.052232	1.59	4.01	16.58	0.96
LARIJA	499	PF 1	6.31	716.00	716.35	716.33	716.45	0.049354	1.45	4.39	19.02	0.93
LARIJA	466	PF 1	6.31	714.25	714.58	714.60	714.69	0.061821	1.64	4.65	29.19	1.05
LARIJA	437	PF 1	6.31	712.38	712.70	712.75	712.84	0.065960	1.73	4.03	21.44	1.09
LARIJA	413	PF 1	6.31	711.31	711.59	711.59	711.66	0.048669	1.23	5.60	42.52	0.89
LARIJA	377	PF 1	6.31	709.40	709.75	709.77	709.89	0.068255	1.64	4.03	21.45	1.09
LARIJA	331	PF 1	6.31	706.54	706.75	706.74	706.82	0.056863	1.17	5.43	35.99	0.93
LARIJA	271	PF 1	6.31	703.19	703.64	703.63	703.78	0.049595	1.57	4.05	15.34	0.95
LARIJA	241	PF 1	6.31	701.69	701.80	701.80	701.80	0.000229	0.04	51.76	166.65	0.05
LARIJA	180	PF 1	6.31	698.00	698.47	698.48	698.61	0.047041	1.70	3.91	18.41	0.95
LARIJA	136	PF 1	6.31	696.04	696.31	696.44	696.78	0.432770	3.82	2.09	14.52	2.53
LARIJA	105	PF 1	6.31	694.00	694.41	694.45	694.55	0.071576	1.76	4.43	36.50	1.12
LARIJA	66	PF 1	6.31	691.90	692.16	692.14	692.22	0.049996	1.06	5.96	39.26	0.86
LARIJA	30	PF 1	6.31	690.00	690.64	690.63	690.75	0.051572	1.43	4.41	18.94	0.95
LARIJA	13	PF 1	6.31	689.00	689.80	689.80	690.00	0.049713	1.94	3.26	8.35	0.99
LARIJA	8	PF 1	6.31	688.60	689.46	689.46	689.76	0.040266	2.49	2.71	5.02	0.98
LARIJA	0	PF 1	6.31	688.20	688.84	688.97	689.23	0.130267	2.78	2.27	7.10	1.57

Ilustración 7. Velocidades

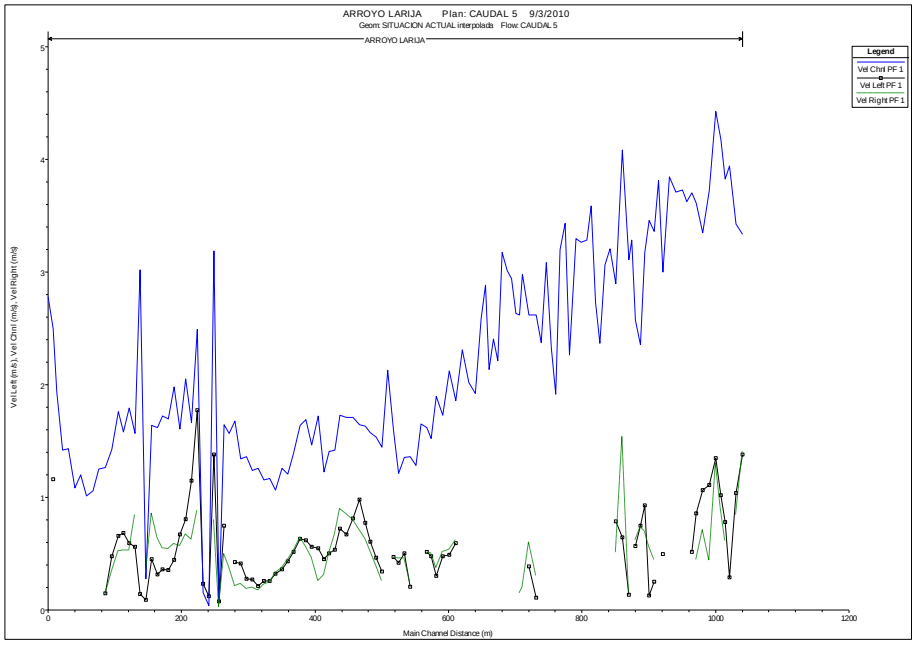
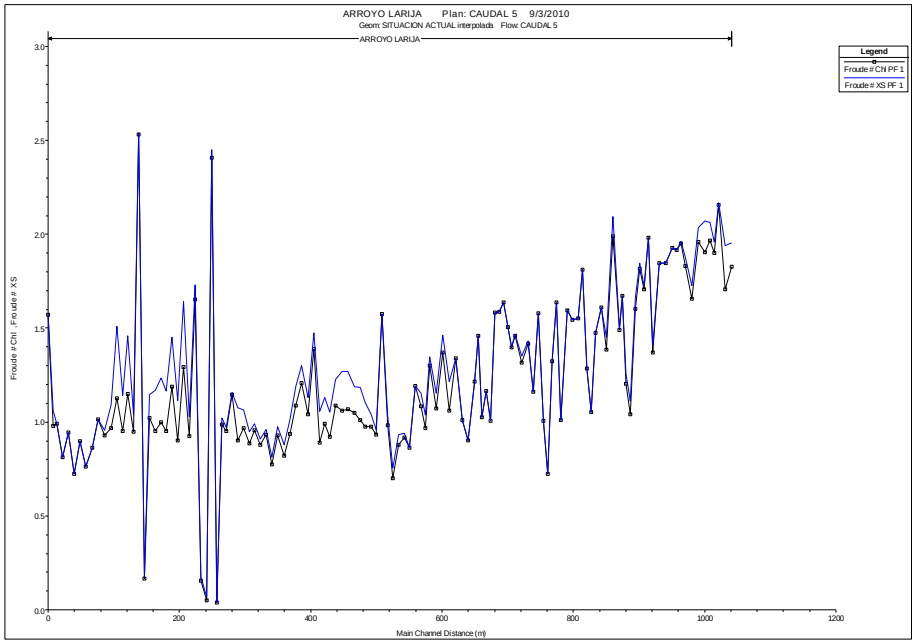


Ilustración 8. Froude



El régimen obtenido en el tramo de estudio del arroyo Larija es mayoritariamente supercrítico debido a las elevadas pendientes que presenta.

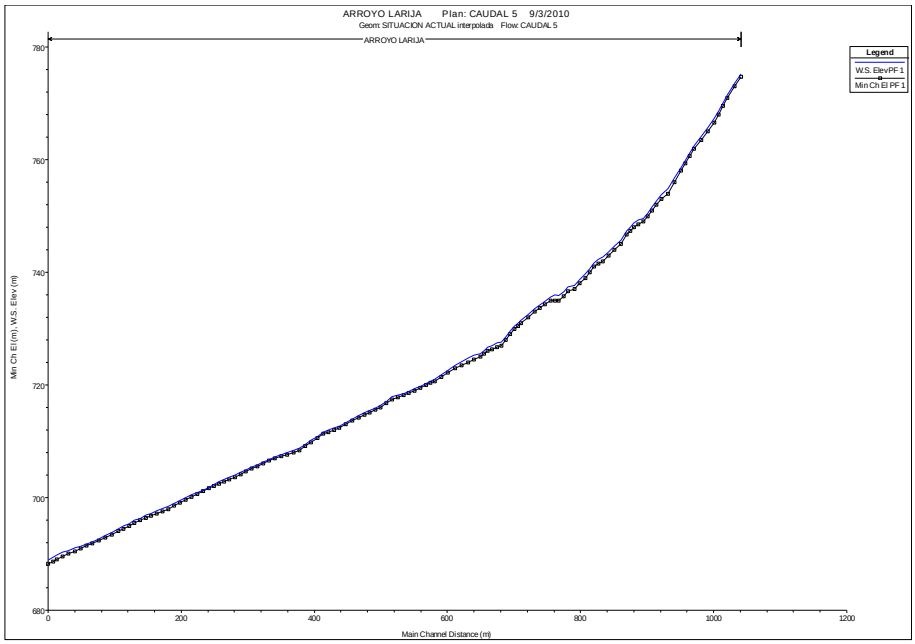
Las velocidades obtenidas en el canal principal son bastante elevadas aunque dispares (desde 2 a 6 m/s) y se observa claramente como el final del tramo el modelo presenta algunas irregularidades debido a la cartografía.

En los apéndices 2 a 4 del anejo se muestran el perfil hidráulico obtenido y las secciones hidráulicas resultantes, así como una descripción detallada tanto de los datos de partida como de los resultados obtenidos en la modelización.

4.2.2. ANÁLISIS DE COTAS DE INUNDACIÓN

A continuación se muestra el gráfico con las cotas de la llanura de inundación alcanzadas para la avenida ordinaria de 5 años de periodo de retorno:

Ilustración 9. Cotas de inundación del modelo



De este gráfico se extraen los valores de cota de lámina de agua en cada perfil para poder trasladarlos a planta y dibujar la llanura de inundación.

4.3. AVENIDA EXTRAORDINARIA DE PERIODO DE RETORNO 500 AÑOS

4.3.1. TABLA RESUMEN DE LOS RESULTADOS

Se adjunta la tabla resumen de los resultados obtenidos, así como las gráficas de velocidades y del nº de Froude.

Ilustración 10. Velocidades

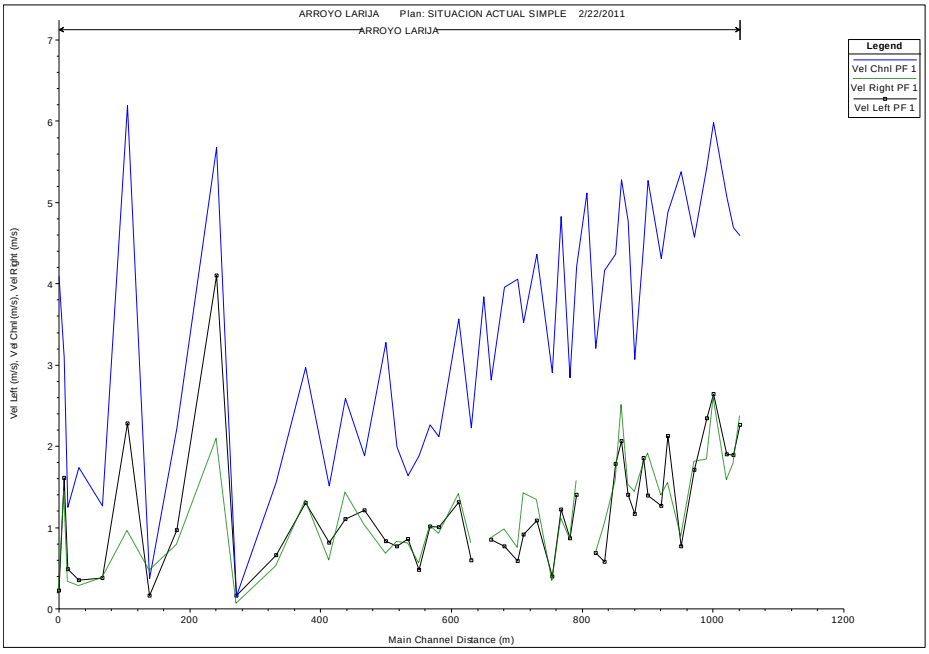


Ilustración 11. Froude

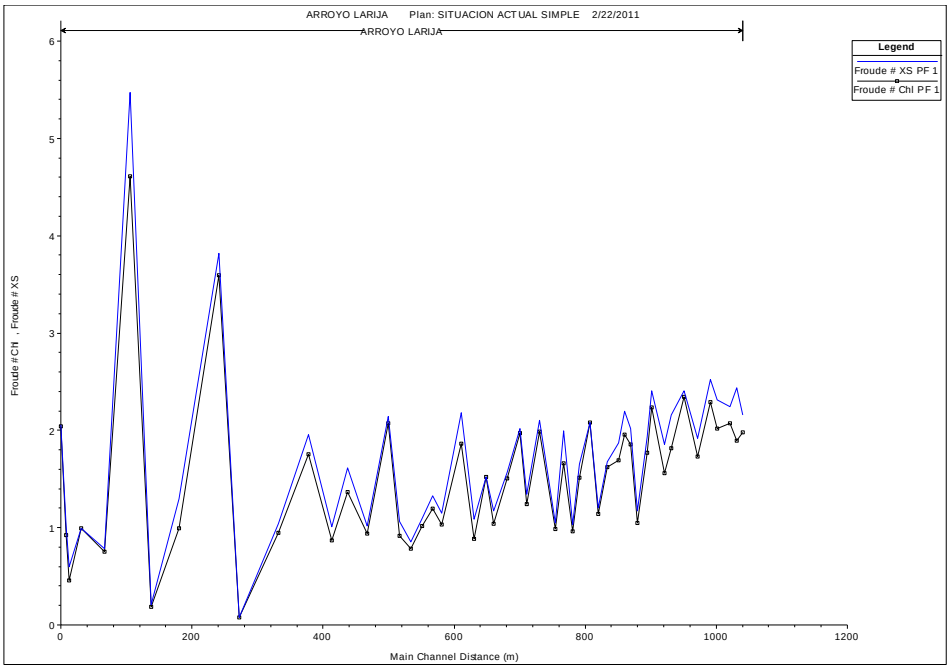


Tabla 5. Resumen del modelo

HEC-RAS Plan: Simple River: ARROYO Reach: LARIJA Profile: PF 1

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
LARIJA	1040	PF 1	14.94	774.70	775.40	775.70	776.40	0.170008	4.59	3.55	8.27	1.98
LARIJA	1030	PF 1	14.94	773.00	773.80	774.09	774.79	0.156112	4.69	3.86	11.62	1.90
LARIJA	1021	PF 1	14.94	771.00	771.80	772.19	773.08	0.187674	5.07	3.06	6.01	2.07
LARIJA	1000	PF 1	14.94	766.56	767.66	768.17	769.36	0.176438	5.99	2.76	4.34	2.02
LARIJA	990	PF 1	14.94	765.00	765.83	766.24	767.29	0.231750	5.44	2.89	6.28	2.29
LARIJA	970	PF 1	14.94	761.96	762.79	763.13	763.82	0.126722	4.58	3.46	6.16	1.73
LARIJA	950	PF 1	14.94	758.00	758.77	759.20	760.24	0.256713	5.38	2.79	5.48	2.34
LARIJA	930	PF 1	14.94	754.00	755.20	755.57	756.34	0.147799	4.88	3.38	6.94	1.81
LARIJA	920	PF 1	14.94	753.00	754.14	754.46	755.06	0.101660	4.31	3.70	6.90	1.56
LARIJA	900	PF 1	14.94	750.00	750.69	751.10	752.09	0.228767	5.27	2.92	6.06	2.24
LARIJA	894	PF 1	14.94	749.00	749.78	750.09	750.77	0.133329	4.47	3.52	6.63	1.77
LARIJA	879	PF 1	14.94	748.00	749.16	749.23	749.62	0.043633	3.07	5.25	7.87	1.05
LARIJA	869	PF 1	14.94	746.72	747.65	748.01	748.79	0.151762	4.77	3.23	5.77	1.85
LARIJA	860	PF 1	14.94	745.00	746.00	746.40	747.34	0.160431	5.28	3.07	5.53	1.96
LARIJA	850	PF 1	14.94	744.00	744.90	745.21	745.84	0.120927	4.36	3.61	6.70	1.69
LARIJA	833	PF 1	14.94	742.00	742.95	743.22	743.83	0.116189	4.16	3.61	5.76	1.62
LARIJA	820	PF 1	14.94	741.00	742.16	742.25	742.68	0.055888	3.20	4.71	6.55	1.14
LARIJA	807	PF 1	14.94	739.00	739.96	740.37	741.30	0.216629	5.11	2.92	4.74	2.08
LARIJA	790	PF 1	14.94	737.00	738.02	738.30	738.91	0.095900	4.21	3.70	5.69	1.51
LARIJA	780	PF 1	14.94	736.60	737.87	737.87	738.28	0.037038	2.84	5.39	7.07	0.96
LARIJA	767	PF 1	14.94	735.00	736.17	736.59	737.34	0.135498	4.82	3.23	5.47	1.66
LARIJA	754	PF 1	14.94	735.00	736.08	736.08	736.51	0.042428	2.90	5.17	6.57	0.99
LARIJA	730	PF 1	14.94	733.00	733.65	733.94	734.61	0.184812	4.37	3.48	7.99	1.99
LARIJA	710	PF 1	14.94	730.92	731.88	732.02	732.49	0.063509	3.53	4.42	6.44	1.24
LARIJA	700	PF 1	14.94	730.00	730.62	730.88	731.46	0.184561	4.06	3.69	8.95	1.97
LARIJA	680	PF 1	14.94	727.00	727.99	728.25	728.78	0.100601	3.95	3.81	5.91	1.51
LARIJA	660	PF 1	14.94	726.00	726.98	727.03	727.38	0.044686	2.81	5.53	9.61	1.04
LARIJA	649	PF 1	14.94	725.00	725.84	726.10	726.59	0.105091	3.84	3.89	5.98	1.52
LARIJA	630	PF 1	14.94	724.00	725.17	725.18	725.42	0.033911	2.23	7.34	17.81	0.89
LARIJA	611	PF 1	14.94	723.00	723.49	723.68	724.10	0.170786	3.56	4.60	17.92	1.86
LARIJA	581	PF 1	14.94	720.65	721.24	721.27	721.46	0.050042	2.12	7.61	23.23	1.03
LARIJA	567	PF 1	14.94	720.00	720.40	720.46	720.65	0.070804	2.27	7.08	25.03	1.20
LARIJA	550	PF 1	14.94	719.00	719.43	719.44	719.61	0.052175	1.89	8.09	27.08	1.02
LARIJA	533	PF 1	14.94	718.19	718.71	718.66	718.84	0.026752	1.64	9.85	28.20	0.79
LARIJA	517	PF 1	14.94	717.48	718.10	718.10	718.29	0.038196	1.99	8.20	24.24	0.92
LARIJA	499	PF 1	14.94	716.00	716.36	716.52	716.90	0.238919	3.27	4.60	19.31	2.07
LARIJA	466	PF 1	14.94	714.25	714.74	714.74	714.87	0.042126	1.88	10.02	38.96	0.94
LARIJA	437	PF 1	14.94	712.38	712.81	712.90	713.10	0.092647	2.59	6.87	30.54	1.37
LARIJA	413	PF 1	14.94	711.31	711.71	711.71	711.81	0.039229	1.51	11.74	59.90	0.87
LARIJA	377	PF 1	14.94	708.43	708.81	708.95	709.24	0.164352	2.97	5.42	24.31	1.76
LARIJA	331	PF 1	14.94	706.54	706.87	706.87	706.99	0.048911	1.56	10.03	44.96	0.95
LARIJA	271	PF 1	14.94	703.19	703.79	703.79	703.79	0.000272	0.15	92.91	208.78	0.07
LARIJA	241	PF 1	14.94	701.69	702.01	702.01	703.60	0.719771	5.68	2.74	12.55	3.59
LARIJA	180	PF 1	14.94	698.00	698.65	698.65	698.87	0.043851	2.22	8.29	31.72	0.99
LARIJA	138	PF 1	14.94	696.04	696.56	696.56	696.57	0.001748	0.37	33.46	68.83	0.19
LARIJA	105	PF 1	14.94	694.00	694.34	694.59	696.21	1.325776	6.19	2.63	21.18	4.61
LARIJA	66	PF 1	14.94	691.93	692.30	692.25	692.38	0.030487	1.27	11.95	45.13	0.75
LARIJA	30	PF 1	14.94	690.00	690.82	690.82	690.97	0.051208	1.74	8.60	27.70	0.99
LARIJA	13	PF 1	14.94	689.00	690.42	690.15	690.49	0.008440	1.25	14.21	35.65	0.46
LARIJA	8	PF 1	14.94	688.60	689.95	689.95	690.38	0.029644	3.09	5.52	6.52	0.92
LARIJA	0	PF 1	14.94	688.20	689.01	689.29	689.87	0.202437	4.10	3.65	9.04	2.04

El régimen obtenido en el tramo de estudio del arroyo Larija es mayoritariamente supercrítico debido a las elevadas pendientes que presenta.

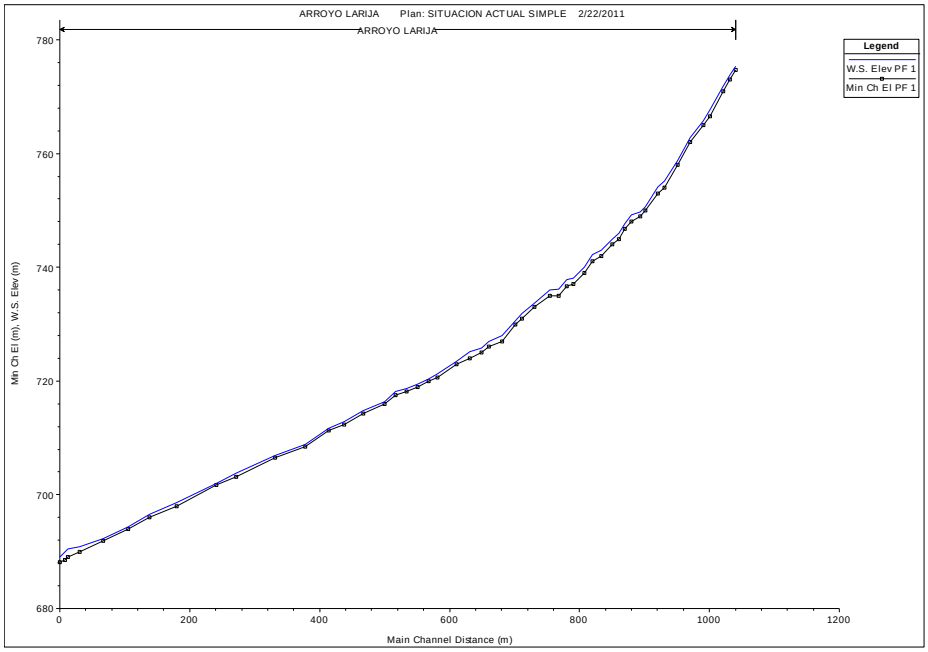
Las velocidades obtenidas en el canal principal son bastante elevadas aunque dispares (desde 2 a 6 m/s) y se observa claramente como el final del tramo el modelo presenta algunas irregularidades debido a la cartografía.

En los apéndices 2 a 4 del anejo se muestran el perfil hidráulico obtenido y las secciones hidráulicas resultantes, así como una descripción detallada tanto de los datos de partida como de los resultados obtenidos en la modelización.

4.3.2. ANÁLISIS DE COTAS DE INUNDACIÓN

A continuación se muestra el gráfico con las cotas de la llanura de inundación alcanzadas para la avenida extraordinaria de 500 años:

Ilustración 12. Cotas de inundación del modelo



De este gráfico se extraen los valores de cota de lámina de agua en cada perfil para poder trasladarlos a planta y dibujar la llanura de inundación.

4.3.3. INCIDENCIAS CON LA ORDENACIÓN EXISTENTE

Aunque este estudio complementa el documento del Plan General de Ordenación Urbanística en Martos y, por tanto, es en dicho documento donde se analizarán con detalle las posibles incidencias con la ordenación que se proponga, señalamos que, en el caso del Arroyo Larija, la llanura de inundación para la avenida extrarodinaria afecta a lo largo de sus últimos 100 metros aproximadamente, a algunas edificaciones aisladas existentes en la zona.

La ordenación urbanística de los sectores de suelo urbanizable limítrofes al arroyo y a los terrenos inundables determinados en este estudio, tendrá en cuenta la integración paisajística con este espacio natural.

El modelo estudiado finaliza en la calle Príncipe Felipe, punto en el que el arroyo Larija se incorpora a la cuneta existente en la margen izquierda de la vía.

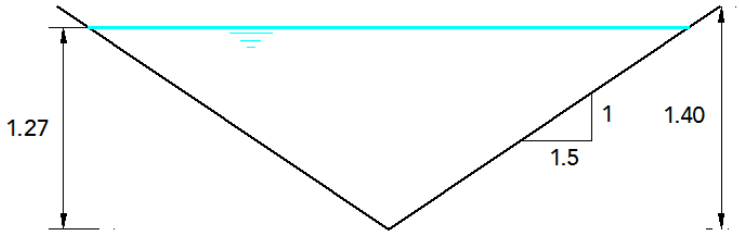
Ilustración 13. Desembocadura del Arroyo Larija a la cuneta de la JA-3305, denominada calle Príncipe Felipe

La capacidad actual de la cuneta no permite conducir la avenida extraordinaria de periodo de retorno 500 años del arroyo Larija.

Ilustración 14.- Aspecto actual de la cuneta. Se encuentra en buen estado y dispone de pendiente suficiente (2%)

Se hace necesaria, por tanto la ampliación de la cuneta. Se propone la siguiente sección tipo:

Ilustración 15. Propuesta acondicionamiento en tramo cuneta

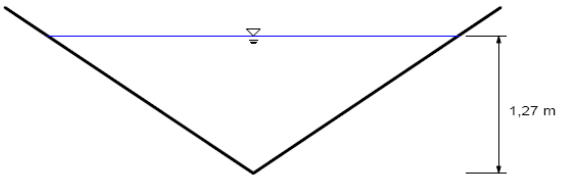


Esta ampliación de la cuneta existente se integrará en el ámbito y en la ordenación de los sectores de suelo urbano no consolidado y urbanizable limítrofes.

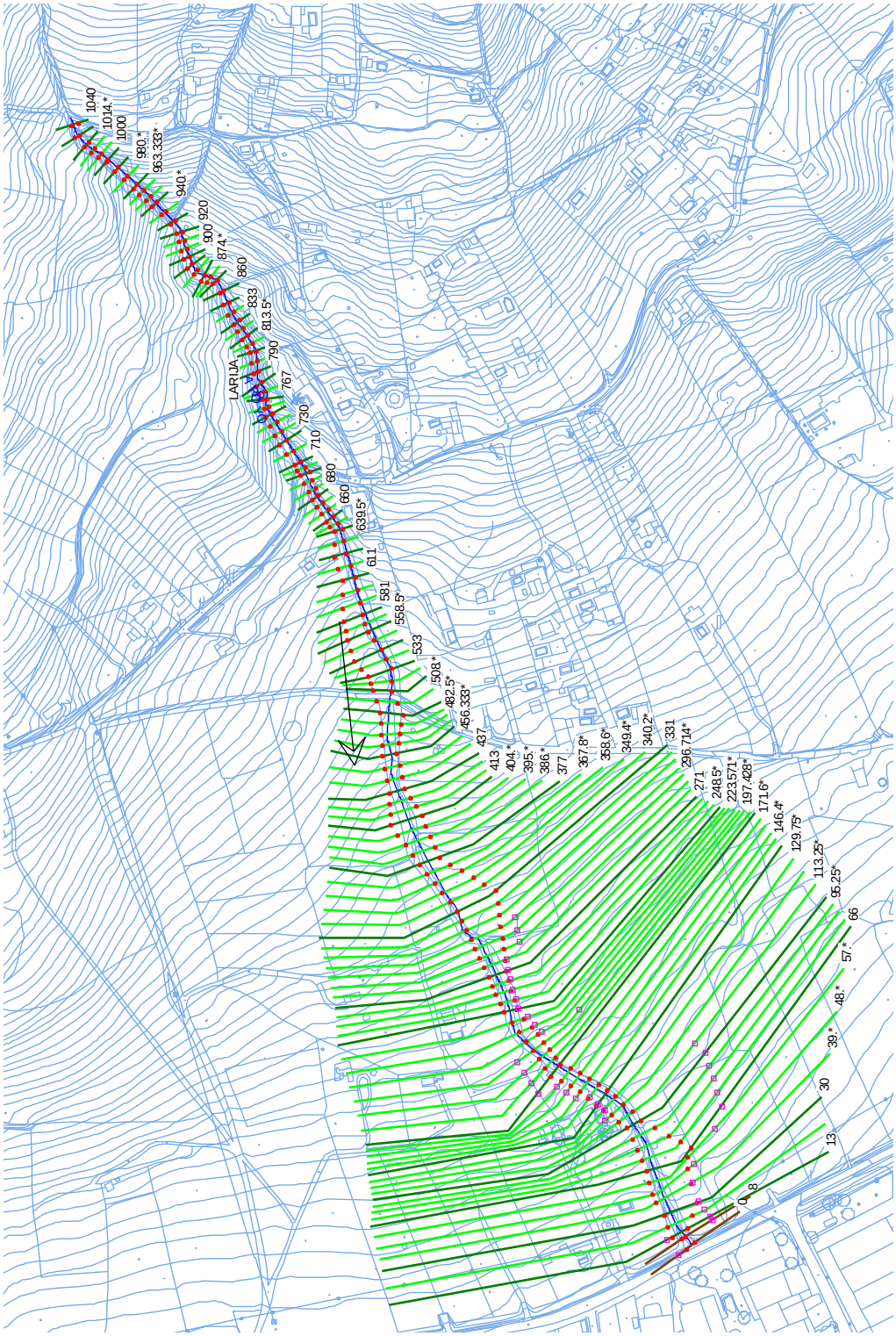
Los justificación de la capacidad de la sección propuesta se adjunta a continuación.

Input Data		
Mannings Coefficient	0,015	
Channel Slope	0,020000	m/m
Left Side Slope	1,500000	H : V
Right Side Slope	1,500000	H : V
Discharge	14,94	m³/s

Results		
Depth	1,27	m
Flow Area	2,42	m²
Wetted Perimeter	4,58	m
Top Width	3,81	m
Critical Depth	1,82	m
Critical Slope	0,002907	m/m
Velocity	6,17	m/s
Velocity Head	1,94	m
Specific Energy	3,21	m
Froude Number	2,47	
Flow is supercritical.		



APÉNDICE 1.- PLANO DE SITUACIÓN DE LAS ESTACIONES TRANSVERSALES


1040
1014.*
1000
980.*
963.333*
940*
900 920
874.*
860
833
813.5*
790
767
LARIJA
730
710
680
660
639.5*
617
581
558.5*
533
508*
482.5*
456.333*
437
413
404.*
395.*
386*
377
367.8*
358.6*
349.4*
340.2*
331
296.714*
271
248.5*
223.571*
197.428*
171.6*
146.4*
129.75*
113.25*
95.25*
66
57.*
48.*
39.*
30
13
0.8

APÉNDICE 2.- LISTADO DE DATOS DEL MODELO HIDRÁULICO

APÉNDICE 2.A.- AVENIDA ORDINARIA DE PERIODO DE RETORNO 5 AÑOS

```
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


PROJECT DATA
Project Title: ARROYO LARIJA
Project File : LARIJA04.prj
Run Date and Time: 9/3/2010 1:26:05 PM

Project in SI units


PLAN DATA

Plan Title: CAUDAL 5
Plan           File           :           z:\4_Proyectos\IC_IngCivil\IC10013_InunMartosPGOU\300_Estudio           de
Inundabilidad\301_Inundabilidad_Larija\00_Bases\HEC_LARIJA04\LARIJA04.p07

           Geometry Title: SITUACION ACTUAL interpolada
           Geometry       File        :       z:\4_Proyectos\IC_IngCivil\IC10013_InunMartosPGOU\300_Estudio       de
Inundabilidad\301_Inundabilidad_Larija\00_Bases\HEC_LARIJA04\LARIJA04.g01

           Flow Title    : CAUDAL 5
           Flow    File                    :    z:\4_Proyectos\IC_IngCivil\IC10013_InunMartosPGOU\300_Estudio    de
Inundabilidad\301_Inundabilidad_Larija\00_Bases\HEC_LARIJA04\LARIJA04.f02

Plan Summary Information:
Number of:  Cross Sections =  128    Multiple Openings  =    0
            Culverts       =    0    Inline Structures  =    0
            Bridges        =    0    Lateral Structures =    0

Computational Information
    Water surface calculation tolerance  =  0.005
    Critical depth calculation tolerance =  0.003
    Maximum number of iterations         =  40
    Maximum difference tolerance         =  0.1
    Flow tolerance factor                =  0.001

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



FLOW DATA

Flow Title: CAUDAL 5
Flow           File           :           z:\4_Proyectos\IC_IngCivil\IC10013_InunMartosPGOU\300_Estudio           de
Inundabilidad\301_Inundabilidad_Larija\00_Bases\HEC_LARIJA04\LARIJA04.f02

Flow Data (m3/s)

  River          Reach          RS                  PF 1
  ARROYO         LARIJA         1040                6.31


Boundary Conditions

  River          Reach          Profile                      Upstream                Downstream

  ARROYO         LARIJA         PF 1                       Normal S = 0.17         Normal S = 0.05



GEOMETRY DATA

Geometry Title: SITUACION ACTUAL interpolada
Geometry          File          :          z:\4_Proyectos\IC_IngCivil\IC10013_InunMartosPGOU\300_Estudio          de
Inundabilidad\301_Inundabilidad_Larija\00_Bases\HEC_LARIJA04\LARIJA04.g01

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA            RS: 1040

INPUT
Description:
Station Elevation Data    num=      61
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  777.48      .3  777.44      .55  777.43     .86  777.38    1.04  777.36
    1.37  777.31    1.52   777.3    1.88  777.23    2.31  777.16    2.39  777.15
    2.87  777.06    3.15     777     3.4  776.86    3.64  776.73    4.31  776.36
    4.99     776     5.2  775.92    5.39  775.86    6.53  775.45    7.93     775
```

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
8.98	774.89	9.48	774.84	9.57	774.83	10.87	774.7	13.32	775
14.85	775.35	14.97	775.4	16.35	775.94	16.46	775.98	16.51	776
17.13	776.09	17.2	776.1	17.81	776.18	18.32	776.24	18.54	776.27
19.03	776.33	19.45	776.38	19.82	776.41	20.17	776.45	20.49	776.48
20.83	776.51	21.11	776.53	21.37	776.55	21.74	776.59	21.97	776.61
22.38	776.65	22.61	776.67	23.06	776.71	23.25	776.73	23.74	776.78
23.88	776.79	24.42	776.84	24.52	776.85	24.61	776.86	25.15	776.91
25.21	776.92	25.79	776.98	25.99	777	26.47	777.07	26.55	777.08
26.9	777.13								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	7.93	.06	13.32	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
7.93	13.32	8.15	9.96	11.14	.1 .3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 1030

INPUT
Description:
Station Elevation Data num= 63

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	775.5	.25	775.36	.45	775.25	.87	775	1.01	774.85
1.33	774.53	2.04	774	2.28	773.97	3.31	773.89	3.4	773.88
3.89	773.85	3.96	773.84	4.47	773.81	4.56	773.8	4.97	773.78
5.07	773.77	5.47	773.75	5.58	773.74	5.96	773.72	6.09	773.71
6.45	773.69	7.09	773.68	7.39	773.69	7.54	773.67	7.98	773.66
8.14	773.64	8.59	773.62	9.12	773.63	9.28	773.6	9.54	773.61
9.71	773.58	10.15	773.55	10.37	773.51	10.59	773.52	10.77	773.51
11	773.47	11.19	773.46	11.43	773.42	11.72	773.36	11.86	773.35
12.21	773.28	12.63	773.19	12.72	773.17	13.21	773.07	13.55	773
14.68	773.01	14.78	773.06	15.59	773.48	16.14	773.79	16.51	774
16.98	774.49	17	774.52	17.52	775	21.58	775.26	21.89	775.27
22.81	775.29	23.63	775.3	24.3	775.31	24.81	775.32	25.48	775.33
26.5	775.35	27.67	775.36	28.35	775.37				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	11.19	.06	15.59	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
11.19	15.59	8.35	9.93	11.88	.1 .3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 1021

INPUT
Description:
Station Elevation Data num= 78

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	773.53	.28	773.48	.61	773.43	1.14	773.3	1.52	773.25
1.96	773.19	2.18	773.14	2.71	773.08	3.3	773.01	3.42	773
4.35	772.89	4.41	772.88	4.87	772.83	5.28	772.79	5.4	772.77
5.78	772.73	5.92	772.7	6.1	772.68	6.45	772.64	6.67	772.6
6.98	772.56	7.22	772.51	7.49	772.47	7.77	772.41	8.12	772.33
8.27	772.31	8.69	772.2	8.79	772.18	9.3	772.05	9.48	772
10	771.86	10.14	771.82	10.8	771.63	11.2	771.51	11.56	771.43
11.83	771.35	11.92	771.33	12.3	771.25	12.46	771.2	13.02	771.09
13.52	771	15.28	771.12	15.91	771.53	16.49	772	16.54	772.02
16.62	772.05	17.73	772.48	17.84	772.53	18.63	772.82	18.8	772.89
18.88	772.92	19.11	773	19.52	773.1	19.59	773.11	20.14	773.23
20.31	773.26	20.77	773.35	21.03	773.39	21.41	773.47	21.71	773.53
22.07	773.57	22.32	773.62	22.73	773.67	22.92	773.7	23.08	773.73
23.54	773.78	23.66	773.79	24.17	773.84	24.25	773.86	24.33	773.87
24.85	773.91	25.47	773.96	26.02	774	26.49	774.02	26.94	774.03
27.38	774.05	27.79	774.06	29.88	774.09				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	11.2	.06	15.91	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
11.2	15.91	6.697	6.743	6.78	.1 .3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 1014.*

INPUT
Description:
Station Elevation Data num= 133

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	772.527	.287	772.481	.625	772.434	1.03	772.349	1.168	772.321
1.468	772.284	1.754	772.246	2.009	772.215	2.235	772.174	2.441	772.148
2.565	772.136	3.07	772.081	3.156	772.071	3.382	772.048	3.506	772.038
3.69	772.019	3.747	772.011	4.319	771.951	4.459	771.937	4.52	771.928
4.853	771.896	4.92	771.888	4.992	771.877	5.412	771.816	5.53	771.794
5.925	771.734	6.068	771.699	6.15	771.684	6.253	771.665	6.436	771.63
6.611	771.598	6.789	771.559	7.155	771.482	7.256	771.456	7.4	771.423
7.677	771.361	7.964	771.284	8.047	771.261	8.323	771.179	8.477	771.142
8.782	771.045	8.907	771.004	9.01	770.974	9.144	770.931	9.533	770.797
9.717	770.731	10.078	770.603	10.25	770.538	10.355	770.497	10.394	770.482

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
10.994	770.241	11.07	770.211	11.48	770.047	11.758	769.968	11.921	769.911
11.966	769.896	12.036	769.877	12.329	769.792	12.452	769.745	12.923	769.612
13.27	769.52	14.443	769.595	14.89	769.694	15.192	769.889	15.277	769.942
15.47	770.063	16.064	770.499	16.115	770.523	16.197	770.559	16.492	770.695
16.722	770.792	16.932	770.885	17.333	771.038	17.446	771.085	17.591	771.131
17.973	771.266	18.222	771.342	18.429	771.418	18.511	771.446	18.746	771.52
19.11	771.601	19.166	771.615	19.238	771.628	19.301	771.642	19.731	771.727
19.801	771.742	19.865	771.754	19.97	771.773	20.391	771.85	20.446	771.859
20.712	771.898	20.916	771.935	21.101	771.967	21.408	772.019	21.777	772.058
21.929	772.083	22.033	772.099	22.435	772.142	22.647	772.17	22.811	772.195
22.875	772.201	22.942	772.209	23.282	772.244	23.353	772.25	23.405	772.255
23.927	772.303	24.009	772.319	24.091	772.329	24.318	772.348	24.461	772.359
24.623	772.371	24.675	772.38	24.805	772.389	24.977	772.404	25.258	772.425
25.493	772.444	25.789	772.469	26.009	772.482	26.286	772.496	26.534	772.507
26.763	772.52	26.993	772.534	27.214	772.548	27.471	772.557	27.633	772.566
27.757	772.571	27.929	772.579	28.254	772.592	28.407	772.601	28.751	772.614
28.885	772.622	29.257	772.635	29.773	772.657				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	11.48	.06	15.47	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
11.48	15.47	6.697	6.743	6.78	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 1007.*

INPUT
Description:
Station Elevation Data num= 132

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	771.523	.294	771.482	.641	771.438	1.055	771.364	1.197	771.343
1.504	771.307	1.596	771.295	1.797	771.268	2.058	771.239	2.289	771.207
2.5	771.179	2.627	771.168	2.845	771.146	3.145	771.115	3.233	771.105
3.465	771.085	3.591	771.076	3.78	771.06	3.839	771.051	4.425	770.995
4.568	770.983	4.63	770.977	4.972	770.948	5.04	770.939	5.114	770.925
5.544	770.842	5.665	770.817	6.069	770.737	6.216	770.698	6.3	770.677
6.405	770.649	6.593	770.6	6.772	770.557	6.954	770.51	7.004	770.495
7.329	770.405	7.433	770.373	7.581	770.335	7.865	770.252	8.158	770.158
8.244	770.13	8.526	770.027	8.684	769.975	8.996	769.857	9.125	769.807
9.229	769.769	9.367	769.716	9.765	769.545	9.954	769.462	10.324	769.302
10.5	769.216	10.607	769.164	10.647	769.143	11.262	768.83	11.34	768.792
11.76	768.583	11.956	768.506	12.071	768.456	12.151	768.425	12.357	768.333
12.444	768.289	12.748	768.156	13.02	768.04	14.091	768.102	14.5	768.269
14.776	768.444	14.853	768.491	15.03	768.597	15.638	768.997	15.69	769.025
16.076	769.227	16.311	769.336	16.526	769.443	16.937	769.595	17.052	769.64
17.201	769.681	17.592	769.813	17.846	769.876	18.058	769.945	18.142	769.972
18.383	770.04	18.755	770.116	18.812	770.13	18.886	770.146	18.951	770.161
19.391	770.238	19.462	770.254	19.528	770.267	19.635	770.286	20.065	770.36
20.122	770.369	20.394	770.406	20.792	770.465	21.107	770.509	21.484	770.547
21.639	770.567	21.746	770.579	22.158	770.616	22.375	770.64	22.542	770.659
22.607	770.666	22.676	770.675	23.024	770.709	23.096	770.715	23.15	770.721
23.585	770.757	23.684	770.766	23.768	770.778	23.852	770.787	24.084	770.809
24.23	770.819	24.397	770.833	24.449	770.839	24.582	770.85	24.758	770.867
25.046	770.891	25.59	770.939	25.814	770.956	26.352	770.988	26.586	771.009
26.821	771.027	27.047	771.047	27.31	771.059	27.477	771.071	27.78	771.095
28.112	771.116	28.269	771.13	28.62	771.152	28.757	771.166	29.139	771.188
29.256	771.195	29.667	771.223						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	11.76	.06	15.03	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
11.76	15.03	6.697	6.743	6.78	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 1000

INPUT
Description:
Station Elevation Data num= 87

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	770.52	.33	770.48	.68	770.44	1.08	770.38	1.54	770.33
1.84	770.29	2.35	770.24	2.56	770.21	2.69	770.2	3.22	770.15
3.31	770.14	3.87	770.1	3.93	770.09	4.53	770.04	5.09	770
5.16	769.99	5.71	769.86	5.8	769.84	6.26	769.73	6.45	769.67
6.75	769.57	7.12	769.46	7.61	769.29	7.79	769.24	8.44	769
9.21	768.67	9.59	768.5	10.57	768	10.86	767.83	11.53	767.42
12.04	767.12	12.22	767	12.27	766.97	12.77	766.56	13.74	766.61
14.36	767	14.43	767.04	14.59	767.13	15.66	767.76	15.9	767.88
16.12	768	16.67	768.2	16.81	768.23	17.21	768.36	17.47	768.41
17.78	768.5	18.02	768.56	18.4	768.63	18.6	768.68	19.05	768.75
19.19	768.78	19.3	768.8	19.74	768.87	19.81	768.88	20.29	768.94
20.82	769	21.35	769.05	21.88	769.09	22.34	769.13	22.41	769.14
22.84	769.18	22.93	769.19	23.34	769.22	23.46	769.23	23.85	769.27
24	769.28	24.36	769.31	24.54	769.33	24.88	769.36	25.08	769.38
25.39	769.41	25.62	769.43	25.91	769.45	26.17	769.47	26.42	769.5
26.65	769.52	26.93	769.55	27.15	769.56	27.45	769.59	27.63	769.61
27.97	769.64	28.13	769.66	28.49	769.69	28.63	769.71	29.02	769.74
29.14	769.75	29.56	769.79						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	12.04	.06	14.59	.06

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Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         12.04   14.59            10.01     9.9    9.81             .1      .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 990

INPUT
Description:
Station Elevation Data    num=      55
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  768.81     .89  768.59    1.35  768.48    2.12   768.3     2.6  768.18
    3.39     768    3.52  767.96    4.41  767.69    4.78  767.56    5.27  767.41
    5.96  767.17    6.11  767.12    6.46     767    6.94  766.73    7.85  766.22
    8.08  766.09    8.24     766    9.89   765.5   10.79  765.19   11.32     765
   14.06  765.43   14.47  765.59   14.56  765.63   15.52     766   15.62  766.04
   15.69  766.05   16.39  766.25   16.87  766.39   17.53  766.53   17.89  766.62
   18.14  766.68    19.2  766.88   19.29   766.9   19.36  766.91   19.89     767
   20.43  767.08   21.43  767.22   21.55  767.23   21.68  767.24   22.44  767.34
   22.62  767.36   22.83  767.38   23.44  767.46   23.69  767.49   23.97  767.52
   24.45  767.58   24.76  767.61   25.11  767.65    25.5   767.7   25.82  767.74
   26.24  767.79   26.72  767.86   27.36  767.94   27.92  768.02   28.13  768.06

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06    9.89     .06   14.47     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          9.89   14.47            10.11    9.98   9.815             .1      .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 980.*

INPUT
Description:
Station Elevation Data    num=      88
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 766.985    .092 766.965    .785 766.816    .858 766.798    .971 766.773
   1.473 766.666   1.578 766.644   1.809 766.599   2.313  766.49   2.409 766.469
   2.677 766.413   2.837 766.378   3.415 766.255   3.609 766.214   3.698 766.196
    3.84 766.161   3.895  766.15   4.421  766.02    4.67 765.955   4.811 765.919
   5.215  765.81   5.483 765.742   5.741 765.681   5.806 765.666   6.502 765.489
   6.858   765.4   7.024 765.354   7.246 765.279   7.572 765.163   7.698 765.118
   8.446 764.841   8.564 764.799   8.759 764.729   8.815 764.708    8.99 764.643
   9.304 764.561   9.461 764.525  10.125 764.352  10.199 764.332   10.79 763.925
  10.903 763.832  11.039 763.721  12.124 763.583   12.91  763.48  13.014 763.511
   14.29 763.769  14.976 763.905  15.285 764.015   15.37 764.046  16.274 764.344
  16.368 764.376  16.434 764.389  17.094 764.571  17.533 764.693  18.119 764.844
  18.507 764.954  18.743 765.019  19.472 765.188  19.741 765.251  19.826 765.272
  19.888 765.285  20.392 765.394  21.219 765.565   21.39 765.592  21.842 765.658
  21.956 765.672  22.078 765.686   22.54 765.752  22.732 765.776  22.794 765.785
  22.964 765.808  23.162 765.832  23.736 765.912  23.972 765.943  24.236 765.976
  24.688 766.037   24.98 766.071   25.31 766.115  25.598 766.155  25.677 766.165
  25.979 766.206  26.046 766.214  26.374 766.256  26.827 766.321  27.196  766.37
  27.399 766.398  27.957 766.473  28.155 766.505

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06   10.79     .06  15.285     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         10.79  15.285            10.11    9.98   9.815             .1      .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 970

INPUT
Description:
Station Elevation Data    num=      51
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  765.16      .1  765.14     .85     765     .93  764.98    1.71  764.83
    1.96  764.79    2.61  764.66     2.9  764.61     3.7  764.45    3.91  764.41
    4.79  764.24    5.06  764.18    5.94     764    6.22  763.95    6.29  763.94
    7.43  763.74    7.61   763.7    7.85  763.66    8.34  763.57    8.68   763.5
    9.15   763.4    9.49  763.34   10.08  763.21   10.25  763.18   10.97  763.02
   11.05     763   11.69  762.35   11.84  762.19   12.02     762    14.5  761.96
   14.57     762   15.43  762.25    16.1  762.44    17.6  762.84   18.21     763
   18.76  763.17   19.35  763.36   20.03  763.55   20.42  763.66   21.67     764
   21.83  764.03   22.91   764.2   23.09  764.22   23.33  764.26   24.62  764.45
   25.25  764.54   25.78  764.62    26.2  764.68   27.28  764.83   27.47  764.86
   28.18  764.95

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06   11.69     .06    16.1     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         11.69    16.1             6.84    6.75   6.683             .1      .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 963.333*
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INPUT
Description:
Station Elevation Data    num=      96
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 763.807    .147  763.78    .273 763.761    .755 763.676    .831 763.663
    .909 763.647   1.363 763.567   1.468 763.547   1.671 763.511   1.916 763.474
   2.464 763.375   2.551 763.359   2.757 763.326   2.835 763.313   3.617 763.171
   3.784 763.142   4.047 763.094   4.413 763.032   4.682 762.983   4.749  762.97
   4.946 762.931   5.053 762.912   5.451 762.836   5.682 762.794   5.806  762.77
    6.08 762.723   6.143 762.714   6.699 762.621   7.263 762.523   7.439 762.487
   7.673 762.449   7.862 762.416   8.219 762.331   8.334 762.301   8.484 762.263
   8.944 762.143   8.995 762.131   9.276 762.064   9.372 762.039   9.853 761.901
  10.019 761.858  10.536 761.708  10.672 761.674  10.723 761.661  10.801 761.638
  11.427 761.137  11.563 761.018  11.728 760.877  11.885 760.862  13.482 760.696
   13.99  760.64  14.082 760.668  15.211 760.848  15.365 760.872  15.433 760.902
  15.494 760.927   16.09  761.19  16.655 761.393  16.794 761.438  16.843 761.453
  17.517 761.663  17.597 761.684  17.755 761.728  18.152  761.85  18.209 761.866
  18.499 761.953  18.717 762.024  19.354 762.218  19.589 762.284  19.768  762.33
  19.837 762.349  20.429 762.506  20.789 762.598  20.987 762.651  21.611 762.813
  21.685 762.832  21.845 762.864  22.246 762.939  22.603 763.003   22.93 763.063
  23.019 763.077  23.111  763.09  23.352 763.136  23.584 763.176  23.634 763.184
  23.832  763.22  24.209  763.28  24.648 763.353  25.111 763.427   25.28 763.455
  25.735 763.532  25.813 763.545  26.548 763.662  27.319 763.783   27.51 763.816
  28.223 763.923

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06  11.427     .06   16.09     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        11.427   16.09             6.84    6.75   6.683             .1       .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 956.666*

INPUT
Description:
Station Elevation Data    num=      97
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 762.453    .095 762.438    .266 762.416    .737 762.338    .812 762.327
    .888 762.313   1.331 762.244   1.434 762.223   1.633 762.192   1.872 762.158
   2.407 762.073   2.492 762.058   2.694 762.028   2.769 762.016   3.533 761.892
   3.697 761.866   3.953 761.822   4.312 761.771   4.574 761.727   4.639 761.715
   4.832 761.683   4.936 761.666   5.326 761.598   5.551 761.562   5.672 761.541
    5.94 761.496   6.002 761.487   6.544   761.4   7.095 761.307   7.267 761.275
   7.496 761.239   7.681 761.208   7.964 761.125   8.029 761.105   8.142 761.071
   8.738 760.885   8.787  760.87   9.062 760.789   9.156 760.759   9.626 760.591
   9.788 760.535  10.293 760.354  10.426 760.317  10.476 760.301  10.552 760.277
  11.163 759.923  11.435 759.754  11.577 759.726  13.021 759.423   13.48  759.32
  13.594 759.336  15.183 759.461  15.266 759.506  15.342 759.544   16.08  759.94
  16.648 760.197  16.787 760.249  16.837 760.267  17.514 760.506  17.593 760.529
  17.753 760.574  18.151 760.715  18.209 760.731  18.499 760.816  18.718 760.892
  19.359 761.077  19.595 761.142  19.774 761.185  19.844 761.205  20.045 761.254
  20.438 761.351  20.799 761.439  20.998  761.49  21.626 761.647  21.699 761.664
  21.861 761.698  22.263 761.784  22.621 761.856   22.95 761.926   23.04 761.943
  23.132 761.961  23.374 762.011  23.607 762.058  23.856  762.11  24.234 762.175
  24.675 762.256  24.732 762.266   25.14 762.339  25.311  762.37  25.768 762.456
  25.845  762.47  26.236 762.538  26.584 762.601  26.853 762.647  27.359 762.737
   27.55 762.772  28.267 762.897

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06  11.163     .06   16.08     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        11.163   16.08             6.84    6.75   6.683             .1       .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 950

INPUT
Description:
Station Elevation Data    num=      64
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   761.1     .14  761.08     .26  761.07     .72     761     1.3  760.92
     1.4   760.9    2.35  760.77    2.48  760.75    2.63  760.73    3.61  760.59
    3.86  760.55    4.21  760.51    4.53  760.46    4.82  760.42     5.2  760.36
    5.42  760.33    5.86  760.26    6.39  760.18    7.11  760.06     7.5     760
    7.84  759.88    7.95  759.84    8.58  759.61    8.94  759.48   10.05     759
   10.18  758.96   10.26  758.93    10.9  758.71   11.27  758.59   12.56  758.15
   12.97     758      15  758.05    15.1  758.11   15.19  758.16   16.07  758.69
   16.64     759   16.78  759.06   16.83  759.08   17.51  759.35   17.75  759.42
   18.15  759.58    18.5  759.68   18.72  759.76    19.6     760   19.78  760.04
   19.85  760.06   20.81  760.28   21.01  760.33   21.64  760.48   21.91  760.54
   22.28  760.63   22.64  760.71   23.06  760.81   23.63  760.94   23.68  760.95
   23.88     761   24.26  761.07   24.76  761.17   25.17  761.25    25.8  761.38
   26.27  761.47   26.62  761.54   26.89  761.59   28.31  761.87

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06    10.9     .06   16.07     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          10.9   16.07            10.87    9.92    9.51             .1       .3

CROSS SECTION
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```
RIVER: ARROYO
REACH: LARIJA            RS: 940.*

INPUT
Description:
Station Elevation Data    num=     108
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   758.8    .144  758.78    .267 758.766    .341 758.754    .576 758.722
    .738 758.697    .956 758.665   1.151 758.642   1.333 758.618   1.436 758.601
    1.59  758.58   1.737 758.555   2.234 758.492   2.341 758.475    2.41 758.466
   2.544 758.447   2.698 758.428    3.58 758.309   3.639 758.299   3.703 758.291
   3.959 758.255   4.205 758.226   4.318 758.213   4.646 758.169     4.8  758.15
   4.868  758.14   4.944 758.131   5.334 758.076   5.502 758.054   5.559 758.046
   5.649 758.033   6.011 757.979   6.127 757.961   6.322 757.932   6.595 757.892
   6.839 757.857   7.092 757.816   7.293 757.786   7.385 757.773   7.693 757.732
   7.941 757.667   8.041 757.644   8.351  757.57     8.8 757.428    9.17 757.312
   9.687 757.131  10.308 756.983  10.442  756.96  10.524 756.943   11.18 756.815
  11.512 756.677  11.666 756.611  12.668 756.168  13.035     756  14.774 756.326
  14.859 756.371  14.936 756.409   15.69 756.805   15.84 756.886   16.26 757.063
    16.4 757.114   16.45 757.131  17.129 757.368  17.369 757.439  17.769  757.57
  18.119 757.664  18.331 757.729  18.781 757.855  19.219 757.965  19.398 758.006
  19.468 758.024  19.522 758.036  19.782 758.091  20.392 758.221  20.522 758.252
  20.628 758.275  21.012 758.356  21.258  758.41  21.402 758.441  21.528 758.465
  21.662 758.491  21.897 758.542  22.033  758.57  22.257 758.612  22.373 758.634
  22.663 758.693  23.083 758.776  23.247  758.81  23.297 758.819  23.497 758.861
  23.793 758.912  23.877 758.926  23.933 758.936  24.376 759.021  24.474 759.039
  24.544 759.051  24.786 759.095  25.144 759.162  25.416 759.229  25.744 759.306
  25.886 759.339  26.236 759.422  26.434 759.468  26.506 759.485  26.785 759.552
  27.235 759.662  27.695 759.762  27.925  759.82

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06   11.18     .06   15.69     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         11.18   15.69            10.87    9.92    9.51             .1      .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA            RS: 930

INPUT
Description:
Station Elevation Data    num=      60
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   756.5     .35  756.45     .59  756.42     .98  756.36    1.18  756.34
    1.63  756.28    1.78  756.25    2.29  756.19     2.4  756.17    2.97   756.1
    3.67  756.01    3.73     756    4.31  755.93    4.92  755.86    4.99  755.85
    5.09  755.84    5.64  755.77    5.79  755.75    6.28  755.68    6.48  755.65
    6.76  755.61    7.01  755.58    7.27  755.54    7.57   755.5    7.92  755.46
    8.14  755.42    8.56  755.37    9.93     755   11.46  754.92   11.89  754.69
    13.1     754   15.31  754.92   15.46     755   17.03  755.47   17.95   755.7
    18.4  755.83   19.14     756    19.4  756.05   20.01  756.17   20.14   756.2
   20.63  756.29   21.02  756.37   21.28  756.41   21.65  756.48   21.99  756.53
   22.28  756.58    22.7  756.65   22.92  756.69   23.41  756.77   23.55  756.79
   24.09  756.89   24.16   756.9   24.76     757   25.36  757.17   25.55  757.22
   26.05  757.36    26.4  757.46   26.85  757.59   27.31   757.7   27.54  757.77

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06   11.46     .06   15.31     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         11.46   15.31            11.67     9.9    8.76             .1      .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA            RS: 920

INPUT
Description:
Station Elevation Data    num=      61
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  755.52       1   755.4    2.58  755.23     3.9  755.07    4.49     755
    4.56  754.99     5.2  754.93     5.3  754.92     6.1  754.85    6.21  754.84
    7.31  754.73    8.18  754.65     8.6   754.6    9.31  754.53    9.87  754.47
   10.41  754.42   10.97  754.35   11.36  754.31   11.99  754.24   12.94  754.13
   13.09  754.12    13.2  754.11   14.07     754   14.21  753.94   14.58  753.78
   15.35  753.45   16.21  753.07   16.29  753.04   16.38     753   18.25  753.47
   18.89   753.8   19.27     754   20.23  754.28   20.61  754.37   21.21  754.53
   21.57  754.63   22.23  754.76   22.42  754.81   23.27  754.97   23.41     755
   24.09  755.11   24.19  755.12   24.84  755.22   25.04  755.26   25.59  755.35
   26.03  755.42   26.36  755.48   26.71  755.53   27.16  755.62   27.41  755.66
   27.98  755.77   28.14   755.8   28.26  755.81   28.88  755.94   29.16     756
   30.41  756.24   30.89  756.33   31.48  756.45    31.9  756.53   32.94  756.72
   33.07  756.75

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06   14.58     .06   18.89     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         14.58   18.89            6.443    6.67   6.933             .1      .3

CROSS SECTION
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```
RIVER: ARROYO
REACH: LARIJA             RS: 913.333*

INPUT
Description:
Station Elevation Data    num=     106
     Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev
       0 754.827     .183 754.804     .936 754.726    1.204 754.696    2.247 754.595
   2.462 754.572    3.129 754.497    3.28 754.481    4.011   754.4    4.204 754.381
   4.338 754.366    4.406 754.358    4.957 754.308    5.024 754.302    5.121 754.292
   5.602 754.251    5.764 754.234    5.894 754.219        6 754.207    6.484 754.153
    6.57 754.144    6.678  754.13    7.063 754.086    7.355 754.055    7.549 754.032
   7.903 753.993    8.119 753.966    8.309 753.941    8.871 753.878    8.995 753.863
   9.183 753.839    9.536 753.795    9.936 753.751   10.058 753.736   10.388 753.688
  10.599 753.659   10.976 753.613   11.28 753.573   11.584 753.532   12.14 753.456
  12.248  753.44   12.502 753.353   12.647 753.308   12.753 753.273   13.054 753.167
  13.517 753.007   13.592 752.977   13.729 752.896   14.087 752.683   14.673 752.393
  15.327 752.062   15.388 752.035   15.457      752   17.701 752.333   17.806  752.36
   18.29 752.556    18.61 752.683   18.979 752.848   19.865 753.101   20.078 753.157
   20.28 753.208   20.716 753.327   20.862 753.376   20.951 753.407   21.142  753.47
  21.212 753.494   21.791 753.665   21.853 753.682   22.037 753.741   22.862 753.963
  22.919 753.984   22.972 753.997   23.658 754.119   23.756 754.132   24.025 754.178
  24.195 754.206   24.387 754.239   24.581 754.278   24.983 754.349   25.115 754.372
  25.291 754.403   25.542 754.444   25.695 754.472   25.862 754.504   26.202 754.558
  26.639 754.646   26.759 754.667   26.882 754.687   27.435 754.794    27.59 754.823
  27.664 754.831   28.281 754.956   28.348 754.974   28.525 755.019   28.581 755.034
  28.632 755.047   29.408 755.239   29.794 755.331   29.845 755.343   30.249 755.442
  30.833  755.59   31.004 755.632   31.228 755.685   31.994 755.811    32.25 755.852
  32.377 755.877

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06  14.087     .06   18.61     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        14.087   18.61            6.443    6.67   6.933             .1       .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 906.666*

INPUT
Description:
Station Elevation Data    num=     107
     Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev
       0 754.133     .176 754.117     .519 754.083     .903 754.048    1.162 754.018
   1.577 753.982    2.169 753.932    2.376 753.911    3.02 753.843    3.165  753.83
    3.87  753.76    4.057 753.745    4.186 753.733    4.251 753.726    4.784 753.679
   4.848 753.673    5.406 753.625    5.562 753.607    5.687 753.587     5.79 753.575
   6.257 753.517     6.34 753.507    6.444  753.49    7.098 753.407    7.284 753.381
   7.626 753.337    7.834 753.308    8.018 753.282    8.104  753.27    8.561 753.214
    8.68 753.197    8.862  753.17    9.202  753.12    9.588 753.071    9.706 753.052
  10.024 752.999   10.228 752.968   10.709 752.899   10.885 752.872   11.179 752.825
  11.715 752.738   11.819  752.72   12.064 752.576   12.204 752.495   12.307 752.436
  12.597 752.264   13.043 752.003   13.116 751.953   13.248 751.852   13.593 751.587
  13.995 751.337   14.445 751.054   14.486  751.03   14.533     751   17.235 751.216
   17.33 751.242   17.945 751.443    18.33 751.567   18.688 751.696   19.548 751.935
  19.754 751.994    19.95 752.046   20.373 752.163   20.515 752.222    20.6 752.258
  20.786  752.33   20.854 752.359   21.416 752.583   21.475 752.604   21.654 752.672
  22.455 752.956   22.509 752.982   22.561 752.998   23.227 753.128   23.321 753.144
  23.583 753.194   23.748 753.223   23.933 753.258   24.121 753.296   24.511 753.369
  24.639 753.394   24.811 753.426   25.054 753.469   25.203 753.496   25.365 753.528
  25.694 753.587   26.118 753.672   26.235 753.693   26.353 753.715    26.89 753.818
  27.041 753.845   27.112 753.855    27.71 753.978   27.775 753.998   27.948 754.049
  28.001 754.067   28.051 754.083   28.804 754.315   29.178 754.423   29.619 754.556
  30.186 754.731   30.352 754.781   30.569 754.842   31.312 754.951   31.415 754.964
  31.561 754.984   31.683 755.003

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06  13.593     .06   18.33     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        13.593   18.33            6.443    6.67   6.933             .1       .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 900

INPUT
Description:
Station Elevation Data    num=      68
     Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev
       0  753.44      .17  753.43       .5   753.4      .87  753.37     1.12  753.34
    1.52  753.31     2.09  753.27     2.29  753.25     2.91  753.19     3.05  753.18
    3.73  753.12     3.91  753.11     4.61  753.05     5.21     753     5.36  752.98
    6.03  752.88     6.11  752.87     6.21  752.85     6.84  752.76     7.02  752.73
    7.55  752.65     7.81  752.61     8.25  752.55     8.54   752.5      8.9  752.44
    9.24  752.39     9.66  752.31    10.32   752.2    10.49  752.17    11.29  752.02
   11.39     752    12.14  751.36    12.57     751    12.64  750.93     13.1  750.49
   13.61     750    16.77   750.1    16.88  750.13     17.6  750.33    18.05  750.45
   19.23  750.77    19.43  750.83    20.03     751    20.25  751.11    20.43  751.19
   21.04   751.5    22.07  751.96     22.1  751.98    22.15     752    23.14  752.21
    23.3  752.24    24.04  752.39    24.33  752.45    24.71  752.52    25.71  752.72
   26.39  752.85    26.56  752.88    27.14     753    27.37  753.08    27.47  753.12
    28.2  753.39    28.61  753.53    28.99  753.67     29.7  753.93    29.91     754
   30.63  754.09    30.73   754.1    30.99  754.13

Manning's n Values        num=       3
```

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	13.1	.06	18.05	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
13.1	18.05	6.1	6.93	8.66	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 894

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	752.75	.23	752.7	.6	752.65	.97	752.57	1.54	752.49
1.85	752.43	2.26	752.38	2.46	752.34	2.96	752.27	3.1	752.24
3.69	752.15	3.77	752.14	4.45	752.04	4.71	752	5.32	751.89
5.43	751.87	6.2	751.72	6.94	751.52	7.48	751.4	7.8	751.33
8.81	751	9.45	750.65	10.57	750	11.56	749.39	12.03	749.1
12.2	749	15.54	749.15	15.66	749.19	15.87	749.25	16.51	749.45
16.99	749.61	17.33	749.71	18.18	750	18.77	750.3	20.08	751
20.58	751.1	20.67	751.12	20.78	751.14	20.98	751.18	22.62	751.51
23.15	751.61	23.96	751.77	25.09	752	25.25	752.03	26.35	752.25
26.74	752.33	27.5	752.48	28.28	752.63	29.82	752.93	29.91	752.95
30.14	753	30.56	753.17						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	11.56	.06	16.51	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
11.56	16.51	5.905	7.03	8.415	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 886.5*

INPUT
Description:
Station Elevation Data num= 111

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	752.06	.216	752.008	.642	751.924	1.037	751.833	1.324	751.776
1.418	751.76	1.647	751.727	1.935	751.679	2.416	751.611	2.498	751.597
2.63	751.576	2.94	751.535	3.052	751.517	3.165	751.503	3.315	751.478
3.447	751.461	3.813	751.409	3.945	751.393	4.031	751.383	4.32	751.345
4.536	751.315	4.758	751.289	4.828	751.278	5.036	751.253	5.091	751.245
5.335	751.215	5.57	751.18	5.688	751.165	5.806	751.151	6.039	751.114
6.321	751.078	6.621	751.036	6.809	751.002	7.138	750.946	7.288	750.917
7.42	750.894	7.636	750.863	7.748	750.846	7.998	750.806	8.115	750.788
8.34	750.754	8.519	750.718	8.584	750.703	9.026	750.61	9.42	750.526
9.88	750.382	9.918	750.363	10.104	750.279	10.566	750.065	11.017	749.822
11.301	749.675	11.364	749.642	11.928	749.319	12.36	749.015	12.386	748.998
12.925	748.635	13.13	748.5	16.482	748.787	16.602	748.819	16.672	748.837
16.813	748.874	17.455	749.05	17.947	749.192	18.296	749.286	18.85	749.447
19.168	749.559	19.66	749.772	19.773	749.819	20.743	750.238	21.116	750.402
21.299	750.453	21.629	750.536	21.718	750.56	21.834	750.58	22.04	750.617
22.958	750.785	23.465	750.875	23.884	750.945	24.099	750.985	24.265	751.012
24.45	751.043	24.753	751.092	25.026	751.138	25.096	751.15	25.338	751.189
25.65	751.25	25.884	751.288	26.255	751.363	26.419	751.395	26.762	751.464
26.88	751.485	27.436	751.599	27.547	751.624	27.947	751.723	28.167	751.776
28.675	751.895	28.727	751.907	28.87	751.938	29.202	752.015	29.484	752.071
29.738	752.125	29.933	752.169	30.265	752.23	30.45	752.268	30.928	752.363
31.036	752.383	31.106	752.395	31.198	752.413	31.434	752.462	31.621	752.517
31.865	752.585								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	12.36	.06	17.455	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
12.36	17.455	5.905	7.03	8.415	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 879

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	751.37	.23	751.31	1.41	751.02	1.51	751	2.06	750.92
2.66	750.83	3.13	750.77	3.25	750.75	3.67	750.7	4.06	750.65
4.25	750.63	4.6	750.59	4.83	750.56	5.14	750.53	5.42	750.5
5.68	750.48	5.93	750.45	6.2	750.43	6.43	750.4	6.73	750.38
7.05	750.35	7.25	750.33	7.6	750.3	7.76	750.28	8.13	750.25
8.25	750.24	8.64	750.2	9.07	750.16	9.14	750.15	9.61	750.1
10.05	750.05	10.52	750	10.56	749.98	11.25	749.73	11.73	749.49
12.1	749.32	12.7	749	13.16	748.64	13.19	748.62	14.06	748
17.47	748.43	18.4	748.65	19.83	749	20.66	749.3	21.77	749.67
22.34	749.87	22.77	750	23.38	750.1	24.04	750.21	24.56	750.29
24.99	750.35	25.21	750.39	25.57	750.44	25.88	750.48	26.16	750.52
26.48	750.56	26.8	750.62	27.04	750.65	27.94	750.83	28.06	750.85
28.63	750.97	28.75	751	29.38	751.18	29.9	751.32	30.1	751.37
30.44	751.46	30.73	751.52	30.99	751.58	31.19	751.63	31.53	751.69
31.72	751.73	32.21	751.83	32.32	751.85	32.4	751.86	32.92	751.96
33.17	752								

```
Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06   13.16     .06    18.4     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         13.16    18.4            5.375     5.1     4.4             .1       .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 874.*

INPUT
Description:
Station Elevation Data    num=     121
     Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev
       0 750.435     .198  750.39     .406 750.345     .837 750.249    1.212  750.17
   1.298 750.155    1.518 750.121     1.77 750.077    1.985 750.046    2.286     750
    2.69 749.943    2.793 749.923    2.893 749.908    3.154 749.874    3.489 749.829
   3.563  749.82    3.653 749.811    3.778 749.797    3.953 749.771    4.151 749.744
   4.417 749.713    4.658 749.684    4.806 749.668    4.882 749.659    4.985 749.643
   5.096 749.628    5.328 749.604    5.526 749.578    5.784 749.552    6.059 749.515
   6.169 749.499    6.231 749.491    6.532 749.456    6.669 749.436    6.839 749.417
    7.09  749.39    7.353 749.359    7.425 749.348    7.795 749.294    8.225 749.237
   8.637 749.171    8.859 749.136    9.041 749.113    9.669 748.917    9.792 748.869
   9.863 748.843   10.081 748.759   10.222 748.707   10.399 748.612   10.832 748.361
  10.915 748.312    11.31 748.025   11.345 748.002   11.849 747.658   11.901 747.627
  12.075 747.529    12.37  747.36   14.226 747.517    14.57 747.656    14.96 747.734
  15.395 747.817    15.75 747.907    16.22  748.03   16.918 748.219    17.37 748.338
  17.676 748.422   18.185  748.59    18.48 748.678   19.315 748.905   19.571 748.972
   19.65 748.994    20.19 749.148   20.622 749.253   21.045  749.33   21.556 749.422
  21.821 749.469   21.961 749.493   22.431  749.57   22.491  749.58   22.558  749.59
  22.627 749.599   22.928 749.644   23.152 749.682   23.246 749.696   23.519 749.737
  23.834  749.78   23.905  749.79   23.973   749.8   24.119  749.82   24.445 749.863
  24.543 749.879   24.681 749.902   24.771 749.916   25.015 749.948   25.192 749.977
  25.388 750.017   25.614 750.054   25.931 750.109   26.053 750.128   26.391 750.195
  26.634 750.236   26.756 750.259   27.157 750.351   27.397 750.402   27.914 750.523
  28.101 750.561   28.476 750.647   28.661 750.684   28.771 750.707   29.036 750.766
  29.239 750.814   29.358  750.84   29.586 750.893   29.779 750.941   30.125 751.025
  30.278  751.06    30.39 751.085   30.471 751.101   30.921 751.207   31.001 751.223
  31.255  751.27

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06   11.31     .06   16.22     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         11.31   16.22            5.375     5.1     4.4             .1       .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 869

INPUT
Description:
Station Elevation Data    num=      71
     Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev
       0   749.5      .34  749.44       .7  749.37    1.27  749.28      1.5  749.23
    1.66  749.21    2.29  749.11    2.36  749.09    2.42  749.08    2.98     749
    3.16  748.98    4.02  748.85    4.17  748.82    4.87  748.72    5.16  748.66
    5.72  748.57    6.15  748.51    6.56  748.42    6.88  748.37    7.41  748.25
     7.6  748.22    8.19  748.08    8.25  748.07    8.55     748    9.06  747.67
    9.46  747.41   10.08     747   10.14  746.97   10.34  746.88   10.68  746.72
    12.3  746.77    12.6     747   12.94   747.1   13.63  747.29   14.04  747.41
   14.75  747.62   15.21  747.75   16.04     748   16.34  748.07   17.19  748.25
   17.45   748.3   18.08  748.44   18.52  748.52   18.95   748.6   19.47   748.7
   19.74  748.75   20.36  748.86   20.49  748.88   20.56  748.89   21.19  748.99
   21.86  749.09   21.93   749.1   22.51  749.18   22.65   749.2   23.17  749.27
   23.37  749.31    23.6  749.34   24.07  749.41   24.39  749.47   24.77  749.52
   25.17  749.59   25.46  749.63   25.94  749.73   26.13  749.76    26.7  749.87
    27.3     750   27.41  750.03   28.19  750.25   28.46  750.32      29  750.47
   29.34  750.54

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06    9.46     .06   14.04     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          9.46   14.04           10.16    9.22    7.69             .1       .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 860

INPUT
Description:
Station Elevation Data    num=      61
     Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev
       0  748.63      .41  748.58      .94   748.5    1.31  748.46    1.71   748.4
    2.14  748.36    2.44  748.31    2.92  748.27    3.14  748.24    3.66  748.19
    3.77  748.17    4.34  748.12    4.42  748.11    4.99  748.05    5.48     748
    5.63  747.98    6.29  747.88    6.38  747.87     6.5  747.84    7.12  747.74
    7.34   747.7    7.85  747.61    8.18  747.53    8.57  747.46    9.33  747.28
    9.55  747.24   10.49     747   10.73  746.83   11.66  746.21   11.91  746.04
   11.97     746   12.99  745.63   14.01  745.26   14.65     745   16.27  745.32
   16.55  745.47   17.52     746   17.68  746.09   18.54   746.5   19.34  746.89
   19.58     747   20.97  747.49   21.68  747.71   22.59     748   23.02  748.07
   23.08  748.08   23.17   748.1    24.3  748.29   24.54  748.34   24.89   748.4
```

```
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
   25.66  748.54   26.14  748.64   26.88  748.79   27.16  748.84   27.88     749
   28.04  749.05   28.14  749.08   29.26  749.43   30.56  749.85   31.01     750
   31.37  750.08

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06   12.99     .06   16.55     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         12.99   16.55             9.86    9.95   10.01             .1       .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 850

INPUT
Description:
Station Elevation Data    num=      40
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  746.56     .39  746.47     .86  746.37    1.29  746.26    1.89  746.11
    2.01  746.09    2.35     746     2.7  745.93    2.82  745.91    3.62  745.75
    4.19  745.64    4.83   745.5    5.25  745.41    6.53  745.11    6.64  745.09
    6.71  745.08    7.02     745    8.38  744.54    8.42  744.52    9.35  744.19
    9.55  744.12    9.88     744   12.48  744.27   12.67  744.35   13.27   744.6
   13.75  744.79   14.25     745   16.12     746   16.48  746.12   17.25  746.36
   18.68  746.82   19.26     747   20.72  747.35   21.09  747.43   21.68  747.57
    22.8  747.82   23.23  747.92   23.62     748   24.37  748.26    24.9  748.44

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06    8.38     .06   13.27     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          8.38   13.27            8.155    8.38    8.58             .1       .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 841.5*

INPUT
Description:
Station Elevation Data    num=      67
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 746.145    .398  746.04    .878 745.919   1.317 745.798   1.929 745.631
   2.038 745.606   2.399 745.502   2.756  745.42   2.879 745.394   3.097 745.344
   3.696 745.208   4.278 745.078   4.931 744.924    5.36 744.824   6.282 744.599
   6.666  744.46   6.779 744.423    6.85   744.4   7.167 744.282   8.173 743.868
     8.3 743.812   8.369 743.786   8.555  743.71     8.6 743.688   9.519 743.305
   9.645 743.251   9.816 743.178   9.869 743.156   10.24     743  12.867 743.243
  13.022 743.317  13.059 743.338  13.665  743.68  13.985 743.859  14.178 743.955
  14.712 744.225  15.441 744.633  15.601 744.723  15.695 744.766  16.325 745.064
   16.71 745.248  17.094 745.396  17.575 745.575  17.829 745.667  17.917 745.694
  19.154 746.076  19.445  746.16  19.915 746.293  20.064 746.337  20.423  746.43
  21.231 746.631  21.428 746.678  21.494 746.695  21.624 746.726   22.02 746.816
   22.65 746.966  23.421 747.146  23.778 747.228  23.846 747.244  24.306 747.353
  24.473 747.391  24.614  747.42  24.723 747.444   25.16 747.571   25.46 747.655
  25.517 747.674   26.09  747.83

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06   8.555     .06  13.665     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         8.555  13.665            8.155    8.38    8.58             .1       .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 833

INPUT
Description:
Station Elevation Data    num=      38
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  745.73    2.08  745.12    2.46     745    3.16  744.82    6.41     744
    8.34  743.07    8.47     743    8.54  742.97    8.73  742.88     9.8  742.38
   10.13  742.22    10.6     742    13.3  742.22   13.41   742.3   14.06  742.76
    14.4     743   15.95   743.9   16.12     744   16.22  744.04   16.89  744.32
   18.22  744.89   18.49     745    19.9  745.42   20.71  745.63   21.25  745.78
   22.11     746   22.32  746.05   22.39  746.07   23.36   746.3   23.82  746.41
   24.44  746.56   24.82  746.65   25.56  746.83   25.71  746.86   26.29     747
   26.61  747.07   26.67  747.09   27.28  747.22

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06    8.73     .06   14.06     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          8.73   14.06            6.645    6.71   6.815             .1       .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 826.5*

INPUT
```

```
Description:
Station Elevation Data    num=      72
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  745.83   1.387  745.28   1.859 745.097   2.116 745.015   2.502 744.888
   3.214 744.675   4.022 744.435    4.76 744.218   4.937 744.156    6.52  743.58
   7.769 742.984   8.483 742.635   8.616 742.567   8.687 742.534    8.88  742.44
   9.578 742.032   9.784  741.91  10.063 741.741  10.129 741.702   10.46   741.5
   13.57  741.82  13.658 741.879  13.709 741.911   14.46  742.38  14.721 742.531
  14.787 742.566  14.898 742.619  15.721 743.032  16.276 743.301   16.44  743.38
  16.536 743.418  16.576 743.434  16.774 743.517  17.086  743.64   17.18 743.673
  17.608 743.825  17.733 743.863  18.348  744.08  18.458 744.115  18.629 744.166
  18.717 744.195  19.098 744.299  19.411 744.372  19.755 744.466  20.072  744.54
   20.14 744.554  20.359 744.604  20.797 744.693  20.943 744.728  21.057  744.76
   21.37 744.821  21.631  744.87  21.693 744.883  22.196 744.979  22.308 744.999
  22.398 745.014  22.465 745.027  22.631 745.055  23.398 745.201  23.538 745.227
  24.017 745.322  24.174 745.357  24.801 745.486  25.226 745.579  25.512 745.636
  25.656 745.664  25.883 745.714  26.214 745.784  26.342  745.81  26.521 745.845
  26.579  745.86  27.165 745.975

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06    8.88     .06   14.46     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          8.88   14.46            6.645    6.71   6.815             .1      .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 820

INPUT
Description:
Station Elevation Data    num=      47
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  745.93    1.41  745.23    1.89     745    4.09  744.25    4.84     744
    5.02  743.92     7.9  742.56    9.03     742     9.6  741.57   10.05  741.22
   10.32     741   13.85  741.42   13.95  741.49   14.86     742   15.11  742.11
   15.28  742.17   16.07   742.5   16.89  742.81   17.08  742.89   17.38     743
   17.88  743.14      18  743.16   18.59  743.32   18.86  743.37   19.31  743.48
   19.61  743.53   19.94  743.61   20.31  743.67   20.52  743.71   20.94  743.77
   21.08   743.8   21.19  743.83   21.74  743.89    21.8   743.9   22.39  743.97
    22.7     744   23.57  744.12   24.03  744.19   24.18  744.22   24.59  744.29
   24.83  744.33   25.19   744.4   25.51  744.45   25.82  744.51   26.26  744.59
   26.49  744.63   27.05  744.73

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06    9.03     .06   14.86     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          9.03   14.86            7.025   6.645   6.075             .1      .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 813.5*

INPUT
Description:
Station Elevation Data    num=      78
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  745.06    .554 744.834    .717 744.705    .917 744.563   1.261 744.306
   1.479 744.161   1.586  744.09   1.844 743.981   1.982 743.924   2.293 743.814
   2.609 743.708   2.972 743.584   3.201 743.502   3.832 743.304   3.947 743.266
   4.289  743.16   4.463 743.107    4.52 743.088   5.046 742.935   5.265 742.861
   5.657 742.722   5.886 742.635    6.25 742.503   6.661 742.351   7.234 742.142
   7.425 742.074   8.132 741.814   8.247 741.749   8.285 741.726   8.887 741.368
    9.47     741   9.885 740.564  10.213 740.215   10.41     740  10.482 740.009
  13.754 740.426  13.823 740.448   13.92 740.509    14.8     741  15.042 741.106
  15.203 741.169  15.762 741.415  15.971 741.506  16.537 741.741  16.765 741.837
  16.949 741.919  17.065 741.967  17.239 742.029  17.723  742.18   17.84  742.21
  18.411 742.385  18.672 742.454  19.108 742.583  19.398 742.657  19.717 742.752
  20.033 742.831  20.279 742.904  20.685 743.015  20.821 743.057  20.927 743.093
   21.46 743.229  21.518 743.246  22.089 743.395  22.339 743.458  22.474 743.496
  22.525  743.51  23.231 743.615  23.677 743.685  23.822 743.712  24.219 743.778
  24.451 743.816    24.8 743.879  25.109 743.928  25.409 743.981  25.835 744.055
  26.058 744.092  26.538 744.174    26.6 744.185

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06    9.47     .06    14.8     .06
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          9.47    14.8            7.025   6.645   6.075             .1      .3
CROSS SECTION

RIVER: ARROYO
REACH: LARIJA             RS: 807
INPUT
Description:
Station Elevation Data    num=      42
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  744.19     .12  744.15     .58     744     .75  743.82     .96  743.63
    1.32  743.28    1.66     743    1.93   742.9     2.4  742.73    2.73  742.62
    3.11  742.49    3.35   742.4    4.01  742.21    4.13  742.17    4.67  742.02
    4.73     742    5.28  741.86    5.92   741.7    6.16  741.63    6.54  741.53
    6.97  741.41    7.57  741.25    7.77   741.2    8.51     741    8.63  740.92
     9.3  740.46    9.91     740    10.5     739   13.73  739.44   14.74     740
   15.13  740.17   15.67  740.42   16.42  740.76   16.93     741   18.26  741.46
    19.8     742   20.36  742.23   22.03  742.92   22.16  742.98   22.21     743
   26.09  743.63   26.15  743.64
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```
Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06    9.91     .06   14.74     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          9.91   14.74             8.035    8.14   8.385             .1      .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 798.5*

INPUT
Description:
Station Elevation Data    num=      77
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 742.465    .103 742.437    .558 742.321    .727 742.214     .93   742.1
   1.279 741.893   1.363 741.849   1.609 741.723   1.871  741.65    2.21 741.557
   2.326 741.524   2.644  741.44   3.014 741.344   3.247 741.279   3.887 741.131
   3.956 741.113   4.172 741.061   4.526 740.946   4.584 740.925   5.117 740.758
   5.247 740.718   5.738 740.561    5.97 740.482   6.083 740.445   6.339 740.365
   6.424 740.338   6.755 740.228   6.878 740.188   7.337 740.026   7.531 739.959
   8.211  739.71   9.014 739.254    9.12 739.189   9.605 738.835  10.169 738.254
   10.24 738.181   10.42     738  10.483 738.007  13.071 738.307  13.311 738.374
  13.343  738.39  13.977 738.711  14.215  738.83  14.606 739.004  14.904 739.143
  15.219  739.32  15.389 739.416  16.028 739.766  16.367 739.954  16.423 739.986
  16.579  740.08  16.656 740.122  17.485  740.58  17.662 740.674  18.014 740.808
  18.742 741.088  19.469 741.366  19.676 741.446  19.916 741.546  20.281 741.668
  20.568 741.765  20.792 741.838  21.481  742.07  22.021 742.253  22.083 742.275
  22.224 742.326  22.277 742.345  22.375 742.367  23.353 742.581  23.475  742.61
  23.577 742.633  24.639 742.868  25.095 742.972  25.608 743.086  26.344 743.246
  26.455 743.274   26.53  743.29

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06   9.605     .06  14.215     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        9.605  14.215             8.035    8.14   8.385             .1      .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 790

INPUT
Description:
Station Elevation Data    num=      48
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  740.74      .1  740.72     .54  740.64    1.32  740.49    2.14  740.34
    2.56  740.26    3.77  740.05    3.83  740.04    4.04     740    5.08  739.61
    5.89  739.29    6.22  739.17    6.66     739    7.31  738.71    7.95  738.41
    8.83     738     9.3  737.67   10.02   737.2   10.11  737.14   10.34     737
   12.68  737.21   12.92  737.32   13.48  737.57   13.69  737.66   14.11  737.85
   14.43     738   14.95  738.34      16     739   16.06  739.04   16.31  739.22
    17.2  739.87   17.39     740   18.55  740.48   19.33   740.8   19.81     741
   20.51  741.19   20.75  741.25   21.49  741.45   22.07  741.61   22.45  741.72
    23.5     742   23.63  742.04   24.88  742.38   25.37  742.52   25.92  742.67
   26.71  742.88   26.83  742.92   26.91  742.94

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06     9.3     .06   13.69     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           9.3   13.69             9.05    9.88   10.75             .1      .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 780

INPUT
Description:
Station Elevation Data    num=      49
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   741.5     .56  741.41    1.37  741.27    1.66  741.21    2.74  741.04
    2.96     741    4.01  740.74    5.09  740.41    5.71  740.24    6.46     740
    8.56  739.28    9.35     739    9.74  738.77   10.96     738    11.9  737.56
   12.72   737.2   12.97  737.08   13.14     737   15.96   736.6   16.25  736.74
   16.77     737   17.44  737.38   17.75  737.55   18.53     738   18.91  738.21
    19.7  738.64   20.15  738.88   20.38     739   21.41  739.48   22.19  739.81
    22.4   739.9   22.65     740   23.16  740.15   23.73  740.31   24.36  740.49
   24.77  740.61   25.03  740.68   26.11     741   26.29  741.04   27.81  741.38
    28.2  741.47   28.91  741.62   29.46  741.75    30.3  741.95   30.37  741.97
   30.51     742   31.19  742.21   31.44  742.29   31.87  742.42

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06    11.9     .06   17.75     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          11.9   17.75             8.21   6.705   5.305             .1      .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 773.5*
```

```
INPUT
Description:
Station Elevation Data    num=      75
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 740.765    .057 740.746    .591 740.577   1.141   740.4   1.445 740.294
   1.751 740.183   2.044 740.083   2.767 739.639    2.89 739.562   2.932 739.534
   2.966 739.512   3.122 739.426   3.499 739.201   3.974   738.9   4.229 738.855
   5.368 738.621   6.022 738.496   6.813 738.328   8.519 737.948   9.028 737.838
   9.861 737.653  10.097 737.574  10.272 737.515  11.559 737.057  11.875 736.965
   12.55  736.78  13.033   736.5   13.18 736.409   13.28 736.349  14.309 736.011
   14.94   735.8  15.314   735.9  15.985 736.085   16.67 736.291   16.85 736.442
   17.25 736.775  17.406 736.862  17.541 736.937  18.001 737.195  18.367 737.395
  19.039  737.76  19.127  737.81  19.164  737.83  19.561 738.053  19.782 738.176
  20.256 738.425  20.774 738.703  20.901 738.768  21.525 739.094  21.727   739.2
  21.968 739.323  22.056 739.363  22.459 739.541  22.576 739.592  23.008 739.712
  23.522 739.856  23.614 739.882  24.009 739.995  24.259 740.064  25.299 740.363
  25.472 740.406   26.32 740.619  26.936 740.819  27.311 740.942  27.995  741.16
  28.089 741.191  28.525 741.339  28.692 741.396  29.285 741.554  29.401 741.587
  29.536 741.622   30.19 741.823  30.431 741.898  30.481 741.913  30.845  742.02

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06   12.55     .06   17.25     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         12.55   17.25             8.21   6.705   5.305             .1       .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 767

INPUT
Description:
Station Elevation Data    num=      33
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  740.03     .06     740     1.2  739.48    2.03  739.06    2.15     739
    2.91  738.22    3.12     738    3.68  737.49    4.18     737    8.96  736.45
   10.62  736.28   12.11  736.12   12.49  736.07    13.2     736   13.73  735.27
   13.92     735   16.04  735.28   16.75     736    16.9  736.08   17.03  736.15
   18.47  736.93   18.57  736.99   19.64  737.62   20.26     738   21.37   738.7
   21.87     739   22.78  739.25   25.47     740   27.17  740.74   27.75     741
   28.32  741.17   29.47  741.52   29.82  741.62

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06    13.2     .06   16.75     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          13.2   16.75            5.335     6.5    7.27             .1       .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 760.5*

INPUT
Description:
Station Elevation Data    num=      66
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  739.23    .055 739.206   1.108 738.776   1.331 738.679   1.418 738.635
   1.516 738.588   1.874 738.415   1.985 738.362   2.686 737.825    2.88 737.674
   3.397  737.31   3.709 737.079   3.859 736.986   4.614 736.878   4.756 736.859
    4.92 736.844   5.596 736.747   5.891 736.713   6.262 736.675   6.665  736.63
   7.189 736.567    7.92 736.482   8.271 736.438    8.64 736.395   9.458 736.309
   9.803 736.271  11.179 736.116  11.53 736.072  12.185     736  12.757 735.435
  12.843 735.352  12.917 735.275  13.18     735  15.94 735.154  16.199 735.256
  16.865     736  17.013 736.091  17.141 736.171  17.848 736.609  18.334 736.902
  18.563 737.049  18.662 737.115  18.962 737.314  19.711 737.808  20.331 738.191
  20.714 738.432  21.373 738.833  21.427  738.86   21.92 739.104  22.819 739.399
  24.016 739.794  24.067 739.811  25.171 740.117  25.475 740.199  25.597 740.242
  26.194 740.454  26.964 740.718  27.153 740.786  27.726 740.987  27.835 741.016
  28.149 741.109  28.289 741.149  28.838  741.31  29.132 741.395  29.424 741.481
   29.77  741.58

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06  12.185     .06  16.865     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        12.185  16.865            5.335     6.5    7.27             .1       .3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA             RS: 754

INPUT
Description:
Station Elevation Data    num=      44
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  738.43    1.22     738     1.3  737.96    1.39  737.92     3.4     737
    3.55  736.97    4.23  736.85    4.36  736.83    4.51  736.82    5.13  736.71
     5.4  736.68    5.74  736.65    6.11  736.61    6.59  736.55    7.26  736.47
    7.92  736.38    8.67   736.3    9.69  736.18   11.17     736    11.9  735.44
   12.01  735.36   12.44     735   16.16  735.03   16.37  735.28   16.98     736
   17.95  736.68   18.43     737   19.05  737.46   19.79     738   20.78  738.62
   21.43     739   24.04     740   24.09  740.02   25.18  740.32    25.6  740.43
   26.19  740.59   26.95  740.78   27.17  740.84   27.81     741   28.05  741.07
   28.12  741.09    28.8  741.28   29.09  741.36   29.72  741.54
```

```
Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06   11.17     .06   16.98     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         11.17   16.98             7.817   7.897   8.063             .1      .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 746.*

INPUT
Description:
Station Elevation Data    num=      60
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 737.607   1.288 737.251   1.373  737.22   1.468 737.188    3.59  736.46
   3.748 736.432   4.466 736.313   4.603 736.292   4.762 736.278   5.065 736.229
   5.416 736.171   5.701 736.135   5.969 736.105    6.06 736.094   6.451 736.044
   7.665 735.874   8.362  735.77   9.154 735.667  10.231 735.518  10.572  735.47
  10.817 735.435  10.898 735.425  11.215 735.378  11.793 735.167  12.334 734.741
  12.395 734.694  12.486 734.626  12.526 734.593   12.84 734.333  16.865 734.419
  17.049 734.435  17.286 734.621  17.319 734.646  17.977  735.16   18.52  735.46
  18.901 735.668  19.359 735.906   19.95 736.245  20.215 736.395  20.492 736.553
  20.656 736.646  21.035 736.833    21.6 737.188  21.978 737.414  22.219 737.563
  22.731 737.804  24.708 738.621  24.756 738.641  25.025 738.732  25.795 738.951
  26.195 739.061  26.758 739.219  27.482 739.412  27.692 739.472  28.302 739.635
  28.531 739.702  28.598 739.722  29.246   739.9  29.523 739.974  30.123  740.14

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06  11.793     .06  17.977     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        11.793  17.977             7.817   7.897   8.063             .1      .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 738.*

INPUT
Description:
Station Elevation Data    num=      58
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 736.783   1.356 736.503   1.445  736.48   1.545 736.457   3.779  735.92
   3.946 735.893   4.702 735.776   4.847 735.755   5.013 735.736   5.332  735.69
   5.703 735.631   6.003  735.59   6.285 735.553   6.381 735.539   6.792 735.477
   7.326 735.395    8.07 735.279   8.804 735.161   9.638 735.033  10.771 734.857
  11.131   734.8  11.388 734.758  11.474 734.748  11.807 734.689  12.417 734.333
  12.842 733.986   12.89 733.948  12.961 733.893  12.993 733.866   13.24 733.667
  17.732  733.81  17.938  733.84  18.203 733.961   18.24 733.978  18.973  734.32
   19.49  734.52  19.853 734.655  20.288 734.812  20.851 735.031  21.103 735.128
  21.366 735.232  21.522 735.291  21.883 735.416  22.419 735.756  22.779 735.977
  23.009 736.125  23.496 736.402  25.376 737.241  25.421 737.262  25.678 737.366
   26.79 737.692  27.325 737.848  28.015 738.045  28.214 738.104  28.795 738.269
  29.012 738.334  29.076 738.353  30.527  738.74

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06  12.417     .06  18.973     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        12.417  18.973             7.817   7.897   8.063             .1      .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 730

INPUT
Description:
Station Elevation Data    num=      27
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  735.96    1.52  735.74    3.01  735.52    5.14  735.21     5.6  735.15
     6.6     735    7.74  734.81   11.69  734.13   11.96  734.08   12.05  734.07
    12.4     734   13.04   733.5   13.35  733.23   13.46  733.14   13.64     733
    18.6   733.2   19.16  733.31   19.97  733.48   20.46  733.58   21.99  733.86
   22.24  733.91   22.73     734   23.58  734.54   24.26     735   26.33     736
   29.57  736.99   30.93  737.34

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06   13.04     .06   19.97     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         13.04   19.97            10.19   9.985   9.645             .1      .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 720.*

INPUT
Description:
```

```
Station Elevation Data    num=      48
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  735.25   2.643 734.941   3.507 734.838   4.513 734.722   4.917 734.679
   5.028 734.666   5.365 734.622   5.795 734.571   6.796 734.443     7.2  734.39
   7.293 734.376   7.409  734.36    7.92 734.295   8.582  734.04   9.615 733.629
  10.265 733.347  10.502 733.243  10.581  733.21  10.888  733.07   11.09  732.91
   11.45  732.49  11.585 732.288   11.62 732.228  11.837 732.196  12.499 732.096
  12.871 732.043   13.48  731.96  13.914 732.014  15.192 732.141  15.693 732.189
  16.563 732.274  16.911 732.352  17.415  732.47  17.975 732.629  18.801 732.856
  19.725 733.016  20.011 733.068  20.249 733.109  20.572 733.166  21.544  733.53
  22.321 733.834  24.042 734.363  24.689 734.575   28.36  735.49  28.395 735.506
  29.035 735.784  29.906 736.165   29.95 736.175

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06   11.45     .06  17.415     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         11.45  17.415            10.19   9.985   9.645             .1      .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 710

INPUT
Description:
Station Elevation Data    num=      28
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  734.54    1.11  734.45     2.3  734.36    3.02   734.3    4.33   734.2
    4.62  734.17     6.2  734.05    6.28  734.04    6.38  734.03    6.82     734
    7.39  733.62    8.28     733    9.05   732.4    9.55     732    9.86  731.48
   10.09  731.11   10.15     731   13.32  730.92   13.49     731   13.99  731.17
   14.86  731.46   16.42     732   18.05  732.27   22.32     733   27.18     734
   27.94  734.43   28.92     735   28.97  735.01

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06    9.86     .06   14.86     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          9.86   14.86             5.34   5.025   4.765             .1      .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 705.*

INPUT
Description:
Station Elevation Data    num=      57
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  734.35   1.056 734.256   1.728 734.198   2.002 734.037   2.188 733.952
   2.361 733.872   2.835 733.652   3.362 733.525   4.119 733.347   4.258 733.312
   4.395 733.277   4.795 733.179   4.911 733.154   5.354 733.047   5.898 732.928
   5.974 732.909   6.069 732.887   6.488 732.797    6.64 732.717   6.893 732.583
    7.03 732.509   7.283 732.368   7.877 732.026    8.01 731.946   8.316 731.775
   8.609 731.608   9.085 731.332    9.38 731.025   9.574 730.821   9.625 730.761
    12.3  730.46  12.569 730.492  12.722 730.511  15.036 730.727  16.125 731.005
  17.571 731.422  17.949 731.494  18.568 731.579  18.851 731.614  19.081 731.663
   19.22 731.693  19.285 731.709  19.372 731.732  19.991 731.874  20.208 731.934
  20.632 732.033  20.958 732.123  21.196  732.18  21.815 732.352      22 732.404
  22.988  732.95  23.038 732.989  26.453 733.629  27.541 733.839  28.246 734.112
  29.154 734.471    29.2  734.48

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06    9.38     .06  16.125     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          9.38  16.125             5.34   5.025   4.765             .1      .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 700

INPUT
Description:
Station Elevation Data    num=      38
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  734.16    1.64     734     1.9   733.7    2.24   733.4    2.69     733
    3.19  732.79    4.04  732.44    4.55  732.22    4.66  732.18    5.08     732
     6.3  731.54    6.54  731.45    6.91   731.3    7.48  731.05     7.6     731
    7.89  730.91     8.9  730.57   11.28     730   15.65  730.14   17.39  730.55
   19.07  730.92   19.64  730.98    19.9     731   20.24  731.09    20.3  731.11
   20.38  731.14   20.95  731.31   21.15  731.39   21.54  731.51   21.84  731.63
   22.06   731.7   22.63  731.93   22.67  731.95    22.8     732   23.71  732.91
   23.77     733    26.9   733.5   29.43  733.95

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06     8.9     .06   17.39     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           8.9   17.39             6.33   6.673   7.103             .1      .3

CROSS SECTION
```

RIVER: ARROYO
REACH: LARIJA RS: 693.333*

INPUT
Description:
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	732.563	1.109	732.445	1.656	732.386	1.919	732.175	2.345	731.908
2.716	731.673	3.221	731.509	4.052	731.244	4.327	731.15	4.594	731.058
4.705	731.025	5.129	730.882	6.181	730.565	6.361	730.509	6.604	730.434
6.977	730.311	7.553	730.112	7.674	730.072	7.967	729.994	8.81	729.753
8.987	729.66	10.641	729.088	10.897	729	11.287	729.02	14.864	729.199
15.276	729.281	16.004	729.504	16.443	729.637	16.783	729.747	17.454	729.906
17.597	729.936	18.228	730.082	18.51	730.115	19.11	730.191	19.297	730.238
19.472	730.276	19.535	730.293	19.62	730.317	19.798	730.36	20.226	730.464
20.439	730.529	20.648	730.584	20.853	730.634	21.172	730.731	21.4	730.789
21.623	730.855	22.011	730.979	22.054	730.996	22.133	731.019	22.192	731.037
22.67	731.37	23.159	731.712	23.223	731.777	25.613	732.193	26.186	732.294
26.249	732.303	26.548	732.399	26.705	732.451	26.955	732.532	27.233	732.623
27.778	732.804	28.476	732.925	28.566	732.938	29.147	733.04	29.237	733.053

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	8.987	.06	16.443	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
8.987	16.443	6.33	6.673	7.103	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 686.666*

INPUT
Description:
Station Elevation Data num= 73

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	730.967	.228	730.939	1.119	730.838	1.672	730.773	1.937	730.65
2.284	730.521	2.742	730.345	4.091	730.037	4.368	729.965	4.639	729.896
4.751	729.87	4.844	729.847	5.179	729.765	6.24	729.522	6.423	729.478
6.667	729.418	7.045	729.323	7.231	729.273	7.626	729.174	7.748	729.144
8.044	729.077	8.895	728.876	9.073	728.75	10.32	728.099	10.513	728
10.864	728.025	14.078	728.258	14.448	728.316	15.102	728.572	15.497	728.723
15.857	728.873	16.567	729.053	16.719	729.083	17.387	729.244	17.685	729.283
18.028	729.331	18.321	729.383	18.519	729.429	18.703	729.462	18.771	729.475
18.861	729.494	19.049	729.53	19.502	729.618	19.727	729.669	19.949	729.717
20.166	729.758	20.504	729.832	20.745	729.879	20.982	729.928	21.392	730.029
21.455	730.045	21.522	730.06	21.584	730.075	22.09	730.29	22.242	730.355
22.608	730.515	22.675	730.554	22.962	730.607	23.672	730.74	23.966	730.794
25.102	731.008	25.207	731.026	25.813	731.142	25.879	731.152	26.197	731.298
26.362	731.375	26.628	731.496	26.921	731.632	27.499	731.902	28.238	732.028
28.333	732.039	28.949	732.145	29.043	732.157				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	9.073	.06	15.497	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9.073	15.497	6.33	6.673	7.103	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 680

INPUT
Description:
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	729.37	.23	729.34	1.13	729.23	2.39	729.07	4.13	728.83
4.41	728.78	4.89	728.7	6.3	728.48	7.3	728.3	7.86	728.21
8.98	728	9.16	727.84	10	727.11	10.13	727	13.62	727.35
14.2	727.64	14.55	727.81	14.93	728	15.68	728.2	15.84	728.23
16.56	728.41	16.86	728.45	17.24	728.51	17.74	728.62	18.3	728.7
19.03	728.81	19.25	728.85	20.09	728.97	20.34	729	20.84	729.09
20.91	729.1	21.51	729.21	21.67	729.24	22.17	729.34	22.43	729.39
23.18	729.54	23.49	729.6	24.69	729.84	24.8	729.86	25.44	729.99
25.51	730	26.02	730.3	26.3	730.46	26.61	730.64	27.22	731
28	731.13	28.1	731.14	28.75	731.25	28.85	731.26		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	9.16	.06	14.55	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9.16	14.55	6.687	6.68	6.98	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 673.333*

INPUT
Description:
Station Elevation Data num= 87

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	729.003	.219	728.974	1.076	728.866	2.022	728.743	2.178	728.722
2.276	728.709	3.2	728.574	3.612	728.511	3.933	728.464	4.2	728.417
4.601	728.35	4.657	728.341	5.245	728.249	6	728.119	6.501	728.023
6.845	727.963	6.952	727.944	7.09	727.921	7.268	727.891	7.485	727.852

```
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
   8.134 727.721   8.552 727.598   8.723 727.463   9.322 727.016   9.364 726.984
    9.65 726.771   9.793 726.667  12.694  726.88  13.227 726.982  13.473 727.017
  13.633 727.045  13.853 727.137  14.098 727.241  14.234 727.289  14.479 727.374
  14.657 727.447  15.024 727.586  15.215 727.628  15.354 727.664   15.75 727.751
  15.904 727.777  15.998 727.796  16.073 727.816  16.601 727.923  16.891 727.959
  17.071 727.986  17.258  728.01  17.596 728.068  17.742 728.092  18.283 728.154
  18.863 728.224  18.989 728.238  19.202 728.267  19.506   728.3  20.015 728.359
  20.256 728.383   20.74 728.451  20.808 728.458  21.309 728.527  21.388 728.539
  21.448 728.548  21.543 728.561  22.026 728.635  22.278 728.671  22.425 728.694
  22.972 728.776  23.154 728.804  23.303 728.825  23.905 728.913  24.098 728.943
  24.463 728.997   24.57 729.012  24.678 729.028  25.189 729.105  25.256 729.112
  25.364 729.157  25.729 729.312  26.062 729.447   26.32 729.554  26.459 729.613
   26.91   729.8  27.665 729.898  27.761 729.906  27.811 729.912  28.229 729.965
   28.39 729.987  28.487 729.997

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06   8.723     .06  14.657     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         8.723  14.657            6.687    6.68    6.98             .1      .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 666.666*

INPUT
Description:
Station Elevation Data    num=      84
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 728.637    .208 728.609    .464 728.575   1.022 728.502   2.069 728.361
   2.162 728.347    3.04 728.212   3.431 728.146   3.736 728.098    3.99 728.054
    4.37  727.99   4.424 727.981   4.983 727.895   5.699 727.757   6.175 727.662
   6.503 727.607   6.604 727.588   6.735 727.566   6.904 727.536   7.111 727.493
   7.727 727.361   8.124 727.196   8.287 727.087   8.941 726.663   8.987 726.632
     9.3 726.432   9.457 726.333  12.622 726.495  13.204 726.651  13.471 726.698
  13.647  726.74  13.887 726.823  14.154  726.92  14.302 726.954   14.57 727.017
  14.763 727.083  15.118 727.173  15.302 727.204  15.437 727.237  15.819 727.302
  15.969 727.323  16.059 727.338  16.131 727.358  16.641 727.437  16.921 727.468
  17.095 727.493  17.277  727.51  17.603 727.549  17.744 727.565  18.267 727.608
  18.826 727.657  18.949 727.666  19.154 727.684  19.448 727.705  19.939 727.749
  20.173 727.767  20.578 727.806   20.64 727.811  20.705 727.816  21.189 727.858
  21.266 727.867  21.324 727.874  22.267 727.967  22.796 728.018  22.972 728.037
  23.116 728.049  23.698 728.102  23.884 728.122  24.237 728.153   24.34 728.163
  24.444 728.174  24.937  728.22  25.003 728.225  25.107 728.249   25.46 728.336
  25.781 728.408  26.031 728.469  26.164 728.502    26.6   728.6  27.329 728.666
  27.423 728.672  27.875 728.707   28.03 728.725  28.123 728.733

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06   8.287     .06  14.763     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         8.287  14.763            6.687    6.68    6.98             .1      .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 660

INPUT
Description:
Station Elevation Data    num=      53
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  728.27     .44  728.21    1.82  728.02    1.96     728    2.88  727.85
    3.25  727.78    4.14  727.63    4.72  727.54    5.85   727.3    6.16  727.25
    6.38  727.21    6.54  727.18    7.32     727    7.85  726.71    8.56  726.31
    8.61  726.28    9.12     726   12.55  726.11   13.18  726.32   13.47  726.38
   13.92  726.51   14.21   726.6   14.37  726.62   14.66  726.66   14.87  726.72
   15.39  726.78   15.52  726.81   16.12  726.88   16.19   726.9   16.98  726.98
   17.12     727   17.61  727.03   18.79  727.09   19.39  727.11   19.89  727.14
   20.48  727.17   21.07  727.19    21.2   727.2   22.11  727.24   22.62  727.26
   22.79  727.27   23.49  727.29   23.67   727.3   24.01  727.31   24.21  727.32
   24.85  727.34   25.19  727.36    25.5  727.37   25.87  727.39    26.3   727.4
   27.13  727.44   27.52  727.45   27.76  727.47

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06    7.85     .06   14.87     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          7.85   14.87            6.535    5.74   3.805             .1      .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 654.5*

INPUT
Description:
Station Elevation Data    num=      65
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 728.595    .787  728.29   1.396 728.046   1.951 727.874   2.101 727.828
   3.087 727.521   3.484 727.393   3.814 727.334   4.039 727.291   4.438  727.22
    5.06 727.113   6.271 726.872   6.447 726.842   6.603 726.814   7.011 726.736
   7.112 726.714   7.847 726.559   8.415 726.355    8.56 726.261   9.147 725.877
   9.205 725.838   9.735   725.5   12.95 725.594  13.541 725.706  13.813  725.74
  14.234 725.946  14.506 726.085  14.656 726.147  14.928 726.262  15.125  726.36
```

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15.696	726.396	15.839	726.413	16.455	726.453	16.576	726.47	17.444	726.544
17.598	726.56	18.136	726.596	19.433	726.677	20.092	726.713	20.642	726.75
21.29	726.79	21.923	726.825	22.081	726.838	22.529	726.854	23.642	726.9
23.828	726.909	24.097	726.918	24.345	726.932	24.598	726.941	24.795	726.951
24.941	726.957	25.125	726.964	25.389	726.977	25.694	726.989	25.85	726.997
26.092	727.008	26.466	727.031	26.806	727.047	27.213	727.07	27.519	727.083
27.686	727.089	28.598	727.143	28.905	727.159	29.026	727.165	29.29	727.185

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	8.415	.06	15.125	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
8.415	15.125	6.535	5.74	3.805	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 649

INPUT
Description:
Station Elevation Data num= 31

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	728.92	.84	728.41	1.49	728	2.12	727.71	3.73	727
4.07	726.94	4.31	726.89	5.91	726.59	6.88	726.41	7.59	726.27
8.98	726	9.13	725.89	9.74	725.44	10.35	725	14.17	725.1
15.38	726	16.83	726.03	22.79	726.46	23	726.48	23.45	726.49
25.16	726.56	25.43	726.58	26.08	726.61	26.28	726.62	26.9	726.65
27.07	726.66	27.55	726.69	28.89	726.77	29.11	726.78	30.4	726.87
30.82	726.9								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	8.98	.06	15.38	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
8.98	15.38	9.37	9.3	9.165	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 639.5*

INPUT
Description:
Station Elevation Data num= 78

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	727.82	.142	727.776	.591	727.621	1.051	727.461	1.158	727.423
1.507	727.3	1.864	727.171	2.465	726.994	2.632	726.949	2.757	726.912
3.431	726.718	3.781	726.626	4.667	726.405	4.797	726.391	4.939	726.376
5.055	726.363	5.392	726.311	5.822	726.248	5.996	726.225	6.196	726.2
6.38	726.176	6.588	726.15	7.394	726.041	7.496	726.027	7.77	725.992
8.608	725.879	9.403	725.767	9.496	725.753	10.094	725.664	11.043	725.53
11.235	725.5	11.392	725.391	12.028	724.947	12.195	724.833	12.665	724.5
13.857	724.547	14.337	724.626	14.704	724.69	14.88	724.702	15.032	724.713
15.352	724.761	15.592	724.799	15.792	724.811	15.984	724.838	16.144	724.859
16.36	724.871	16.496	724.888	16.608	724.904	17.008	724.918	17.096	724.928
17.472	724.942	17.544	724.948	17.761	724.962	19.375	725.5	20.693	725.518
23.998	725.656	24.087	725.665	25.931	725.793	26.111	725.806	26.22	725.816
26.302	725.823	26.711	725.84	27.031	725.857	28.265	725.925	28.51	725.944
28.943	725.971	29.101	725.98	29.283	725.992	29.676	726.016	29.847	726.024
30.001	726.034	30.438	726.06	30.632	726.071	31.288	726.118	31.656	726.141
31.856	726.152	33.028	726.233	33.41	726.26				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	11.235	.06	19.375	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
11.235	19.375	9.37	9.3	9.165	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 630

INPUT
Description:
Station Elevation Data num= 62

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	726.72	.17	726.7	.71	726.61	1.39	726.49	1.81	726.42
2.96	726.21	3.16	726.18	3.31	726.15	4.12	726	4.54	725.94
5.61	725.81	5.76	725.8	5.93	725.79	6.07	725.78	6.99	725.67
7.2	725.65	7.44	725.63	7.66	725.61	7.91	725.59	9	725.48
9.33	725.45	11.29	725.25	12.04	725.16	12.12	725.15	13.26	725.03
13.31	725.02	13.49	725	14.49	724.34	14.98	724	16.47	724.07
17.07	724.22	17.53	724.34	17.75	724.36	17.94	724.38	18.34	724.47
18.64	724.54	18.89	724.56	19.13	724.61	19.33	724.65	19.6	724.67
19.77	724.7	19.91	724.73	20.41	724.75	20.52	724.77	20.99	724.79
21.08	724.8	23.37	725	27.53	725.02	27.61	725.03	28.38	725.08
28.51	725.09	29.27	725.14	29.53	725.16	30.26	725.21	30.67	725.24
31.37	725.29	31.98	725.34	32.64	725.39	33.5	725.44	34.09	725.49
35.28	725.57	36	725.62						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	13.49	.06	23.37	.06

```
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         13.49   23.37             9.87    9.86    9.92             .1      .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 620.5*

INPUT
Description:
Station Elevation Data    num=     120
      Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
        0  725.42    .122 725.407    .188 725.397    .647 725.332    .875 725.298
    1.266 725.245   1.649 725.201   1.962 725.164   2.449  725.11   2.697 725.081
    2.879 725.062   3.016 725.045   3.646 724.971   3.754 724.959   4.136 724.926
      4.2 724.921   4.821 724.869   5.111 724.848   5.402 724.835   5.452 724.833
     5.53 724.827   6.368 724.742    6.56 724.725   6.979  724.69   7.206 724.672
     7.68 724.629    7.89 724.602   8.199  724.58     8.5  724.56   8.755 724.531
     9.32 724.484    9.83 724.426  10.286 724.391  10.993 724.303  11.415 724.263
   11.791 724.217   12.08 724.183   12.29 724.155  12.525 724.082  12.727 724.018
   13.491 723.739  13.575 723.711   14.13   723.5  15.615 723.543  16.213 723.621
   16.671 723.683   16.89 723.694  17.079 723.705  17.478 723.752  17.777 723.789
   18.026   723.8  18.265 723.827  18.464 723.848  18.733 723.859  18.903 723.875
   19.042 723.897  19.389 723.922  19.541 723.931   19.65 723.946  19.871  723.96
   20.119 723.974  20.208 723.983  20.262 723.987  20.633 724.019  20.985 724.044
   21.406 724.073  22.008 724.119   22.49  724.15  22.754 724.156  23.129 724.166
   23.376 724.172  23.752 724.177  24.119 724.188  24.486 724.194  24.998 724.205
   25.493  724.21   25.66 724.216  25.844 724.221  26.547 724.232   26.73 724.238
   26.938 724.243  27.729 724.264  28.053 724.269   28.16 724.275  28.352 724.285
   28.575 724.295  28.759 724.305   29.19  724.32  29.422 724.336  29.885 724.353
   30.061 724.362  30.548 724.385  30.728 724.397  30.811 724.402  30.979 724.411
   31.274 724.424  31.704 724.449  32.057 724.465  32.193 724.473  32.252 724.477
   32.536 724.493  32.656 724.501  33.007  724.52  33.534 724.551   33.83 724.565
    35.02 724.638  35.475 724.658  35.547 724.664  36.018  724.69  36.521  724.72
   36.826  724.74  36.968 724.749  37.056 724.756  37.535 724.793  38.006 724.825
   38.417 724.858   38.47 724.861  38.605  724.87  39.013 724.901   39.38 724.925

Manning's n Values        num=       3
      Sta   n Val     Sta   n Val     Sta   n Val
        0     .06   12.29     .06   22.49     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         12.29   22.49             9.87    9.86    9.92             .1      .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 611

INPUT
Description:
Station Elevation Data    num=      88
      Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
        0  724.12     .11  724.11     .17   724.1     .79  724.03    1.15     724
     1.33  723.99    1.77  723.97    2.21  723.96    2.73  723.94    3.29  723.92
     3.79  723.91    4.35  723.89    4.92  723.88    6.93  723.72    7.12  723.69
     7.67  723.67     7.9  723.64    8.41  723.61    8.87  723.55    9.32  723.53
     9.92  723.45    10.3  723.42   10.64  723.37   11.09  723.31   11.37  723.29
    11.61  723.27   12.52  723.12   12.62  723.11   13.28     723   18.05  723.05
    18.52   723.1      19  723.14   19.39  723.17   19.76   723.2   20.11  723.22
    20.53  723.24   21.13  723.28   21.61   723.3   21.94  723.31   22.41  723.33
    22.72  723.34   23.19  723.35   23.65  723.37   24.11  723.38   24.75   723.4
    25.37  723.41   25.58  723.42   25.81  723.43   26.69  723.45   26.92  723.46
    27.18  723.47   28.17  723.51   28.71  723.52   28.95  723.53   29.23  723.54
    29.46  723.55   30.06  723.56   30.29  723.58   30.87  723.59   31.09   723.6
     31.7  723.62   32.03  723.64   32.24  723.65   32.61  723.66   33.19  723.69
    33.59   723.7   33.76  723.71   34.19  723.73   34.34  723.74   34.78  723.76
    34.99  723.77   35.44  723.79   35.81   723.8   35.99  723.81   36.76  723.85
     37.3  723.88   37.87   723.9   37.96  723.91   38.55  723.94   39.18  723.97
    39.74     724   39.85  724.01   40.45  724.06   41.04   724.1   41.62  724.15
    41.79  724.16    42.3   724.2   42.76  724.23

Manning's n Values        num=       3
      Sta   n Val     Sta   n Val     Sta   n Val
        0     .06   11.09     .06   21.61     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         11.09   21.61           9.813   9.943  10.887             .1      .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 601.*

INPUT
Description:
Station Elevation Data    num=     139
      Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
        0 723.357    .194 723.339    .416 723.322    .488 723.314    .902 723.282
    1.113  723.27   1.193 723.263   1.313 723.255   1.519 723.246   2.022 723.226
    2.524 723.213   2.762 723.205   3.118 723.194   3.611  723.18   3.723 723.174
    4.329 723.161   4.968 723.142   5.196 723.138   5.619 723.122   7.915 722.957
    8.132 722.931    8.76 722.902   8.952 722.882   9.023 722.874   9.296 722.854
    9.432 722.846   9.606 722.837   9.656 722.833  10.131 722.773  10.409 722.753
   10.617 722.744  11.025 722.694  11.145 722.681  11.418 722.656  11.764 722.633
   12.153 722.591  12.667  722.54  13.167 722.512  13.597 722.486  13.666 722.479
   15.224 722.337  15.403 722.325  16.583 722.217  17.226 722.225  17.485  722.23
   18.034 722.237  18.397 722.246   18.77 722.252  19.288 722.263  19.692 722.269
   20.107 722.278  20.161  722.28  20.563 722.288  20.677 722.292  21.271 722.305
   21.651 722.337  21.733 722.346  22.588 722.406  22.822 722.423  22.952 722.432
```

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
23.296	722.451	23.464	722.459	23.709	722.473	24.298	722.51	24.77	722.53
25.11	722.543	25.326	722.553	25.595	722.566	25.915	722.579	26.4	722.596
26.875	722.619	26.937	722.621	27.163	722.627	28.009	722.659	28.567	722.676
28.649	722.679	28.821	722.689	29.103	722.7	30.011	722.732	30.248	722.744
30.376	722.75	30.771	722.767	31.538	722.803	31.836	722.814	32.095	722.82
32.326	722.83	32.631	722.842	32.869	722.853	33.488	722.873	33.725	722.892
33.786	722.894	34.323	722.908	34.436	722.913	34.55	722.919	35.171	722.946
35.52	722.965	35.737	722.975	35.887	722.979	36.118	722.988	36.707	723.02
37.13	723.034	37.263	723.042	37.749	723.064	37.903	723.073	38.148	723.084
38.357	723.095	38.554	723.106	39.038	723.128	39.42	723.142	39.505	723.146
39.995	723.17	40.24	723.185	40.4	723.192	40.957	723.221	41.22	723.233
41.545	723.246	41.638	723.254	41.757	723.261	42.247	723.285	42.36	723.29
42.671	723.306	42.897	723.32	43.474	723.358	43.588	723.368	43.98	723.401
44.207	723.419	44.593	723.447	44.677	723.454	44.772	723.461	44.867	723.472
45.196	723.496	45.309	723.505	45.414	723.513	45.589	723.526	45.714	723.536
45.855	723.547	46.115	723.569	46.232	723.578	46.59	723.603		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	12.667	.06	24.77	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
12.667	24.77	9.813	9.943	10.887	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 591.*

INPUT
Description:
Station Elevation Data num= 142

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	722.593	.108	722.584	.218	722.578	.468	722.566	.549	722.557
1.015	722.534	1.251	722.525	1.342	722.516	1.477	722.51	2.273	722.482
2.838	722.466	3.106	722.457	4.061	722.435	4.187	722.427	4.868	722.412
5.587	722.394	5.843	722.389	6.319	722.365	8.9	722.193	9.145	722.172
9.851	722.133	10.066	722.116	10.146	722.108	10.453	722.082	10.606	722.073
10.801	722.065	10.858	722.061	11.392	721.997	11.704	721.966	11.938	721.957
12.398	721.902	12.533	721.891	12.741	721.877	12.839	721.868	13.229	721.845
13.665	721.812	14.243	721.77	14.965	721.734	15.583	721.701	15.683	721.695
17.928	721.554	18.186	721.54	19.887	721.433	20.518	721.442	20.772	721.45
21.312	721.458	21.668	721.473	22.035	721.481	22.544	721.496	22.941	721.504
23.348	721.519	23.401	721.521	23.796	721.534	23.908	721.541	24.493	721.56
24.865	721.584	24.946	721.593	25.41	721.619	25.466	721.621	25.786	721.642
26.016	721.656	26.144	721.664	26.482	721.681	26.647	721.689	26.887	721.707
27.278	721.729	27.467	721.739	27.93	721.76	28.095	721.768	28.281	721.776
28.503	721.786	28.781	721.801	29.11	721.818	29.61	721.841	30.099	721.867
30.163	721.87	30.397	721.879	30.588	721.887	31.269	721.919	31.843	721.943
31.928	721.948	32.106	721.959	32.396	721.97	33.332	722.015	33.708	722.035
33.853	722.041	34.116	722.053	34.906	722.097	35.213	722.112	35.48	722.12
35.718	722.13	36.033	722.144	36.915	722.187	37.16	722.204	37.223	722.207
37.777	722.227	37.893	722.232	38.011	722.238	38.651	722.273	39.01	722.29
39.233	722.299	39.389	722.305	39.627	722.316	40.233	722.35	40.669	722.369
40.806	722.376	41.307	722.398	41.467	722.406	41.719	722.417	41.934	722.43
42.137	722.443	42.636	722.467	43.03	722.484	43.118	722.488	43.221	722.493
43.623	722.51	43.875	722.527	44.04	722.534	44.361	722.549	44.614	722.563
45.22	722.592	45.316	722.599	45.943	722.63	46.06	722.635	46.38	722.653
46.613	722.669	47.209	722.715	47.326	722.726	47.73	722.761	47.964	722.779
48.361	722.808	48.449	722.817	48.644	722.835	48.983	722.858	49.099	722.867
49.208	722.877	49.389	722.892	49.517	722.903	49.663	722.913	49.931	722.938
50.051	722.949	50.42	722.977						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	14.243	.06	27.93	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
14.243	27.93	9.813	9.943	10.887	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 581

INPUT
Description:
Station Elevation Data num= 78

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	721.83	.12	721.82	.52	721.81	.61	721.8	1.39	721.78
1.49	721.77	3.45	721.71	4.51	721.69	4.65	721.68	6.49	721.64
11.18	721.35	11.61	721.31	11.78	721.3	12.06	721.29	13	721.18
13.26	721.17	13.77	721.11	13.92	721.1	14.18	721.09	14.26	721.08
15.82	721	23.19	720.65	23.81	720.66	24.06	720.67	24.59	720.68
24.94	720.7	25.3	720.71	25.8	720.73	26.19	720.74	26.59	720.76
27.03	720.78	27.14	720.79	28.08	720.83	28.17	720.84	28.67	720.86
29.21	720.89	29.83	720.92	30.45	720.96	31.09	720.99	31.26	721
31.68	721.02	33.39	721.12	33.63	721.13	35.12	721.21	35.39	721.23
35.7	721.24	37.04	721.32	37.46	721.34	38.59	721.41	39.11	721.43
39.7	721.46	40.66	721.52	41.35	721.55	42.13	721.6	42.89	721.63
43.76	721.68	44.35	721.71	45.29	721.75	45.72	721.78	46.73	721.83
47.25	721.85	47.51	721.87	48.01	721.89	48.55	721.92	49.12	721.95
49.76	721.98	50.09	722	50.34	722.02	51.48	722.12	52.13	722.17
52.22	722.18	52.32	722.19	52.77	722.22	52.89	722.23	53.32	722.27
53.47	722.28	53.87	722.32	54.25	722.35				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	15.82	.06	31.09	.06

```
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         15.82   31.09             6.68    6.79    7.73             .1      .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 574.*

INPUT
Description:
Station Elevation Data    num=     155
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  721.49    .133 721.482      .2 721.479    .291 721.473    .577  721.46
    .677 721.451   1.543 721.412   1.654 721.404   2.247 721.377   2.456 721.369
   2.693 721.361   3.729 721.316   3.793 721.311   5.007 721.267   5.163 721.257
   5.585 721.241   6.331 721.214   7.013 721.192   7.206 721.184   7.459 721.168
   8.269 721.125   8.678 721.104  10.297 721.029  10.515 721.013  11.052 720.988
  11.552 720.969  11.789 720.957   12.28 720.939  12.413 720.932  12.744 720.911
  12.891 720.903  13.079 720.896  13.153 720.894   13.39 720.882  14.434  720.79
  14.723 720.775  15.289 720.725  15.455 720.714  15.744 720.699  15.833 720.691
  17.565  720.59   22.25 720.325  23.147 720.331  23.508 720.336  24.275 720.342
  24.781 720.353  25.301 720.358  26.025 720.369  26.589 720.375  27.803 720.396
  27.962 720.401  29.322 720.423  29.452 720.428  30.175 720.439  31.443 720.463
  31.849 720.485  31.911 720.492   32.33 720.513   32.72 720.534  33.087 720.555
  33.453 720.571  33.675 720.585  33.855 720.594   34.13 720.606    34.3 720.614
  34.556 720.627  34.954 720.653  35.343 720.669  35.674 720.688   36.11 720.714
  36.364 720.723   36.47 720.728  36.783 720.746   37.38 720.771  37.654 720.788
  37.942 720.802  38.228 720.819  38.556  720.83  39.085 720.855  39.312 720.871
  39.568 720.884  39.974 720.903  40.051 720.907  40.307 720.917  40.419 720.922
  40.544 720.929  40.809 720.946  41.255 720.969  41.529 720.982  41.615 720.987
  41.747 720.992  42.032 721.008  42.166 721.013  42.534 721.029  42.723 721.038
  43.045 721.052  43.547 721.082  43.708 721.092  43.807 721.096   44.05 721.105
  44.192 721.113  44.533 721.125  44.665 721.134  45.016 721.149   45.12 721.158
  45.363 721.168  45.471 721.172  45.926 721.185   46.02 721.192  46.168 721.196
   46.74 721.216  46.845 721.223  47.089 721.232  47.603 721.247  47.714 721.252
  48.709  721.29  49.005 721.305  49.164 721.315  49.507 721.333  50.094 721.362
  50.233 721.368  50.644 721.382  50.784  721.39  51.059 721.409  51.241 721.418
  51.589 721.433  51.885 721.448  51.999 721.456   52.16 721.464  52.359 721.475
  52.764 721.498  52.918 721.508  53.441 721.535  53.505 721.542  53.638 721.551
  53.791 721.561  54.055  721.58  54.178  721.59  54.396 721.609  54.538  721.62
  54.699 721.632  55.262 721.679  55.495 721.698   55.76 721.718  55.951 721.734
  56.152 721.753  56.628 721.788  56.755 721.799  57.086  721.83   57.21  721.84
  57.369 721.851  57.617 721.872  57.793 721.888  58.138 721.918  58.195 721.925

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06  17.565     .06  33.675     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        17.565  33.675             6.68    6.79    7.73             .1      .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 567

INPUT
Description:
Station Elevation Data    num=     100
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  721.15     .22  721.14     .32  721.13    1.08  721.08    2.47     721
     2.7  720.99    2.96  720.98     4.1  720.92    4.17  720.91    5.21  720.86
    6.14  720.81    6.96  720.77    7.71  720.74     8.2  720.71    8.66  720.69
    9.09  720.67    9.54  720.65   11.32  720.59   11.56  720.57   12.15  720.55
    12.7  720.54   12.96  720.53    13.5  720.52   14.01   720.5   14.46  720.49
   19.31  720.18   21.31     720   33.34  720.02   33.87  720.05    34.5  720.08
   35.01  720.11   35.49  720.14   35.97  720.16   36.26  720.18   36.74   720.2
   37.19  720.22   37.61  720.25   38.02  720.26   38.37  720.28   38.86  720.31
   39.21  720.32   39.54  720.34   40.17  720.36   40.46  720.38   41.09  720.41
   41.97  720.44   42.21  720.46   42.48  720.47   42.99  720.49   43.26   720.5
   43.51  720.51   43.79  720.53   44.26  720.55   44.55  720.56   44.78  720.57
   45.08  720.59   45.61  720.61   45.81  720.62   46.15  720.63   46.68  720.66
   46.85  720.67   47.21  720.68   47.36  720.69   47.72   720.7   47.86  720.71
   48.23  720.72   48.34  720.73   48.71  720.74   49.19  720.75   49.29  720.76
   50.05  720.77   50.16  720.78   50.96  720.79   52.44  720.84   52.97  720.87
   53.59   720.9   54.17  720.92    54.8  720.96   55.48  720.99    55.6     721
   55.98  721.02   56.46  721.05   56.57  721.06   57.13  721.09   57.19   721.1
   57.33  721.11    57.9  721.15   58.01  721.16   58.13  721.17   58.28  721.18
   58.45  721.19   59.06  721.24   59.29  721.26   59.57  721.28   59.91  721.31
   60.53  721.36   60.97   721.4   61.53  721.44   62.08  721.49   62.14   721.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06  19.31     .06  36.26     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         19.31   36.26             8.45   8.435     8.7             .1      .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 558.5*

INPUT
Description:
Station Elevation Data    num=     169
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  720.78    .213 720.747    .309  720.73   1.036  720.61   1.306 720.597
   1.814 720.567   2.386 720.535   2.608 720.524    2.86 720.512   2.954 720.507
   3.596 720.475   3.772 720.465   3.961 720.458   4.029 720.452   4.156 720.447
```

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
4.705	720.423	5.203	720.4	5.932	720.372	6.156	720.364	6.724	720.335
7.11	720.317	7.448	720.304	7.69	720.292	7.922	720.281	8.343	720.266
8.447	720.258	8.561	720.25	9.162	720.226	9.307	720.218	9.877	720.203
10.043	720.191	10.582	720.176	10.768	720.163	10.936	720.157	11.168	720.142
11.738	720.12	11.97	720.113	12.198	720.101	12.269	720.099	12.52	720.091
12.654	720.089	12.913	720.071	13.042	720.068	13.338	720.059	13.535	720.045
13.629	720.039	13.97	720.029	14.52	720.002	14.82	719.977	15.453	719.946
15.774	719.92	15.846	719.913	16.323	719.892	16.655	719.861	17.132	719.84
17.36	719.828	17.795	719.808	17.971	719.798	18.313	719.781	18.489	719.771
18.655	719.76	21.4	719.509	21.515	719.5	32.348	719.513	33.372	719.544
33.875	719.554	34.791	719.575	34.899	719.58	35.016	719.585	35.082	719.586
35.68	719.614	36.354	719.644	36.534	719.654	36.965	719.676	37.135	719.685
37.507	719.706	37.656	719.713	38.048	719.728	38.15	719.733	38.375	719.75
38.824	719.768	38.933	719.773	39.234	719.785	39.638	719.808	39.76	719.812
40.022	719.823	40.104	719.828	40.349	719.84	40.808	719.864	41.113	719.875
41.444	719.894	41.962	719.914	42.033	719.917	42.305	719.933	42.38	719.937
42.894	719.962	43.669	719.994	43.942	720.011	44.152	720.019	44.517	720.037
44.672	720.043	44.925	720.054	45.159	720.063	45.301	720.07	45.421	720.079
45.774	720.098	46.085	720.109	46.347	720.123	46.579	720.138	47.095	720.159
47.311	720.169	47.61	720.18	48.125	720.208	48.284	720.218	48.362	720.221
48.621	720.229	48.684	720.232	48.761	720.237	49.098	720.253	49.229	720.262
49.328	720.266	49.575	720.275	49.678	720.283	50.015	720.295	50.23	720.302
50.473	720.312	50.567	720.32	50.939	720.333	51.278	720.343	51.381	720.35
52.129	720.373	52.625	720.394	53.398	720.423	53.514	720.429	54.193	720.47
54.59	720.491	54.901	720.506	55.133	720.516	55.664	720.548	55.722	720.552
55.782	720.556	56.358	720.583	56.426	720.588	56.577	720.598	56.826	720.612
57.275	720.64	57.378	720.648	57.811	720.672	57.902	720.678	57.958	720.685
58.089	720.693	58.623	720.728	58.726	720.736	58.838	720.744	58.978	720.753
59.137	720.762	59.24	720.77	59.444	720.783	59.669	720.803	59.923	720.822
60.185	720.839	60.614	720.87	60.883	720.886	61.183	720.91	61.495	720.933
61.989	720.964	62.311	720.989	62.534	721.008	62.59	721.015		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	18.655	.06	38.375	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
18.655	38.375	8.45	8.435	8.7	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 550

INPUT
Description:
Station Elevation Data num= 108

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	720.41	1	720.14	1.26	720.13	1.75	720.1	2.85	720.04
3.47	720.01	3.64	720	4.01	719.99	4.54	719.97	5.02	719.95
5.94	719.93	6.86	719.88	7.42	719.86	8.05	719.84	8.15	719.83
8.26	719.82	8.84	719.8	8.98	719.79	9.53	719.78	9.69	719.76
10.21	719.75	10.39	719.73	10.88	719.71	11.08	719.7	11.55	719.68
11.77	719.66	12.21	719.65	12.46	719.62	12.87	719.61	13.15	719.58
13.74	719.56	14.01	719.55	14.3	719.52	14.91	719.5	15.22	719.47
15.29	719.46	15.75	719.45	16.07	719.41	16.53	719.4	16.75	719.39
17.17	719.38	17.34	719.37	17.67	719.36	17.84	719.35	18	719.34
21.57	719.01	21.72	719	33.78	719.01	34.32	719.04	34.92	719.07
35.48	719.09	36.5	719.13	36.62	719.14	36.75	719.15	37.53	719.18
38.24	719.21	38.44	719.22	39.11	719.25	39.69	719.28	40.24	719.3
40.49	719.32	41.01	719.34	41.29	719.35	41.78	719.37	42.1	719.39
43.04	719.43	43.39	719.45	43.83	719.47	44.22	719.49	45.04	719.53
45.42	719.55	45.87	719.57	46.21	719.59	46.63	719.61	46.94	719.62
47.38	719.65	47.67	719.66	48.13	719.69	48.38	719.7	48.61	719.71
49.09	719.73	49.29	719.74	49.79	719.77	50.09	719.78	50.69	719.82
51.33	719.85	51.53	719.86	52.19	719.9	53	719.94	53.76	719.98
54.48	720.01	55.22	720.06	55.88	720.1	56.59	720.14	56.7	720.15
57.3	720.18	57.44	720.19	58.59	720.26	58.74	720.27	59.92	720.34
60.11	720.35	60.32	720.37	61.2	720.42	61.45	720.43	61.73	720.45
62.48	720.49	62.78	720.51	63.04	720.53				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	18	.06	40.49	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
18	40.49	8.895	8.435	5.8	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 541.5*

INPUT
Description:
Station Elevation Data num= 174

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	720.375	.228	720.33	.455	720.289	.693	720.243	.94	720.199
1.011	720.186	1.207	720.171	1.274	720.166	1.769	720.126	2.117	720.096
2.483	720.066	2.879	720.035	3.314	720	3.508	719.985	3.679	719.971
4.053	719.946	4.343	719.925	5.074	719.866	5.6	719.829	6.004	719.799
6.372	719.765	6.934	719.719	7.272	719.694	7.5	719.676	8.137	719.627
8.331	719.606	8.936	719.557	9.077	719.543	9.528	719.511	9.633	719.503
9.795	719.483	10.321	719.444	10.503	719.422	10.992	719.38	11.2	719.363
11.428	719.345	11.675	719.328	11.898	719.307	12.249	719.286	12.342	719.281
12.595	719.255	13.009	719.233	13.292	719.206	13.535	719.186	13.889	719.165
14.162	719.148	14.455	719.12	14.811	719.094	15.072	719.076	15.385	719.045
15.456	719.036	15.573	719.029	15.921	719.011	16.196	718.983	16.365	718.969
16.709	718.953	16.931	718.94	17.356	718.92	17.528	718.909	17.861	718.892
18.033	718.881	18.195	718.87	18.424	718.854	18.643	718.838	18.85	718.817

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19.047	718.802	19.222	718.789	19.659	718.752	19.921	718.729	20.325	718.703
20.511	718.684	21.487	718.604	21.625	718.595	27.794	718.643	28.142	718.638
28.448	718.633	32.766	718.623	33.265	718.637	33.819	718.65	33.897	718.651
34.039	718.659	34.191	718.667	34.337	718.671	34.736	718.683	34.9	718.692
35.279	718.703	35.39	718.709	35.477	718.714	35.663	718.723	36.066	718.737
36.231	718.744	36.469	718.755	36.872	718.77	37.071	718.779	37.494	718.795
37.733	718.806	38.115	718.822	38.226	718.828	38.594	718.847	38.734	718.852
38.965	718.865	39.782	718.902	39.885	718.907	40.283	718.927	40.532	718.943
40.874	718.956	41.57	718.993	41.638	718.997	41.928	719.01	43.117	719.073
43.371	719.089	43.548	719.098	43.614	719.102	44.002	719.122	44.462	719.144
44.693	719.157	44.809	719.164	45.238	719.187	45.555	719.202	45.976	719.229
46.142	719.237	46.299	719.245	46.771	719.273	47.026	719.286	47.261	719.297
47.543	719.311	47.631	719.318	47.752	719.323	47.956	719.334	48.467	719.364
48.774	719.377	49.041	719.394	49.246	719.405	49.387	719.414	50.041	719.447
50.245	719.457	50.919	719.496	51.254	719.513	51.747	719.536	51.929	719.545
52.164	719.556	52.523	719.576	52.82	719.591	53.259	719.611	53.437	719.621
54.005	719.65	54.397	719.676	54.689	719.691	54.877	719.7	55.327	719.723
55.415	719.727	55.527	719.735	55.758	719.746	56.14	719.766	56.267	719.774
56.678	719.797	57.07	719.818	57.458	719.842	57.612	719.852	57.697	719.857
58.421	719.898	58.817	719.923	59.011	719.934	59.185	719.948	60.125	720.005
60.38	720.018	60.438	720.022	60.667	720.034	60.722	720.036	60.996	720.054
61.241	720.065	61.433	720.076	61.739	720.096	62.005	720.115		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	18.195	.06	38.965	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
18.195	38.965	8.895	8.435	5.8	.1 .3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 533

INPUT
Description:
Station Elevation Data num= 102

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	720.34	.23	720.31	.46	720.29	.7	720.26	.95	720.24
1.22	720.21	1.5	720.18	1.81	720.15	2.14	720.11	2.51	720.07
2.91	720.03	3.35	719.98	3.84	719.93	4.39	719.87	5.66	719.72
6.44	719.62	7.35	719.52	8.42	719.39	9.63	719.24	11.11	719.05
11.55	719	12.38	718.92	13.46	718.83	13.68	718.8	14.61	718.72
14.97	718.68	15.74	718.6	16.37	718.55	16.54	718.53	18.39	718.4
18.6	718.39	18.8	718.38	18.99	718.36	19.17	718.35	19.33	718.34
19.47	718.33	19.73	718.31	19.97	718.29	20.34	718.28	20.43	718.27
20.51	718.26	21.53	718.19	27.19	718.28	27.51	718.27	27.79	718.26
32.79	718.23	32.92	718.24	33.06	718.25	33.56	718.26	33.71	718.27
34.24	718.28	34.41	718.29	34.78	718.3	34.96	718.31	35.15	718.32
35.52	718.33	35.73	718.34	36.09	718.35	36.31	718.36	36.66	718.37
37.1	718.4	37.44	718.41	38.38	718.46	39.04	718.5	39.39	718.51
40.17	718.56	40.49	718.57	40.79	718.59	41.68	718.64	41.94	718.66
42.12	718.67	43.29	718.73	43.44	718.74	44.6	718.81	44.77	718.82
44.93	718.83	46.2	718.9	46.29	718.91	47.73	718.99	47.94	719
49.99	719.11	50.68	719.14	50.92	719.15	51.59	719.19	52.22	719.22
52.8	719.24	53.2	719.27	53.69	719.29	54.15	719.31	54.59	719.33
55.11	719.36	55.53	719.38	55.93	719.4	56.57	719.44	57.31	719.48
58.09	719.53	58.43	719.55	59.37	719.61	59.66	719.62	59.94	719.64
60.19	719.65	60.97	719.7						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	18.39	.06	37.44	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
18.39	37.44	10.12	8.39	3.105	.1 .3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 525.*

INPUT
Description:
Station Elevation Data num= 140

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	719.755	.304	719.73	.587	719.711	.926	719.679	1.257	719.654
1.984	719.591	2.394	719.564	2.831	719.531	3.32	719.497	3.849	719.462
4.431	719.42	5.079	719.376	5.289	719.361	5.807	719.326	7.487	719.205
8.392	719.136	8.518	719.126	9.212	719.076	9.722	719.041	9.92	719.026
10.539	718.983	12.738	718.82	13.449	718.766	13.891	718.729	14.277	718.7
14.614	718.674	14.912	718.656	15.04	718.645	15.278	718.632	16.093	718.59
16.375	718.575	17.573	718.522	17.741	718.512	17.804	718.509	18.095	718.49
18.401	718.475	18.819	718.456	19.228	718.433	19.325	718.429	19.801	718.403
20.056	718.39	20.82	718.337	21.653	718.287	21.712	718.282	21.878	718.27
22.066	718.26	22.983	718.231	23.296	718.197	23.963	718.135	24.325	718.1
24.398	718.104	24.6	718.082	24.681	718.073	24.762	718.077	24.862	718.068
25.029	718.048	25.11	718.042	25.555	718.016	26.079	717.982	26.393	717.961
26.877	717.938	26.995	717.929	27.1	717.92	27.788	717.877	28.314	717.843
28.435	717.835	28.767	717.843	32.978	717.925	33.46	717.919	37.473	717.942
37.577	717.948	37.689	717.954	38.091	717.963	38.211	717.969	38.637	717.978
38.773	717.984	38.858	717.986	39.07	717.997	39.214	718.007	39.367	718.017
39.468	718.022	39.664	718.03	39.832	718.038	40.121	718.05	40.298	718.059
40.579	718.072	40.932	718.097	41.205	718.11	41.893	718.149	42.121	718.166
42.592	718.2	42.764	718.212	43.104	718.232	43.712	718.275	43.864	718.283
44.176	718.295	44.468	718.311	45.335	718.355	45.588	718.37	45.764	718.379
46.903	718.434	47.049	718.442	48.179	718.501	48.345	718.51	49.738	718.58
49.826	718.587	51.228	718.657	51.433	718.666	52.064	718.697	52.259	718.708
53.43	718.749	53.523	718.752	54.102	718.773	54.336	718.782	54.92	718.808

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
54.988	718.813	55.146	718.824	55.602	718.842	56.167	718.86	56.461	718.876
56.556	718.884	56.697	718.893	57.034	718.908	57.334	718.922	57.591	718.943
57.868	718.964	58.417	718.997	58.516	719.002	59.216	719.074	59.839	719.124
60.56	719.204	60.889	719.241	61.022	719.255	61.32	719.272	61.651	719.289
62.566	719.34	62.849	719.351	63.122	719.367	63.365	719.378	64.125	719.42

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	24.325	.06	41.205	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
24.325	41.205	10.12	8.39	3.105	.1 .3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 517

INPUT
Description:
Station Elevation Data num= 63

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	719.17	.73	719.13	2.49	719	6.58	718.81	10.44	718.64
11.46	718.59	12.34	718.55	13.11	718.52	16.73	718.36	17.28	718.33
17.76	718.31	18.18	718.29	18.55	718.28	18.71	718.27	20.02	718.24
20.4	718.23	21.86	718.2	22.07	718.19	22.89	718.17	23.41	718.16
23.92	718.14	24.95	718.12	27.01	718.02	27.45	718	28.59	717.99
28.98	717.94	29.81	717.85	30.26	717.8	30.35	717.81	30.7	717.76
30.8	717.77	31.13	717.73	34.54	717.53	35.19	717.49	35.34	717.48
35.59	717.49	43.2	717.68	43.66	717.72	44.31	717.76	44.97	717.81
45.64	717.85	45.73	717.86	46.32	717.91	47.01	717.97	47.41	718
55.54	718.36	55.73	718.37	56.25	718.38	56.96	718.39	58.32	718.43
58.54	718.45	59.82	718.49	60.05	718.51	60.67	718.54	60.92	718.57
61.19	718.6	61.82	718.64	62.52	718.75	63.12	718.81	63.58	718.89
64.13	718.98	64.26	719	67.28	719.14				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	30.26	.06	44.97	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
30.26	44.97	9.695	8.665	8.4	.1 .3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 508.*

INPUT
Description:
Station Elevation Data num= 160

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	718.755	.743	718.737	1.513	718.712	2.536	718.671	2.849	718.663
3.153	718.651	4.283	718.615	4.961	718.595	5.314	718.582	5.835	718.565
6.984	718.524	7.534	718.507	7.957	718.493	8.094	718.485	8.517	718.471
12.566	718.315	13.35	718.288	13.517	718.281	14.175	718.252	14.656	718.232
15.52	718.148	15.825	718.121	16.493	718.057	17.014	718.005	17.597	717.949
17.868	717.924	18.086	717.905	18.359	717.879	18.513	717.862	18.723	717.842
18.89	717.829	19.053	717.812	20.255	717.716	20.387	717.708	20.442	717.704
20.579	717.693	20.687	717.681	20.774	717.674	21.68	717.606	22.259	717.565
22.446	717.551	22.514	717.545	23.31	717.489	23.839	717.453	23.9	717.449
24.135	717.439	24.359	717.429	25.078	717.403	25.206	717.397	25.408	717.391
25.481	717.388	25.638	717.38	26.375	717.337	26.729	717.319	26.964	717.308
27.21	717.292	27.505	717.276	27.868	717.257	27.953	717.25	28.143	717.239
28.438	717.228	28.988	717.211	29.114	717.204	29.302	717.183	29.512	717.164
29.646	717.153	30.088	717.114	30.357	717.089	30.442	717.08	30.815	717.045
30.922	717.046	31.177	717.02	31.339	717.003	31.459	717.004	31.797	716.973
31.852	716.969	31.986	716.962	32.365	716.937	32.512	716.929	33.304	716.889
33.408	716.882	33.873	716.865	33.942	716.859	34.519	716.849	34.717	716.84
35.053	716.836	36.691	716.75	36.87	716.74	37.135	716.747	44.449	716.876
44.525	716.882	44.685	716.889	45.216	716.918	45.704	716.959	45.895	716.971
46.093	716.986	46.394	717.007	47.095	717.06	47.361	717.077	47.864	717.112
47.968	717.122	48.149	717.137	48.477	717.159	48.645	717.172	48.946	717.196
49.318	717.22	49.437	717.231	49.734	717.255	49.896	717.267	50.098	717.279
50.797	717.312	51.125	717.334	51.896	717.374	52.099	717.387	52.852	717.422
53.029	717.43	53.189	717.443	53.463	717.454	54.092	717.486	54.234	717.494
54.438	717.503	56.209	717.587	57.157	717.635	57.29	717.643	58.972	717.735
59.158	717.744	59.231	717.748	59.449	717.761	59.973	717.784	60.046	717.787
60.274	717.796	60.861	717.823	61.045	717.832	62.423	717.897	62.675	717.917
62.87	717.928	63.499	717.956	64.145	717.988	64.409	718.008	64.854	718.034
65.121	718.048	65.341	718.067	65.408	718.072	65.718	718.099	66.441	718.145
66.705	718.173	67.041	718.206	67.245	718.227	67.934	718.282	68.166	718.308
68.414	718.331	69.093	718.403	69.243	718.418	69.734	718.445	69.876	718.453
70.407	718.484	71.559	718.547	71.621	718.553	72.161	718.584	72.71	718.62

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	30.815	.06	47.095	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
30.815	47.095	9.695	8.665	8.4	.1 .3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 499

INPUT
Description:

Station Elevation Data num= 118

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	718.34	1.54	718.35	2.9	718.34	3.21	718.33	3.86	718.32
4.36	718.31	5.05	718.3	5.41	718.29	5.94	718.28	7.11	718.25
7.67	718.24	8.1	718.23	8.24	718.22	8.67	718.21	13.76	718.05
14.43	718.02	14.92	718	15.13	717.97	15.8	717.87	16.11	717.83
16.79	717.73	17.32	717.65	18.19	717.53	18.69	717.46	19.06	717.4
20.62	717.19	20.81	717.17	20.95	717.15	21.06	717.13	22.07	717
22.66	716.93	22.85	716.91	22.92	716.9	24.33	716.74	24.57	716.73
25.53	716.68	25.66	716.67	25.94	716.66	26.1	716.65	26.85	716.6
27.21	716.58	27.45	716.57	27.7	716.55	28.37	716.51	28.65	716.48
28.95	716.46	29.51	716.43	29.83	716.4	30.18	716.38	30.63	716.35
30.99	716.32	31.37	716.29	31.79	716.26	32.51	716.21	32.73	716.2
33.17	716.17	33.34	716.16	34.26	716.12	34.38	716.11	34.92	716.1
35	716.09	35.67	716.1	35.9	716.09	36.29	716.1	38.4	716
46.42	716.09	46.5	716.1	46.67	716.11	47.77	716.2	47.95	716.21
48.16	716.23	49.22	716.31	49.52	716.33	50.41	716.4	50.78	716.42
51.31	716.46	51.73	716.48	52.2	716.52	52.61	716.55	53.4	716.59
53.77	716.62	54.64	716.67	54.87	716.69	55.72	716.73	55.92	716.74
56.1	716.76	56.41	716.77	57.12	716.81	57.28	716.82	57.51	716.83
58.49	716.88	59.51	716.93	60.58	716.99	60.73	717	62.63	717.12
62.84	717.13	63.76	717.19	64.1	717.21	64.97	717.27	66.31	717.35
67.03	717.4	67.74	717.44	68.38	717.48	69.27	717.54	69.82	717.57
70.92	717.64	71.36	717.67	71.74	717.69	73.01	717.77	73.29	717.78
74.78	717.87	74.94	717.88	75.54	717.92	76.21	717.96	76.84	718
76.91	718.01	77.52	718.05	78.14	718.1				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	31.37	.06	49.22	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
31.37	49.22	6.383	8.215	8.833	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 490.75*

INPUT
Description:
Station Elevation Data num= 220

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	717.932	1.773	717.861	2.633	717.818	3.329	717.785	3.695	717.761
3.997	717.745	4.443	717.729	5.018	717.706	5.453	717.691	5.604	717.687
5.813	717.679	6.227	717.661	6.544	717.649	7.097	717.631	7.929	717.594
8.184	717.585	8.338	717.581	9.013	717.555	9.323	717.544	9.484	717.533
9.979	717.512	10.053	717.508	10.641	717.484	11.337	717.457	11.711	717.44
12.486	717.409	12.737	717.396	13.583	717.364	13.72	717.356	15.011	717.307
15.097	717.303	15.564	717.286	15.838	717.275	16.088	717.258	16.609	717.24
16.705	717.235	17.173	717.22	17.415	717.196	18.186	717.116	18.543	717.084
18.865	717.052	19.589	716.977	19.869	716.947	19.936	716.94	20.228	716.911
20.867	716.851	20.937	716.845	21.513	716.788	21.938	716.74	22.295	716.706
22.754	716.661	23.464	716.594	23.715	716.569	23.909	716.553	24.114	716.533
24.232	716.518	24.727	716.474	24.914	716.456	25.251	716.425	25.403	716.41
26.082	716.349	26.22	716.336	26.301	716.332	26.381	716.324	26.607	716.306
26.808	716.288	26.995	716.272	27.411	716.239	28.004	716.188	28.281	716.179
28.659	716.162	29.327	716.137	29.386	716.134	29.513	716.126	29.857	716.116
30.023	716.108	30.209	716.098	30.381	716.088	30.905	716.063	31.319	716.047
31.596	716.039	31.883	716.023	32.654	715.991	32.977	715.968	33.166	715.959
33.322	715.952	33.967	715.929	34.335	715.906	34.738	715.89	34.823	715.886
34.924	715.884	35.256	715.868	35.411	715.859	35.612	715.851	35.67	715.847
36.108	715.823	36.499	715.797	37.17	715.755	37.375	715.746	37.785	715.721
37.943	715.712	38.8	715.677	38.912	715.668	39.415	715.657	39.49	715.649
40.114	715.653	40.328	715.644	40.692	715.649	41.696	715.602	41.824	715.599
42.658	715.562	46.55	715.609	46.804	715.614	47.089	715.619	47.389	715.625
47.737	715.63	48.355	715.641	49.801	715.664	49.872	715.672	50.024	715.681
51.003	715.754	51.164	715.763	51.351	715.779	52.295	715.845	52.629	715.864
52.739	715.871	53.35	715.906	53.621	715.923	54.033	715.94	54.367	715.959
54.551	715.971	54.624	715.975	54.964	715.988	55.092	715.994	55.616	716.03
56.05	716.056	56.447	716.073	56.692	716.086	56.953	716.098	57.365	716.126
57.457	716.131	57.732	716.147	58.334	716.177	58.558	716.193	58.673	716.2
58.933	716.211	59.04	716.217	59.538	716.238	59.682	716.245	59.761	716.248
59.961	716.264	60.049	716.267	60.133	716.271	60.307	716.277	60.416	716.282
60.783	716.301	61.082	716.314	61.276	716.324	61.449	716.33	61.51	716.334
61.816	716.347	62.076	716.359	62.221	716.366	62.282	716.371	62.624	716.388
62.733	716.394	63.761	716.447	63.85	716.459	64.416	716.487	64.928	716.517
65.012	716.523	65.12	716.53	65.502	716.554	65.639	716.565	66.106	716.594
66.305	716.61	66.74	716.639	67.138	716.663	67.238	716.672	67.421	716.686
67.472	716.689	67.788	716.709	68.155	716.74	68.476	716.762	68.875	716.794
68.958	716.801	69.226	716.821	69.838	716.875	70.006	716.886	70.159	716.898
70.908	716.96	70.977	716.965	71.338	716.996	71.688	717.029	72.093	717.058
73.462	717.152	74.204	717.205	74.636	717.238	75.249	717.278	75.389	717.289
76.208	717.346	76.475	717.365	76.965	717.402	77.389	717.43	78.494	717.509
78.8	717.53	79.116	717.547	80.36	717.636	80.776	717.663	80.954	717.675
81.561	717.717	81.623	717.722	81.714	717.729	81.92	717.742	82.195	717.76
82.593	717.79	83.071	717.822	83.149	717.832	83.829	717.88	84.52	717.935

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	36.108	.06	52.295	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
36.108	52.295	6.383	8.215	8.833	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 482.5*

INPUT

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Description:
Station Elevation Data    num=     224
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 717.525   2.005 717.372   2.979 717.292   3.766  717.23    4.18 717.192
   4.521 717.163   5.026 717.137   5.677 717.102   6.169 717.077   6.339 717.071
   6.575 717.059   7.044 717.032   7.403 717.012   7.687     717   8.028 716.987
   8.969 716.933   9.432 716.914   9.987 716.885  10.195 716.873  10.547 716.858
  10.729 716.846  11.372 716.809  12.038 716.776  12.825 716.741  13.247 716.716
  14.124 716.676  14.408 716.657  15.366 716.616   15.52 716.604   16.21 716.576
  16.981 716.541  17.078 716.535  17.606 716.514  17.916   716.5  18.198 716.482
  18.788 716.461  18.896 716.453  19.426  716.44    19.7 716.422  20.572 716.363
  20.976 716.339  21.861 716.279   22.16 716.258  22.476 716.234  22.551 716.229
  22.882 716.208  23.604 716.164  23.684 716.159  24.335 716.116  24.817  716.08
   25.22 716.054  25.463 716.037  25.739 716.017  26.543 715.966  26.827 715.946
  27.278 715.917  27.411 715.906  27.971 715.873  28.182 715.857  28.564 715.833
  28.736 715.821  29.441 715.773  29.504 715.769  29.556 715.762   29.66 715.757
  29.752 715.754  29.843 715.748  30.098 715.734  30.536 715.705  31.007 715.679
  31.218 715.665  31.454  715.65  31.679 715.637  31.991 715.628  32.192 715.621
   32.42 715.611  33.174 715.591  33.241 715.588  33.385 715.581  33.775 715.572
  33.962 715.566  34.368 715.545   34.96 715.525  35.429 715.513  35.741 715.507
  36.067 715.496  36.939 715.472  37.303 715.456  37.694 715.445  38.423 715.428
   38.84 715.411  39.296   715.4  39.392 715.398  39.506   715.4  39.881 715.387
  40.058 715.379  40.285 715.377   40.35 715.374  40.845 715.355  41.829 715.301
  42.019 715.293  42.399 715.272  42.546 715.265   43.34 715.233  43.444 715.227
   43.91 715.215  43.979 715.209  44.558 715.205  44.756 715.197  45.093 715.197
  45.596 715.176  46.024 715.154  46.143 715.156  46.915 715.125   50.33  715.17
  51.066  715.19  51.372 715.197  51.913 715.211  53.182 715.238  53.245 715.244
  53.377 715.251  54.237 715.309  54.378 715.316  54.542 715.328   55.37  715.38
  55.859 715.404  56.534  715.43  56.744 715.442  56.832 715.446  57.287 715.461
  57.655 715.476  57.857 715.488  57.938 715.491  58.313 715.502  58.454 715.508
  58.582 715.514  59.031  715.54   59.51 715.564  59.948 715.578  60.218 715.594
  60.505 715.607   60.96 715.633  61.061 715.637  61.365 715.654  62.029 715.685
  62.311 715.701  62.402 715.707  62.688 715.717  62.807 715.724  63.102 715.735
  63.515 715.753  63.601 715.756  63.823 715.769  63.919 715.771  64.012 715.777
  64.203 715.783  64.324 715.788  64.729 715.807  65.058  715.82  65.272 715.828
  65.462 715.833   65.53  715.84  65.867 715.851  66.154 715.862  66.314 715.871
  66.381 715.877  66.879 715.902   67.41 715.933  68.012 715.964   68.11 715.976
  68.734 716.008  69.299 716.044  69.391 716.052  69.511 716.059  69.931 716.086
  70.083   716.1  70.597 716.133  70.816 716.154  71.297 716.186  71.735 716.212
  71.845 716.224  72.047 716.244  72.103 716.247  72.452 716.269  72.857  716.31
  73.211 716.334  73.651 716.378  73.742 716.388  74.037 716.411  74.712  716.48
  74.897 716.494  75.066 716.508  75.892 716.594  75.968   716.6  76.366 716.643
  76.752 716.686  77.199 716.719  77.251 716.723  78.123 716.789  78.708 716.835
  78.909  716.85  79.526 716.897  80.003 716.936  80.678 716.987  80.833 716.999
  81.735 717.067   82.57 717.135  83.037  717.17  83.775 717.229  84.256 717.266
  84.593  717.29  84.941 717.314  86.313 717.424  87.637 717.518  87.706 717.524
  87.806 717.532  88.033 717.548  88.337  717.57  88.529 717.586  88.775 717.606
  89.303 717.645  89.389 717.654  90.138 717.709    90.9  717.77

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06  40.845     .06   55.37     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        40.845   55.37            6.383   8.215   8.833             .1       .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 474.25*

INPUT
Description:
Station Elevation Data    num=     216
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 717.118   2.238 716.883   3.324 716.766   4.203 716.675   4.664 716.623
   5.046 716.581   5.609 716.546   6.884 716.464   7.075 716.456   8.261 716.376
   8.578  716.36   8.631 716.358   8.959 716.344   10.01 716.271  10.526 716.247
  11.378 716.192   11.77 716.172  11.973  716.16  12.598 716.116  12.691 716.109
  13.434 716.068  14.312 716.026  14.784 715.993  15.762 715.943  16.079 715.919
  17.148 715.868   17.32 715.852   18.09 715.818   18.95 715.776  19.059 715.768
  19.648 715.742  19.994 715.724  20.309 715.706  20.968 715.681  21.088 715.672
   21.68 715.659  21.985 715.648  22.958 715.609  23.409 715.593  23.815 715.577
   24.73 715.539  25.083 715.522  25.167 715.519  25.536 715.504  26.431 715.474
  27.158 715.444  27.695  715.42  28.145 715.402  28.417 715.388  28.725 715.374
  29.621 715.338  30.183 715.311  30.238 715.309  30.442   715.3  30.591 715.293
  31.216 715.271  31.451 715.259  31.877 715.242  32.069 715.231  32.855 715.191
  32.926 715.188  32.984 715.183    33.1 715.179  33.202 715.176  33.304 715.172
  33.589 715.162  33.843  715.15  34.078 715.137  34.604  715.12  35.102 715.095
  35.353 715.085  35.702 715.077  35.926  715.07   36.18 715.061  37.022 715.046
  37.097 715.043  37.258 715.035  37.901 715.023  38.136 715.013  38.354 715.003
  39.015 714.988  41.223 714.953   41.63 714.944  42.066 714.937   42.88 714.926
  43.345 714.917  43.853  714.91  43.961 714.909  44.088 714.915  44.507 714.905
  44.704   714.9  44.957 714.904  45.583 714.887  46.489 714.846  46.664 714.839
  47.149 714.817  47.881  714.79  47.976 714.785  48.405 714.772  48.469 714.768
  49.002 714.758  49.185 714.751  49.495 714.746  49.958 714.728  50.352 714.707
  50.461 714.713  51.173 714.688   54.11  714.73  54.301 714.738  54.516 714.746
  54.743 714.755  55.472  714.78  56.563 714.813  56.617 714.816  56.731 714.822
   57.47 714.863  57.591 714.868  57.733 714.877  58.445 714.915  58.848 714.931
   58.98 714.937  59.717 714.955  59.947 714.966  60.043 714.969   60.54 714.981
  60.942 714.993  61.164 715.004  61.252 715.006  61.661 715.016  61.816 715.021
  61.956 715.027   62.97 715.072  63.449 715.084  63.744 715.102  64.058 715.115
  64.555 715.139  64.666 715.144  64.997 715.162  65.723 715.192  65.993 715.204
  66.131 715.213  66.444 715.224  66.573 715.232  66.896 715.243  67.173 715.254
  67.347 715.262  67.442 715.264  67.684 715.273   67.79 715.276  67.891 715.284
    68.1  715.29  68.232 715.294  68.674 715.314  69.034 715.325  69.476 715.337
   69.55 715.345  69.919 715.356  70.232 715.366  70.407 715.375  70.481 715.384
  70.893 715.405  71.024 715.411  71.605 715.447  72.263 715.481  72.317 715.487
   72.37 715.493  73.052 715.529  73.669 715.572  73.771 715.581  73.901 715.589
  74.361 715.618  74.526 715.635  75.089 715.672  75.328 715.697  75.853 715.733
  76.333 715.761  76.453 715.776  76.674 715.802  76.735 715.806  77.116  715.83
  77.558  715.88  77.945 715.907  78.426 715.962  78.526 715.974  78.849     716
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Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
79.586	716.085	79.789	716.102	79.973	716.119	80.876	716.227	80.959	716.235
81.816	716.343	82.304	716.379	82.361	716.384	83.954	716.517	84.174	716.535
84.848	716.589	86.276	716.709	87.263	716.789	87.585	716.816	88.176	716.868
88.686	716.91	89.493	716.979	90.018	717.023	90.387	717.05	90.767	717.081
92.267	717.212	93.714	717.319	93.789	717.326	93.898	717.336	94.147	717.354
94.478	717.38	94.958	717.423	95.534	717.467	95.628	717.476	96.447	717.539
97.28	717.605								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	45.583	.06	58.445	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
45.583	58.445	6.382	8.215	8.833	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 466

INPUT
Description:
Station Elevation Data num= 147

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	716.71	3.67	716.24	4.64	716.12	5.57	716	7.6	715.85
7.81	715.84	9.12	715.74	9.47	715.72	9.89	715.7	11.05	715.61
11.62	715.58	12.56	715.51	13.27	715.47	14.01	715.41	14.83	715.36
15.8	715.31	16.32	715.27	17.4	715.21	17.75	715.18	18.93	715.12
19.12	715.1	19.97	715.06	20.92	715.01	21.04	715	21.69	714.97
22.42	714.93	23.19	714.9	23.28	714.89	26.29	714.84	27.3	714.82
27.69	714.81	28.19	714.8	29.08	714.79	31.07	714.75	31.37	714.74
31.71	714.73	32.7	714.71	33.05	714.7	33.32	714.69	33.77	714.68
34.46	714.67	34.72	714.66	35.19	714.65	35.44	714.64	35.98	714.62
36.27	714.61	36.54	714.6	37.08	714.59	37.36	714.58	37.62	714.57
38.2	714.56	38.46	714.55	38.75	714.54	39.66	714.52	39.94	714.51
40.87	714.5	41.13	714.49	41.84	714.48	42.1	714.47	42.34	714.46
43.09	714.45	46.22	714.43	48.53	714.42	48.67	714.43	49.35	714.42
49.63	714.43	50.32	714.42	54.32	714.28	54.68	714.26	54.78	714.27
55.43	714.25	57.89	714.29	58.05	714.3	58.23	714.31	58.42	714.32
58.64	714.33	59.03	714.35	61.52	714.45	62.1	714.47	62.9	714.48
63.15	714.49	64.23	714.51	64.47	714.52	65.01	714.53	65.33	714.54
66.43	714.58	66.95	714.59	67.27	714.61	68.27	714.65	68.63	714.67
69.71	714.71	69.86	714.72	70.2	714.73	70.34	714.74	70.69	714.75
71.18	714.77	71.66	714.78	71.77	714.79	72.14	714.8	72.62	714.82
73.01	714.83	73.49	714.84	73.57	714.85	73.97	714.86	74.31	714.87
74.5	714.88	74.58	714.89	75.17	714.92	75.8	714.96	76.55	715
76.63	715.01	77.37	715.05	78.04	715.1	78.15	715.11	78.79	715.15
78.97	715.17	79.58	715.21	79.84	715.24	80.41	715.28	80.93	715.31
81.3	715.36	81.78	715.39	82.26	715.45	82.68	715.48	83.31	715.56
83.66	715.59	84.46	715.69	84.68	715.71	84.88	715.73	85.86	715.86
85.95	715.87	86.88	716	87.41	716.04	89.2	716.2	90.17	716.28
91.72	716.42	92.79	716.51	95.21	716.73	95.78	716.78	96.18	716.81
98.22	717	99.79	717.12	99.99	717.14	100.26	717.16	100.62	717.19
101.14	717.24	103.66	717.44						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	50.32	.06	61.52	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
50.32	61.52	8.42	9.797	11.543	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 456.333*

INPUT
Description:
Station Elevation Data num= 282

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	715.967	2.582	715.741	3.098	715.697	3.993	715.623	5.049	715.538
5.405	715.508	5.663	715.485	6.061	715.451	6.782	715.414	7.358	715.381
7.952	715.351	8.219	715.336	8.27	715.333	8.498	715.323	9.045	715.294
9.923	715.243	10.164	715.232	10.304	715.225	10.761	715.207	11.154	715.185
11.343	715.172	11.687	715.153	12.024	715.13	12.393	715.115	12.644	715.102
12.772	715.094	13.297	715.064	13.667	715.042	13.787	715.036	14.33	715.007
14.439	715.001	15.244	714.946	15.423	714.937	15.638	714.925	16.025	714.904
16.137	714.897	17.192	714.841	17.755	714.804	18.392	714.772	18.813	714.747
18.933	714.741	19.314	714.715	19.786	714.692	20.001	714.682	20.598	714.653
20.758	714.64	21.017	714.627	21.369	714.61	21.714	714.597	21.773	714.589
22.006	714.577	22.411	714.56	22.763	714.546	22.894	714.538	22.97	714.534
23.16	714.526	23.521	714.509	23.601	714.506	24.278	714.474	24.395	714.469
24.605	714.462	24.838	714.453	25.148	714.439	25.233	714.435	25.331	714.427
25.63	714.42	25.922	714.414	26.723	714.396	26.989	714.386	27.747	714.372
27.996	714.363	28.177	714.358	29.003	714.339	29.175	714.333	29.705	714.32
30.13	714.308	30.251	714.305	30.397	714.3	30.673	714.293	31.642	714.273
31.886	714.267	32.093	714.261	33.375	714.229	33.807	714.219	34.134	714.208
34.58	714.196	34.683	714.191	35.581	714.17	35.862	714.162	35.962	714.159
36.256	714.148	36.745	714.136	36.93	714.132	37.119	714.127	37.496	714.121
37.779	714.113	38.281	714.103	38.562	714.093	39.15	714.075	39.4	714.068
39.465	714.066	39.727	714.057	40.312	714.044	40.652	714.034	40.716	714.032
40.934	714.026	41.566	714.017	41.848	714.008	42.05	714.002	42.164	713.999
43.154	713.978	43.459	713.968	43.591	713.966	44.262	713.958	44.471	713.955
44.754	713.945	45.493	713.934	45.648	713.927	46.07	713.914	46.181	713.912
46.886	713.9	47.395	713.895	48.101	713.885	48.591	713.88	49.306	713.874
49.994	713.865	50.292	713.862	50.889	713.858	51.121	713.854	51.784	713.849
52.806	713.831	52.958	713.835	53.698	713.817	54.003	713.818	54.753	713.8
55.075	713.786	55.268	713.779	55.894	713.758	56.087	713.75	56.657	713.731
57.715	713.701	57.926	713.689	58.855	713.662	58.936	713.659	59.278	713.645

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
59.417	713.647	60.097	713.627	62.677	713.656	62.844	713.663	62.988	713.672
63.232	713.682	63.391	713.688	63.463	713.692	63.546	713.696	63.872	713.71
64.141	713.72	64.37	713.729	64.818	713.744	65.276	713.763	66.255	713.794
66.483	713.803	67.019	713.818	67.094	713.822	67.337	713.829	67.664	713.834
67.937	713.841	68.2	713.851	69.337	713.881	69.59	713.892	70.159	713.907
70.496	713.918	70.826	713.931	71.598	713.955	71.654	713.958	71.716	713.961
72.052	713.968	72.202	713.972	72.539	713.989	72.679	713.994	73.124	714.012
73.46	714.023	73.592	714.029	73.896	714.044	73.971	714.048	74.25	714.06
74.714	714.077	75.095	714.093	75.266	714.102	75.624	714.114	75.771	714.123
76.022	714.131	76.14	714.136	76.44	714.151	76.656	714.16	76.903	714.167
77.162	714.175	77.277	714.185	77.375	714.188	77.667	714.198	78.172	714.22
78.366	714.227	78.583	714.236	78.938	714.245	79.089	714.252	79.173	714.26
79.594	714.274	79.952	714.287	80.152	714.297	80.237	714.305	80.31	714.309
80.858	714.336	81.518	714.373	82.311	714.413	82.395	714.421	82.771	714.44
83.044	714.456	83.175	714.462	83.88	714.505	83.989	714.513	84.152	714.523
84.325	714.533	84.67	714.555	84.86	714.573	85.502	714.615	85.776	714.642
85.833	714.646	86.376	714.682	86.924	714.715	87.159	714.74	87.313	714.757
87.668	714.781	87.819	714.79	88.324	714.843	88.766	714.874	88.885	714.886
89.43	714.945	89.503	714.951	89.798	714.974	90.221	715.017	90.611	715.058
90.873	715.08	91.083	715.099	91.356	715.13	92.115	715.211	92.21	715.22
92.346	715.235	93.189	715.333	93.748	715.374	94.336	715.423	94.517	715.437
95.632	715.531	96.534	715.604	96.654	715.614	97.206	715.662	98.286	715.753
98.56	715.775	99.078	715.819	99.413	715.846	100.186	715.911	100.613	715.949
100.976	715.98	101.667	716.036	101.948	716.063	102.562	716.112	102.73	716.125
102.983	716.145	103.048	716.151	104.883	716.309	105.131	716.33	106.785	716.462
106.836	716.467	106.995	716.481	107.28	716.503	107.659	716.535	108.044	716.57
108.206	716.585	108.28	716.59	109.061	716.656	109.37	716.678	110.033	716.732
110.415	716.764	110.86	716.8						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	54.753	.06	66.483	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
54.753	66.483	8.42	9.797	11.543	.1 .3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 446.666*

INPUT
Description:
Station Elevation Data num= 277

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	715.223	2.791	715.075	3.349	715.048	5.458	714.957	5.842	714.939
6.121	714.922	6.551	714.902	7.331	714.877	7.954	714.851	8.596	714.831
8.885	714.818	8.939	714.815	9.186	714.807	9.778	714.787	10.987	714.736
11.139	714.73	11.633	714.714	11.685	714.712	12.057	714.697	12.262	714.686
12.634	714.671	13.015	714.65	13.397	714.637	13.668	714.625	13.806	714.617
14.373	714.592	14.773	714.573	14.904	714.568	15.49	714.539	15.608	714.533
16.067	714.506	16.479	714.483	16.671	714.473	16.904	714.463	17.322	714.442
17.946	714.406	18.584	714.372	19.192	714.337	19.881	714.306	20.337	714.279
20.466	714.273	20.878	714.25	21.388	714.226	21.621	714.216	22.266	714.186
22.439	714.175	22.489	714.172	22.718	714.164	23.1	714.145	23.472	714.134
23.536	714.127	23.788	714.114	24.225	714.095	24.606	714.082	24.747	714.075
24.83	714.072	25.035	714.063	25.426	714.044	25.512	714.041	26.012	714.022
26.244	714.012	26.598	714.001	26.849	713.991	27.184	713.974	27.276	713.971
27.382	713.965	27.435	713.963	27.705	713.955	28.021	713.947	28.886	713.923
29.175	713.908	29.993	713.891	30.263	713.876	30.459	713.869	31.352	713.844
31.538	713.837	32.569	713.806	32.701	713.803	32.859	713.795	33.156	713.787
34.204	713.757	34.468	713.748	36.078	713.699	36.545	713.687	37.297	713.665
37.38	713.663	37.492	713.656	38.462	713.63	38.766	713.621	38.874	713.618
39.191	713.607	39.72	713.591	39.92	713.586	40.125	713.578	40.532	713.572
40.838	713.566	41.38	713.557	41.685	713.547	42.59	713.524	43.614	713.496
43.943	713.488	44.013	713.486	44.249	713.482	44.931	713.473	45.874	713.451
46.395	713.442	46.978	713.426	47.12	713.423	47.846	713.414	48.072	713.409
48.377	713.4	48.59	713.396	49.176	713.387	49.344	713.379	49.518	713.375
49.801	713.368	49.921	713.366	50.683	713.35	51.232	713.342	51.995	713.328
52.526	713.32	53.298	713.312	54.042	713.297	54.364	713.294	55.01	713.289
55.261	713.282	55.977	713.275	57.081	713.241	57.246	713.24	58.046	713.213
58.375	713.207	59.187	713.18	59.523	713.163	59.724	713.154	60.377	713.134
60.578	713.125	61.174	713.105	62.277	713.08	62.498	713.065	63.552	713.039
63.909	713.027	64.054	713.024	64.485	713.013	64.763	713.003	67.463	713.023
67.639	713.027	67.789	713.036	68.21	713.049	68.286	713.053	68.373	713.058
68.995	713.08	69.235	713.09	69.704	713.102	70.183	713.121	71.207	713.147
71.447	713.157	72.01	713.169	72.088	713.173	72.344	713.184	72.687	713.192
72.973	713.201	73.25	713.212	74.444	713.253	74.71	713.263	75.661	713.297
76.008	713.31	76.475	713.322	76.819	713.333	76.878	713.337	76.943	713.34
77.453	713.353	77.807	713.367	77.954	713.372	78.422	713.391	78.775	713.402
78.913	713.407	79.233	713.422	79.311	713.426	79.605	713.44	80.092	713.459
80.672	713.485	81.048	713.499	81.203	713.506	81.466	713.516	81.59	713.522
81.905	713.541	82.132	713.55	82.391	713.558	82.663	713.571	82.785	713.579
82.888	713.584	83.194	713.596	83.725	713.62	83.928	713.628	84.156	713.641
84.529	713.652	84.687	713.664	84.776	713.671	85.594	713.704	85.805	713.715
85.893	713.721	85.97	713.725	86.546	713.751	87.239	713.787	87.468	713.797
88.072	713.825	88.161	713.831	88.556	713.85	88.842	713.868	88.979	713.874
89.72	713.91	89.834	713.916	90.006	713.926	90.187	713.937	90.55	713.96
90.749	713.976	91.361	714.015	91.424	714.02	91.711	714.044	91.771	714.048
92.342	714.085	92.917	714.119	93.165	714.14	93.326	714.155	93.699	714.18
93.857	714.191	94.388	714.236	94.853	714.267	95.55	714.329	95.626	714.335
95.937	714.357	96.38	714.393	96.791	714.429	97.286	714.469	97.573	714.495
98.37	714.562	98.47	714.57	98.613	714.583	99.499	714.665	100.085	714.708
100.703	714.757	100.894	714.768	102.065	714.863	103.012	714.937	103.138	714.947
103.718	714.996	104.853	715.085	105.14	715.107	105.684	715.154	106.036	715.181
106.848	715.246	107.296	715.285	107.678	715.315	108.403	715.368	108.699	715.396
109.344	715.445	109.52	715.457	109.786	715.479	109.854	715.485	110.741	715.557
111.781	715.639	112.043	715.66	112.163	715.669	112.735	715.716	113.779	715.804
113.833	715.808	113.976	715.819	114.697	715.879	114.882	715.895	115.102	715.915
115.272	715.929	115.35	715.935	116.171	716.008	116.495	716.029	117.192	716.086
117.592	716.122	118.06	716.16						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	59.187	.06	71.447	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
59.187	71.447	8.42	9.797	11.543	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 437

INPUT
Description:
Station Elevation Data num= 189

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	714.48	3	714.41	3.6	714.4	4.64	714.39	6.28	714.37
6.58	714.36	7.88	714.34	8.55	714.32	9.24	714.31	9.55	714.3
9.88	714.29	10.51	714.28	11.54	714.25	11.81	714.24	12.56	714.22
12.96	714.21	13.18	714.2	13.58	714.19	13.99	714.17	14.4	714.16
14.84	714.14	15.45	714.12	16.02	714.1	17.27	714.04	17.92	714.01
18.17	714	18.62	713.98	19.29	713.94	20.02	713.9	20.63	713.87
21.37	713.84	21.86	713.81	22.99	713.76	23.24	713.75	24.12	713.71
24.42	713.7	24.83	713.68	25.23	713.67	25.57	713.65	26.04	713.63
26.69	713.61	26.91	713.6	27.33	713.58	27.96	713.56	28.21	713.55
28.59	713.54	28.86	713.53	29.22	713.51	29.49	713.5	29.78	713.49
30.12	713.48	30.42	713.47	31.05	713.45	31.36	713.43	32.24	713.41
32.53	713.39	32.74	713.38	33.7	713.35	33.9	713.34	35.15	713.3
35.32	713.29	35.64	713.28	36.78	713.24	37.05	713.23	37.29	713.22
38.78	713.17	40.18	713.13	40.3	713.12	41.67	713.08	42.91	713.04
43.13	713.03	44.48	713.01	44.81	713	45.78	712.98	46.16	712.97
46.84	712.95	47.31	712.94	48.31	712.93	48.86	712.92	49.31	712.91
49.87	712.9	50.65	712.88	51.43	712.87	52.23	712.85	52.86	712.84
53.04	712.83	53.66	712.82	54.48	712.8	55.07	712.79	55.89	712.77
56.46	712.76	57.29	712.75	58.09	712.73	59.13	712.72	59.4	712.71
60.17	712.7	63.62	712.56	63.97	712.54	64.18	712.53	64.86	712.51
65.07	712.5	65.69	712.48	66.84	712.46	67.07	712.44	68.08	712.42
68.54	712.41	68.71	712.4	69.14	712.39	69.43	712.38	72.44	712.39
72.59	712.4	73.03	712.41	73.2	712.42	73.58	712.43	73.85	712.44
74.1	712.45	74.59	712.46	75.09	712.48	76.16	712.5	76.41	712.51
77	712.52	77.35	712.54	77.71	712.55	81.19	712.69	81.68	712.7
82.04	712.71	82.17	712.72	82.54	712.73	83.23	712.75	83.72	712.77
84.09	712.78	84.57	712.8	84.96	712.82	85.47	712.84	85.89	712.86
86.91	712.9	87.37	712.93	87.88	712.95	88.4	712.98	89.49	713.03
89.54	713.04	90.12	713.06	91.63	713.14	92.96	713.2	93.2	713.21
94.34	713.26	94.64	713.28	95.68	713.32	95.86	713.33	96.05	713.34
97.28	713.42	97.71	713.45	99.17	713.54	99.73	713.58	101.07	713.67
101.75	713.72	102.54	713.77	102.97	713.8	103.79	713.86	104.73	713.92
104.88	713.93	107.07	714.09	107.27	714.1	109.49	714.27	110.23	714.33
111.72	714.44	112.29	714.49	113.51	714.58	113.98	714.62	114.38	714.65
115.14	714.7	115.45	714.73	116.31	714.79	116.66	714.82	117.59	714.89
118.68	714.97	119.08	715	119.68	715.05	119.73	715.06	120.83	715.15
120.98	715.16	121.93	715.24	122.16	715.26	122.42	715.28	123.28	715.36
123.62	715.38	124.35	715.44	124.77	715.48	125.26	715.52		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	63.62	.06	76.41	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
63.62	76.41	7.643	8	7.253	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 429.*

INPUT
Description:
Station Elevation Data num= 286

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	714.05	.438	714.04	1.313	714.023	1.791	714.012	2.615	713.996
2.974	713.987	3.094	713.985	3.569	713.978	3.938	713.974	4.6	713.965
4.742	713.962	5.21	713.955	6.055	713.941	6.226	713.937	6.482	713.928
6.93	713.919	7.408	713.908	7.812	713.897	7.866	713.896	8.253	713.884
8.355	713.879	8.477	713.875	9.161	713.858	9.468	713.845	9.795	713.832
10.38	713.814	11.133	713.789	11.235	713.784	11.441	713.776	11.709	713.765
11.815	713.761	12.452	713.739	12.578	713.735	12.7	713.729	12.849	713.724
13.067	713.715	13.372	713.705	13.463	713.701	13.677	713.69	13.87	713.681
14.196	713.671	14.276	713.669	14.379	713.664	14.712	713.647	14.868	713.64
15.295	713.624	15.763	713.603	15.882	713.598	15.932	713.591	15.997	713.589
16.507	713.569	16.781	713.554	17.056	713.542	17.122	713.539	17.766	713.505
17.829	713.502	18.014	713.495	18.145	713.489	18.46	713.473	18.582	713.465
19.124	713.434	19.848	713.396	21.086	713.336	21.186	713.332	21.672	713.304
22.792	713.252	23.04	713.241	23.141	713.237	23.334	713.228	23.913	713.2
24.21	713.189	24.617	713.169	25.013	713.155	25.35	713.137	25.543	713.128
25.645	713.122	25.816	713.114	26.461	713.09	26.679	713.08	27.095	713.06
27.537	713.044	27.72	713.038	27.968	713.028	28.128	713.024	28.344	713.017
28.612	713.007	28.969	712.989	29.237	712.979	29.524	712.969	30.159	712.948
30.234	712.945	30.448	712.937	30.783	712.926	31.091	712.909	31.963	712.885
32.25	712.868	32.402	712.862	32.459	712.859	33.41	712.831	33.609	712.822
34.529	712.794	34.651	712.788	34.848	712.781	35.017	712.773	35.334	712.763
36.493	712.723	36.732	712.716	36.97	712.708	38.447	712.67	39.505	712.646
39.835	712.639	39.954	712.632	40.797	712.613	41.102	712.604	41.312	712.599
41.713	712.588	42.541	712.568	42.759	712.561	44.098	712.544	44.328	712.539
44.425	712.536	45.387	712.521	46.058	712.508	46.438	712.499	46.903	712.491
47.895	712.482	48.44	712.475	48.886	712.467	49.441	712.46	50.215	712.445
50.988	712.437	51.781	712.422	52.406	712.415	52.584	712.408	53.199	712.4
54.012	712.385	54.597	712.378	55.41	712.363	55.975	712.355	56.798	712.347
57.14	712.341	57.591	712.332	58.622	712.322	58.89	712.315	59.653	712.306

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
63.073	712.203	63.594	712.188	63.906	712.18	64.221	712.173	64.917	712.16
64.977	712.159	65.23	712.151	65.895	712.137	66.152	712.131	66.227	712.129
67.484	712.103	67.862	712.096	68.197	712.08	68.723	712.072	69.556	712.058
69.706	712.056	70.028	712.05	70.39	712.046	70.643	712.039	71.282	712.031
71.713	712.023	72.315	712.028	72.556	712.032	73.586	712.037	74.406	712.045
75.317	712.052	75.497	712.059	76.023	712.069	76.287	712.078	76.49	712.084
76.682	712.088	76.918	712.095	77.005	712.098	77.197	712.104	77.304	712.108
77.891	712.123	78.415	712.142	78.49	712.144	78.671	712.148	79.771	712.176
80.07	712.187	80.354	712.193	80.666	712.198	81	712.213	81.264	712.221
81.384	712.224	82.038	712.247	83.124	712.283	83.653	712.304	84.769	712.34
84.902	712.345	85.238	712.354	85.398	712.357	85.761	712.365	85.893	712.372
86.964	712.398	87.46	712.414	87.834	712.423	88.319	712.439	88.713	712.454
89.229	712.47	89.653	712.486	90.685	712.518	90.994	712.533	91.15	712.541
91.665	712.559	92.191	712.583	92.658	712.601	93.293	712.622	93.343	712.629
93.519	712.634	93.686	712.641	93.93	712.649	95.456	712.72	95.8	712.734
96.801	712.773	97.043	712.782	98.196	712.83	98.499	712.847	99.011	712.866
99.55	712.895	99.732	712.906	99.872	712.915	99.924	712.918	101.125	712.998
101.292	713.012	101.603	713.035	102.31	713.082	102.574	713.099	103.078	713.133
103.645	713.176	103.788	713.186	104.522	713.239	105.687	713.328	105.775	713.334
106.485	713.384	106.92	713.416	107.749	713.481	108.046	713.503	108.349	713.522
108.699	713.547	110.924	713.72	111.065	713.733	111.267	713.746	113.511	713.933
113.958	713.971	114.259	713.998	114.31	714.003	114.751	714.037	115.7	714.117
115.766	714.122	116.298	714.171	117.575	714.276	117.697	714.287	118.05	714.318
118.455	714.352	118.872	714.385	119.223	714.411	119.536	714.44	119.753	714.457
119.87	714.469	120.406	714.51	120.759	714.541	120.957	714.556	121.838	714.62
121.955	714.629	122.801	714.687	122.924	714.696	123.206	714.716	123.766	714.757
123.863	714.769	124.975	714.854	125.127	714.864	126.301	714.956	126.582	714.977
126.947	715.009	127.452	715.051	127.795	715.072	128.533	715.13	128.944	715.166
129.453	715.207								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	63.073	.06	80.07	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
63.073	80.07	7.643	8 7.253	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 421.*

INPUT
Description:
Station Elevation Data num= 281

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	713.62	.434	713.61	1.301	713.596	1.776	713.586	2.593	713.573
2.948	713.565	3.067	713.563	3.538	713.556	3.904	713.552	4.56	713.539
4.701	713.536	6.002	713.511	6.172	713.505	6.426	713.494	6.87	713.485
7.745	713.455	7.798	713.453	8.182	713.442	8.282	713.435	8.403	713.43
8.958	713.411	9.386	713.39	9.71	713.373	10.29	713.347	11.036	713.32
11.137	713.312	11.342	713.303	11.607	713.29	11.712	713.286	12.344	713.258
12.469	713.252	12.59	713.245	12.737	713.239	12.953	713.229	13.256	713.217
13.347	713.213	13.559	713.2	13.75	713.192	14.073	713.181	14.255	713.172
14.585	713.153	14.739	713.145	15.163	713.127	15.627	713.101	15.745	713.097
15.859	713.089	16.111	713.08	16.364	713.067	16.635	713.052	16.908	713.041
16.973	713.037	17.382	713.014	17.612	713	17.675	712.996	17.858	712.989
17.987	712.985	18.3	712.966	18.421	712.958	18.804	712.936	18.958	712.928
20.267	712.863	20.6	712.846	20.903	712.828	21.003	712.823	21.484	712.797
22.595	712.744	22.709	712.738	22.841	712.733	22.941	712.728	23.132	712.719
23.705	712.691	24	712.678	24.403	712.657	24.796	712.641	25.131	712.623
25.321	712.614	25.422	712.606	25.592	712.598	26.231	712.571	26.448	712.561
26.86	712.541	27.299	712.522	27.479	712.516	27.725	712.507	28.099	712.495
28.718	712.469	29.897	712.425	29.972	712.423	30.184	712.414	30.516	712.402
30.821	712.388	31.686	712.36	31.971	712.347	32.121	712.341	32.177	712.339
33.121	712.311	33.317	712.304	34.229	712.277	34.35	712.269	34.546	712.262
34.713	712.255	35.028	712.245	36.176	712.206	36.413	712.202	36.649	712.197
38.114	712.17	39.489	712.148	39.607	712.144	40.444	712.132	40.746	712.122
40.954	712.118	41.352	712.109	42.173	712.097	42.389	712.092	42.945	712.087
43.716	712.078	43.944	712.074	44.993	712.063	45.659	712.054	46.035	712.048
46.497	712.042	46.95	712.038	47.48	712.035	48.02	712.03	48.463	712.025
49.013	712.02	49.78	712.01	50.546	712.004	51.332	711.995	51.952	711.99
52.128	711.986	54.93	711.956	56.305	711.945	57.092	711.934	58.114	711.925
58.379	711.92	59.136	711.913	62.527	711.847	63.632	711.83	64.051	711.821
64.975	711.811	65.053	711.809	65.389	711.801	65.454	711.8	66.272	711.789
66.613	711.781	66.714	711.78	68.382	711.741	68.735	711.734	68.884	711.732
69.328	711.72	70.026	711.711	71.759	711.685	72.24	711.682	72.575	711.678
73.424	711.672	73.997	711.667	74.698	711.674	74.978	711.681	76.178	711.688
77.133	711.703	78.194	711.713	78.403	711.718	79.017	711.727	79.254	711.733
79.323	711.734	79.56	711.742	79.784	711.746	80.059	711.752	80.16	711.755
80.509	711.766	80.646	711.771	80.962	711.779	81.192	711.786	81.803	711.806
81.889	711.809	82.1	711.814	83.381	711.851	83.73	711.863	84.017	711.872
84.333	711.877	84.67	711.886	84.937	711.896	85.058	711.899	85.719	711.919
86.817	711.946	87.351	711.967	88.479	711.995	88.614	712	88.954	712.012
89.115	712.015	89.483	712.021	89.616	712.025	89.994	712.031	90.699	712.046
91.2	712.058	91.578	712.065	92.068	712.077	92.467	712.088	94.459	712.137
94.929	712.152	95.45	712.167	95.982	712.186	96.454	712.2	97.096	712.215
97.147	712.219	97.325	712.222	97.493	712.231	97.739	712.239	99.63	712.312
100.641	712.347	100.887	712.355	100.986	712.358	101.757	712.389	102.052	712.4
102.358	712.414	102.875	712.433	103.421	712.469	103.746	712.492	103.799	712.496
105.013	712.579	105.181	712.596	105.495	712.62	106.987	712.727	107.358	712.755
107.559	712.772	108.446	712.839	108.928	712.88	109.099	712.894	110.431	712.998
110.87	713.033	110.999	713.043	111.708	713.102	112.008	713.126	112.315	713.146
112.668	713.175	113.522	713.247	113.64	713.256	114.917	713.36	115.059	713.375
115.264	713.392	116.797	713.532	117.532	713.595	117.984	713.635	118.288	713.666
118.34	713.671	118.785	713.709	119.745	713.798	119.811	713.804	121.031	713.919
121.64	713.972	121.764	713.983	122.12	714.017	122.951	714.092	123.306	714.121
123.622	714.15	123.841	714.168	123.96	714.184	124.501	714.229	124.859	714.261
125.058	714.278	125.809	714.33	125.949	714.34	126.068	714.35	127.332	714.431
127.898	714.469	127.996	714.478	128.66	714.524	129.12	714.558	129.273	714.568
129.827	714.609	130.461	714.653	130.745	714.674	131.114	714.705	131.623	714.742
131.737	714.749	131.971	714.764	132.588	714.81	132.717	714.82	133.132	714.853
133.647	714.893								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	62.527	.06	83.73	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
62.527	83.73	7.643	8	7.253	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 413

INPUT
Description:
Station Elevation Data num= 152

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	713.19	.43	713.18	1.29	713.17	1.76	713.16	2.57	713.15
3.04	713.14	3.87	713.13	4.66	713.11	5.12	713.1	5.95	713.08
6.37	713.06	6.81	713.05	7.28	713.03	7.73	713.01	8.11	713
8.21	712.99	8.88	712.96	10.2	712.88	10.94	712.85	11.04	712.84
11.61	712.81	11.81	712.8	12.36	712.77	12.48	712.76	13.14	712.73
13.44	712.71	13.95	712.69	14.13	712.68	14.61	712.65	15.03	712.63
15.49	712.6	15.72	712.59	15.97	712.58	16.49	712.55	16.76	712.54
17.23	712.51	17.52	712.49	17.83	712.48	18.26	712.45	18.64	712.43
20.09	712.36	20.42	712.34	20.72	712.32	22.51	712.23	22.74	712.22
22.93	712.21	25.1	712.1	25.2	712.09	27.06	712	27.64	711.98
29.71	711.9	29.92	711.89	31.84	711.82	33.93	711.76	34.05	711.75
35.86	711.69	38.82	711.66	40.09	711.65	40.39	711.64	40.99	711.63
42.57	711.62	43.56	711.61	45.26	711.6	46.54	711.59	56.15	711.54
61.98	711.49	63.36	711.48	63.88	711.47	65.13	711.46	65.63	711.45
66.65	711.44	67.2	711.43	69.28	711.38	69.72	711.37	70.46	711.36
71.33	711.35	72.71	711.33	73.49	711.32	76.28	711.31	77.08	711.32
77.4	711.33	78.77	711.34	79.86	711.36	82.36	711.39	82.63	711.4
83.2	711.41	83.57	711.42	83.87	711.43	84.23	711.44	85.19	711.47
85.53	711.48	87.39	711.54	87.68	711.55	88.34	711.56	88.61	711.57
89.4	711.59	90.51	711.61	91.05	711.63	92.19	711.65	92.67	711.67
93.6	711.68	98.55	711.76	100.25	711.8	101.13	711.81	101.3	711.82
103.46	711.89	104.83	711.93	105.61	711.96	106.74	712	107.62	712.07
108.9	712.16	109.07	712.18	110.11	712.26	110.38	712.28	111.27	712.35
111.62	712.38	112.37	712.44	113.03	712.5	113.65	712.55	114.95	712.66
115.97	712.75	116.28	712.77	117.5	712.88	117.62	712.89	118.91	713
119.07	713.02	120.6	713.17	120.81	713.19	122.01	713.3	122.37	713.34
122.82	713.38	123.79	713.48	124.4	713.54	125.09	713.61	125.83	713.68
126.65	713.76	127.03	713.8	127.93	713.88	128.05	713.9	129.16	714
130.06	714.06	130.18	714.07	131.17	714.13	132.03	714.18	132.8	714.23
133.98	714.31	134.62	714.35	135.28	714.4	135.91	714.44	136.77	714.5
137.32	714.54	137.84	714.58						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	61.98	.06	87.39	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
61.98	87.39	8.485	9.017	8.153	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 404.*

INPUT
Description:
Station Elevation Data num= 344

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	712.455	.514	712.447	1.543	712.439	2.105	712.432	3.073	712.424
3.635	712.416	4.628	712.408	7.115	712.37	7.295	712.365	7.618	712.354
8.144	712.346	8.677	712.331	9.22	712.313	9.699	712.304	9.818	712.296
10.619	712.271	11.218	712.247	11.339	712.245	11.6	712.233	12.198	712.209
12.881	712.19	12.995	712.19	13.083	712.187	13.202	712.179	13.35	712.173
13.884	712.153	14.123	712.145	14.188	712.143	14.296	712.142	14.781	712.122
14.924	712.114	15.496	712.096	15.714	712.09	16.072	712.074	16.682	712.058
16.898	712.05	17.472	712.026	17.974	712.01	18.524	711.987	18.799	711.979
19.098	711.971	19.646	711.95	19.72	711.948	20.043	711.942	20.163	711.938
20.277	711.931	20.538	711.923	20.605	711.92	20.952	711.906	21.322	711.898
21.837	711.877	22.291	711.862	24.025	711.814	24.42	711.8	24.778	711.785
25.426	711.767	26.919	711.723	27.194	711.716	28.162	711.686	28.45	711.675
29.564	711.637	30.016	711.621	30.136	711.613	30.844	711.589	31.508	711.563
32.246	711.536	32.36	711.532	32.661	711.523	33.721	711.494	34.706	711.462
35.529	711.439	35.78	711.43	36.483	711.411	37.509	711.378	37.838	711.365
38.076	711.358	38.166	711.356	38.495	711.345	38.817	711.337	39.145	711.326
39.729	711.31	39.849	711.306	40.576	711.286	40.719	711.278	41.023	711.269
41.184	711.263	41.747	711.249	42.29	711.232	42.498	711.226	42.884	711.216
43.028	711.214	43.779	711.202	44.282	711.196	44.556	711.192	45.046	711.184
45.83	711.174	46.286	711.166	46.424	711.163	46.501	711.162	46.85	711.158
47.058	711.154	47.467	711.15	47.855	711.143	47.942	711.142	48.244	711.134
48.301	711.132	48.674	711.124	48.868	711.119	49.019	711.116	49.331	711.111
49.813	711.107	50.082	711.101	50.484	711.094	50.792	711.09	50.908	711.089
51.04	711.087	51.201	711.083	51.604	711.076	51.966	711.071	52.092	711.069
52.194	711.067	53.863	711.041	54.091	711.038	54.272	711.034	54.507	711.031
54.916	711.024	55.325	711.019	55.399	711.016	55.656	711.012	55.815	711.01
56.351	711.005	58.349	710.991	58.772	710.987	59.382	710.983	61.387	710.966
61.789	710.962	62.319	710.958	62.446	710.955	62.976	710.951	63.251	710.948
63.814	710.943	64.303	710.937	64.713	710.933	65.189	710.926	65.611	710.922
66.818	710.906	66.959	710.903	68.313	710.881	68.628	710.877	68.984	710.87
69.272	710.866	69.594	710.859	69.969	710.852	70.244	710.848	70.64	710.841
70.901	710.837	71.049	710.834	71.351	710.83	71.646	710.823	71.82	710.82
72.108	710.816	72.383	710.809	72.859	710.802	73.128	710.795	73.356	710.792
74.12	710.78	74.789	710.771	75.316	710.765	75.439	710.763	75.767	710.756
76.219	710.752	76.85	710.744	77.167	710.737	77.283	710.735	78.167	710.724
78.468	710.718	78.644	710.714	80.4	710.671	80.828	710.66	81.719	710.645

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
82.536	710.634	82.964	710.626	83.763	710.614	84.095	710.608	84.58	710.604
85.379	710.599	85.751	710.595	86.512	710.59	87.284	710.6	87.593	710.609
88.914	710.621	89.965	710.64	92.376	710.671	92.637	710.68	93.186	710.689
93.543	710.698	95.507	710.752	96.058	710.773	96.643	710.793	96.834	710.8
97.228	710.815	97.52	710.827	97.644	710.831	97.959	710.839	98.067	710.843
98.282	710.848	98.399	710.853	98.506	710.858	98.582	710.861	98.822	710.869
99	710.877	99.169	710.883	99.459	710.892	99.608	710.897	99.993	710.909
100.471	710.922	100.692	710.929	100.918	710.938	101.291	710.952	101.365	710.953
102.557	710.984	102.675	710.988	102.79	710.994	103.014	711.005	103.09	711.009
103.306	711.014	103.846	711.028	104.122	711.034	104.847	711.053	106.504	711.083
107.868	711.103	109.618	711.121	111.505	711.148	112.482	711.153	112.671	711.161
112.953	711.166	113.022	711.17	113.315	711.174	113.384	711.178	115.069	711.217
116.042	711.242	116.119	711.241	116.381	711.248	116.59	711.254	116.712	711.258
117.044	711.272	117.136	711.272	117.383	711.283	117.456	711.286	117.714	711.294
118.007	711.306	118.323	711.323	118.711	711.341	118.77	711.346	119.139	711.371
119.417	711.393	119.617	711.406	119.688	711.412	119.833	711.422	120.095	711.442
120.334	711.456	120.827	711.489	121.104	711.507	121.298	711.526	121.62	711.549
121.928	711.57	122.275	711.596	122.453	711.61	122.752	711.629	123.238	711.663
123.4	711.677	123.74	711.701	123.816	711.707	124.887	711.786	124.962	711.792
125.695	711.853	126.336	711.9	126.775	711.935	127.568	712.008	127.826	712.03
128.959	712.136	129.303	712.164	129.541	712.187	130.088	712.238	130.365	712.262
130.657	712.29	130.743	712.297	131.012	712.323	132.223	712.432	132.391	712.454
133.015	712.516	133.116	712.525	134.099	712.624	134.21	712.635	134.332	712.646
135.55	712.753	135.665	712.764	136.064	712.804	136.413	712.833	136.564	712.847
137.268	712.917	137.641	712.951	138.124	712.997	138.917	713.071	139.084	713.088
139.31	713.109	139.896	713.159	140.335	713.203	140.816	713.247	141.229	713.287
141.791	713.338	142.007	713.356	142.237	713.377	142.371	713.396	143.363	713.485
143.603	713.505	143.917	713.527	144.602	713.572	144.735	713.583	145.697	713.642
145.835	713.651	146.159	713.67	146.306	713.678	146.737	713.705	146.789	713.708
146.915	713.715	147.315	713.743	147.644	713.764	148.278	713.807	148.871	713.846
149.457	713.881	149.665	713.895	149.75	713.902	150.305	713.94	150.62	713.96
150.852	713.974	151.067	713.989	151.607	714.024	151.792	714.035	152.385	714.074
152.539	714.086	152.663	714.094	153.186	714.13	153.24	714.135		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	74.12	.06	97.228	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
74.12	97.228	8.485	9.017	8.153	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 395.*

INPUT
Description:
Station Elevation Data num= 383

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	711.72	.598	711.715	1.795	711.709	2.449	711.704	3.577	711.698
4.231	711.693	5.386	711.687	6.486	711.676	7.126	711.671	8.281	711.66
8.865	711.649	9.478	711.642	10.098	711.63	10.73	711.615	11.287	711.608
11.426	711.602	12.359	711.583	13.055	711.565	13.196	711.567	13.5	711.555
14.196	711.538	14.991	711.523	15.123	711.526	15.226	711.524	15.365	711.517
15.537	711.512	16.436	711.49	16.512	711.489	16.637	711.491	17.058	711.478
17.202	711.474	17.369	711.468	18.287	711.449	18.705	711.438	19.415	711.426
20.333	711.403	20.918	711.391	21.558	711.374	22.226	711.362	22.864	711.347
22.95	711.346	23.326	711.344	23.465	711.342	23.598	711.334	23.902	711.332
23.98	711.33	24.383	711.321	24.815	711.317	25.413	711.303	25.942	711.294
26.165	711.291	27.063	711.281	27.96	711.268	28.67	711.254	28.837	711.251
29.591	711.241	31.328	711.215	31.648	711.211	32.775	711.194	33.11	711.183
34.406	711.155	34.933	711.141	35.072	711.135	35.896	711.116	36.31	711.104
36.669	711.092	37.527	711.067	38.011	711.056	38.44	711.045	39.244	711.029
39.673	711.018	40.391	710.998	41.349	710.978	41.641	710.971	42.459	710.954
43.294	710.928	43.653	710.919	44.035	710.904	44.313	710.896	44.418	710.894
44.8	710.88	45.175	710.871	45.557	710.857	46.236	710.84	46.376	710.834
47.222	710.813	47.389	710.805	47.742	710.796	47.929	710.789	48.585	710.776
49.217	710.758	49.459	710.75	49.908	710.741	50.075	710.739	50.949	710.721
51.534	710.714	51.854	710.708	52.424	710.696	52.97	710.689	53.868	710.671
54.027	710.667	54.117	710.665	54.523	710.659	54.765	710.653	55.241	710.647
55.694	710.635	55.795	710.634	56.146	710.626	56.212	710.624	56.872	710.606
57.41	710.594	57.972	710.588	58.284	710.577	58.753	710.566	59.112	710.56
59.246	710.558	60.056	710.537	60.477	710.531	60.624	710.527	60.743	710.525
61.46	710.508	61.71	710.503	61.944	710.497	62.951	710.475	63.162	710.469
63.435	710.464	63.911	710.452	64.387	710.446	64.473	710.441	64.956	710.43
65.581	710.423	66.447	710.417	67.024	710.411	67.906	710.404	68.398	710.398
69.108	710.392	69.631	710.386	70.271	710.38	70.786	710.374	71.441	710.368
71.909	710.362	72.526	710.356	72.674	710.35	73.291	710.344	73.611	710.339
74.266	710.332	74.836	710.321	75.312	710.315	75.866	710.304	76.357	710.298
77.403	710.276	77.762	710.271	77.926	710.265	78.146	710.261	79.502	710.231
79.869	710.225	80.283	710.213	80.618	710.207	80.993	710.196	81.43	710.185
81.75	710.179	82.21	710.167	82.514	710.161	82.686	710.156	83.037	710.15
83.381	710.139	83.583	710.133	83.919	710.127	84.239	710.116	84.473	710.11
84.793	710.104	85.105	710.094	85.37	710.088	86.26	710.07	86.826	710.057
87.272	710.051	87.376	710.049	87.653	710.043	88.036	710.038	88.57	710.028
88.838	710.021	88.936	710.019	89.545	710.011	89.684	710.008	89.938	710.002
90.087	709.998	90.363	709.99	91.133	709.973	91.573	709.961	91.935	709.95
92.281	709.942	92.478	709.938	92.689	709.933	93.116	709.927	93.381	709.922
93.743	709.914	94.419	709.902	94.699	709.896	95.11	709.889	95.786	709.882
96.1	709.877	96.745	709.87	97.488	709.881	97.785	709.888	99.058	709.902
100.07	709.92	102.393	709.952	102.643	709.959	103.173	709.968	103.795	709.983
104.13	709.99	105.021	710.012	105.337	710.019	105.408	710.021	105.614	710.03
105.939	710.045	106.502	710.065	107.065	710.09	107.387	710.104	107.522	710.111
107.87	710.123	107.988	710.129	108.224	710.136	108.352	710.142	108.471	710.149
108.554	710.152	108.818	710.163	109.013	710.175	109.199	710.182	109.518	710.195
109.682	710.201	110.106	710.219	110.873	710.247	111.122	710.259	111.532	710.273
111.613	710.276	112.923	710.317	113.053	710.322	113.18	710.329	113.426	710.344
113.509	710.348	113.748	710.356	114.341	710.379	114.644	710.388	115.103	710.403
115.442	710.415	116.221	710.43	116.543	710.438	117.263	710.452	118.762	710.472
120.686	710.481	122.761	710.495	123.835	710.497	124.042	710.501	124.352	710.504

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
124.428	710.51	124.75	710.509	124.826	710.515	126.679	710.545	127.375	710.558
127.748	710.568	127.833	710.564	128.351	710.578	128.485	710.582	128.849	710.598
128.951	710.594	129.222	710.609	129.303	710.611	129.586	710.619	129.908	710.634
130.255	710.659	130.682	710.682	130.746	710.687	131.153	710.71	131.458	710.735
131.678	710.747	131.915	710.765	132.203	710.788	132.466	710.8	133.008	710.836
133.313	710.855	133.526	710.872	133.635	710.878	133.88	710.896	134.219	710.917
134.6	710.944	134.795	710.959	135.218	710.983	135.659	711.012	135.837	711.028
136.211	711.052	136.294	711.058	136.638	711.08	136.802	711.09	137.353	711.128
137.471	711.137	137.553	711.143	137.954	711.175	138.479	711.214	139.064	711.253
139.116	711.261	139.546	711.29	139.775	711.313	140.419	711.375	140.702	711.401
140.961	711.424	141.088	711.439	141.579	711.487	141.757	711.503	141.947	711.523
142.326	711.558	142.587	711.585	142.833	711.609	143.188	711.642	143.493	711.668
143.908	711.708	143.961	711.714	144.205	711.739	144.705	711.786	144.95	711.81
145.536	711.865	145.721	711.89	146.407	711.957	146.517	711.967	147.598	712.078
147.72	712.09	147.855	712.101	148.245	712.135	148.296	712.142	149.193	712.215
149.337	712.231	149.759	712.268	150.142	712.299	150.308	712.314	151.082	712.388
151.492	712.422	151.667	712.437	152.022	712.471	152.236	712.49	152.895	712.547
153.078	712.566	153.327	712.59	153.97	712.64	154.453	712.689	154.911	712.727
154.982	712.733	156.054	712.832	156.291	712.851	156.545	712.874	156.691	712.892
157.782	712.99	158.046	713.011	159.027	713.077	159.144	713.084	159.291	713.095
159.687	713.12	159.798	713.128	160.348	713.161	160.499	713.171	160.856	713.193
161.017	713.202	161.492	713.234	161.549	713.236	161.686	713.244	162.127	713.275
162.489	713.299	162.762	713.318	163.185	713.344	163.929	713.393	164.185	713.407
164.481	713.424	164.803	713.448	165.125	713.468	165.413	713.487	165.515	713.493
165.76	713.506	166.252	713.539	166.844	713.576	167.048	713.587	167.7	713.626
167.869	713.641	168.581	713.683	168.64	713.69				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	86.26	.06	107.065	.06

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
86.26	107.065	8.485	9.017	8.153	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 386.*

INPUT
Description:
Station Elevation Data num= 378

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	710.985	9.446	710.95	9.685	710.948	10.113	710.943	10.812	710.938
11.519	710.93	12.24	710.918	12.876	710.911	13.034	710.908	14.098	710.895
14.893	710.882	15.053	710.888	15.4	710.878	16.194	710.866	17.1	710.857
17.252	710.863	17.368	710.861	17.527	710.856	17.723	710.851	18.432	710.84
18.75	710.836	18.836	710.834	18.979	710.841	19.459	710.829	19.623	710.826
19.813	710.823	20.572	710.812	20.861	710.809	21.337	710.802	22.147	710.794
23.195	710.779	23.862	710.772	24.592	710.761	25.354	710.753	26.082	710.743
26.18	710.744	26.608	710.746	26.768	710.746	26.919	710.737	27.266	710.741
27.355	710.74	27.815	710.737	28.307	710.736	28.99	710.73	29.848	710.726
31.895	710.722	32.895	710.716	33.755	710.716	37.387	710.702	37.77	710.692
39.248	710.672	39.849	710.662	40.008	710.658	40.948	710.643	41.42	710.632
41.829	710.621	42.809	710.599	42.961	710.595	43.36	710.588	43.85	710.578
44.767	710.565	45.257	710.554	46.075	710.534	47.168	710.517	47.501	710.511
48.434	710.497	49.387	710.469	49.796	710.459	50.233	710.442	50.549	710.435
50.669	710.432	51.105	710.415	51.532	710.406	51.968	710.389	52.743	710.37
52.903	710.362	53.868	710.339	54.058	710.333	54.461	710.323	54.675	710.314
55.422	710.303	56.143	710.284	56.419	710.275	56.932	710.267	57.123	710.265
58.12	710.241	58.787	710.232	59.152	710.224	59.802	710.208	60.425	710.199
60.843	710.191	61.631	710.17	61.734	710.167	62.197	710.159	62.473	710.151
63.016	710.143	63.532	710.128	63.647	710.126	64.048	710.118	64.124	710.116
64.876	710.093	65.076	710.088	65.49	710.077	66.131	710.069	66.487	710.054
67.021	710.038	67.431	710.03	67.585	710.026	67.76	710.022	67.974	710.014
68.508	709.999	68.989	709.99	69.156	709.986	69.291	709.982	71.259	709.928
71.508	709.92	71.81	709.913	72.051	709.905	72.362	709.897	72.905	709.881
73.448	709.873	73.546	709.865	73.887	709.856	74.098	709.85	74.81	709.842
75.798	709.833	76.457	709.825	77.463	709.817	78.024	709.809	78.834	709.801
79.43	709.793	80.16	709.785	80.748	709.777	81.496	709.769	82.03	709.761
82.733	709.753	82.902	709.745	83.605	709.737	83.97	709.729	84.718	709.721
85.368	709.706	85.911	709.698	86.543	709.682	87.104	709.674	88.297	709.643
88.706	709.635	88.893	709.628	89.144	709.621	90.691	709.58	91.109	709.572
91.581	709.557	91.964	709.549	92.391	709.533	92.89	709.517	93.255	709.509
93.78	709.494	94.127	709.486	94.323	709.478	94.724	709.47	95.115	709.454
95.347	709.447	95.729	709.439	96.094	709.423	96.361	709.415	96.726	709.407
97.083	709.392	97.385	709.384	98.4	709.36	98.863	709.344	99.228	709.336
99.313	709.334	99.54	709.329	99.853	709.324	100.509	709.306	100.589	709.304
101.088	709.295	101.201	709.292	101.409	709.286	101.531	709.282	101.756	709.275
102.387	709.261	102.779	709.249	103.043	709.24	103.487	709.226	103.66	709.222
104.225	709.211	104.521	709.202	104.836	709.196	105.074	709.191	105.64	709.174
106.193	709.166	106.45	709.158	106.978	709.15	107.692	709.161	107.978	709.167
109.202	709.184	112.409	709.234	112.65	709.239	113.159	709.247	113.49	709.254
113.758	709.259	114.08	709.266	115.241	709.289	115.309	709.291	115.507	709.3
115.819	709.318	116.361	709.338	116.902	709.365	117.253	709.382	117.401	709.39
117.78	709.406	117.909	709.414	118.306	709.431	118.435	709.439	118.526	709.444
118.814	709.456	119.027	709.472	119.23	709.481	119.577	709.497	119.756	709.506
120.218	709.53	120.79	709.554	121.055	709.566	121.326	709.579	121.773	709.595
121.862	709.598	122.397	709.622	123.29	709.651	123.432	709.656	123.838	709.682
123.929	709.686	124.189	709.698	124.835	709.729	125.666	709.761	126.036	709.778
126.885	709.795	127.236	709.804	128.021	709.821	129.656	709.841	131.754	709.842
132.325	709.843	134.016	709.843	135.187	709.84	135.751	709.842	135.834	709.85
136.185	709.845	136.268	709.853	138.288	709.872	138.346	709.873	139.048	709.884
139.454	709.894	139.546	709.887	139.86	709.896	140.111	709.902	140.257	709.906
140.655	709.924	140.765	709.917	141.061	709.934	141.149	709.937	141.458	709.945
141.809	709.962	142.188	709.994	142.653	710.024	142.723	710.029	143.166	710.05
143.499	710.078	143.739	710.089	143.998	710.107	144.312	710.134	144.598	710.145
145.189	710.183	145.521	710.202	145.754	710.217	145.872	710.224	146.14	710.243
146.509	710.263	146.925	710.292	147.138	710.309	147.497	710.327	147.599	710.332
148.079	710.361	148.273	710.379	148.681	710.403	148.772	710.409	149.326	710.44
149.926	710.479	150.056	710.489	150.145	710.495	150.582	710.527	151.155	710.567

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
151.792	710.607	151.849	710.616	152.318	710.645	153.269	710.743	153.579	710.771
153.86	710.797	153.999	710.814	154.535	710.868	154.729	710.887	154.936	710.909
155.218	710.938	155.349	710.952	155.634	710.982	155.901	711.009	156.289	711.046
156.622	711.074	156.972	711.109	157.074	711.119	157.132	711.125	157.397	711.154
157.942	711.208	158.21	711.235	158.848	711.297	159.05	711.325	159.798	711.399
159.919	711.408	160.777	711.499	161.097	711.531	161.23	711.545	161.802	711.592
161.858	711.601	162.837	711.678	162.974	711.693	163.453	711.732	163.871	711.764
164.052	711.781	164.896	711.859	165.533	711.909	165.921	711.946	166.872	712.024
167.073	712.043	167.343	712.07	168.045	712.12	168.572	712.174	169.07	712.214
169.149	712.22	169.643	712.262	170.317	712.326	170.576	712.345	170.852	712.371
171.012	712.388	172.201	712.495	172.489	712.516	172.866	712.542	173.558	712.588
173.687	712.597	173.846	712.607	174.279	712.635	174.399	712.644	174.999	712.681
175.164	712.691	175.553	712.717	175.729	712.726	176.246	712.762	176.308	712.765
176.458	712.772	176.938	712.808	177.333	712.833	177.631	712.854	178.093	712.882
178.804	712.929	179.182	712.948	179.506	712.967	179.755	712.986	179.857	712.994
180.208	713.014	180.522	713.033	180.633	713.039	180.9	713.053	181.177	713.071
181.436	713.09	182.082	713.128	182.304	713.138	182.616	713.156	183.015	713.178
183.2	713.195	183.975	713.237	184.04	713.245				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	98.4	.06	116.902	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
98.4	116.902	8.485	9.017	8.153	.1

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 377

INPUT
Description:
Station Elevation Data num= 292

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	710.25	10.88	710.24	12.94	710.23	13.75	710.22	16.73	710.2
16.91	710.21	17.3	710.2	19.21	710.19	19.38	710.2	19.91	710.19
21.16	710.18	21.32	710.19	21.86	710.18	23.11	710.17	29.3	710.14
30.07	710.15	30.24	710.14	30.63	710.15	33.53	710.16	34.68	710.17
36.74	710.18	37.92	710.19	42	710.21	42.43	710.2	44.09	710.19
46	710.17	46.53	710.16	46.99	710.15	48.09	710.13	48.71	710.12
49.26	710.11	50.29	710.1	50.84	710.09	51.76	710.07	54.41	710.04
55.48	710.01	55.94	710	56.43	709.98	56.92	709.97	57.41	709.95
57.89	709.94	58.38	709.92	59.25	709.9	59.43	709.89	61.18	709.85
61.42	709.84	62.26	709.83	63.07	709.81	63.38	709.8	64.17	709.79
64.93	709.77	65.29	709.76	66.04	709.75	66.45	709.74	67.18	709.72
67.88	709.71	68.35	709.7	69.03	709.68	69.35	709.67	69.87	709.66
70.18	709.65	70.79	709.64	71.37	709.62	71.95	709.61	72.59	709.59
72.88	709.58	73.57	709.56	74.29	709.55	74.69	709.53	75.29	709.51
75.75	709.5	76.12	709.49	76.36	709.48	76.96	709.46	77.5	709.45
77.84	709.44	78.76	709.41	79.08	709.4	79.38	709.39	80.05	709.37
80.33	709.36	80.67	709.35	80.94	709.34	81.29	709.33	81.9	709.31
82.51	709.3	82.62	709.29	83.24	709.27	84.04	709.26	85.15	709.25
85.89	709.24	87.02	709.23	87.65	709.22	88.56	709.21	89.23	709.2
90.05	709.19	90.71	709.18	91.55	709.17	92.15	709.16	92.94	709.15
93.13	709.14	93.92	709.13	94.33	709.12	95.17	709.11	95.9	709.09
96.51	709.08	97.22	709.06	97.85	709.05	99.19	709.01	99.65	709
99.86	708.99	101.88	708.93	102.35	708.92	102.88	708.9	103.31	708.89
103.79	708.87	104.35	708.85	104.76	708.84	105.35	708.82	105.74	708.81
105.96	708.8	106.41	708.79	106.85	708.77	107.11	708.76	107.54	708.75
107.95	708.73	108.25	708.72	108.66	708.71	109.06	708.69	109.4	708.68
110.54	708.65	110.9	708.63	111.25	708.62	111.67	708.61	112.18	708.59
112.63	708.58	112.88	708.57	113.15	708.56	113.64	708.55	113.92	708.54
114.37	708.52	114.63	708.51	115.07	708.5	115.3	708.49	115.73	708.48
116.17	708.46	116.6	708.45	116.8	708.44	117.21	708.43	125.21	708.56
125.4	708.57	125.7	708.59	126.22	708.61	126.39	708.62	126.74	708.64
127.12	708.66	127.28	708.67	127.69	708.69	127.83	708.7	128.26	708.72
128.4	708.73	128.81	708.75	129.04	708.77	129.26	708.78	129.83	708.81
130.33	708.84	130.95	708.87	131.53	708.9	132.11	708.92	132.16	708.93
132.69	708.95	133.81	708.99	133.96	709	134.25	709.02	134.63	709.04
135.33	709.08	136.23	709.12	136.63	709.14	137.55	709.16	137.93	709.17
138.78	709.19	140.55	709.21	143.44	709.2	147.15	709.18	147.24	709.19
147.62	709.18	147.71	709.19	149.96	709.2	150.72	709.21	151.16	709.22
151.26	709.21	151.6	709.22	152.03	709.23	152.46	709.25	152.58	709.24
152.9	709.26	153.33	709.27	153.71	709.29	154.12	709.33	154.7	709.37
154.93	709.38	155.18	709.39	155.54	709.42	155.8	709.43	156.08	709.45
156.42	709.48	156.73	709.49	157.37	709.53	157.73	709.55	158.11	709.57
158.4	709.59	158.8	709.61	159.25	709.64	159.5	709.66	159.98	709.68
160.5	709.71	160.71	709.73	161.25	709.76	161.85	709.79	162.5	709.83
162.64	709.84	163.21	709.88	163.83	709.92	164.52	709.96	165.09	710
165.36	710.03	166.12	710.11	166.76	710.17	166.91	710.19	167.49	710.25
167.7	710.27	168.23	710.33	168.68	710.38	168.97	710.41	169.39	710.45
169.75	710.48	170.24	710.53	170.59	710.57	171.18	710.63	171.47	710.66
172.17	710.73	172.38	710.76	173.19	710.84	173.32	710.85	174.25	710.95
174.74	711	175.36	711.05	175.42	711.06	176.48	711.14	176.65	711.16
177.6	711.23	178.71	711.33	179.4	711.38	179.82	711.42	180.85	711.5
181.36	711.55	182.12	711.6	182.69	711.66	183.23	711.7	183.85	711.75
184.58	711.82	184.86	711.84	185.62	711.91	186.62	712	187.34	712.05
188.09	712.1	188.87	712.15	189	712.16	189.65	712.2	190.25	712.24
190.44	712.25	191	712.29	191.23	712.3	191.75	712.34	192.22	712.37
192.5	712.39	193	712.42	193.77	712.47	194.18	712.49	194.53	712.51
194.91	712.54	195.29	712.56	195.63	712.58	196.04	712.6	196.34	712.62
196.62	712.64	197.32	712.68	197.56	712.69	198.33	712.73	198.53	712.75
199.37	712.79	199.44	712.8						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	110.54	.06	126.74	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
110.54	126.74	7.378	9.116	10.856	.1

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 367.8*

INPUT
Description:
Station Elevation Data num= 366

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	709.848	.332	709.834	.417	709.828	1.308	709.799	10.72	709.789
13.343	709.75	13.753	709.742	13.965	709.74	14.361	709.732	14.435	709.731
15.57	709.709	15.825	709.706	16.892	709.688	17.09	709.686	17.317	709.682
17.522	709.68	18.663	709.663	18.864	709.669	18.957	709.666	19.205	709.66
19.299	709.657	19.629	709.653	19.792	709.65	20.145	709.647	20.301	709.644
21.429	709.631	21.481	709.632	21.619	709.637	22.21	709.626	23.604	709.61
23.783	709.618	24.385	709.607	24.536	709.605	25.78	709.594	25.844	709.594
32.081	709.562	32.512	709.563	32.611	709.56	32.685	709.56	33.544	709.568
33.733	709.559	34.168	709.567	46.852	709.601	47.332	709.592	48.98	709.587
49.115	709.584	49.398	709.584	51.314	709.575	54.142	709.542	54.213	709.539
54.337	709.539	56.713	709.52	57.74	709.505	60.696	709.487	61.889	709.465
62.26	709.46	62.402	709.459	62.949	709.444	63.496	709.438	63.617	709.434
64.042	709.423	64.197	709.422	64.578	709.417	65.124	709.402	66.095	709.388
66.296	709.381	68.248	709.348	68.515	709.339	69.453	709.33	69.62	709.327
69.734	709.327	70.702	709.306	71.583	709.298	72.833	709.273	73.669	709.265
74.941	709.24	75.722	709.232	76.246	709.224	76.352	709.222	77.362	709.198
77.942	709.189	78.287	709.181	78.968	709.171	79.615	709.154	80.262	709.144
80.976	709.128	81.299	709.119	82.069	709.103	82.872	709.094	83.119	709.085
83.246	709.083	83.318	709.079	83.487	709.074	83.614	709.073	83.854	709.065
83.988	709.062	84.914	709.045	85.181	709.037	85.785	709.022	85.851	709.02
86.453	709.012	89.989	708.934	90.29	708.926	91.361	708.903	91.752	708.899
91.844	708.896	92.042	708.896	92.099	708.892	92.165	708.888	92.799	708.875
92.884	708.872	93.749	708.868	93.867	708.867	93.959	708.865	94.22	708.865
96.433	708.852	96.532	708.849	96.752	708.85	96.858	708.847	97.07	708.848
97.395	708.842	97.607	708.842	97.713	708.839	97.932	708.839	98.555	708.832
98.791	708.832	103.677	708.773	103.889	708.764	106.164	708.729	106.979	708.709
107.45	708.7	108.451	708.675	109.154	708.663	110.649	708.623	111.042	708.616
111.162	708.613	111.396	708.604	113.65	708.548	114.174	708.539	114.765	708.521
115.245	708.51	117.955	708.431	118.201	708.421	118.629	708.411	118.703	708.41
119.484	708.381	119.963	708.368	120.421	708.349	121.213	708.327	121.267	708.324
121.659	708.307	122.038	708.297	122.172	708.294	123.31	708.264	123.443	708.257
123.761	708.244	123.951	708.239	124.299	708.228	124.727	708.219	125.503	708.194
125.931	708.185	126.011	708.182	126.509	708.166	126.583	708.164	126.884	708.158
127.197	708.154	128.439	708.12	128.99	708.112	129.279	708.103	129.818	708.095
130.37	708.078	130.541	708.076	130.909	708.069	131.16	708.061	131.674	708.052
132.674	708.054	132.778	708.052	133.094	708.054	133.196	708.052	133.342	708.052
133.539	708.056	141.481	708.186	141.675	708.194	141.98	708.211	142.509	708.229
143.038	708.256	143.46	708.276	143.638	708.286	144.094	708.307	144.229	708.315
144.678	708.336	144.728	708.338	144.884	708.348	145.339	708.368	145.57	708.384
146.473	708.42	147.029	708.445	147.353	708.457	147.531	708.465	148.363	708.509
148.587	708.518	149.008	708.531	149.064	708.54	149.343	708.552	150.898	708.597
151.387	708.623	152.588	708.675	154.033	708.728	156.424	708.771	158.392	708.791
165.589	708.789	165.729	708.788	165.829	708.797	166.252	708.79	166.352	708.798
168.853	708.813	170.188	708.829	170.299	708.821	170.677	708.829	171.155	708.836
171.633	708.852	171.766	708.844	172.122	708.86	172.6	708.867	173.023	708.883
173.478	708.914	174.123	708.946	174.379	708.954	174.657	708.961	175.057	708.985
175.346	708.993	175.657	709.008	176.035	709.032	176.358	709.042	176.765	709.061
176.929	709.071	177.092	709.079	177.492	709.096	177.671	709.105	177.914	709.115
178.237	709.133	178.681	709.151	178.819	709.159	179.047	709.174	179.182	709.181
179.389	709.194	179.46	709.199	179.518	709.202	179.653	709.208	179.993	709.22
180.152	709.229	180.317	709.237	180.488	709.247	180.572	709.251	180.805	709.269
180.887	709.273	181.08	709.285	181.405	709.301	181.493	709.305	181.714	709.317
182.072	709.333	182.371	709.349	182.627	709.365	182.795	709.374	183.897	709.443
184.068	709.452	184.274	709.466	185.041	709.508	185.675	709.549	185.965	709.577
186.407	709.617	186.5	709.626	186.82	709.655	186.914	709.662	186.992	709.67
187.427	709.705	187.531	709.714	187.698	709.733	188.525	709.807	188.576	709.811
189.003	709.853	189.988	709.944	190.287	709.969	190.843	710.011	191.4	710.06
191.549	710.074	191.789	710.098	192.07	710.123	192.27	710.139	192.768	710.184
193.218	710.222	193.475	710.245	193.546	710.251	193.779	710.278	194.167	710.312
194.559	710.343	194.68	710.354	194.824	710.364	194.923	710.374	195.229	710.401
195.858	710.46	196.403	710.508	196.791	710.534	197.092	710.557	197.159	710.565
197.241	710.57	197.633	710.598	198.253	710.639	198.338	710.646	198.432	710.656
198.527	710.665	198.61	710.67	199.583	710.735	200.817	710.833	201.049	710.848
201.163	710.856	201.584	710.883	201.634	710.887	201.712	710.895	202.051	710.922
203.01	710.99	203.196	711.002	203.659	711.041	203.763	711.049	204.579	711.097
205.143	711.144	205.242	711.154	205.678	711.181	206.531	711.24	207.247	711.297
207.343	711.305	207.654	711.323	207.753	711.331	208.416	711.382	208.499	711.389
209.6	711.471	210.592	711.533	211.084	711.56	211.245	711.57	211.348	711.577
212.113	711.618	212.257	711.628	212.524	711.644	213.647	711.706	213.822	711.715
214.481	711.755	214.736	711.765	214.799	711.77	215.314	711.803	215.837	711.832
216.148	711.851	217.56	711.929	217.688	711.934	218.405	711.97	218.828	711.999
219.628	712.039	220.084	712.059	220.697	712.096	221.507	712.138	221.774	712.148
222.63	712.19	222.852	712.209	223.622	712.246	223.679	712.25	223.786	712.255
223.864	712.264								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	123.31	.06	143.038	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
123.31	143.038	7.378	9.116	10.856	.1 .3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 358.6*

INPUT
Description:
Station Elevation Data num= 369

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	709.446	.367	709.418	.46	709.406	1.444	709.349	11.83	709.337
14.077	709.278	14.725	709.265	15.177	709.252	15.411	709.247	16.262	709.224
16.722	709.209	16.927	709.205	17.011	709.204	17.183	709.199	17.651	709.19
17.924	709.181	20.53	709.128	20.595	709.127	20.817	709.128	21.297	709.114
21.381	709.112	21.841	709.103	22.231	709.098	22.403	709.093	22.621	709.089
23.012	709.084	23.168	709.079	23.558	709.074	23.648	709.072	23.706	709.072
23.858	709.074	24.51	709.062	26.049	709.041	26.172	709.044	26.246	709.045
26.911	709.033	28.45	709.018	28.521	709.018	35.403	708.982	35.879	708.984
35.988	708.98	36.07	708.98	37.018	708.985	37.227	708.979	37.707	708.984
51.704	708.992	52.233	708.985	52.477	708.983	54.053	708.983	54.201	708.978
54.277	708.979	54.513	708.981	59.749	708.962	59.827	708.957	66.981	708.933
68.299	708.92	68.865	708.917	69.23	708.913	69.468	708.909	70.071	708.905
70.674	708.897	71.265	708.894	71.869	708.885	72.94	708.877	73.161	708.871
74.333	708.861	75.121	708.848	75.315	708.846	75.611	708.839	76.83	708.828
76.955	708.83	77.408	708.821	78.024	708.812	79.932	708.793	80.375	708.786
81.298	708.78	84.142	708.748	85.373	708.727	86.013	708.719	86.395	708.712
87.146	708.703	87.86	708.688	90.568	708.646	91.455	708.638	91.727	708.631
91.867	708.632	91.947	708.629	92.132	708.623	92.273	708.625	92.538	708.616
93.707	708.6	94.003	708.593	94.668	708.581	94.741	708.58	95.406	708.575
100.823	708.497	101.254	708.495	101.356	708.49	101.574	708.491	101.637	708.489
101.709	708.486	102.409	708.479	102.472	708.475	102.799	708.476	103.587	708.475
103.689	708.471	103.978	708.474	106.42	708.469	106.529	708.465	106.771	708.468
106.888	708.463	107.122	708.466	107.481	708.459	107.715	708.461	107.832	708.457
107.901	708.457	108.074	708.459	108.761	708.451	108.987	708.454	109.658	708.445
111.547	708.429	111.668	708.427	114.414	708.396	114.647	708.388	115.62	708.375
116.125	708.365	116.33	708.363	116.954	708.351	117.159	708.348	118.057	708.328
118.242	708.325	118.577	708.318	118.71	708.313	118.808	708.311	119.682	708.29
120.458	708.276	120.637	708.271	121.886	708.241	122.674	708.227	122.932	708.218
123.259	708.209	125.419	708.165	125.998	708.157	126.65	708.141	127.18	708.131
129.853	708.062	130.442	708.042	130.996	708.029	131.702	708.007	131.857	708.001
133.766	707.943	134.258	707.925	136.08	707.878	136.239	707.87	137.151	707.842
137.269	707.839	137.674	707.831	137.784	707.828	138.093	707.817	138.511	707.807
138.717	707.801	139.129	707.793	139.232	707.79	139.329	707.786	139.74	707.776
139.926	707.769	140.016	707.767	141.177	707.751	141.855	707.737	142.911	707.723
143.258	707.717	143.906	707.71	144.57	707.696	145.218	707.689	145.52	707.682
146.138	707.674	146.222	707.678	146.342	707.674	148.138	707.678	148.346	707.674
148.978	707.678	149.182	707.674	149.27	707.678	149.474	707.674	149.674	707.68
157.753	707.811	158.26	707.833	158.798	707.849	159.336	707.872	160.498	707.923
160.647	707.931	161.024	707.948	161.141	707.955	161.196	707.957	161.367	707.966
161.869	707.986	162.122	708.001	163.117	708.03	163.729	708.051	164.085	708.06
164.281	708.069	165.197	708.118	165.442	708.128	165.772	708.138	165.906	708.143
165.968	708.15	166.274	708.164	167.986	708.205	168.525	708.226	171.376	708.315
174.068	708.353	184.309	708.397	184.419	708.403	184.884	708.399	184.994	708.406
189.215	708.439	189.337	708.432	190.28	708.443	190.806	708.454	190.952	708.448
191.344	708.459	191.87	708.464	192.335	708.475	192.837	708.499	193.546	708.521
194.134	708.533	194.574	708.55	194.892	708.555	195.235	708.567	195.651	708.584
196.006	708.594	196.454	708.611	196.634	708.621	197.254	708.642	197.45	708.651
197.719	708.66	197.882	708.668	198.235	708.682	198.563	708.693	198.714	708.699
198.965	708.715	199.342	708.733	199.419	708.738	199.632	708.748	200.007	708.76
200.551	708.787	200.643	708.792	200.9	708.808	200.99	708.812	201.202	708.826
201.657	708.846	201.901	708.86	202.295	708.876	202.623	708.892	204.491	708.997
204.86	709.02	205.425	709.048	206.259	709.099	207.065	709.163	207.167	709.172
207.623	709.207	207.709	709.215	208.188	709.249	208.302	709.258	208.486	709.275
208.714	709.294	208.878	709.306	209.196	709.332	209.397	709.347	209.453	709.352
209.813	709.382	209.922	709.392	210.613	709.446	210.668	709.453	211.335	709.501
211.52	709.515	211.947	709.543	212.081	709.554	213.297	709.649	213.517	709.664
214.065	709.708	214.922	709.772	215.179	709.797	215.605	709.829	216.037	709.858
216.17	709.868	216.329	709.879	216.437	709.888	216.775	709.914	217.143	709.945
218.066	710.015	218.493	710.041	218.752	710.059	218.825	710.063	218.898	710.07
218.988	710.075	219.42	710.103	219.639	710.115	220.102	710.145	220.195	710.152
220.299	710.162	220.403	710.17	220.495	710.175	221.566	710.24	221.821	710.257
222.496	710.307	222.924	710.336	223.179	710.351	223.305	710.36	223.768	710.387
223.823	710.391	223.909	710.399	225.338	710.492	225.542	710.504	226.166	710.548
226.554	710.567	227.064	710.595	227.206	710.606	227.685	710.638	227.794	710.648
228.273	710.673	228.422	710.683	229.213	710.729	230	710.783	230.106	710.789
230.449	710.806	230.557	710.813	230.714	710.824	231.115	710.85	231.287	710.862
232.237	710.924	233.461	710.993	234.223	711.03	234.513	711.048	235.355	711.087
235.514	711.095	235.808	711.113	237.044	711.173	237.237	711.181	237.637	711.203
237.961	711.219	238.131	711.226	238.243	711.23	238.312	711.235	238.485	711.245
238.879	711.266	239.011	711.272	239.175	711.281	239.725	711.307	239.797	711.312
240.879	711.367	241.35	711.388	241.491	711.393	242.28	711.43	242.441	711.44
242.745	711.457	244.128	711.518	244.803	711.555	245.694	711.596	245.988	711.607
246.177	711.615	246.475	711.626	246.608	711.634	246.93	711.651	247.175	711.669
248.021	711.71	248.084	711.715	248.202	711.72	248.288	711.728		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	136.08	.06	159.336	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
136.08	159.336	7.378	9.116	10.856	.1 .3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 349.4*

INPUT
Description:
Station Elevation Data num= 364

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	709.044	.401	709.002	.504	708.984	1.093	708.936	1.579	708.9
12.94	708.884	13.537	708.866	14.651	708.826	14.724	708.824	15.398	708.799
16.106	708.78	16.601	708.761	16.858	708.755	17.336	708.736	17.425	708.734
17.788	708.723	18.292	708.703	18.607	708.696	18.795	708.689	19.102	708.683
19.307	708.676	19.606	708.664	22.528	708.59	22.771	708.587	22.884	708.583
23.182	708.575	23.387	708.568	23.694	708.561	23.891	708.555	24.318	708.548
24.505	708.542	24.744	708.536	25.171	708.529	25.342	708.523	25.769	708.516
25.868	708.512	25.931	708.511	26.097	708.512	28.065	708.477	28.493	708.471
28.628	708.472	28.709	708.473	29.436	708.46	34.5	708.413	38.725	708.401
39.246	708.406	39.366	708.4	40.491	708.403	40.72	708.398	41.245	708.402

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
55.062	708.39	56.556	708.383	57.401	708.375	59.125	708.378	59.287	708.372
59.629	708.377	65.356	708.381	65.441	708.375	65.928	708.378	70.196	708.376
71.024	708.38	75.155	708.375	75.327	708.376	75.727	708.375	75.987	708.373
77.307	708.37	77.493	708.371	79.784	708.365	80.027	708.362	81.309	708.357
82.171	708.345	82.383	708.343	82.706	708.338	83.838	708.331	84.04	708.329
84.177	708.334	84.672	708.324	95.324	708.234	96.105	708.221	99.067	708.188
100.037	708.182	100.334	708.178	100.488	708.181	100.575	708.178	100.778	708.172
100.932	708.177	101.222	708.168	103.632	708.14	104.359	708.137	109.463	708.094
110.284	708.09	110.756	708.09	110.867	708.083	111.106	708.087	111.254	708.085
112.019	708.083	112.089	708.078	112.446	708.081	113.166	708.083	113.308	708.084
113.419	708.077	113.735	708.082	116.407	708.086	116.526	708.08	116.791	708.085
116.919	708.079	117.175	708.084	117.568	708.076	117.824	708.081	117.952	708.074
118.027	708.076	118.216	708.079	118.967	708.071	119.215	708.076	120.155	708.065
122.014	708.053	122.147	708.051	125.15	708.019	125.406	708.012	127.247	707.985
129.136	707.946	129.338	707.943	129.705	707.935	129.85	707.929	129.958	707.926
131.762	707.889	131.958	707.884	133.324	707.854	134.041	707.843	134.186	707.84
134.469	707.831	134.826	707.823	137.028	707.785	137.822	707.776	138.121	707.771
138.535	707.761	139.114	707.751	141.861	707.688	142.039	707.685	142.386	707.673
142.508	707.668	144.062	707.628	144.231	707.622	145.362	707.588	145.607	707.582
145.766	707.576	146.318	707.56	146.383	707.557	146.857	707.543	148.85	707.492
149.036	707.484	149.484	707.473	149.549	707.472	149.75	707.464	150.239	707.449
150.713	707.441	151.202	707.425	151.691	707.414	151.932	707.407	152.413	707.399
152.646	707.391	153.127	707.381	153.344	707.373	153.872	707.364	159.527	707.308
159.88	707.303	160.602	707.296	160.728	707.302	160.908	707.296	163.602	707.302
163.914	707.296	164.862	707.302	165.168	707.296	165.3	707.302	165.606	707.296
165.809	707.303	174.024	707.437	174.54	707.454	175.087	707.468	175.266	707.474
175.634	707.488	177.476	707.565	177.604	707.573	177.664	707.575	177.851	707.583
178.398	707.604	178.675	707.617	180.816	707.664	181.031	707.673	181.256	707.686
182.03	707.727	182.298	707.739	182.658	707.748	182.805	707.755	182.871	707.761
183.044	707.768	183.206	707.776	185.075	707.812	188.774	707.903	188.84	707.904
191.711	707.934	201.4	707.994	201.949	708	202.888	708.005	203.008	708.01
203.516	708.009	203.636	708.014	207.319	708.045	207.655	708.045	208.243	708.048
208.376	708.044	209.404	708.049	209.979	708.056	210.139	708.052	210.566	708.059
211.14	708.061	211.194	708.065	211.648	708.068	212.195	708.083	212.97	708.097
213.611	708.104	214.091	708.115	214.438	708.118	214.812	708.125	215.654	708.146
216.142	708.161	216.339	708.17	216.535	708.176	217.016	708.188	217.23	708.197
218.087	708.225	218.444	708.234	218.609	708.239	218.884	708.257	219.045	708.262
219.295	708.272	219.449	708.281	219.612	708.289	220.02	708.3	220.408	708.319
220.614	708.328	220.715	708.332	221.094	708.352	221.325	708.367	221.716	708.383
221.822	708.388	222.087	708.404	222.627	708.424	222.875	708.435	223.184	708.452
224.914	708.541	225.317	708.567	225.933	708.595	226.559	708.633	226.844	708.648
227.055	708.663	227.193	708.674	227.724	708.708	227.835	708.718	228.219	708.744
228.332	708.751	228.426	708.76	228.949	708.792	229.074	708.801	229.274	708.818
229.522	708.836	229.702	708.847	230.048	708.873	230.329	708.892	230.722	708.921
230.842	708.931	231.595	708.981	231.655	708.989	234.525	709.176	234.765	709.19
234.976	709.204	235.363	709.232	235.904	709.266	236.298	709.293	236.578	709.315
236.726	709.324	237.043	709.346	237.514	709.372	237.833	709.393	237.951	709.402
238.32	709.426	238.722	709.457	239.45	709.503	239.73	709.523	240.196	709.547
240.478	709.566	240.557	709.57	240.638	709.576	240.735	709.58	241.206	709.609
241.446	709.62	241.952	709.65	242.053	709.658	242.166	709.668	242.28	709.675
242.38	709.68	243.549	709.745	243.828	709.762	244.564	709.811	245.031	709.839
245.31	709.854	245.447	709.863	245.952	709.89	246.012	709.894	246.106	709.902
246.513	709.927	246.68	709.936	247.665	709.995	247.888	710.006	248.445	710.04
248.569	710.047	248.993	710.064	249.55	710.093	249.704	710.104	250.226	710.132
250.345	710.142	250.869	710.166	251.032	710.175	251.537	710.199	252.753	710.269
253.361	710.295	253.533	710.306	255.195	710.399	255.811	710.427	256.531	710.466
257.362	710.5	257.679	710.518	258.598	710.555	258.771	710.563	258.827	710.565
259.092	710.582	260.44	710.639	260.651	710.647	261.442	710.684	261.628	710.69
262.013	710.71	262.587	710.735	262.767	710.744	263.367	710.768	263.529	710.778
264.112	710.803	264.626	710.828	265.141	710.847	265.294	710.852	265.482	710.861
266.156	710.889	266.33	710.9	266.663	710.916	268.044	710.972	268.909	711.013
270.408	711.073	270.733	711.084	270.879	711.093	271.23	711.111	271.497	711.128
272.421	711.173	272.489	711.18	272.618	711.185	272.712	711.192		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	148.85	.06	175.634	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
148.85	175.634	7.378	9.116	10.856	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 340.2*

INPUT
Description:
Station Elevation Data num= 337

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	708.642	.436	708.586	.547	708.562	1.186	708.498	1.715	708.45
14.05	708.432	14.699	708.408	16.719	708.319	17.488	708.295	18.026	708.271
18.304	708.262	18.823	708.238	18.92	708.235	19.314	708.221	19.861	708.196
20.104	708.19	20.204	708.188	20.408	708.18	20.741	708.171	20.964	708.163
21.288	708.147	21.594	708.139	21.844	708.13	22.697	708.106	22.965	708.097
23.809	708.073	24.078	708.064	24.383	708.056	24.461	708.053	24.724	708.046
25.294	708.028	25.394	708.024	25.727	708.016	25.94	708.008	26.404	707.999
26.608	707.991	26.867	707.983	27.331	707.975	27.516	707.966	27.979	707.958
28.087	707.953	28.155	707.951	28.335	707.949	30.938	707.902	31.084	707.901
31.172	707.901	31.547	707.893	37.46	707.832	42.048	707.82	42.613	707.828
42.743	707.82	43.965	707.82	44.214	707.818	44.784	707.819	59.786	707.785
62.037	707.769	62.326	707.768	64.198	707.774	64.374	707.766	64.744	707.774
66.95	707.786	67.256	707.789	70.963	707.801	71.056	707.792	71.584	707.799
76.218	707.813	77.117	707.82	81.79	707.834	82.223	707.838	88.284	707.854
91.25	707.829	91.398	707.837	91.936	707.827	108.942	707.724	109.109	707.731
109.424	707.721	109.591	707.728	109.906	707.719	110.081	707.717	112.436	707.7
118.854	707.682	120.258	707.685	120.379	707.677	120.637	707.682	120.712	707.683
120.798	707.683	121.63	707.686	121.705	707.681	123.029	707.692	123.15	707.684
123.493	707.691	126.393	707.703	126.523	707.695	126.81	707.703	126.949	707.694
127.227	707.702	127.654	707.693	127.932	707.701	128.071	707.692	128.153	707.694
128.358	707.7	129.174	707.69	129.442	707.698	130.239	707.688	134.716	707.656

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
138.163	707.608	138.905	707.59	139.148	707.587	139.479	707.581	139.869	707.571
140.434	707.562	140.832	707.553	140.99	707.544	141.107	707.542	141.806	707.525
144.762	707.467	145.54	707.456	145.698	707.453	146.393	707.436	147.561	707.424
148.784	707.403	149.97	707.39	154.224	707.307	154.734	707.289	156.421	707.249
157.833	707.207	158.098	707.201	159.456	707.16	161.62	707.106	161.833	707.097
162.346	707.087	162.419	707.086	162.65	707.077	163.21	707.06	163.751	707.05
163.898	707.046	164.311	707.032	164.87	707.022	165.146	707.013	165.696	707.004
165.833	707	165.963	706.995	166.337	706.989	166.513	706.985	166.762	706.976
167.366	706.967	175.066	706.918	175.234	706.926	175.474	706.918	179.066	706.926
179.482	706.918	180.746	706.926	181.154	706.918	181.33	706.926	181.738	706.918
181.945	706.927	183.558	706.948	190.295	707.062	190.82	707.076	191.376	707.087
191.558	707.092	191.932	707.104	193.928	707.183	194.067	707.192	194.132	707.194
194.927	707.222	195.227	707.234	197.548	707.267	197.78	707.276	198.024	707.291
198.087	707.294	198.421	707.313	199.154	707.349	199.544	707.359	199.703	707.366
199.775	707.371	199.962	707.379	200.138	707.388	202.163	707.419	202.38	707.424
206.172	707.492	206.244	707.492	215.585	707.56	216.801	707.575	218.082	707.583
218.667	707.59	221.467	707.613	221.598	707.616	222.147	707.619	222.278	707.622
226.27	707.657	227.27	707.657	227.415	707.655	229.151	707.658	229.325	707.656
230.41	707.659	230.468	707.66	230.96	707.661	232.393	707.673	233.087	707.675
233.608	707.68	234.39	707.683	234.882	707.688	235.831	707.71	236.045	707.72
236.778	707.734	237.01	707.744	238.326	707.775	238.505	707.78	238.802	707.798
239.247	707.811	239.591	707.829	240.034	707.84	240.677	707.869	240.786	707.873
241.197	707.891	241.447	707.909	241.986	707.929	242.274	707.947	243.128	707.977
243.462	707.996	244.464	708.046	244.706	708.056	245.337	708.086	245.773	708.113
246.442	708.143	247.119	708.182	247.428	708.198	247.658	708.212	247.806	708.222
248.382	708.254	248.502	708.264	249.041	708.296	249.143	708.305	249.709	708.336
250.331	708.378	250.526	708.389	251.139	708.429	251.205	708.433	251.631	708.461
251.761	708.471	252.578	708.515	252.643	708.524	254.156	708.608	254.314	708.618
255.752	708.703	256.012	708.715	256.661	708.756	257.247	708.788	257.581	708.809
257.674	708.814	257.978	708.833	258.138	708.842	258.482	708.863	258.992	708.886
259.338	708.907	259.466	708.916	259.865	708.938	260.301	708.968	260.684	708.988
261.393	709.03	261.898	709.054	262.204	709.073	262.29	709.076	262.377	709.081
262.483	709.085	262.993	709.114	263.253	709.125	263.801	709.155	264.033	709.174
264.265	709.185	265.834	709.266	266.632	709.316	267.44	709.357	267.588	709.367
268.136	709.393	268.201	709.397	268.303	709.406	269.993	709.497	270.234	709.508
270.837	709.54	270.972	709.546	271.431	709.562	272.035	709.592	272.202	709.602
272.768	709.626	272.897	709.635	273.464	709.658	273.641	709.668	274.188	709.69
275.507	709.754	275.632	709.759	276.037	709.773	276.166	709.778	276.351	709.788
276.825	709.81	277.029	709.821	278.152	709.875	278.57	709.888	278.821	709.898
279.6	709.938	279.86	709.948	280.222	709.959	280.501	709.97	280.844	709.989
282.028	710.03	282.088	710.033	282.376	710.051	282.969	710.071	284.922	710.148
285.124	710.155	285.542	710.175	286.008	710.192	286.164	710.197	286.358	710.207
287.008	710.229	287.185	710.239	287.454	710.249	288.373	710.289	289.097	710.311
289.301	710.32	290.031	710.349	290.22	710.36	290.581	710.375	292.077	710.431
293.014	710.472	294.415	710.523	294.639	710.532	294.992	710.542	295.149	710.551
295.53	710.571	295.819	710.588	296.282	710.609	296.82	710.637	296.895	710.645
297.035	710.651	297.136	710.656						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	161.62	.06	191.932	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
161.62	191.932	7.378	9.116	10.856	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 331

INPUT
Description:
Station Elevation Data num= 345

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	708.24	.47	708.17	.59	708.14	1.28	708.06	1.85	708
15.16	707.98	15.86	707.95	16.61	707.91	17.25	707.88	18.04	707.84
18.87	707.81	19.45	707.78	19.75	707.77	20.31	707.74	20.84	707.72
21.04	707.71	21.43	707.69	21.8	707.68	22.02	707.67	22.38	707.66
22.62	707.65	22.97	707.63	23.3	707.62	23.57	707.61	23.89	707.6
24.17	707.59	24.49	707.58	24.78	707.57	25.09	707.56	25.38	707.55
25.69	707.54	25.98	707.53	26.31	707.52	26.81	707.5	27.16	707.49
27.4	707.48	27.76	707.47	27.99	707.46	28.49	707.45	28.71	707.44
28.99	707.43	29.49	707.42	29.69	707.41	30.19	707.4	30.38	707.39
32.88	707.34	33.54	707.33	34.04	707.32	34.7	707.31	35.46	707.3
36.55	707.29	37.25	707.28	40.42	707.25	45.37	707.24	45.98	707.25
46.12	707.24	51.65	707.23	56.19	707.21	61.14	707.2	64.51	707.18
65.42	707.17	67.25	707.16	69.27	707.17	69.46	707.16	69.86	707.17
70.86	707.18	72.24	707.19	73.24	707.2	76.57	707.22	76.67	707.21
77.24	707.22	82.24	707.25	83.21	707.26	85.4	707.27	86.96	707.28
88.05	707.29	88.72	707.3	89.97	707.31	90.79	707.32	93.1	707.34
95.26	707.35	96.27	707.34	98.46	707.33	98.62	707.34	99.2	707.33
107.98	707.32	111.39	707.3	113.53	707.28	117.55	707.27	117.73	707.28
118.07	707.27	118.25	707.28	118.59	707.27	121.32	707.26	128.27	707.27
129.76	707.28	129.89	707.27	130.25	707.28	131.24	707.29	131.36	707.28
131.74	707.29	132.75	707.3	132.88	707.29	133.25	707.3	136.38	707.32
136.52	707.31	136.83	707.32	136.98	707.31	137.28	707.32	137.74	707.31
138.04	707.32	138.19	707.31	138.5	707.32	139.38	707.31	139.67	707.32
140.53	707.31	142.95	707.3	145.36	707.28	146.26	707.27	146.97	707.26
147.59	707.25	149.08	707.23	149.88	707.21	150.5	707.2	150.92	707.19
151.53	707.18	151.96	707.17	152.13	707.16	153.01	707.14	153.61	707.13
154.14	707.12	154.6	707.11	156.2	707.08	157.04	707.07	157.96	707.05
159.22	707.04	160.54	707.02	161.82	707.01	164.36	706.97	166.41	706.93
166.96	706.91	167.77	706.89	168.78	706.87	169.69	706.84	170.59	706.82
171.5	706.79	172.39	706.77	172.78	706.76	173.49	706.74	174.39	706.72
174.63	706.71	175.29	706.7	175.55	706.69	176.18	706.67	176.79	706.66
177.12	706.65	177.42	706.64	178.05	706.63	178.36	706.62	178.98	706.61
179.28	706.6	179.9	706.59	180.18	706.58	180.86	706.57	187.48	706.55
189.53	706.54	189.74	706.55	190.04	706.54	194.53	706.55	195.05	706.54
196.63	706.55	197.14	706.54	197.36	706.55	197.87	706.54	198.08	706.55
199.72	706.57	207.86	706.71	208.23	706.72	209.9	706.78	210.38	706.8
210.53	706.81	211.78	706.85	214.28	706.87	214.53	706.88	214.86	706.9

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
215.22	706.92	216.01	706.96	216.43	706.97	216.88	706.99	217.07	707
223.57	707.08	225.09	707.09	227.71	707.1	229.25	707.11	232.36	707.14
233.71	707.15	235.02	707.17	236.4	707.18	237.03	707.19	238.31	707.2
238.95	707.21	239.85	707.22	245.22	707.27	254.54	707.24	254.95	707.25
255.52	707.26	255.75	707.27	256.56	707.28	256.79	707.29	257.34	707.3
257.79	707.31	258.4	707.32	258.72	707.34	259.2	707.35	259.38	707.36
259.57	707.37	260.06	707.38	260.27	707.39	260.5	707.4	260.74	707.41
261.04	707.42	261.3	707.43	261.57	707.45	262.15	707.47	262.46	707.49
263.09	707.51	263.38	707.52	263.74	707.54	264.41	707.57	264.82	707.59
265.08	707.6	265.52	707.62	265.76	707.63	266.23	707.66	266.95	707.69
267.68	707.73	268.26	707.76	268.42	707.77	269.04	707.8	269.17	707.81
269.75	707.84	269.86	707.85	270.47	707.88	271.14	707.92	271.35	707.93
272.01	707.97	272.54	708	272.68	708.01	273.56	708.05	273.63	708.06
274.48	708.1	275.26	708.14	275.43	708.15	276.25	708.19	276.98	708.23
277.26	708.24	277.96	708.28	278.59	708.31	278.95	708.33	279.55	708.36
279.92	708.38	280.47	708.4	280.98	708.43	281.41	708.45	281.88	708.48
282.35	708.5	282.73	708.52	283.09	708.54	283.6	708.56	283.93	708.58
284.23	708.59	284.78	708.62	285.06	708.63	285.65	708.66	285.9	708.68
286.15	708.69	286.77	708.72	286.99	708.73	287.84	708.77	288.7	708.82
289.57	708.86	289.73	708.87	290.39	708.9	290.5	708.91	291.17	708.94
291.91	708.98	292.32	709	292.59	709.01	293.23	709.04	293.87	709.06
293.92	709.07	294.52	709.09	294.7	709.1	295.31	709.12	295.46	709.13
296.06	709.15	296.25	709.16	296.84	709.18	298.26	709.24	298.97	709.26
299.17	709.27	299.68	709.29	299.9	709.3	300.64	709.33	301.11	709.35
301.56	709.36	301.83	709.37	302.26	709.39	302.67	709.41	302.95	709.42
303.34	709.43	303.64	709.44	304.01	709.46	304.36	709.47	305.35	709.5
305.66	709.52	305.97	709.53	306.32	709.54	306.61	709.55	306.88	709.56
307.48	709.58	307.99	709.6	308.62	709.62	308.85	709.63	309.07	709.64
309.74	709.66	309.95	709.67	310.65	709.69	310.84	709.7	311.13	709.71
312.12	709.75	312.9	709.77	313.12	709.78	313.93	709.81	314.11	709.82
316.11	709.89	317.12	709.93	318.87	709.99	319.25	710	319.42	710.01
319.99	710.04	320.64	710.07	321.22	710.1	321.3	710.11	321.56	710.12

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	174.39	.06	208.23	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
174.39	208.23	7.943	8.579	7.707	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 322.428*

INPUT
Description:
Station Elevation Data num= 499

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	707.657	.48	707.595	.603	707.569	1.308	707.498	1.891	707.444
2.028	707.443	2.462	707.439	2.94	707.436	3.4	707.431	7.102	707.402
7.164	707.401	8.226	707.393	8.306	707.392	8.713	707.388	10.546	707.375
10.98	707.373	11.263	707.371	11.423	707.369	13.592	707.357	13.831	707.355
14.495	707.353	15.494	707.348	16.209	707.321	16.559	707.304	16.976	707.285
17.63	707.258	18.437	707.223	18.613	707.218	19.286	707.197	19.878	707.171
20.185	707.162	20.757	707.136	20.924	707.13	21.299	707.118	21.503	707.11
21.902	707.093	22.28	707.084	22.505	707.075	22.873	707.067	23.118	707.058
23.476	707.041	23.813	707.032	24.089	707.023	24.416	707.015	24.702	707.006
25.643	706.98	26.552	706.953	26.89	706.945	27.401	706.927	27.758	706.918
28.004	706.909	28.371	706.9	28.607	706.891	29.118	706.881	29.342	706.873
29.629	706.864	30.14	706.855	30.344	706.846	30.855	706.837	31.049	706.828
33.604	706.783	34.279	706.774	34.79	706.764	35.464	706.755	35.986	706.749
36.155	706.745	36.241	706.744	37.199	706.735	37.355	706.734	38.071	706.724
41.31	706.693	46.329	706.677	46.993	706.685	47.136	706.676	52.788	706.662
56.893	706.638	57.428	706.634	62.487	706.616	62.737	706.614	65.931	706.595
66.861	706.586	68.731	706.578	70.796	706.587	70.99	706.578	71.282	706.585
71.399	706.587	73.646	706.605	73.831	706.606	74.853	706.616	78.257	706.636
78.359	706.628	78.826	706.635	78.941	706.637	82.218	706.659	83.077	706.667
84.052	706.673	85.043	706.684	88.876	706.707	89.99	706.718	90.674	706.727
91.952	706.736	92.79	706.745	95.151	706.763	95.456	706.764	95.58	706.763
95.819	706.765	97.358	706.772	98.391	706.764	99.104	706.762	99.228	706.76
100.629	706.756	100.792	706.765	101.385	706.757	104.036	706.756	104.24	706.754
104.594	706.755	110.624	706.759	112.192	706.754	113.844	706.745	114.388	706.74
114.556	706.74	114.795	706.737	114.963	706.737	115.211	706.734	115.379	706.734
115.618	706.73	115.796	706.73	116.031	706.727	116.442	706.728	120.139	706.719
120.323	706.727	120.382	706.726	120.671	706.72	120.772	706.725	120.855	706.728
121.011	706.723	121.202	706.719	123.992	706.709	125.093	706.71	125.474	706.712
131.096	706.718	132.618	706.726	132.751	706.717	133.119	706.726	133.328	706.728
134.131	706.734	134.254	706.725	134.642	706.733	135.674	706.741	135.807	706.732
136.185	706.74	139.323	706.751	139.384	706.751	139.527	706.742	139.844	706.75
139.997	706.741	140.304	706.749	140.439	706.746	140.774	706.739	141.081	706.747
141.191	706.741	141.551	706.746	142.325	706.737	142.45	706.735	142.747	706.742
143.626	706.731	145.858	706.718	146.099	706.717	147.089	706.707	148.562	706.695
148.789	706.692	149.482	706.686	150.207	706.678	150.841	706.669	152.364	706.653
152.588	706.648	153.182	706.637	153.544	706.632	153.815	706.629	154.049	706.625
154.244	706.622	154.483	706.62	154.868	706.615	155.307	706.608	155.481	706.599
155.74	706.595	155.97	706.592	156.298	706.587	156.38	706.586	156.994	706.58
157.378	706.575	157.535	706.574	158.006	706.567	158.441	706.562	159.641	706.543
160.499	706.535	161.44	706.518	161.549	706.518	162.727	706.515	164.076	706.503
165.385	706.5	167.172	706.484	167.783	706.474	167.96	706.473	168.181	706.468
168.358	706.467	168.801	706.458	168.978	706.456	169.199	706.451	169.377	706.45
169.598	706.445	169.784	706.443	170.005	706.438	170.076	706.438	170.182	706.435
170.413	706.427	170.59	706.423	170.74	706.418	170.926	706.415	171.466	706.405
172.498	706.388	173.428	706.363	173.662	706.358	174.348	706.346	175.278	706.321
176.187	706.305	176.586	706.297	177.312	706.281	177.523	706.278	178.231	706.266
178.459	706.256	179.083	706.246	179.329	706.236	179.925	706.217	180.502	706.207
181.098	706.188	181.695	706.177	181.988	706.167	182.575	706.157	182.858	706.147
183.445	706.137	183.71	706.128	184.353	706.117	188.961	706.089	189.294	706.089
189.765	706.084	191.631	706.068	192.026	706.068	192.557	706.061	192.737	706.07
192.994	706.061	196.843	706.07	197.289	706.061	198.643	706.07	199.08	706.061
199.269	706.07	199.706	706.061	199.901	706.07	201.422	706.092	203.016	706.121

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
203.241	706.126	203.448	706.132	203.693	706.138	204.37	706.151	204.614	706.158
204.915	706.164	206.363	706.197	206.833	706.209	208.973	706.258	209.316	706.269
209.588	706.283	210.366	706.315	210.572	706.325	211.004	706.343	211.172	706.353
211.313	706.361	211.49	706.368	211.642	706.378	211.763	706.382	211.885	706.388
211.988	706.392	212.438	706.407	212.522	706.411	212.906	706.424	212.991	706.425
213.057	706.427	213.413	706.431	213.469	706.432	214.679	706.446	215.213	706.454
215.434	706.456	215.686	706.464	216.02	706.481	216.384	706.498	217.183	706.531
217.608	706.54	218.063	706.557	218.255	706.565	219.264	706.575	219.742	706.578
221.626	706.595	222.17	706.599	224.828	706.624	226.365	706.631	229.014	706.637
229.277	706.639	230.572	706.646	233.716	706.673	235.082	706.682	235.381	706.687
236.406	706.701	236.534	706.702	236.843	706.706	237.802	706.713	238.439	706.722
239.733	706.732	240.38	706.741	246.721	706.798	255.97	706.783	256.145	706.783
256.56	706.793	257.136	706.802	257.369	706.811	257.48	706.813	258.188	706.822
258.421	706.831	258.839	706.838	258.977	706.84	259.432	706.85	260.049	706.861
260.255	706.872	260.372	706.879	260.858	706.889	261.04	706.899	261.232	706.908
261.727	706.918	261.94	706.928	262.172	706.937	262.415	706.946	262.618	706.953
262.718	706.956	262.981	706.966	263.254	706.984	263.311	706.986	263.841	707.003
264.099	707.018	264.154	707.022	264.791	707.04	265.084	707.05	265.168	707.054
265.29	707.061	265.448	707.069	266.126	707.097	266.237	707.102	266.49	707.114
266.541	707.116	266.803	707.125	267.248	707.144	267.491	707.153	267.966	707.18
268.646	707.207	269.387	707.242	269.546	707.251	270.019	707.273	270.181	707.282
270.418	707.293	270.808	707.309	270.939	707.318	271.272	707.333	271.44	707.342
271.526	707.346	271.637	707.355	272.254	707.383	272.932	707.418	273.144	707.427
273.269	707.434	273.456	707.445	273.811	707.464	274.347	707.491	274.489	707.5
275.379	707.537	275.449	707.545	275.603	707.552	275.988	707.569	276.309	707.582
276.944	707.612	277.098	707.619	277.27	707.628	278.099	707.664	278.837	707.701
279.072	707.709	279.828	707.746	280.422	707.771	280.829	707.791	281.436	707.819
281.81	707.837	282.185	707.849	282.366	707.856	282.882	707.883	283.038	707.889
283.317	707.901	283.792	707.928	284.267	707.947	284.652	707.965	284.829	707.974
285.016	707.983	285.429	707.998	285.531	708.002	285.865	708.02	286.123	708.029
286.725	708.057	287.008	708.067	287.604	708.094	287.857	708.112	288.11	708.121
288.523	708.14	289.517	708.182	289.819	708.196	290.426	708.229	290.689	708.242
291.568	708.28	291.73	708.29	292.397	708.318	292.509	708.327	293.186	708.356
293.727	708.383	293.935	708.394	294.349	708.413	294.622	708.423	295.269	708.451
295.917	708.471	295.967	708.48	296.574	708.499	296.756	708.509	297.373	708.528
297.524	708.538	297.74	708.545	298.131	708.559	298.323	708.569	298.92	708.591
300.356	708.655	301.074	708.678	301.276	708.688	301.792	708.709	302.014	708.719
303.238	708.771	303.693	708.783	303.966	708.793	304.359	708.811	304.815	708.833
305.09	708.843	305.493	708.854	305.796	708.865	305.981	708.874	306.17	708.884
307.444	708.925	307.525	708.927	307.828	708.945	308.152	708.955	308.506	708.964
308.799	708.973	309.072	708.982	309.679	709	310.195	709.017	310.832	709.035
311.287	709.053	311.965	709.071	312.177	709.08	312.885	709.098	313.077	709.107
313.37	709.116	314.213	709.146	314.371	709.152	314.71	709.16	315.16	709.173
315.382	709.182	316.013	709.204	316.202	709.211	316.384	709.22	317.588	709.261
318.104	709.28	318.404	709.29	318.929	709.309	319.21	709.32	319.427	709.328
319.745	709.338	319.867	709.343	320.532	709.364	320.645	709.368	321.197	709.385
321.414	709.391	321.581	709.395	321.753	709.405	322.276	709.429	322.33	709.432
322.987	709.458	323.573	709.485	323.654	709.494	323.917	709.503		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	178.231	.06	209.316	.06

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

178.231	209.316	7.943	8.579	7.707	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 313.857*

INPUT
Description:
Station Elevation Data num= 368

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	707.074	.19	707.052	.491	707.02	.616	706.998	.85	706.979
1.194	706.948	1.932	706.887	2.071	706.886	3.003	706.873	3.474	706.864
3.971	706.858	4.116	706.855	4.451	706.852	7.255	706.812	7.318	706.809
8.404	706.796	8.485	706.793	10.773	706.762	11.506	706.756	11.669	706.753
13.442	706.734	13.885	706.731	14.129	706.727	15.828	706.716	16.559	706.692
17.342	706.66	18.835	706.606	19.701	706.583	20.307	706.561	20.62	706.554
21.205	706.532	21.758	706.517	22.374	706.495	22.76	706.488	22.99	706.481
23.366	706.473	23.617	706.466	23.982	706.451	27.469	706.369	27.991	706.353
28.357	706.345	29.223	706.322	29.745	706.313	29.975	706.305	30.267	706.298
30.789	706.29	30.998	706.282	31.52	706.274	31.718	706.267	36.762	706.194
36.934	706.189	37.022	706.188	47.327	706.114	48.006	706.12	48.152	706.113
70.213	705.996	72.322	706.004	72.52	705.997	72.938	706.004	79.943	706.053
80.048	706.046	80.643	706.055	91.929	706.145	92.629	706.154	97.202	706.186
97.513	706.187	97.64	706.184	97.884	706.188	99.457	706.194	101.24	706.186
101.367	706.183	101.81	706.185	102.798	706.183	102.965	706.19	103.57	706.184
106.279	706.185	106.487	706.182	106.848	706.185	114.61	706.198	116.853	706.185
117.025	706.187	117.269	706.182	117.441	706.184	117.694	706.18	117.866	706.181
118.11	706.177	118.291	706.179	118.532	706.175	118.952	706.176	122.729	706.167
122.917	706.174	122.977	706.173	123.272	706.169	123.375	706.174	123.46	706.176
123.619	706.171	123.815	706.167	127.789	706.158	128.178	706.161	133.921	706.165
135.477	706.172	135.612	706.164	135.988	706.172	137.022	706.177	137.147	706.17
137.544	706.177	138.598	706.181	138.734	706.174	139.12	706.18	142.388	706.183
142.534	706.175	142.858	706.18	143.015	706.172	143.328	706.178	143.808	706.169
144.121	706.175	144.234	706.169	144.602	706.172	145.392	706.162	145.52	706.159
145.823	706.164	146.721	706.152	155.648	706.076	156.483	706.063	157.13	706.059
157.569	706.054	158.206	706.051	158.655	706.045	158.832	706.039	159.097	706.036
159.667	706.033	159.751	706.032	160.931	706.027	161.06	706.027	163.958	706
164.919	705.987	170.775	705.985	171.399	705.975	171.58	705.976	171.806	705.97
171.987	705.971	172.439	705.962	172.62	705.962	172.846	705.956	173.027	705.957
173.253	705.951	173.443	705.951	173.669	705.945	173.741	705.945	173.85	705.944
174.085	705.936	174.266	705.934	174.42	705.928	174.61	705.928	176.216	705.906
177.166	705.885	178.105	705.873	179.056	705.853	182.073	705.811	182.287	705.803
182.876	705.792	183.108	705.783	183.67	705.764	184.215	705.753	184.777	705.735
185.339	705.724	185.616	705.715	186.169	705.704	186.437	705.695	186.99	705.684
187.24	705.675	187.847	705.664	192.192	705.622	192.507	705.624	192.951	705.615
194.711	705.592	195.083	705.593	195.584	705.583	195.734	705.59	195.949	705.583

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
199.156	705.59	199.527	705.583	200.656	705.59	201.02	705.583	201.177	705.59
201.541	705.583	201.721	705.591	204.593	705.643	204.801	705.648	204.992	705.657
205.841	705.678	206.067	705.687	206.344	705.693	210.085	705.806	210.401	705.817
210.676	705.835	211.463	705.872	211.672	705.886	212.109	705.906	212.278	705.919
212.421	705.929	212.6	705.937	212.753	705.946	212.876	705.95	212.999	705.958
213.103	705.964	213.558	705.979	213.644	705.984	214.031	705.997	214.118	705.999
214.184	706.002	214.544	706.007	214.601	706.01	216.099	706.033	216.364	706.04
216.587	706.041	216.843	706.048	217.18	706.062	218.356	706.103	218.785	706.109
219.246	706.123	219.44	706.13	230.319	706.175	230.584	706.175	236.453	706.215
237.793	706.233	237.922	706.234	238.234	706.238	248.221	706.325	257.573	706.326
257.751	706.327	258	706.333	258.753	706.345	258.988	706.353	259.1	706.354
259.816	706.363	260.051	706.371	261.697	706.402	262.024	706.418	262.515	706.429
262.893	706.446	263.394	706.456	263.609	706.465	264.09	706.483	264.396	706.492
264.662	706.502	264.938	706.518	265.531	706.537	265.793	706.55	265.848	706.553
266.789	706.58	266.873	706.583	266.996	706.591	267.157	706.598	267.954	706.628
268.21	706.64	269.222	706.677	269.703	706.701	270.087	706.714	271.185	706.759
271.3	706.766	271.778	706.786	271.942	706.794	272.182	706.804	272.576	706.818
272.709	706.826	273.045	706.839	273.215	706.848	273.302	706.852	273.414	706.86
274.723	706.916	274.938	706.924	275.613	706.958	276.154	706.982	276.298	706.99
277.197	707.023	277.269	707.031	278.372	707.074	278.78	707.092	278.935	707.098
279.109	707.106	279.948	707.138	280.694	707.172	280.932	707.179	281.696	707.212
282.297	707.234	282.708	707.253	283.188	707.272	283.322	707.278	283.7	707.293
284.079	707.304	284.262	707.311	284.784	707.335	285.223	707.352	285.704	707.376
286.573	707.41	286.941	707.427	287.359	707.44	287.463	707.444	287.8	707.461
288.061	707.469	288.669	707.495	288.955	707.503	289.559	707.528	289.758	707.54
289.814	707.543	290.07	707.552	290.488	707.57	291.798	707.621	292.677	707.665
293.566	707.701	293.73	707.709	294.405	707.736	294.517	707.744	295.202	707.771
295.569	707.788	295.749	707.798	295.959	707.808	296.378	707.826	296.654	707.835
297.309	707.862	297.963	707.882	298.014	707.89	298.628	707.909	298.812	707.917
299.435	707.937	299.589	707.945	299.806	707.952	300.202	707.968	300.396	707.978
300.887	707.997	302.452	708.069	303.177	708.095	303.382	708.106	303.903	708.128
304.015	708.134	305.365	708.192	305.826	708.206	306.102	708.216	306.96	708.255
307.239	708.266	307.952	708.289	308.331	708.308	309.618	708.353	309.701	708.355
310.007	708.371	313.044	708.451	313.504	708.466	314.189	708.483	314.404	708.49
315.119	708.506	315.314	708.514	316.463	708.548	316.622	708.554	316.965	708.562
318.473	708.611	318.657	708.62	322.056	708.735	322.179	708.741	322.852	708.76
322.966	708.765	323.524	708.781	323.743	708.785	323.912	708.791	324.086	708.799
325.927	708.87	326.008	708.878	326.274	708.886				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	182.073	.06	210.401	.06

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
182.073	210.401	7.943	8.579	7.707	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 305.285*

INPUT
Description:
Station Elevation Data num= 379

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	706.491	.194	706.472	.501	706.445	.629	706.427	.868	706.411
1.365	706.374	1.635	706.356	1.972	706.331	3.067	706.311	3.547	706.297
4.055	706.288	4.203	706.284	4.544	706.279	7.408	706.221	7.472	706.217
8.581	706.199	8.664	706.195	11.001	706.15	11.749	706.141	11.915	706.136
12.479	706.127	12.931	706.123	13.726	706.109	14.178	706.104	14.428	706.1
16.162	706.084	19.232	705.989	20.117	705.97	20.735	705.952	21.055	705.946
21.652	705.927	21.826	705.924	22.43	705.91	22.846	705.898	23.241	705.892
23.475	705.886	23.859	705.88	24.115	705.874	24.488	705.862	27.026	705.815
27.697	705.8	28.049	705.794	28.582	705.78	28.955	705.773	29.211	705.766
29.419	705.763	29.594	705.759	29.84	705.752	30.373	705.744	30.607	705.738
30.906	705.732	31.439	705.725	31.652	705.718	32.185	705.711	32.388	705.705
37.538	705.639	37.713	705.633	42.682	705.585	43.091	705.579	48.326	705.551
49.019	705.555	49.168	705.549	69.284	705.42	71.694	705.413	73.848	705.421
74.05	705.415	74.477	705.422	81.63	705.47	81.737	705.464	82.224	705.47
82.344	705.472	99.252	705.608	99.571	705.609	99.7	705.605	99.949	705.61
101.555	705.616	103.376	705.611	103.505	705.606	103.958	705.61	104.967	705.609
105.137	705.615	105.755	705.611	108.521	705.614	108.733	705.61	109.103	705.614
117.028	705.643	119.318	705.63	119.494	705.633	119.743	705.628	119.919	705.631
120.177	705.626	120.353	705.629	120.602	705.624	120.787	705.627	121.032	705.622
121.461	705.625	125.318	705.616	125.51	705.621	125.572	705.62	125.872	705.619
125.978	705.623	126.064	705.624	126.227	705.619	126.427	705.615	130.485	705.607
130.883	705.611	138.335	705.618	138.474	705.612	138.857	705.617	139.913	705.621
140.041	705.615	140.446	705.62	141.523	705.622	141.661	705.616	142.056	705.62
145.392	705.614	145.542	705.607	145.872	705.61	146.032	705.603	146.352	705.607
146.492	705.604	146.842	705.598	147.162	705.602	147.278	705.597	147.653	705.599
148.46	705.588	148.591	705.584	148.9	705.586	149.817	705.573	151.148	705.563
151.591	705.557	152.94	705.545	153.429	705.538	154.966	705.524	155.203	705.521
158.932	705.498	159.165	705.495	160.163	705.488	161.544	705.486	162.002	705.483
162.183	705.479	162.453	705.477	164.162	705.48	164.326	705.481	165.27	705.481
168.513	705.455	174.378	705.486	175.015	705.476	175.2	705.479	175.431	705.472
175.615	705.474	176.077	705.465	176.262	705.468	176.493	705.461	176.678	705.463
176.909	705.457	177.103	705.459	177.333	705.452	177.518	705.454	177.758	705.445
177.943	705.445	178.1	705.439	178.294	705.44	179.934	705.424	180.904	705.408
181.863	705.399	182.833	705.384	185.914	705.357	186.116	705.349	186.669	705.337
186.887	705.329	187.415	705.312	187.927	705.3	188.455	705.283	188.984	705.271
189.244	705.262	189.764	705.251	190.015	705.242	190.535	705.231	190.77	705.222
191.34	705.21	195.424	705.156	195.72	705.16	196.137	705.146	197.791	705.116
198.141	705.119	198.611	705.104	198.731	705.11	198.903	705.104	201.469	705.11
201.766	705.104	202.669	705.11	202.96	705.104	203.086	705.11	203.377	705.104
203.542	705.112	206.17	705.164	206.361	705.171	206.535	705.182	207.313	705.204
207.519	705.215	208.376	705.243	209.964	705.31	211.198	705.353	211.487	705.366
211.765	705.388	212.139	705.409	212.561	705.43	212.771	705.447	213.213	705.468
213.385	705.485	213.529	705.497	213.71	705.505	213.865	705.513	213.989	705.518
214.113	705.529	214.219	705.535	214.679	705.552	214.765	705.557	215.157	705.571
215.244	705.573	215.311	705.578	215.675	705.584	215.733	705.588	217.247	705.616
217.515	705.626	217.741	705.627	217.999	705.632	218.34	705.643	219.529	705.674

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
219.963	705.679	220.625	705.695	221.656	705.7	222.144	705.699	237.825	705.747
239.179	705.764	239.309	705.765	239.626	705.77	249.722	705.853	259.177	705.869
259.356	705.87	259.608	705.876	259.78	705.879	260.369	705.887	260.607	705.894
261.444	705.904	261.682	705.912	263.346	705.942	263.557	705.952	263.676	705.957
264.173	705.968	264.359	705.976	264.555	705.983	265.062	705.995	266.343	706.037
266.622	706.052	266.681	706.054	267.222	706.07	267.486	706.082	267.542	706.085
268.493	706.109	268.579	706.113	268.703	706.121	268.865	706.127	269.671	706.154
269.93	706.166	269.982	706.168	270.251	706.176	270.953	706.2	271.439	706.221
271.828	706.233	272.134	706.245	272.891	706.271	273.054	706.28	273.946	706.315
274.344	706.328	274.478	706.334	274.818	706.345	274.99	706.355	275.078	706.358
275.191	706.365	276.514	706.414	276.732	706.421	276.859	706.426	277.051	706.436
277.414	706.452	277.962	706.473	278.106	706.48	279.016	706.51	279.088	706.516
279.245	706.521	282.551	706.642	282.792	706.649	283.564	706.678	284.172	706.697
285.072	706.732	285.208	706.736	285.59	706.75	285.973	706.759	286.686	706.788
287.13	706.803	287.616	706.824	288.495	706.855	288.676	706.863	288.867	706.87
289.289	706.882	289.394	706.886	289.735	706.901	289.999	706.909	290.614	706.932
290.903	706.94	291.513	706.961	291.771	706.975	293.468	707.035	293.777	707.047
294.665	707.088	295.565	707.121	295.73	707.129	296.412	707.154	296.526	707.161
297.589	707.202	297.771	707.212	298.407	707.239	298.686	707.248	299.348	707.273
300.009	707.293	300.061	707.299	300.681	707.318	300.867	707.326	301.498	707.345
301.653	707.353	301.873	707.36	302.273	707.377	302.47	707.387	303.079	707.413
304.547	707.484	305.281	707.513	305.488	707.524	306.015	707.547	306.128	707.553
307.493	707.614	307.958	707.628	308.237	707.639	309.106	707.678	310.108	707.714
310.491	707.732	310.757	707.741	310.853	707.745	310.978	707.749	311.792	707.78
311.876	707.782	312.185	707.797	315.256	707.866	315.721	707.88	316.414	707.894
316.631	707.9	317.354	707.915	317.551	707.921	318.712	707.951	318.874	707.956
319.22	707.964	319.68	707.978	319.907	707.986	320.745	708.012	320.931	708.02
322.996	708.09	323.533	708.106	323.82	708.117	324.367	708.132	324.491	708.138
325.172	708.156	325.287	708.162	325.851	708.176	326.073	708.18	326.244	708.186
326.419	708.194	328.28	708.255	328.363	708.261	328.631	708.269		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	185.914	.06	211.487	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
185.914	211.487	7.943	8.579	7.707	.1	.3

Left Levee Station= 174.38 Elevation= 705.5

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 296.714*

INPUT
Description:
Station Elevation Data num= 371

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	705.909	.198	705.891	.511	705.87	.642	705.856	.886	705.843
1.393	705.812	1.669	705.797	2.013	705.775	2.159	705.771	3.13	705.748
3.62	705.731	4.139	705.719	4.289	705.713	4.638	705.707	6.015	705.672
6.533	705.654	7.561	705.631	7.627	705.625	8.758	705.602	8.843	705.596
9.277	705.584	9.795	705.573	10.191	705.561	11.228	705.537	11.992	705.526
12.161	705.52	12.736	705.508	13.198	705.502	14.009	705.484	14.471	705.478
14.726	705.472	16.3	705.454	16.496	705.453	19.63	705.372	20.533	705.357
21.164	705.343	21.49	705.338	22.1	705.323	22.676	705.314	23.318	705.3
23.721	705.296	23.96	705.291	24.613	705.282	24.994	705.273	29.553	705.201
29.814	705.195	30.206	705.189	30.456	705.183	32.088	705.159	32.306	705.154
32.85	705.148	33.057	705.144	38.313	705.084	38.492	705.078	43.564	705.029
43.981	705.022	49.324	704.989	50.031	704.99	50.184	704.986	55.839	704.962
70.715	704.835	75.373	704.838	75.58	704.834	75.891	704.837	76.015	704.839
78.408	704.852	78.605	704.854	83.317	704.886	83.425	704.882	87.534	704.92
88.448	704.933	101.303	705.031	101.628	705.032	101.76	705.027	102.014	705.033
105.512	705.036	105.644	705.03	106.106	705.035	107.135	705.035	107.31	705.04
107.941	705.037	110.763	705.043	110.98	705.037	111.357	705.043	116.127	705.063
116.589	705.069	117.315	705.074	117.494	705.077	119.446	705.087	121.784	705.075
121.963	705.08	122.217	705.073	122.397	705.078	122.661	705.072	122.84	705.077
123.094	705.07	123.283	705.075	123.533	705.069	123.971	705.074	127.907	705.065
128.103	705.069	128.166	705.068	128.473	705.068	128.581	705.072	128.669	705.072
128.836	705.067	129.039	705.064	133.182	705.055	133.587	705.061	141.193	705.063
141.335	705.059	141.726	705.063	142.804	705.065	142.934	705.06	143.882	705.064
144.447	705.063	144.588	705.057	144.991	705.06	148.331	705.046	148.397	705.045
148.549	705.039	148.886	705.04	149.049	705.035	149.376	705.036	149.876	705.027
150.203	705.029	150.321	705.026	150.703	705.025	151.527	705.013	151.661	705.009
151.976	705.009	158.409	704.936	163.086	704.916	164.218	704.918	164.471	704.92
164.881	704.921	165.018	704.922	165.349	704.921	165.534	704.918	165.81	704.918
166.404	704.924	166.492	704.924	168.685	704.941	171.878	704.924	171.994	704.924
177.981	704.987	178.631	704.977	178.82	704.982	179.056	704.974	179.244	704.978
179.715	704.969	179.904	704.973	180.14	704.966	180.328	704.97	180.564	704.962
180.762	704.967	180.998	704.959	181.073	704.961	181.186	704.963	181.431	704.953
181.62	704.956	181.671	704.954	181.78	704.949	181.978	704.953	186.611	704.915
186.739	704.915	189.756	704.903	189.944	704.896	190.462	704.883	190.666	704.875
191.161	704.859	191.639	704.847	192.134	704.83	192.628	704.818	192.872	704.81
193.358	704.798	193.594	704.79	194.08	704.778	194.3	704.77	194.834	704.757
198.655	704.689	198.932	704.695	199.322	704.677	200.871	704.639	201.198	704.644
201.639	704.626	201.729	704.63	201.857	704.626	203.781	704.63	204.004	704.626
204.681	704.63	204.9	704.626	204.994	704.63	205.213	704.626	205.362	704.632
207.748	704.686	207.921	704.693	208.079	704.706	208.266	704.714	208.785	704.731
208.972	704.744	209.203	704.752	209.75	704.775	211.19	704.853	211.608	704.868
212.573	704.914	212.854	704.941	213.232	704.964	213.658	704.987	213.871	705.008
214.318	705.031	214.491	705.052	214.636	705.065	214.819	705.073	214.976	705.081
215.101	705.086	215.227	705.099	215.334	705.106	215.799	705.124	215.886	705.13
216.282	705.145	216.371	705.147	216.438	705.153	216.806	705.16	216.865	705.166
217.62	705.18	218.395	705.2	218.667	705.212	218.894	705.212	219.156	705.216
220.702	705.246	221.141	705.249	221.611	705.256	221.81	705.26	222.852	705.262
223.346	705.259	225.293	705.258	225.855	705.255	233.198	705.249	238.585	705.274
240.697	705.296	241.017	705.303	243.216	705.323	260.78	705.412	260.961	705.414
261.216	705.42	261.985	705.43	262.225	705.435	262.34	705.436	263.072	705.446
263.312	705.452	264.994	705.483	265.329	705.496	265.83	705.507	266.217	705.521
266.729	705.533	267.439	705.556	267.649	705.561	267.753	705.565	268.024	705.573
268.307	705.586	268.366	705.588	268.913	705.603	269.18	705.614	269.236	705.616

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
270.198	705.639	270.284	705.642	270.41	705.651	271.274	705.677	271.388	705.681
271.65	705.692	271.702	705.694	272.685	705.724	273.176	705.742	273.568	705.752
273.878	705.763	273.928	705.765	274.643	705.786	274.808	705.795	275.709	705.826
276.112	705.837	276.248	705.842	276.591	705.852	276.765	705.861	276.854	705.864
276.969	705.87	278.654	705.922	278.848	705.932	280.388	705.985	280.835	705.997
280.908	706.002	281.067	706.006	282.035	706.036	282.452	706.051	284.408	706.113
284.651	706.119	287.48	706.206	287.868	706.214	288.055	706.223	290.792	706.313
291.325	706.327	291.67	706.341	292.558	706.369	292.851	706.376	293.467	706.395
293.671	706.404	293.728	706.407	295.444	706.461	296.654	706.51	297.563	706.542
297.73	706.549	298.42	706.573	298.535	706.579	299.609	706.617	299.793	706.627
301.387	706.685	302.056	706.704	302.108	706.709	302.735	706.728	302.923	706.735
303.561	706.754	303.717	706.761	303.94	706.767	304.344	706.785	304.543	706.796
305.044	706.818	306.643	706.898	307.385	706.931	307.594	706.942	308.127	706.966
308.357	706.978	309.621	707.035	309.859	707.044	310.091	707.051	310.373	707.062
311.251	707.101	312.264	707.139	312.651	707.156	312.921	707.166	313.017	707.17
313.143	707.174	313.967	707.208	314.051	707.21	314.364	707.223	317.708	707.287
317.938	707.293	318.638	707.305	318.858	707.31	319.589	707.323	319.788	707.328
320.962	707.353	321.125	707.358	321.475	707.365	322.17	707.389	323.016	707.413
323.204	707.42	323.597	707.431	325.292	707.49	325.835	707.505	326.125	707.515
326.677	707.529	326.803	707.536	327.491	707.552	327.607	707.559	328.402	707.575
328.575	707.582	329.293	707.605	329.348	707.606	330.633	707.64	330.717	707.645
330.989	707.651								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	189.756	.06	212.573	.06

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
189.756 212.573 7.943 8.579 7.707 .1 .3
Left Levee Station= 177.99 Elevation= 705.1

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 288.142*

INPUT
Description:
Station Elevation Data num= 354

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	705.326	.202	705.311	.522	705.295	.655	705.285	.904	705.275
1.421	705.25	1.702	705.238	2.054	705.219	2.203	705.214	3.193	705.185
3.693	705.164	4.222	705.149	4.376	705.142	4.732	705.135	7.714	705.041
7.781	705.034	8.935	705.004	9.022	704.997	9.993	704.968	10.397	704.954
11.455	704.925	11.927	704.918	12.234	704.91	12.408	704.903	12.994	704.889
13.466	704.881	14.293	704.86	14.764	704.852	15.024	704.845	15.745	704.838
16.63	704.823	16.83	704.821	20.027	704.756	23.79	704.703	25.111	704.69
25.5	704.683	26.521	704.674	30.817	704.619	31.073	704.614	32.183	704.599
32.738	704.594	32.96	704.591	33.515	704.586	33.726	704.582	39.089	704.529
39.272	704.522	44.446	704.472	44.872	704.465	50.323	704.426	51.044	704.425
51.2	704.422	56.969	704.394	69.156	704.269	72.147	704.25	76.899	704.255
77.11	704.252	77.554	704.256	79.995	704.268	80.196	704.27	85.003	704.303
85.114	704.3	85.622	704.305	85.747	704.307	89.306	704.34	90.239	704.356
98.924	704.437	103.685	704.455	103.82	704.448	104.08	704.455	107.648	704.461
107.783	704.453	108.254	704.46	109.304	704.462	109.482	704.465	110.126	704.464
113.005	704.472	113.227	704.465	113.611	704.472	117.055	704.485	118.478	704.499
118.95	704.506	119.69	704.513	120.161	704.52	121.864	704.531	124.249	704.52
124.432	704.527	124.692	704.519	124.874	704.526	125.144	704.518	125.326	704.525
125.586	704.517	125.779	704.523	126.034	704.516	126.481	704.523	130.497	704.513
130.697	704.516	130.761	704.515	131.074	704.518	131.184	704.522	131.274	704.52
131.444	704.514	135.878	704.503	136.291	704.511	144.052	704.509	144.196	704.506
144.596	704.509	145.695	704.508	145.828	704.505	146.794	704.506	147.371	704.503
147.515	704.499	147.926	704.499	151.334	704.477	151.401	704.476	151.556	704.472
151.9	704.471	152.067	704.466	152.4	704.465	152.546	704.462	152.911	704.457
153.244	704.457	153.364	704.454	153.754	704.451	154.595	704.439	154.731	704.433
155.053	704.431	156.471	704.409	157.394	704.401	160.587	704.36	161.616	704.351
166.388	704.343	166.781	704.344	168.359	704.358	168.697	704.359	168.885	704.357
169.167	704.358	169.417	704.364	170.946	704.385	171.254	704.391	172.1	704.401
175.476	704.393	181.584	704.488	182.248	704.478	182.44	704.484	182.68	704.476
182.873	704.482	183.354	704.473	183.546	704.479	183.786	704.47	183.979	704.477
184.219	704.468	184.421	704.474	184.662	704.466	184.738	704.469	184.854	704.472
185.104	704.462	185.297	704.468	185.46	704.459	185.662	704.465	190.389	704.447
190.519	704.446	193.597	704.449	193.773	704.442	194.255	704.429	194.906	704.406
195.352	704.394	195.812	704.378	196.273	704.365	196.5	704.357	196.953	704.345
197.172	704.337	197.625	704.325	197.83	704.317	201.887	704.223	202.145	704.23
202.508	704.208	203.13	704.186	203.95	704.163	204.255	704.169	204.666	704.147
204.726	704.15	204.811	704.147	206.094	704.15	206.243	704.147	206.694	704.15
206.84	704.147	206.903	704.15	207.049	704.147	207.183	704.153	209.325	704.207
209.48	704.215	209.623	704.231	209.791	704.239	210.257	704.257	210.425	704.273
210.632	704.281	211.123	704.307	211.356	704.323	211.628	704.339	211.951	704.363
212.417	704.395	212.792	704.412	213.659	704.463	213.943	704.494	214.755	704.545
214.971	704.568	215.422	704.594	215.597	704.618	215.744	704.634	215.929	704.641
216.088	704.649	216.214	704.654	216.342	704.669	216.449	704.677	216.919	704.696
217.007	704.704	217.408	704.719	217.497	704.722	217.566	704.729	217.938	704.737
217.996	704.744	218.76	704.76	219.544	704.783	219.818	704.798	220.048	704.798
222.994	704.825	224.048	704.825	224.547	704.819	226.515	704.812	227.083	704.806
234.506	704.786	239.95	704.806	242.085	704.827	242.408	704.835	262.383	704.954
262.566	704.957	262.824	704.963	263.601	704.972	263.96	704.978	264.7	704.987
264.943	704.993	265.38	704.999	266.643	705.024	266.981	705.035	267.488	705.047
267.878	705.059	268.396	705.071	269.705	705.109	269.991	705.12	270.05	705.122
270.603	705.137	270.931	705.148	271.989	705.171	272.117	705.18	272.282	705.185
273.106	705.207	273.37	705.218	273.423	705.219	274.162	705.241	274.416	705.247
276.396	705.301	276.562	705.31	277.473	705.338	277.88	705.346	278.017	705.35
278.364	705.358	278.54	705.367	278.629	705.37	278.746	705.375	279.39	705.394
280.45	705.418	280.645	705.428	281.576	705.456	281.724	705.461	282.653	705.483
282.727	705.487	282.888	705.491	283.289	705.503	283.625	705.511	284.288	705.531
285.541	705.562	286.265	705.584	286.511	705.59	286.561	705.591	287.921	705.624
288.841	705.651	289.762	705.67	289.951	705.678	290.489	705.693	290.653	705.696
290.944	705.704	291.44	705.721	292.718	705.757	293.15	705.766	293.256	705.769
293.605	705.782	295.421	705.829	296.381	705.86	297.419	705.887	298.642	705.933
300.427	705.991	300.543	705.996	301.63	706.031	301.816	706.041	303.427	706.096

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     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 304.102 706.115 304.155 706.119 304.789 706.137 304.979 706.144 305.623 706.162
 305.782 706.168 306.007 706.175 306.415 706.194 306.616 706.205 307.123 706.229
 309.228 706.337 309.489 706.348 310.238 706.386 310.354 706.391 310.471 706.397
 311.749 706.456 311.989 706.466 312.224 706.474 314.614 706.571 314.811  706.58
 316.141 706.635 316.226 706.637 316.543 706.648 320.863 706.716 321.084 706.721
 323.211 706.755  323.73 706.767   324.2 706.784 325.874 706.831 326.393  706.85
 326.736  706.86 327.275  706.88 327.588  706.89 328.136 706.903  328.43 706.913
 328.657 706.919 328.988 706.926 329.116 706.934 329.811 706.948 329.928 706.956
 330.505 706.967 330.731  706.97 330.906 706.977 331.086 706.983 331.632 706.996
 331.688 706.998 332.987 707.026 333.071 707.029 333.346 707.034

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06 193.597     .06 213.659     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       193.597 213.659           7.943   8.579   7.707            .1       .3
Left Levee      Station=  181.61      Elevation=  704.61

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 279.571*

INPUT
Description:
Station Elevation Data    num=     300
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 704.743    .206  704.73    .532  704.72    .668 704.714    .922 704.708
   1.449 704.688   1.736 704.679   2.095 704.662   3.257 704.623   3.767 704.597
   4.306  704.58   4.463 704.571   4.826 704.562   7.867  704.45   7.936 704.442
   8.485 704.424   9.113 704.407   9.201 704.399   9.652 704.381  10.192 704.364
  10.604 704.347  11.683 704.312  12.163 704.304  12.477 704.295  12.654 704.287
  13.252 704.269  13.733 704.261  14.576 704.235  15.057 704.226  15.322 704.218
  16.058 704.209   16.96 704.191  17.164 704.189  18.343 704.167  31.242 704.051
  31.429 704.048   34.18 704.023  34.395  704.02  39.864 703.975  40.051 703.966
  45.328 703.916  45.762 703.908  46.662 703.898  51.321 703.863  52.057 703.861
  52.216 703.858    58.1 703.827  70.528 703.685  73.578 703.665  78.425 703.672
   78.64 703.671   86.69 703.719  86.803 703.718  91.078  703.76  92.029 703.778
  96.473 703.824  96.687 703.827 100.446 703.861 105.405 703.877 105.743 703.877
  105.88 703.869 106.145 703.878 109.784 703.885 109.921 703.877 110.402 703.885
 111.473 703.888 111.654  703.89 115.248 703.901 115.473 703.892 115.866 703.901
 119.377 703.918 120.829 703.935  121.31 703.943 122.065 703.951 122.546  703.96
 124.282 703.976 126.715 703.965 126.901 703.973 127.166 703.964 127.352 703.973
 127.627 703.964 127.813 703.972 128.078 703.963 128.274 703.972 128.535 703.964
  128.99 703.971 133.086 703.962  133.29 703.963 133.355 703.963 133.675 703.968
 133.787 703.971 134.052 703.962 138.574 703.952 138.996  703.96  146.91 703.955
 147.057 703.953 147.465 703.955 148.586 703.952 148.721  703.95 149.707 703.948
 150.295 703.944 150.442 703.941 154.337 703.909 154.405 703.908 154.563 703.904
 154.914 703.901 155.084 703.897 155.424 703.894 155.573 703.891 155.945 703.886
 156.284 703.884 157.662 703.864 157.801 703.858 159.575  703.83 160.517 703.821
 161.576 703.803  162.42 703.794  162.94 703.785 164.823 703.765 168.783 703.767
 169.031 703.766 170.091 703.772 170.867 703.782  171.13 703.787 171.699 703.794
 172.523 703.799 172.778 703.807 173.141 703.815 173.233 703.816 175.515  703.86
 178.958 703.861 185.187 703.989 185.864 703.979  186.06 703.987 186.305 703.978
 186.501 703.986 186.992 703.976 187.188 703.984 187.433 703.975 187.629 703.983
 187.875 703.974 188.081 703.982 188.326 703.973 188.522 703.981 188.777 703.971
 188.973 703.979  189.14  703.97 189.346 703.978 196.654 703.988 197.439 703.994
 197.601 703.988  201.17 703.872  201.36 703.865 205.118 703.756 205.357 703.765
 205.694 703.739  206.27 703.713  207.03 703.686 207.313 703.695 207.693 703.669
 208.407  703.67 208.481 703.669 208.707  703.67  208.78 703.669 208.884 703.669
 209.003 703.673 210.903 703.729  211.04 703.738 211.166 703.755 211.315 703.765
 211.728 703.784 211.877 703.801 212.061 703.811 212.497 703.838 212.703 703.856
 212.944 703.875 213.643 703.938 213.976 703.956 214.535 703.997 214.744 704.011
 215.031 704.047 215.417 704.075 215.853 704.102  216.07 704.129 216.527 704.157
 216.704 704.184 216.852 704.202 217.327 704.222 217.456  704.24 217.565 704.249
  218.04 704.268 218.129 704.277 218.533 704.293 218.624 704.296 218.693 704.304
 219.069 704.313 219.128 704.322   219.9  704.34 220.692 704.367 220.969 704.384
 221.202 704.383 224.179  704.39 225.244 704.387 225.749  704.38 227.738 704.366
 228.312 704.358 235.813 704.323 241.315 704.338 243.472 704.359 243.799 704.368
 263.987 704.497 264.432 704.507 264.609 704.508 265.218 704.514 265.463 704.518
  265.58 704.519 268.509  704.57 268.633 704.574 269.337 704.591  269.54 704.597
 271.387 704.645 271.735 704.656 272.566 704.678 272.625  704.68 273.607 704.699
 273.695 704.701 273.823  704.71 274.823 704.734  275.09 704.744 275.144 704.745
 277.049 704.791 277.366 704.801 278.148 704.815 278.316 704.825 279.236 704.849
 279.648 704.855 279.786 704.858 280.137 704.864 280.315 704.874 280.405 704.876
 280.523  704.88 281.174 704.897 282.245 704.914 282.443 704.924 284.016 704.962
 284.472  704.97 284.547 704.972 284.709 704.975 286.688 705.023 287.343 705.035
 288.122 705.055 289.795 705.087 290.865 705.113 291.656 705.125 291.847 705.134
 294.447 705.196  295.08 705.208 295.812  705.23 297.584 705.268 297.642  705.27
 298.346  705.29 299.395 705.314 302.435 705.409 302.552 705.413  303.65 705.446
 303.838 705.456 306.149 705.526 306.202 705.529 308.073 705.582 309.201 705.639
 309.319 705.646 312.467 705.811 312.585 705.816  314.12 705.888 314.357 705.896
 318.316 706.062 318.402 706.065 318.721 706.074 325.461 706.158 325.985 706.168
  326.46 706.186 326.695 706.193 327.559 706.214 327.751  706.22 328.152  706.23
 328.677  706.25 329.023  706.26 329.567  706.28 329.884  706.29 330.438 706.302
 330.735 706.312 331.299 706.323 331.428 706.332  332.13 706.344 332.249 706.353
 333.061 706.365 333.237 706.373  335.34 706.411 335.425 706.413 335.703 706.417

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06 197.439     .06 214.744     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       197.439 214.744           7.943   8.579   7.707            .1       .3
Left Levee      Station=  197.33      Elevation=   704.2

CROSS SECTION


RIVER: ARROYO
```

REACH: LARIJA RS: 271

INPUT
Description:
Station Elevation Data num= 291

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	704.16	.21	704.15	.94	704.14	1.32	704.13	1.77	704.12
2.29	704.1	2.78	704.08	3.32	704.06	3.84	704.03	4.39	704.01
4.55	704	4.92	703.99	6.38	703.93	6.93	703.9	8.02	703.86
8.09	703.85	8.65	703.83	9.29	703.81	9.38	703.8	9.84	703.78
10.39	703.76	10.81	703.74	11.91	703.7	12.4	703.69	12.72	703.68
12.9	703.67	13.51	703.65	14	703.64	14.86	703.61	15.35	703.6
15.62	703.59	16.37	703.58	17.29	703.56	18.7	703.54	21.02	703.52
23.63	703.51	29.26	703.5	31.85	703.48	32.92	703.47	36.73	703.45
40.64	703.42	40.83	703.41	42.01	703.4	43.56	703.38	46.21	703.36
46.7	703.35	47.57	703.34	50.5	703.32	51.31	703.31	52.32	703.3
59.23	703.26	60.48	703.24	61.6	703.23	63.5	703.2	64.25	703.19
65.48	703.17	70.85	703.11	71.9	703.1	75.01	703.08	80.5	703.09
83.17	703.1	89.02	703.14	92.85	703.18	93.82	703.2	97.35	703.24
98.35	703.25	99.19	703.26	101.18	703.28	102.85	703.29	107.8	703.3
107.94	703.29	108.21	703.3	111.92	703.31	112.06	703.3	112.55	703.31
117.49	703.33	117.72	703.32	118.12	703.33	120.26	703.34	121.7	703.35
122.52	703.36	123.18	703.37	123.67	703.38	124.44	703.39	124.93	703.4
125.69	703.41	126.7	703.42	129.18	703.41	129.37	703.42	129.64	703.41
129.83	703.42	130.11	703.41	130.3	703.42	130.57	703.41	130.77	703.42
131.06	703.41	131.5	703.42	135.95	703.41	136.39	703.42	136.66	703.41
141.27	703.4	141.7	703.41	150.57	703.4	152.62	703.39	154.81	703.37
157.34	703.34	158.6	703.32	159.45	703.31	160.73	703.29	160.92	703.28
162.68	703.25	163.64	703.24	164.12	703.23	164.72	703.22	165.58	703.21
166.11	703.2	166.96	703.19	168.03	703.18	172.32	703.19	173.4	703.2
173.97	703.21	174.46	703.22	175.04	703.23	175.88	703.24	176.14	703.25
176.51	703.26	177.73	703.29	178.05	703.3	178.93	703.32	182.44	703.33
188.79	703.49	189.48	703.48	189.68	703.49	189.93	703.48	190.13	703.49
190.63	703.48	190.83	703.49	191.08	703.48	191.28	703.49	191.53	703.48
191.74	703.49	191.99	703.48	192.19	703.49	192.45	703.48	192.65	703.49
192.82	703.48	193.03	703.49	196.12	703.5	198.08	703.51	200.48	703.53
201.28	703.54	208.35	703.29	208.57	703.3	208.88	703.27	209.41	703.24
210.11	703.21	210.37	703.22	210.72	703.19	212.48	703.25	212.6	703.26
212.71	703.28	212.84	703.29	213.2	703.31	213.33	703.33	213.49	703.34
213.87	703.37	214.05	703.39	214.26	703.41	214.51	703.44	214.87	703.48
215.16	703.5	215.48	703.53	215.83	703.56	216.12	703.6	216.51	703.63
216.95	703.66	217.17	703.69	217.64	703.72	217.81	703.75	217.96	703.77
218.44	703.79	218.57	703.81	218.68	703.82	219.16	703.84	219.25	703.85
219.75	703.87	219.82	703.88	220.2	703.89	220.26	703.9	220.63	703.91
221.04	703.92	221.55	703.94	221.84	703.95	222.12	703.97	226.44	703.95
226.95	703.94	227.81	703.93	228.96	703.92	229.54	703.91	232.9	703.88
237.12	703.86	242.68	703.87	243.63	703.88	244.86	703.89	245.19	703.9
246.51	703.91	247.46	703.92	255.27	703.96	256.63	703.97	260.41	703.99
262.84	704.01	265.59	704.04	266.04	704.05	267.2	704.06	268.65	704.08
270.16	704.11	272.68	704.17	273.42	704.19	274.26	704.21	275.4	704.23
275.53	704.24	276.54	704.26	276.81	704.27	277.66	704.29	278.79	704.31
279.11	704.32	279.9	704.33	280.07	704.34	281	704.36	281.91	704.37
282.09	704.38	282.98	704.4	284.04	704.41	284.24	704.42	285.83	704.45
286.53	704.46	286.94	704.47	287.53	704.48	287.96	704.49	288.53	704.5
289.24	704.51	289.7	704.52	290.23	704.53	291.67	704.55	292.61	704.57
293.55	704.58	293.75	704.59	294.46	704.6	296.37	704.64	297.01	704.65
297.75	704.67	299.54	704.7	300.31	704.72	301.37	704.74	302.34	704.77
305.67	704.86	305.86	704.87	306.85	704.9	310.14	704.99	311.28	705.05
313.43	705.17	314.58	705.23	316.25	705.31	316.51	705.32	317.2	705.35
317.98	705.38	318.41	705.4	318.93	705.42	319.41	705.44	319.64	705.45
320.49	705.49	320.9	705.5	327.71	705.56	328.24	705.57	328.74	705.59
329.63	705.61	330.43	705.63	330.96	705.65	331.31	705.66	331.86	705.68
332.18	705.69	332.74	705.7	333.04	705.71	333.61	705.72	333.74	705.73
334.45	705.74	334.57	705.75	335.39	705.76	335.61	705.77	336.31	705.78
338.06	705.8								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	201.28	.06	215.83	.06

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
201.28 215.83 7.387 7.59 7.015 .1 .3
Left Levee Station= 201.28 Elevation= 703.9

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 263.5*

INPUT
Description:
Station Elevation Data num= 464

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	703.802	.217	703.792	.393	703.788	.659	703.783	.97	703.778
1.079	703.775	1.216	703.77	1.362	703.766	1.628	703.758	1.827	703.753
2.364	703.733	2.869	703.713	3.238	703.7	3.427	703.694	3.759	703.679
3.963	703.668	4.152	703.66	4.531	703.648	4.696	703.639	5.078	703.63
5.899	703.6	6.576	703.578	6.997	703.557	7.153	703.552	8.278	703.518
8.35	703.51	8.588	703.501	8.928	703.491	9.302	703.482	9.588	703.473
9.649	703.468	10.156	703.448	10.527	703.435	10.724	703.429	11.094	703.415
11.157	703.412	11.414	703.403	12	703.385	12.293	703.375	12.798	703.366
12.923	703.362	13.129	703.356	13.225	703.351	13.314	703.347	13.856	703.332
13.944	703.328	14.14	703.322	14.45	703.316	14.725	703.308	14.99	703.299
15.337	703.289	15.603	703.284	15.843	703.278	15.914	703.276	16.122	703.268
16.728	703.259	16.896	703.256	16.957	703.254	17.24	703.247	18.676	703.219
18.887	703.214	19.554	703.203	21.274	703.18	21.347	703.177	21.695	703.173
22.134	703.169	22.938	703.159	23.835	703.152	24.389	703.144	24.676	703.142
25.957	703.13	26.35	703.128	30.2	703.095	30.676	703.09	30.731	703.087
31.124	703.082	32.873	703.063	33.977	703.049	35.743	703.038	39.731	703.022
41.945	703.017	42.141	703.01	43.014	703.007	43.359	703.007	44.02	703.004
44.953	702.998	45.548	702.997	45.657	702.999	47.694	702.997	48.2	702.992
48.374	702.991	49.098	702.988	49.453	702.988	49.846	702.989	52.122	702.985

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
52.958	702.979	53.523	702.976	54	702.972	60.383	702.941	61.132	702.935
62.423	702.916	63.579	702.905	63.666	702.904	65.258	702.878	65.54	702.873
67.583	702.842	68.559	702.83	69.026	702.823	72.062	702.786	72.904	702.777
73.096	702.773	74.209	702.761	77.376	702.738	78.474	702.736	78.794	702.734
79.736	702.733	80.33	702.731	80.678	702.729	81.904	702.726	82.288	702.724
82.855	702.722	83.086	702.722	83.532	702.721	83.806	702.719	84.492	702.719
85.727	702.717	86.23	702.717	89.348	702.722	90.83	702.727	91.525	702.728
93.382	702.739	94.05	702.741	95.586	702.751	95.832	702.752	96.629	702.762
96.833	702.765	100.477	702.789	101.129	702.792	104.43	702.814	106.153	702.819
111.262	702.821	111.407	702.813	111.686	702.82	111.985	702.821	115.515	702.82
115.659	702.813	116.165	702.819	117.034	702.82	117.336	702.823	117.775	702.822
119.247	702.824	119.439	702.827	119.668	702.825	119.86	702.828	121.264	702.835
121.501	702.828	121.914	702.836	124.123	702.846	125.609	702.856	127.136	702.873
127.642	702.882	128.437	702.891	128.943	702.899	130.77	702.917	133.094	702.913
133.329	702.913	133.525	702.921	133.804	702.914	134	702.922	134.289	702.915
134.439	702.921	134.764	702.915	134.97	702.923	135.27	702.916	135.724	702.924
140.317	702.922	140.771	702.93	141.049	702.923	145.213	702.921	145.808	702.918
145.972	702.92	146.173	702.926	146.251	702.927	155.146	702.91	155.406	702.909
156.92	702.9	157.368	702.896	157.522	702.894	158.091	702.889	158.548	702.883
159.234	702.876	161.146	702.851	161.585	702.844	162.394	702.834	162.801	702.828
163.322	702.819	165.893	702.783	166.089	702.775	166.267	702.773	167.905	702.75
168.325	702.747	168.764	702.746	168.896	702.745	169.391	702.738	170.011	702.731
170.898	702.724	171.444	702.718	173.427	702.706	176.09	702.715	177.855	702.716
178.97	702.723	179.558	702.73	179.685	702.732	180.064	702.737	180.662	702.743
181.111	702.746	181.529	702.753	181.798	702.762	181.98	702.766	182.337	702.775
182.493	702.781	183.179	702.798	183.439	702.804	183.672	702.81	183.769	702.814
183.846	702.816	184.677	702.834	184.825	702.835	185.053	702.838	188.3	702.861
188.538	702.867	191.437	702.932	191.666	702.939	193.678	702.983	194.163	702.995
194.854	703.01	195.566	703.005	195.772	703.014	196.03	703.007	196.237	703.016
196.568	703.013	196.753	703.01	196.959	703.019	197.217	703.012	197.424	703.02
197.682	703.013	197.899	703.022	198.068	703.018	198.157	703.015	198.363	703.023
198.631	703.017	198.838	703.025	199.013	703.018	199.23	703.026	202.742	703.046
203.199	703.05	203.51	703.054	203.977	703.058	204.442	703.061	204.891	703.065
205.852	703.076	206.919	703.085	207.745	703.095	213.712	702.905	213.956	702.896
214.149	702.903	214.345	702.886	214.421	702.88	214.887	702.856	215.502	702.833
215.73	702.839	216.038	702.815	217.787	702.875	217.906	702.883	218.016	702.899
218.145	702.908	218.503	702.926	218.632	702.942	218.791	702.951	219.169	702.976
219.348	702.993	219.557	703.009	219.805	703.034	220.163	703.067	220.451	703.084
220.77	703.11	221.117	703.135	221.414	703.172	221.72	703.197	221.812	703.204
222.088	703.224	222.261	703.236	222.486	703.262	222.879	703.286	222.965	703.29
223.139	703.314	223.292	703.33	223.782	703.347	223.915	703.363	224.027	703.371
224.517	703.388	224.609	703.396	225.119	703.413	225.191	703.421	225.579	703.431
225.64	703.438	226.018	703.448	226.436	703.457	226.957	703.474	227.253	703.482
227.364	703.488	227.539	703.498	231.949	703.489	232.47	703.482	232.715	703.48
234.449	703.473	234.522	703.473	235.114	703.468	235.673	703.466	236.097	703.466
236.917	703.463	238.544	703.461	238.83	703.461	242.853	703.477	242.937	703.478
243.126	703.48	243.747	703.489	244.134	703.492	244.963	703.503	245.33	703.506
245.575	703.511	245.839	703.514	246.188	703.519	247.384	703.531	247.657	703.536
248.383	703.545	248.529	703.546	248.722	703.549	249.033	703.556	249.344	703.561
249.499	703.564	250.653	703.582	250.754	703.584	251.091	703.595	251.501	703.6
251.737	703.604	252.439	703.611	253.409	703.624	261.382	703.695	262.77	703.71
266.236	703.741	266.629	703.744	266.792	703.746	269.11	703.763	271.918	703.789
272.377	703.797	273.561	703.808	275.042	703.826	276.583	703.852	280.198	703.928
280.33	703.932	280.769	703.941	281.828	703.959	281.933	703.96	282.065	703.968
283.006	703.984	283.097	703.986	283.185	703.99	283.372	703.995	284.24	704.012
284.419	704.015	284.617	704.02	285.324	704.032	285.394	704.033	285.72	704.041
286.527	704.051	286.7	704.059	287.236	704.068	287.65	704.076	288.579	704.085
288.763	704.092	289.671	704.11	290.753	704.12	290.957	704.128	292.581	704.154
293.295	704.163	293.714	704.172	294.316	704.181	294.755	704.189	295.337	704.198
296.062	704.206	296.532	704.215	297.073	704.223	298.543	704.24	299.502	704.256
300.462	704.265	300.666	704.273	301.391	704.281	303.341	704.314	303.994	704.323
304.75	704.339	306.577	704.364	307.363	704.38	308.446	704.396	309.436	704.42
312.835	704.492	313.029	704.5	314.04	704.523	317.399	704.593	318.563	704.639
320.758	704.731	321.932	704.777	323.141	704.82	323.527	704.831	323.637	704.836
323.715	704.84	323.902	704.845	324.606	704.869	325.232	704.888	325.403	704.891
325.618	704.897	325.807	704.906	326.373	704.924	326.758	704.937	326.863	704.939
327.135	704.946	327.333	704.956	327.965	704.98	328.087	704.982	328.384	704.986
328.464	704.985	328.652	704.989	329.415	704.997	329.754	704.996	329.952	705
330.282	705	330.48	705.004	333.363	705.025	333.683	705.024	333.89	705.028
334.22	705.028	334.427	705.032	335.336	705.039	335.877	705.047	336.067	705.053
336.302	705.057	336.388	705.061	336.5	705.064	338.113	705.095	338.654	705.111
339.011	705.119	339.573	705.134	339.9	705.142	340.471	705.151	340.778	705.159
341.359	705.167	341.492	705.175	342.217	705.183	342.34	705.191	343.177	705.2
343.401	705.208	345.073	705.226	345.544	705.227	345.902	705.232		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	207.745	.06	221.117	.06

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
207.745	221.117	7.387	7.59	7.015	.1	.3

Left Levee Station= 207.53 Elevation= 703.42

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 256.*

INPUT
Description:
Station Elevation Data num= 459

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	703.445	.223	703.435	.406	703.429	.679	703.422	1.113	703.414
1.254	703.407	1.405	703.401	1.679	703.392	1.884	703.386	3.338	703.333
3.533	703.328	3.876	703.316	4.087	703.305	4.282	703.297	4.672	703.285
4.842	703.278	5.236	703.269	6.083	703.244	6.781	703.225	6.832	703.219
7.215	703.208	8.535	703.176	8.61	703.17	8.855	703.161	9.591	703.144
9.887	703.136	9.949	703.132	11.504	703.084	11.77	703.075	12.373	703.06
12.675	703.05	13.197	703.041	13.326	703.038	13.537	703.032	13.637	703.027
13.729	703.024	14.288	703.011	14.58	702.998	14.899	702.992	15.184	702.985
15.457	702.976	15.815	702.967	16.089	702.962	16.336	702.956	16.41	702.954

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16.623	702.946	16.674	702.945	17.249	702.936	17.422	702.931	17.485	702.929
17.777	702.921	18.39	702.91	18.597	702.904	19.258	702.889	19.474	702.883
19.901	702.874	20.163	702.869	21.049	702.85	21.936	702.837	22.011	702.831
22.822	702.819	23.652	702.803	24.577	702.791	26.312	702.759	26.764	702.754
27.17	702.748	27.623	702.743	31.631	702.683	31.687	702.678	34.875	702.631
35.035	702.629	35.714	702.623	36.855	702.615	40.967	702.608	42.731	702.612
43.251	702.614	43.453	702.61	44.353	702.611	45.39	702.616	46.352	702.615
46.965	702.618	47.078	702.622	48.078	702.629	49.178	702.634	49.7	702.633
50.992	702.639	51.398	702.643	53.744	702.649	53.878	702.649	55.189	702.647
60.545	702.627	62.262	702.617	63.035	702.61	64.365	702.593	65.557	702.581
65.647	702.579	66.496	702.563	67.288	702.552	67.579	702.547	67.722	702.544
69.686	702.513	70.693	702.5	71.174	702.492	73.607	702.459	75.172	702.441
75.371	702.435	76.519	702.422	79.784	702.395	80.916	702.391	81.246	702.386
82.217	702.382	82.83	702.378	83.189	702.373	84.452	702.364	84.848	702.359
85.671	702.353	86.131	702.351	86.414	702.346	87.121	702.343	87.668	702.339
88.394	702.335	88.913	702.331	89.894	702.329	90.394	702.326	91.129	702.323
93.657	702.322	94.373	702.319	94.739	702.319	96.288	702.323	96.976	702.321
98.561	702.324	98.815	702.324	99.847	702.329	103.267	702.338	104.276	702.338
107.68	702.347	109.457	702.348	114.725	702.342	114.874	702.336	115.161	702.341
119.11	702.331	119.259	702.325	119.78	702.328	120.676	702.327	120.987	702.332
121.44	702.328	122.958	702.326	123.156	702.331	123.392	702.327	123.59	702.332
125.037	702.339	125.282	702.335	125.708	702.341	129.518	702.362	131.093	702.377
131.614	702.384	132.434	702.391	133.764	702.405	134.839	702.413	137.236	702.415
137.478	702.416	137.681	702.422	137.968	702.418	138.17	702.423	138.468	702.419
138.623	702.424	138.958	702.421	139.171	702.426	139.479	702.422	139.947	702.428
144.683	702.435	145.152	702.441	145.439	702.436	149.732	702.441	150.345	702.436
150.515	702.437	150.722	702.444	150.803	702.445	157.446	702.432	159.974	702.42
160.242	702.419	161.803	702.406	162.265	702.4	162.424	702.399	163.01	702.392
163.482	702.385	164.189	702.377	164.755	702.369	165.528	702.356	167.867	702.322
168.788	702.307	169.14	702.303	170.376	702.285	171.055	702.277	171.257	702.271
173.13	702.251	173.563	702.248	174.016	702.251	175.301	702.242	176.217	702.239
176.779	702.235	178.824	702.232	179.58	702.236	181.57	702.243	183.39	702.243
184.539	702.246	185.667	702.254	186.284	702.257	186.748	702.258	187.115	702.265
187.178	702.266	187.455	702.273	187.644	702.277	187.849	702.283	188.011	702.287
188.172	702.294	188.879	702.312	189.388	702.323	189.488	702.328	189.567	702.331
190.143	702.342	190.424	702.348	190.577	702.35	190.812	702.356	192.104	702.367
194.16	702.392	194.405	702.398	195.103	702.411	196.009	702.432	197.395	702.458
197.631	702.466	199.706	702.506	200.205	702.517	200.918	702.53	201.652	702.531
201.865	702.538	202.131	702.535	202.344	702.542	202.686	702.542	202.876	702.541
203.089	702.547	203.355	702.544	203.568	702.55	203.834	702.547	204.057	702.554
204.232	702.552	204.323	702.55	204.536	702.557	204.813	702.553	205.026	702.559
205.207	702.555	205.43	702.561	209.051	702.591	209.523	702.597	209.844	702.603
210.325	702.609	211.268	702.617	211.701	702.624	212.258	702.631	214.21	702.65
219.351	702.51	219.561	702.503	219.728	702.507	219.897	702.494	219.962	702.49
220.363	702.473	220.893	702.455	221.09	702.458	221.355	702.44	223.094	702.499
223.213	702.506	223.322	702.518	223.45	702.525	223.806	702.541	223.934	702.553
224.092	702.561	224.468	702.582	224.646	702.595	224.853	702.609	225.1	702.628
225.456	702.654	225.743	702.669	226.059	702.689	226.405	702.71	226.707	702.745
227.02	702.772	227.113	702.779	227.395	702.799	227.572	702.811	227.801	702.835
228.203	702.857	228.291	702.861	228.468	702.878	228.624	702.889	229.124	702.904
229.26	702.915	229.374	702.921	229.874	702.936	229.968	702.942	230.489	702.957
230.562	702.962	230.958	702.971	231.02	702.977	231.406	702.985	232.364	703.008
232.666	703.014	232.779	703.019	232.958	703.026	237.459	703.028	237.99	703.024
240.009	703.025	240.084	703.026	240.451	703.027	240.688	703.026	241.259	703.028
241.692	703.031	242.528	703.032	243.143	703.034	244.48	703.044	245.172	703.053
246.826	703.069	248.585	703.094	248.671	703.095	249.498	703.116	249.892	703.121
250.123	703.126	250.508	703.137	250.739	703.142	251.113	703.147	251.363	703.157
251.633	703.163	251.988	703.173	252.633	703.183	252.931	703.189	253.209	703.194
253.488	703.204	253.748	703.209	254.228	703.22	254.377	703.222	254.575	703.226
254.892	703.238	255.209	703.244	255.367	703.248	255.786	703.257	256.545	703.275
256.649	703.277	256.992	703.29	257.411	703.297	257.651	703.302	259.357	703.327
273.015	703.501	278.245	703.539	278.714	703.545	279.923	703.556	280.629	703.565
281.433	703.572	282.494	703.585	285.33	703.637	285.632	703.641	286.403	703.654
286.696	703.658	286.83	703.665	287.278	703.673	288.359	703.689	288.465	703.69
288.601	703.696	289.561	703.709	289.743	703.717	289.934	703.721	290.82	703.734
291.003	703.737	291.205	703.743	291.926	703.754	291.997	703.755	292.331	703.762
293.154	703.771	293.331	703.777	293.877	703.786	294.299	703.791	295.248	703.799
295.435	703.805	296.362	703.819	297.467	703.829	297.675	703.835	299.331	703.858
300.061	703.867	300.488	703.874	301.103	703.881	301.867	703.893	302.884	703.903
303.915	703.916	305.416	703.93	306.395	703.942	307.374	703.95	307.583	703.956
308.322	703.963	310.312	703.988	310.979	703.995	311.75	704.007	313.615	704.027
314.417	704.04	315.521	704.053	320.001	704.125	320.199	704.13	321.23	704.147
324.658	704.197	325.845	704.228	328.085	704.292	330.517	704.353	330.911	704.357
331.023	704.363	331.104	704.366	331.294	704.371	332.651	704.402	332.826	704.403
333.046	704.405	333.238	704.414	334.209	704.438	334.315	704.439	334.555	704.44
334.795	704.45	335.44	704.469	335.565	704.471	335.868	704.471	335.949	704.47
336.141	704.476	336.92	704.484	337.266	704.481	337.468	704.487	337.805	704.483
338.007	704.489	340.948	704.506	341.275	704.503	341.487	704.509	341.823	704.505
342.035	704.511	342.962	704.518	343.514	704.524	343.708	704.529	343.948	704.528
344.035	704.532	344.15	704.536	344.963	704.547	345.796	704.56	346.348	704.571
346.713	704.577	347.286	704.589	347.619	704.595	348.203	704.602	348.515	704.607
349.109	704.614	349.244	704.62	349.984	704.627	350.109	704.632	350.963	704.64
351.193	704.645	352.899	704.66	353.38	704.658	353.745	704.665		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	214.21	.06	226.405	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
214.21	226.405	7.387	7.59	7.015	.1 .3

Left Levee Station= 214.21 Elevation= 702.85

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 248.5*

INPUT
Description:
Station Elevation Data num= 446

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	703.087	.418	703.069	.7	703.061	1.031	703.054	1.146	703.052
1.292	703.043	1.729	703.026	1.941	703.019	3.048	702.98	3.439	702.967
3.993	702.953	4.21	702.943	4.411	702.933	4.813	702.923	4.988	702.918
5.394	702.909	6.266	702.887	6.985	702.873	7.039	702.869	7.432	702.859
8.793	702.834	8.87	702.83	9.123	702.82	9.881	702.807	10.185	702.799
10.25	702.796	10.788	702.783	11.182	702.772	11.785	702.758	12.125	702.748
12.747	702.735	13.058	702.725	13.595	702.717	13.728	702.714	13.946	702.707
14.048	702.704	14.143	702.701	14.719	702.691	14.812	702.685	15.02	702.674
15.349	702.669	15.642	702.663	15.923	702.653	16.574	702.641	16.829	702.634
16.905	702.632	17.125	702.624	17.177	702.622	17.769	702.613	17.947	702.607
18.313	702.596	18.945	702.585	19.159	702.577	19.839	702.56	20.062	702.551
20.502	702.541	21.685	702.51	22.598	702.493	22.676	702.486	23.045	702.478
23.511	702.47	24.366	702.446	25.318	702.431	25.907	702.413	26.212	702.407
27.106	702.385	27.572	702.377	27.99	702.369	28.456	702.361	32.079	702.286
32.585	702.277	32.644	702.269	34.014	702.244	34.402	702.236	34.919	702.228
35.927	702.21	36.092	702.209	36.792	702.202	37.968	702.193	42.204	702.194
44.556	702.21	44.764	702.21	45.691	702.216	46.76	702.228	47.751	702.232
48.383	702.239	48.499	702.246	49.529	702.259	50.663	702.271	51.2	702.275
51.919	702.283	52.154	702.285	52.531	702.289	52.949	702.296	55.504	702.315
56.854	702.319	62.373	702.303	64.141	702.294	64.937	702.286	67.536	702.256
67.629	702.255	68.503	702.237	69.319	702.226	69.766	702.217	72.826	702.17
73.322	702.161	76.547	702.115	77.441	702.106	77.645	702.098	78.828	702.083
82.192	702.053	83.358	702.045	83.698	702.038	84.699	702.031	85.33	702.024
85.699	702.016	87.001	702.002	87.409	701.995	88.012	701.987	88.257	701.985
88.731	701.98	89.022	701.973	89.751	701.966	90.314	701.959	91.184	701.951
91.597	701.946	92.607	701.94	93.122	701.933	93.88	701.927	94.909	701.921
96.483	701.916	97.222	701.909	97.598	701.909	99.194	701.906	99.903	701.901
101.535	701.897	101.797	701.896	102.643	701.894	102.86	701.894	106.383	701.889
107.423	701.884	118.187	701.863	118.341	701.859	118.637	701.861	118.955	701.86
122.704	701.842	122.858	701.838	123.395	701.838	124.318	701.833	124.639	701.841
125.105	701.834	126.669	701.828	126.873	701.836	127.116	701.828	127.32	701.836
128.811	701.844	129.063	701.842	129.502	701.847	135.049	701.88	135.587	701.885
136.431	701.891	136.968	701.896	138.909	701.909	141.628	701.919	141.836	701.922
142.132	701.921	142.34	701.925	142.647	701.924	142.855	701.928	143.152	701.926
143.371	701.929	143.689	701.928	144.171	701.931	145.371	701.934	146.644	701.941
149.05	701.947	149.532	701.951	149.828	701.949	154.251	701.96	154.883	701.954
155.057	701.953	155.271	701.962	155.354	701.962	162.198	701.946	164.802	701.93
165.079	701.928	166.687	701.913	167.163	701.905	167.93	701.896	168.416	701.888
169.145	701.879	170.524	701.853	171.175	701.844	171.642	701.835	172.501	701.823
173.487	701.806	174.245	701.797	174.789	701.788	176.218	701.77	176.426	701.766
176.616	701.764	178.802	701.749	179.268	701.755	179.408	701.755	180.592	701.753
181.535	701.754	182.115	701.753	184.221	701.758	185	701.763	187.05	701.771
190.109	701.769	190.733	701.77	190.868	701.771	192.384	701.769	192.763	701.777
192.827	701.778	193.113	701.785	193.307	701.789	193.686	701.798	193.851	701.807
194.579	701.826	194.856	701.831	195.104	701.837	195.207	701.842	195.289	701.845
195.881	701.856	196.171	701.862	196.328	701.865	196.571	701.873	197.31	701.881
197.902	701.889	200.02	701.923	200.273	701.929	200.992	701.941	201.924	701.961
203.352	701.984	203.595	701.993	205.733	702.028	206.981	702.051	207.738	702.057
207.957	702.061	208.231	702.062	208.451	702.068	208.803	702.071	208.999	702.072
209.218	702.076	209.492	702.076	209.711	702.08	209.986	702.08	210.216	702.085
210.396	702.086	210.49	702.086	210.709	702.09	210.994	702.09	211.213	702.094
211.4	702.093	211.63	702.097	212.31	702.103	212.98	702.111	215.018	702.132
215.361	702.135	215.846	702.143	216.177	702.151	216.672	702.159	217.644	702.168
218.091	702.177	218.664	702.185	220.675	702.205	224.991	702.115	225.167	702.11
225.307	702.11	225.448	702.102	225.503	702.099	225.84	702.089	226.285	702.078
226.45	702.077	226.673	702.065	228.401	702.124	228.519	702.129	228.627	702.137
228.755	702.143	229.109	702.157	229.237	702.165	229.767	702.189	229.944	702.198
230.15	702.208	230.396	702.222	230.749	702.241	231.034	702.253	231.349	702.269
231.693	702.285	232.001	702.317	232.32	702.346	232.415	702.353	232.703	702.375
232.883	702.387	233.117	702.407	233.526	702.429	233.616	702.431	233.797	702.441
233.956	702.448	234.466	702.461	234.604	702.468	234.721	702.472	235.231	702.484
235.327	702.488	235.858	702.5	235.933	702.504	236.337	702.512	236.4	702.515
237.229	702.532	237.771	702.542	238.195	702.549	238.377	702.553	242.968	702.567
243.51	702.566	244.424	702.57	245.57	702.578	245.646	702.579	246.021	702.583
246.262	702.585	246.844	702.589	247.286	702.595	248.139	702.601	248.767	702.607
249.833	702.623	250.13	702.627	250.836	702.641	251.758	702.655	252.523	702.669
254.318	702.71	254.406	702.713	255.249	702.743	255.651	702.751	255.887	702.758
256.279	702.773	256.514	702.781	256.897	702.789	257.152	702.804	257.426	702.811
257.789	702.826	258.75	702.849	259.035	702.857	259.319	702.872	260.074	702.895
260.226	702.898	260.427	702.903	260.751	702.919	261.236	702.931	261.663	702.943
262.438	702.967	262.543	702.971	262.894	702.985	263.32	702.993	263.566	703.001
278.659	703.247	279.068	703.253	279.237	703.255	284.573	703.288	285.051	703.292
287.005	703.312	287.825	703.318	288.907	703.328	289.43	703.335	291.8	703.373
292.108	703.377	292.894	703.386	293.193	703.389	293.33	703.397	294.889	703.42
294.998	703.421	295.136	703.424	296.115	703.435	296.302	703.443	296.497	703.446
297.586	703.458	297.792	703.467	298.941	703.483	299.78	703.492	299.961	703.496
300.519	703.503	300.949	703.507	301.916	703.514	302.108	703.517	303.053	703.529
304.18	703.539	304.392	703.543	307.889	703.582	308.346	703.588	308.951	703.594
309.706	703.599	310.195	703.604	313.287	703.629	314.286	703.635	314.499	703.639
315.253	703.644	322.597	703.709	323.628	703.721	327.166	703.757	327.368	703.76
331.917	703.8	336.635	703.87	337.894	703.887	338.296	703.884	338.41	703.889
338.492	703.893	340.071	703.916	340.248	703.914	340.473	703.912	340.669	703.922
341.659	703.939	342.012	703.936	342.258	703.945	342.916	703.959	343.042	703.961
343.351	703.957	343.435	703.955	343.631	703.963	344.425	703.972	344.778	703.965
344.984	703.973	345.327	703.967	345.533	703.975	348.534	703.988	348.868	703.981
349.083	703.989	349.427	703.983	349.642	703.991	350.588	703.997	351.152	704.002
351.349	704.004	351.594	703.999	351.683	704.003	351.8	704.008	355.339	704.047
355.934	704.052	356.253	704.056	356.858	704.061	356.997	704.064	357.751	704.07
357.879	704.073	358.75	704.079	358.984	704.083	360.724	704.095	361.215	704.089
361.587	704.098								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	220.675	.06	231.693	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
220.675	231.693	7.388	7.59	7.015	.1 .3

Left Levee Station= 220.59 Elevation= 702.34

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 241

INPUT
Description:
Station Elevation Data num= 284

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	702.73	.43	702.71	.72	702.7	1.18	702.69	1.33	702.68
1.78	702.66	3.54	702.6	4.11	702.59	4.34	702.58	4.54	702.57
4.98	702.56	6.45	702.53	7.19	702.52	7.65	702.51	9.17	702.49
9.39	702.48	10.17	702.47	10.55	702.46	11.14	702.45	11.51	702.44
12.13	702.43	12.48	702.42	13.12	702.41	13.46	702.4	14.13	702.39
14.46	702.38	15.15	702.37	15.46	702.35	16.1	702.34	16.39	702.33
17.06	702.32	17.4	702.31	17.68	702.3	18.29	702.29	18.54	702.28
18.85	702.27	19.5	702.26	19.72	702.25	20.42	702.23	20.65	702.22
21.38	702.2	22.32	702.17	23.26	702.15	23.34	702.14	24.2	702.12
25.08	702.09	26.06	702.07	27.9	702.01	28.38	702	28.81	701.99
29.29	701.98	30.73	701.94	33.05	701.88	33.54	701.87	33.6	701.86
34.03	701.85	35.01	701.83	35.41	701.82	35.99	701.81	36.98	701.79
37.87	701.78	39.08	701.77	43.44	701.78	45.31	701.8	46.08	701.81
47.03	701.82	48.13	701.84	49.15	701.85	49.8	701.86	49.92	701.87
50.98	701.89	52.89	701.92	53.44	701.93	54.07	701.94	54.5	701.95
57.13	701.98	58.52	701.99	64.2	701.98	66.02	701.97	69.61	701.93
70.51	701.91	71.35	701.9	71.81	701.89	74.96	701.84	75.47	701.83
78.05	701.79	78.79	701.78	79.71	701.77	79.92	701.76	80.64	701.75
81.57	701.74	82.73	701.73	84.6	701.71	85.8	701.7	86.15	701.69
87.18	701.68	87.83	701.67	88.21	701.66	89.55	701.64	89.97	701.63
90.59	701.62	91.33	701.61	91.63	701.6	92.38	701.59	92.96	701.58
93.73	701.57	94.28	701.56	95.32	701.55	95.85	701.54	96.63	701.53
97.69	701.52	99.31	701.51	100.07	701.5	102.1	701.49	102.83	701.48
104.51	701.47	105.65	701.46	109.5	701.44	110.57	701.43	122.44	701.38
127.96	701.34	128.29	701.35	128.77	701.34	130.38	701.33	130.59	701.34
130.84	701.33	131.05	701.34	145.52	701.42	146.99	701.43	149.63	701.44
150.94	701.45	158.77	701.48	159.6	701.47	159.82	701.48	166.95	701.46
169.63	701.44	171.57	701.42	172.06	701.41	172.85	701.4	173.35	701.39
174.1	701.38	175.52	701.35	176.19	701.34	176.67	701.33	178	701.31
178.57	701.3	179.35	701.29	179.91	701.28	180.66	701.27	181.79	701.26
184.04	701.25	184.52	701.26	187.45	701.27	190.42	701.29	192.53	701.3
196.46	701.29	198.02	701.28	198.41	701.29	198.97	701.3	199.36	701.31
199.53	701.32	200.28	701.34	200.82	701.35	201.01	701.36	201.62	701.37
202.08	701.38	202.33	701.39	203.09	701.4	203.7	701.41	206.14	701.46
206.88	701.47	207.84	701.49	209.31	701.51	209.56	701.52	211.76	701.55
212.29	701.56	214.38	701.59	214.92	701.6	215.88	701.61	216.56	701.62
218.53	701.64	219.22	701.65	221.67	701.68	222.17	701.69	222.51	701.7
223.02	701.71	224.02	701.72	224.48	701.73	225.07	701.74	227.14	701.76
230.63	701.72	231	701.71	231.69	701.7	231.99	701.69	236.98	701.86
237.62	701.92	238.01	701.95	238.44	701.98	238.85	702	242.68	702.07
243.61	702.08	249.29	702.11	251.13	702.13	251.59	702.14	252.43	702.15
252.88	702.16	253.75	702.17	254.39	702.18	255.78	702.21	256.5	702.23
257.44	702.25	258.22	702.27	260.14	702.33	260.34	702.34	261	702.37
261.41	702.38	261.65	702.39	262.05	702.41	262.29	702.42	262.68	702.43
262.94	702.45	263.22	702.46	263.59	702.48	264.26	702.5	264.57	702.51
264.86	702.52	265.15	702.54	265.42	702.55	265.92	702.57	266.28	702.58
266.61	702.6	266.94	702.61	267.25	702.62	267.54	702.63	268.33	702.66
268.8	702.68	269.23	702.69	269.48	702.7	284.87	703	285.46	703.01
291.4	703.04	293.38	703.06	295.32	703.07	298.27	703.11	299.69	703.12
299.83	703.13	301.42	703.15	302.67	703.16	302.86	703.17	304.17	703.18
304.38	703.19	305.13	703.2	307.16	703.22	308.82	703.23	315.47	703.29
334.37	703.39	345.27	703.42	345.68	703.41	345.88	703.42	347.49	703.43
347.9	703.42	348.1	703.43	349.11	703.44	349.51	703.43	349.72	703.44
350.52	703.45	350.92	703.44	351.12	703.45	351.93	703.46	352.29	703.45
352.5	703.46	352.85	703.45	353.06	703.46	356.12	703.47	356.46	703.46
356.68	703.47	357.03	703.46	357.25	703.47	358.99	703.48	359.24	703.47
359.45	703.48	368.55	703.53	369.05	703.52	369.43	703.53		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	227.14	.06	236.98	.06

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
227.14 236.98 4.383 8.753 11.483 .1 .3
Left Levee Station= 227.14 Elevation= 701.8

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 232.285*

INPUT
Description:
Station Elevation Data num= 446

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	702.463	.121	702.457	.435	702.444	.729	702.435	1.195	702.425
1.347	702.416	1.802	702.398	3.409	702.349	3.584	702.344	4.161	702.335
4.394	702.326	4.596	702.317	6.53	702.28	7.279	702.27	7.745	702.261
9.284	702.241	9.507	702.232	10.051	702.226	10.296	702.222	10.637	702.214
11.278	702.203	11.532	702.197	11.653	702.194	12.281	702.184	12.635	702.174
13.255	702.165	13.702	702.153	14.305	702.144	14.64	702.134	15.332	702.124
15.621	702.107	16.3	702.096	16.593	702.086	17.139	702.077	17.272	702.075
17.558	702.067	17.616	702.066	17.9	702.056	18.517	702.046	18.77	702.036
19.084	702.026	19.742	702.016	19.896	702.01	19.965	702.007	20.632	701.99
20.906	701.979	21.126	701.973	21.48	701.964	21.645	701.96	22.346	701.938
22.597	701.931	23.549	701.91	23.63	701.901	24.5	701.88	24.647	701.876
24.879	701.868	25.391	701.852	25.671	701.844	26.384	701.828	26.509	701.817
26.808	701.808	27.315	701.796	27.488	701.791	28.102	701.771	28.246	701.766
28.382	701.763	28.68	701.755	28.732	701.754	29.168	701.743	29.639	701.733
29.9	701.726	30.245	701.716	30.599	701.705	31.112	701.69	31.176	701.681
32.778	701.646	32.927	701.641	33.46	701.63	33.589	701.628	33.933	701.62
34.017	701.611	34.452	701.601	35.445	701.583	35.85	701.573	36.437	701.564
37.439	701.546	38.34	701.537	39.565	701.528	43.979	701.536	47.614	701.569
48.728	701.585	49.76	701.592	50.392	701.6	50.54	701.608	51.613	701.623
54.103	701.652	54.342	701.655	54.741	701.658	54.891	701.66	55.177	701.665

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
55.459	701.667	56.391	701.672	56.857	701.673	57.322	701.676	57.378	701.676
57.788	701.678	58.254	701.678	59.185	701.681	59.247	701.681	59.567	701.68
60.396	701.675	61.309	701.673	61.402	701.671	64.997	701.66	66.84	701.648
68.36	701.631	68.5	701.629	70.474	701.605	71.35	701.585	72.236	701.573
72.702	701.563	73.949	701.542	74.182	701.537	74.871	701.527	75.737	701.512
75.891	701.51	76.407	701.5	76.594	701.498	78.029	701.476	78.392	701.472
78.616	701.468	79.019	701.462	79.768	701.453	80.7	701.444	80.912	701.435
81.82	701.424	82.192	701.422	82.583	701.417	82.64	701.417	83.757	701.408
84.288	701.402	84.67	701.4	85.341	701.393	85.564	701.392	85.65	701.391
86.654	701.383	86.865	701.381	87.22	701.373	88.262	701.363	88.92	701.354
89.123	701.35	89.305	701.347	89.355	701.346	90.035	701.336	90.268	701.335
90.659	701.329	91.087	701.321	91.516	701.314	91.715	701.313	92.373	701.304
92.464	701.303	92.606	701.3	92.768	701.295	92.997	701.292	93.23	701.291
94.114	701.279	94.894	701.271	95.451	701.263	96.503	701.255	97.04	701.247
97.83	701.239	98.903	701.231	100.543	701.223	101.312	701.215	101.949	701.213
102.396	701.21	102.703	701.21	103.368	701.207	104.107	701.199	105.808	701.191
107.09	701.182	110.859	701.169	111.943	701.162	123.96	701.132	129.549	701.101
129.883	701.11	130.369	701.101	130.47	701.099	130.601	701.1	131.999	701.092
132.211	701.1	132.464	701.092	132.677	701.1	141.145	701.134	141.378	701.136
143.008	701.141	143.241	701.144	143.623	701.144	146.519	701.155	146.911	701.158
147.283	701.158	148.815	701.167	151.488	701.177	152.814	701.185	160.741	701.217
161.581	701.209	161.804	701.217	163.23	701.215	169.023	701.193	171.736	701.172
173.7	701.151	174.165	701.142	174.631	701.134	174.996	701.129	175.32	701.123
175.502	701.119	176.242	701.109	177.593	701.08	177.699	701.078	178.049	701.073
178.377	701.066	178.497	701.064	178.863	701.056	179.102	701.053	180.787	701.024
181.161	701.019	181.356	701.015	181.577	701.012	182.144	701.002	182.222	701.001
183.051	700.989	183.601	700.983	184.047	700.979	186.325	700.968	186.811	700.976
186.908	700.976	187.15	700.978	187.429	700.977	187.672	700.98	189.777	700.987
192.599	701.006	192.784	701.007	194.92	701.015	198.886	701.003	200.478	700.992
200.544	700.993	200.873	700.999	201.44	701.006	201.597	701.009	201.835	701.013
202.007	701.021	202.767	701.036	203.246	701.042	203.313	701.043	203.506	701.05
203.618	701.052	204.056	701.056	204.589	701.064	204.842	701.072	205.36	701.076
205.425	701.075	206.229	701.083	208.285	701.11	208.341	701.109	208.699	701.114
209.448	701.12	210.42	701.131	211.452	701.139	211.909	701.141	212.162	701.149
212.225	701.149	213.678	701.157	215.224	701.171	215.643	701.173	216.295	701.178
216.724	701.18	217.041	701.183	217.46	701.188	217.588	701.189	218.466	701.193
219.043	701.199	219.249	701.2	219.313	701.201	220.99	701.211	221.243	701.211
221.942	701.216	224.422	701.228	224.928	701.234	225.273	701.241	225.789	701.247
225.964	701.247	226.327	701.246	226.801	701.251	227.267	701.26	227.79	701.269
227.864	701.27	228.376	701.276	228.516	701.278	228.74	701.274	229.112	701.283
229.308	701.279	229.42	701.281	229.625	701.277	229.736	701.28	229.96	701.273
230.857	701.253	231.126	701.252	233.102	701.204	233.435	701.191	233.488	701.189
233.548	701.19	234.056	701.175	234.326	701.163	236.772	701.231	238.341	701.3
239.997	701.359	240.66	701.415	241.064	701.443	241.51	701.472	241.935	701.492
245.562	701.572	245.876	701.578	246.107	701.579	246.867	701.588	252.752	701.617
254.659	701.635	255.136	701.644	255.417	701.647	256.006	701.652	256.472	701.66
256.558	701.661	256.682	701.661	257.374	701.665	258.037	701.672	258.22	701.675
258.41	701.677	259.477	701.692	259.65	701.695	260.223	701.706	261.197	701.72
261.362	701.724	261.651	701.728	262.006	701.735	263.995	701.779	264.202	701.787
264.886	701.811	265.311	701.818	265.56	701.826	265.62	701.828	265.974	701.842
266.042	701.844	266.223	701.85	266.627	701.857	266.695	701.861	266.896	701.874
267.186	701.881	267.538	701.896	268.142	701.91	268.264	701.912	268.563	701.919
268.886	701.928	269.186	701.944	269.466	701.952	269.984	701.968	270.357	701.976
270.699	701.992	270.862	701.995	271.217	702.003	271.362	702.007	271.663	702.014
272.4	702.036	272.481	702.038	272.656	702.043	272.968	702.054	273.414	702.062
273.673	702.07	274.367	702.08	274.483	702.08	276.327	702.107	276.534	702.109
278.27	702.134	278.535	702.137	279.461	702.151	279.684	702.153	282.925	702.201
283.28	702.205	284.86	702.226	289.62	702.308	290.231	702.317	296.386	702.339
296.6	702.34	298.403	702.354	300.448	702.361	303.504	702.393	304.976	702.401
305.121	702.41	306.768	702.426	308.064	702.434	308.26	702.442	309.618	702.45
309.835	702.458	310.612	702.466	312.716	702.482	314.436	702.49	321.327	702.537
328.689	702.558	336.849	702.605	337.692	702.612	340.91	702.633	345.307	702.647
345.853	702.65	351.087	702.67	352.205	702.677	352.629	702.67	352.837	702.679
354.505	702.693	354.93	702.686	355.137	702.696	356.183	702.708	356.598	702.701
356.808	702.71	357.644	702.719	358.059	702.711	358.266	702.72	359.105	702.729
359.479	702.721	359.696	702.73	359.843	702.727	360.059	702.722	360.276	702.73
363.447	702.74	363.799	702.732	364.027	702.741	364.39	702.732	364.618	702.741
366.421	702.752	366.606	702.747	366.68	702.744	366.898	702.753	368.028	702.759
368.739	702.764	372.427	702.799	376.327	702.822	376.845	702.814	376.933	702.816
377.239	702.824								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	229.96	.06	239.997	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
229.96	239.997	4.383	8.753	11.483	.1	.3

Left Levee Station= 228.49 Elevation= 701.33

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 223.571*

INPUT
Description:
Station Elevation Data num= 482

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	702.196	.123	702.189	.441	702.177	.738	702.169	1.209	702.161
1.363	702.153	1.824	702.137	3.451	702.093	3.628	702.088	4.212	702.08
4.448	702.072	4.653	702.064	6.61	702.03	7.369	702.02	7.84	702.012
9.398	701.992	9.623	701.985	10.174	701.978	10.423	701.974	10.768	701.966
11.417	701.957	11.796	701.948	12.116	701.942	12.431	701.937	12.79	701.929
13.417	701.919	13.794	701.909	13.87	701.908	14.481	701.899	14.819	701.889
15.52	701.879	15.812	701.863	16.5	701.852	16.797	701.841	17.484	701.831
17.773	701.823	17.832	701.821	18.119	701.812	18.744	701.802	19	701.792
19.318	701.783	19.984	701.772	20.14	701.766	20.21	701.764	20.927	701.747
21.163	701.738	21.385	701.733	21.743	701.723	21.911	701.719	22.271	701.709
22.62	701.698	22.874	701.691	23.506	701.678	23.838	701.67	23.92	701.662
24.411	701.649	24.801	701.641	25.185	701.628	25.703	701.613	25.986	701.603
26.707	701.586	26.835	701.576	27.136	701.565	27.65	701.553	27.825	701.547

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
28.107	701.538	28.447	701.528	28.593	701.523	28.73	701.519	29.031	701.509
29.085	701.508	29.525	701.497	29.663	701.494	30.003	701.486	30.616	701.468
30.974	701.456	31.493	701.441	31.558	701.432	32.058	701.422	33.18	701.396
33.331	701.391	33.871	701.381	34.349	701.37	34.434	701.362	34.83	701.354
35.879	701.335	36.289	701.327	37.367	701.309	37.898	701.301	40.05	701.286
44.519	701.292	46.435	701.306	47.224	701.313	48.198	701.318	49.325	701.33
50.37	701.334	51.01	701.34	51.16	701.346	52.17	701.355	52.246	701.356
53.311	701.365	54.767	701.374	55.008	701.375	55.413	701.376	55.564	701.377
55.853	701.38	56.14	701.381	57.082	701.38	57.554	701.378	58.025	701.379
58.082	701.376	58.497	701.377	58.549	701.377	58.968	701.373	59.911	701.373
59.973	701.372	60.298	701.37	61.137	701.363	62.061	701.359	62.155	701.356
65.794	701.34	67.659	701.326	69.198	701.309	69.34	701.306	70.528	701.291
71.338	701.279	71.961	701.266	72.261	701.258	73.122	701.246	73.593	701.236
74.139	701.227	74.375	701.221	74.856	701.213	75.092	701.208	76.666	701.182
76.821	701.18	77.344	701.171	78.986	701.147	79.353	701.145	79.58	701.14
79.988	701.134	80.746	701.125	81.689	701.117	81.904	701.11	82.823	701.1
83.2	701.1	83.595	701.095	83.653	701.094	85.322	701.08	85.708	701.08
86.387	701.072	86.614	701.074	86.701	701.073	87.717	701.064	87.93	701.063
88.289	701.055	89.345	701.047	90.011	701.039	90.215	701.035	90.4	701.034
90.451	701.034	91.139	701.024	91.375	701.024	91.771	701.017	92.204	701.013
92.639	701.005	92.874	701.005	93.506	700.997	93.598	700.997	93.742	700.995
93.905	700.99	94.138	700.986	94.374	700.987	94.674	700.985	95.268	700.978
96.057	700.972	96.621	700.966	97.687	700.96	98.23	700.954	99.029	700.947
101.776	700.937	102.555	700.931	103.199	700.929	103.652	700.925	103.963	700.927
104.635	700.925	105.383	700.918	108.273	700.906	108.404	700.905	112.219	700.899
113.316	700.894	125.48	700.884	131.137	700.862	131.475	700.87	131.806	700.865
131.967	700.861	132.07	700.86	132.202	700.862	133.617	700.854	133.833	700.861
134.089	700.853	134.304	700.86	142.876	700.882	143.111	700.885	143.507	700.884
144.761	700.886	144.997	700.89	145.384	700.888	148.316	700.894	148.712	700.898
149.089	700.897	150.64	700.905	153.345	700.913	154.688	700.921	155.84	700.924
162.712	700.953	163.563	700.947	163.788	700.955	165.232	700.954	171.095	700.925
173.842	700.903	175.83	700.883	176.772	700.863	177.142	700.859	177.47	700.853
177.654	700.849	178.404	700.837	179.092	700.822	179.771	700.809	179.878	700.806
180.233	700.801	180.685	700.79	182.147	700.764	182.364	700.759	183.382	700.742
183.58	700.738	184.377	700.724	184.457	700.722	185.146	700.711	185.296	700.709
186.304	700.699	186.72	700.696	188.61	700.686	189.102	700.692	189.2	700.692
189.445	700.695	189.728	700.693	189.973	700.696	192.104	700.704	194.961	700.723
195.148	700.724	197.311	700.729	201.325	700.716	202.937	700.703	203.004	700.704
203.337	700.708	203.418	700.708	203.911	700.712	204.31	700.717	204.484	700.723
204.946	700.729	205.253	700.732	205.738	700.735	205.806	700.735	206.001	700.741
206.115	700.741	206.558	700.743	206.626	700.744	206.954	700.746	207.098	700.748
207.354	700.753	207.878	700.755	207.944	700.753	208.133	700.753	208.758	700.756
208.84	700.757	209.321	700.758	210.839	700.768	210.896	700.766	211.259	700.769
211.669	700.77	212.017	700.769	213.001	700.773	213.262	700.772	214.045	700.774
214.507	700.772	214.763	700.778	214.827	700.778	216.298	700.775	217.561	700.776
217.864	700.777	218.288	700.776	218.948	700.777	219.382	700.775	220.126	700.778
220.257	700.779	220.73	700.778	221.24	700.778	221.729	700.781	221.937	700.781
222.003	700.78	222.408	700.781	222.955	700.781	223.7	700.784	223.956	700.783
227.174	700.777	227.687	700.778	228.035	700.782	228.558	700.783	228.735	700.783
229.103	700.777	229.583	700.782	230.054	700.791	230.583	700.799	230.659	700.8
231.177	700.806	231.319	700.81	231.545	700.8	231.922	700.814	232.12	700.804
232.233	700.808	232.441	700.798	232.554	700.801	232.78	700.786	233.578	700.758
233.817	700.758	234.721	700.723	235.573	700.688	235.869	700.672	235.97	700.672
236.421	700.651	236.661	700.636	239.402	700.7	240.495	700.758	240.599	700.762
241.159	700.79	243.014	700.857	243.701	700.909	244.119	700.936	244.58	700.964
245.02	700.984	248.773	701.08	249.098	701.087	249.338	701.086	249.671	701.091
250.124	701.095	256.215	701.125	258.188	701.141	258.681	701.148	258.973	701.151
259.582	701.154	260.153	701.161	260.282	701.159	260.998	701.16	261.684	701.164
261.873	701.166	262.07	701.166	263.174	701.174	263.354	701.176	263.559	701.177
263.947	701.182	264.955	701.191	265.125	701.193	265.424	701.195	265.791	701.199
266.408	701.209	266.682	701.211	267.85	701.229	268.064	701.235	268.772	701.252
269.212	701.256	269.469	701.262	269.532	701.264	269.898	701.273	269.968	701.275
270.155	701.279	270.574	701.285	270.853	701.297	271.153	701.302	271.517	701.313
272.578	701.33	272.911	701.336	273.222	701.349	273.512	701.354	274.048	701.366
274.434	701.371	274.788	701.384	274.956	701.386	275.142	701.389	275.324	701.391
275.474	701.393	275.785	701.399	276.548	701.415	276.632	701.416	276.813	701.419
277.136	701.427	277.598	701.433	277.866	701.439	278.585	701.446	278.704	701.445
280.612	701.464	280.826	701.464	282.623	701.482	282.897	701.482	283.855	701.492
284.086	701.492	287.441	701.527	288.279	701.532	289.049	701.539	289.443	701.542
290.932	701.564	291.651	701.576	294.369	701.617	295.002	701.624	300.738	701.638
301.372	701.638	303.459	701.648	305.575	701.652	308.739	701.677	310.261	701.682
310.412	701.689	312.117	701.702	313.457	701.707	313.661	701.714	315.066	701.72
315.291	701.727	316.095	701.733	318.272	701.745	320.052	701.75	327.183	701.783
329.463	701.787	333.467	701.786	334.802	701.788	338.182	701.803	339.389	701.81
341.536	701.826	341.81	701.83	343.248	701.841	344.12	701.85	345.806	701.861
346.636	701.87	347.451	701.876	348.305	701.88	351.145	701.888	355.03	701.91
356.451	701.915	357.982	701.924	359.139	701.934	359.579	701.929	359.793	701.938
361.52	701.957	361.959	701.953	362.174	701.961	363.257	701.976	363.686	701.971
363.904	701.98	364.769	701.989	365.198	701.982	365.412	701.99	366.281	701.999
366.667	701.992	366.892	702	367.044	701.997	367.268	701.993	367.493	702
370.774	702.011	371.139	702.004	371.375	702.011	371.75	702.005	371.986	702.012
372.922	702.016	373.852	702.025	374.043	702.021	374.12	702.019	374.345	702.026
376.251	702.038	379.862	702.086	380.067	702.09	384.103	702.114	384.64	702.108
384.731	702.11	385.047	702.119						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	232.78	.06	243.014	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
232.78	243.014	4.383	8.753	11.483	.1	.3

Left Levee Station= 231.5 Elevation= 701

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 214.857*

INPUT
Description:
Station Elevation Data num= 493

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	701.929	.124	701.921	.446	701.911	.747	701.904	1.224	701.896
1.38	701.889	1.846	701.875	3.493	701.836	3.672	701.832	4.263	701.825
4.709	701.812	6.69	701.78	7.458	701.77	7.935	701.762	9.512	701.744
9.74	701.737	10.549	701.727	10.898	701.719	11.555	701.71	11.814	701.705
11.939	701.702	12.263	701.696	12.582	701.691	12.988	701.682	13.58	701.673
14.038	701.662	14.656	701.653	14.706	701.652	14.999	701.643	15.708	701.633
16.004	701.618	16.7	701.607	17	701.597	17.695	701.586	17.989	701.578
18.048	701.577	18.339	701.569	18.523	701.565	18.971	701.557	19.231	701.547
19.552	701.539	20.226	701.528	20.384	701.523	20.454	701.521	21.181	701.505
21.419	701.498	21.644	701.492	22.006	701.483	22.176	701.479	23.151	701.452
23.791	701.438	24.126	701.43	24.209	701.423	24.707	701.409	25.101	701.401
25.251	701.397	25.49	701.388	26.014	701.374	26.301	701.363	27.031	701.343
27.16	701.334	27.465	701.322	27.985	701.309	28.162	701.304	28.792	701.284
28.939	701.279	29.078	701.276	29.383	701.263	29.437	701.262	29.883	701.25
30.023	701.247	30.366	701.239	30.633	701.23	30.986	701.221	31.349	701.207
31.875	701.191	31.941	701.184	32.447	701.174	32.752	701.166	33.582	701.147
33.735	701.141	34.281	701.131	34.412	701.129	34.766	701.12	34.851	701.114
35.297	701.104	36.314	701.088	36.729	701.08	37.819	701.063	38.357	701.057
40.536	701.045	45.058	701.048	47.796	701.064	48.782	701.067	49.405	701.072
49.923	701.075	50.981	701.076	51.628	701.08	51.779	701.085	52.802	701.088
52.879	701.088	53.957	701.094	55.43	701.096	55.674	701.096	56.084	701.094
56.237	701.093	56.53	701.095	56.82	701.095	57.774	701.088	58.251	701.082
58.728	701.081	58.785	701.077	59.205	701.075	59.258	701.075	59.683	701.069
60.637	701.064	60.7	701.064	61.877	701.05	62.813	701.045	62.908	701.041
68.479	701.005	70.037	700.988	70.18	700.982	72.203	700.954	72.833	700.941
73.1	700.933	74.007	700.919	74.485	700.909	75.037	700.899	75.276	700.893
75.763	700.885	76.001	700.878	76.707	700.868	77.595	700.851	77.752	700.849
79.131	700.828	79.943	700.817	80.315	700.818	80.544	700.812	81.355	700.801
82.679	700.791	82.897	700.784	83.644	700.777	83.827	700.776	84.208	700.778
84.608	700.772	84.666	700.771	85.811	700.763	86.355	700.758	86.747	700.76
87.434	700.752	87.663	700.755	87.751	700.754	88.779	700.745	88.996	700.744
89.359	700.738	90.427	700.73	91.101	700.723	91.308	700.72	91.495	700.72
91.547	700.721	92.244	700.711	92.482	700.713	92.883	700.706	93.321	700.704
93.761	700.696	93.964	700.698	94.639	700.689	94.732	700.69	94.877	700.69
95.043	700.685	95.278	700.681	95.517	700.684	95.821	700.682	96.422	700.677
97.221	700.673	97.792	700.669	98.87	700.665	99.42	700.66	100.229	700.656
103.009	700.65	103.797	700.646	104.449	700.645	104.907	700.64	105.222	700.643
105.903	700.642	106.66	700.637	108.403	700.633	109.585	700.628	113.578	700.628
114.688	700.626	116.664	700.628	118.363	700.633	127	700.636	132.726	700.623
133.068	700.63	133.403	700.626	133.566	700.622	133.67	700.62	133.804	700.623
135.236	700.616	135.454	700.621	135.713	700.615	135.931	700.62	144.607	700.629
144.845	700.634	145.246	700.631	146.515	700.631	146.754	700.636	147.145	700.633
150.113	700.633	150.514	700.639	150.895	700.636	164.684	700.69	165.544	700.686
165.773	700.692	167.233	700.693	173.168	700.658	175.948	700.635	177.96	700.614
178.437	700.605	178.685	700.599	178.914	700.593	179.288	700.588	179.62	700.582
179.807	700.578	180.565	700.566	181.262	700.549	182.416	700.529	182.752	700.519
182.874	700.516	183.25	700.509	183.495	700.505	184.354	700.489	184.573	700.483
185.604	700.466	185.804	700.46	186.03	700.457	186.31	700.452	186.611	700.445
186.692	700.444	187.389	700.432	187.541	700.429	188.104	700.422	188.982	700.415
190.895	700.404	191.393	700.408	191.492	700.407	191.74	700.412	192.026	700.408
192.274	700.413	194.432	700.421	197.323	700.441	197.512	700.441	199.701	700.444
202.552	700.435	203.764	700.429	205.395	700.415	205.463	700.415	205.8	700.417
205.883	700.417	206.381	700.418	206.541	700.419	206.785	700.42	206.962	700.424
207.429	700.427	207.74	700.428	208.3	700.428	208.497	700.431	209.461	700.431
209.607	700.432	209.866	700.435	210.397	700.434	210.463	700.43	210.654	700.43
210.883	700.429	211.287	700.429	211.37	700.43	211.857	700.426	213.393	700.427
213.45	700.423	213.818	700.423	214.233	700.422	214.585	700.419	215.581	700.414
215.846	700.412	216.638	700.409	217.106	700.404	217.365	700.406	217.43	700.406
218.919	700.392	219.634	700.388	220.073	700.384	220.503	700.384	220.932	700.379
221.6	700.375	222.039	700.37	222.364	700.369	222.793	700.369	223.404	700.364
223.824	700.362	223.921	700.362	224.415	700.363	224.626	700.361	224.692	700.36
225.103	700.358	225.656	700.357	226.41	700.357	226.669	700.354	227.385	700.349
229.926	700.325	230.445	700.323	230.798	700.323	231.327	700.32	231.506	700.318
231.878	700.307	232.364	700.313	233.376	700.329	233.453	700.331	233.978	700.337
234.121	700.342	234.35	700.326	234.732	700.345	234.932	700.329	235.046	700.334
235.256	700.318	235.371	700.323	235.6	700.299	236.298	700.262	236.507	700.264
237.299	700.218	238.045	700.172	238.304	700.152	238.392	700.153	238.787	700.126
238.997	700.109	242.031	700.168	243.242	700.24	243.358	700.246	243.977	700.28
246.031	700.356	246.741	700.404	247.65	700.456	248.104	700.476	251.984	700.588
252.32	700.595	252.568	700.593	252.913	700.599	253.381	700.603	255.487	700.616
259.677	700.632	261.717	700.646	262.227	700.652	262.528	700.655	263.158	700.656
263.657	700.66	263.749	700.661	263.881	700.657	265.527	700.656	265.73	700.654
266.872	700.656	267.057	700.657	267.269	700.656	267.67	700.658	268.712	700.661
268.888	700.662	269.197	700.662	269.577	700.664	270.215	700.669	270.498	700.669
271.705	700.678	271.927	700.682	272.658	700.693	273.113	700.694	273.822	700.705
273.894	700.706	274.088	700.709	274.521	700.712	274.593	700.714	274.809	700.721
275.119	700.724	275.495	700.73	276.141	700.737	276.272	700.737	276.592	700.74
276.937	700.744	277.259	700.753	277.558	700.756	277.795	700.759	278.112	700.764
278.511	700.767	278.877	700.776	279.432	700.779	279.587	700.78	279.908	700.783
280.696	700.794	280.784	700.794	280.971	700.796	281.305	700.801	281.781	700.805
282.059	700.809	282.802	700.813	282.925	700.81	284.898	700.821	285.119	700.819
286.977	700.829	287.26	700.828	288.25	700.834	288.489	700.832	290.497	700.843
291.957	700.854	292.337	700.853	292.823	700.854	293.62	700.858	294.026	700.857
295.565	700.877	296.309	700.889	299.119	700.925	299.466	700.929	299.773	700.931
303.942	700.938	305.702	700.938	306.357	700.937	306.587	700.937	308.515	700.943
309.515	700.941	310.703	700.942	313.973	700.96	315.547	700.963	315.702	700.969
318.851	700.981	319.061	700.986	320.513	700.99	320.746	700.995	321.577	701
333.04	701.03	335.396	701.029	336.785	701.024	338.174	701.024	339.536	701.019
340.916	701.019	344.41	701.032	345.657	701.04	347.877	701.059	348.16	701.064
348.77	701.07	349.646	701.077	350.548	701.088	352.291	701.101	353.149	701.112
354.874	701.124	357.81	701.133	358.695	701.138	359.279	701.143	361.826	701.16
363.294	701.166	364.878	701.177	366.074	701.19	366.528	701.189	366.75	701.197
368.535	701.22	368.989	701.219	369.211	701.227	370.33	701.243	370.774	701.242
370.999	701.25	371.893	701.258	372.337	701.254	372.559	701.26	373.457	701.268
373.856	701.263	374.088	701.27	374.476	701.265	374.709	701.271	378.101	701.281
378.478	701.276	378.722	701.282	379.11	701.277	379.354	701.283	380.322	701.287
381.283	701.297	381.481	701.294	381.56	701.293	381.793	701.299	383.002	701.306
383.763	701.313	387.495	701.375	387.708	701.38	390.529	701.396	391.88	701.406
392.434	701.402	392.528	701.404	392.856	701.413				

Manning's n Values num= 3

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     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06   235.6     .06 246.031     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         235.6 246.031            4.383   8.753  11.483             .1       .3
Left Levee      Station=  234.03      Elevation=  700.56

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 206.142*

INPUT
Description:
Station Elevation Data    num=     489
      Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev
        0 701.661    .126 701.653    .451 701.645    .756 701.639   1.239 701.631
    1.396 701.626   1.868 701.614   3.535  701.58   3.716 701.576   4.314 701.569
    4.556 701.564   4.809 701.558    6.77 701.529   7.547  701.52    8.03 701.513
    9.625 701.495   9.856 701.489   10.42 701.483  10.675 701.479  11.029 701.472
   11.693 701.463  11.956 701.458  12.082 701.456   12.41 701.449  12.732 701.445
     13.1 701.438  13.742 701.427  14.128 701.418  14.832 701.408  14.882 701.406
   15.178 701.398  15.896 701.387  16.195 701.374    16.9 701.363  17.204 701.353
   17.769 701.344  17.907 701.341  18.204 701.334  18.264 701.332  18.558 701.325
   18.745 701.322  19.198 701.313  19.461 701.303  19.786 701.296  20.468 701.284
   20.628  701.28  20.699 701.278  21.391 701.265  21.675 701.257  21.903 701.252
    22.27 701.242  22.811 701.229  23.428 701.212  24.076 701.199  24.415 701.189
   24.499 701.184  25.003 701.169  25.402 701.162  25.553 701.158  25.795 701.149
   26.325 701.136  26.616 701.122  27.354 701.101  27.485 701.093  27.794 701.079
    28.32 701.066  28.499  701.06  28.788 701.051  29.136 701.041  29.286 701.036
   29.426 701.032  29.735 701.018  29.789 701.016  30.241 701.004  30.382     701
    30.73 700.992      31 700.983  31.357 700.973  31.724 700.957  32.256 700.941
   32.323 700.935  32.835 700.925  33.144 700.917  33.636 700.907  33.984 700.898
   34.139 700.891  34.691 700.881  34.824 700.879  35.182  700.87  35.269 700.865
    35.72 700.855  36.749  700.84  37.168 700.833  37.777 700.825  38.272 700.817
   38.816 700.813  41.021 700.803  45.597 700.805  48.368 700.816  49.366 700.817
   49.996 700.819  51.591 700.818  52.246  700.82  52.399 700.823  53.434 700.821
   53.512 700.821  54.603 700.823  56.341 700.817  56.911  700.81  57.207  700.81
     57.5 700.809  58.465 700.796  58.948 700.787  59.431 700.783  59.489 700.778
   59.914 700.774  59.967 700.773  60.397 700.764  61.363 700.756  62.618 700.738
   63.565 700.731  63.661 700.726  69.299 700.683  70.875 700.666   71.02 700.659
   72.237 700.642  73.067 700.629  73.705 700.616  73.975 700.607  74.893 700.592
   75.376 700.582  75.936 700.572  76.177 700.565  76.669 700.556  76.911 700.549
   77.626 700.538  78.524 700.521  78.683 700.519  79.218 700.511  79.412 700.509
   80.899 700.488  81.276 700.491  81.508 700.484  82.329 700.474  83.668 700.464
   83.889 700.459  84.645 700.453   84.83 700.452  85.216 700.456   85.68 700.448
   87.389 700.436  87.785  700.44   88.48 700.431  88.712 700.436  88.801 700.435
   89.842 700.426  90.061 700.425  90.428  700.42  92.192 700.408  92.401 700.405
   92.591 700.407  92.643 700.408  93.348 700.398  93.589 700.402  93.995 700.394
   94.438 700.395  94.883 700.387  95.089 700.391  95.772 700.382  95.866 700.384
   96.013 700.385   96.18  700.38  96.419 700.376   96.66  700.38  98.962 700.372
  100.054  700.37  100.61 700.367 102.541 700.363 104.242 700.363  105.04 700.361
  105.699 700.362 106.163 700.355 106.482  700.36  107.17 700.359 107.937 700.356
  110.897 700.351 116.061 700.358  119.78 700.372  128.52 700.387 134.315 700.385
  134.661 700.389     135 700.387 135.165 700.382  135.27  700.38 135.405 700.385
  136.855 700.378 137.075 700.381 137.338 700.376 137.558  700.38 146.337 700.377
  146.579 700.383 146.984 700.378 148.269 700.376  148.51 700.382 148.906 700.377
   151.91 700.372 152.315 700.379 152.702 700.374  154.29  700.38 157.061 700.386
  158.436 700.392 159.616 700.395 166.655 700.427 167.526 700.425 167.757  700.43
  169.235 700.433 175.241 700.391  180.09 700.346 180.573 700.336 180.824 700.329
  181.055 700.322  181.77 700.312 181.959 700.308 182.726 700.294 183.431 700.277
  184.237 700.263   184.6 700.256  184.94 700.246 185.063 700.242 185.444 700.235
  185.691 700.231  186.56 700.215 186.782 700.207  186.84 700.207 187.825 700.189
  188.028 700.183  188.54 700.174 188.845 700.167 188.926 700.165 189.786 700.149
  190.818 700.137 191.244 700.133  193.18 700.122 193.683 700.123 193.784 700.123
  194.035 700.129 194.325 700.124 194.576  700.13 196.759 700.139 199.684 700.158
  202.091 700.159 204.977 700.148 206.203 700.141 207.854 700.126 207.922 700.126
  208.263 700.125 208.347 700.125 208.851 700.124 209.013 700.125  209.26 700.124
  209.439 700.126 210.226 700.124 210.723 700.121 210.793  700.12 210.992 700.122
  211.109 700.121 211.563 700.118 211.633 700.118 212.115 700.115 212.378 700.117
  212.915 700.113 212.983 700.108 213.408 700.104 213.816 700.102   213.9 700.102
  214.393 700.095 215.947 700.085 216.005  700.08 216.377 700.078 216.797 700.074
  217.154 700.068 217.637 700.063 218.162 700.056 218.429 700.051 219.231 700.044
  219.705 700.035 220.032 700.035 221.539 700.009 222.263 700.001 222.708 699.993
  222.833 699.993 223.142  699.99 223.577 699.982 224.253 699.974 224.697 699.965
  225.025 699.961  225.46 699.959 225.593 699.958 226.078 699.951 226.503 699.947
  226.601 699.946 227.102 699.944 227.382  699.94 227.797 699.936  229.12  699.93
  232.678 699.874 233.203 699.867  233.56 699.864 234.095 699.857 234.277 699.854
  234.654 699.838 235.145 699.844 235.628 699.852  236.17 699.859 236.247 699.861
  236.778 699.868 236.923 699.874 237.155 699.852 237.541 699.877 237.744 699.854
   237.86 699.861 238.072 699.839 238.188 699.845  238.42 699.811 239.019 699.767
  239.198 699.771 239.876 699.714 240.516 699.656 240.738 699.633 240.814 699.635
  241.153 699.602 241.333 699.581 244.661 699.636 245.989 699.723 246.116 699.729
  246.796  699.77 249.049 699.854 249.781 699.898  250.72 699.948 251.189 699.968
  255.196 700.096 255.543 700.104 255.799 700.099 256.155 700.107 257.315 700.116
  258.813 700.124  263.14  700.14 265.246 700.152 265.773 700.157 266.084 700.159
  266.734 700.158 267.249  700.16 267.344  700.16 267.481 700.155  269.18 700.147
   269.39 700.143 270.569 700.138  270.76 700.138 270.979 700.134 271.393 700.134
  271.929 700.131 272.469 700.131 272.651 700.132 272.971 700.129 274.021 700.129
  274.313 700.127  275.56 700.127 275.789 700.129 276.544 700.133 277.014 700.132
  277.288 700.134 277.355 700.134 277.746 700.137 277.821 700.137 278.021 700.138
  278.467 700.139 278.542 700.141 278.765 700.144 279.086 700.145 279.474 700.148
  280.141  700.15 280.631  700.15 280.963 700.151 281.295 700.157 281.849 700.159
  282.176 700.162 282.588 700.163 282.966 700.168 283.146 700.168 283.344 700.167
  283.699 700.167 284.031 700.168 284.845 700.173 284.935 700.172 285.128 700.172
  285.473 700.175 285.965 700.176 286.251 700.179 287.019  700.18 287.147 700.175
  289.184 700.179 289.412 700.174  291.33 700.177 291.622 700.173 292.645 700.175
  292.892 700.171 296.472  700.18 296.865 700.177 297.368 700.175  298.19 700.176
   298.61 700.173 300.199  700.19 300.966 700.202 304.227 700.237 304.544 700.238
  308.849 700.241 310.667 700.239  311.58 700.235  313.61 700.237 314.603 700.233
   315.83 700.233 319.207 700.243 320.833 700.244 320.993 700.248 324.244 700.255
  324.461 700.258 325.961  700.26 326.201 700.263  327.06 700.266 336.973 700.278
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Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
341.33	700.272	342.764	700.263	344.198	700.26	345.604	700.252	347.029	700.249
350.637	700.262	351.925	700.27	353.286	700.284	354.218	700.292	354.51	700.298
355.14	700.305	356.045	700.313	356.976	700.326	358.776	700.341	359.662	700.354
361.443	700.368	364.475	700.377	365.389	700.384	365.992	700.39	368.622	700.41
370.138	700.417	371.773	700.43	373.008	700.447	373.478	700.449	373.707	700.456
375.55	700.484	376.019	700.485	376.248	700.492	377.404	700.511	377.862	700.513
378.094	700.52	379.018	700.527	379.476	700.525	379.705	700.53	380.632	700.537
381.044	700.534	381.284	700.539	381.446	700.538	381.685	700.536	381.926	700.541
385.428	700.552	385.818	700.548	386.069	700.553	386.47	700.549	386.722	700.554
387.721	700.558	388.714	700.569	388.918	700.568	389	700.567	389.24	700.573
390.489	700.58	391.275	700.587	395.129	700.664	395.348	700.67	398.262	700.687
399.657	700.698	400.229	700.697	400.326	700.698	400.664	700.707		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	238.42	.06	249.049	.06

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
238.42	249.049	4.383	8.753	11.483	.1	.3

Left Levee Station= 202.22 Elevation= 700.16
Right Levee Station= 265.96 Elevation= 700.17

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 197.428*

INPUT
Description:
Station Elevation Data num= 477

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	701.394	.127	701.386	.765	701.373	1.253	701.366	1.413	701.362
3.576	701.323	3.76	701.32	4.365	701.314	4.609	701.31	4.822	701.306
6.85	701.279	7.636	701.271	8.125	701.264	9.739	701.246	9.973	701.241
10.544	701.235	11.159	701.225	11.832	701.216	12.097	701.212	12.224	701.209
12.556	701.203	13.905	701.182	14.296	701.173	14.374	701.171	15.007	701.162
15.058	701.161	15.358	701.152	16.084	701.141	16.387	701.129	17.099	701.119
17.407	701.109	17.98	701.099	18.119	701.096	18.419	701.089	18.48	701.088
18.778	701.081	18.967	701.078	19.425	701.069	19.691	701.059	20.02	701.052
20.71	701.041	20.872	701.037	20.944	701.035	21.644	701.023	21.932	701.016
22.162	701.011	22.533	701.001	22.707	700.998	23.08	700.99	23.442	700.979
24.36	700.959	24.704	700.949	24.789	700.945	25.299	700.93	25.856	700.919
26.1	700.909	26.637	700.897	26.93	700.881	27.678	700.859	27.81	700.852
28.123	700.836	28.655	700.822	28.836	700.817	29.129	700.807	29.481	700.797
29.632	700.792	29.774	700.788	30.087	700.772	30.142	700.77	30.741	700.753
31.093	700.744	31.367	700.735	31.728	700.725	32.1	700.708	32.638	700.692
32.705	700.687	33.223	700.677	33.536	700.668	34.034	700.658	34.386	700.648
34.542	700.64	35.102	700.631	35.236	700.629	35.598	700.62	35.686	700.616
36.096	700.607	37.183	700.593	37.608	700.586	38.725	700.572	39.276	700.568
41.506	700.561	46.137	700.561	48.94	700.567	50.587	700.566	51.118	700.564
51.467	700.562	52.864	700.56	53.019	700.561	54.066	700.554	54.145	700.554
55.248	700.552	57.007	700.538	57.584	700.527	57.883	700.525	58.18	700.522
59.157	700.504	59.646	700.491	60.134	700.485	60.193	700.479	60.623	700.473
60.676	700.471	61.111	700.459	62.088	700.447	62.153	700.446	63.359	700.425
64.316	700.418	64.414	700.41	70.118	700.361	71.713	700.344	71.86	700.336
73.091	700.318	73.931	700.304	74.576	700.29	74.85	700.282	75.779	700.265
76.268	700.255	76.834	700.245	77.078	700.237	77.576	700.227	77.821	700.219
78.544	700.209	79.452	700.191	80.155	700.182	81.026	700.169	81.856	700.159
82.237	700.164	82.472	700.156	83.302	700.146	83.681	700.143	84.658	700.138
84.881	700.134	85.833	700.128	86.224	700.134	86.693	700.126	88.423	700.114
88.823	700.12	89.527	700.111	89.761	700.117	89.852	700.117	90.905	700.108
91.126	700.107	91.498	700.103	92.592	700.097	93.282	700.092	93.494	700.09
93.686	700.094	93.738	700.095	94.452	700.086	94.696	700.092	95.106	700.083
95.555	700.087	96.005	700.078	96.213	700.083	96.904	700.075	97.149	700.08
97.318	700.076	97.559	700.071	97.803	700.077	98.115	700.077	100.133	700.074
101.237	700.075	101.8	700.074	105.475	700.077	106.282	700.076	106.95	700.078
107.419	700.07	107.741	700.077	108.438	700.077	109.213	700.075	112.343	700.074
119.457	700.099	121.197	700.111	133.343	700.145	135.903	700.146	136.254	700.149
136.596	700.148	136.87	700.14	137.007	700.147	138.474	700.14	138.697	700.142
138.962	700.138	139.185	700.14	148.068	700.125	148.313	700.132	148.723	700.126
150.023	700.12	150.267	700.128	150.668	700.121	153.706	700.112	154.117	700.119
154.508	700.113	161.504	700.13	168.626	700.163	169.507	700.164	169.741	700.167
171.237	700.172	180.16	700.098	182.22	700.077	182.708	700.067	182.962	700.059
183.197	700.051	183.92	700.041	184.111	700.037	184.887	700.023	185.601	700.005
186.416	699.991	186.783	699.984	187.127	699.972	187.252	699.968	187.637	699.961
187.887	699.958	188.767	699.94	188.992	699.932	189.05	699.931	190.047	699.913
190.252	699.905	190.77	699.896	191.161	699.887	192.03	699.87	192.607	699.861
193.506	699.852	195.465	699.84	195.974	699.839	196.076	699.839	196.33	699.846
196.623	699.839	196.877	699.847	199.086	699.856	202.046	699.875	204.482	699.873
205.369	699.871	207.401	699.862	208.642	699.854	210.312	699.838	210.381	699.838
210.811	699.833	211.321	699.83	211.486	699.83	211.736	699.828	211.916	699.828
212.394	699.823	212.713	699.819	213.215	699.814	213.286	699.813	213.488	699.812
213.606	699.811	214.065	699.805	214.136	699.805	214.476	699.801	214.624	699.799
214.89	699.798	215.433	699.792	215.502	699.785	215.697	699.782	216.345	699.776
216.43	699.775	216.928	699.763	218.502	699.743	218.56	699.737	219.362	699.726
219.722	699.718	220.742	699.697	221.013	699.691	221.824	699.68	222.303	699.666
222.569	699.664	222.635	699.663	224.159	699.626	224.892	699.614	225.342	699.602
225.468	699.601	225.781	699.597	226.221	699.584	226.905	699.573	227.355	699.56
227.687	699.554	228.127	699.549	228.261	699.547	228.752	699.537	229.182	699.531
229.281	699.53	229.788	699.526	230.003	699.522	230.071	699.52	230.491	699.514
231.058	699.509	231.83	699.504	232.096	699.497	235.43	699.422	235.961	699.411
236.323	699.405	237.048	699.389	237.429	699.369	237.926	699.375	238.963	699.39
239.042	699.391	239.579	699.399	239.725	699.406	239.96	699.378	240.351	699.408
240.556	699.38	240.673	699.387	240.888	699.359	241.005	699.367	241.24	699.324
241.739	699.271	241.889	699.277	242.454	699.209	242.988	699.14	243.173	699.114
243.236	699.117	243.518	699.077	243.669	699.054	247.291	699.104	247.902	699.15
248.736	699.205	248.874	699.213	249.614	699.26	252.066	699.353	252.821	699.393
253.282	699.416	253.79	699.44	254.274	699.46	258.407	699.604	258.765	699.613
259.029	699.606	259.397	699.614	259.895	699.619	262.139	699.633	268.775	699.657
269.318	699.661	269.639	699.662	270.842	699.661	270.939	699.66	271.081	699.654
271.869	699.646	272.625	699.64	272.833	699.638	273.05	699.632	274.463	699.618

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
274.69	699.613	275.67	699.604	276.226	699.602	276.414	699.601	276.744	699.596
277.827	699.589	278.129	699.585	279.415	699.577	279.651	699.576	280.43	699.574
280.915	699.57	281.198	699.57	281.267	699.569	281.67	699.568	281.954	699.568
282.414	699.566	282.492	699.567	282.721	699.568	283.052	699.566	284.141	699.563
284.621	699.56	284.989	699.559	285.331	699.562	285.65	699.56	286.24	699.56
286.665	699.559	287.241	699.559	287.445	699.556	287.646	699.554	287.811	699.554
288.153	699.552	288.993	699.552	289.086	699.551	289.285	699.548	289.641	699.549
290.149	699.548	290.444	699.549	291.236	699.547	291.368	699.54	293.469	699.536
293.705	699.53	295.683	699.525	295.985	699.519	297.04	699.517	297.295	699.511
299.434	699.507	300.988	699.507	301.393	699.502	301.912	699.497	302.76	699.494
303.193	699.489	304.833	699.504	305.624	699.514	308.988	699.544	309.315	699.545
313.756	699.544	315.631	699.539	316.329	699.535	316.573	699.533	318.667	699.531
319.692	699.526	320.958	699.524	326.118	699.526	326.284	699.528	329.638	699.528
329.862	699.531	331.409	699.53	331.657	699.532	342.768	699.529	347.263	699.515
348.742	699.502	350.222	699.497	351.673	699.485	353.143	699.479	356.865	699.491
358.193	699.5	359.597	699.516	360.559	699.525	360.86	699.532	361.51	699.54
362.443	699.548	363.404	699.564	365.26	699.581	366.174	699.596	368.012	699.612
371.14	699.621	372.082	699.629	372.704	699.637	375.418	699.66	376.982	699.668
378.669	699.683	379.943	699.704	380.427	699.708	380.663	699.715	382.564	699.747
383.049	699.751	383.285	699.758	384.477	699.779	384.95	699.784	385.189	699.79
386.142	699.797	386.615	699.796	386.851	699.8	387.807	699.807	388.233	699.805
388.481	699.809	388.648	699.809	388.894	699.808	389.142	699.811	392.755	699.822
393.157	699.82	393.417	699.823	393.83	699.821	394.09	699.825	395.121	699.829
396.145	699.842	396.44	699.842	396.688	699.846	397.976	699.853	398.786	699.861
402.763	699.952	402.989	699.96	405.995	699.978	407.434	699.99	408.024	699.991
408.124	699.992	408.473	700.001						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	241.24	.06	252.066	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
241.24	252.066	4.383	8.753	11.483	.1	.3

Right Levee Station= 270.04 Elevation= 699.71

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 188.714*

INPUT
Description:
Station Elevation Data num= 451

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	701.127	.129	701.118	.462	701.112	1.268	701.102	1.429	701.099
1.913	701.091	3.618	701.067	4.416	701.059	4.663	701.056	4.878	701.053
9.853	700.997	10.089	700.994	10.667	700.988	10.928	700.984	11.29	700.977
11.97	700.97	12.239	700.966	12.367	700.963	12.703	700.956	13.034	700.952
14.067	700.936	14.463	700.927	14.542	700.926	15.183	700.916	15.234	700.915
15.537	700.906	16.272	700.896	16.578	700.885	17.299	700.874	17.611	700.864
18.19	700.855	18.331	700.852	18.635	700.844	18.696	700.843	18.997	700.837
19.188	700.834	19.652	700.825	19.921	700.815	20.254	700.808	20.953	700.797
21.116	700.793	21.897	700.782	22.188	700.775	22.421	700.771	22.797	700.761
22.973	700.757	23.35	700.75	23.716	700.74	24.645	700.72	24.993	700.709
25.079	700.705	25.594	700.69	26.158	700.679	26.405	700.67	26.948	700.659
27.245	700.641	28.001	700.617	28.135	700.611	28.451	700.593	28.99	700.579
29.173	700.573	29.469	700.564	29.825	700.554	29.978	700.548	30.122	700.544
30.438	700.526	30.494	700.524	31.457	700.497	31.733	700.488	32.099	700.478
32.475	700.459	33.019	700.442	33.088	700.438	33.612	700.428	33.928	700.419
34.432	700.409	34.788	700.399	34.946	700.39	35.648	700.38	36.014	700.37
36.103	700.367	36.518	700.359	39.177	700.326	41.991	700.319	48.685	700.318
49.513	700.319	51.179	700.313	52.068	700.306	53.482	700.3	53.639	700.299
54.698	700.287	54.778	700.287	55.894	700.281	57.674	700.259	58.098	700.248
58.257	700.243	58.56	700.24	58.86	700.236	59.848	700.212	60.343	700.196
60.837	700.188	60.896	700.179	61.386	700.17	61.826	700.155	62.814	700.139
62.879	700.137	64.099	700.113	65.068	700.104	65.167	700.095	72.552	700.022
72.7	700.013	73.946	699.994	75.448	699.965	75.725	699.956	77.732	699.917
77.979	699.908	78.483	699.899	78.73	699.89	79.462	699.879	80.381	699.86
80.544	699.859	81.092	699.852	81.291	699.85	82.813	699.829	83.199	699.837
83.436	699.828	84.276	699.818	85.648	699.811	85.873	699.809	86.837	699.804
87.232	699.812	87.646	699.804	87.707	699.803	89.456	699.792	89.862	699.8
90.573	699.79	90.811	699.799	90.902	699.798	91.967	699.789	92.191	699.788
92.567	699.785	94.587	699.775	94.781	699.781	94.834	699.783	95.556	699.773
95.803	699.781	96.218	699.771	96.672	699.778	97.128	699.769	97.338	699.776
98.037	699.767	98.133	699.77	98.284	699.775	98.7	699.765	98.947	699.773
108.2	699.794	108.674	699.785	109.001	699.793	113.657	699.797	115.614	699.804
120.854	699.835	122.613	699.851	125.787	699.866	127.072	699.874	134.901	699.902
137.492	699.907	137.847	699.909	138.193	699.909	138.362	699.903	138.47	699.9
138.608	699.908	140.092	699.901	140.318	699.902	140.586	699.9	140.812	699.9
149.799	699.872	150.046	699.881	150.461	699.873	151.776	699.865	152.023	699.874
152.429	699.866	155.503	699.851	155.918	699.86	156.314	699.851	163.392	699.865
170.597	699.9	171.489	699.902	171.725	699.905	173.238	699.911	184.351	699.809
184.844	699.799	185.101	699.79	185.339	699.781	185.726	699.775	186.07	699.771
187.049	699.751	187.77	699.732	188.482	699.722	188.595	699.719	188.967	699.712
189.315	699.699	189.441	699.694	190.084	699.684	190.973	699.665	191.201	699.656
191.259	699.655	191.872	699.643	192.268	699.636	192.476	699.628	192.71	699.623
193	699.618	193.312	699.61	193.395	699.608	194.118	699.593	194.275	699.59
194.859	699.581	195.768	699.571	197.241	699.562	197.749	699.558	198.265	699.555
198.368	699.554	198.625	699.563	198.922	699.555	199.179	699.563	201.413	699.573
204.408	699.593	204.605	699.592	206.872	699.588	209.826	699.576	211.081	699.567
212.771	699.549	212.841	699.549	213.19	699.543	213.792	699.536	213.958	699.535
214.211	699.531	214.393	699.529	214.877	699.522	215.199	699.515	215.984	699.503
216.103	699.5	216.568	699.493	216.639	699.491	216.983	699.485	217.133	699.483
217.402	699.48	217.952	699.471	218.021	699.463	218.218	699.459	218.456	699.455
218.874	699.449	218.96	699.447	219.464	699.432	221.056	699.402	221.115	699.393
221.926	699.378	223.322	699.339	223.596	699.33	224.417	699.315	224.902	699.297
225.237	699.292	226.78	699.243	227.521	699.227	227.976	699.211	228.104	699.209
228.421	699.203	228.866	699.187	229.558	699.171	230.012	699.155	230.348	699.147
230.793	699.14	230.93	699.136	231.426	699.124	231.861	699.116	231.961	699.114
232.474	699.108	232.692	699.102	232.761	699.1	233.186	699.092	233.759	699.084
234.54	699.077	238.72	698.955	239.085	698.946	239.633	698.93	239.819	698.925

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
240.205	698.899	242.379	698.929	242.528	698.938	242.765	698.904	243.16	698.939
243.368	698.905	243.487	698.914	243.704	698.88	243.823	698.888	244.06	698.837
244.46	698.776	244.579	698.784	245.032	698.705	245.459	698.623	245.607	698.594
245.658	698.598	245.884	698.552	246.004	698.527	249.92	698.572	250.581	698.625
251.483	698.688	251.632	698.696	252.432	698.75	255.083	698.851	255.862	698.888
256.336	698.909	257.359	698.952	261.619	699.112	261.988	699.121	262.26	699.113
262.638	699.122	263.872	699.132	265.464	699.141	272.304	699.162	272.864	699.165
273.195	699.166	274.434	699.161	274.535	699.16	274.68	699.152	275.493	699.141
276.272	699.132	276.487	699.129	276.71	699.121	278.167	699.099	278.4	699.091
279.41	699.077	279.984	699.072	280.177	699.071	280.517	699.063	281.634	699.05
281.944	699.042	283.27	699.026	283.513	699.024	284.815	699.009	285.108	699.005
285.178	699.005	285.674	698.999	285.886	698.998	286.361	698.994	286.441	698.994
286.678	698.992	287.018	698.987	288.14	698.977	288.636	698.97	289.014	698.967
289.367	698.966	289.696	698.962	290.304	698.958	291.144	698.951	291.335	698.949
291.546	698.946	291.753	698.942	292.276	698.936	293.142	698.931	293.237	698.929
293.443	698.924	293.809	698.923	295.453	698.913	295.589	698.905	297.755	698.893
297.997	698.885	300.037	698.872	300.347	698.865	301.435	698.858	301.697	698.85
303.902	698.838	305.504	698.833	305.922	698.826	306.456	698.818	307.33	698.812
307.777	698.804	309.466	698.817	310.282	698.827	313.367	698.85	313.749	698.852
314.086	698.852	318.663	698.847	320.596	698.84	321.567	698.832	323.684	698.826
324.781	698.818	331.404	698.807	331.575	698.808	335.031	698.802	335.262	698.803
336.857	698.799	337.112	698.8	348.564	698.779	353.197	698.757	354.721	698.741
356.246	698.733	357.741	698.717	359.256	698.71	363.092	698.721	364.462	698.73
365.909	698.748	366.899	698.757	367.21	698.766	367.88	698.775	368.842	698.784
369.832	698.802	371.745	698.82	372.687	698.838	374.581	698.856	377.805	698.866
378.776	698.875	379.417	698.883	382.214	698.91	383.826	698.919	385.564	698.937
386.877	698.961	387.376	698.968	387.62	698.974	389.579	699.01	390.078	699.018
390.322	699.024	391.551	699.047	392.038	699.054	392.285	699.06	393.267	699.066
393.754	699.067	393.997	699.07	394.983	699.076	395.421	699.077	395.677	699.079
396.103	699.079	396.358	699.081	400.082	699.092	400.496	699.092	400.764	699.094
401.19	699.094	401.458	699.096	402.52	699.099	403.575	699.114	403.793	699.116
403.88	699.116	404.135	699.119	405.463	699.127	406.298	699.136	410.396	699.241
410.629	699.25	413.727	699.269	415.21	699.282	415.819	699.285	415.922	699.286
416.281	699.296								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	244.06	.06	255.083	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
244.06	255.083	4.383	8.753	11.483	.1 .3

Right Levee Station= 273.13 Elevation= 699.23

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 180

INPUT
Description:
Station Elevation Data num= 316

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	700.86	.13	700.85	3.66	700.81	4.98	700.8	10.79	700.74
11.42	700.73	12.38	700.72	12.85	700.71	13.61	700.7	14.23	700.69
14.71	700.68	15.41	700.67	15.74	700.66	16.46	700.65	16.77	700.64
17.51	700.63	17.82	700.62	18.4	700.61	18.85	700.6	19.41	700.59
19.9	700.58	20.17	700.57	21.36	700.55	22.15	700.54	22.68	700.53
23.06	700.52	23.62	700.51	23.99	700.5	24.93	700.48	25.89	700.45
26.46	700.44	26.71	700.43	27.27	700.42	27.56	700.4	28.46	700.37
28.78	700.35	29.51	700.33	29.81	700.32	30.17	700.31	30.47	700.3
30.79	700.28	31.46	700.26	31.82	700.25	32.1	700.24	32.47	700.23
32.85	700.21	33.47	700.19	34	700.18	34.32	700.17	34.83	700.16
35.19	700.15	35.35	700.14	36.06	700.13	36.43	700.12	36.94	700.11
39.63	700.08	50.13	700.07	51.77	700.06	52.67	700.05	54.1	700.04
55.33	700.02	56.54	700.01	58.34	699.98	58.93	699.96	59.54	699.95
60.54	699.92	61.04	699.9	61.54	699.89	61.6	699.88	62.04	699.87
62.54	699.85	63.54	699.83	63.95	699.82	64.84	699.8	65.82	699.79
65.92	699.78	73.39	699.7	73.54	699.69	74.8	699.67	76.32	699.64
76.6	699.63	78.63	699.59	78.88	699.58	79.39	699.57	79.64	699.56
80.38	699.55	81.31	699.53	82.23	699.52	82.92	699.51	83.77	699.5
84.16	699.51	84.4	699.5	85.25	699.49	87.84	699.48	88.24	699.49
88.72	699.48	90.49	699.47	90.9	699.48	91.62	699.47	91.86	699.48
93.03	699.47	95.68	699.46	95.93	699.47	96.66	699.46	96.91	699.47
97.33	699.46	97.83	699.47	98.25	699.46	98.5	699.47	99.17	699.46
99.42	699.47	99.84	699.46	100.09	699.47	109.45	699.51	109.93	699.5
110.26	699.51	114.97	699.52	116.95	699.53	122.25	699.57	124.03	699.59
127.24	699.61	128.54	699.62	136.46	699.66	139.79	699.67	140.07	699.66
140.21	699.67	151.53	699.62	151.78	699.63	152.2	699.62	153.53	699.61
153.78	699.62	154.19	699.61	157.3	699.59	157.72	699.6	158.12	699.59
165.28	699.6	175.24	699.65	186.49	699.54	186.98	699.53	187.24	699.52
187.48	699.51	188.22	699.5	189.21	699.48	189.94	699.46	190.66	699.45
191.15	699.44	191.63	699.42	192.28	699.41	193.18	699.39	193.41	699.38
194.49	699.36	194.7	699.35	195.23	699.34	195.63	699.33	196.52	699.31
197.11	699.3	198.03	699.29	199.52	699.28	200.66	699.27	200.92	699.28
201.22	699.27	201.48	699.28	203.76	699.29	206.77	699.31	210.17	699.3
212.25	699.29	213.52	699.28	215.3	699.26	215.74	699.25	216.43	699.24
217.36	699.22	217.73	699.21	218.2	699.2	218.6	699.19	219.07	699.18
219.49	699.17	220.47	699.15	220.54	699.14	220.98	699.13	221.49	699.12
222	699.1	223.61	699.06	223.67	699.05	224.49	699.03	225.36	699
226.18	698.97	227.01	698.95	227.84	698.92	229.4	698.86	230.15	698.84
230.61	698.82	231.06	698.81	231.51	698.79	232.21	698.77	232.67	698.75
233.01	698.74	233.46	698.73	234.1	698.71	234.54	698.7	235.16	698.69
235.45	698.68	235.88	698.67	236.46	698.66	237.25	698.65	242.59	698.46
242.98	698.43	244.55	698.45	245.18	698.46	245.33	698.47	245.57	698.43
245.97	698.47	246.18	698.43	246.3	698.44	246.52	698.4	246.64	698.41
246.88	698.35	247.18	698.28	247.27	698.29	247.61	698.2	248.06	698.07
248.34	698	252.55	698.04	252.6	698.05	253.26	698.1	254.23	698.17
254.39	698.18	255.25	698.24	258.1	698.35	264.83	698.62	265.21	698.63
265.49	698.62	265.88	698.63	267.15	698.64	268.79	698.65	276.75	698.67
278.13	698.66	278.28	698.65	280.14	698.62	280.37	698.61	281.87	698.58
282.11	698.57	283.15	698.55	283.94	698.54	284.29	698.53	285.44	698.51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
285.76	698.5	289.09	698.44	289.6	698.43	290.39	698.42	291.41	698.4
292.14	698.39	292.65	698.38	293.42	698.37	294.01	698.36	294.82	698.35
295.43	698.34	295.86	698.33	296.44	698.32	297.29	698.31	297.6	698.3
299.67	698.28	299.81	698.27	302.04	698.25	302.29	698.24	304.39	698.22
304.71	698.21	305.83	698.2	306.1	698.19	308.37	698.17	310.02	698.16
310.45	698.15	311	698.14	311.9	698.13	312.36	698.12	314.1	698.13
314.94	698.14	318.51	698.16	323.57	698.15	325.56	698.14	326.56	698.13
328.74	698.12	329.87	698.11	354.36	698.03	359.13	698	360.7	697.98
362.27	697.97	363.81	697.95	365.37	697.94	369.32	697.95	370.73	697.96
372.22	697.98	373.24	697.99	373.56	698	374.25	698.01	375.24	698.02
376.26	698.04	378.23	698.06	379.2	698.08	381.15	698.1	384.47	698.11
385.47	698.12	386.13	698.13	389.01	698.16	390.67	698.17	392.46	698.19
399.38	698.33	403.05	698.35	409.92	698.37	411.23	698.39	412.95	698.4
413.81	698.41	418.03	698.53	418.27	698.54	421.46	698.56	423.72	698.58
424.09	698.59								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	246.88	.06	258.1	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
246.88	258.1	7.504	8.416	4.736	.1	.3

Right Levee Station= 276.21 Elevation= 698.67

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 171.6*

INPUT
Description:
Station Elevation Data num= 352

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	700.412	.129	700.403	7.826	700.296	8.025	700.292	11.168	700.25
11.291	700.246	12.241	700.234	14.888	700.184	15.237	700.179	15.563	700.17
15.642	700.169	15.831	700.165	16.275	700.158	16.581	700.148	17.313	700.137
17.727	700.125	19.676	700.085	19.943	700.076	20.514	700.066	20.723	700.061
21.635	700.049	21.698	700.046	21.901	700.043	24.649	699.985	25.511	699.96
26.162	699.947	26.409	699.938	26.963	699.928	27.25	699.911	28.015	699.887
28.14	699.884	28.456	699.866	29.831	699.829	30.127	699.819	30.444	699.802
31.462	699.774	31.739	699.764	31.839	699.762	32.105	699.755	32.48	699.737
33.093	699.717	33.617	699.708	33.934	699.699	34.794	699.679	34.952	699.67
35.654	699.658	36.145	699.646	36.524	699.639	36.952	699.634	37.099	699.631
39.184	699.605	51.187	699.557	52.982	699.541	53.265	699.541	53.491	699.539
53.789	699.534	56.743	699.507	56.984	699.501	57.424	699.5	57.684	699.497
57.927	699.491	58.189	699.488	58.267	699.485	58.409	699.482	58.87	699.481
58.933	699.473	59.729	699.466	59.859	699.466	60.001	699.463	60.159	699.456
60.353	699.453	60.724	699.452	60.848	699.451	60.907	699.444	61.154	699.441
61.342	699.441	61.836	699.431	62.369	699.429	62.736	699.431	62.82	699.428
63.679	699.428	64.11	699.43	64.622	699.436	65.079	699.432	65.178	699.424
72.564	699.356	72.712	699.348	75.461	699.307	75.738	699.299	77.745	699.266
77.98	699.258	78.497	699.245	78.744	699.234	79.476	699.219	80.395	699.194
82.827	699.146	83.213	699.151	83.45	699.14	84.291	699.125	86.852	699.098
87.179	699.103	87.247	699.103	87.577	699.094	87.722	699.091	89.472	699.073
89.877	699.078	90.51	699.067	90.589	699.066	90.826	699.073	91.851	699.061
92.951	699.055	93.15	699.052	93.454	699.049	94.523	699.044	94.603	699.044
94.851	699.051	95.572	699.041	95.82	699.049	96.235	699.04	96.729	699.047
97.144	699.038	97.392	699.045	98.054	699.036	98.301	699.043	98.717	699.035
98.964	699.042	108.218	699.075	108.693	699.067	109.019	699.075	134.924	699.197
138.217	699.196	138.494	699.188	138.632	699.195	147.903	699.145	148.112	699.146
148.521	699.143	149.825	699.14	150.072	699.149	150.487	699.141	151.802	699.134
152.05	699.142	152.455	699.134	155.53	699.123	155.945	699.131	156.341	699.124
173.268	699.192	173.467	699.19	184.392	699.12	184.876	699.112	185.37	699.096
186.102	699.088	187.803	699.055	188.515	699.047	188.999	699.039	189.474	699.023
191.006	698.998	191.183	698.992	191.234	698.99	192.302	698.973	192.509	698.965
193.033	698.957	194.309	698.931	194.892	698.922	197.275	698.902	197.354	698.901
198.192	698.894	198.402	698.891	198.659	698.898	198.956	698.889	199.213	698.897
204.443	698.904	207.805	698.883	207.978	698.881	208.093	698.879	209.036	698.871
209.13	698.869	212.877	698.823	213.312	698.813	213.677	698.808	216.605	698.742
217.02	698.731	217.989	698.71	218.058	698.702	218.493	698.691	218.998	698.681
219.502	698.661	221.094	698.619	221.153	698.611	221.964	698.59	223.635	698.533
224.456	698.513	224.615	698.501	225.276	698.485	226.819	698.432	227.56	698.414
228.015	698.397	228.46	698.387	228.905	698.37	229.597	698.353	230.052	698.336
230.388	698.327	230.833	698.318	231.466	698.301	231.901	698.292	232.514	698.283
232.801	698.275	233.226	698.266	234.58	698.249	235.982	698.208	239.86	698.068
240.246	698.041	242.421	698.048	242.569	698.055	242.656	698.042	242.807	698.021
243.202	698.05	243.41	698.014	243.526	698.02	243.746	697.986	243.865	697.992
244.102	697.942	244.231	697.92	244.418	697.891	244.476	697.881	244.577	697.878
244.637	697.879	245.104	697.791	245.722	697.67	246.106	697.608	247.094	697.617
247.448	697.624	250.362	697.662	250.412	697.671	252.06	697.776	252.222	697.785
253.091	697.838	255.972	697.942	261.098	698.073	261.177	698.073	261.574	698.084
262.748	698.122	262.934	698.126	263.327	698.131	263.617	698.12	264.021	698.125
274.164	698.104	274.252	698.102	275.266	698.101	276.202	698.093	276.317	698.09
276.693	698.087	276.849	698.078	278.773	698.048	279.011	698.039	279.528	698.028
280.563	698.011	280.811	698.003	282.704	697.977	283.066	697.969	283.877	697.957
284.256	697.955	284.587	697.949	291.165	697.912	291.715	697.912	292.612	697.919
295.726	697.923	296.515	697.928	296.767	697.926	296.836	697.925	297.596	697.928
297.949	697.932	298.558	697.935	298.823	697.935	298.977	697.936	299.078	697.932
299.308	697.931	299.846	697.933	300.181	697.937	300.367	697.937	300.728	697.941
300.896	697.942	301.178	697.942	301.429	697.944	301.54	697.943	301.687	697.939
301.76	697.939	302.131	697.943	303.728	697.951	303.79	697.953	303.86	697.953
304.191	697.95	305.35	697.958	305.492	697.956	305.629	697.953	309.684	697.95
310.698	697.939	311.629	697.935	312.056	697.929	316.759	697.955	316.935	697.957
317.509	697.958	317.685	697.961	318.467	697.962	318.673	697.964	320.323	697.957
320.535	697.959	321.373	697.954	321.435	697.956	322.281	697.95	322.334	697.952
330.22	697.892	330.372	697.892	340.491	697.84	340.641	697.838	355.851	697.789
363.076	697.725	363.297	697.726	363.676	697.722	363.738	697.722	365.331	697.7
366.817	697.689	366.945	697.687	367.655	697.685	367.788	697.688	368.017	697.686
371.031	697.687	372.49	697.695	375.087	697.722	375.375	697.729	377.156	697.75
378.211	697.769	380.249	697.791	381.252	697.811	383.27	697.835	386.579	697.854
386.704	697.854	387.739	697.864	388.422	697.874	392.649	697.908	393.118	697.908

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     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
  394.97 697.923 402.129 698.028 413.033 698.053 414.335 698.069 414.388  698.07
 416.167 698.081 417.057 698.091 421.423 698.195 421.671 698.203 427.074 698.246
 427.309 698.246 427.692 698.256

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06 244.102     .06 255.972     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       244.102 255.972           7.504   8.416   4.736             .1       .3
Right Levee     Station=  263.13      Elevation=   698.2

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 163.2*

INPUT
Description:
Station Elevation Data    num=     413
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 699.964    .127 699.956   4.319 699.883   4.837 699.876   5.345 699.865
   5.862 699.858   6.163 699.852    6.38 699.846   6.681 699.841   6.898 699.835
   7.416 699.828   7.737 699.822   7.934 699.817  10.151 699.783  10.327 699.777
  10.547 699.775  11.041 699.767  11.163 699.763   11.57 699.755  12.101 699.749
  12.201 699.747  12.561 699.738  13.569 699.721  13.796 699.715   13.91 699.713
  14.379 699.701  14.511 699.699  14.718 699.693  15.063 699.688  15.386  699.68
  15.464 699.679   15.65 699.674   16.09 699.665  16.393 699.656  17.116 699.644
   17.38 699.637  17.525 699.631  18.343 699.617  18.426 699.613  19.452 699.591
  19.716 699.583   20.28 699.572  20.488 699.566  21.389 699.554  21.451  699.55
  21.652 699.547   23.45  699.51  23.657 699.505  24.175 699.495  25.221 699.468
  25.307 699.465  25.865 699.455  26.109 699.447  26.656 699.436   26.94 699.422
  27.696 699.401   27.82 699.397  28.132 699.383  29.784 699.339  30.097 699.324
  31.477 699.286  31.739  699.28  32.111 699.264  32.326 699.258  32.502  699.25
  32.717 699.245  33.235 699.236  33.548 699.227  34.398 699.207  34.554 699.199
  35.248 699.187  35.734 699.174  36.532 699.163  36.677 699.158  38.738 699.129
  44.569 699.089  45.046 699.084  52.379 699.038  52.659 699.041  53.176 699.033
  55.662 699.018  56.097 699.018  56.336 699.011  56.771 699.015  57.027 699.014
  57.268 699.011  57.527 699.014  57.604 699.011  57.744 699.007  57.993 699.008
    58.2 699.012  58.262 699.008  59.049  699.01  59.178 699.012  59.319 699.013
  59.474 699.005  59.666 699.006  60.033 699.012  60.155 699.012  60.214 699.007
  60.644 699.011  61.133 699.012  61.659  699.02  62.022 699.031  62.105 699.026
  62.954 699.046  63.886 699.077  64.339 699.074  64.436 699.068  71.738 699.013
  71.885 699.007  74.602 698.974  74.876 698.968   76.86 698.942  77.092 698.936
  77.603 698.919  77.848 698.909  78.066 698.902  78.571 698.888   79.48 698.858
  81.885 698.793  82.266 698.792  82.501 698.781  82.748 698.774  85.482 698.721
  85.863 698.716  86.254 698.717   86.58 698.706  86.723 698.702  88.454 698.675
  88.854 698.676   89.48 698.663  89.558 698.661  89.793 698.666  90.029 698.663
  90.298 698.657  90.936 698.649  91.893 698.644   92.09 698.639  92.391 698.635
  93.447 698.628  93.527 698.628  93.771 698.632  94.296 698.626  94.485 698.623
  94.729 698.627   95.14 698.619  95.628 698.624  96.039 698.616  96.109 698.618
  96.283 698.621  96.938 698.611  97.183 698.617  97.593 698.609  97.837 698.614
 106.987  698.64 107.456 698.634 107.779  698.64 115.872 698.669 120.823 698.711
 121.239 698.716 123.049 698.729 136.644 698.722 136.918 698.715 137.055  698.72
  146.22 698.661 146.427 698.665 146.831 698.659  148.12 698.661 148.364 698.667
 148.775 698.662 150.075 698.657 150.319 698.664 150.508 698.661  150.72 698.659
  153.76 698.656 154.171 698.663 154.562 698.658 171.296 698.733 182.293 698.699
 182.648 698.696 182.772 698.694 183.261 698.682 184.952 698.663 185.665  698.65
 186.369 698.644 186.848 698.637 187.317 698.625 187.953 698.619 188.833 698.606
 189.007 698.601 189.057   698.6 190.113 698.586 190.318  698.58  195.03 698.524
 195.108 698.524 196.144 698.512 196.398 698.516 196.692 698.509 196.946 698.514
 202.117 698.498 205.611 698.464 205.725 698.459 206.657 698.448  206.75 698.444
 207.237 698.439 207.817 698.428 208.397 698.422 208.987  698.41 209.567 698.402
 210.158  698.39 210.455 698.386 211.245 698.371 211.559 698.362 213.379 698.323
  213.68 698.315 213.835 698.312 215.508  698.27 215.577 698.263 216.505 698.241
 217.004 698.222 217.367  698.21 218.578 698.178 218.636 698.171 219.438  698.15
 220.712 698.106  221.09 698.095 221.901 698.076 224.237 698.004 224.971 697.989
 225.073 697.985  225.42 697.973 225.549  697.97  225.86 697.964   226.3  697.95
 229.262 697.884 229.868 697.877 230.151  697.87 230.925 697.858 231.911 697.848
 233.297 697.816 237.131 697.676 237.512 697.652 239.662 697.637 239.809  697.64
 239.895 697.629 240.043 697.612 240.434 697.631  240.64 697.599 240.754   697.6
 240.972 697.571 241.089 697.575 241.324 697.534 241.489 697.513 241.726 697.486
 241.799 697.476 241.927 697.471 242.005 697.469 242.104 697.453 242.311 697.422
 242.598 697.381 242.933 697.335 242.994 697.325 243.293 697.283 243.348 697.273
 243.418 697.274 243.646 697.244 243.872 697.216  244.87 697.226 245.229 697.236
 248.173 697.285 248.225 697.291 250.932 697.436 253.844 697.534 254.291  697.54
 254.747 697.542 255.348 697.552  256.57 697.563 257.199 697.574 258.484 697.586
 259.141 697.597 259.223 697.595 259.633   697.6 260.846 697.632 261.039 697.633
 261.445 697.632 261.744 697.621 262.161  697.62 264.611 697.588 272.643  697.54
 272.734 697.537 274.749 697.522 274.867 697.518 275.257 697.513 275.417 697.506
 277.406 697.475 277.652 697.468 277.922 697.463 278.186 697.456 279.255 697.442
 279.512 697.436 281.468 697.414 281.842 697.407 282.681 697.398 283.072   697.4
 283.414 697.399 290.211 697.434 290.758 697.444 291.706 697.469 293.493 697.502
 293.751 697.508 294.831 697.526 294.924 697.527  295.74 697.546 296.071  697.55
 296.447 697.558 296.857 697.564 297.222 697.574 297.851 697.586 298.124 697.589
 298.284 697.593 298.389 697.592 298.626 697.593 298.954 697.599 299.182 697.602
 299.528 697.612  299.72 697.616 300.094 697.626 300.267 697.629 300.559 697.631
 300.818 697.638 300.932 697.639 301.085 697.639  301.16  697.64 301.543  697.65
 302.601 697.672 303.193 697.681 303.257 697.684  303.33 697.686 303.672 697.689
 304.634 697.709 304.869 697.715 305.017 697.717 305.158 697.716 305.591  697.72
  306.53 697.723  307.05 697.729 309.349  697.74 310.687 697.738 311.061  697.74
 311.358  697.74   311.8 697.737  311.85 697.736 312.356 697.742 316.659 697.758
 316.841 697.763 317.434 697.761 317.616 697.765 318.425 697.764 318.637 697.768
 320.342 697.758 320.561 697.762 321.427 697.753 321.491 697.757 322.366 697.748
 322.421 697.752 326.368 697.722 328.155 697.699 328.976 697.693 330.289 697.675
 330.726 697.674 331.601 697.664 341.183 697.603 341.338 697.598  356.75 697.551
  362.28 697.505 362.708 697.498 364.522 697.476  364.75  697.48 365.142 697.474
 365.206 697.474 367.276 697.444  368.52 697.435 368.762 697.432 369.254 697.429
 369.391 697.433 369.628  697.43 371.734 697.421 375.618 697.442 375.843 697.445
 376.933 697.453 377.231 697.459 379.071  697.48 380.162 697.498 382.268 697.523
  382.51 697.527  382.92 697.536 385.389  697.57 393.792 697.642 395.082 697.648
```

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     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
  395.52 697.646  397.48 697.656 404.878 697.727 414.091 697.727 416.146 697.736
 417.491  697.75 417.546  697.75 420.304 697.772 424.816 697.859 425.072 697.866
 430.656 697.915 430.898 697.913 431.294 697.922

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06 241.324     .06 253.844     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       241.324 253.844           7.504   8.416   4.736             .1       .3
Right Levee     Station=  260.98      Elevation=  697.75

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 154.8*

INPUT
Description:
Station Elevation Data    num=     410
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 699.516    .126 699.509    .256 699.505   1.812 699.474   2.099 699.467
   2.652 699.458   4.013 699.429   4.269 699.422   4.781 699.414   5.058 699.407
   5.283   699.4   5.795 699.392   6.092 699.385   6.307 699.378   6.604  699.37
   6.819 699.363   7.331 699.355   7.648 699.348   7.843 699.341  10.034 699.302
  10.208 699.295  10.914 699.285  11.034 699.279  11.436  699.27  11.962 699.263
  12.061 699.261  12.726 699.244  13.412 699.234  13.638 699.227  14.344 699.209
  14.549 699.202  15.209 699.191  15.286  699.19   15.47 699.182  15.904 699.173
  16.204 699.164  16.919 699.151   17.18 699.144  17.323 699.137  18.132 699.125
  18.214  699.12  19.489 699.089  20.047 699.078  20.252 699.071  21.142 699.059
  21.204 699.053  21.402  699.05  23.897     699  24.296 698.989  25.567 698.962
  25.808 698.955  26.349 698.944   26.63 698.933  27.499 698.911  27.808 698.899
   27.92 698.897  29.441 698.858  29.751 698.846  30.746 698.821  31.016 698.813
  31.115 698.811  31.374 698.804  31.741 698.791  31.954 698.785  32.128 698.777
   32.34 698.772  32.852 698.764  33.654 698.745  34.002 698.735  34.157 698.729
  35.323 698.703  36.111 698.692  36.254 698.685  37.053 698.676  38.292 698.654
  51.776 698.535  52.052 698.541  52.564 698.532  55.022 698.525  55.452 698.528
  55.687 698.521  56.117  698.53  56.608 698.531  56.864 698.539  57.079 698.531
  57.325 698.535   57.53 698.543  57.591 698.542  58.001  698.55  58.369 698.553
  58.496 698.558  58.636 698.562  58.789 698.553  58.979 698.559  59.055 698.561
  59.342 698.571  59.463 698.573  59.521 698.571  59.762 698.576  59.946 698.582
  60.429 698.593   60.95  698.61  61.308 698.631   61.39 698.624  61.769 698.644
  62.229 698.664  63.151 698.718  63.598 698.715  63.695 698.711  70.913 698.669
  71.057 698.665  73.744 698.641  74.014 698.637  75.976 698.618  76.205 698.614
   76.71 698.594  76.952 698.583  80.942 698.439  81.319 698.432  81.551 698.421
  82.372 698.396  84.498 698.341  84.875 698.334  85.194 698.331  85.261  698.33
  85.583 698.317  87.435 698.278  87.831 698.274   88.45 698.258  88.527 698.257
  88.759 698.259  88.993 698.255  89.259 698.248  89.761  698.24  90.836 698.232
   91.03 698.226  91.327  698.22  92.371 698.212   92.45 698.211  92.692 698.214
  93.397 698.204  93.639 698.206  94.044 698.199  94.528   698.2  94.933 698.194
  95.003 698.195  95.175 698.196  95.822 698.187  96.064  698.19   96.47 698.184
  96.711 698.187  98.044 698.182 105.755 698.204 106.219 698.201 106.538 698.205
 115.981 698.243 121.633 698.293  133.09 698.264 135.071 698.249 135.342 698.242
 135.477 698.245 144.536 698.177 144.741 698.183  145.14 698.176 145.878 698.181
 146.415 698.181 146.656 698.186 147.062 698.182 148.347 698.181 148.589 698.186
 148.985 698.183  151.99 698.189 152.396 698.194 152.782 698.192 169.324 698.275
 180.195 698.279 180.668 698.276 181.151 698.267 182.823 698.254 183.528 698.245
 184.697 698.236 185.161 698.228 186.659 698.214 186.832 698.211 187.925 698.199
 188.127 698.195 192.785 698.146 192.862 698.146 193.681 698.137 193.886 698.134
 194.137 698.135 194.427 698.128 194.679 698.131 195.125 698.129  199.79 698.091
 200.234 698.085 200.961 698.079 203.244 698.046 203.356 698.039 204.278 698.026
  204.37 698.019 204.851 698.012 205.425 697.999 205.998 697.991 206.582 697.977
 207.155 697.968 207.738 697.953 208.032 697.949 208.813 697.934 209.124 697.923
 211.373 697.875 213.028  697.83 213.095 697.825 214.013 697.802 214.864  697.77
 216.062 697.737  216.12 697.732 216.912  697.71 218.171 697.668 221.656 697.576
 222.381 697.563 222.825  697.55 222.953 697.547  223.26 697.542 223.695  697.53
 224.371 697.518 224.816 697.507 226.623 697.476   226.7 697.475 227.222  697.47
 227.917 697.459 228.267 697.456 228.478 697.453 229.241 697.448 230.611 697.424
 234.401 697.284 234.778 697.263 236.295 697.237 236.539 697.234 236.903 697.225
 237.048 697.225 237.133 697.216  237.28 697.203 237.667 697.211  237.87 697.183
 237.983  697.18 238.198 697.157 238.314 697.157 238.546 697.126 238.746 697.105
 239.034 697.081 239.123 697.071 239.181 697.066 239.278 697.064 239.372 697.058
 239.493 697.042 239.744 697.011 240.092 696.972 240.499  696.93 240.573  696.92
 240.935 696.882 241.002 696.872 241.087 696.871 241.364 696.846 241.638 696.824
 242.647 696.834 243.009 696.847 245.985 696.907 246.037 696.912 248.773 697.033
 251.716 697.126 252.177 697.127 252.648 697.122 253.269 697.125  254.53 697.119
 255.179 697.122 256.506 697.118 257.184 697.122 257.269 697.117 257.692 697.117
 258.944 697.141 259.562 697.133 259.871 697.121 260.302 697.114 262.831 697.058
 269.023 696.993   269.4 696.987 271.122 696.977 271.216 696.971 273.296 696.951
 273.418 696.945  273.82  696.94 273.986 696.934 276.038 696.903 276.292 696.896
 276.571 696.892 276.844 696.884 277.948 696.873 278.212 696.868 280.232 696.851
 280.618 696.846 281.484 696.839 281.887 696.845 282.241 696.848 289.257 696.956
 289.822 696.976 290.694 697.015 293.386  697.11 293.436 697.112 294.123 697.132
 294.706 697.153 294.965 697.164 295.233 697.173 295.307 697.175 295.695 697.189
 296.118 697.199 296.495 697.216 297.144 697.238 297.426 697.243 297.591 697.249
 297.944 697.255 298.283 697.266 298.518 697.271 298.876 697.288 299.073 697.294
 299.459  697.31 299.638 697.316 299.939 697.321 300.206 697.332 300.325 697.336
 300.482 697.338  300.56  697.34 300.956 697.356 302.047 697.395 302.659  697.41
 302.725 697.416   302.8 697.419 303.153 697.429 304.146 697.463 304.389 697.473
 304.541 697.478 304.687 697.479 305.134 697.487 306.103 697.495  306.64 697.506
 309.013 697.531 310.395 697.539 310.781 697.543 311.543 697.544 311.595 697.545
 312.117 697.551 316.559 697.562 316.748 697.569 317.359 697.564 317.547  697.57
 318.382 697.566 318.602 697.572 320.361 697.559 320.587 697.564 321.481 697.552
 321.547 697.558 322.451 697.545 322.507 697.551 324.521 697.537 327.646 697.499
 328.427 697.486 329.274 697.479 330.629 697.457 331.081 697.456 331.984 697.443
 341.875 697.365 342.035 697.359 346.863 697.329  350.59 697.337  358.26 697.309
 362.241 697.276 362.684 697.269 363.653  697.26 364.095 697.252 365.968 697.228
 366.203 697.233  368.81 697.193 369.959 697.184 370.344 697.178 370.853 697.173
 370.994 697.179 371.238 697.173 372.885 697.163 373.412 697.157  378.78 697.185
 379.087  697.19 384.287 697.254 384.537 697.258  384.96 697.267 387.509 697.304
 394.334 697.373 397.515 697.389 397.966 697.384 407.627 697.425 417.137 697.408
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     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 420.647  697.43 420.704  697.43 422.602 697.443     423 697.448 423.551 697.452
 428.208 697.524 428.473  697.53 434.237 697.583 434.488 697.579 434.896 697.588

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06 238.546     .06 251.716     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       238.546 251.716            7.504   8.416   4.736            .1       .3
Right Levee     Station=  258.96      Elevation=  697.26

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 146.4*

INPUT
Description:
Station Elevation Data    num=     387
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0 699.068    .124 699.062    .567 699.049   1.791 699.022   2.074 699.013
   2.621 699.004   3.495 698.982   3.694 698.978    4.22 698.961   4.726 698.952
   5.222 698.935   5.727 698.926   6.021 698.917   6.233 698.909   6.527   698.9
   6.739 698.892   7.245 698.883   7.559 698.874   7.751 698.866   8.257 698.856
   8.571 698.848   9.077 698.839   9.411  698.83   9.917 698.821  10.089 698.812
  10.304  698.81  10.787 698.802  10.906 698.796  11.303 698.785  11.823 698.777
   11.92 698.776  12.578 698.757  13.256 698.747  13.479 698.738  14.177  698.72
  14.379 698.711  15.108   698.7   15.29 698.691  15.719 698.681  16.015 698.672
   16.98 698.652  17.122 698.644  17.921 698.632  18.002 698.627  18.536 698.612
  19.004 698.602  19.262 698.595  19.813 698.584  20.016 698.575  20.896 698.565
  20.957 698.557  23.618 698.505  24.013 698.495  26.043 698.453   26.32 698.444
  29.099 698.377  29.404 698.368  30.655 698.338  30.752 698.335  31.009 698.329
  31.371 698.318  31.582 698.313  31.754 698.303   32.47 698.292  33.606 698.264
  33.759 698.259   34.79 698.234  35.691 698.221  35.832 698.213  37.148 698.194
  37.512 698.185  39.576 698.152  40.406 698.143  41.367 698.127  43.543 698.103
  44.009 698.095  51.173 698.033  51.446  698.04  51.665 698.037  51.952 698.031
  54.381 698.033  54.806 698.039  55.039  698.03  55.464 698.045  55.949  698.05
  56.202 698.065  56.278 698.061  56.415 698.056  56.658 698.063   56.86 698.074
  57.325  698.09   57.69 698.097  57.953 698.111  58.105 698.102  58.293 698.111
  58.368 698.116  58.651  698.13   58.77 698.135  58.827 698.135  59.066 698.143
  59.491 698.164  59.725 698.174   60.24   698.2  60.594  698.23  60.675 698.222
  61.049 698.252  61.505 698.282  61.922 698.319  62.415 698.359  62.857 698.357
  62.953 698.355  70.087 698.326   70.23 698.323  72.885 698.309  73.152 698.306
  75.317 698.292  76.269 698.247      80 698.086  80.372 698.073  80.843 698.051
  83.514  697.96  84.202 697.946  84.587 697.929  86.417 697.881  86.809 697.873
   87.42 697.854  87.956 697.848  88.219 697.839  88.715  697.83  89.778 697.821
   89.97 697.813  90.264 697.805  91.296 697.796  91.373 697.795  91.612 697.795
  92.125 697.789  92.309 697.786  92.548 697.785  92.763 697.781  92.949 697.779
  93.427 697.777  93.828 697.772  93.896 697.773  94.067 697.772  94.706 697.763
  94.945 697.763  95.346 697.759  95.585 697.759  96.902 697.751 104.524 697.769
 104.982 697.768 120.216 697.856 128.211 697.826 133.498 697.775 133.765  697.77
 133.899 697.771 140.779 697.704 142.853 697.694 143.056 697.701  143.45 697.693
 144.179   697.7  144.71 697.701 144.948 697.704  145.35 697.703  146.62 697.705
 146.858 697.707  147.25 697.707  150.22 697.721 150.621 697.726 151.019 697.726
 178.096 697.859 178.443 697.859 178.812 697.856 179.042 697.853 182.546 697.835
 183.005  697.83 184.485 697.822 184.656  697.82  190.54 697.769 191.628 697.755
 191.877 697.753 192.163 697.748 192.411 697.748 192.852 697.744 193.298 697.737
 194.836 697.722 199.116 697.661 200.877 697.628 200.988  697.62 201.899 697.603
  201.99 697.595 202.466 697.586 203.032 697.569 203.599 697.561 204.176 697.543
 204.742 697.534 205.319 697.517 206.382 697.497 206.689 697.484 208.379 697.449
 208.466 697.448 208.912 697.437 210.547  697.39 210.614 697.387 211.624 697.359
 212.362  697.33 213.545 697.296 213.603 697.293 214.386 697.271 215.631 697.229
 216.792 697.201 216.946 697.195 219.075 697.148 219.791 697.137 219.891 697.135
 220.356 697.123  220.66 697.119  221.09  697.11 225.817 697.051 226.571 697.047
 227.926 697.032 231.671 696.891 232.044 696.874 233.785 696.827 234.145 696.813
 234.288 696.809 234.372 696.803 234.517 696.794 234.899 696.791   235.1 696.768
 235.211  696.76 235.424 696.743 235.539  696.74 235.768 696.718 236.003 696.698
 236.342 696.675 236.446 696.665 236.515 696.661 236.629 696.657 236.739 696.648
 236.881 696.631 237.177 696.601 237.586 696.562 238.064 696.525 238.151 696.515
 238.578 696.481 238.656 696.471 238.707 696.468 238.757 696.468 239.082 696.448
 239.404 696.432 240.423 696.442  240.79 696.459 243.797  696.53 243.849 696.533
 246.614 696.631 249.588 696.718 250.064 696.713 250.549 696.701 251.189 696.697
  252.49 696.674  253.16 696.671 254.528 696.649 255.227 696.646 255.314 696.638
 255.751 696.633 257.042 696.651  257.68 696.634 257.998 696.621 258.442 696.609
  261.05 696.529 267.437 696.437 267.825 696.429 269.601 696.413 269.698 696.406
 271.843 696.381 271.969 696.372 272.384 696.366 272.554 696.362 275.221 696.321
 275.502 696.312  276.64 696.304 276.913 696.301 280.287 696.279 288.304 696.478
 288.886 696.508 289.895  696.57 291.798 696.661 292.562 696.703 292.613 696.706
 293.321 696.736 294.542   696.8 294.942 696.819 295.379 696.835 295.767 696.858
 296.117 696.873 296.437 696.889 296.728 696.896 296.898 696.906  297.01 696.911
 297.262 696.918 297.611 696.933 297.854 696.941 298.223 696.964 298.427 696.972
 298.825 696.995 299.009 697.003  299.32  697.01 299.595 697.027 299.717 697.033
  299.88 697.037  299.96  697.04 300.368 697.063 300.892 697.086 301.494 697.117
 302.124  697.14 302.192 697.148  302.27 697.152 303.658 697.216 303.909 697.231
 304.066 697.239 304.677 697.253 305.677 697.268  306.23 697.283  309.53 697.333
 310.102 697.339   310.5 697.347 311.287 697.352  311.34 697.353 311.879 697.361
 313.321 697.368 313.664 697.371  316.46 697.366 316.654 697.374 317.285 697.367
 317.479 697.375 318.339 697.368 318.566 697.376 320.381 697.359 320.614 697.367
 321.536 697.351 321.604 697.359 322.535 697.343 322.594 697.351 327.893  697.29
 328.698 697.273 329.572 697.264  330.97 697.238 331.435 697.238 332.367 697.221
 336.269 697.187 337.531  697.17 338.792 697.162 340.044 697.145 342.568 697.128
 342.733 697.119 347.712 697.085 351.555 697.098 359.465  697.07 363.571 697.033
 364.027 697.025 365.027 697.015 365.483 697.006 367.414 696.979 367.657 696.987
 368.074 696.978 370.345 696.941 371.529 696.932 372.451 696.916 372.597 696.924
 372.849 696.917 375.091 696.894 379.226 696.907 386.563 696.989  387.41 697.005
  393.27 697.086 399.947 697.129 400.413 697.122 420.184 697.089  420.97 697.097
 423.804  697.11 423.862  697.11 431.601 697.188 431.874 697.193 437.819 697.252
 438.077 697.245 438.498 697.254

Manning's n Values        num=       3
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     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06 235.768     .06 249.588     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       235.768 249.588           7.504   8.416   4.736            .1       .3
Right Levee     Station=   250.1      Elevation=  696.85

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 138

INPUT
Description:
Station Elevation Data    num=     383
     Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev
       0  698.62      .25  698.61      .56   698.6     1.77  698.57     2.05  698.56
    2.59  698.55     3.65  698.52     3.92  698.51     4.17   698.5     4.67  698.49
    4.94  698.48     5.16  698.47     5.66  698.46     5.95  698.45     6.16  698.44
    6.45  698.43     6.66  698.42     7.16  698.41     7.47   698.4     7.66  698.39
    8.16  698.38     8.47  698.37     8.97  698.36      9.3  698.35      9.8  698.34
    9.97  698.33    10.66  698.32    10.81  698.31    11.17   698.3    11.78  698.29
   12.43  698.27     13.1  698.26    13.32  698.25    14.01  698.23    14.21  698.22
   14.93  698.21    15.11   698.2    15.85  698.18    16.78  698.16    16.92  698.15
   17.71  698.14    17.83  698.13    18.64  698.11    19.58  698.09    19.78  698.08
   20.65  698.07    20.71  698.06    22.84  698.02    23.34  698.01    23.73     698
   24.35  697.99    25.77  697.96    26.29  697.95    26.74  697.94    27.27  697.93
   30.39  697.86    31.21  697.84    31.38  697.83    32.11  697.82     34.5  697.76
   35.27  697.75    35.41  697.74    36.19  697.73    36.71  697.72    37.07  697.71
   39.11  697.67    39.93  697.66    40.88  697.64    41.64  697.63    42.28  697.62
   43.03  697.61    43.49   697.6    44.43  697.59    45.98  697.57    46.95  697.56
   50.57  697.53    50.84  697.54    51.34  697.53    53.74  697.54    54.16  697.55
   54.39  697.54    54.81  697.56    55.29  697.57    55.54  697.59    55.75  697.58
   55.99  697.59    56.25  697.61    56.65  697.63    57.01  697.64    57.27  697.66
   57.42  697.65    57.68  697.67    57.96  697.69    58.37  697.71    58.79  697.74
   59.53  697.79    59.88  697.83    59.96  697.82    60.33  697.86    60.78   697.9
    61.2  697.95    61.68     698    74.43  697.97    75.37  697.92    79.89  697.69
   82.53  697.58    82.92  697.57    83.21  697.56    83.59  697.54    84.29  697.52
   84.61  697.51    86.11  697.46    86.39  697.45    86.92  697.44    87.18  697.43
   87.67  697.42    88.72  697.41    88.91   697.4     89.2  697.39    90.22  697.38
   91.04  697.37    91.67  697.36    92.79  697.35    93.43  697.34    95.76  697.32
  106.73  697.34   111.87  697.36   113.28  697.37   115.26  697.39   116.65   697.4
  117.58  697.41    118.8  697.42   120.38  697.41    122.8   697.4   124.31  697.39
   126.7  697.37    127.4  697.36   128.32  697.35   129.02  697.34   129.99  697.33
  130.57  697.32   132.73  697.29   133.77  697.28   135.94  697.25   139.12  697.22
  141.17  697.21   141.37  697.22   141.76  697.21   142.48  697.22   145.31  697.23
  146.43  697.24   149.24  697.26   150.12  697.27   154.66  697.31   159.62  697.32
     162  697.33   165.57  697.36   167.23  697.37   169.13  697.39   171.04   697.4
   174.4  697.43   176.34  697.44   182.48  697.43   184.95  697.42   186.32  697.41
  188.37  697.39   189.17  697.38   189.66  697.37   190.58  697.36   191.02  697.35
  192.54  697.33   193.47  697.31   194.13   697.3   195.57  697.27   196.28  697.26
  196.77  697.25   197.15  697.24   197.65  697.23   198.51  697.21   198.62   697.2
  199.52  697.18   199.61  697.17   200.08  697.16   200.64  697.14    201.2  697.13
  201.77  697.11   202.33   697.1    202.9  697.08   203.95  697.06   206.01  697.01
  206.45     697   207.04  696.98   209.13  696.92   209.86  696.89   211.88  696.83
  212.45  696.81   213.09  696.79   213.62  696.78   214.39  696.76   215.34  696.74
  216.06  696.73   216.51  696.72    217.3  696.71   217.76   696.7    218.5  696.69
  221.42  696.66   222.95  696.65   225.24  696.64   231.03  696.42   231.61  696.39
  232.17  696.37   232.44  696.34   232.99  696.31   233.26  696.29   233.65  696.27
  233.77  696.26   233.98  696.25   234.27  696.22   234.61  696.19   235.12  696.15
  235.63  696.12   235.73  696.11   236.22  696.08   236.31  696.07    236.8  696.05
  237.17  696.04    238.2  696.05   238.57  696.07   247.46  696.31   247.95   696.3
  248.45  696.28   249.11  696.27   250.45  696.23   251.14  696.22   252.55  696.18
  253.27  696.17   253.36  696.16   253.81  696.15   255.14  696.16   259.27     696
  265.85  695.88   266.25  695.87   267.25  695.86   268.08  695.85   268.18  695.84
  268.81  695.83   269.66  695.82   270.39  695.81   270.52   695.8   271.71  695.78
  273.87  695.75   274.16  695.74   279.09  695.72   287.35     696   287.95  696.04
  288.49  696.08   288.99  696.12   290.95  696.24   291.79   696.3   292.52  696.34
  293.14  696.38    293.7  696.42   294.19  696.45   294.64  696.47   295.04   696.5
   295.4  696.52   295.73  696.54   296.03  696.55   296.32  696.57   296.58  696.58
  296.94   696.6   297.19  696.61   297.57  696.64   297.78  696.65   298.19  696.68
  298.38  696.69    298.7   696.7   299.11  696.73   299.36  696.74   299.78  696.77
  300.32   696.8   300.94  696.84   301.59  696.87   301.66  696.88   302.14  696.91
  303.17  696.97   303.59     697   304.22  697.02   305.25  697.04   305.82  697.06
  306.88  697.08   309.22  697.13   309.81  697.14   310.22  697.15   311.03  697.16
  311.64  697.17   313.48  697.18   316.36  697.17   316.56  697.18   317.21  697.17
  317.41  697.18   318.33  697.17   318.53  697.18    320.4  697.16   320.64  697.17
  321.59  697.15   321.66  697.16   322.62  697.14   322.68  697.15   324.82  697.13
  325.93  697.11   327.01   697.1   328.14  697.08   328.97  697.06   329.87  697.05
  331.31  697.02   331.79  697.02   332.75     697   335.46  696.97   336.77  696.96
  338.07  696.94   339.37  696.93   340.66  696.91   343.26  696.89   343.43  696.88
  348.56  696.84   352.52  696.86   359.17  696.84   360.67  696.83   361.52  696.82
  362.85  696.81    364.9  696.79   365.37  696.78    366.4  696.77   366.87  696.76
  367.82  696.75   368.29  696.74   368.86  696.73   369.11  696.74   369.54  696.73
   370.1  696.72   370.79  696.71   371.88  696.69    373.1  696.68   373.51  696.67
  374.05  696.66    374.2  696.67   374.46  696.66   375.15  696.65   376.21  696.64
  376.77  696.63   381.03  696.64    382.8  696.65   384.86  696.67   386.43  696.69
  387.07   696.7   388.59  696.72   389.04  696.73   389.78  696.74   390.72  696.76
   392.2  696.78   392.69  696.79   393.41   696.8   393.92  696.81   394.62  696.82
   395.5  696.83      399  696.86   402.38  696.87   402.86  696.86   409.95  696.84
  420.17  696.78   423.23  696.77   424.04  696.78   426.96  696.79   428.48   696.8
  429.46  696.81   430.99  696.82   432.01  696.83   433.73  696.84   440.53  696.91
   441.4  696.92   441.71  696.91    442.1  696.92

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06 232.99     .06 247.46     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        232.99 247.46          11.873    8.23   4.887            .1       .3
Right Levee     Station=  247.46      Elevation=  696.44
```

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 129.75*

INPUT
Description:
Station Elevation Data num= 358

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	697.685	.248	697.676	.542	697.668	1.645	697.645	2.036	697.635
2.572	697.626	3.624	697.603	4.141	697.587	4.637	697.579	4.905	697.571
5.124	697.563	5.62	697.555	5.908	697.548	6.117	697.541	6.405	697.534
6.57	697.529	6.641	697.525	7.11	697.517	7.417	697.509	7.606	697.501
8.103	697.493	8.41	697.485	8.907	697.477	9.235	697.469	9.731	697.461
9.9	697.453	10.585	697.445	10.728	697.438	11.091	697.429	11.697	697.42
12.343	697.404	12.976	697.395	13.226	697.387	13.773	697.373	13.911	697.37
14.11	697.362	14.784	697.353	15.004	697.344	16.662	697.307	16.801	697.299
17.585	697.288	17.704	697.28	19.442	697.242	19.641	697.234	20.505	697.223
20.564	697.215	20.67	697.214	21.017	697.206	24.072	697.146	24.179	697.145
25.901	697.11	26.105	697.107	27.078	697.088	27.474	697.078	30.99	697.003
31.112	696.997	31.884	696.986	34.257	696.938	35.022	696.93	35.161	696.922
35.935	696.914	38.835	696.868	39.649	696.86	40.592	696.844	42.727	696.821
43.184	696.813	50.214	696.757	50.482	696.764	50.979	696.756	53.362	696.761
53.779	696.768	54.007	696.76	54.424	696.775	54.901	696.782	55.149	696.797
55.358	696.789	55.596	696.796	55.854	696.811	56.251	696.826	56.609	696.833
56.867	696.848	57.016	696.84	57.274	696.855	57.552	696.869	57.959	696.884
59.111	696.943	59.459	696.972	59.538	696.965	59.905	696.994	60.352	697.024
60.769	697.061	61.246	697.098	73.677	697.06	73.906	697.062	73.994	697.059
75.036	697.015	75.352	697.005	78.172	696.894	79.02	696.864	79.429	696.847
81.949	696.766	82.336	696.758	82.624	696.75	83.002	696.735	84.014	696.715
85.782	696.667	86.308	696.659	86.566	696.651	87.053	696.643	88.096	696.635
88.284	696.628	88.572	696.621	88.768	696.621	88.921	696.617	92.068	696.588
92.137	696.588	92.772	696.58	95.086	696.566	108.814	696.591	108.967	696.594
117.918	696.665	129.024	696.628	129.075	696.628	138.141	696.559	140.176	696.559
140.375	696.567	140.762	696.561	141.477	696.573	143.451	696.585	143.798	696.589
144.287	696.592	149.063	696.647	149.132	696.648	152.503	696.68	152.595	696.678
153.571	696.688	154.731	696.692	154.874	696.689	155.282	696.693	166.746	696.713
167.94	696.72	169.836	696.721	170.261	696.723	170.567	696.722	173.929	696.733
174.092	696.731	175.099	696.732	179.61	696.719	180.018	696.721	180.233	696.719
187.044	696.679	188.274	696.663	188.325	696.663	188.907	696.66	189.239	696.656
189.612	696.649	189.675	696.647	191.185	696.631	197.113	696.534	197.222	696.526
198.116	696.509	198.205	696.501	198.672	696.493	199.228	696.476	199.784	696.467
200.35	696.451	200.906	696.442	201.472	696.425	202.514	696.408	202.609	696.399
204.997	696.358	207.625	696.293	208.383	696.268	210.389	696.218	210.466	696.215
211.59	696.183	213.824	696.148	214.539	696.142	214.88	696.137	214.986	696.135
215.77	696.129	216.227	696.122	223.655	696.062	224.862	696.02	225.015	696.018
225.312	696.007	227.069	695.952	227.304	695.948	227.559	695.938	229.404	695.889
229.879	695.871	229.98	695.868	230.536	695.854	230.804	695.833	231.35	695.812
231.642	695.792	232.065	695.77	232.195	695.76	232.422	695.748	232.736	695.72
233.415	695.668	233.657	695.651	234.209	695.619	234.318	695.609	234.849	695.578
234.946	695.569	235.477	695.544	235.878	695.53	236.822	695.546	237.162	695.563
245.315	695.812	245.814	695.817	245.93	695.817	246.324	695.812	246.997	695.816
247.056	695.816	247.785	695.808	248.003	695.808	248.22	695.806	248.363	695.804
249.066	695.803	249.214	695.802	250.454	695.784	251.237	695.777	251.329	695.77
251.787	695.763	253.143	695.774	257.352	695.666	261.602	695.625	262.085	695.622
264.059	695.602	264.467	695.595	265.425	695.59	265.486	695.59	266.332	695.584
266.434	695.577	266.864	695.573	267.076	695.57	268.686	695.559	268.819	695.552
272.233	695.524	272.529	695.517	277.554	695.509	283.369	695.675	283.435	695.679
285.973	695.754	286.585	695.787	287.645	695.852	289.642	695.945	290.499	695.991
291.243	696.022	292.445	696.084	292.945	696.107	293.403	696.122	293.811	696.145
294.178	696.159	294.514	696.174	294.82	696.181	295.116	696.196	295.381	696.203
295.748	696.218	296.002	696.225	296.39	696.247	296.604	696.255	297.022	696.277
297.215	696.284	297.542	696.291	297.959	696.313	298.214	696.321	298.642	696.343
299.825	696.393	300.487	696.414	300.559	696.421	302.098	696.483	302.526	696.504
303.168	696.517	304.218	696.53	304.799	696.544	308.865	696.601	309.283	696.609
314.542	696.645	314.665	696.647	315.214	696.648	315.542	696.651	315.745	696.66
316.255	696.659	316.408	696.658	316.612	696.667	316.756	696.666	317.549	696.667
317.753	696.675	319.659	696.669	319.904	696.678	320.192	696.676	320.872	696.667
320.944	696.675	321.922	696.663	321.983	696.671	324.164	696.663	325.296	696.651
326.397	696.646	327.548	696.633	328.394	696.619	329.312	696.612	330.779	696.591
331.269	696.592	332.247	696.578	337.472	696.55	337.67	696.548	338.995	696.546
340.018	696.538	342.96	696.531	343.133	696.524	348.362	696.498	352.398	696.508
357.1	696.492	357.365	696.494	357.564	696.491	360.705	696.482	361.103	696.479
361.416	696.474	361.681	696.474	365.016	696.457	365.495	696.45	366.545	696.445
369.052	696.421	369.307	696.43	369.403	696.428	369.745	696.423	372.131	696.401
373.374	696.399	373.792	696.392	374.277	696.388	374.342	696.388	374.495	696.396
374.76	696.389	376.544	696.381	377.115	696.375	383.261	696.413	389.977	696.506
390.204	696.511	390.375	696.513	391.056	696.526	391.333	696.533	392.125	696.543
392.296	696.547	394.236	696.577	394.359	696.582	394.595	696.586	396.64	696.613
401.712	696.652	403.218	696.657	403.707	696.65	424.469	696.582	425.295	696.59
442.989	696.691	443.305	696.683	443.703	696.69				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	231.35	.06	245.315	.06

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
231.35	245.315	11.873	8.23	4.887	.1	.3

Right Levee Station= 246.05 Elevation= 695.96

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 121.5*

INPUT
Description:
Station Elevation Data num= 365

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	696.75	.538	696.735	1.633	696.716	1.745	696.715	2.021	696.709
2.554	696.703	3.865	696.68	4.111	696.674	4.604	696.668	5.087	696.657

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
5.58	696.651	5.866	696.645	6.359	696.639	6.523	696.636	6.594	696.63
7.059	696.624	7.365	696.618	7.552	696.613	9.662	696.582	9.83	696.577
10.51	696.57	10.652	696.565	11.013	696.558	11.614	696.551	12.255	696.538
12.884	696.53	13.132	696.523	13.813	696.509	14.01	696.503	14.68	696.495
14.897	696.488	16.544	696.455	16.682	696.449	17.155	696.442	17.461	696.436
17.52	696.432	17.579	696.43	18.819	696.405	19.174	696.396	19.304	696.394
19.502	696.388	20.359	696.376	20.418	696.371	20.523	696.369	20.868	696.361
22.106	696.339	22.4	696.331	23.617	696.308	23.901	696.301	27.006	696.244
27.28	696.235	30.771	696.166	30.891	696.161	31.658	696.153	34.014	696.115
34.773	696.109	34.912	696.104	42.424	696.032	42.878	696.026	49.858	695.984
50.124	695.989	50.617	695.982	52.983	695.982	53.398	695.987	53.624	695.981
54.038	695.99	54.512	695.994	54.758	696.004	54.965	695.998	55.202	696.003
55.458	696.012	55.852	696.021	56.207	696.026	56.464	696.035	56.612	696.03
57.144	696.049	57.548	696.058	58.692	696.095	59.037	696.115	59.116	696.109
59.481	696.129	59.924	696.148	60.338	696.172	60.812	696.196	73.155	696.15
73.382	696.154	73.469	696.153	74.504	696.12	74.818	696.117	77.618	696.04
78.46	696.023	78.765	696.011	78.866	696.008	81.368	695.952	82.039	695.941
82.413	695.93	82.599	695.927	83.419	695.92	83.847	695.908	85.174	695.883
85.696	695.878	85.953	695.872	87.471	695.86	87.658	695.855	87.944	695.853
88.139	695.854	88.291	695.848	91.415	695.825	91.484	695.825	92.115	695.82
94.412	695.811	106.856	695.833	108.043	695.831	108.195	695.836	108.804	695.842
112.405	695.864	112.821	695.871	117.569	695.914	118.543	695.915	118.685	695.916
121.018	695.925	121.071	695.925	122.418	695.93	122.56	695.931	124.916	695.934
137.161	695.898	138.234	695.902	138.538	695.907	139.183	695.909	139.38	695.915
139.764	695.913	140.04	695.917	140.354	695.924	140.474	695.926	142.434	695.943
142.779	695.949	143.347	695.955	143.692	695.962	144.27	695.97	144.369	695.972
144.483	695.975	144.838	695.982	148.653	696.033	149.89	696.043	150.377	696.051
151.422	696.06	151.513	696.056	152.011	696.063	153.634	696.071	153.776	696.066
154.182	696.072	164.499	696.054	164.876	696.051	166.771	696.05	167.045	696.046
169.054	696.042	169.358	696.038	172.696	696.032	172.858	696.027	178.336	696.006
178.742	696.011	178.955	696.006	186.507	695.961	186.939	695.956	186.99	695.955
187.568	695.957	187.897	695.953	188.331	695.945	193.517	695.891	195.715	695.858
195.824	695.852	196.394	695.844	196.711	695.838	196.8	695.833	197.815	695.813
198.368	695.805	198.93	695.792	199.482	695.784	200.044	695.771	201.079	695.755
201.173	695.749	206.154	695.665	206.906	695.646	208.897	695.605	208.974	695.604
210.09	695.577	210.343	695.573	220.225	695.509	220.762	695.498	222.069	695.484
223.268	695.447	223.42	695.449	223.714	695.438	225.459	695.395	225.693	695.395
225.946	695.385	227.778	695.358	228.349	695.346	228.902	695.339	229.142	695.326
229.71	695.315	230.025	695.294	230.48	695.269	230.62	695.259	230.865	695.246
231.599	695.191	232.194	695.152	232.789	695.118	232.906	695.109	233.477	695.076
233.582	695.067	234.585	695.02	235.444	695.041	235.753	695.057	243.17	695.315
243.797	695.338	244.198	695.343	244.884	695.363	244.944	695.364	245.687	695.368
245.908	695.375	246.275	695.379	246.333	695.38	246.728	695.382	246.94	695.385
246.992	695.386	247.143	695.388	249.204	695.384	249.297	695.379	249.765	695.377
251.146	695.389	254.452	695.343	254.963	695.339	255.435	695.332	255.966	695.33
256.939	695.332	262.551	695.322	262.684	695.321	264.584	695.318	264.688	695.313
266.983	695.309	267.118	695.304	270.597	695.299	270.898	695.295	276.018	695.297
276.639	695.31	277.603	695.336	278.76	695.36	280.891	695.415	281.942	695.437
282.01	695.443	284.596	695.509	285.78	695.559	286.299	695.584	289.207	695.682
289.965	695.704	291.699	695.763	292.167	695.775	292.582	695.789	293.299	695.808
293.61	695.813	293.911	695.822	294.181	695.827	294.555	695.836	294.815	695.84
295.21	695.855	295.428	695.859	295.853	695.874	296.051	695.878	296.383	695.883
296.809	695.897	297.068	695.901	297.505	695.916	298.709	695.946	299.384	695.957
299.457	695.962	300.678	695.99	301.025	695.996	301.112	695.998	301.461	696.008
303.185	696.019	303.777	696.027	309.821	696.081	311.429	696.089	311.732	696.093
312.576	696.099	313.705	696.117	313.83	696.121	314.389	696.126	314.723	696.131
314.931	696.14	315.45	696.146	315.606	696.146	315.814	696.154	315.961	696.154
316.769	696.163	316.977	696.171	317.562	696.172	318.333	696.178	318.919	696.179
319.085	696.183	319.168	696.186	319.461	696.187	320.155	696.185	320.227	696.19
321.224	696.186	321.286	696.192	321.775	696.193	322.142	696.196	330.249	696.163
330.747	696.164	331.744	696.156	337.965	696.157	338.619	696.163	338.814	696.164
339.662	696.162	339.959	696.163	340.086	696.165	342.659	696.172	342.836	696.167
357.067	696.138	357.337	696.143	357.539	696.137	361.146	696.133	361.464	696.126
361.622	696.128	361.734	696.13	365.132	696.124	365.62	696.121	366.69	696.12
366.767	696.119	369.245	696.112	369.504	696.119	372.832	696.113	373.648	696.117
374.074	696.115	374.568	696.116	374.635	696.115	374.79	696.122	375.06	696.119
377.459	696.121	385.861	696.204	386.486	696.214	387.491	696.225	390.202	696.273
390.565	696.277	390.796	696.284	390.97	696.286	391.664	696.297	391.866	696.304
392.754	696.315	392.927	696.321	393.992	696.341	394.74	696.349	394.904	696.352
395.029	696.358	397.353	696.392	398.298	696.401	398.79	696.408	404.056	696.444
404.554	696.441	425.708	696.394	444.578	696.462	444.9	696.456	445.305	696.46

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	229.71	.06	243.17	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
229.71	243.17	11.873	8.23	4.887	.1 .3

Right Levee Station= 251.21 Elevation= 695.56

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 113.25*

INPUT
Description:
Station Elevation Data num= 325

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	695.815	.534	695.803	3.837	695.765	4.082	695.761	4.836	695.754
5.051	695.75	5.824	695.743	6.03	695.742	6.477	695.743	6.547	695.735
7.312	695.727	7.498	695.724	7.988	695.72	8.291	695.716	9.593	695.704
9.759	695.701	10.435	695.695	12.792	695.665	13.91	695.645	14.575	695.638
14.791	695.632	16.426	695.602	16.563	695.598	17.032	695.591	17.336	695.584
17.395	695.581	17.453	695.579	18.684	695.558	19.037	695.548	19.167	695.546
19.362	695.541	20.214	695.529	20.273	695.526	20.377	695.524	20.719	695.515
21.948	695.495	22.24	695.486	23.449	695.464	23.731	695.455	23.836	695.454
26.813	695.402	27.085	695.393	29.553	695.349	30.006	695.338	30.551	695.329
30.671	695.326	33.771	695.293	34.525	695.289	34.662	695.286	49.502	695.211
49.766	695.213	50.256	695.209	52.605	695.204	53.016	695.205	53.241	695.202
54.122	695.206	54.367	695.211	54.573	695.207	54.808	695.209	55.062	695.213

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
55.454	695.217	55.806	695.218	56.061	695.223	56.207	695.22	56.736	695.228
57.137	695.232	58.273	695.248	58.616	695.257	58.694	695.254	60.378	695.294
72.632	695.24	72.858	695.245	72.945	695.246	73.972	695.225	74.284	695.228
77.064	695.185	77.9	695.181	78.303	695.169	81.453	695.131	81.825	695.125
82.01	695.124	82.823	695.125	83.249	695.114	87.033	695.083	87.316	695.084
87.509	695.087	87.66	695.079	90.763	695.063	90.831	695.062	103.857	695.067
106.093	695.077	107.271	695.07	107.422	695.078	108.027	695.086	111.603	695.107
112.015	695.115	116.246	695.155	116.729	695.162	120.154	695.188	120.207	695.188
125.231	695.221	136.663	695.239	137.247	695.246	137.549	695.253	138.189	695.258
138.385	695.262	138.766	695.264	139.04	695.268	139.352	695.277	139.471	695.279
141.417	695.302	141.759	695.31	142.242	695.316	142.666	695.326	143.24	695.335
143.452	695.343	143.804	695.351	147.591	695.411	148.82	695.422	149.304	695.43
150.341	695.44	150.432	695.433	150.925	695.441	152.537	695.451	152.678	695.443
153.081	695.451	155.831	695.445	162.074	695.403	162.126	695.403	163.324	695.397
164.382	695.384	165.559	695.38	165.853	695.373	167.847	695.361	168.149	695.354
171.463	695.331	171.624	695.324	177.063	695.293	177.466	695.301	177.678	695.293
185.605	695.248	185.655	695.248	186.229	695.253	186.986	695.242	193.476	695.192
194.318	695.182	194.426	695.179	195.307	695.168	195.395	695.164	199.643	695.103
199.736	695.1	207.482	694.992	208.59	694.97	208.842	694.966	211.833	694.966
211.938	694.965	213.886	694.965	218.652	694.94	219.186	694.924	219.639	694.916
220.365	694.908	221.674	694.873	221.825	694.88	222.117	694.869	222.701	694.856
223.85	694.837	224.081	694.843	224.333	694.833	226.62	694.824	226.719	694.823
227.267	694.823	227.506	694.818	228.07	694.818	228.895	694.769	229.045	694.759
229.307	694.744	229.669	694.719	230.731	694.652	231.368	694.616	231.493	694.608
232.106	694.573	232.218	694.566	233.292	694.51	234.066	694.536	234.345	694.55
241.025	694.818	241.663	694.859	241.978	694.871	242.072	694.875	242.832	694.912
243.353	694.923	243.588	694.929	243.814	694.943	244.188	694.953	244.246	694.955
244.649	694.961	244.865	694.968	244.918	694.969	245.071	694.974	246.358	694.988
246.409	694.988	247.171	694.991	247.266	694.989	247.742	694.99	249.149	695.003
254.058	695	255.05	695.011	256.012	695.014	256.984	695.025	257.927	695.028
258.428	695.034	259.351	695.037	259.862	695.043	262.836	695.052	262.942	695.05
265.279	695.058	265.417	695.056	266.676	695.064	266.963	695.067	274.482	695.086
275.115	695.095	276.097	695.118	277.275	695.135	279.446	695.182	280.516	695.198
280.585	695.206	283.854	695.281	284.954	695.316	285.103	695.32	290.454	695.42
290.93	695.427	291.054	695.43	292.083	695.442	292.4	695.444	294.886	695.472
295.225	695.474	295.658	695.48	295.923	695.482	296.367	695.489	297.594	695.499
298.282	695.501	298.356	695.503	299.599	695.51	300.041	695.509	300.397	695.512
304.951	695.51	310.55	695.545	311.718	695.559	312.867	695.588	312.995	695.596
313.565	695.603	313.905	695.612	314.116	695.62	314.645	695.633	314.804	695.635
315.015	695.64	315.165	695.642	315.988	695.66	316.089	695.664	316.2	695.666
316.796	695.671	317.581	695.684	318.178	695.688	318.432	695.694	318.731	695.699
319.437	695.702	319.511	695.705	320.526	695.71	320.59	695.713	321.088	695.716
321.461	695.723	333.04	695.735	335.494	695.752	335.545	695.752	336.271	695.757
336.664	695.763	337.578	695.769	338.442	695.782	339.306	695.786	339.738	695.792
342.036	695.811	342.358	695.812	342.538	695.811	345.641	695.824	357.033	695.784
357.308	695.791	357.515	695.784	361.188	695.786	361.512	695.778	361.787	695.785
369.437	695.803	369.702	695.809	370.156	695.81	373.091	695.827	373.922	695.836
374.356	695.837	374.859	695.843	374.927	695.843	375.086	695.847	375.361	695.848
378.63	695.873	388.022	695.992	389.168	696.019	391.152	696.049	391.388	696.057
392.272	696.069	392.478	696.077	393.382	696.088	393.559	696.096	394.482	696.114
395.572	696.126	395.7	696.134	396.652	696.145	398.066	696.171	399.029	696.18
399.53	696.189	404.893	696.232	405.401	696.231	409.715	696.242	424.024	696.202
431.105	696.22	433.845	696.24	446.167	696.233	446.495	696.229	446.908	696.23

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	228.07	.06	241.025	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
228.07	241.025	11.873	8.23	4.887	.1	.3

Left Levee Station= 156.83 Elevation= 695.49

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 105

INPUT
Description:
Station Elevation Data num= 282

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	694.88	.53	694.87	1.61	694.86	5.79	694.84	6.43	694.85
6.5	694.84	10.5	694.82	12.7	694.8	13.48	694.79	14.47	694.78
16.91	694.74	17.27	694.73	18.55	694.71	18.9	694.7	20.23	694.68
20.57	694.67	21.79	694.65	22.08	694.64	23.28	694.62	23.56	694.61
24.79	694.59	25.35	694.58	26.62	694.56	26.89	694.55	28.18	694.53
28.69	694.52	29.34	694.51	29.79	694.5	30.45	694.49	33.55	694.47
48.72	694.44	60.33	694.39	62.97	694.37	68.54	694.34	72.11	694.33
72.42	694.34	73.44	694.33	73.75	694.34	76.51	694.33	77.34	694.34
77.74	694.33	81.42	694.32	82.27	694.33	82.65	694.32	86.45	694.31
86.88	694.32	87.03	694.31	90.11	694.3	103.11	694.31	105.33	694.32
106.5	694.31	106.65	694.32	107.25	694.33	110.8	694.35	111.21	694.36
112.73	694.37	113.61	694.38	114.36	694.39	115.41	694.4	115.89	694.41
116.85	694.42	118.28	694.44	119.29	694.45	120.67	694.47	121.59	694.48
122.33	694.49	124.33	694.51	126.28	694.52	127.52	694.53	133.07	694.56
135.68	694.58	136.26	694.59	136.56	694.6	137.43	694.61	138.04	694.62
138.35	694.63	139.19	694.64	139.84	694.65	140.4	694.66	140.74	694.67
141.3	694.68	141.64	694.69	142.21	694.7	142.42	694.71	142.77	694.72
145.96	694.78	146.53	694.79	147.75	694.8	148.23	694.81	149.26	694.82
149.35	694.81	149.84	694.82	151.44	694.83	151.58	694.82	151.98	694.83
154.71	694.82	159.41	694.77	160.96	694.75	162.15	694.74	163.2	694.72
164.39	694.71	164.66	694.7	165.44	694.69	166.64	694.68	166.94	694.67
169.2	694.64	170.23	694.63	170.39	694.62	171.08	694.61	172.04	694.6
175.79	694.58	176.19	694.59	176.4	694.58	180.56	694.56	181.77	694.55
184.27	694.54	184.89	694.55	185.58	694.54	189.39	694.53	192.42	694.51
193.59	694.5	198.3	694.45	203.21	694.41	204.95	694.39	205.99	694.38
206.61	694.37	207.34	694.36	210.31	694.38	212.31	694.39	215.57	694.38
217.08	694.37	217.61	694.35	218.06	694.34	218.78	694.33	220.08	694.3
220.23	694.31	220.52	694.3	221.1	694.29	222.24	694.28	222.47	694.29
222.72	694.28	224.99	694.3	225.87	694.31	226.43	694.32	228.97	694.17
232	694	238.88	694.32	239.21	694.35	239.53	694.38	239.85	694.4

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
240.72	694.46	241.25	694.48	241.49	694.49	241.72	694.51	241.95	694.52
242.16	694.53	242.57	694.54	242.79	694.55	243	694.56	243.8	694.58
244.31	694.59	250.58	694.65	251.11	694.66	252.15	694.67	252.69	694.68
253.16	694.69	254.14	694.7	255.13	694.72	256.09	694.73	256.6	694.74
257.54	694.75	258.06	694.76	258.98	694.77	260.13	694.78	261.65	694.79
263.87	694.81	265.29	694.83	266.33	694.84	267.64	694.85	270.53	694.86
272.39	694.87	273.59	694.88	274.59	694.9	275.79	694.91	276.83	694.93
278	694.95	279.09	694.96	279.16	694.97	280.26	694.99	280.99	695
281.41	695.01	283.76	695.05	289.82	695.08	295.63	695.06	296.7	695.05
298.52	695.03	298.97	695.02	300.84	695	303.97	694.98	307.61	694.99
309.67	695	310.86	695.02	312.03	695.06	312.16	695.07	312.74	695.08
313.84	695.12	314.37	695.13	315.31	695.16	316.03	695.17	316.83	695.19
317.61	695.2	318	695.21	320.4	695.24	320.78	695.25	323.94	695.28
325.32	695.29	332.57	695.32	333.27	695.33	335.12	695.35	335.86	695.36
336.26	695.37	337.19	695.38	338.07	695.4	338.95	695.41	339.39	695.42
340.28	695.43	341.73	695.45	343.79	695.47	345.4	695.48	348.73	695.47
354.19	695.44	357	695.43	357.28	695.44	357.49	695.43	361.23	695.44
361.56	695.43	361.84	695.44	365.66	695.46	367.06	695.47	367.99	695.48
369.31	695.49	370	695.5	370.93	695.51	372.38	695.53	373.35	695.54
373.86	695.55	374.65	695.56	375.15	695.57	378.03	695.61	378.99	695.62
380.91	695.65	381.87	695.66	386.36	695.73	387.51	695.75	388.58	695.76
388.89	695.77	389.72	695.79	390.85	695.81	391.74	695.82	391.98	695.83
392.88	695.84	393.09	695.85	394.01	695.86	394.19	695.87	395.13	695.89
396.24	695.9	396.37	695.91	397.34	695.92	397.79	695.93	398.33	695.94
398.78	695.95	399.76	695.96	400.27	695.97	404.14	696.01	407.72	696.03
410.64	696.04	425.21	696.01	432.42	696.03	435.21	696.05	440.38	696.04
441.34	696.04	448.51	696						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	226.43	.06	238.88	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
226.43	238.88	8.757	9.568	4.863	.1	.3

Left Levee Station= 154.63 Elevation= 694.82

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 95.25*

INPUT
Description:
Station Elevation Data num= 415

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	694.33	.137	694.326	.522	694.318	1.584	694.306	1.703	694.305
2.028	694.301	3.279	694.289	3.973	694.284	4.519	694.279	5.486	694.273
5.698	694.271	5.77	694.271	6.295	694.275	6.397	694.267	10.333	694.241
12.498	694.22	12.569	694.219	13.266	694.211	14.24	694.202	16.641	694.168
16.995	694.16	18.255	694.143	18.6	694.135	19.908	694.121	20.243	694.113
21.444	694.099	21.729	694.092	22.91	694.077	23.185	694.07	23.814	694.062
24.396	694.056	24.947	694.049	26.197	694.036	26.462	694.029	27.732	694.017
28.234	694.01	28.874	694.004	29.316	693.998	29.966	693.992	33.017	693.984
37.897	693.99	38.643	693.992	47.208	693.999	54.628	693.986	54.869	693.982
55.227	693.984	56.057	693.978	56.425	693.98	56.666	693.976	59.371	693.966
61.969	693.948	62.079	693.947	67.45	693.913	67.586	693.912	70.964	693.898
71.253	693.905	72.272	693.895	72.431	693.899	72.577	693.902	75.294	693.89
76.11	693.896	76.504	693.888	80.126	693.875	80.962	693.881	81.336	693.873
85.076	693.861	85.499	693.869	85.646	693.861	88.677	693.85	99.86	693.849
100.102	693.852	100.711	693.85	101.471	693.85	103.655	693.856	104.807	693.848
104.954	693.855	105.545	693.863	109.038	693.879	109.442	693.886	110.938	693.894
112.542	693.91	113.238	693.915	113.575	693.918	114.047	693.926	114.992	693.934
116.36	693.95	117.393	693.957	118.751	693.971	119.657	693.978	121.625	693.997
122.353	694.003	124.272	694.011	125.493	694.02	133.523	694.066	134.094	694.074
134.389	694.082	135.245	694.09	135.845	694.098	136.15	694.105	137.617	694.121
138.168	694.129	138.502	694.137	139.053	694.145	139.388	694.152	139.949	694.16
140.156	694.167	140.5	694.174	143.639	694.218	144.2	694.225	145.401	694.232
145.873	694.238	146.553	694.243	146.887	694.244	146.975	694.237	147.458	694.243
149.032	694.247	149.17	694.239	149.564	694.245	149.685	694.245	151.261	694.238
151.713	694.234	152.25	694.232	155.917	694.195	156.876	694.188	158.401	694.174
159.572	694.167	160.605	694.152	161.087	694.149	161.776	694.146	162.042	694.139
162.81	694.132	163.991	694.126	164.286	694.119	166.51	694.099	167.524	694.094
167.681	694.087	167.813	694.086	168.36	694.081	169.305	694.075	169.369	694.075
172.995	694.067	173.184	694.071	173.389	694.076	173.595	694.069	177.689	694.061
178.88	694.056	181.34	694.052	181.95	694.06	182.264	694.057	182.629	694.052
186.379	694.044	189.361	694.028	199.979	693.944	201.692	693.928	202.085	693.925
202.715	693.919	203.671	693.906	204.044	693.902	206.966	693.914	208.934	693.918
209.241	693.917	209.725	693.913	210.534	693.909	211.123	693.905	212.143	693.9
212.195	693.9	213.277	693.889	213.629	693.886	214.15	693.87	214.37	693.864
214.593	693.859	215.263	693.85	215.463	693.845	216.335	693.827	216.482	693.822
216.581	693.82	216.729	693.827	217.014	693.818	217.229	693.815	217.376	693.81
217.585	693.806	218.707	693.793	218.91	693.797	219.179	693.788	219.33	693.789
219.919	693.787	220.507	693.789	220.98	693.787	221.413	693.786	222.279	693.787
222.83	693.79	223.099	693.779	223.15	693.775	223.368	693.765	223.598	693.752
223.873	693.741	224.12	693.728	224.726	693.698	225.085	693.679	225.443	693.662
225.814	693.642	226.267	693.619	226.335	693.615	230.367	693.482	231.173	693.516
241.563	693.728	241.834	693.751	242.408	693.79	242.741	693.822	242.9	693.836
243.065	693.851	243.389	693.873	244.176	693.93	244.269	693.936	244.389	693.941
244.805	693.955	245.048	693.967	245.281	693.987	245.726	694.012	246.012	694.02
246.141	694.024	246.576	694.044	247.385	694.068	247.901	694.081	252.546	694.165
252.807	694.165	253.135	694.17	254.244	694.18	254.421	694.182	254.769	694.19
255.01	694.189	255.358	694.194	255.833	694.199	256.354	694.21	256.576	694.211
256.855	694.217	257.224	694.223	257.846	694.23	258.837	694.25	259.736	694.262
259.819	694.263	260.123	694.269	260.335	694.274	261.286	694.286	261.812	694.297
261.95	694.299	262.375	694.307	263.109	694.317	263.863	694.33	264.52	694.338
265.444	694.347	267.961	694.38	268.116	694.384	268.898	694.398	269.126	694.401
269.652	694.406	269.884	694.41	270.638	694.42	271.504	694.429	276.166	694.469
277.133	694.483	277.524	694.487	277.713	694.49	278.535	694.507	279.51	694.518
279.749	694.521	280.801	694.543	281.144	694.549	281.985	694.566	283.088	694.582
283.159	694.59	284.272	694.614	285.01	694.628	285.435	694.639	287.813	694.688
288.808	694.699	289.04	694.702	289.426	694.706	289.6	694.709	290.267	694.716

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
290.576	694.72	291.756	694.732	292.364	694.737	293.157	694.742	293.505	694.746
293.943	694.749	299.821	694.753	302.745	694.74	302.841	694.738	303.201	694.735
304.919	694.726	308.259	694.724	308.398	694.725	308.988	694.731	310.176	694.739
310.814	694.745	311.443	694.749	311.942	694.754	312.689	694.76	313.936	694.775
314.026	694.775	314.497	694.783	315.076	694.796	315.23	694.798	316.062	694.824
316.413	694.834	316.545	694.843	317.132	694.853	317.454	694.864	317.831	694.876
318.244	694.89	318.305	694.891	318.781	694.9	319.732	694.926	320.373	694.937
320.46	694.938	321.269	694.955	322.059	694.965	322.199	694.97	322.453	694.976
324.881	695.006	325.266	695.015	328.463	695.045	329.859	695.054	337.064	695.08
337.194	695.08	337.902	695.089	339.374	695.104	340.522	695.118	340.927	695.127
341.868	695.137	341.964	695.139	342.553	695.152	342.758	695.156	343.5	695.164
343.648	695.166	344.093	695.175	344.177	695.176	345.076	695.186	345.627	695.194
347.473	695.215	348.526	695.225	350.174	695.235	353.387	695.233	353.543	695.231
353.639	695.23	353.871	695.231	354.335	695.227	354.567	695.228	354.789	695.225
355.03	695.226	355.485	695.222	361.909	695.201	362.193	695.209	362.405	695.201
366.189	695.21	366.523	695.202	366.806	695.21	367.092	695.211	370.671	695.231
372.087	695.242	372.968	695.252	373.028	695.253	374.363	695.264	377.469	695.304
377.926	695.308	378.451	695.314	378.922	695.322	379.695	695.332	379.766	695.333
380.272	695.342	382.391	695.369	382.691	695.375	384.157	695.392	386.044	695.419
386.099	695.421	386.17	695.423	387.07	695.432	387.253	695.435	387.378	695.439
388.48	695.454	388.596	695.458	392.211	695.515	392.433	695.521	392.776	695.527
393.859	695.539	394.173	695.548	395.012	695.566	396.038	695.586	396.155	695.588
397.056	695.599	397.299	695.607	398.209	695.618	398.422	695.627	398.647	695.629
399.352	695.639	399.534	695.647	400.116	695.659	400.486	695.666	401.608	695.676
401.74	695.684	402.721	695.693	403.177	695.702	403.723	695.71	404.178	695.718
405.17	695.727	405.686	695.735	409.601	695.768	416.177	695.794	430.917	695.783
438.212	695.804	441.034	695.82	446.265	695.811	447.236	695.811	454.49	695.777

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	222.83	.06	242.408	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
222.83	242.408	8.757	9.568	4.863	.1	.3

Left Levee Station= 159.33 Elevation=

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 85.5*

INPUT
Description:
Station Elevation Data num= 436

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	693.78	.134	693.774	.513	693.766	1.559	693.751	1.675	693.75
1.996	693.744	2.947	693.732	3.226	693.726	4.446	693.713	5.397	693.706
5.606	693.701	5.676	693.701	6.193	693.7	6.293	693.694	10.166	693.662
12.296	693.64	12.366	693.64	14.01	693.624	16.372	693.596	16.721	693.589
17.96	693.575	18.299	693.57	19.587	693.562	19.916	693.557	21.097	693.548
21.378	693.543	22.54	693.534	22.811	693.529	25.774	693.513	26.035	693.509
26.48	693.506	27.284	693.504	27.778	693.501	28.407	693.499	28.843	693.496
29.482	693.494	32.483	693.498	34.028	693.503	39.673	693.533	46.445	693.556
48.575	693.557	49.64	693.56	53.745	693.56	53.983	693.555	54.334	693.559
55.151	693.552	55.513	693.556	55.751	693.551	58.412	693.541	59.38	693.536
60.968	693.525	61.076	693.525	65.677	693.492	66.494	693.485	69.817	693.466
70.102	693.47	71.105	693.461	71.405	693.465	74.077	693.45	74.881	693.453
75.268	693.446	78.831	693.429	79.654	693.431	80.022	693.425	83.701	693.413
84.117	693.417	84.263	693.412	87.245	693.401	98.247	693.389	98.484	693.394
99.084	693.39	99.831	693.389	101.981	693.392	103.114	693.385	103.259	693.39
103.84	693.395	107.277	693.407	107.674	693.413	109.145	693.419	109.997	693.424
110.724	693.43	111.409	693.433	111.74	693.436	112.205	693.441	114.48	693.46
115.497	693.464	118.647	693.481	119.66	693.491	120.377	693.496	126.525	693.524
127.384	693.531	128.839	693.539	129.255	693.542	131.366	693.553	131.927	693.558
132.218	693.564	133.06	693.57	133.651	693.576	133.951	693.581	134.764	693.587
135.936	693.598	136.265	693.604	136.807	693.61	137.136	693.615	137.688	693.62
137.891	693.624	138.23	693.629	141.871	693.661	143.052	693.663	143.517	693.667
144.185	693.668	144.514	693.668	144.601	693.663	145.075	693.666	146.625	693.663
146.76	693.657	147.147	693.661	147.267	693.66	148.817	693.652	149.262	693.646
149.791	693.643	153.398	693.61	154.341	693.606	155.842	693.597	156.994	693.594
158.011	693.585	158.485	693.583	159.163	693.582	159.424	693.577	160.179	693.574
161.341	693.572	161.632	693.567	163.82	693.558	164.358	693.557	164.817	693.558
164.972	693.554	165.102	693.554	166.569	693.55	166.633	693.55	168.876	693.554
170.2	693.554	170.386	693.557	170.588	693.561	170.791	693.557	171.358	693.559
174.305	693.561	174.819	693.562	175.99	693.561	176.962	693.563	178.411	693.563
179.011	693.569	179.319	693.568	179.679	693.565	183.368	693.557	186.301	693.545
186.423	693.544	198.433	693.466	199.44	693.458	200.04	693.451	200.381	693.448
200.747	693.444	202.893	693.448	205.559	693.446	205.861	693.445	206.337	693.439
207.712	693.427	208.715	693.42	208.766	693.42	209.221	693.413	209.831	693.406
210.177	693.403	210.69	693.39	210.907	693.383	211.126	693.379	211.786	693.37
211.982	693.363	212.84	693.348	212.985	693.341	213.082	693.339	213.227	693.343
213.508	693.336	213.719	693.333	213.864	693.327	214.069	693.322	214.246	693.319
214.815	693.312	215.173	693.306	215.373	693.304	215.638	693.297	215.787	693.296
216.366	693.288	216.945	693.286	217.41	693.278	218.688	693.264	219.23	693.26
219.569	693.249	219.633	693.243	219.909	693.233	220.199	693.218	220.545	693.207
220.857	693.192	221.21	693.176	221.62	693.159	222.073	693.136	222.526	693.118
222.992	693.095	223.65	693.064	228.735	692.965	229.885	693.011	244.729	693.159
245.116	693.197	245.935	693.26	246.273	693.294	246.434	693.307	246.6	693.322
246.928	693.346	247.724	693.407	247.818	693.412	247.939	693.417	248.36	693.43
248.606	693.445	248.841	693.465	249.077	693.48	249.292	693.494	249.582	693.503
249.711	693.508	249.936	693.518	250.151	693.527	251.492	693.572	256.191	693.697
256.454	693.693	256.787	693.7	257.909	693.709	258.087	693.712	258.439	693.72
258.684	693.716	259.035	693.723	259.516	693.729	259.71	693.732	260.042	693.74
260.267	693.737	260.549	693.744	260.922	693.752	261.552	693.76	262.164	693.771
262.555	693.78	263.464	693.795	263.548	693.796	263.855	693.803	264.07	693.807
265.032	693.823	265.564	693.833	265.703	693.836	266.133	693.848	266.876	693.862
267.682	693.881	268.304	693.892	269.238	693.905	271.51	693.942	271.784	693.947
271.94	693.953	272.732	693.968	272.963	693.972	273.495	693.978	273.73	693.984
274.492	693.997	275.368	694.008	275.636	694.01	275.968	694.016	277.083	694.033
278.326	694.047	280.229	694.072	281.062	694.088	281.457	694.093	282.481	694.114
283.709	694.133	285.872	694.179	285.97	694.182	287.086	694.204	287.157	694.211

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     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 288.283 694.239  289.03 694.255  289.46 694.267 291.865 694.326 292.383 694.336
 292.872 694.342 293.107 694.348 293.498 694.354 293.674 694.359 294.348 694.371
 294.661 694.377 295.854 694.395 297.271 694.408 297.623 694.414 298.067 694.419
 298.894 694.424 304.013 694.445 304.789 694.446 305.108 694.448 305.337 694.449
 306.129  694.45 308.534 694.449 309.169 694.451 312.548 694.469 312.689  694.47
 313.285 694.481 314.488 694.493 315.133 694.503 315.768 694.509 316.273 694.518
 316.404  694.52  317.03 694.527 318.291  694.55 318.381 694.551 318.858 694.559
 319.444 694.574 319.599 694.576 320.031 694.587 320.797 694.609  320.93 694.615
 321.523 694.627 321.849 694.636 322.231 694.648 322.649 694.659  322.71 694.661
 323.081 694.669 323.191 694.671 323.893 694.686 324.153 694.693 324.802 694.704
  324.89 694.706 325.709  694.72 326.507  694.73  326.65 694.737 326.906 694.742
 329.362 694.773 329.751  694.78  330.57 694.789 332.985  694.81 335.145 694.822
 341.686  694.84 341.817 694.841 342.534 694.849 344.427 694.867 345.184 694.877
 345.594 694.884 346.545 694.894 347.239 694.908 347.446 694.911 348.197 694.919
 348.346 694.921 348.797 694.929 349.791 694.941 350.348 694.949 351.192 694.959
 351.453 694.961 352.215  694.97 353.281  694.98 354.947 694.991 358.198 694.995
 358.355 694.992 358.452  694.99 358.687 694.994 359.156 694.988 359.391 694.992
 359.616 694.987  359.86 694.991  360.32 694.985 366.819 694.973 367.105 694.978
  367.32 694.973 371.148  694.98 371.486 694.975 371.772  694.98 372.061 694.981
 375.307 694.999 376.363 695.007 378.005 695.025 378.066 695.025 379.417 695.037
 380.123 695.047 383.551 695.088 384.028 695.095  384.81 695.105 384.882 695.105
 385.393 695.113 386.746 695.129 387.537  695.14 387.841 695.147 389.323 695.164
 391.233  695.19 391.288 695.192  391.36 695.195 392.455 695.206 392.582 695.212
 393.697 695.226 393.814 695.232  397.47  695.29 397.695 695.297 398.043 695.303
   398.8 695.313 399.138 695.318 399.455 695.325 400.061 695.337 400.304 695.343
 401.342 695.364 401.461 695.366 402.372 695.378 402.617 695.385 403.538 695.397
 403.753 695.403 403.982 695.406 404.695 695.417 404.879 695.424 405.468 695.436
 405.841 695.442 406.406 695.448 406.977 695.452  407.11 695.458 407.775 695.463
 408.103 695.467 408.563 695.474 409.576 695.487 410.579 695.494 411.101   695.5
 415.062 695.527 421.714 695.548 436.293 695.555 436.625 695.556 437.779 695.562
 444.004 695.578 445.385 695.585 446.859 695.589  452.15 695.582 453.132 695.582
  460.47 695.555

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06  219.23     .06 245.935     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        219.23 245.935           8.757   9.568   4.863             .1       .3
Left Levee      Station=  164.03      Elevation=

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 75.75*

INPUT
Description:
Station Elevation Data    num=     402
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  693.23    .132 693.222    .505 693.214   1.648 693.195   1.963 693.187
   2.898 693.171   3.173 693.163   3.844 693.155   4.373 693.146   5.309 693.138
   5.583  693.13   6.092 693.125    6.19 693.122  12.094  693.06  12.163  693.06
  16.103 693.023  16.446 693.019  17.999 693.005  19.265 693.002  19.589     693
  20.751 692.997  21.027 692.995   22.17 692.991  22.436 692.989  23.045 692.987
   25.35 692.989  25.607 692.988  26.045 692.988  26.836 692.991  28.998 692.996
  33.469 693.022  39.021 693.071  45.683 693.113  47.778 693.118  48.825 693.125
  50.198 693.131  52.863 693.135  53.096 693.127  53.442 693.135  54.246 693.126
  54.602 693.133  54.835 693.125  58.405 693.113  59.967 693.103  60.073 693.102
  64.598 693.066  65.271 693.059  65.402 693.057  67.497 693.041  68.671 693.034
  68.951 693.035  69.937 693.026   70.09 693.026  70.232 693.027  72.861 693.011
  73.651 693.009  74.032 693.005  77.537 692.984  78.346 692.982  78.708 692.978
  82.327 692.964  82.736 692.966  82.879 692.963  91.192 692.936  96.633  692.93
  96.867 692.937  97.457  692.93 100.306 692.927  101.42 692.923 101.563 692.925
 102.135 692.928 105.515 692.936 105.906 692.939 109.905 692.953 110.362 692.957
   112.6  692.97 116.495 692.975 116.698 692.976 117.695 692.986   118.4 692.989
 122.363 693.001 124.448 693.012 125.292 693.021 126.723 693.028 127.133 693.031
 129.208 693.039 129.761 693.043 130.047 693.046 131.456 693.053 131.751 693.056
  133.17 693.064 133.703 693.068 134.027 693.071  134.56 693.074 134.884 693.077
 135.427 693.079 135.627 693.081  135.96 693.083 139.541 693.096 141.818 693.094
 142.141 693.093 142.226 693.089 142.693 693.089 144.217  693.08  144.35 693.076
 144.731 693.076 144.848 693.075 146.374 693.066 146.811 693.058 147.331 693.055
 150.879 693.025 155.882 693.016 156.549 693.017 156.806 693.016 158.692 693.017
 158.977 693.016  161.13 693.017 161.659 693.019 162.111 693.022 162.263 693.021
 162.391 693.022 163.834 693.025 163.896 693.025 167.405 693.042 167.588 693.044
 167.786 693.047 167.986 693.046 174.056 693.072 175.481 693.075 176.071 693.079
 176.375 693.079 176.728 693.077 183.242 693.063 183.361 693.062 195.175 693.003
 195.555 693.002 197.451 692.986 199.562 692.984 202.183 692.974  202.48 692.972
 202.948 692.964 203.731 692.956 204.301 692.948 205.288  692.94 205.338  692.94
 205.786 692.932 206.386 692.923 206.726  692.92 207.231  692.91 207.443 692.901
 207.659 692.898 208.308  692.89 208.501 692.882 209.345 692.869 209.487 692.861
 209.583 692.859 209.726  692.86 210.002 692.855  210.21 692.852 210.352 692.843
 210.554 692.838 211.287 692.826  211.64 692.818 211.837 692.812 212.097 692.805
 212.243 692.803 212.813 692.789 213.382 692.783  213.84 692.769 214.259 692.759
  215.63  692.73  216.04  692.72 216.117 692.711 216.449 692.702 216.799 692.684
 217.218 692.674 217.593 692.656  218.02 692.638 218.515 692.619 219.062 692.593
 219.608 692.574 220.171 692.547 220.862 692.516 220.965 692.512 227.103 692.448
 228.598 692.505 247.894 692.589 248.398 692.644 249.463  692.73 249.804 692.766
 249.967 692.779 250.135 692.793 251.272 692.883 251.367 692.888  251.49 692.894
 251.916 692.905 252.164 692.922 252.402 692.942  252.64  692.96 252.858 692.976
 253.282 692.992  253.51 693.002 253.727 693.011 255.083 693.063 259.835 693.229
 260.102 693.222 260.438  693.23 261.573 693.239 261.754 693.241  262.11  693.25
 262.357 693.243 262.713 693.251 263.395 693.261 263.731  693.27 263.959 693.264
 264.244 693.271 264.621 693.281 265.258 693.289 265.877 693.301 266.272  693.31
 267.192 693.327 267.804 693.341 268.777 693.359 269.457 693.373 269.892 693.389
 270.268 693.398 270.643 693.406 271.414  693.43 272.087 693.446 273.032 693.462
 274.806 693.496 275.607 693.513 275.765 693.521 276.566 693.539 277.337 693.549
 277.575 693.557 278.346 693.573 279.503  693.59 279.839 693.598 280.966 693.621
 284.002  693.67 284.149 693.673 284.991 693.694 285.584 693.703 286.426 693.721
 287.423  693.74 287.668 693.744 288.744 693.769 289.095 693.776 289.856 693.795
 289.956 693.797 291.084 693.827 291.156 693.831  293.05 693.883 293.485 693.896
```

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
295.918	693.964	296.184	693.97	296.442	693.978	296.936	693.986	297.173	693.994
297.569	694.002	297.747	694.01	298.745	694.033	299.952	694.057	300.575	694.066
301.386	694.074	301.742	694.082	302.19	694.088	303.027	694.097	308.204	694.138
308.99	694.143	309.312	694.147	310.344	694.155	311.196	694.159	311.294	694.159
311.661	694.164	312.777	694.17	313.42	694.175	313.597	694.177	313.973	694.182
316.837	694.213	316.979	694.215	317.583	694.23	318.799	694.246	319.451	694.262
320.094	694.27	320.737	694.285	321.37	694.293	322.645	694.325	322.737	694.326
323.219	694.334	323.812	694.352	323.969	694.354	324.405	694.364	324.821	694.375
325.18	694.383	325.314	694.388	325.915	694.4	326.245	694.408	326.63	694.419
327.053	694.429	327.115	694.43	327.491	694.44	327.602	694.441	328.311	694.453
328.575	694.459	329.231	694.472	329.32	694.473	330.148	694.485	330.956	694.495
331.1	694.503	331.359	694.508	331.762	694.514	333.844	694.539	334.237	694.545
335.065	694.554	337.508	694.575	339.693	694.586	346.308	694.6	346.441	694.601
348.671	694.621	349.846	694.635	350.26	694.641	351.321	694.653	351.924	694.664
352.134	694.667	352.893	694.675	353.045	694.677	353.5	694.684	354.421	694.694
354.505	694.695	355.069	694.705	355.922	694.713	356.958	694.725	358.035	694.735
359.721	694.747	360.824	694.752	363.009	694.758	363.266	694.75	363.504	694.757
363.978	694.749	364.216	694.756	364.443	694.748	364.69	694.755	365.155	694.747
371.728	694.744	372.018	694.747	372.235	694.745	376.107	694.749	376.448	694.747
376.738	694.75	377.031	694.75	380.314	694.77	381.381	694.779	383.043	694.797
383.104	694.798	384.121	694.807	387.648	694.851	388.652	694.861	392.684	694.91
392.99	694.918	396.421	694.96	396.477	694.963	396.55	694.968	397.471	694.976
397.658	694.978	397.786	694.986	398.913	694.998	399.032	695.006	402.73	695.065
402.958	695.073	403.309	695.08	404.417	695.097	405.351	695.114	405.597	695.119
406.646	695.142	406.766	695.144	407.688	695.157	407.936	695.162	408.868	695.175
409.085	695.18	409.316	695.183	410.037	695.196	410.223	695.201	410.819	695.213
411.196	695.218	411.768	695.224	412.345	695.228	412.48	695.231	413.484	695.24
414.171	695.249	414.509	695.251	414.975	695.255	415.989	695.261	416.517	695.265
418.69	695.278	442.332	695.329	443.499	695.336	451.192	695.357	452.683	695.359
462.692	695.345	466.45	695.333						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	215.63	.06	249.463	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
215.63	249.463	8.757	9.568	4.863	.1 .3

Left Levee Station= 168.73 Elevation=

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 66

INPUT
Description:
Station Elevation Data num= 261

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	692.68	.13	692.67	1.62	692.64	1.93	692.63	2.85	692.61
3.12	692.6	3.78	692.59	4.3	692.58	5.22	692.57	5.49	692.56
5.99	692.55	10.97	692.49	11.96	692.48	17.37	692.44	22.66	692.45
25.61	692.47	32.91	692.54	36.06	692.58	36.77	692.59	38.37	692.61
44.92	692.67	46.98	692.68	48.01	692.69	49.36	692.7	51.98	692.71
52.21	692.7	52.55	692.71	53.34	692.7	53.69	692.71	53.92	692.7
57.43	692.69	59.07	692.68	63.52	692.64	64.31	692.63	66.37	692.61
67.8	692.6	68.92	692.59	77.43	692.53	89.67	692.48	95.02	692.47
95.25	692.48	95.83	692.47	99.9	692.46	107.75	692.47	110.72	692.48
114.75	692.47	115.73	692.48	120.32	692.49	122.37	692.5	123.2	692.51
125.01	692.52	132.65	692.54	137.7	692.53	139.45	692.52	142.43	692.49
143.93	692.48	144.36	692.47	148.36	692.44	153.28	692.45	157.51	692.47
158.96	692.48	159.68	692.49	161.16	692.5	163.33	692.52	164.79	692.53
165.73	692.54	166.95	692.55	168.58	692.56	171.15	692.58	173.43	692.59
180.3	692.58	192.29	692.54	193.8	692.53	196.23	692.52	199.1	692.5
199.56	692.49	200.33	692.48	200.89	692.47	201.91	692.46	202.35	692.45
202.94	692.44	203.78	692.43	203.98	692.42	204.83	692.41	205.02	692.4
205.85	692.39	205.99	692.38	206.7	692.37	206.84	692.36	207.21	692.35
207.76	692.34	208.15	692.33	208.3	692.32	208.7	692.31	209.26	692.29
209.82	692.28	210.27	692.26	212.03	692.2	212.51	692.19	212.6	692.18
212.99	692.17	213.4	692.15	213.89	692.14	214.33	692.12	214.83	692.1
215.41	692.08	216.05	692.05	216.69	692.03	217.35	692	218.28	691.96
225.47	691.93	227.31	692	251.06	692.02	251.68	692.09	252.99	692.2
253.35	692.24	253.5	692.25	254.82	692.36	255.04	692.37	255.48	692.38
256.45	692.46	256.72	692.47	263.48	692.76	263.75	692.75	264.09	692.76
265.42	692.77	265.78	692.78	266.03	692.77	266.39	692.78	267.08	692.79
267.42	692.8	267.65	692.79	268.32	692.81	269.01	692.82	269.59	692.83
269.99	692.84	270.92	692.86	271.32	692.87	273.21	692.91	273.65	692.93
274.41	692.95	275.19	692.98	275.87	693	276.85	693.02	277.69	693.04
278.62	693.06	279.43	693.08	279.59	693.09	280.4	693.11	281.18	693.12
281.42	693.13	282.2	693.15	283.37	693.17	283.71	693.18	284.85	693.21
287.92	693.27	288.92	693.3	289.52	693.31	291.38	693.35	293.07	693.39
293.84	693.41	300.24	693.61	300.5	693.62	301	693.63	301.24	693.64
301.64	693.65	301.82	693.66	302.51	693.68	302.83	693.69	303.22	693.7
304.05	693.72	304.68	693.73	305.5	693.74	305.86	693.75	307.16	693.77
313.19	693.84	313.75	693.85	314.56	693.86	315.52	693.87	315.94	693.88
317.02	693.89	317.67	693.9	318.23	693.91	321.27	693.96	321.88	693.98
323.11	694	323.77	694.02	324.42	694.03	325.07	694.05	325.71	694.06
327	694.1	327.58	694.11	328.18	694.13	328.78	694.14	329.2	694.15
330.64	694.18	331.03	694.19	331.52	694.2	331.9	694.21	332.73	694.22
333.66	694.24	335.42	694.26	335.55	694.27	336.22	694.28	339.56	694.32
342.04	694.34	344.24	694.35	350.93	694.36	353.32	694.38	356	694.41
356.61	694.42	357.59	694.43	358.29	694.44	359.22	694.45	359.79	694.46
360.92	694.47	361.7	694.48	362.79	694.49	365.61	694.51	367.82	694.52
368.08	694.51	368.32	694.52	368.8	694.51	369.04	694.52	369.27	694.51
369.52	694.52	369.99	694.51	382	694.52	385.32	694.54	386.4	694.55
388.08	694.57	389.17	694.58	393.21	694.63	394.24	694.64	395.04	694.65
397.02	694.67	397.83	694.68	398.14	694.69	401.61	694.73	401.74	694.74
402.86	694.75	402.99	694.76	404.13	694.77	404.25	694.78	407.99	694.84
408.22	694.85	409.35	694.87	410.64	694.89	411.95	694.92	414.65	694.96
416.17	694.99	417.13	695	418.53	695.01	419.56	695.02	424.13	695.04
439.54	695.07	447.7	695.1	449.22	695.11	457	695.13	468.63	695.12
472.43	695.11								

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Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06  212.03     .06  252.99     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         212.03  252.99           13.875    9.01       9             .1       .3
Left Levee      Station=  173.43      Elevation=

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 57.*

INPUT
Description:
Station Elevation Data    num=     364
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  691.85    .117 691.843   1.308 691.825   1.457 691.823   1.736 691.815
   2.564 691.801   2.807 691.794     3.4 691.787   3.868  691.78   4.696 691.773
   4.939 691.766   5.388 691.759   9.868 691.716  10.759 691.709  15.625 691.681
  20.384 691.692  23.038 691.709  29.604 691.767  32.345 691.799  32.438 691.799
  32.751 691.801  33.067 691.807  34.516 691.825  40.408 691.881  42.261 691.894
  44.402 691.913  46.759 691.926  46.966 691.919  47.272 691.927  47.982 691.921
  48.297 691.929  48.504 691.922  50.074 691.921  50.886 691.922  53.137 691.917
   57.14 691.894   57.85 691.887  59.703 691.875   60.99  691.87  61.997 691.863
  80.663  691.79  82.209 691.788   82.63 691.789  83.231 691.786  85.476 691.783
  85.683 691.791  86.204 691.784  89.865 691.778  98.419 691.789  98.659 691.792
  99.126 691.791  99.336 691.794  99.599 691.794  99.802 691.792 103.224 691.784
 104.105 691.791 107.667 691.796 107.937 691.799 108.234 691.799 108.885   691.8
  109.14 691.804 110.078 691.805 110.825 691.814 111.832  691.82 112.453 691.821
 112.764 691.821 114.509 691.827 115.441 691.827 115.982  691.83 117.065  691.83
 117.561 691.834 119.326 691.836 122.704 691.827 123.351 691.823 123.869 691.822
 124.869 691.815 125.443 691.812 126.869 691.798  127.35 691.792 128.124 691.784
 129.473 691.773  129.86 691.765 129.922 691.765 132.689 691.742 133.215 691.737
 133.458 691.734 137.884 691.733 141.689 691.742 142.993 691.748  143.17  691.75
 143.641 691.757 144.972 691.769 146.924 691.792 148.238 691.804 149.083 691.815
 153.959 691.864  156.01 691.879 158.914 691.886 163.981  691.93 164.132 691.932
 165.801 691.945 165.861 691.947 172.537 691.994 172.778 691.991 172.975 691.992
 173.364 691.995 174.688 691.999 175.861 692.007 177.079 692.012 177.936 692.012
 178.327 692.014 178.703 692.015 179.101 692.015 179.515 692.009 180.208 692.005
 180.711 692.001 181.629 691.998 182.025 691.993 182.556 691.988 183.311 691.984
 183.491 691.978 184.256 691.974 184.427 691.968 185.173 691.964 185.299 691.957
 185.938 691.953 186.064 691.946 186.397 691.941 186.891 691.936 187.242  691.93
 187.377 691.923 187.737 691.918 188.241 691.905 188.744 691.901 189.108 691.889
 190.732 691.848 191.292 691.836 191.397 691.828 191.852 691.817 192.331 691.799
 192.902 691.788 193.415 691.769 193.999  691.75 194.675 691.731 195.422 691.703
 196.168 691.683 196.938 691.655 197.728 691.628 198.023 691.616 198.428 691.609
 198.645 691.606 199.506 691.589 199.919 691.585 202.321 691.576 202.881 691.577
 203.469 691.555 204.414 691.525 204.491 691.528 205.591 691.485  206.41 691.448
 207.873 691.513 226.751 691.692 227.244 691.748 228.285  691.84 228.503 691.918
 228.646 691.931 228.797 691.939 230.122 692.027 230.342 692.035 230.784 692.044
 231.758 692.108 232.029 692.117 238.813 692.362 239.084 692.356 239.425 692.365
  240.76 692.378 241.121 692.387 241.372  692.38 241.734 692.389 242.426   692.4
 242.767 692.408 242.998 692.402 243.671  692.42  244.36  692.43 244.945 692.436
 245.347 692.443  246.28 692.456 246.682 692.463 248.578  692.49 248.792 692.497
  249.02 692.505 249.783 692.521 250.566 692.543 251.248 692.559 252.232 692.574
 253.075  692.59 253.758 692.601 254.821 692.622 254.975  692.63 255.795 692.648
 256.568 692.657 256.818 692.666 257.601 692.684 258.775 692.704 259.117 692.713
 260.261  692.74 260.406 692.742 260.841 692.751 262.592 692.784 263.342 692.797
 263.483 692.801 264.346 692.824 264.948 692.834 266.815 692.872 268.511  692.91
 269.092 692.924 273.761  693.05 275.225 693.086 275.707 693.099 275.968 693.107
 276.106  693.11 276.469 693.116  276.71 693.125 277.112 693.134 277.292 693.142
 277.985 693.159 278.306 693.168 278.698 693.177 279.531 693.194 280.814 693.213
 280.986 693.216 281.347 693.224 282.652 693.244 285.167 693.277 285.998 693.286
 286.512 693.296 287.868 693.313 288.412 693.323 288.704 693.327 289.233 693.337
 290.618 693.357 291.042 693.362 291.221 693.366 291.464 693.372 292.517 693.385
   293.2 693.396 293.437 693.401 294.852 693.426 295.802  693.44 296.813 693.457
 297.374 693.474 297.425 693.475  298.66 693.494 298.868   693.5 299.322 693.511
 299.975  693.52 300.421 693.533 300.627 693.538 301.269 693.547 301.796 693.561
 301.922 693.563 302.564  693.58 303.146 693.589 303.748 693.606  304.35 693.615
 304.772 693.624 305.991 693.646 306.217 693.651 306.609 693.659   307.1 693.668
 307.482 693.677 308.315 693.687 308.504  693.69 309.248 693.704 311.015 693.727
 311.145 693.735 311.817 693.745 315.399 693.789 316.685 693.802 317.659  693.81
 319.867 693.824 320.503 693.826  320.84 693.829 325.736 693.854 326.073 693.857
 326.581  693.86 328.754 693.884  328.98 693.886 329.129 693.889 329.951 693.898
 330.148 693.902  330.95 693.914 331.669 693.923 332.282 693.934  332.81 693.942
 333.265 693.947 333.908 693.957 333.968 693.958 334.901 693.968 335.473 693.978
 335.797 693.982 336.607  693.99  337.34     694  337.39     694 337.667 694.004
 338.484 694.013 341.436 694.038   342.9 694.045 343.532 694.049 343.793 694.042
 343.939 694.047 344.034  694.05 344.516 694.043 344.757 694.051 344.988 694.044
 345.238 694.051  345.71 694.044 357.764 694.061 361.096 694.082 363.585 694.107
 363.866 694.111  364.96 694.123 369.015 694.176 369.471 694.181 369.926 694.187
 370.048 694.188 372.838  694.22 372.953 694.221 373.651 694.232 373.963 694.241
 374.447 694.247 375.209 694.258 375.981 694.267 377.445 694.289 377.576 694.297
 378.375 694.308   378.7 694.311  378.83 694.319 379.067 694.322 379.967  694.33
 380.095 694.338 380.739  694.35 383.848 694.396 384.079 694.405 384.231 694.407
   384.3  694.41 385.213 694.425 386.508 694.444 387.823  694.47 390.533 694.509
 392.058 694.535 392.194 694.536 393.022 694.544  395.46  694.56 400.047 694.577
 415.513 694.607 415.927 694.609 423.703 694.637 425.228 694.647 433.036 694.673
 436.919 694.677 437.562  694.68 440.618 694.685 448.522 694.672

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06 190.732     .06 228.285     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       190.732 228.285           13.875    9.01       9             .1       .3
Left Levee      Station=161.7825      Elevation=

CROSS SECTION
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RIVER: ARROYO
REACH: LARIJA             RS: 48.*

INPUT
Description:
Station Elevation Data    num=     381
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  691.02    .104 691.015   1.162 691.007   1.542 691.001   2.277 690.992
   2.493 690.988   3.021 690.984   3.436  690.98   4.171 690.977   4.387 690.972
   4.787 690.968   5.744 690.963   8.766 690.943   9.557 690.939  13.881 690.923
  18.108 690.934  20.465 690.948  26.299 690.993  28.733 691.019  28.816 691.019
  29.094 691.017  29.375 691.025  30.662  691.04  35.896 691.093  36.374 691.096
  37.542 691.107  38.031 691.113  39.444 691.126  40.382 691.132  41.538 691.142
  41.721 691.138  41.993 691.145  42.624 691.142  42.904 691.149  43.088 691.144
  44.483 691.147  45.204 691.151  45.893 691.153  47.203 691.153  49.372 691.148
  50.227 691.148  52.765 691.142  53.037 691.141  61.875 691.123  65.188 691.122
  73.029 691.098  73.403 691.103  73.937 691.097  75.931 691.097  76.115 691.102
  76.579 691.098  79.831 691.096  87.429 691.103  87.643 691.108  88.057 691.104
  88.244 691.109  88.477 691.107  88.658 691.105  91.698 691.098  92.481 691.102
  95.644 691.104  95.885  691.11  96.149 691.108  96.727 691.107  96.954 691.112
  97.787  691.11   98.45 691.117  99.345 691.123  99.897 691.122 100.173  691.12
 101.722 691.128 102.551 691.124 103.032  691.13 103.993 691.127 104.434 691.132
 106.002 691.132 109.003 691.121 109.577 691.116 111.436 691.104 112.703 691.092
  113.13 691.084 113.817 691.077 115.016 691.067 115.359  691.06 115.415  691.06
 117.872 691.038  118.34 691.031 118.556 691.029 122.487 691.017 127.183 691.016
 127.602 691.024 136.767 691.147 138.589 691.168 141.169 691.188  143.28 691.231
 144.079  691.25 144.495 691.259 145.671 691.287 145.804 691.291 147.287 691.323
 147.341 691.328 149.892 691.383 153.272 691.446 153.485  691.44 153.661 691.445
 154.006 691.454 154.487 691.462 154.867 691.465 155.182 691.469 156.224 691.492
 157.306 691.508 157.707 691.511 158.067 691.515 158.415 691.523 158.748 691.527
 159.103 691.529  159.47 691.529 160.085 691.531 160.533 691.531 161.348 691.536
   161.7 691.535 162.171 691.536 162.842 691.539 163.002 691.536 163.681 691.539
 163.833 691.536 164.497 691.538 164.608 691.535 165.176 691.536 165.288 691.533
 165.583 691.531 166.023 691.532 166.334  691.53 166.454 691.527 166.774 691.526
 167.221 691.521 167.669 691.521 169.435 691.495 170.075 691.482 170.195 691.476
 170.715 691.465 171.261 691.448 171.914 691.436 173.167 691.401  173.94 691.381
 174.794 691.356 175.647 691.336 177.428 691.285 177.766 691.272 178.228 691.259
 178.477 691.254 179.461 691.222 179.933 691.217 182.677 691.207 183.317 691.211
 183.989  691.17  185.07 691.114 185.158 691.118 186.414 691.036  187.35 690.965
 188.435 691.025 202.442 691.363 202.807 691.407  203.58  691.48 203.798 691.612
 203.943 691.621 204.094 691.627 205.423 691.693 205.645   691.7 206.088 691.709
 207.065 691.757 207.337 691.764 214.146 691.965 214.418 691.962 214.761  691.97
   216.1 691.985 216.463 691.993 216.715  691.99 217.077 691.998 217.772 692.009
 218.115 692.017 218.347 692.014 219.021 692.029 219.714  692.04 220.301 692.043
  221.64 692.052 222.043 692.056 222.265 692.057 223.947 692.071 224.161 692.075
  224.39  692.08 225.156 692.091 225.941 692.107 226.626 692.117 229.146 692.147
 230.212 692.164 230.367  692.17 231.189 692.185 231.965 692.195 232.217 692.202
 233.002 692.218 234.181 692.238 235.672 692.269 235.817 692.271 236.254 692.281
 238.012 692.313 238.764 692.324 238.905 692.327 239.771 692.348 240.376 692.358
 243.951  692.43 244.534 692.443 244.727 692.448 244.902 692.453 246.103 692.481
 247.136 692.502 248.347 692.531 249.221  692.55  250.69 692.578 251.173 692.588
 251.435 692.594 251.574 692.596 251.939 692.603 252.181 692.609 252.584 692.617
 252.765 692.623 254.175 692.653 254.433 692.658 255.011 692.668 255.327 692.672
 255.646 692.678   256.3 692.689 256.472 692.691 256.834 692.699 258.144 692.718
 259.199 692.731 260.668 692.755 261.502 692.764 262.018 692.777 262.842 692.787
 263.378 692.795 263.925 692.808 264.749 692.825 265.324 692.833 266.139 692.848
 266.564 692.854 266.744 692.857 266.988 692.863 267.558 692.873 268.045  692.88
  268.73 692.893 268.968 692.897 269.294 692.904 270.388 692.924 271.341 692.937
 272.356 692.955  272.92 692.969 272.971  692.97 273.893 692.982  274.21 692.988
 274.419 692.993 274.874 693.002 275.451 693.009 275.529 693.011 275.978 693.022
 276.184 693.026 276.829 693.033 277.358 693.044 277.483 693.046 278.128  693.06
 278.712 693.068 279.316 693.082 279.921  693.09 280.344 693.098 281.567 693.118
 281.794 693.121 282.187 693.128  282.52 693.133 283.064 693.143   283.9 693.154
 284.836 693.169 285.092 693.171 285.797  693.18 286.075 693.187 286.609 693.194
  286.74   693.2 287.415  693.21 289.232 693.231 290.779 693.252 291.009 693.256
   292.3 693.271 294.166 693.287 294.851 693.294 296.132   693.3  296.47 693.306
 297.204 693.311  297.75 693.317 298.505 693.322 301.384 693.349 301.722 693.355
 302.232 693.359 304.412 693.389 304.639 693.393  304.79 693.396 305.614 693.405
 305.812 693.411 306.617 693.426 307.339 693.437 308.483 693.458  308.94 693.464
 309.585 693.475 309.645 693.475 310.379 693.484 310.582 693.487 311.156 693.497
 312.294  693.51  313.03  693.52 313.358 693.526 314.178 693.536 317.019 693.564
 317.141 693.565 319.245 693.578 319.507 693.574 319.652 693.578 319.748  693.58
 320.232 693.576 320.474 693.582 320.705 693.577 320.957 693.583  321.43 693.579
 333.528 693.603 334.426 693.608  337.96 693.634  339.37 693.648 339.652 693.652
 341.286 693.673 341.822 693.682 344.819 693.722 345.278 693.727 345.857 693.736
 346.658 693.745 347.114 693.752 348.657 693.769 349.473 693.784 349.785 693.792
 350.271 693.798 351.036 693.812  351.81 693.822  353.28 693.848 353.411 693.855
 354.213 693.869 354.539 693.872  354.67 693.878 354.908 693.881 355.811  693.89
 355.939 693.897 356.586  693.91 359.707 693.953 359.938 693.959 360.091 693.961
  360.16 693.967 362.376 693.998 363.695 694.021 366.415 694.057 366.911 694.065
 367.946 694.079 368.083 694.081 370.069 694.094 370.323 694.095 371.361 694.101
 387.463 694.131 391.486 694.144 391.901 694.146 396.865  694.16 399.705 694.174
 401.236 694.184 412.969 694.228 413.614 694.233 414.925 694.237 416.682 694.247
 424.615 694.235

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06 169.435     .06  203.58     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        169.435  203.58          13.875    9.01       9            .1       .3
Left Levee      Station=   165.2      Elevation=   691.6

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 39.*

INPUT
Description:
Station Elevation Data    num=     353
```

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	690.19	.091	690.188	1.132	690.188	1.348	690.186	1.991	690.184
2.18	690.182	3.004	690.18	3.647	690.18	3.836	690.178	4.185	690.177
12.136	690.164	15.832	690.176	22.993	690.22	23.767	690.226	25.122	690.24
25.194	690.238	25.437	690.234	25.682	690.242	31.384	690.304	31.802	690.308
33.25	690.326	33.543	690.33	35.306	690.346	36.316	690.358	36.477	690.357
36.715	690.362	37.267	690.364	37.511	690.368	37.672	690.367	38.891	690.374
39.522	690.381	41.27	690.39	43.166	690.394	43.913	690.399	44.379	690.401
44.931	690.402	46.132	690.406	46.37	690.406	56.994	690.426	63.85	690.409
64.177	690.416	64.644	690.409	66.387	690.41	66.548	690.413	66.953	690.411
73.52	690.422	76.44	690.416	76.626	690.424	76.989	690.417	77.152	690.425
77.356	690.421	77.514	690.417	80.172	690.412	80.856	690.413	83.622	690.412
83.832	690.42	84.568	690.413	84.767	690.421	85.495	690.415	86.075	690.421
86.857	690.427	87.34	690.422	87.581	690.42	88.936	690.429	89.66	690.422
90.081	690.43	90.922	690.423	91.307	690.431	93.76	690.424	95.301	690.416
95.804	690.408	96.206	690.405	96.983	690.398	97.429	690.395	98.536	690.386
98.91	690.377	99.511	690.37	100.559	690.36	100.859	690.355	103.056	690.334
103.465	690.326	103.654	690.323	106.315	690.304	111.059	690.283	111.197	690.283
111.562	690.29	119.576	690.431	121.169	690.457	123.425	690.489	124.277	690.518
125.27	690.555	127.36	690.643	127.477	690.651	128.774	690.702	131.051	690.796
132.055	690.833	132.733	690.854	134.006	690.898	134.193	690.89	134.346	690.898
134.648	690.912	135.069	690.926	135.401	690.933	135.676	690.94	136.587	690.976
137.077	690.99	137.533	691.004	138.199	691.017	138.502	691.031	138.794	691.038
139.104	691.044	139.425	691.048	142.374	691.093	142.513	691.093	143.107	691.103
143.24	691.103	143.82	691.113	143.918	691.112	144.414	691.12	144.511	691.119
145.154	691.127	145.427	691.13	145.531	691.13	145.811	691.133	146.202	691.136
146.593	691.142	146.876	691.143	148.137	691.142	148.857	691.129	148.992	691.124
149.577	691.112	150.192	691.097	150.926	691.083	153.206	691.032	154.165	691.009
155.125	690.989	157.129	690.943	157.509	690.927	158.029	690.91	158.308	690.902
159.415	690.856	159.946	690.848	163.034	690.839	163.754	690.846	164.51	690.785
165.725	690.702	165.824	690.709	167.237	690.588	168.29	690.482	168.998	690.538
178.133	691.035	178.371	691.065	178.875	691.12	179.094	691.306	179.239	691.312
179.391	691.316	180.725	691.36	180.947	691.365	181.392	691.373	182.373	691.405
189.479	691.567	189.752	691.568	190.096	691.574	191.441	691.593	191.804	691.6
192.057	691.601	192.421	691.608	193.119	691.619	193.462	691.625	193.695	691.626
194.372	691.639	195.067	691.65	195.656	691.649	199.315	691.651	199.531	691.652
199.76	691.655	200.529	691.661	201.317	691.67	202.004	691.676	204.533	691.694
205.603	691.707	205.758	691.71	206.584	691.723	207.363	691.732	207.615	691.738
209.93	691.778	210.501	691.789	211.082	691.799	211.229	691.801	211.667	691.81
213.431	691.841	214.186	691.851	215.197	691.872	215.803	691.882	219.977	691.961
220.17	691.966	220.346	691.971	221.552	691.996	222.588	692.011	223.803	692.036
224.68	692.05	226.155	692.069	226.903	692.081	227.042	692.083	227.408	692.089
227.651	692.094	228.055	692.101	228.237	692.105	229.653	692.13	230.492	692.142
230.808	692.146	231.957	692.167	232.321	692.173	234.694	692.206	236.169	692.232
237.006	692.242	237.524	692.259	238.351	692.269	238.889	692.278	239.437	692.294
239.731	692.3	240.264	692.312	240.842	692.322	241.116	692.328	241.659	692.339
242.087	692.345	242.267	692.349	243.084	692.366	243.572	692.375	244.826	692.401
244.938	692.403	245.924	692.422	246.881	692.433	247.899	692.452	248.465	692.465
248.516	692.465	249.441	692.476	249.759	692.482	249.969	692.487	251.084	692.501
251.534	692.511	251.741	692.514	252.388	692.52	252.919	692.527	253.692	692.539
254.278	692.547	254.885	692.557	255.491	692.565	255.916	692.572	257.766	692.597
258.1	692.602	258.261	692.604	258.645	692.61	259.484	692.621	259.675	692.624
261.388	692.645	261.667	692.654	262.204	692.661	262.335	692.665	263.77	692.685
264.836	692.695	266.161	692.714	266.389	692.719	266.62	692.723	267.915	692.741
269.788	692.758	270.476	692.767	271.761	692.775	272.1	692.783	272.837	692.791
273.385	692.798	274.143	692.806	277.032	692.845	277.371	692.852	278.557	692.869
280.071	692.895	280.299	692.9	280.45	692.903	281.277	692.913	281.476	692.921
282.283	692.938	283.008	692.95	283.339	692.956	283.625	692.963	284.156	692.974
285.323	692.993	286.06	693.002	286.263	693.005	287.166	693.021	287.982	693.03
288.72	693.04	289.049	693.048	291.251	693.075	292.158	693.084	292.723	693.091
292.845	693.093	294.32	693.102	294.957	693.107	295.22	693.106	295.366	693.109
295.462	693.11	295.948	693.109	296.19	693.113	296.423	693.111	296.675	693.114
297.151	693.113	297.658	693.115	304.234	693.124	309.292	693.144	310.193	693.149
313.74	693.176	314.059	693.178	315.155	693.189	317.078	693.217	317.616	693.226
321.084	693.274	321.665	693.284	322.469	693.292	322.927	693.301	324.475	693.319
324.591	693.32	325.338	693.338	325.608	693.343	326.096	693.349	326.863	693.366
327.64	693.376	329.115	693.407	329.247	693.412	330.052	693.429	330.379	693.434
330.51	693.437	330.749	693.441	331.656	693.45	331.784	693.455	332.433	693.47
335.565	693.509	335.797	693.514	335.95	693.516	336.02	693.523	336.94	693.536
338.244	693.552	339.568	693.571	343.834	693.624	344.805	693.631	345.964	693.637
372.858	693.695	377.591	693.723	380.082	693.732	389.02	693.779	389.667	693.787
390.982	693.794	392.746	693.808	400.707	693.797				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	148.137	.06	178.875	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
148.137	178.875	13.875	9.01	9	.1	.3

Left Levee Station= 148.02 Elevation= 691.2

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 30

INPUT
Description:
Station Elevation Data num= 215

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	689.36	.87	689.37	4.3	689.39	12.01	689.41	20.35	689.45
21.51	689.46	21.78	689.45	21.99	689.46	23.89	689.48	24.62	689.49
27.23	689.52	28.47	689.54	30.23	689.56	31.45	689.58	33.3	689.6
33.84	689.61	35.67	689.63	36.96	689.64	37.6	689.65	39.5	689.67
43.41	689.7	48.8	689.73	54.67	689.72	54.95	689.73	55.35	689.72
62.95	689.74	65.45	689.73	65.61	689.74	65.92	689.73	66.06	689.74
66.37	689.73	71.6	689.72	71.78	689.73	72.41	689.72	72.58	689.73
73.21	689.72	74.37	689.73	74.99	689.72	76.15	689.73	76.77	689.72
77.13	689.73	77.85	689.72	78.18	689.73	80.28	689.72	81.6	689.71
82.03	689.7	83.04	689.69	84.37	689.68	84.69	689.67	86.4	689.65
87.41	689.64	88.24	689.63	88.59	689.62	91.03	689.59	95.21	689.55
105.68	689.79	106.41	689.83	107.26	689.88	108.17	689.94	109.05	690

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
109.15	690.01	110.26	690.08	111.27	690.15	112.21	690.21	113.07	690.26
113.65	690.29	114.74	690.35	114.9	690.34	115.29	690.37	115.65	690.39
116.17	690.41	116.95	690.46	117.37	690.48	117.76	690.5	118.06	690.51
118.33	690.52	118.59	690.54	118.84	690.55	125.76	690.77	126.84	690.79
136.83	690.6	137.83	690.56	138.14	690.55	139.37	690.49	139.96	690.48
143.39	690.47	144.19	690.48	145.03	690.4	146.38	690.29	146.49	690.3
148.06	690.14	149.23	690	154.17	690.76	154.39	691	170.42	691.26
172.99	691.24	174.9	691.23	179.92	691.24	181.15	691.25	182.76	691.27
185.91	691.32	186.64	691.33	187.08	691.34	188.85	691.37	189.75	691.38
195.42	691.48	195.79	691.49	197	691.51	198.04	691.52	199.26	691.54
200.14	691.55	201.62	691.56	202.51	691.57	205.39	691.61	206.29	691.62
207.27	691.64	210.19	691.68	211.67	691.71	212.51	691.72	213.03	691.74
213.86	691.75	214.4	691.76	214.95	691.78	215.78	691.8	216.36	691.81
217.18	691.83	217.79	691.84	218.61	691.86	219.1	691.87	219.53	691.88
220.03	691.89	220.47	691.9	221.46	691.92	222.42	691.93	224.01	691.96
224.99	691.97	225.52	691.98	226.56	691.99	227.09	692	228.48	692.01
232.72	692.06	233.68	692.07	235.26	692.09	236.27	692.1	236.98	692.11
237.26	692.12	239.37	692.15	240.44	692.16	241.77	692.18	242.23	692.19
243.53	692.21	245.41	692.23	246.1	692.24	247.39	692.25	247.73	692.26
248.47	692.27	249.02	692.28	249.78	692.29	252.68	692.34	253.02	692.35
254.21	692.37	255.73	692.4	256.11	692.41	256.94	692.42	257.14	692.43
257.95	692.45	259.01	692.47	259.83	692.49	260.94	692.51	261.74	692.52
262.35	692.53	262.85	692.54	264.41	692.56	264.74	692.57	266.95	692.6
267.86	692.61	268.55	692.62	270.03	692.63	271.08	692.64	273.38	692.65
279.98	692.66	285.96	692.69	289.84	692.72	290.94	692.73	292.87	692.76
293.41	692.77	296.11	692.81	296.89	692.82	297.35	692.83	298.28	692.84
298.74	692.85	300.41	692.87	301.16	692.89	301.92	692.9	302.69	692.92
303.47	692.93	305.89	692.99	306.59	693	307.5	693.01	308.28	693.03
311.81	693.07	311.88	693.08	318.68	693.16	319.86	693.17	321.86	693.18
339.38	693.2	343.85	693.22	348.85	693.23	353.6	693.26	356.1	693.27
365.07	693.33	365.72	693.34	367.04	693.35	368.81	693.37	376.8	693.36

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	126.84	.06	154.17	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
126.84	154.17	16.295	8.91	13.5	.1 .3

Left Levee Station= 126.77 Elevation= 690.9

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 21.5*

INPUT
Description:
Station Elevation Data num= 418

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	688.52	.697	688.534	.861	688.537	1.506	688.547	1.648	688.552
2.588	688.565	2.709	688.57	3.528	688.583	3.75	688.589	4.559	688.6
4.791	688.606	5.509	688.617	6.378	688.633	9.542	688.702	10.068	688.708
12.777	688.752	15.425	688.789	16.517	688.806	16.75	688.812	17.801	688.824
18.053	688.83	19.064	688.842	19.913	688.854	20.134	688.859	21.035	688.869
21.282	688.873	21.549	688.872	21.757	688.879	21.814	688.88	22.168	688.887
23.637	688.905	24.359	688.916	24.887	688.923	25.2	688.93	25.908	688.939
26.514	688.948	26.941	688.952	29.324	688.982	29.909	688.987	31.117	689.002
32.947	689.018	33.481	689.026	35.743	689.047	36.568	689.052	37.201	689.059
37.431	689.061	38.553	689.072	39.081	689.07	39.392	689.076	41.626	689.095
42.192	689.102	44.234	689.119	44.477	689.124	45.316	689.132	46.407	689.145
46.791	689.151	47.499	689.158	48.283	689.141	53.241	689.016	53.372	689.021
53.514	689.026	53.665	689.03	53.837	689.04	54.009	689.045	54.09	689.047
54.201	689.052	54.367	689.063	54.763	689.069	54.919	689.075	55.272	689.086
55.677	689.096	56.152	689.102	56.405	689.107	56.627	689.112	57.334	689.118
57.799	689.124	58.022	689.129	58.972	689.141	60.033	689.147	61.853	689.144
62.282	689.159	64.756	689.238	64.914	689.248	65.221	689.254	65.36	689.263
65.666	689.269	70.839	689.245	71.019	689.25	71.642	689.244	71.81	689.248
72.434	689.242	73.508	689.245	73.581	689.246	74.195	689.25	75.343	689.271
75.956	689.275	76.312	689.286	77.024	689.291	77.351	689.301	79.429	689.326
80.735	689.339	81.16	689.341	81.817	689.347	82.159	689.351	82.939	689.362
83.475	689.384	83.792	689.394	84.475	689.421	84.728	689.429	85.052	689.448
85.484	689.465	86.335	689.501	86.891	689.527	87.304	689.545	87.651	689.556
87.841	689.564	88.6	689.599	89.247	689.625	90.065	689.664	90.176	689.669
90.561	689.688	91.733	689.742	91.865	689.751	92.572	689.783	94.2	689.793
104.559	690.027	106.123	690.089	107.023	690.129	107.098	690.133	107.894	690.159
107.993	690.164	111.871	690.287	113.523	690.331	113.682	690.326	114.067	690.34
114.424	690.35	114.73	690.356	114.938	690.359	115.71	690.382	116.125	690.391
116.296	690.394	116.511	690.397	116.808	690.397	117.075	690.399	117.332	690.405
117.58	690.406	124.426	690.416	125.495	690.41	127.269	690.369	131.991	690.179
132.642	690.142	132.843	690.132	133.643	690.082	134.027	690.067	136.257	690.005
136.778	689.996	137.324	689.942	138.202	689.865	138.273	689.868	139.168	689.775
139.294	689.738	139.73	689.605	140.055	689.5	143.092	689.905	143.868	690.239
144.602	690.34	146.12	690.485	146.343	690.612	151.475	690.806	155.497	690.833
155.991	690.832	156.297	690.83	158.195	690.84	158.491	690.837	160.418	690.848
160.714	690.845	162.568	690.855	162.68	690.855	162.967	690.849	163.55	690.841
164.667	690.832	165.062	690.825	165.17	690.825	167.103	690.822	171.465	690.829
172.184	690.828	173.154	690.829	173.429	690.834	173.53	690.836	174.874	690.849
178.223	690.87	178.757	690.878	178.986	690.878	179.431	690.88	180.249	690.882
181.223	690.877	182.134	690.869	184.3	690.859	184.596	690.856	187.873	690.769
188.248	690.761	188.687	690.749	189.472	690.749	190.525	690.746	191.76	690.746
192.651	690.744	194.149	690.738	196.414	690.734	196.523	690.74	197.708	690.768
197.965	690.776	198.876	690.801	199.062	690.807	199.21	690.813	199.868	690.834
200.347	690.848	200.416	690.854	202.036	690.905	202.679	690.924	202.797	690.93
203.015	690.937	203.262	690.944	203.4	690.951	203.716	690.964	203.904	690.971
204.111	690.978	204.321	690.987	204.704	691.002	204.961	691.014	205.171	691.022
205.698	691.051	205.821	691.056	206.167	691.068	206.538	691.084	207.085	691.11
207.53	691.128	207.641	691.135	208.004	691.154	208.481	691.177	208.923	691.194
209.068	691.2	209.898	691.238	210.247	691.253	210.485	691.26	210.702	691.267
210.9	691.275	211.346	691.297	211.413	691.301	211.73	691.309	211.842	691.313
212.263	691.33	212.392	691.336	212.51	691.342	212.783	691.353	213.054	691.363
213.152	691.369	213.229	691.372	213.805	691.391	213.884	691.397	214.101	691.404

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
214.231	691.409	214.635	691.422	215.202	691.439	215.781	691.455	216.275	691.475
216.812	691.48	217.804	691.484	218.34	691.489	219.393	691.493	219.929	691.498
221.336	691.502	225.434	691.524	225.628	691.523	226.304	691.518	226.6	691.513
226.739	691.511	227.183	691.514	228.043	691.509	228.199	691.51	229.792	691.514
229.94	691.515	230.223	691.521	232.114	691.538	232.359	691.541	233.102	691.548
233.442	691.553	233.606	691.556	234.788	691.571	235.254	691.579	236.57	691.594
236.857	691.596	238.473	691.614	238.705	691.617	239.171	691.624	239.248	691.625
240.276	691.634	240.477	691.637	240.799	691.645	241.827	691.657	242.127	691.663
242.321	691.666	242.896	691.672	243.526	691.68	245.831	691.716	246.176	691.724
247.014	691.737	247.38	691.742	248.919	691.768	249.119	691.773	249.303	691.776
250.143	691.786	250.346	691.792	250.947	691.802	251.125	691.81	252.239	691.826
253.069	691.843	254.192	691.863	255.002	691.875	255.542	691.884	255.619	691.885
256.125	691.893	256.54	691.898	256.787	691.904	257.704	691.915	258.038	691.922
258.595	691.929	258.862	691.936	260.275	691.953	260.729	691.957	261.895	691.972
262.656	691.978	263.393	691.982	264.227	691.989	266.095	691.989	266.233	691.994
266.539	691.99	267.636	691.986	267.764	691.991	268.09	691.986	268.871	691.982
268.99	691.987	269.326	691.982	273.464	691.99	273.772	691.991	274.493	691.998
274.701	691.993	274.997	691.999	275.59	692.005	275.887	692.001	276.114	692.007
276.479	692.012	277.547	692.02	279.365	692.04	280.629	692.049	281.44	692.057
281.756	692.064	282.793	692.073	283.119	692.079	283.445	692.083	283.604	692.086
284.414	692.094	284.558	692.098	284.681	692.101	285.787	692.119	286.341	692.134
286.511	692.137	287.058	692.15	288.811	692.188	289.473	692.198	289.68	692.204
289.791	692.206	290.581	692.216	291.046	692.224	291.716	692.234	291.987	692.237
292.453	692.245	293.109	692.254	294.008	692.264	294.143	692.266	294.903	692.281
295.757	692.291	296.439	692.305	297.241	692.315	299.107	692.348	299.69	692.36
300.399	692.369	300.569	692.371	301.32	692.378	302.109	692.393	302.387	692.397
305.682	692.426	305.753	692.431	312.636	692.49	313.831	692.498	315.855	692.508
316.566	692.51	320.993	692.478	322.791	692.484	323.513	692.489	324.106	692.495
326.003	692.506	327.979	692.512	338.354	692.51	340.538	692.502	341.575	692.493
344.48	692.484	347.982	692.54	348.334	692.546	350.513	692.541	350.745	692.541
354.124	692.547	359.592	692.569	360.25	692.575	360.309	692.575	363.378	692.596
369.726	692.601	370.684	692.595	371.465	692.6				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	125.495	.06	146.12	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
125.495	146.12	16.295	8.91	13.5	.1	.3

Left Levee Station= 116.395 Elevation= 690.58

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 13

INPUT
Description:
Station Elevation Data num= 278

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	687.68	.69	687.7	1.49	687.72	1.63	687.73	2.56	687.75
2.68	687.76	3.49	687.78	3.71	687.79	4.51	687.81	4.74	687.82
5.45	687.84	6.31	687.87	9.44	688	9.96	688.01	12.64	688.09
15.26	688.15	16.34	688.18	16.57	688.19	17.61	688.21	17.86	688.22
18.86	688.24	19.7	688.26	20	688.27	20.81	688.28	21.58	688.3
21.93	688.31	22.68	688.32	24.62	688.35	24.93	688.36	25.63	688.37
26.23	688.38	28.21	688.4	29.01	688.41	34.32	688.45	35.36	688.46
37.03	688.47	38.14	688.48	38.69	688.47	38.97	688.48	41.18	688.5
41.74	688.51	43.76	688.53	44	688.54	44.83	688.55	45.33	688.56
45.91	688.57	46.29	688.58	46.99	688.59	52.67	688.31	52.8	688.32
52.94	688.33	53.09	688.34	53.26	688.36	53.43	688.37	53.62	688.38
53.83	688.4	54.05	688.41	54.33	688.43	54.49	688.44	54.68	688.45
55.08	688.47	55.55	688.48	55.8	688.49	56.02	688.5	56.72	688.51
57.18	688.52	57.4	688.53	58.34	688.55	59.39	688.56	61.19	688.55
65	688.81	66	688.8	69	688.78	70.08	688.77	72.72	688.76
80.94	689	82.05	689.04	83.57	689.18	83.82	689.2	84.14	689.24
85.41	689.36	85.96	689.42	86.9	689.51	87.65	689.59	88.29	689.65
89.21	689.75	89.59	689.79	90.75	689.91	90.88	689.93	91.58	690
105.95	690.32	113.5	690.31	115.05	690.3	124.15	690.03	124.97	690
130.47	689.39	130.73	689.15	130.88	689	134.48	689.43	135.4	690
136.27	690.11	138.07	690.21	143.49	690.53	147.56	690.52	148.06	690.51
148.37	690.5	150.29	690.49	150.59	690.48	152.54	690.47	152.84	690.46
154.83	690.45	155.12	690.44	155.71	690.43	156.84	690.42	157.24	690.41
163.72	690.42	165.43	690.41	165.81	690.42	167.17	690.43	170.56	690.42
171.1	690.43	172.61	690.41	176.71	690.3	177.01	690.29	181.15	690
188.97	689.88	189.08	689.89	190.28	689.93	191.65	689.99	191.8	690
192.95	690.05	193.02	690.06	194.43	690.13	194.66	690.14	195.31	690.17
195.43	690.18	195.65	690.19	195.9	690.2	196.04	690.21	196.19	690.22
196.36	690.23	196.55	690.24	196.76	690.25	197.36	690.29	197.62	690.31
198.49	690.37	198.84	690.39	199.77	690.46	200.22	690.48	200.7	690.52
201.12	690.55	201.63	690.58	202.97	690.67	203.21	690.68	203.43	690.69
203.63	690.7	204.15	690.74	204.47	690.75	205.01	690.78	205.14	690.79
205.26	690.8	205.81	690.83	205.91	690.84	206.57	690.87	206.65	690.88
206.87	690.89	207.41	690.92	208.03	690.95	208.57	690.97	209.07	691
218.34	690.99	219.22	690.97	219.66	690.95	220.11	690.95	220.98	690.93
222.75	690.92	225.1	690.93	226.1	690.94	226.61	690.95	228.54	690.97
229.9	690.98	231.77	691	232.32	691.01	233.36	691.02	233.89	691.03
234.93	691.04	235.43	691.05	236.65	691.06	238.14	691.08	238.79	691.09
239.54	691.1	240.18	691.11	241.69	691.13	242.31	691.14	243.08	691.15
244.16	691.16	244.34	691.17	245.33	691.18	248.81	691.24	249.82	691.25
250.07	691.26	251.9	691.28	252.17	691.29	252.99	691.3	254.06	691.31
254.82	691.32	256.01	691.33	257.6	691.34	259.49	691.33	259.63	691.34
259.94	691.33	261.05	691.32	261.18	691.33	261.51	691.32	262.3	691.31
262.42	691.32	262.76	691.31	267.26	691.32	267.99	691.33	268.2	691.32
268.5	691.33	269.1	691.34	269.4	691.33	269.63	691.34	270	691.35
271.08	691.36	271.63	691.37	272.92	691.39	274.2	691.4	275.02	691.41
275.34	691.42	276.39	691.43	276.72	691.44	277.21	691.45	278.03	691.46
278.3	691.47	279.42	691.49	279.71	691.5	279.98	691.51	282.48	691.58
283.15	691.59	283.36	691.6	284.88	691.62	285.42	691.63	286.83	691.65
287.74	691.66	288.44	691.67	289.51	691.68	290.2	691.69	291.78	691.71
292.9	691.72	293.53	691.73	294.38	691.74	295.52	691.75	296.22	691.76

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     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
  300.81  691.79   303.5   691.8  304.74  691.81  310.57  691.84  315.05  691.77
  316.87  691.78   317.6  691.79   318.2   691.8  320.12  691.82  322.12  691.83
  327.96  691.82  332.62   691.8  334.83  691.78  335.88  691.76  338.82  691.73
  342.72  691.83  345.16  691.81  348.58   691.8  354.84  691.81  357.06  691.82
  364.37  691.84  365.34  691.83  366.13  691.84

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06  124.15     .06  138.07     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        124.15  138.07               5       5       5             .1       .3
Left Levee      Station=  105.78      Elevation=  690.49
Right Levee     Station=  143.49      Elevation=  690.54

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 8

INPUT
Description:
Station Elevation Data    num=      10
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
   68.61     689   80.56     690  105.67   690.3  127.46     690  129.37     689
  130.88   688.6  132.98     689  134.14     690  153.01   690.3  170.21     690

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
   68.61     .06  129.37     .06  132.98     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        129.37  132.98               1       8       8             .1       .3
Left Levee      Station=  105.67      Elevation=   690.3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 0

INPUT
Description:
Station Elevation Data    num=       8
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
   83.98     690  103.98   690.1  121.49     690  127.53     689  130.88   688.2
  136.41     689  145.43     690  171.68     689

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
   83.98     .06  127.53     .06  136.41     .06

Bank Sta: Left   Right    Coeff Contr.   Expan.
        127.53  136.41             .1       .3
Right Levee     Station=  145.43      Elevation=     690


SUMMARY OF MANNING'S N VALUES

River:ARROYO

      Reach          River Sta.       n1        n2        n3

 LARIJA               1040              .06       .06       .06
 LARIJA               1030              .06       .06       .06
 LARIJA               1021              .06       .06       .06
 LARIJA               1014.*            .06       .06       .06
 LARIJA               1007.*            .06       .06       .06
 LARIJA               1000              .06       .06       .06
 LARIJA               990               .06       .06       .06
 LARIJA               980.*             .06       .06       .06
 LARIJA               970               .06       .06       .06
 LARIJA               963.333*          .06       .06       .06
 LARIJA               956.666*          .06       .06       .06
 LARIJA               950               .06       .06       .06
 LARIJA               940.*             .06       .06       .06
 LARIJA               930               .06       .06       .06
 LARIJA               920               .06       .06       .06
 LARIJA               913.333*          .06       .06       .06
 LARIJA               906.666*          .06       .06       .06
 LARIJA               900               .06       .06       .06
 LARIJA               894               .06       .06       .06
 LARIJA               886.5*            .06       .06       .06
 LARIJA               879               .06       .06       .06
 LARIJA               874.*             .06       .06       .06
 LARIJA               869               .06       .06       .06
 LARIJA               860               .06       .06       .06
 LARIJA               850               .06       .06       .06
 LARIJA               841.5*            .06       .06       .06
 LARIJA               833               .06       .06       .06
 LARIJA               826.5*            .06       .06       .06
 LARIJA               820               .06       .06       .06
 LARIJA               813.5*            .06       .06       .06
 LARIJA               807               .06       .06       .06
 LARIJA               798.5*            .06       .06       .06
 LARIJA               790               .06       .06       .06
 LARIJA               780               .06       .06       .06
 LARIJA               773.5*            .06       .06       .06
 LARIJA               767               .06       .06       .06
 LARIJA               760.5*            .06       .06       .06
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Reach	River Sta.	n1	n2	n3
LARIJA	754	.06	.06	.06
LARIJA	746.*	.06	.06	.06
LARIJA	738.*	.06	.06	.06
LARIJA	730	.06	.06	.06
LARIJA	720.*	.06	.06	.06
LARIJA	710	.06	.06	.06
LARIJA	705.*	.06	.06	.06
LARIJA	700	.06	.06	.06
LARIJA	693.333*	.06	.06	.06
LARIJA	686.666*	.06	.06	.06
LARIJA	680	.06	.06	.06
LARIJA	673.333*	.06	.06	.06
LARIJA	666.666*	.06	.06	.06
LARIJA	660	.06	.06	.06
LARIJA	654.5*	.06	.06	.06
LARIJA	649	.06	.06	.06
LARIJA	639.5*	.06	.06	.06
LARIJA	630	.06	.06	.06
LARIJA	620.5*	.06	.06	.06
LARIJA	611	.06	.06	.06
LARIJA	601.*	.06	.06	.06
LARIJA	591.*	.06	.06	.06
LARIJA	581	.06	.06	.06
LARIJA	574.*	.06	.06	.06
LARIJA	567	.06	.06	.06
LARIJA	558.5*	.06	.06	.06
LARIJA	550	.06	.06	.06
LARIJA	541.5*	.06	.06	.06
LARIJA	533	.06	.06	.06
LARIJA	525.*	.06	.06	.06
LARIJA	517	.06	.06	.06
LARIJA	508.*	.06	.06	.06
LARIJA	499	.06	.06	.06
LARIJA	490.75*	.06	.06	.06
LARIJA	482.5*	.06	.06	.06
LARIJA	474.25*	.06	.06	.06
LARIJA	466	.06	.06	.06
LARIJA	456.333*	.06	.06	.06
LARIJA	446.666*	.06	.06	.06
LARIJA	437	.06	.06	.06
LARIJA	429.*	.06	.06	.06
LARIJA	421.*	.06	.06	.06
LARIJA	413	.06	.06	.06
LARIJA	404.*	.06	.06	.06
LARIJA	395.*	.06	.06	.06
LARIJA	386.*	.06	.06	.06
LARIJA	377	.06	.06	.06
LARIJA	367.8*	.06	.06	.06
LARIJA	358.6*	.06	.06	.06
LARIJA	349.4*	.06	.06	.06
LARIJA	340.2*	.06	.06	.06
LARIJA	331	.06	.06	.06
LARIJA	322.428*	.06	.06	.06
LARIJA	313.857*	.06	.06	.06
LARIJA	305.285*	.06	.06	.06
LARIJA	296.714*	.06	.06	.06
LARIJA	288.142*	.06	.06	.06
LARIJA	279.571*	.06	.06	.06
LARIJA	271	.06	.06	.06
LARIJA	263.5*	.06	.06	.06
LARIJA	256.*	.06	.06	.06
LARIJA	248.5*	.06	.06	.06
LARIJA	241	.06	.06	.06
LARIJA	232.285*	.06	.06	.06
LARIJA	223.571*	.06	.06	.06
LARIJA	214.857*	.06	.06	.06
LARIJA	206.142*	.06	.06	.06
LARIJA	197.428*	.06	.06	.06
LARIJA	188.714*	.06	.06	.06
LARIJA	180	.06	.06	.06
LARIJA	171.6*	.06	.06	.06
LARIJA	163.2*	.06	.06	.06
LARIJA	154.8*	.06	.06	.06
LARIJA	146.4*	.06	.06	.06
LARIJA	138	.06	.06	.06
LARIJA	129.75*	.06	.06	.06
LARIJA	121.5*	.06	.06	.06
LARIJA	113.25*	.06	.06	.06
LARIJA	105	.06	.06	.06
LARIJA	95.25*	.06	.06	.06
LARIJA	85.5*	.06	.06	.06
LARIJA	75.75*	.06	.06	.06
LARIJA	66	.06	.06	.06
LARIJA	57.*	.06	.06	.06
LARIJA	48.*	.06	.06	.06
LARIJA	39.*	.06	.06	.06
LARIJA	30	.06	.06	.06
LARIJA	21.5*	.06	.06	.06
LARIJA	13	.06	.06	.06
LARIJA	8	.06	.06	.06
LARIJA	0	.06	.06	.06

SUMMARY OF REACH LENGTHS

River: ARROYO

Reach	River Sta.	Left	Channel	Right
LARIJA	1040	8.15	9.96	11.14
LARIJA	1030	8.35	9.93	11.88
LARIJA	1021	6.697	6.743	6.78
LARIJA	1014.*	6.697	6.743	6.78
LARIJA	1007.*	6.697	6.743	6.78
LARIJA	1000	10.01	9.9	9.81
LARIJA	990	10.11	9.98	9.815
LARIJA	980.*	10.11	9.98	9.815
LARIJA	970	6.84	6.75	6.683
LARIJA	963.333*	6.84	6.75	6.683
LARIJA	956.666*	6.84	6.75	6.683
LARIJA	950	10.87	9.92	9.51
LARIJA	940.*	10.87	9.92	9.51
LARIJA	930	11.67	9.9	8.76
LARIJA	920	6.443	6.67	6.933
LARIJA	913.333*	6.443	6.67	6.933
LARIJA	906.666*	6.443	6.67	6.933
LARIJA	900	6.1	6.93	8.66
LARIJA	894	5.905	7.03	8.415
LARIJA	886.5*	5.905	7.03	8.415
LARIJA	879	5.375	5.1	4.4
LARIJA	874.*	5.375	5.1	4.4
LARIJA	869	10.16	9.22	7.69
LARIJA	860	9.86	9.95	10.01
LARIJA	850	8.155	8.38	8.58
LARIJA	841.5*	8.155	8.38	8.58
LARIJA	833	6.645	6.71	6.815
LARIJA	826.5*	6.645	6.71	6.815
LARIJA	820	7.025	6.645	6.075
LARIJA	813.5*	7.025	6.645	6.075
LARIJA	807	8.035	8.14	8.385
LARIJA	798.5*	8.035	8.14	8.385
LARIJA	790	9.05	9.88	10.75
LARIJA	780	8.21	6.705	5.305
LARIJA	773.5*	8.21	6.705	5.305
LARIJA	767	5.335	6.5	7.27
LARIJA	760.5*	5.335	6.5	7.27
LARIJA	754	7.817	7.897	8.063
LARIJA	746.*	7.817	7.897	8.063
LARIJA	738.*	7.817	7.897	8.063
LARIJA	730	10.19	9.985	9.645
LARIJA	720.*	10.19	9.985	9.645
LARIJA	710	5.34	5.025	4.765
LARIJA	705.*	5.34	5.025	4.765
LARIJA	700	6.33	6.673	7.103
LARIJA	693.333*	6.33	6.673	7.103
LARIJA	686.666*	6.33	6.673	7.103
LARIJA	680	6.687	6.68	6.98
LARIJA	673.333*	6.687	6.68	6.98
LARIJA	666.666*	6.687	6.68	6.98
LARIJA	660	6.535	5.74	3.805
LARIJA	654.5*	6.535	5.74	3.805
LARIJA	649	9.37	9.3	9.165
LARIJA	639.5*	9.37	9.3	9.165
LARIJA	630	9.87	9.86	9.92
LARIJA	620.5*	9.87	9.86	9.92
LARIJA	611	9.813	9.943	10.887
LARIJA	601.*	9.813	9.943	10.887
LARIJA	591.*	9.813	9.943	10.887
LARIJA	581	6.68	6.79	7.73
LARIJA	574.*	6.68	6.79	7.73
LARIJA	567	8.45	8.435	8.7
LARIJA	558.5*	8.45	8.435	8.7
LARIJA	550	8.895	8.435	5.8
LARIJA	541.5*	8.895	8.435	5.8
LARIJA	533	10.12	8.39	3.105
LARIJA	525.*	10.12	8.39	3.105
LARIJA	517	9.695	8.665	8.4
LARIJA	508.*	9.695	8.665	8.4
LARIJA	499	6.383	8.215	8.833
LARIJA	490.75*	6.383	8.215	8.833
LARIJA	482.5*	6.383	8.215	8.833
LARIJA	474.25*	6.382	8.215	8.833
LARIJA	466	8.42	9.797	11.543
LARIJA	456.333*	8.42	9.797	11.543
LARIJA	446.666*	8.42	9.797	11.543
LARIJA	437	7.643	8	7.253
LARIJA	429.*	7.643	8	7.253
LARIJA	421.*	7.643	8	7.253
LARIJA	413	8.485	9.017	8.153
LARIJA	404.*	8.485	9.017	8.153
LARIJA	395.*	8.485	9.017	8.153
LARIJA	386.*	8.485	9.017	8.153
LARIJA	377	7.378	9.116	10.856
LARIJA	367.8*	7.378	9.116	10.856
LARIJA	358.6*	7.378	9.116	10.856
LARIJA	349.4*	7.378	9.116	10.856
LARIJA	340.2*	7.378	9.116	10.856
LARIJA	331	7.943	8.579	7.707
LARIJA	322.428*	7.943	8.579	7.707
LARIJA	313.857*	7.943	8.579	7.707
LARIJA	305.285*	7.943	8.579	7.707
LARIJA	296.714*	7.943	8.579	7.707
LARIJA	288.142*	7.943	8.579	7.707
LARIJA	279.571*	7.943	8.579	7.707
LARIJA	271	7.387	7.59	7.015
LARIJA	263.5*	7.387	7.59	7.015
LARIJA	256.*	7.387	7.59	7.015

Reach	River Sta.	Left	Channel	Right
LARIJA	248.5*	7.388	7.59	7.015
LARIJA	241	4.383	8.753	11.483
LARIJA	232.285*	4.383	8.753	11.483
LARIJA	223.571*	4.383	8.753	11.483
LARIJA	214.857*	4.383	8.753	11.483
LARIJA	206.142*	4.383	8.753	11.483
LARIJA	197.428*	4.383	8.753	11.483
LARIJA	188.714*	4.383	8.753	11.483
LARIJA	180	7.504	8.416	4.736
LARIJA	171.6*	7.504	8.416	4.736
LARIJA	163.2*	7.504	8.416	4.736
LARIJA	154.8*	7.504	8.416	4.736
LARIJA	146.4*	7.504	8.416	4.736
LARIJA	138	11.873	8.23	4.887
LARIJA	129.75*	11.873	8.23	4.887
LARIJA	121.5*	11.873	8.23	4.887
LARIJA	113.25*	11.873	8.23	4.887
LARIJA	105	8.757	9.568	4.863
LARIJA	95.25*	8.757	9.568	4.863
LARIJA	85.5*	8.757	9.568	4.863
LARIJA	75.75*	8.757	9.568	4.863
LARIJA	66	13.875	9.01	9
LARIJA	57.*	13.875	9.01	9
LARIJA	48.*	13.875	9.01	9
LARIJA	39.*	13.875	9.01	9
LARIJA	30	16.295	8.91	13.5
LARIJA	21.5*	16.295	8.91	13.5
LARIJA	13	5	5	5
LARIJA	8	1	8	8
LARIJA	0			

SUMMARY OF CONTRACTION AND EXPANSION COEFFICIENTS
River: ARROYO

Reach	River Sta.	Contr.	Expan.
LARIJA	1040	.1	.3
LARIJA	1030	.1	.3
LARIJA	1021	.1	.3
LARIJA	1014.*	.1	.3
LARIJA	1007.*	.1	.3
LARIJA	1000	.1	.3
LARIJA	990	.1	.3
LARIJA	980.*	.1	.3
LARIJA	970	.1	.3
LARIJA	963.333*	.1	.3
LARIJA	956.666*	.1	.3
LARIJA	950	.1	.3
LARIJA	940.*	.1	.3
LARIJA	930	.1	.3
LARIJA	920	.1	.3
LARIJA	913.333*	.1	.3
LARIJA	906.666*	.1	.3
LARIJA	900	.1	.3
LARIJA	894	.1	.3
LARIJA	886.5*	.1	.3
LARIJA	879	.1	.3
LARIJA	874.*	.1	.3
LARIJA	869	.1	.3
LARIJA	860	.1	.3
LARIJA	850	.1	.3
LARIJA	841.5*	.1	.3
LARIJA	833	.1	.3
LARIJA	826.5*	.1	.3
LARIJA	820	.1	.3
LARIJA	813.5*	.1	.3
LARIJA	807	.1	.3
LARIJA	798.5*	.1	.3
LARIJA	790	.1	.3
LARIJA	780	.1	.3
LARIJA	773.5*	.1	.3
LARIJA	767	.1	.3
LARIJA	760.5*	.1	.3
LARIJA	754	.1	.3
LARIJA	746.*	.1	.3
LARIJA	738.*	.1	.3
LARIJA	730	.1	.3
LARIJA	720.*	.1	.3
LARIJA	710	.1	.3
LARIJA	705.*	.1	.3
LARIJA	700	.1	.3
LARIJA	693.333*	.1	.3
LARIJA	686.666*	.1	.3
LARIJA	680	.1	.3
LARIJA	673.333*	.1	.3
LARIJA	666.666*	.1	.3
LARIJA	660	.1	.3
LARIJA	654.5*	.1	.3
LARIJA	649	.1	.3
LARIJA	639.5*	.1	.3
LARIJA	630	.1	.3
LARIJA	620.5*	.1	.3
LARIJA	611	.1	.3
LARIJA	601.*	.1	.3
LARIJA	591.*	.1	.3
LARIJA	581	.1	.3

Reach	River Sta.	Contr.	Expan.
LARIJA	574.*	.1	.3
LARIJA	567	.1	.3
LARIJA	558.5*	.1	.3
LARIJA	550	.1	.3
LARIJA	541.5*	.1	.3
LARIJA	533	.1	.3
LARIJA	525.*	.1	.3
LARIJA	517	.1	.3
LARIJA	508.*	.1	.3
LARIJA	499	.1	.3
LARIJA	490.75*	.1	.3
LARIJA	482.5*	.1	.3
LARIJA	474.25*	.1	.3
LARIJA	466	.1	.3
LARIJA	456.333*	.1	.3
LARIJA	446.666*	.1	.3
LARIJA	437	.1	.3
LARIJA	429.*	.1	.3
LARIJA	421.*	.1	.3
LARIJA	413	.1	.3
LARIJA	404.*	.1	.3
LARIJA	395.*	.1	.3
LARIJA	386.*	.1	.3
LARIJA	377	.1	.3
LARIJA	367.8*	.1	.3
LARIJA	358.6*	.1	.3
LARIJA	349.4*	.1	.3
LARIJA	340.2*	.1	.3
LARIJA	331	.1	.3
LARIJA	322.428*	.1	.3
LARIJA	313.857*	.1	.3
LARIJA	305.285*	.1	.3
LARIJA	296.714*	.1	.3
LARIJA	288.142*	.1	.3
LARIJA	279.571*	.1	.3
LARIJA	271	.1	.3
LARIJA	263.5*	.1	.3
LARIJA	256.*	.1	.3
LARIJA	248.5*	.1	.3
LARIJA	241	.1	.3
LARIJA	232.285*	.1	.3
LARIJA	223.571*	.1	.3
LARIJA	214.857*	.1	.3
LARIJA	206.142*	.1	.3
LARIJA	197.428*	.1	.3
LARIJA	188.714*	.1	.3
LARIJA	180	.1	.3
LARIJA	171.6*	.1	.3
LARIJA	163.2*	.1	.3
LARIJA	154.8*	.1	.3
LARIJA	146.4*	.1	.3
LARIJA	138	.1	.3
LARIJA	129.75*	.1	.3
LARIJA	121.5*	.1	.3
LARIJA	113.25*	.1	.3
LARIJA	105	.1	.3
LARIJA	95.25*	.1	.3
LARIJA	85.5*	.1	.3
LARIJA	75.75*	.1	.3
LARIJA	66	.1	.3
LARIJA	57.*	.1	.3
LARIJA	48.*	.1	.3
LARIJA	39.*	.1	.3
LARIJA	30	.1	.3
LARIJA	21.5*	.1	.3
LARIJA	13	.1	.3
LARIJA	8	.1	.3
LARIJA	0	.1	.3

APÉNDICE 2.B.- AVENIDA ORDINARIA DE PERIODO DE RETORNO 500 AÑOS

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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


PROJECT DATA
Project Title: ARROYO LARIJA
Project File : Larija04.prj
Run Date and Time: 2/22/2011 7:03:14 PM

Project in SI units


PLAN DATA

Plan Title: SITUACION ACTUAL SIMPLE
Plan File : C:\RAS\LARIJA lourdes\Larija04.p02

           Geometry Title: SITUACION ACTUAL MOTAS 25 SIMPLE
           Geometry File : C:\RAS\LARIJA lourdes\Larija04.g03

           Flow Title    : CAUDAL 500
           Flow File     : C:\RAS\LARIJA lourdes\Larija04.f01

Plan Summary Information:
Number of:  Cross Sections =   51    Multiple Openings  =    0
            Culverts       =    0    Inline Structures  =    0
            Bridges        =    0    Lateral Structures =    0

Computational Information
    Water surface calculation tolerance  =  0.005
    Critical depth calculation tolerance =  0.003
    Maximum number of iterations         =  40
    Maximum difference tolerance         =  0.1
    Flow tolerance factor                =  0.001

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



FLOW DATA

Flow Title: CAUDAL 500
Flow File : C:\RAS\LARIJA lourdes\Larija04.f01

Flow Data (m3/s)

  River           Reach           RS                  PF 1
  ARROYO          LARIJA          1040               14.94


Boundary Conditions

  River           Reach           Profile                      Upstream                 Downstream

  ARROYO          LARIJA          PF 1                       Normal S = 0.17          Normal S = 0.05



GEOMETRY DATA

Geometry Title: SITUACION ACTUAL MOTAS 25 SIMPLE
Geometry File : C:\RAS\LARIJA lourdes\Larija04.g03

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 1040

INPUT
Description:
Station Elevation Data    num=      61
     Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev
       0  777.48       .3  777.44      .55  777.43      .86  777.38     1.04  777.36
    1.37  777.31     1.52   777.3     1.88  777.23     2.31  777.16     2.39  777.15
    2.87  777.06     3.15     777      3.4  776.86     3.64  776.73     4.31  776.36
    4.99     776      5.2  775.92     5.39  775.86     6.53  775.45     7.93     775
    8.98  774.89     9.48  774.84     9.57  774.83    10.87   774.7    13.32     775
   14.85  775.35    14.97   775.4    16.35  775.94    16.46  775.98    16.51     776
   17.13  776.09     17.2   776.1    17.81  776.18    18.32  776.24    18.54  776.27
   19.03  776.33    19.45  776.38    19.82  776.41    20.17  776.45    20.49  776.48
```

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
20.83	776.51	21.11	776.53	21.37	776.55	21.74	776.59	21.97	776.61
22.38	776.65	22.61	776.67	23.06	776.71	23.25	776.73	23.74	776.78
23.88	776.79	24.42	776.84	24.52	776.85	24.61	776.86	25.15	776.91
25.21	776.92	25.79	776.98	25.99	777	26.47	777.07	26.55	777.08
26.9	777.13								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	7.93	.06	13.32	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
7.93	13.32	8.15	9.96	11.14	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 1030

INPUT
Description:
Station Elevation Data num= 62

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	775.5	.25	775.36	.45	775.25	.87	775	1.01	774.85
1.33	774.53	2.04	774	2.28	773.97	3.31	773.89	3.4	773.88
3.89	773.85	3.96	773.84	4.47	773.81	4.56	773.8	4.97	773.78
5.07	773.77	5.47	773.75	5.58	773.74	5.96	773.72	6.09	773.71
6.45	773.69	7.09	773.68	7.39	773.69	7.54	773.67	7.98	773.66
8.14	773.64	8.59	773.62	9.12	773.63	9.28	773.6	9.54	773.61
9.71	773.58	10.15	773.55	10.37	773.51	10.59	773.52	10.77	773.51
11	773.47	11.19	773.46	11.43	773.42	11.72	773.36	11.86	773.35
12.21	773.28	12.63	773.19	12.72	773.17	13.21	773.07	13.55	773
14.68	773.01	14.78	773.06	15.59	773.48	16.14	773.79	16.51	774
16.98	774.49	17.52	775	21.58	775.26	21.89	775.27	22.81	775.29
23.63	775.3	24.3	775.31	24.81	775.32	25.48	775.33	26.5	775.35
27.67	775.36	28.35	775.37						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	11.19	.06	15.59	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
11.19	15.59	8.35	9.93	11.88	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 1021

INPUT
Description:
Station Elevation Data num= 78

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	773.53	.28	773.48	.61	773.43	1.14	773.3	1.52	773.25
1.96	773.19	2.18	773.14	2.71	773.08	3.3	773.01	3.42	773
4.35	772.89	4.41	772.88	4.87	772.83	5.28	772.79	5.4	772.77
5.78	772.73	5.92	772.7	6.1	772.68	6.45	772.64	6.67	772.6
6.98	772.56	7.22	772.51	7.49	772.47	7.77	772.41	8.12	772.33
8.27	772.31	8.69	772.2	8.79	772.18	9.3	772.05	9.48	772
10	771.86	10.14	771.82	10.8	771.63	11.2	771.51	11.56	771.43
11.83	771.35	11.92	771.33	12.3	771.25	12.46	771.2	13.02	771.09
13.52	771	15.28	771.12	15.91	771.53	16.49	772	16.54	772.02
16.62	772.05	17.73	772.48	17.84	772.53	18.63	772.82	18.8	772.89
18.88	772.92	19.11	773	19.52	773.1	19.59	773.11	20.14	773.23
20.31	773.26	20.77	773.35	21.03	773.39	21.41	773.47	21.71	773.53
22.07	773.57	22.32	773.62	22.73	773.67	22.92	773.7	23.08	773.73
23.54	773.78	23.66	773.79	24.17	773.84	24.25	773.86	24.33	773.87
24.85	773.91	25.47	773.96	26.02	774	26.49	774.02	26.94	774.03
27.38	774.05	27.79	774.06	29.88	774.09				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	11.2	.06	15.91	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
11.2	15.91	20.09	20.23	20.34	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 1000

INPUT
Description:
Station Elevation Data num= 87

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	770.52	.33	770.48	.68	770.44	1.08	770.38	1.54	770.33
1.84	770.29	2.35	770.24	2.56	770.21	2.69	770.2	3.22	770.15
3.31	770.14	3.87	770.1	3.93	770.09	4.53	770.04	5.09	770
5.16	769.99	5.71	769.86	5.8	769.84	6.26	769.73	6.45	769.67
6.75	769.57	7.12	769.46	7.61	769.29	7.79	769.24	8.44	769
9.21	768.67	9.59	768.5	10.57	768	10.86	767.83	11.53	767.42
12.04	767.12	12.22	767	12.27	766.97	12.77	766.56	13.74	766.61
14.36	767	14.43	767.04	14.59	767.13	15.66	767.76	15.9	767.88
16.12	768	16.67	768.2	16.81	768.23	17.21	768.36	17.47	768.41
17.78	768.5	18.02	768.56	18.4	768.63	18.6	768.68	19.05	768.75
19.19	768.78	19.3	768.8	19.74	768.87	19.81	768.88	20.29	768.94
20.82	769	21.35	769.05	21.88	769.09	22.34	769.13	22.41	769.14
22.84	769.18	22.93	769.19	23.34	769.22	23.46	769.23	23.85	769.27
24	769.28	24.36	769.31	24.54	769.33	24.88	769.36	25.08	769.38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
25.39	769.41	25.62	769.43	25.91	769.45	26.17	769.47	26.42	769.5
26.65	769.52	26.93	769.55	27.15	769.56	27.45	769.59	27.63	769.61
27.97	769.64	28.13	769.66	28.49	769.69	28.63	769.71	29.02	769.74
29.14	769.75	29.56	769.79						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	12.04	.06	14.59	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
12.04	14.59	10.01	9.9	9.81	.1 .3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 990

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	768.81	.89	768.59	1.35	768.48	2.12	768.3	2.6	768.18
3.39	768	3.52	767.96	4.41	767.69	4.78	767.56	5.27	767.41
5.96	767.17	6.11	767.12	6.46	767	6.94	766.73	7.85	766.22
8.08	766.09	8.24	766	9.89	765.5	10.79	765.19	11.32	765
14.06	765.43	14.47	765.59	14.56	765.63	15.52	766	15.62	766.04
15.69	766.05	16.39	766.25	16.87	766.39	17.53	766.53	17.89	766.62
18.14	766.68	19.2	766.88	19.29	766.9	19.36	766.91	19.89	767
20.43	767.08	21.43	767.22	21.55	767.23	21.68	767.24	22.44	767.34
22.62	767.36	22.83	767.38	23.44	767.46	23.69	767.49	23.97	767.52
24.45	767.58	24.76	767.61	25.11	767.65	25.5	767.7	25.82	767.74
26.24	767.79	26.72	767.86	27.36	767.94	27.92	768.02	28.13	768.06

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	9.89	.06	14.47	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9.89	14.47	20.22	19.96	19.63	.1 .3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 970

INPUT
Description:
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	765.16	.1	765.14	.85	765	.93	764.98	1.71	764.83
1.96	764.79	2.61	764.66	2.9	764.61	3.7	764.45	3.91	764.41
4.79	764.24	5.06	764.18	5.94	764	6.22	763.95	6.29	763.94
7.43	763.74	7.61	763.7	7.85	763.66	8.34	763.57	8.68	763.5
9.15	763.4	9.49	763.34	10.08	763.21	10.25	763.18	10.97	763.02
11.05	763	11.69	762.35	11.84	762.19	12.02	762	14.5	761.96
14.57	762	15.43	762.25	16.1	762.44	17.6	762.84	18.21	763
18.76	763.17	19.35	763.36	20.03	763.55	20.42	763.66	21.67	764
21.83	764.03	22.91	764.2	23.09	764.22	23.33	764.26	24.62	764.45
25.25	764.54	25.78	764.62	26.2	764.68	27.28	764.83	27.47	764.86
28.18	764.95								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	11.69	.06	16.1	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
11.69	16.1	20.52	20.25	20.05	.1 .3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 950

INPUT
Description:
Station Elevation Data num= 63

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	761.1	.14	761.08	.26	761.07	.72	761	1.3	760.92
1.4	760.9	2.35	760.77	2.48	760.75	2.63	760.73	3.61	760.59
3.86	760.55	4.21	760.51	4.53	760.46	4.82	760.42	5.2	760.36
5.42	760.33	5.86	760.26	6.39	760.18	7.11	760.06	7.5	760
7.84	759.88	7.95	759.84	8.58	759.61	8.94	759.48	10.05	759
10.18	758.96	10.26	758.93	10.9	758.71	11.27	758.59	12.56	758.15
12.97	758	15	758.05	15.1	758.11	15.19	758.16	16.07	758.69
16.64	759	16.78	759.06	17.51	759.35	17.75	759.42	18.15	759.58
18.5	759.68	18.72	759.76	19.6	760	19.78	760.04	19.85	760.06
20.81	760.28	21.01	760.33	21.64	760.48	21.91	760.54	22.28	760.63
22.64	760.71	23.06	760.81	23.63	760.94	23.68	760.95	23.88	761
24.26	761.07	24.76	761.17	25.17	761.25	25.8	761.38	26.27	761.47
26.62	761.54	26.89	761.59	28.31	761.87				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	10.9	.06	16.07	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
10.9	16.07	21.74	19.84	19.02	.1 .3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 930

INPUT
Description:
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	756.5	.35	756.45	.59	756.42	.98	756.36	1.18	756.34
1.63	756.28	1.78	756.25	2.29	756.19	2.4	756.17	2.97	756.1
3.67	756.01	3.73	756	4.31	755.93	4.92	755.86	4.99	755.85
5.09	755.84	5.64	755.77	5.79	755.75	6.28	755.68	6.48	755.65
6.76	755.61	7.01	755.58	7.27	755.54	7.57	755.5	7.92	755.46
8.14	755.42	8.56	755.37	9.93	755	11.46	754.92	11.89	754.69
13.1	754	15.31	754.92	15.46	755	17.03	755.47	17.95	755.7
18.4	755.83	19.14	756	19.4	756.05	20.01	756.17	20.14	756.2
20.63	756.29	21.02	756.37	21.28	756.41	21.65	756.48	21.99	756.53
22.28	756.58	22.7	756.65	22.92	756.69	23.41	756.77	23.55	756.79
24.09	756.89	24.16	756.9	24.76	757	25.36	757.17	25.55	757.22
26.05	757.36	26.4	757.46	26.85	757.59	27.31	757.7	27.54	757.77

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	11.46	.06	15.31	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
11.46	15.31	11.67	9.9	8.76	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 920

INPUT
Description:
Station Elevation Data num= 61

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	755.52	1	755.4	2.58	755.23	3.9	755.07	4.49	755
4.56	754.99	5.2	754.93	5.3	754.92	6.1	754.85	6.21	754.84
7.31	754.73	8.18	754.65	8.6	754.6	9.31	754.53	9.87	754.47
10.41	754.42	10.97	754.35	11.36	754.31	11.99	754.24	12.94	754.13
13.09	754.12	13.2	754.11	14.07	754	14.21	753.94	14.58	753.78
15.35	753.45	16.21	753.07	16.29	753.04	16.38	753	18.25	753.47
18.89	753.8	19.27	754	20.23	754.28	20.61	754.37	21.21	754.53
21.57	754.63	22.23	754.76	22.42	754.81	23.27	754.97	23.41	755
24.09	755.11	24.19	755.12	24.84	755.22	25.04	755.26	25.59	755.35
26.03	755.42	26.36	755.48	26.71	755.53	27.16	755.62	27.41	755.66
27.98	755.77	28.14	755.8	28.26	755.81	28.88	755.94	29.16	756
30.41	756.24	30.89	756.33	31.48	756.45	31.9	756.53	32.94	756.72
33.07	756.75								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	14.58	.06	18.89	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
14.58	18.89	19.33	20.01	20.8	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 900

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	753.44	.17	753.43	.5	753.4	.87	753.37	1.12	753.34
1.52	753.31	2.09	753.27	2.29	753.25	2.91	753.19	3.05	753.18
3.73	753.12	3.91	753.11	4.61	753.05	5.21	753	5.36	752.98
6.03	752.88	6.11	752.87	6.21	752.85	6.84	752.76	7.02	752.73
7.55	752.65	7.81	752.61	8.25	752.55	8.54	752.5	8.9	752.44
9.24	752.39	9.66	752.31	10.32	752.2	10.49	752.17	11.29	752.02
11.39	752	12.14	751.36	12.57	751	12.64	750.93	13.1	750.49
13.61	750	16.77	750.1	16.88	750.13	17.6	750.33	18.05	750.45
19.23	750.77	19.43	750.83	20.03	751	20.25	751.11	20.43	751.19
21.04	751.5	22.07	751.96	22.15	752	23.14	752.21	23.3	752.24
24.04	752.39	24.33	752.45	24.71	752.52	25.71	752.72	26.39	752.85
26.56	752.88	27.14	753	27.37	753.08	27.47	753.12	28.2	753.39
28.61	753.53	28.99	753.67	29.7	753.93	29.91	754	30.63	754.09
30.73	754.1	30.99	754.13						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	13.1	.06	18.05	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
13.1	18.05	6.1	6.93	8.66	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 894

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	752.75	.23	752.7	.6	752.65	.97	752.57	1.54	752.49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
1.85	752.43	2.26	752.38	2.46	752.34	2.96	752.27	3.1	752.24
3.69	752.15	3.77	752.14	4.45	752.04	4.71	752	5.32	751.89
5.43	751.87	6.2	751.72	6.94	751.52	7.48	751.4	7.8	751.33
8.81	751	9.45	750.65	10.57	750	11.56	749.39	12.03	749.1
12.2	749	15.54	749.15	15.66	749.19	15.87	749.25	16.51	749.45
16.99	749.61	17.33	749.71	18.18	750	18.77	750.3	20.08	751
20.58	751.1	20.67	751.12	20.78	751.14	20.98	751.18	22.62	751.51
23.15	751.61	23.96	751.77	25.09	752	25.25	752.03	26.35	752.25
26.74	752.33	27.5	752.48	28.28	752.63	29.82	752.93	29.91	752.95
30.14	753	30.56	753.17						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	11.56	.06	16.51	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
11.56	16.51	11.81	14.06	16.83	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 879

INPUT
Description:
Station Elevation Data num= 74

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	751.37	.23	751.31	1.41	751.02	1.51	751	2.06	750.92
2.66	750.83	3.13	750.77	3.25	750.75	3.67	750.7	4.06	750.65
4.25	750.63	4.6	750.59	4.83	750.56	5.14	750.53	5.42	750.5
5.68	750.48	5.93	750.45	6.2	750.43	6.43	750.4	6.73	750.38
7.05	750.35	7.25	750.33	7.6	750.3	7.76	750.28	8.13	750.25
8.25	750.24	8.64	750.2	9.07	750.16	9.14	750.15	9.61	750.1
10.05	750.05	10.52	750	11.25	749.73	11.73	749.49	12.1	749.32
12.7	749	13.16	748.64	14.06	748	17.47	748.43	18.4	748.65
19.83	749	20.66	749.3	21.77	749.67	22.34	749.87	22.77	750
23.38	750.1	24.04	750.21	24.56	750.29	24.99	750.35	25.21	750.39
25.57	750.44	25.88	750.48	26.16	750.52	26.48	750.56	26.8	750.62
27.04	750.65	27.94	750.83	28.06	750.85	28.63	750.97	28.75	751
29.38	751.18	29.9	751.32	30.1	751.37	30.44	751.46	30.73	751.52
30.99	751.58	31.19	751.63	31.53	751.69	31.72	751.73	32.21	751.83
32.32	751.85	32.4	751.86	32.92	751.96	33.17	752		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	13.16	.06	18.4	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
13.16	18.4	10.75	10.2	8.8	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 869

INPUT
Description:
Station Elevation Data num= 71

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	749.5	.34	749.44	.7	749.37	1.27	749.28	1.5	749.23
1.66	749.21	2.29	749.11	2.36	749.09	2.42	749.08	2.98	749
3.16	748.98	4.02	748.85	4.17	748.82	4.87	748.72	5.16	748.66
5.72	748.57	6.15	748.51	6.56	748.42	6.88	748.37	7.41	748.25
7.6	748.22	8.19	748.08	8.25	748.07	8.55	748	9.06	747.67
9.46	747.41	10.08	747	10.14	746.97	10.34	746.88	10.68	746.72
12.3	746.77	12.6	747	12.94	747.1	13.63	747.29	14.04	747.41
14.75	747.62	15.21	747.75	16.04	748	16.34	748.07	17.19	748.25
17.45	748.3	18.08	748.44	18.52	748.52	18.95	748.6	19.47	748.7
19.74	748.75	20.36	748.86	20.49	748.88	20.56	748.89	21.19	748.99
21.86	749.09	21.93	749.1	22.51	749.18	22.65	749.2	23.17	749.27
23.37	749.31	23.6	749.34	24.07	749.41	24.39	749.47	24.77	749.52
25.17	749.59	25.46	749.63	25.94	749.73	26.13	749.76	26.7	749.87
27.3	750	27.41	750.03	28.19	750.25	28.46	750.32	29	750.47
29.34	750.54								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	9.46	.06	14.04	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9.46	14.04	10.16	9.22	7.69	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 860

INPUT
Description:
Station Elevation Data num= 61

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	748.63	.41	748.58	.94	748.5	1.31	748.46	1.71	748.4
2.14	748.36	2.44	748.31	2.92	748.27	3.14	748.24	3.66	748.19
3.77	748.17	4.34	748.12	4.42	748.11	4.99	748.05	5.48	748
5.63	747.98	6.29	747.88	6.38	747.87	6.5	747.84	7.12	747.74
7.34	747.7	7.85	747.61	8.18	747.53	8.57	747.46	9.33	747.28
9.55	747.24	10.49	747	10.73	746.83	11.66	746.21	11.91	746.04
11.97	746	12.99	745.63	14.01	745.26	14.65	745	16.27	745.32
16.55	745.47	17.52	746	17.68	746.09	18.54	746.5	19.34	746.89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19.58	747	20.97	747.49	21.68	747.71	22.59	748	23.02	748.07
23.08	748.08	23.17	748.1	24.3	748.29	24.54	748.34	24.89	748.4
25.66	748.54	26.14	748.64	26.88	748.79	27.16	748.84	27.88	749
28.04	749.05	28.14	749.08	29.26	749.43	30.56	749.85	31.01	750
31.37	750.08								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	12.99	.06	16.55	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
12.99	16.55	9.86	9.95	10.01	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 850

INPUT
Description:
Station Elevation Data num= 39

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	746.56	.39	746.47	.86	746.37	1.29	746.26	1.89	746.11
2.01	746.09	2.35	746	2.7	745.93	2.82	745.91	3.62	745.75
4.19	745.64	4.83	745.5	5.25	745.41	6.53	745.11	6.64	745.09
6.71	745.08	7.02	745	8.38	744.54	9.35	744.19	9.55	744.12
9.88	744	12.48	744.27	12.67	744.35	13.27	744.6	13.75	744.79
14.25	745	16.12	746	16.48	746.12	17.25	746.36	18.68	746.82
19.26	747	20.72	747.35	21.09	747.43	21.68	747.57	22.8	747.82
23.23	747.92	23.62	748	24.37	748.26	24.9	748.44		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	8.38	.06	13.27	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
8.38	13.27	16.31	16.76	17.16	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 833

INPUT
Description:
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	745.73	2.08	745.12	2.46	745	3.16	744.82	6.41	744
8.34	743.07	8.47	743	8.54	742.97	8.73	742.88	9.8	742.38
10.13	742.22	10.6	742	13.3	742.22	13.41	742.3	14.06	742.76
14.4	743	15.95	743.9	16.12	744	16.22	744.04	16.89	744.32
18.22	744.89	18.49	745	19.9	745.42	20.71	745.63	21.25	745.78
22.11	746	22.32	746.05	22.39	746.07	23.36	746.3	23.82	746.41
24.44	746.56	24.82	746.65	25.56	746.83	25.71	746.86	26.29	747
26.61	747.07	26.67	747.09	27.28	747.22				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	8.73	.06	14.06	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
8.73	14.06	13.29	13.42	13.63	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 820

INPUT
Description:
Station Elevation Data num= 47

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	745.93	1.41	745.23	1.89	745	4.09	744.25	4.84	744
5.02	743.92	7.9	742.56	9.03	742	9.6	741.57	10.05	741.22
10.32	741	13.85	741.42	13.95	741.49	14.86	742	15.11	742.11
15.28	742.17	16.07	742.5	16.89	742.81	17.08	742.89	17.38	743
17.88	743.14	18	743.16	18.59	743.32	18.86	743.37	19.31	743.48
19.61	743.53	19.94	743.61	20.31	743.67	20.52	743.71	20.94	743.77
21.08	743.8	21.19	743.83	21.74	743.89	21.8	743.9	22.39	743.97
22.7	744	23.57	744.12	24.03	744.19	24.18	744.22	24.59	744.29
24.83	744.33	25.19	744.4	25.51	744.45	25.82	744.51	26.26	744.59
26.49	744.63	27.05	744.73						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	9.03	.06	14.86	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9.03	14.86	14.05	13.29	12.15	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 807

INPUT
Description:
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	744.19	.12	744.15	.58	744	.75	743.82	.96	743.63
1.32	743.28	1.66	743	1.93	742.9	2.4	742.73	2.73	742.62
3.11	742.49	3.35	742.4	4.01	742.21	4.13	742.17	4.67	742.02
4.73	742	5.28	741.86	5.92	741.7	6.16	741.63	6.54	741.53
6.97	741.41	7.57	741.25	7.77	741.2	8.51	741	8.63	740.92
9.3	740.46	9.91	740	10.5	739	13.73	739.44	14.74	740
15.13	740.17	15.67	740.42	16.42	740.76	16.93	741	18.26	741.46
19.8	742	20.36	742.23	22.03	742.92	22.16	742.98	26.09	743.63
26.15	743.64								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	9.91	.06	14.74	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9.91	14.74	16.07	16.28	16.77	.1 .3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 790

INPUT
Description:
Station Elevation Data num= 48

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	740.74	.1	740.72	.54	740.64	1.32	740.49	2.14	740.34
2.56	740.26	3.77	740.05	3.83	740.04	4.04	740	5.08	739.61
5.89	739.29	6.22	739.17	6.66	739	7.31	738.71	7.95	738.41
8.83	738	9.3	737.67	10.02	737.2	10.11	737.14	10.34	737
12.68	737.21	12.92	737.32	13.48	737.57	13.69	737.66	14.11	737.85
14.43	738	14.95	738.34	16	739	16.06	739.04	16.31	739.22
17.2	739.87	17.39	740	18.55	740.48	19.33	740.8	19.81	741
20.51	741.19	20.75	741.25	21.49	741.45	22.07	741.61	22.45	741.72
23.5	742	23.63	742.04	24.88	742.38	25.37	742.52	25.92	742.67
26.71	742.88	26.83	742.92	26.91	742.94				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	9.3	.06	13.69	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9.3	13.69	9.05	9.88	10.75	.1 .3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 780

INPUT
Description:
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	741.5	.56	741.41	1.37	741.27	1.66	741.21	2.74	741.04
2.96	741	4.01	740.74	5.09	740.41	5.71	740.24	6.46	740
8.56	739.28	9.35	739	9.74	738.77	10.96	738	11.9	737.56
12.72	737.2	12.97	737.08	13.14	737	15.96	736.6	16.25	736.74
16.77	737	17.44	737.38	17.75	737.55	18.53	738	18.91	738.21
19.7	738.64	20.15	738.88	20.38	739	21.41	739.48	22.19	739.81
22.4	739.9	22.65	740	23.16	740.15	23.73	740.31	24.36	740.49
24.77	740.61	25.03	740.68	26.11	741	26.29	741.04	27.81	741.38
28.2	741.47	28.91	741.62	29.46	741.75	30.3	741.95	30.37	741.97
30.51	742	31.19	742.21	31.44	742.29	31.87	742.42		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	11.9	.06	17.75	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
11.9	17.75	16.42	13.41	10.61	.1 .3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 767

INPUT
Description:
Station Elevation Data num= 33

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	740.03	.06	740	1.2	739.48	2.03	739.06	2.15	739
2.91	738.22	3.12	738	3.68	737.49	4.18	737	8.96	736.45
10.62	736.28	12.11	736.12	12.49	736.07	13.2	736	13.73	735.27
13.92	735	16.04	735.28	16.75	736	16.9	736.08	17.03	736.15
18.47	736.93	18.57	736.99	19.64	737.62	20.26	738	21.37	738.7
21.87	739	22.78	739.25	25.47	740	27.17	740.74	27.75	741
28.32	741.17	29.47	741.52	29.82	741.62				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	13.2	.06	16.75	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
13.2	16.75	10.67	13	14.54	.1 .3

CROSS SECTION

RIVER: ARROYO

REACH: LARIJA RS: 754

INPUT
Description:
Station Elevation Data num= 43

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	738.43	1.22	738	1.3	737.96	1.39	737.92	3.4	737
3.55	736.97	4.23	736.85	4.36	736.83	4.51	736.82	5.13	736.71
5.4	736.68	5.74	736.65	6.11	736.61	6.59	736.55	7.26	736.47
7.92	736.38	8.67	736.3	9.69	736.18	11.17	736	11.9	735.44
12.01	735.36	12.44	735	16.16	735.03	16.37	735.28	16.98	736
17.95	736.68	18.43	737	19.05	737.46	19.79	738	20.78	738.62
21.43	739	24.04	740	25.18	740.32	25.6	740.43	26.19	740.59
26.95	740.78	27.17	740.84	27.81	741	28.05	741.07	28.12	741.09
28.8	741.28	29.09	741.36	29.72	741.54				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	11.17	.06	16.98	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
11.17	16.98	23.45	23.69	24.19	.1 .3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 730

INPUT
Description:
Station Elevation Data num= 27

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	735.96	1.52	735.74	3.01	735.52	5.14	735.21	5.6	735.15
6.6	735	7.74	734.81	11.69	734.13	11.96	734.08	12.05	734.07
12.4	734	13.04	733.5	13.35	733.23	13.46	733.14	13.64	733
18.6	733.2	19.16	733.31	19.97	733.48	20.46	733.58	21.99	733.86
22.24	733.91	22.73	734	23.58	734.54	24.26	735	26.33	736
29.57	736.99	30.93	737.34						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	13.04	.06	19.97	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
13.04	19.97	20.38	19.97	19.29	.1 .3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 710

INPUT
Description:
Station Elevation Data num= 28

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	734.54	1.11	734.45	2.3	734.36	3.02	734.3	4.33	734.2
4.62	734.17	6.2	734.05	6.28	734.04	6.38	734.03	6.82	734
7.39	733.62	8.28	733	9.05	732.4	9.55	732	9.86	731.48
10.09	731.11	10.15	731	13.32	730.92	13.49	731	13.99	731.17
14.86	731.46	16.42	732	18.05	732.27	22.32	733	27.18	734
27.94	734.43	28.92	735	28.97	735.01				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	9.86	.06	14.86	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9.86	14.86	10.68	10.05	9.53	.1 .3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 700

INPUT
Description:
Station Elevation Data num= 37

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	734.16	1.64	734	1.9	733.7	2.24	733.4	2.69	733
3.19	732.79	4.04	732.44	4.55	732.22	4.66	732.18	5.08	732
6.3	731.54	6.54	731.45	6.91	731.3	7.48	731.05	7.6	731
7.89	730.91	8.9	730.57	11.28	730	15.65	730.14	17.39	730.55
19.07	730.92	19.64	730.98	19.9	731	20.24	731.09	20.3	731.11
20.38	731.14	20.95	731.31	21.15	731.39	21.54	731.51	21.84	731.63
22.06	731.7	22.63	731.93	22.8	732	23.71	732.91	23.77	733
26.9	733.5	29.43	733.95						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	8.9	.06	17.39	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
8.9	17.39	18.99	20.02	21.31	.1 .3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 680

```
INPUT
Description:
Station Elevation Data    num=      49
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  729.37     .23  729.34    1.13  729.23    2.39  729.07    4.13  728.83
    4.41  728.78    4.89   728.7     6.3  728.48     7.3   728.3    7.86  728.21
    8.98     728    9.16  727.84      10  727.11   10.13     727   13.62  727.35
    14.2  727.64   14.55  727.81   14.93     728   15.68   728.2   15.84  728.23
   16.56  728.41   16.86  728.45   17.24  728.51   17.74  728.62    18.3   728.7
   19.03  728.81   19.25  728.85   20.09  728.97   20.34     729   20.84  729.09
   20.91   729.1   21.51  729.21   21.67  729.24   22.17  729.34   22.43  729.39
   23.18  729.54   23.49   729.6   24.69  729.84    24.8  729.86   25.44  729.99
   25.51     730   26.02   730.3    26.3  730.46   26.61  730.64   27.22     731
      28  731.13    28.1  731.14   28.75  731.25   28.85  731.26

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06    9.16     .06   14.55     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          9.16   14.55            20.06   20.04   20.94             .1      .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 660

INPUT
Description:
Station Elevation Data    num=      52
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  728.27     .44  728.21    1.82  728.02    1.96     728    2.88  727.85
    3.25  727.78    4.14  727.63    4.72  727.54    5.85   727.3    6.16  727.25
    6.38  727.21    6.54  727.18    7.32     727    7.85  726.71    8.56  726.31
    9.12     726   12.55  726.11   13.18  726.32   13.47  726.38   13.92  726.51
   14.21   726.6   14.37  726.62   14.66  726.66   14.87  726.72   15.39  726.78
   15.52  726.81   16.12  726.88   16.19   726.9   16.98  726.98   17.12     727
   17.61  727.03   18.79  727.09   19.39  727.11   19.89  727.14   20.48  727.17
   21.07  727.19    21.2   727.2   22.11  727.24   22.62  727.26   22.79  727.27
   23.49  727.29   23.67   727.3   24.01  727.31   24.21  727.32   24.85  727.34
   25.19  727.36    25.5  727.37   25.87  727.39    26.3   727.4   27.13  727.44
   27.52  727.45   27.76  727.47

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06    7.85     .06   14.87     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          7.85   14.87            13.07   11.48    7.61             .1      .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 649

INPUT
Description:
Station Elevation Data    num=      31
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  728.92     .84  728.41    1.49     728    2.12  727.71    3.73     727
    4.07  726.94    4.31  726.89    5.91  726.59    6.88  726.41    7.59  726.27
    8.98     726    9.13  725.89    9.74  725.44   10.35     725   14.17   725.1
   15.38     726   16.83  726.03   22.79  726.46      23  726.48   23.45  726.49
   25.16  726.56   25.43  726.58   26.08  726.61   26.28  726.62    26.9  726.65
   27.07  726.66   27.55  726.69   28.89  726.77   29.11  726.78    30.4  726.87
   30.82   726.9

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06    8.98     .06   15.38     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          8.98   15.38            18.74    18.6   18.33             .1      .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 630

INPUT
Description:
Station Elevation Data    num=      62
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  726.72     .17   726.7     .71  726.61    1.39  726.49    1.81  726.42
    2.96  726.21    3.16  726.18    3.31  726.15    4.12     726    4.54  725.94
    5.61  725.81    5.76   725.8    5.93  725.79    6.07  725.78    6.99  725.67
     7.2  725.65    7.44  725.63    7.66  725.61    7.91  725.59       9  725.48
    9.33  725.45   11.29  725.25   12.04  725.16   12.12  725.15   13.26  725.03
   13.31  725.02   13.49     725   14.49  724.34   14.98     724   16.47  724.07
   17.07  724.22   17.53  724.34   17.75  724.36   17.94  724.38   18.34  724.47
   18.64  724.54   18.89  724.56   19.13  724.61   19.33  724.65    19.6  724.67
   19.77   724.7   19.91  724.73   20.41  724.75   20.52  724.77   20.99  724.79
   21.08   724.8   23.37     725   27.53  725.02   27.61  725.03   28.38  725.08
   28.51  725.09   29.27  725.14   29.53  725.16   30.26  725.21   30.67  725.24
   31.37  725.29   31.98  725.34   32.64  725.39    33.5  725.44   34.09  725.49
   35.28  725.57      36  725.62

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06   13.49     .06   23.37     .06
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Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         13.49   23.37             19.74   19.72   19.84             .1      .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 611

INPUT
Description:
Station Elevation Data    num=      88
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  724.12     .11  724.11     .17   724.1     .79  724.03    1.15     724
    1.33  723.99    1.77  723.97    2.21  723.96    2.73  723.94    3.29  723.92
    3.79  723.91    4.35  723.89    4.92  723.88    6.93  723.72    7.12  723.69
    7.67  723.67     7.9  723.64    8.41  723.61    8.87  723.55    9.32  723.53
    9.92  723.45    10.3  723.42   10.64  723.37   11.09  723.31   11.37  723.29
   11.61  723.27   12.52  723.12   12.62  723.11   13.28     723   18.05  723.05
   18.52   723.1      19  723.14   19.39  723.17   19.76   723.2   20.11  723.22
   20.53  723.24   21.13  723.28   21.61   723.3   21.94  723.31   22.41  723.33
   22.72  723.34   23.19  723.35   23.65  723.37   24.11  723.38   24.75   723.4
   25.37  723.41   25.58  723.42   25.81  723.43   26.69  723.45   26.92  723.46
   27.18  723.47   28.17  723.51   28.71  723.52   28.95  723.53   29.23  723.54
   29.46  723.55   30.06  723.56   30.29  723.58   30.87  723.59   31.09   723.6
    31.7  723.62   32.03  723.64   32.24  723.65   32.61  723.66   33.19  723.69
   33.59   723.7   33.76  723.71   34.19  723.73   34.34  723.74   34.78  723.76
   34.99  723.77   35.44  723.79   35.81   723.8   35.99  723.81   36.76  723.85
    37.3  723.88   37.87   723.9   37.96  723.91   38.55  723.94   39.18  723.97
   39.74     724   39.85  724.01   40.45  724.06   41.04   724.1   41.62  724.15
   41.79  724.16    42.3   724.2   42.76  724.23

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06   11.09     .06   21.61     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         11.09   21.61             29.44   29.83   32.66             .1      .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 581

INPUT
Description:
Station Elevation Data    num=      78
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  721.83     .12  721.82     .52  721.81     .61   721.8    1.39  721.78
    1.49  721.77    3.45  721.71    4.51  721.69    4.65  721.68    6.49  721.64
   11.18  721.35   11.61  721.31   11.78   721.3   12.06  721.29      13  721.18
   13.26  721.17   13.77  721.11   13.92   721.1   14.18  721.09   14.26  721.08
   15.82     721   23.19  720.65   23.81  720.66   24.06  720.67   24.59  720.68
   24.94   720.7    25.3  720.71    25.8  720.73   26.19  720.74   26.59  720.76
   27.03  720.78   27.14  720.79   28.08  720.83   28.17  720.84   28.67  720.86
   29.21  720.89   29.83  720.92   30.45  720.96   31.09  720.99   31.26     721
   31.68  721.02   33.39  721.12   33.63  721.13   35.12  721.21   35.39  721.23
    35.7  721.24   37.04  721.32   37.46  721.34   38.59  721.41   39.11  721.43
    39.7  721.46   40.66  721.52   41.35  721.55   42.13   721.6   42.89  721.63
   43.76  721.68   44.35  721.71   45.29  721.75   45.72  721.78   46.73  721.83
   47.25  721.85   47.51  721.87   48.01  721.89   48.55  721.92   49.12  721.95
   49.76  721.98   50.09     722   50.34  722.02   51.48  722.12   52.13  722.17
   52.22  722.18   52.32  722.19   52.77  722.22   52.89  722.23   53.32  722.27
   53.47  722.28   53.87  722.32   54.25  722.35

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06   15.82     .06   31.09     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         15.82   31.09             13.36   13.58   15.46             .1      .3

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 567

INPUT
Description:
Station Elevation Data    num=     100
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  721.15     .22  721.14     .32  721.13    1.08  721.08    2.47     721
     2.7  720.99    2.96  720.98     4.1  720.92    4.17  720.91    5.21  720.86
    6.14  720.81    6.96  720.77    7.71  720.74     8.2  720.71    8.66  720.69
    9.09  720.67    9.54  720.65   11.32  720.59   11.56  720.57   12.15  720.55
    12.7  720.54   12.96  720.53    13.5  720.52   14.01   720.5   14.46  720.49
   19.31  720.18   21.31     720   33.34  720.02   33.87  720.05    34.5  720.08
   35.01  720.11   35.49  720.14   35.97  720.16   36.26  720.18   36.74   720.2
   37.19  720.22   37.61  720.25   38.02  720.26   38.37  720.28   38.86  720.31
   39.21  720.32   39.54  720.34   40.17  720.36   40.46  720.38   41.09  720.41
   41.97  720.44   42.21  720.46   42.48  720.47   42.99  720.49   43.26   720.5
   43.51  720.51   43.79  720.53   44.26  720.55   44.55  720.56   44.78  720.57
   45.08  720.59   45.61  720.61   45.81  720.62   46.15  720.63   46.68  720.66
   46.85  720.67   47.21  720.68   47.36  720.69   47.72   720.7   47.86  720.71
   48.23  720.72   48.34  720.73   48.71  720.74   49.19  720.75   49.29  720.76
   50.05  720.77   50.16  720.78   50.96  720.79   52.44  720.84   52.97  720.87
   53.59   720.9   54.17  720.92    54.8  720.96   55.48  720.99    55.6     721
   55.98  721.02   56.46  721.05   56.57  721.06   57.13  721.09   57.19   721.1
   57.33  721.11    57.9  721.15   58.01  721.16   58.13  721.17   58.28  721.18
   58.45  721.19   59.06  721.24   59.29  721.26   59.57  721.28   59.91  721.31
```

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
60.53	721.36	60.97	721.4	61.53	721.44	62.08	721.49	62.14	721.5

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	19.31	.06	36.26	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
19.31	36.26	16.9	16.87	17.4	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 550

INPUT
Description:
Station Elevation Data num= 108

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	720.41	1	720.14	1.26	720.13	1.75	720.1	2.85	720.04
3.47	720.01	3.64	720	4.01	719.99	4.54	719.97	5.02	719.95
5.94	719.93	6.86	719.88	7.42	719.86	8.05	719.84	8.15	719.83
8.26	719.82	8.84	719.8	8.98	719.79	9.53	719.78	9.69	719.76
10.21	719.75	10.39	719.73	10.88	719.71	11.08	719.7	11.55	719.68
11.77	719.66	12.21	719.65	12.46	719.62	12.87	719.61	13.15	719.58
13.74	719.56	14.01	719.55	14.3	719.52	14.91	719.5	15.22	719.47
15.29	719.46	15.75	719.45	16.07	719.41	16.53	719.4	16.75	719.39
17.17	719.38	17.34	719.37	17.67	719.36	17.84	719.35	18	719.34
21.57	719.01	21.72	719	33.78	719.01	34.32	719.04	34.92	719.07
35.48	719.09	36.5	719.13	36.62	719.14	36.75	719.15	37.53	719.18
38.24	719.21	38.44	719.22	39.11	719.25	39.69	719.28	40.24	719.3
40.49	719.32	41.01	719.34	41.29	719.35	41.78	719.37	42.1	719.39
43.04	719.43	43.39	719.45	43.83	719.47	44.22	719.49	45.04	719.53
45.42	719.55	45.87	719.57	46.21	719.59	46.63	719.61	46.94	719.62
47.38	719.65	47.67	719.66	48.13	719.69	48.38	719.7	48.61	719.71
49.09	719.73	49.29	719.74	49.79	719.77	50.09	719.78	50.69	719.82
51.33	719.85	51.53	719.86	52.19	719.9	53	719.94	53.76	719.98
54.48	720.01	55.22	720.06	55.88	720.1	56.59	720.14	56.7	720.15
57.3	720.18	57.44	720.19	58.59	720.26	58.74	720.27	59.92	720.34
60.11	720.35	60.32	720.37	61.2	720.42	61.45	720.43	61.73	720.45
62.48	720.49	62.78	720.51	63.04	720.53				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	18	.06	40.49	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
18	40.49	17.79	16.87	11.6	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 533

INPUT
Description:
Station Elevation Data num= 102

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	720.34	.23	720.31	.46	720.29	.7	720.26	.95	720.24
1.22	720.21	1.5	720.18	1.81	720.15	2.14	720.11	2.51	720.07
2.91	720.03	3.35	719.98	3.84	719.93	4.39	719.87	5.66	719.72
6.44	719.62	7.35	719.52	8.42	719.39	9.63	719.24	11.11	719.05
11.55	719	12.38	718.92	13.46	718.83	13.68	718.8	14.61	718.72
14.97	718.68	15.74	718.6	16.37	718.55	16.54	718.53	18.39	718.4
18.6	718.39	18.8	718.38	18.99	718.36	19.17	718.35	19.33	718.34
19.47	718.33	19.73	718.31	19.97	718.29	20.34	718.28	20.43	718.27
20.51	718.26	21.53	718.19	27.19	718.28	27.51	718.27	27.79	718.26
32.79	718.23	32.92	718.24	33.06	718.25	33.56	718.26	33.71	718.27
34.24	718.28	34.41	718.29	34.78	718.3	34.96	718.31	35.15	718.32
35.52	718.33	35.73	718.34	36.09	718.35	36.31	718.36	36.66	718.37
37.1	718.4	37.44	718.41	38.38	718.46	39.04	718.5	39.39	718.51
40.17	718.56	40.49	718.57	40.79	718.59	41.68	718.64	41.94	718.66
42.12	718.67	43.29	718.73	43.44	718.74	44.6	718.81	44.77	718.82
44.93	718.83	46.2	718.9	46.29	718.91	47.73	718.99	47.94	719
49.99	719.11	50.68	719.14	50.92	719.15	51.59	719.19	52.22	719.22
52.8	719.24	53.2	719.27	53.69	719.29	54.15	719.31	54.59	719.33
55.11	719.36	55.53	719.38	55.93	719.4	56.57	719.44	57.31	719.48
58.09	719.53	58.43	719.55	59.37	719.61	59.66	719.62	59.94	719.64
60.19	719.65	60.97	719.7						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	18.39	.06	37.44	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
18.39	37.44	20.24	16.78	6.21	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 517

INPUT
Description:
Station Elevation Data num= 63

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	719.17	.73	719.13	2.49	719	6.58	718.81	10.44	718.64
11.46	718.59	12.34	718.55	13.11	718.52	16.73	718.36	17.28	718.33
17.76	718.31	18.18	718.29	18.55	718.28	18.71	718.27	20.02	718.24
20.4	718.23	21.86	718.2	22.07	718.19	22.89	718.17	23.41	718.16

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
23.92	718.14	24.95	718.12	27.01	718.02	27.45	718	28.59	717.99
28.98	717.94	29.81	717.85	30.26	717.8	30.35	717.81	30.7	717.76
30.8	717.77	31.13	717.73	34.54	717.53	35.19	717.49	35.34	717.48
35.59	717.49	43.2	717.68	43.66	717.72	44.31	717.76	44.97	717.81
45.64	717.85	45.73	717.86	46.32	717.91	47.01	717.97	47.41	718
55.54	718.36	55.73	718.37	56.25	718.38	56.96	718.39	58.32	718.43
58.54	718.45	59.82	718.49	60.05	718.51	60.67	718.54	60.92	718.57
61.19	718.6	61.82	718.64	62.52	718.75	63.12	718.81	63.58	718.89
64.13	718.98	64.26	719	67.28	719.14				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	30.26	.06	44.97	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
30.26	44.97	19.39	17.33	16.8	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 499

INPUT
Description:
Station Elevation Data num= 118

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	718.34	1.54	718.35	2.9	718.34	3.21	718.33	3.86	718.32
4.36	718.31	5.05	718.3	5.41	718.29	5.94	718.28	7.11	718.25
7.67	718.24	8.1	718.23	8.24	718.22	8.67	718.21	13.76	718.05
14.43	718.02	14.92	718	15.13	717.97	15.8	717.87	16.11	717.83
16.79	717.73	17.32	717.65	18.19	717.53	18.69	717.46	19.06	717.4
20.62	717.19	20.81	717.17	20.95	717.15	21.06	717.13	22.07	717
22.66	716.93	22.85	716.91	22.92	716.9	24.33	716.74	24.57	716.73
25.53	716.68	25.66	716.67	25.94	716.66	26.1	716.65	26.85	716.6
27.21	716.58	27.45	716.57	27.7	716.55	28.37	716.51	28.65	716.48
28.95	716.46	29.51	716.43	29.83	716.4	30.18	716.38	30.63	716.35
30.99	716.32	31.37	716.29	31.79	716.26	32.51	716.21	32.73	716.2
33.17	716.17	33.34	716.16	34.26	716.12	34.38	716.11	34.92	716.1
35	716.09	35.67	716.1	35.9	716.09	36.29	716.1	38.4	716
46.42	716.09	46.5	716.1	46.67	716.11	47.77	716.2	47.95	716.21
48.16	716.23	49.22	716.31	49.52	716.33	50.41	716.4	50.78	716.42
51.31	716.46	51.73	716.48	52.2	716.52	52.61	716.55	53.4	716.59
53.77	716.62	54.64	716.67	54.87	716.69	55.72	716.73	55.92	716.74
56.1	716.76	56.41	716.77	57.12	716.81	57.28	716.82	57.51	716.83
58.49	716.88	59.51	716.93	60.58	716.99	60.73	717	62.63	717.12
62.84	717.13	63.76	717.19	64.1	717.21	64.97	717.27	66.31	717.35
67.03	717.4	67.74	717.44	68.38	717.48	69.27	717.54	69.82	717.57
70.92	717.64	71.36	717.67	71.74	717.69	73.01	717.77	73.29	717.78
74.78	717.87	74.94	717.88	75.54	717.92	76.21	717.96	76.84	718
76.91	718.01	77.52	718.05	78.14	718.1				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	31.37	.06	49.22	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
31.37	49.22	25.53	32.86	35.33	.1	.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 466

INPUT
Description:
Station Elevation Data num= 147

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	716.71	3.67	716.24	4.64	716.12	5.57	716	7.6	715.85
7.81	715.84	9.12	715.74	9.47	715.72	9.89	715.7	11.05	715.61
11.62	715.58	12.56	715.51	13.27	715.47	14.01	715.41	14.83	715.36
15.8	715.31	16.32	715.27	17.4	715.21	17.75	715.18	18.93	715.12
19.12	715.1	19.97	715.06	20.92	715.01	21.04	715	21.69	714.97
22.42	714.93	23.19	714.9	23.28	714.89	26.29	714.84	27.3	714.82
27.69	714.81	28.19	714.8	29.08	714.79	31.07	714.75	31.37	714.74
31.71	714.73	32.7	714.71	33.05	714.7	33.32	714.69	33.77	714.68
34.46	714.67	34.72	714.66	35.19	714.65	35.44	714.64	35.98	714.62
36.27	714.61	36.54	714.6	37.08	714.59	37.36	714.58	37.62	714.57
38.2	714.56	38.46	714.55	38.75	714.54	39.66	714.52	39.94	714.51
40.87	714.5	41.13	714.49	41.84	714.48	42.1	714.47	42.34	714.46
43.09	714.45	46.22	714.43	48.53	714.42	48.67	714.43	49.35	714.42
49.63	714.43	50.32	714.42	54.32	714.28	54.68	714.26	54.78	714.27
55.43	714.25	57.89	714.29	58.05	714.3	58.23	714.31	58.42	714.32
58.64	714.33	59.03	714.35	61.52	714.45	62.1	714.47	62.9	714.48
63.15	714.49	64.23	714.51	64.47	714.52	65.01	714.53	65.33	714.54
66.43	714.58	66.95	714.59	67.27	714.61	68.27	714.65	68.63	714.67
69.71	714.71	69.86	714.72	70.2	714.73	70.34	714.74	70.69	714.75
71.18	714.77	71.66	714.78	71.77	714.79	72.14	714.8	72.62	714.82
73.01	714.83	73.49	714.84	73.57	714.85	73.97	714.86	74.31	714.87
74.5	714.88	74.58	714.89	75.17	714.92	75.8	714.96	76.55	715
76.63	715.01	77.37	715.05	78.04	715.1	78.15	715.11	78.79	715.15
78.97	715.17	79.58	715.21	79.84	715.24	80.41	715.28	80.93	715.31
81.3	715.36	81.78	715.39	82.26	715.45	82.68	715.48	83.31	715.56
83.66	715.59	84.46	715.69	84.68	715.71	84.88	715.73	85.86	715.86
85.95	715.87	86.88	716	87.41	716.04	89.2	716.2	90.17	716.28
91.72	716.42	92.79	716.51	95.21	716.73	95.78	716.78	96.18	716.81
98.22	717	99.79	717.12	99.99	717.14	100.26	717.16	100.62	717.19
101.14	717.24	103.66	717.44						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	50.32	.06	61.52	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
50.32	61.52	25.26	29.39	34.63	.1 .3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 437

INPUT
Description:
Station Elevation Data num= 189

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	714.48	3	714.41	3.6	714.4	4.64	714.39	6.28	714.37
6.58	714.36	7.88	714.34	8.55	714.32	9.24	714.31	9.55	714.3
9.88	714.29	10.51	714.28	11.54	714.25	11.81	714.24	12.56	714.22
12.96	714.21	13.18	714.2	13.58	714.19	13.99	714.17	14.4	714.16
14.84	714.14	15.45	714.12	16.02	714.1	17.27	714.04	17.92	714.01
18.17	714	18.62	713.98	19.29	713.94	20.02	713.9	20.63	713.87
21.37	713.84	21.86	713.81	22.99	713.76	23.24	713.75	24.12	713.71
24.42	713.7	24.83	713.68	25.23	713.67	25.57	713.65	26.04	713.63
26.69	713.61	26.91	713.6	27.33	713.58	27.96	713.56	28.21	713.55
28.59	713.54	28.86	713.53	29.22	713.51	29.49	713.5	29.78	713.49
30.12	713.48	30.42	713.47	31.05	713.45	31.36	713.43	32.24	713.41
32.53	713.39	32.74	713.38	33.7	713.35	33.9	713.34	35.15	713.3
35.32	713.29	35.64	713.28	36.78	713.24	37.05	713.23	37.29	713.22
38.78	713.17	40.18	713.13	40.3	713.12	41.67	713.08	42.91	713.04
43.13	713.03	44.48	713.01	44.81	713	45.78	712.98	46.16	712.97
46.84	712.95	47.31	712.94	48.31	712.93	48.86	712.92	49.31	712.91
49.87	712.9	50.65	712.88	51.43	712.87	52.23	712.85	52.86	712.84
53.04	712.83	53.66	712.82	54.48	712.8	55.07	712.79	55.89	712.77
56.46	712.76	57.29	712.75	58.09	712.73	59.13	712.72	59.4	712.71
60.17	712.7	63.62	712.56	63.97	712.54	64.18	712.53	64.86	712.51
65.07	712.5	65.69	712.48	66.84	712.46	67.07	712.44	68.08	712.42
68.54	712.41	68.71	712.4	69.14	712.39	69.43	712.38	72.44	712.39
72.59	712.4	73.03	712.41	73.2	712.42	73.58	712.43	73.85	712.44
74.1	712.45	74.59	712.46	75.09	712.48	76.16	712.5	76.41	712.51
77	712.52	77.35	712.54	77.71	712.55	81.19	712.69	81.68	712.7
82.04	712.71	82.17	712.72	82.54	712.73	83.23	712.75	83.72	712.77
84.09	712.78	84.57	712.8	84.96	712.82	85.47	712.84	85.89	712.86
86.91	712.9	87.37	712.93	87.88	712.95	88.4	712.98	89.49	713.03
89.54	713.04	90.12	713.06	91.63	713.14	92.96	713.2	93.2	713.21
94.34	713.26	94.64	713.28	95.68	713.32	95.86	713.33	96.05	713.34
97.28	713.42	97.71	713.45	99.17	713.54	99.73	713.58	101.07	713.67
101.75	713.72	102.54	713.77	102.97	713.8	103.79	713.86	104.73	713.92
104.88	713.93	107.07	714.09	107.27	714.1	109.49	714.27	110.23	714.33
111.72	714.44	112.29	714.49	113.51	714.58	113.98	714.62	114.38	714.65
115.14	714.7	115.45	714.73	116.31	714.79	116.66	714.82	117.59	714.89
118.68	714.97	119.08	715	119.68	715.05	119.73	715.06	120.83	715.15
120.98	715.16	121.93	715.24	122.16	715.26	122.42	715.28	123.28	715.36
123.62	715.38	124.35	715.44	124.77	715.48	125.26	715.52		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	63.62	.06	76.41	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
63.62	76.41	22.93	24	21.76	.1 .3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 413

INPUT
Description:
Station Elevation Data num= 152

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	713.19	.43	713.18	1.29	713.17	1.76	713.16	2.57	713.15
3.04	713.14	3.87	713.13	4.66	713.11	5.12	713.1	5.95	713.08
6.37	713.06	6.81	713.05	7.28	713.03	7.73	713.01	8.11	713
8.21	712.99	8.88	712.96	10.2	712.88	10.94	712.85	11.04	712.84
11.61	712.81	11.81	712.8	12.36	712.77	12.48	712.76	13.14	712.73
13.44	712.71	13.95	712.69	14.13	712.68	14.61	712.65	15.03	712.63
15.49	712.6	15.72	712.59	15.97	712.58	16.49	712.55	16.76	712.54
17.23	712.51	17.52	712.49	17.83	712.48	18.26	712.45	18.64	712.43
20.09	712.36	20.42	712.34	20.72	712.32	22.51	712.23	22.74	712.22
22.93	712.21	25.1	712.1	25.2	712.09	27.06	712	27.64	711.98
29.71	711.9	29.92	711.89	31.84	711.82	33.93	711.76	34.05	711.75
35.86	711.69	38.82	711.66	40.09	711.65	40.39	711.64	40.99	711.63
42.57	711.62	43.56	711.61	45.26	711.6	46.54	711.59	56.15	711.54
61.98	711.49	63.36	711.48	63.88	711.47	65.13	711.46	65.63	711.45
66.65	711.44	67.2	711.43	69.28	711.38	69.72	711.37	70.46	711.36
71.33	711.35	72.71	711.33	73.49	711.32	76.28	711.31	77.08	711.32
77.4	711.33	78.77	711.34	79.86	711.36	82.36	711.39	82.63	711.4
83.2	711.41	83.57	711.42	83.87	711.43	84.23	711.44	85.19	711.47
85.53	711.48	87.39	711.54	87.68	711.55	88.34	711.56	88.61	711.57
89.4	711.59	90.51	711.61	91.05	711.63	92.19	711.65	92.67	711.67
93.6	711.68	98.55	711.76	100.25	711.8	101.13	711.81	101.3	711.82
103.46	711.89	104.83	711.93	105.61	711.96	106.74	712	107.62	712.07
108.9	712.16	109.07	712.18	110.11	712.26	110.38	712.28	111.27	712.35
111.62	712.38	112.37	712.44	113.03	712.5	113.65	712.55	114.95	712.66
115.97	712.75	116.28	712.77	117.5	712.88	117.62	712.89	118.91	713
119.07	713.02	120.6	713.17	120.81	713.19	122.01	713.3	122.37	713.34
122.82	713.38	123.79	713.48	124.4	713.54	125.09	713.61	125.83	713.68
126.65	713.76	127.03	713.8	127.93	713.88	128.05	713.9	129.16	714
130.06	714.06	130.18	714.07	131.17	714.13	132.03	714.18	132.8	714.23
133.98	714.31	134.62	714.35	135.28	714.4	135.91	714.44	136.77	714.5
137.32	714.54	137.84	714.58						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	61.98	.06	87.39	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
61.98	87.39	33.94	36.07	32.61	.1 .3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 377

INPUT
Description:
Station Elevation Data num= 292

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	710.25	10.88	710.24	12.94	710.23	13.75	710.22	16.73	710.2
16.91	710.21	17.3	710.2	19.21	710.19	19.38	710.2	19.91	710.19
21.16	710.18	21.32	710.19	21.86	710.18	23.11	710.17	29.3	710.14
30.07	710.15	30.24	710.14	30.63	710.15	33.53	710.16	34.68	710.17
36.74	710.18	37.92	710.19	42	710.21	42.43	710.2	44.09	710.19
46	710.17	46.53	710.16	46.99	710.15	48.09	710.13	48.71	710.12
49.26	710.11	50.29	710.1	50.84	710.09	51.76	710.07	54.41	710.04
55.48	710.01	55.94	710	56.43	709.98	56.92	709.97	57.41	709.95
57.89	709.94	58.38	709.92	59.25	709.9	59.43	709.89	61.18	709.85
61.42	709.84	62.26	709.83	63.07	709.81	63.38	709.8	64.17	709.79
64.93	709.77	65.29	709.76	66.04	709.75	66.45	709.74	67.18	709.72
67.88	709.71	68.35	709.7	69.03	709.68	69.35	709.67	69.87	709.66
70.18	709.65	70.79	709.64	71.37	709.62	71.95	709.61	72.59	709.59
72.88	709.58	73.57	709.56	74.29	709.55	74.69	709.53	75.29	709.51
75.75	709.5	76.12	709.49	76.36	709.48	76.96	709.46	77.5	709.45
77.84	709.44	78.76	709.41	79.08	709.4	79.38	709.39	80.05	709.37
80.33	709.36	80.67	709.35	80.94	709.34	81.29	709.33	81.9	709.31
82.51	709.3	82.62	709.29	83.24	709.27	84.04	709.26	85.15	709.25
85.89	709.24	87.02	709.23	87.65	709.22	88.56	709.21	89.23	709.2
90.05	709.19	90.71	709.18	91.55	709.17	92.15	709.16	92.94	709.15
93.13	709.14	93.92	709.13	94.33	709.12	95.17	709.11	95.9	709.09
96.51	709.08	97.22	709.06	97.85	709.05	99.19	709.01	99.65	709
99.86	708.99	101.88	708.93	102.35	708.92	102.88	708.9	103.31	708.89
103.79	708.87	104.35	708.85	104.76	708.84	105.35	708.82	105.74	708.81
105.96	708.8	106.41	708.79	106.85	708.77	107.11	708.76	107.54	708.75
107.95	708.73	108.25	708.72	108.66	708.71	109.06	708.69	109.4	708.68
110.54	708.65	110.9	708.63	111.25	708.62	111.67	708.61	112.18	708.59
112.63	708.58	112.88	708.57	113.15	708.56	113.64	708.55	113.92	708.54
114.37	708.52	114.63	708.51	115.07	708.5	115.3	708.49	115.73	708.48
116.17	708.46	116.6	708.45	116.8	708.44	117.21	708.43	125.21	708.56
125.4	708.57	125.7	708.59	126.22	708.61	126.39	708.62	126.74	708.64
127.12	708.66	127.28	708.67	127.69	708.69	127.83	708.7	128.26	708.72
128.4	708.73	128.81	708.75	129.04	708.77	129.26	708.78	129.83	708.81
130.33	708.84	130.95	708.87	131.53	708.9	132.11	708.92	132.16	708.93
132.69	708.95	133.81	708.99	133.96	709	134.25	709.02	134.63	709.04
135.33	709.08	136.23	709.12	136.63	709.14	137.55	709.16	137.93	709.17
138.78	709.19	140.55	709.21	143.44	709.2	147.15	709.18	147.24	709.19
147.62	709.18	147.71	709.19	149.96	709.2	150.72	709.21	151.16	709.22
151.26	709.21	151.6	709.22	152.03	709.23	152.46	709.25	152.58	709.24
152.9	709.26	153.33	709.27	153.71	709.29	154.12	709.33	154.7	709.37
154.93	709.38	155.18	709.39	155.54	709.42	155.8	709.43	156.08	709.45
156.42	709.48	156.73	709.49	157.37	709.53	157.73	709.55	158.11	709.57
158.4	709.59	158.8	709.61	159.25	709.64	159.5	709.66	159.98	709.68
160.5	709.71	160.71	709.73	161.25	709.76	161.85	709.79	162.5	709.83
162.64	709.84	163.21	709.88	163.83	709.92	164.52	709.96	165.09	710
165.36	710.03	166.12	710.11	166.76	710.17	166.91	710.19	167.49	710.25
167.7	710.27	168.23	710.33	168.68	710.38	168.97	710.41	169.39	710.45
169.75	710.48	170.24	710.53	170.59	710.57	171.18	710.63	171.47	710.66
172.17	710.73	172.38	710.76	173.19	710.84	173.32	710.85	174.25	710.95
174.74	711	175.36	711.05	175.42	711.06	176.48	711.14	176.65	711.16
177.6	711.23	178.71	711.33	179.4	711.38	179.82	711.42	180.85	711.5
181.36	711.55	182.12	711.6	182.69	711.66	183.23	711.7	183.85	711.75
184.58	711.82	184.86	711.84	185.62	711.91	186.62	712	187.34	712.05
188.09	712.1	188.87	712.15	189	712.16	189.65	712.2	190.25	712.24
190.44	712.25	191	712.29	191.23	712.3	191.75	712.34	192.22	712.37
192.5	712.39	193	712.42	193.77	712.47	194.18	712.49	194.53	712.51
194.91	712.54	195.29	712.56	195.63	712.58	196.04	712.6	196.34	712.62
196.62	712.64	197.32	712.68	197.56	712.69	198.33	712.73	198.53	712.75
199.37	712.79	199.44	712.8						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	110.54	.06	126.74	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
110.54	126.74	36.89	45.58	54.28	.1 .3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 331

INPUT
Description:
Station Elevation Data num= 341

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	708.24	.47	708.17	.59	708.14	1.28	708.06	1.85	708
15.16	707.98	15.86	707.95	16.61	707.91	17.25	707.88	18.04	707.84
18.87	707.81	19.45	707.78	19.75	707.77	20.31	707.74	20.84	707.72
21.04	707.71	21.43	707.69	21.8	707.68	22.02	707.67	22.38	707.66
22.62	707.65	22.97	707.63	23.3	707.62	23.57	707.61	23.89	707.6
24.17	707.59	24.49	707.58	24.78	707.57	25.09	707.56	25.38	707.55
25.69	707.54	25.98	707.53	26.31	707.52	26.81	707.5	27.16	707.49
27.4	707.48	27.76	707.47	27.99	707.46	28.49	707.45	28.71	707.44

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
28.99	707.43	29.49	707.42	29.69	707.41	30.19	707.4	30.38	707.39
32.88	707.34	33.54	707.33	34.04	707.32	34.7	707.31	35.46	707.3
36.55	707.29	37.25	707.28	40.42	707.25	45.37	707.24	45.98	707.25
46.12	707.24	51.65	707.23	56.19	707.21	61.14	707.2	64.51	707.18
65.42	707.17	67.25	707.16	69.27	707.17	69.46	707.16	69.86	707.17
70.86	707.18	72.24	707.19	73.24	707.2	76.57	707.22	77.24	707.22
82.24	707.25	83.21	707.26	85.4	707.27	86.96	707.28	88.05	707.29
88.72	707.3	89.97	707.31	90.79	707.32	93.1	707.34	95.26	707.35
96.27	707.34	98.46	707.33	98.62	707.34	99.2	707.33	107.98	707.32
111.39	707.3	113.53	707.28	117.55	707.27	117.73	707.28	118.07	707.27
118.25	707.28	118.59	707.27	121.32	707.26	128.27	707.27	129.76	707.28
129.89	707.27	130.25	707.28	131.24	707.29	131.36	707.28	131.74	707.29
132.75	707.3	132.88	707.29	133.25	707.3	136.38	707.32	136.52	707.31
136.83	707.32	136.98	707.31	137.28	707.32	137.74	707.31	138.04	707.32
138.19	707.31	138.5	707.32	139.38	707.31	139.67	707.32	140.53	707.31
142.95	707.3	145.36	707.28	146.26	707.27	146.97	707.26	147.59	707.25
149.08	707.23	149.88	707.21	150.5	707.2	150.92	707.19	151.53	707.18
151.96	707.17	152.13	707.16	153.01	707.14	153.61	707.13	154.14	707.12
154.6	707.11	156.2	707.08	157.04	707.07	157.96	707.05	159.22	707.04
160.54	707.02	161.82	707.01	164.36	706.97	166.41	706.93	166.96	706.91
167.77	706.89	168.78	706.87	169.69	706.84	170.59	706.82	171.5	706.79
172.39	706.77	172.78	706.76	173.49	706.74	174.39	706.72	174.63	706.71
175.29	706.7	175.55	706.69	176.18	706.67	176.79	706.66	177.12	706.65
177.42	706.64	178.05	706.63	178.36	706.62	178.98	706.61	179.28	706.6
179.9	706.59	180.18	706.58	180.86	706.57	187.48	706.55	189.53	706.54
189.74	706.55	190.04	706.54	194.53	706.55	195.05	706.54	196.63	706.55
197.14	706.54	197.36	706.55	197.87	706.54	198.08	706.55	199.72	706.57
207.86	706.71	208.23	706.72	209.9	706.78	210.38	706.8	210.53	706.81
211.78	706.85	214.28	706.87	214.53	706.88	214.86	706.9	215.22	706.92
216.01	706.96	216.43	706.97	216.88	706.99	217.07	707	223.57	707.08
225.09	707.09	227.71	707.1	229.25	707.11	232.36	707.14	233.71	707.15
235.02	707.17	236.4	707.18	237.03	707.19	238.31	707.2	238.95	707.21
239.85	707.22	245.22	707.27	254.54	707.24	254.95	707.25	255.52	707.26
255.75	707.27	256.56	707.28	256.79	707.29	257.34	707.3	257.79	707.31
258.4	707.32	258.72	707.34	259.2	707.35	259.38	707.36	259.57	707.37
260.06	707.38	260.27	707.39	260.5	707.4	260.74	707.41	261.04	707.42
261.3	707.43	261.57	707.45	262.15	707.47	262.46	707.49	263.09	707.51
263.38	707.52	263.74	707.54	264.41	707.57	264.82	707.59	265.08	707.6
265.52	707.62	265.76	707.63	266.23	707.66	266.95	707.69	267.68	707.73
268.26	707.76	268.42	707.77	269.04	707.8	269.17	707.81	269.75	707.84
269.86	707.85	270.47	707.88	271.14	707.92	271.35	707.93	272.01	707.97
272.54	708	272.68	708.01	273.56	708.05	274.48	708.1	275.26	708.14
275.43	708.15	276.25	708.19	276.98	708.23	277.26	708.24	277.96	708.28
278.59	708.31	278.95	708.33	279.55	708.36	279.92	708.38	280.47	708.4
280.98	708.43	281.41	708.45	281.88	708.48	282.35	708.5	282.73	708.52
283.09	708.54	283.6	708.56	283.93	708.58	284.23	708.59	284.78	708.62
285.06	708.63	285.65	708.66	285.9	708.68	286.15	708.69	286.77	708.72
286.99	708.73	287.84	708.77	288.7	708.82	289.57	708.86	289.73	708.87
290.39	708.9	290.5	708.91	291.17	708.94	291.91	708.98	292.32	709
292.59	709.01	293.23	709.04	293.87	709.06	294.52	709.09	294.7	709.1
295.31	709.12	295.46	709.13	296.06	709.15	296.25	709.16	296.84	709.18
298.26	709.24	298.97	709.26	299.17	709.27	299.68	709.29	299.9	709.3
300.64	709.33	301.11	709.35	301.56	709.36	301.83	709.37	302.26	709.39
302.67	709.41	302.95	709.42	303.34	709.43	303.64	709.44	304.01	709.46
304.36	709.47	305.35	709.5	305.66	709.52	305.97	709.53	306.32	709.54
306.61	709.55	306.88	709.56	307.48	709.58	307.99	709.6	308.62	709.62
308.85	709.63	309.07	709.64	309.74	709.66	309.95	709.67	310.65	709.69
310.84	709.7	311.13	709.71	312.12	709.75	312.9	709.77	313.12	709.78
313.93	709.81	314.11	709.82	316.11	709.89	317.12	709.93	318.87	709.99
319.25	710	319.42	710.01	319.99	710.04	320.64	710.07	321.22	710.1
321.56	710.12								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	174.39	.06	208.23	.06

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
174.39 208.23 55.6 60.05 53.95 .1 .3
Left Levee Station= 143.39 Elevation= 707.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 271

INPUT
Description:
Station Elevation Data num= 223

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	704.16	.21	704.15	.94	704.14	1.77	704.12	3.32	704.06
3.84	704.03	4.39	704.01	4.55	704	4.92	703.99	6.38	703.93
6.93	703.9	8.02	703.86	8.65	703.83	9.29	703.81	9.84	703.78
10.39	703.76	10.81	703.74	11.91	703.7	12.4	703.69	12.72	703.68
12.9	703.67	13.51	703.65	14	703.64	14.86	703.61	15.35	703.6
15.62	703.59	16.37	703.58	17.29	703.56	18.7	703.54	29.26	703.5
40.64	703.42	40.83	703.41	46.21	703.36	46.7	703.35	47.57	703.34
59.23	703.26	60.48	703.24	61.6	703.23	70.85	703.11	75.01	703.08
83.17	703.1	92.85	703.18	93.82	703.2	101.18	703.28	107.8	703.3
107.94	703.29	108.21	703.3	111.92	703.31	112.06	703.3	112.55	703.31
117.49	703.33	117.72	703.32	118.12	703.33	121.7	703.35	123.18	703.37
123.67	703.38	124.44	703.39	124.93	703.4	126.7	703.42	129.18	703.41
129.37	703.42	129.64	703.41	129.83	703.42	130.11	703.41	130.3	703.42
130.57	703.41	130.77	703.42	131.06	703.41	131.5	703.42	135.95	703.41
136.39	703.42	136.66	703.41	141.27	703.4	141.7	703.41	150.57	703.4
157.34	703.34	160.73	703.29	160.92	703.28	162.68	703.25	163.64	703.24
164.72	703.22	165.58	703.21	166.11	703.2	168.03	703.18	172.32	703.19
173.4	703.2	175.04	703.23	175.88	703.24	176.14	703.25	177.73	703.29
178.05	703.3	178.93	703.32	182.44	703.33	188.79	703.49	189.48	703.48
189.68	703.49	189.93	703.48	190.13	703.49	190.63	703.48	190.83	703.49
191.08	703.48	191.28	703.49	191.53	703.48	191.74	703.49	191.99	703.48
192.19	703.49	192.45	703.48	192.65	703.49	192.82	703.48	193.03	703.49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
200.48	703.53	201.28	703.54	208.35	703.29	208.57	703.3	208.88	703.27
209.41	703.24	210.11	703.21	210.37	703.22	210.72	703.19	212.48	703.25
212.6	703.26	212.71	703.28	212.84	703.29	213.2	703.31	213.33	703.33
213.49	703.34	213.87	703.37	214.05	703.39	214.26	703.41	214.51	703.44
214.87	703.48	215.16	703.5	215.48	703.53	215.83	703.56	216.12	703.6
216.51	703.63	216.95	703.66	217.17	703.69	217.64	703.72	217.81	703.75
217.96	703.77	218.44	703.79	218.57	703.81	218.68	703.82	219.16	703.84
219.75	703.87	220.63	703.91	221.04	703.92	221.55	703.94	221.84	703.95
222.12	703.97	226.44	703.95	226.95	703.94	228.96	703.92	229.54	703.91
237.12	703.86	242.68	703.87	244.86	703.89	245.19	703.9	262.84	704.01
265.59	704.04	266.04	704.05	268.65	704.08	274.26	704.21	275.4	704.23
275.53	704.24	276.54	704.26	276.81	704.27	277.66	704.29	278.79	704.31
279.11	704.32	279.9	704.33	280.07	704.34	281	704.36	281.91	704.37
282.09	704.38	282.98	704.4	284.04	704.41	284.24	704.42	285.83	704.45
286.53	704.46	286.94	704.47	287.53	704.48	287.96	704.49	291.67	704.55
292.61	704.57	293.55	704.58	293.75	704.59	294.46	704.6	296.37	704.64
297.01	704.65	297.75	704.67	299.54	704.7	300.31	704.72	301.37	704.74
302.34	704.77	305.67	704.86	305.86	704.87	310.14	704.99	314.58	705.23
316.25	705.31	317.98	705.38	318.41	705.4	319.64	705.45	320.49	705.49
320.9	705.5	327.71	705.56	328.24	705.57	328.74	705.59	330.43	705.63
330.96	705.65	331.31	705.66	331.86	705.68	332.18	705.69	332.74	705.7
333.04	705.71	333.61	705.72	333.74	705.73	334.45	705.74	334.57	705.75
335.39	705.76	335.61	705.77	338.06	705.8				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	201.28	.06	215.83	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
201.28	215.83	29.55	30.36	28.06	.1 .3

Left Levee Station= 201.37 Elevation= 703.79
Right Levee Station= 222.33 Elevation= 704.08

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 241

INPUT
Description:
Station Elevation Data num= 218

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	702.73	.43	702.71	.72	702.7	1.18	702.69	1.33	702.68
1.78	702.66	3.54	702.6	4.11	702.59	4.34	702.58	4.54	702.57
6.45	702.53	7.19	702.52	7.65	702.51	9.17	702.49	9.39	702.48
10.17	702.47	10.55	702.46	11.14	702.45	11.51	702.44	12.13	702.43
12.48	702.42	13.12	702.41	13.46	702.4	14.13	702.39	14.46	702.38
15.15	702.37	15.46	702.35	16.1	702.34	16.39	702.33	17.06	702.32
17.4	702.31	17.68	702.3	18.29	702.29	18.54	702.28	18.85	702.27
19.5	702.26	19.72	702.25	20.42	702.23	20.65	702.22	22.32	702.17
23.26	702.15	23.34	702.14	24.2	702.12	25.08	702.09	26.06	702.07
27.9	702.01	29.29	701.98	33.05	701.88	33.54	701.87	33.6	701.86
36.98	701.79	39.08	701.77	43.44	701.78	47.03	701.82	48.13	701.84
49.15	701.85	49.8	701.86	49.92	701.87	54.07	701.94	54.5	701.95
58.52	701.99	66.02	701.97	69.61	701.93	70.51	701.91	71.35	701.9
71.81	701.89	74.96	701.84	75.47	701.83	78.79	701.78	79.71	701.77
79.92	701.76	85.8	701.7	86.15	701.69	87.18	701.68	87.83	701.67
88.21	701.66	89.55	701.64	89.97	701.63	91.33	701.61	91.63	701.6
93.73	701.57	94.28	701.56	95.32	701.55	95.85	701.54	99.31	701.51
100.07	701.5	102.1	701.49	102.83	701.48	127.96	701.34	128.29	701.35
128.77	701.34	130.38	701.33	130.59	701.34	130.84	701.33	131.05	701.34
158.77	701.48	159.6	701.47	159.82	701.48	166.95	701.46	171.57	701.42
172.06	701.41	172.85	701.4	173.35	701.39	174.1	701.38	175.52	701.35
176.19	701.34	176.67	701.33	180.66	701.27	184.04	701.25	184.52	701.26
192.53	701.3	198.02	701.28	198.41	701.29	198.97	701.3	199.36	701.31
199.53	701.32	200.28	701.34	200.82	701.35	201.01	701.36	201.62	701.37
202.08	701.38	202.33	701.39	203.7	701.41	206.14	701.46	206.88	701.47
207.84	701.49	209.31	701.51	209.56	701.52	211.76	701.55	212.29	701.56
214.38	701.59	214.92	701.6	221.67	701.68	222.17	701.69	222.51	701.7
223.02	701.71	224.02	701.72	225.07	701.74	227.14	701.76	230.63	701.72
231	701.71	231.69	701.7	231.99	701.69	236.98	701.86	237.62	701.92
238.01	701.95	238.44	701.98	238.85	702	242.68	702.07	243.61	702.08
249.29	702.11	251.13	702.13	251.59	702.14	252.43	702.15	252.88	702.16
254.39	702.18	255.78	702.21	256.5	702.23	258.22	702.27	260.14	702.33
260.34	702.34	261	702.37	261.41	702.38	261.65	702.39	262.05	702.41
262.29	702.42	262.68	702.43	262.94	702.45	263.22	702.46	263.59	702.48
264.86	702.52	265.15	702.54	265.92	702.57	266.28	702.58	266.61	702.6
267.54	702.63	268.8	702.68	269.23	702.69	269.48	702.7	285.46	703.01
295.32	703.07	298.27	703.11	299.69	703.12	299.83	703.13	302.67	703.16
302.86	703.17	304.17	703.18	304.38	703.19	315.47	703.29	334.37	703.39
345.27	703.42	345.68	703.41	345.88	703.42	347.49	703.43	347.9	703.42
348.1	703.43	349.11	703.44	349.51	703.43	349.72	703.44	350.52	703.45
350.92	703.44	351.12	703.45	351.93	703.46	352.29	703.45	352.5	703.46
352.85	703.45	353.06	703.46	356.12	703.47	356.46	703.46	356.68	703.47
357.03	703.46	357.25	703.47	358.99	703.48	359.24	703.47	359.45	703.48
368.55	703.53	369.05	703.52	369.43	703.53				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	227.14	.06	236.98	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
227.14	236.98	30.68	61.27	80.38	.1 .3

Left Levee Station= 226.72 Elevation= 702.01

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 180

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INPUT
Description:
Station Elevation Data    num=     316
      Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev
        0  700.86      .13  700.85     3.66  700.81     4.98   700.8    10.79  700.74
    11.42  700.73    12.38  700.72    12.85  700.71    13.61   700.7    14.23  700.69
    14.71  700.68    15.41  700.67    15.74  700.66    16.46  700.65    16.77  700.64
    17.51  700.63    17.82  700.62     18.4  700.61    18.85   700.6    19.41  700.59
     19.9  700.58    20.17  700.57    21.36  700.55    22.15  700.54    22.68  700.53
    23.06  700.52    23.62  700.51    23.99   700.5    24.93  700.48    25.89  700.45
    26.46  700.44    26.71  700.43    27.27  700.42    27.56   700.4    28.46  700.37
    28.78  700.35    29.51  700.33    29.81  700.32    30.17  700.31    30.47   700.3
    30.79  700.28    31.46  700.26    31.82  700.25     32.1  700.24    32.47  700.23
    32.85  700.21    33.47  700.19       34  700.18    34.32  700.17    34.83  700.16
    35.19  700.15    35.35  700.14    36.06  700.13    36.43  700.12    36.94  700.11
    39.63  700.08    50.13  700.07    51.77  700.06    52.67  700.05     54.1  700.04
    55.33  700.02    56.54  700.01    58.34  699.98    58.93  699.96    59.54  699.95
    60.54  699.92    61.04   699.9    61.54  699.89     61.6  699.88    62.04  699.87
    62.54  699.85    63.54  699.83    63.95  699.82    64.84   699.8    65.82  699.79
    65.92  699.78    73.39   699.7    73.54  699.69    74.8  699.67    76.32  699.64
     76.6  699.63    78.63  699.59    78.88  699.58    79.39  699.57    79.64  699.56
    80.38  699.55    81.31  699.53    82.23  699.52    82.92  699.51    83.77   699.5
    84.16  699.51     84.4   699.5    85.25  699.49    87.84  699.48    88.24  699.49
    88.72  699.48    90.49  699.47     90.9  699.48    91.62  699.47    91.86  699.48
    93.03  699.47    95.68  699.46    95.93  699.47    96.66  699.46    96.91  699.47
    97.33  699.46    97.83  699.47    98.25  699.46     98.5  699.47    99.17  699.46
    99.42  699.47    99.84  699.46   100.09  699.47   109.45  699.51   109.93   699.5
   110.26  699.51   114.97  699.52   116.95  699.53   122.25  699.57   124.03  699.59
   127.24  699.61   128.54  699.62   136.46  699.66   139.79  699.67   140.07  699.66
   140.21  699.67   151.53  699.62   151.78  699.63    152.2  699.62   153.53  699.61
   153.78  699.62   154.19  699.61    157.3  699.59   157.72   699.6   158.12  699.59
   165.28   699.6   175.24  699.65   186.49  699.54   186.98  699.53   187.24  699.52
   187.48  699.51   188.22   699.5   189.21  699.48   189.94  699.46   190.66  699.45
   191.15  699.44   191.63  699.42   192.28  699.41   193.18  699.39   193.41  699.38
   194.49  699.36    194.7  699.35   195.23  699.34   195.63  699.33   196.52  699.31
   197.11   699.3   198.03  699.29   199.52  699.28   200.66  699.27   200.92  699.28
   201.22  699.27   201.48  699.28   203.76  699.29   206.77  699.31   210.17   699.3
   212.25  699.29   213.52  699.28    215.3  699.26   215.74  699.25   216.43  699.24
   217.36  699.22   217.73  699.21    218.2   699.2    218.6  699.19   219.07  699.18
   219.49  699.17   220.47  699.15   220.54  699.14   220.98  699.13   221.49  699.12
      222   699.1   223.61  699.06   223.67  699.05   224.49  699.03   225.36     699
   226.18  698.97   227.01  698.95   227.84  698.92    229.4  698.86   230.15  698.84
   230.61  698.82   231.06  698.81   231.51  698.79   232.21  698.77   232.67  698.75
   233.01  698.74   233.46  698.73    234.1  698.71   234.54   698.7   235.16  698.69
   235.45  698.68   235.88  698.67   236.46  698.66   237.25  698.65   242.59  698.46
   242.98  698.43   244.55  698.45   245.18  698.46   245.33  698.47   245.57  698.43
   245.97  698.47   246.18  698.43    246.3  698.44   246.52   698.4   246.64  698.41
   246.88  698.35   247.18  698.28   247.27  698.29   247.61   698.2   248.06  698.07
   248.34     698   252.55  698.04   252.6  698.05   253.26   698.1   254.23  698.17
   254.39  698.18   255.25  698.24    258.1  698.35   264.83  698.62   265.21  698.63
   265.49  698.62   265.88  698.63   267.15  698.64   268.79  698.65   276.75  698.67
   278.13  698.66   278.28  698.65   280.14  698.62   280.37  698.61   281.87  698.58
   282.11  698.57   283.15  698.55   283.94  698.54   284.29  698.53   285.44  698.51
   285.76   698.5   289.09  698.44    289.6  698.43   290.39  698.42   291.41   698.4
   292.14  698.39   292.65  698.38   293.42  698.37   294.01  698.36   294.82  698.35
   295.43  698.34   295.86  698.33   296.44  698.32   297.29  698.31    297.6   698.3
   299.67  698.28   299.81  698.27   302.04  698.25   302.29  698.24   304.39  698.22
   304.71  698.21   305.83   698.2    306.1  698.19   308.37  698.17   310.02  698.16
   310.45  698.15      311  698.14    311.9  698.13   312.36  698.12    314.1  698.13
   314.94  698.14   318.51  698.16   323.57  698.15   325.56  698.14   326.56  698.13
   328.74  698.12   329.87  698.11   354.36  698.03   359.13     698    360.7  697.98
   362.27  697.97   363.81  697.95   365.37  697.94   369.32  697.95   370.73  697.96
   372.22  697.98   373.24  697.99   373.56     698   374.25  698.01   375.24  698.02
   376.26  698.04   378.23  698.06    379.2  698.08   381.15   698.1   384.47  698.11
   385.47  698.12   386.13  698.13   389.01  698.16   390.67  698.17   392.46  698.19
   399.38  698.33   403.05  698.35   409.92  698.37   411.23  698.39   412.95   698.4
   413.81  698.41   418.03  698.53   418.27  698.54   421.46  698.56   423.72  698.58
   424.09  698.59

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .06  246.88     .06   258.1     .06

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        246.88   258.1             37.52   42.08   23.68            .1       .3
Right Levee     Station=  276.21      Elevation=  698.67

CROSS SECTION


RIVER: ARROYO
REACH: LARIJA             RS: 138

INPUT
Description:
Station Elevation Data    num=     239
      Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev
        0  698.62      .56   698.6     1.77  698.57     2.05  698.56     2.59  698.55
     3.65  698.52     4.17   698.5     4.67  698.49     5.16  698.47     5.66  698.46
     5.95  698.45     6.16  698.44     6.45  698.43     6.66  698.42     7.16  698.41
     7.47   698.4     7.66  698.39     8.16  698.38     8.47  698.37     8.97  698.36
      9.3  698.35      9.8  698.34     9.97  698.33    10.66  698.32    10.81  698.31
    11.17   698.3    11.78  698.29    12.43  698.27     13.1  698.26    13.32  698.25
    14.01  698.23    14.21  698.22    14.93  698.21    15.11   698.2    16.78  698.16
    16.92  698.15    17.71  698.14    17.83  698.13    19.58  698.09    19.78  698.08
    20.65  698.07    31.21  697.84    31.38  697.83    32.11  697.82     34.5  697.76
    35.27  697.75    35.41  697.74    36.71  697.72    37.07  697.71    39.11  697.67
    43.03  697.61    43.49   697.6    50.57  697.53    50.84  697.54    51.34  697.53
    53.74  697.54    54.16  697.55    54.39  697.54    54.81  697.56    55.29  697.57
    55.54  697.59    55.75  697.58    55.99  697.59    56.25  697.61    56.65  697.63
    57.01  697.64    57.27  697.66    57.42  697.65    57.96  697.69    58.37  697.71
    59.53  697.79    59.88  697.83    60.33  697.86    60.78   697.9     61.2  697.95
    61.68     698    74.43  697.97    79.89  697.69    82.53  697.58    82.92  697.57
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Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
83.21	697.56	83.59	697.54	86.39	697.45	86.92	697.44	87.18	697.43
87.67	697.42	88.72	697.41	88.91	697.4	89.2	697.39	95.76	697.32
113.28	697.37	118.8	697.42	126.7	697.37	139.12	697.22	141.17	697.21
141.37	697.22	141.76	697.21	142.48	697.22	176.34	697.44	186.32	697.41
189.17	697.38	189.66	697.37	190.58	697.36	191.02	697.35	192.54	697.33
196.77	697.25	198.51	697.21	198.62	697.2	199.52	697.18	200.64	697.14
201.2	697.13	201.77	697.11	202.33	697.1	202.9	697.08	206.45	697
209.13	696.92	209.86	696.89	213.09	696.79	215.34	696.74	216.06	696.73
216.51	696.72	217.3	696.71	217.76	696.7	225.24	696.64	231.03	696.42
231.61	696.39	232.17	696.37	232.44	696.34	232.99	696.31	233.26	696.29
233.65	696.27	233.77	696.26	233.98	696.25	234.27	696.22	234.61	696.19
235.12	696.15	236.22	696.08	236.8	696.05	237.17	696.04	238.2	696.05
238.57	696.07	247.46	696.31	247.95	696.3	248.45	696.28	249.11	696.27
250.45	696.23	251.14	696.22	252.55	696.18	253.27	696.17	253.81	696.15
255.14	696.16	259.27	696	265.85	695.88	266.25	695.87	268.08	695.85
268.18	695.84	270.39	695.81	270.52	695.8	273.87	695.75	274.16	695.74
279.09	695.72	287.35	696	288.49	696.08	288.99	696.12	290.95	696.24
291.79	696.3	292.52	696.34	294.19	696.45	294.64	696.47	295.04	696.5
295.73	696.54	296.03	696.55	296.32	696.57	296.58	696.58	296.94	696.6
297.19	696.61	297.57	696.64	297.78	696.65	298.19	696.68	298.38	696.69
298.7	696.7	299.11	696.73	299.36	696.74	299.78	696.77	300.94	696.84
301.59	696.87	302.14	696.91	303.17	696.97	303.59	697	304.22	697.02
305.25	697.04	305.82	697.06	310.22	697.15	313.48	697.18	316.36	697.17
316.56	697.18	317.21	697.17	317.41	697.18	318.33	697.17	318.53	697.18
320.4	697.16	320.64	697.17	321.59	697.15	324.82	697.13	328.14	697.08
328.97	697.06	329.87	697.05	331.31	697.02	331.79	697.02	332.75	697
343.26	696.89	343.43	696.88	348.56	696.84	352.52	696.86	360.67	696.83
364.9	696.79	365.37	696.78	366.4	696.77	366.87	696.76	367.82	696.75
368.86	696.73	369.11	696.74	371.88	696.69	373.1	696.68	374.05	696.66
374.2	696.67	374.46	696.66	376.77	696.63	384.86	696.67	388.59	696.72
389.04	696.73	399	696.86	402.38	696.87	402.86	696.86	423.23	696.77
424.04	696.78	441.4	696.92	441.71	696.91	442.1	696.92		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	232.99	.06	247.46	.06

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
232.99 247.46 47.49 32.92 19.55 .1 .3
Right Levee Station= 247.57 Elevation= 696.56

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 105

INPUT
Description:
Station Elevation Data num= 279

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	694.88	.53	694.87	1.61	694.86	5.79	694.84	6.43	694.85
10.5	694.82	12.7	694.8	13.48	694.79	14.47	694.78	16.91	694.74
17.27	694.73	18.55	694.71	18.9	694.7	20.23	694.68	20.57	694.67
21.79	694.65	22.08	694.64	23.28	694.62	23.56	694.61	24.79	694.59
25.35	694.58	26.62	694.56	26.89	694.55	28.18	694.53	28.69	694.52
29.34	694.51	29.79	694.5	30.45	694.49	33.55	694.47	48.72	694.44
60.33	694.39	62.97	694.37	68.54	694.34	72.11	694.33	72.42	694.34
73.44	694.33	73.75	694.34	76.51	694.33	77.34	694.34	77.74	694.33
81.42	694.32	82.27	694.33	82.65	694.32	86.45	694.31	86.88	694.32
87.03	694.31	90.11	694.3	103.11	694.31	105.33	694.32	106.5	694.31
106.65	694.32	107.25	694.33	110.8	694.35	111.21	694.36	112.73	694.37
113.61	694.38	114.36	694.39	115.41	694.4	115.89	694.41	116.85	694.42
118.28	694.44	119.29	694.45	120.67	694.47	121.59	694.48	122.33	694.49
124.33	694.51	126.28	694.52	127.52	694.53	133.07	694.56	135.68	694.58
136.26	694.59	136.56	694.6	137.43	694.61	138.04	694.62	138.35	694.63
139.19	694.64	139.84	694.65	140.4	694.66	140.74	694.67	141.3	694.68
141.64	694.69	142.21	694.7	142.42	694.71	142.77	694.72	145.96	694.78
146.53	694.79	147.75	694.8	148.23	694.81	149.26	694.82	149.84	694.82
151.44	694.83	151.58	694.82	151.98	694.83	154.71	694.82	159.41	694.77
160.96	694.75	162.15	694.74	163.2	694.72	164.39	694.71	164.66	694.7
165.44	694.69	166.64	694.68	166.94	694.67	169.2	694.64	170.23	694.63
170.39	694.62	171.08	694.61	172.04	694.6	175.79	694.58	176.19	694.59
176.4	694.58	180.56	694.56	181.77	694.55	184.27	694.54	184.89	694.55
185.58	694.54	189.39	694.53	192.42	694.51	193.59	694.5	198.3	694.45
203.21	694.41	204.95	694.39	205.99	694.38	206.61	694.37	207.34	694.36
210.31	694.38	212.31	694.39	215.57	694.38	217.08	694.37	217.61	694.35
218.06	694.34	218.78	694.33	220.08	694.3	220.23	694.31	220.52	694.3
221.1	694.29	222.24	694.28	222.47	694.29	222.72	694.28	224.99	694.3
225.87	694.31	226.43	694.32	228.97	694.17	232	694	238.88	694.32
239.21	694.35	239.53	694.38	239.85	694.4	240.72	694.46	241.25	694.48
241.49	694.49	241.72	694.51	241.95	694.52	242.16	694.53	242.57	694.54
242.79	694.55	243	694.56	243.8	694.58	244.31	694.59	250.58	694.65
251.11	694.66	252.15	694.67	252.69	694.68	253.16	694.69	254.14	694.7
255.13	694.72	256.09	694.73	256.6	694.74	257.54	694.75	258.06	694.76
258.98	694.77	260.13	694.78	261.65	694.79	263.87	694.81	265.29	694.83
266.33	694.84	267.64	694.85	270.53	694.86	272.39	694.87	273.59	694.88
274.59	694.9	275.79	694.91	276.83	694.93	278	694.95	279.09	694.96
280.26	694.99	280.99	695	281.41	695.01	283.76	695.05	289.82	695.08
295.63	695.06	296.7	695.05	298.52	695.03	298.97	695.02	300.84	695
303.97	694.98	307.61	694.99	309.67	695	310.86	695.02	312.03	695.06
312.16	695.07	312.74	695.08	313.84	695.12	314.37	695.13	315.31	695.16
316.03	695.17	316.83	695.19	317.61	695.2	318	695.21	320.4	695.24
320.78	695.25	323.94	695.28	325.32	695.29	332.57	695.32	333.27	695.33
335.12	695.35	335.86	695.36	336.26	695.37	337.19	695.38	338.07	695.4
338.95	695.41	339.39	695.42	340.28	695.43	341.73	695.45	343.79	695.47
345.4	695.48	348.73	695.47	354.19	695.44	357	695.43	357.28	695.44
357.49	695.43	361.23	695.44	361.56	695.43	361.84	695.44	365.66	695.46
367.06	695.47	367.99	695.48	369.31	695.49	370	695.5	370.93	695.51
372.38	695.53	373.35	695.54	373.86	695.55	374.65	695.56	375.15	695.57
378.03	695.61	378.99	695.62	380.91	695.65	381.87	695.66	386.36	695.73
387.51	695.75	388.58	695.76	388.89	695.77	389.72	695.79	390.85	695.81

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
391.74	695.82	391.98	695.83	392.88	695.84	393.09	695.85	394.01	695.86
394.19	695.87	395.13	695.89	396.24	695.9	396.37	695.91	397.34	695.92
397.79	695.93	398.33	695.94	398.78	695.95	399.76	695.96	400.27	695.97
404.14	696.01	407.72	696.03	410.64	696.04	425.21	696.01	432.42	696.03
435.21	696.05	440.38	696.04	441.34	696.04	448.51	696		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	226.43	.06	238.88	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
226.43	238.88	35.03	38.27	19.45	.1	.3

Left Levee Station= 154.63 Elevation= 694.82

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 66

INPUT
Description:
Station Elevation Data num= 261

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	692.68	.13	692.67	1.62	692.64	1.93	692.63	2.85	692.61
3.12	692.6	3.78	692.59	4.3	692.58	5.22	692.57	5.49	692.56
5.99	692.55	10.97	692.49	11.96	692.48	17.37	692.44	22.66	692.45
25.61	692.47	32.91	692.54	36.06	692.58	36.77	692.59	38.37	692.61
44.92	692.67	46.98	692.68	48.01	692.69	49.36	692.7	51.98	692.71
52.21	692.7	52.55	692.71	53.34	692.7	53.69	692.71	53.92	692.7
57.43	692.69	59.07	692.68	63.52	692.64	64.31	692.63	66.37	692.61
67.8	692.6	68.92	692.59	77.43	692.53	89.67	692.48	95.02	692.47
95.25	692.48	95.83	692.47	99.9	692.46	107.75	692.47	110.72	692.48
114.75	692.47	115.73	692.48	120.32	692.49	122.37	692.5	123.2	692.51
125.01	692.52	132.65	692.54	137.7	692.53	139.45	692.52	142.43	692.49
143.93	692.48	144.36	692.47	148.36	692.44	153.28	692.45	157.51	692.47
158.96	692.48	159.68	692.49	161.16	692.5	163.33	692.52	164.79	692.53
165.73	692.54	166.95	692.55	168.58	692.56	171.15	692.58	173.43	692.59
180.3	692.58	192.29	692.54	193.8	692.53	196.23	692.52	199.1	692.5
199.56	692.49	200.33	692.48	200.89	692.47	201.91	692.46	202.35	692.45
202.94	692.44	203.78	692.43	203.98	692.42	204.83	692.41	205.02	692.4
205.85	692.39	205.99	692.38	206.7	692.37	206.84	692.36	207.21	692.35
207.76	692.34	208.15	692.33	208.3	692.32	208.7	692.31	209.26	692.29
209.82	692.28	210.27	692.26	212.03	692.2	212.51	692.19	212.6	692.18
212.99	692.17	213.4	692.15	213.89	692.14	214.33	692.12	214.83	692.1
215.41	692.08	216.05	692.05	216.69	692.03	217.35	692	218.28	691.96
225.47	691.93	227.31	692	251.06	692.02	251.68	692.09	252.99	692.2
253.35	692.24	253.5	692.25	254.82	692.36	255.04	692.37	255.48	692.38
256.45	692.46	256.72	692.47	263.48	692.76	263.75	692.75	264.09	692.76
265.42	692.77	265.78	692.78	266.03	692.77	266.39	692.78	267.08	692.79
267.42	692.8	267.65	692.79	268.32	692.81	269.01	692.82	269.59	692.83
269.99	692.84	270.92	692.86	271.32	692.87	273.21	692.91	273.65	692.93
274.41	692.95	275.19	692.98	275.87	693	276.85	693.02	277.69	693.04
278.62	693.06	279.43	693.08	279.59	693.09	280.4	693.11	281.18	693.12
281.42	693.13	282.2	693.15	283.37	693.17	283.71	693.18	284.85	693.21
287.92	693.27	288.92	693.3	289.52	693.31	291.38	693.35	293.07	693.39
293.84	693.41	300.24	693.61	300.5	693.62	301	693.63	301.24	693.64
301.64	693.65	301.82	693.66	302.51	693.68	302.83	693.69	303.22	693.7
304.05	693.72	304.68	693.73	305.5	693.74	305.86	693.75	307.16	693.77
313.19	693.84	313.75	693.85	314.56	693.86	315.52	693.87	315.94	693.88
317.02	693.89	317.67	693.9	318.23	693.91	321.27	693.96	321.88	693.98
323.11	694	323.77	694.02	324.42	694.03	325.07	694.05	325.71	694.06
327	694.1	327.58	694.11	328.18	694.13	328.78	694.14	329.2	694.15
330.64	694.18	331.03	694.19	331.52	694.2	331.9	694.21	332.73	694.22
333.66	694.24	335.42	694.26	335.55	694.27	336.22	694.28	339.56	694.32
342.04	694.34	344.24	694.35	350.93	694.36	353.32	694.38	356	694.41
356.61	694.42	357.59	694.43	358.29	694.44	359.22	694.45	359.79	694.46
360.92	694.47	361.7	694.48	362.79	694.49	365.61	694.51	367.82	694.52
368.08	694.51	368.32	694.52	368.8	694.51	369.04	694.52	369.27	694.51
369.52	694.52	369.99	694.51	382	694.52	385.32	694.54	386.4	694.55
388.08	694.57	389.17	694.58	393.21	694.63	394.24	694.64	395.04	694.65
397.02	694.67	397.83	694.68	398.14	694.69	401.61	694.73	401.74	694.74
402.86	694.75	402.99	694.76	404.13	694.77	404.25	694.78	407.99	694.84
408.22	694.85	409.35	694.87	410.64	694.89	411.95	694.92	414.65	694.96
416.17	694.99	417.13	695	418.53	695.01	419.56	695.02	424.13	695.04
439.54	695.07	447.7	695.1	449.22	695.11	457	695.13	468.63	695.12
472.43	695.11								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	212.03	.06	252.99	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
212.03	252.99	55.5	36.04	36	.1	.3

Left Levee Station= 195.15 Elevation= 692.61

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 30

INPUT
Description:
Station Elevation Data num= 215

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	689.36	.87	689.37	4.3	689.39	12.01	689.41	20.35	689.45
21.51	689.46	21.78	689.45	21.99	689.46	23.89	689.48	24.62	689.49
27.23	689.52	28.47	689.54	30.23	689.56	31.45	689.58	33.3	689.6
33.84	689.61	35.67	689.63	36.96	689.64	37.6	689.65	39.5	689.67
43.41	689.7	48.8	689.73	54.67	689.72	54.95	689.73	55.35	689.72
62.95	689.74	65.45	689.73	65.61	689.74	65.92	689.73	66.06	689.74

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
66.37	689.73	71.6	689.72	71.78	689.73	72.41	689.72	72.58	689.73
73.21	689.72	74.37	689.73	74.99	689.72	76.15	689.73	76.77	689.72
77.13	689.73	77.85	689.72	78.18	689.73	80.28	689.72	81.6	689.71
82.03	689.7	83.04	689.69	84.37	689.68	84.69	689.67	86.4	689.65
87.41	689.64	88.24	689.63	88.59	689.62	91.03	689.59	95.21	689.55
105.68	689.79	106.41	689.83	107.26	689.88	108.17	689.94	109.05	690
109.15	690.01	110.26	690.08	111.27	690.15	112.21	690.21	113.07	690.26
113.65	690.29	114.74	690.35	114.9	690.34	115.29	690.37	115.65	690.39
116.17	690.41	116.95	690.46	117.37	690.48	117.76	690.5	118.06	690.51
118.33	690.52	118.59	690.54	118.84	690.55	125.76	690.77	126.84	690.79
136.83	690.6	137.83	690.56	138.14	690.55	139.37	690.49	139.96	690.48
143.39	690.47	144.19	690.48	145.03	690.4	146.38	690.29	146.49	690.3
148.06	690.14	149.23	690	154.17	690.76	154.39	691	170.42	691.26
172.99	691.24	174.9	691.23	179.92	691.24	181.15	691.25	182.76	691.27
185.91	691.32	186.64	691.33	187.08	691.34	188.85	691.37	189.75	691.38
195.42	691.48	195.79	691.49	197	691.51	198.04	691.52	199.26	691.54
200.14	691.55	201.62	691.56	202.51	691.57	205.39	691.61	206.29	691.62
207.27	691.64	210.19	691.68	211.67	691.71	212.51	691.72	213.03	691.74
213.86	691.75	214.4	691.76	214.95	691.78	215.78	691.8	216.36	691.81
217.18	691.83	217.79	691.84	218.61	691.86	219.1	691.87	219.53	691.88
220.03	691.89	220.47	691.9	221.46	691.92	222.42	691.93	224.01	691.96
224.99	691.97	225.52	691.98	226.56	691.99	227.09	692	228.48	692.01
232.72	692.06	233.68	692.07	235.26	692.09	236.27	692.1	236.98	692.11
237.26	692.12	239.37	692.15	240.44	692.16	241.77	692.18	242.23	692.19
243.53	692.21	245.41	692.23	246.1	692.24	247.39	692.25	247.73	692.26
248.47	692.27	249.02	692.28	249.78	692.29	252.68	692.34	253.02	692.35
254.21	692.37	255.73	692.4	256.11	692.41	256.94	692.42	257.14	692.43
257.95	692.45	259.01	692.47	259.83	692.49	260.94	692.51	261.74	692.52
262.35	692.53	262.85	692.54	264.41	692.56	264.74	692.57	266.95	692.6
267.86	692.61	268.55	692.62	270.03	692.63	271.08	692.64	273.38	692.65
279.98	692.66	285.96	692.69	289.84	692.72	290.94	692.73	292.87	692.76
293.41	692.77	296.11	692.81	296.89	692.82	297.35	692.83	298.28	692.84
298.74	692.85	300.41	692.87	301.16	692.89	301.92	692.9	302.69	692.92
303.47	692.93	305.89	692.99	306.59	693	307.5	693.01	308.28	693.03
311.81	693.07	311.88	693.08	318.68	693.16	319.86	693.17	321.86	693.18
339.38	693.2	343.85	693.22	348.85	693.23	353.6	693.26	356.1	693.27
365.07	693.33	365.72	693.34	367.04	693.35	368.81	693.37	376.8	693.36

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	126.84	.06	154.17	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
126.84	154.17	32.59	17.82	27	.1 .3

Left Levee Station= 126.52 Elevation= 691.17

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 13

INPUT
Description:
Station Elevation Data num= 278

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	687.68	.69	687.7	1.49	687.72	1.63	687.73	2.56	687.75
2.68	687.76	3.49	687.78	3.71	687.79	4.51	687.81	4.74	687.82
5.45	687.84	6.31	687.87	9.44	688	9.96	688.01	12.64	688.09
15.26	688.15	16.34	688.18	16.57	688.19	17.61	688.21	17.86	688.22
18.86	688.24	19.7	688.26	20	688.27	20.81	688.28	21.58	688.3
21.93	688.31	22.68	688.32	24.62	688.35	24.93	688.36	25.63	688.37
26.23	688.38	28.21	688.4	29.01	688.41	34.32	688.45	35.36	688.46
37.03	688.47	38.14	688.48	38.69	688.47	38.97	688.48	41.18	688.5
41.74	688.51	43.76	688.53	44	688.54	44.83	688.55	45.33	688.56
45.91	688.57	46.29	688.58	46.99	688.59	52.67	688.31	52.8	688.32
52.94	688.33	53.09	688.34	53.26	688.36	53.43	688.37	53.62	688.38
53.83	688.4	54.05	688.41	54.33	688.43	54.49	688.44	54.68	688.45
55.08	688.47	55.55	688.48	55.8	688.49	56.02	688.5	56.72	688.51
57.18	688.52	57.4	688.53	58.34	688.55	59.39	688.56	61.19	688.55
65	688.81	66	688.8	69	688.78	70.08	688.77	72.72	688.76
80.94	689	82.05	689.04	83.57	689.18	83.82	689.2	84.14	689.24
85.41	689.36	85.96	689.42	86.9	689.51	87.65	689.59	88.29	689.65
89.21	689.75	89.59	689.79	90.75	689.91	90.88	689.93	91.58	690
105.95	690.32	113.5	690.31	115.05	690.3	124.15	690.03	124.97	690
130.47	689.39	130.73	689.15	130.88	689	134.48	689.43	135.4	690
136.27	690.11	138.07	690.21	143.49	690.53	147.56	690.52	148.06	690.51
148.37	690.5	150.29	690.49	150.59	690.48	152.54	690.47	152.84	690.46
154.83	690.45	155.12	690.44	155.71	690.43	156.84	690.42	157.24	690.41
163.72	690.42	165.43	690.41	165.81	690.42	167.17	690.43	170.56	690.42
171.1	690.43	172.61	690.41	176.71	690.3	177.01	690.29	181.15	690
188.97	689.88	189.08	689.89	190.28	689.93	191.65	689.99	191.8	690
192.95	690.05	193.02	690.06	194.43	690.13	194.66	690.14	195.31	690.17
195.43	690.18	195.65	690.19	195.9	690.2	196.04	690.21	196.19	690.22
196.36	690.23	196.55	690.24	196.76	690.25	197.36	690.29	197.62	690.31
198.49	690.37	198.84	690.39	199.77	690.46	200.22	690.48	200.7	690.52
201.12	690.55	201.63	690.58	202.97	690.67	203.21	690.68	203.43	690.69
203.63	690.7	204.15	690.74	204.47	690.75	205.01	690.78	205.14	690.79
205.26	690.8	205.81	690.83	205.91	690.84	206.57	690.87	206.65	690.88
206.87	690.89	207.41	690.92	208.03	690.95	208.57	690.97	209.07	691
218.34	690.99	219.22	690.97	219.66	690.95	220.11	690.95	220.98	690.93
222.75	690.92	225.1	690.93	226.1	690.94	226.61	690.95	228.54	690.97
229.9	690.98	231.77	691	232.32	691.01	233.36	691.02	233.89	691.03
234.93	691.04	235.43	691.05	236.65	691.06	238.14	691.08	238.79	691.09
239.54	691.1	240.18	691.11	241.69	691.13	242.31	691.14	243.08	691.15
244.16	691.16	244.34	691.17	245.33	691.18	248.81	691.24	249.82	691.25
250.07	691.26	251.9	691.28	252.17	691.29	252.99	691.3	254.06	691.31
254.82	691.32	256.01	691.33	257.6	691.34	259.49	691.33	259.63	691.34
259.94	691.33	261.05	691.32	261.18	691.33	261.51	691.32	262.3	691.31
262.42	691.32	262.76	691.31	267.26	691.32	267.99	691.33	268.2	691.32
268.5	691.33	269.1	691.34	269.4	691.33	269.63	691.34	270	691.35
271.08	691.36	271.63	691.37	272.92	691.39	274.2	691.4	275.02	691.41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
275.34	691.42	276.39	691.43	276.72	691.44	277.21	691.45	278.03	691.46
278.3	691.47	279.42	691.49	279.71	691.5	279.98	691.51	282.48	691.58
283.15	691.59	283.36	691.6	284.88	691.62	285.42	691.63	286.83	691.65
287.74	691.66	288.44	691.67	289.51	691.68	290.2	691.69	291.78	691.71
292.9	691.72	293.53	691.73	294.38	691.74	295.52	691.75	296.22	691.76
300.81	691.79	303.5	691.8	304.74	691.81	310.57	691.84	315.05	691.77
316.87	691.78	317.6	691.79	318.2	691.8	320.12	691.82	322.12	691.83
327.96	691.82	332.62	691.8	334.83	691.78	335.88	691.76	338.82	691.73
342.72	691.83	345.16	691.81	348.58	691.8	354.84	691.81	357.06	691.82
364.37	691.84	365.34	691.83	366.13	691.84				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	124.15	.06	138.07	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
124.15	138.07	5	5	.1	.3

Left Levee Station= 105.95 Elevation= 690.6
Right Levee Station= 143.49 Elevation= 690.54

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 8

INPUT
Description:
Station Elevation Data num= 10

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
68.61	689	80.56	690	105.67	690.3	127.46	690	129.37	689
130.88	688.6	132.98	689	134.14	690	153.01	690.3	170.21	690

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
68.61	.06	129.37	.06	132.98	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
129.37	132.98	1	8	.1	.3

Left Levee Station= 105.67 Elevation= 690.3

CROSS SECTION

RIVER: ARROYO
REACH: LARIJA RS: 0

INPUT
Description:
Station Elevation Data num= 8

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
83.98	690	103.98	690.1	121.49	690	127.53	689	130.88	688.2
136.41	689	145.43	690	171.68	689				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
83.98	.06	127.53	.06	136.41	.06

Bank Sta: Left	Right	Coeff Contr.	Expan.
127.53	136.41	.1	.3

Right Levee Station= 145.43 Elevation= 690

SUMMARY OF MANNING'S N VALUES

River:ARROYO

Reach	River Sta.	n1	n2	n3
LARIJA	1040	.06	.06	.06
LARIJA	1030	.06	.06	.06
LARIJA	1021	.06	.06	.06
LARIJA	1000	.06	.06	.06
LARIJA	990	.06	.06	.06
LARIJA	970	.06	.06	.06
LARIJA	950	.06	.06	.06
LARIJA	930	.06	.06	.06
LARIJA	920	.06	.06	.06
LARIJA	900	.06	.06	.06
LARIJA	894	.06	.06	.06
LARIJA	879	.06	.06	.06
LARIJA	869	.06	.06	.06
LARIJA	860	.06	.06	.06
LARIJA	850	.06	.06	.06
LARIJA	833	.06	.06	.06
LARIJA	820	.06	.06	.06
LARIJA	807	.06	.06	.06
LARIJA	790	.06	.06	.06
LARIJA	780	.06	.06	.06
LARIJA	767	.06	.06	.06
LARIJA	754	.06	.06	.06
LARIJA	730	.06	.06	.06
LARIJA	710	.06	.06	.06
LARIJA	700	.06	.06	.06
LARIJA	680	.06	.06	.06
LARIJA	660	.06	.06	.06
LARIJA	649	.06	.06	.06
LARIJA	630	.06	.06	.06
LARIJA	611	.06	.06	.06
LARIJA	581	.06	.06	.06
LARIJA	567	.06	.06	.06

Reach	River Sta.	n1	n2	n3
LARIJA	550	.06	.06	.06
LARIJA	533	.06	.06	.06
LARIJA	517	.06	.06	.06
LARIJA	499	.06	.06	.06
LARIJA	466	.06	.06	.06
LARIJA	437	.06	.06	.06
LARIJA	413	.06	.06	.06
LARIJA	377	.06	.06	.06
LARIJA	331	.06	.06	.06
LARIJA	271	.06	.06	.06
LARIJA	241	.06	.06	.06
LARIJA	180	.06	.06	.06
LARIJA	138	.06	.06	.06
LARIJA	105	.06	.06	.06
LARIJA	66	.06	.06	.06
LARIJA	30	.06	.06	.06
LARIJA	13	.06	.06	.06
LARIJA	8	.06	.06	.06
LARIJA	0	.06	.06	.06

SUMMARY OF REACH LENGTHS

River: ARROYO

Reach	River Sta.	Left	Channel	Right
LARIJA	1040	8.15	9.96	11.14
LARIJA	1030	8.35	9.93	11.88
LARIJA	1021	20.09	20.23	20.34
LARIJA	1000	10.01	9.9	9.81
LARIJA	990	20.22	19.96	19.63
LARIJA	970	20.52	20.25	20.05
LARIJA	950	21.74	19.84	19.02
LARIJA	930	11.67	9.9	8.76
LARIJA	920	19.33	20.01	20.8
LARIJA	900	6.1	6.93	8.66
LARIJA	894	11.81	14.06	16.83
LARIJA	879	10.75	10.2	8.8
LARIJA	869	10.16	9.22	7.69
LARIJA	860	9.86	9.95	10.01
LARIJA	850	16.31	16.76	17.16
LARIJA	833	13.29	13.42	13.63
LARIJA	820	14.05	13.29	12.15
LARIJA	807	16.07	16.28	16.77
LARIJA	790	9.05	9.88	10.75
LARIJA	780	16.42	13.41	10.61
LARIJA	767	10.67	13	14.54
LARIJA	754	23.45	23.69	24.19
LARIJA	730	20.38	19.97	19.29
LARIJA	710	10.68	10.05	9.53
LARIJA	700	18.99	20.02	21.31
LARIJA	680	20.06	20.04	20.94
LARIJA	660	13.07	11.48	7.61
LARIJA	649	18.74	18.6	18.33
LARIJA	630	19.74	19.72	19.84
LARIJA	611	29.44	29.83	32.66
LARIJA	581	13.36	13.58	15.46
LARIJA	567	16.9	16.87	17.4
LARIJA	550	17.79	16.87	11.6
LARIJA	533	20.24	16.78	6.21
LARIJA	517	19.39	17.33	16.8
LARIJA	499	25.53	32.86	35.33
LARIJA	466	25.26	29.39	34.63
LARIJA	437	22.93	24	21.76
LARIJA	413	33.94	36.07	32.61
LARIJA	377	36.89	45.58	54.28
LARIJA	331	55.6	60.05	53.95
LARIJA	271	29.55	30.36	28.06
LARIJA	241	30.68	61.27	80.38
LARIJA	180	37.52	42.08	23.68
LARIJA	138	47.49	32.92	19.55
LARIJA	105	35.03	38.27	19.45
LARIJA	66	55.5	36.04	36
LARIJA	30	32.59	17.82	27
LARIJA	13	5	5	5
LARIJA	8	1	8	8
LARIJA	0			

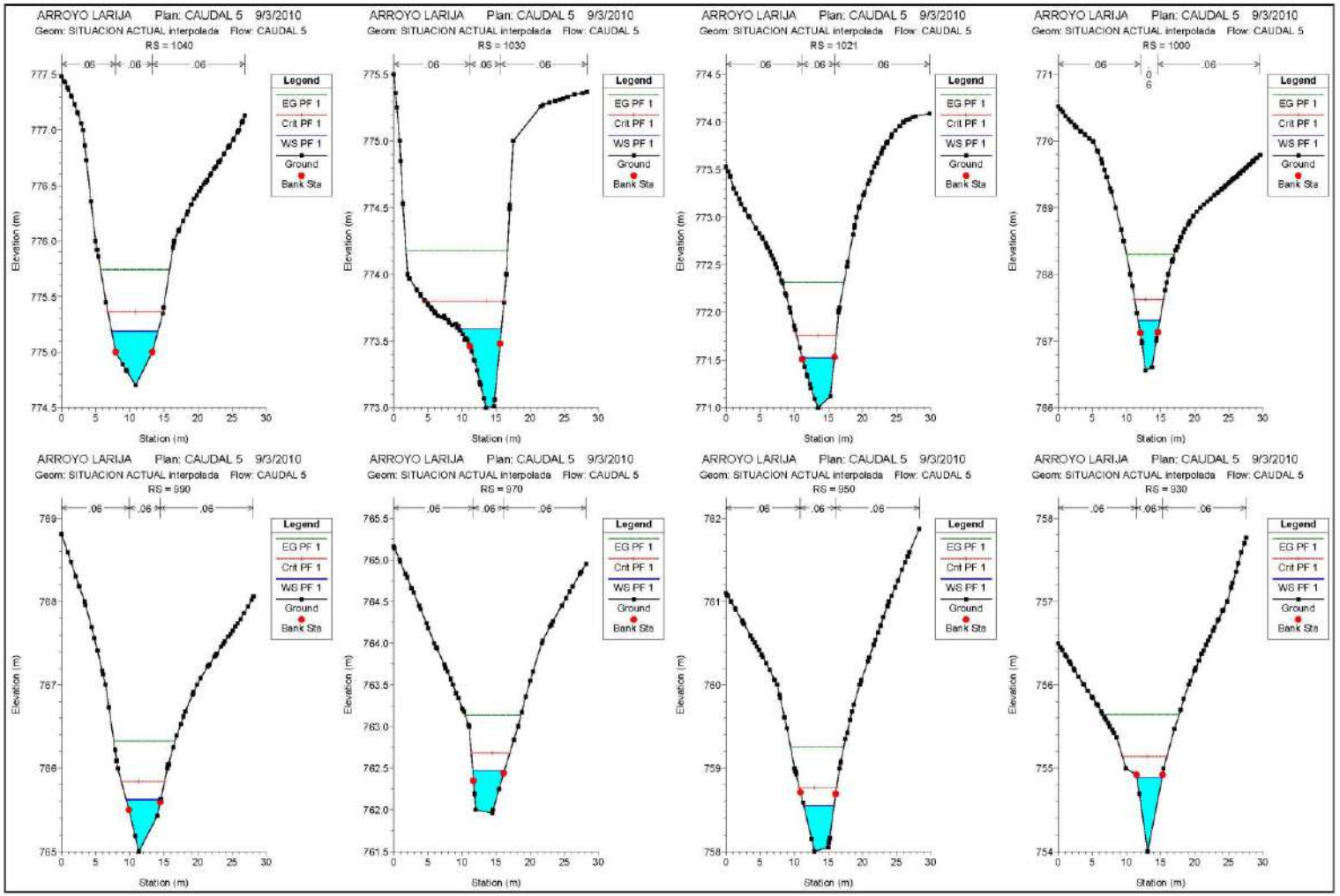
SUMMARY OF CONTRACTION AND EXPANSION COEFFICIENTS
River: ARROYO

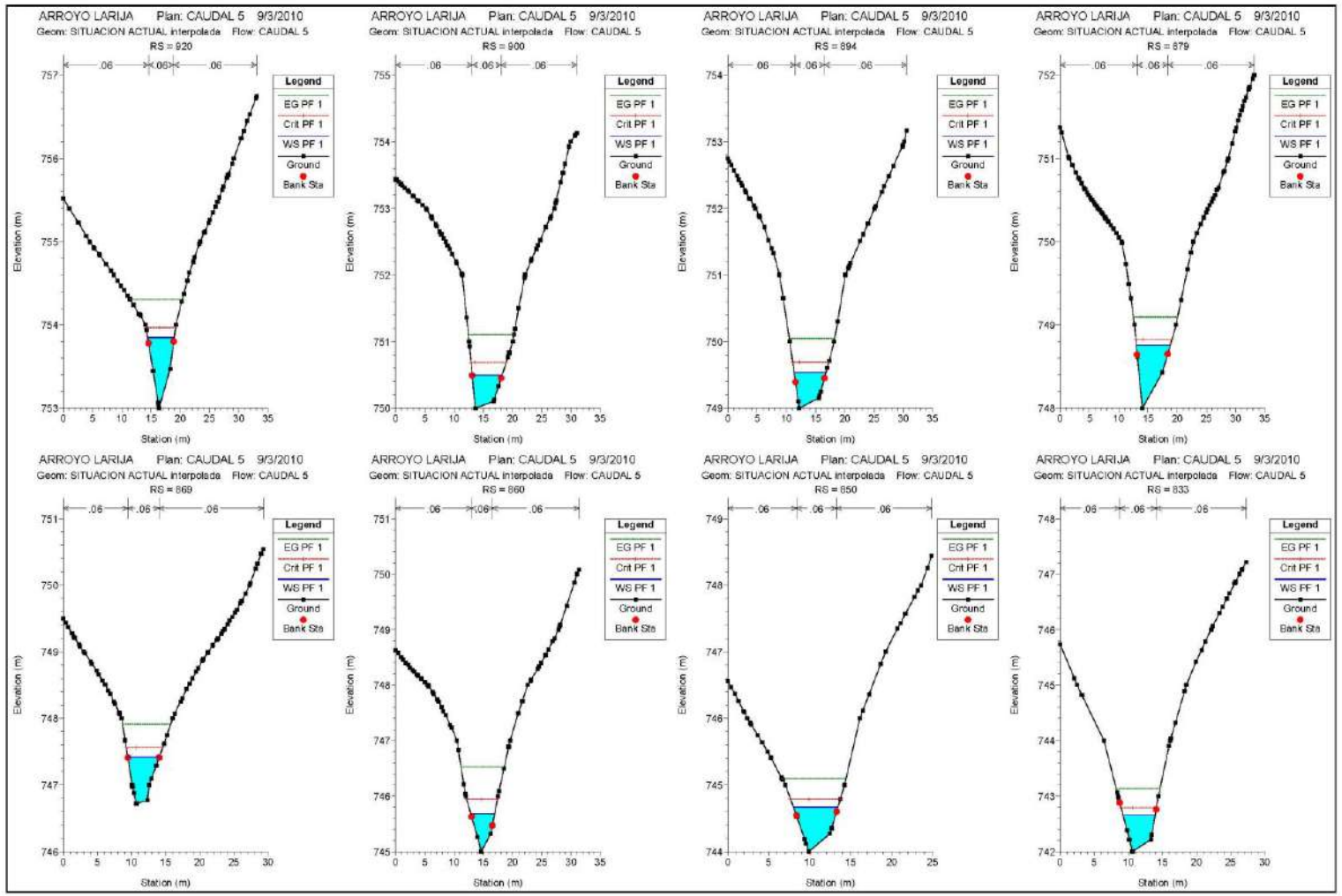
Reach	River Sta.	Contr.	Expan.
LARIJA	1040	.1	.3
LARIJA	1030	.1	.3
LARIJA	1021	.1	.3
LARIJA	1000	.1	.3
LARIJA	990	.1	.3
LARIJA	970	.1	.3
LARIJA	950	.1	.3
LARIJA	930	.1	.3
LARIJA	920	.1	.3
LARIJA	900	.1	.3

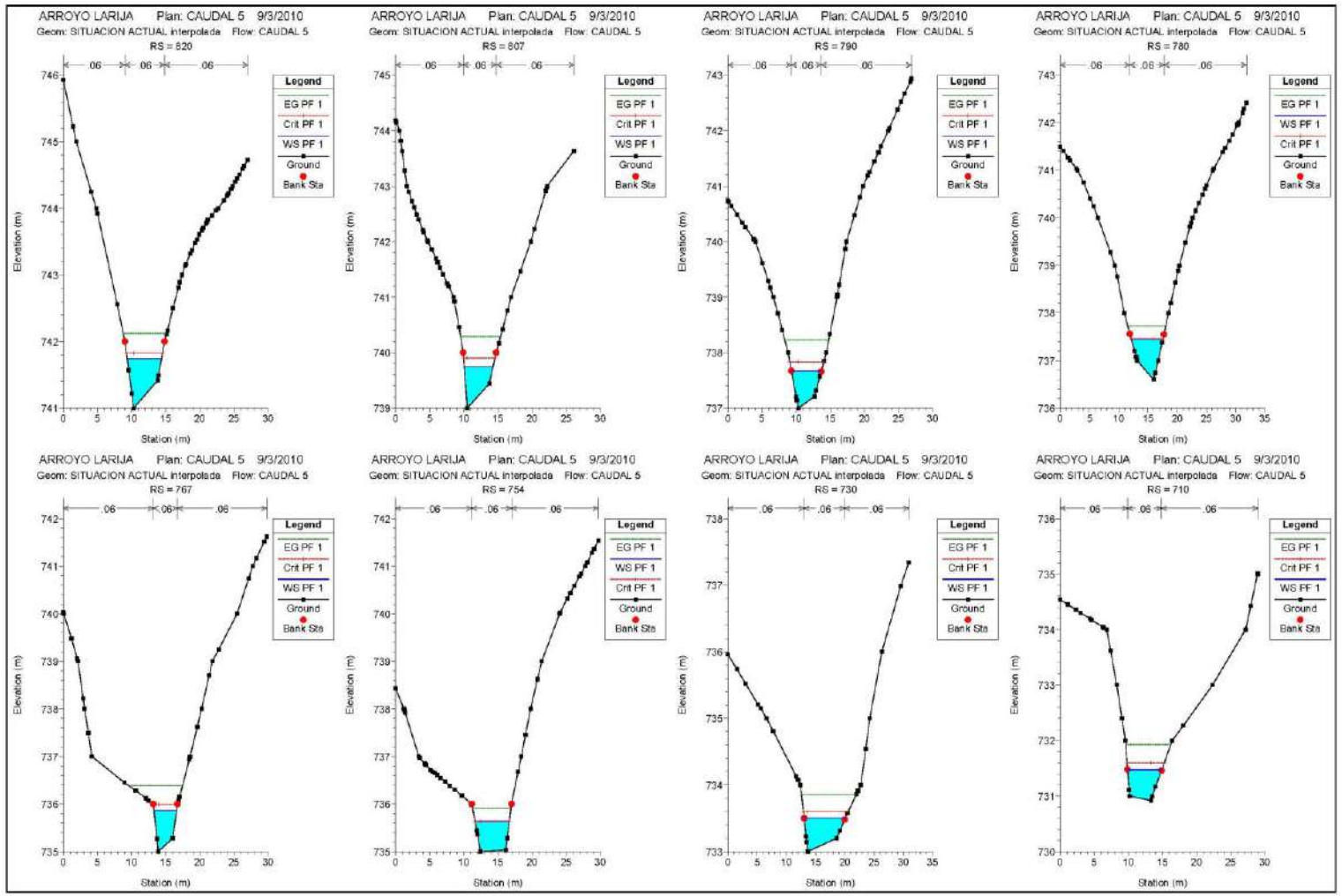
Reach	River Sta.	Contr.	Expan.
LARIJA	894	.1	.3
LARIJA	879	.1	.3
LARIJA	869	.1	.3
LARIJA	860	.1	.3
LARIJA	850	.1	.3
LARIJA	833	.1	.3
LARIJA	820	.1	.3
LARIJA	807	.1	.3
LARIJA	790	.1	.3
LARIJA	780	.1	.3
LARIJA	767	.1	.3
LARIJA	754	.1	.3
LARIJA	730	.1	.3
LARIJA	710	.1	.3
LARIJA	700	.1	.3
LARIJA	680	.1	.3
LARIJA	660	.1	.3
LARIJA	649	.1	.3
LARIJA	630	.1	.3
LARIJA	611	.1	.3
LARIJA	581	.1	.3
LARIJA	567	.1	.3
LARIJA	550	.1	.3
LARIJA	533	.1	.3
LARIJA	517	.1	.3
LARIJA	499	.1	.3
LARIJA	466	.1	.3
LARIJA	437	.1	.3
LARIJA	413	.1	.3
LARIJA	377	.1	.3
LARIJA	331	.1	.3
LARIJA	271	.1	.3
LARIJA	241	.1	.3
LARIJA	180	.1	.3
LARIJA	138	.1	.3
LARIJA	105	.1	.3
LARIJA	66	.1	.3
LARIJA	30	.1	.3
LARIJA	13	.1	.3
LARIJA	8	.1	.3
LARIJA	0	.1	.3

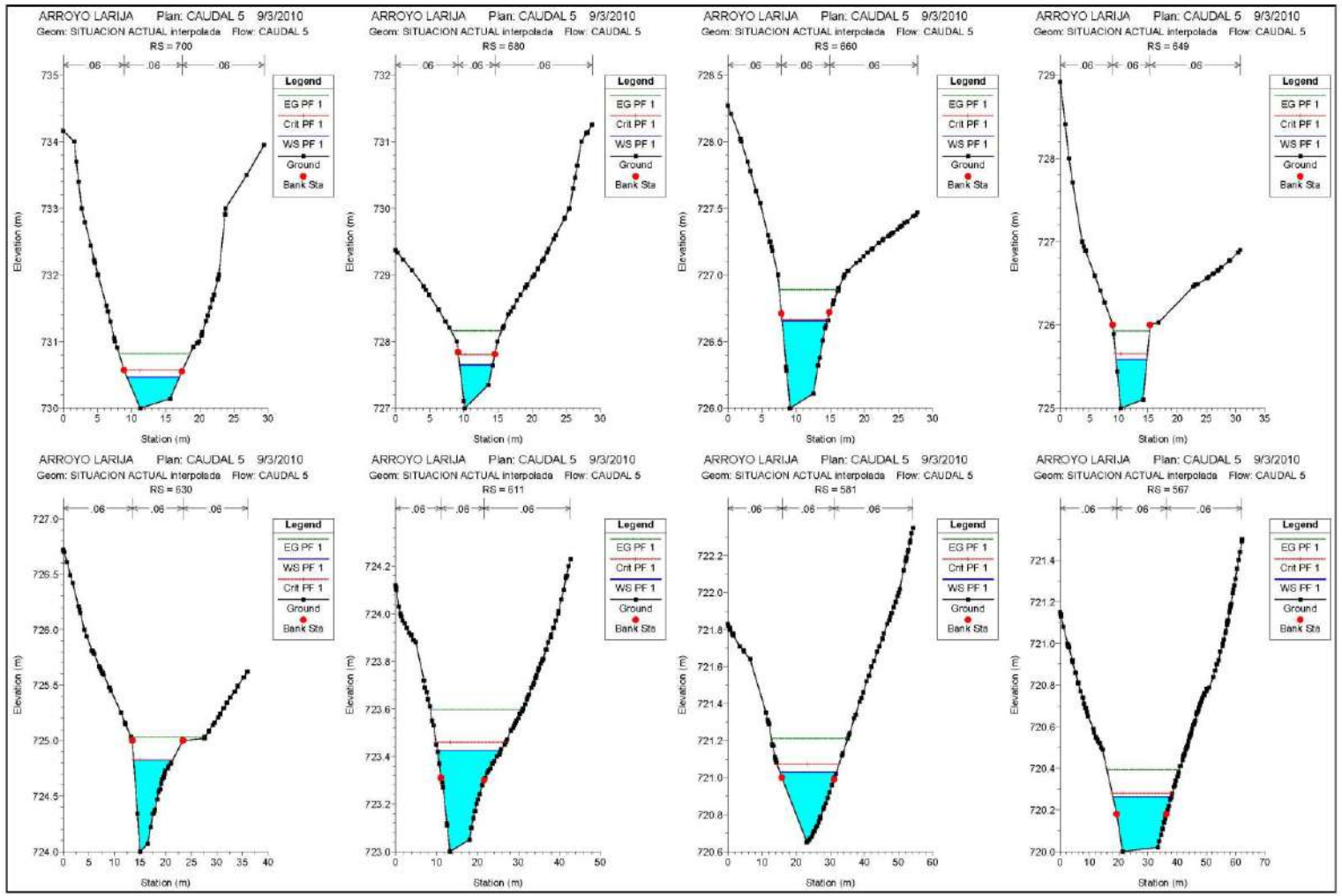
APÉNDICE 3.- SECCIONES TRANSVERSALES

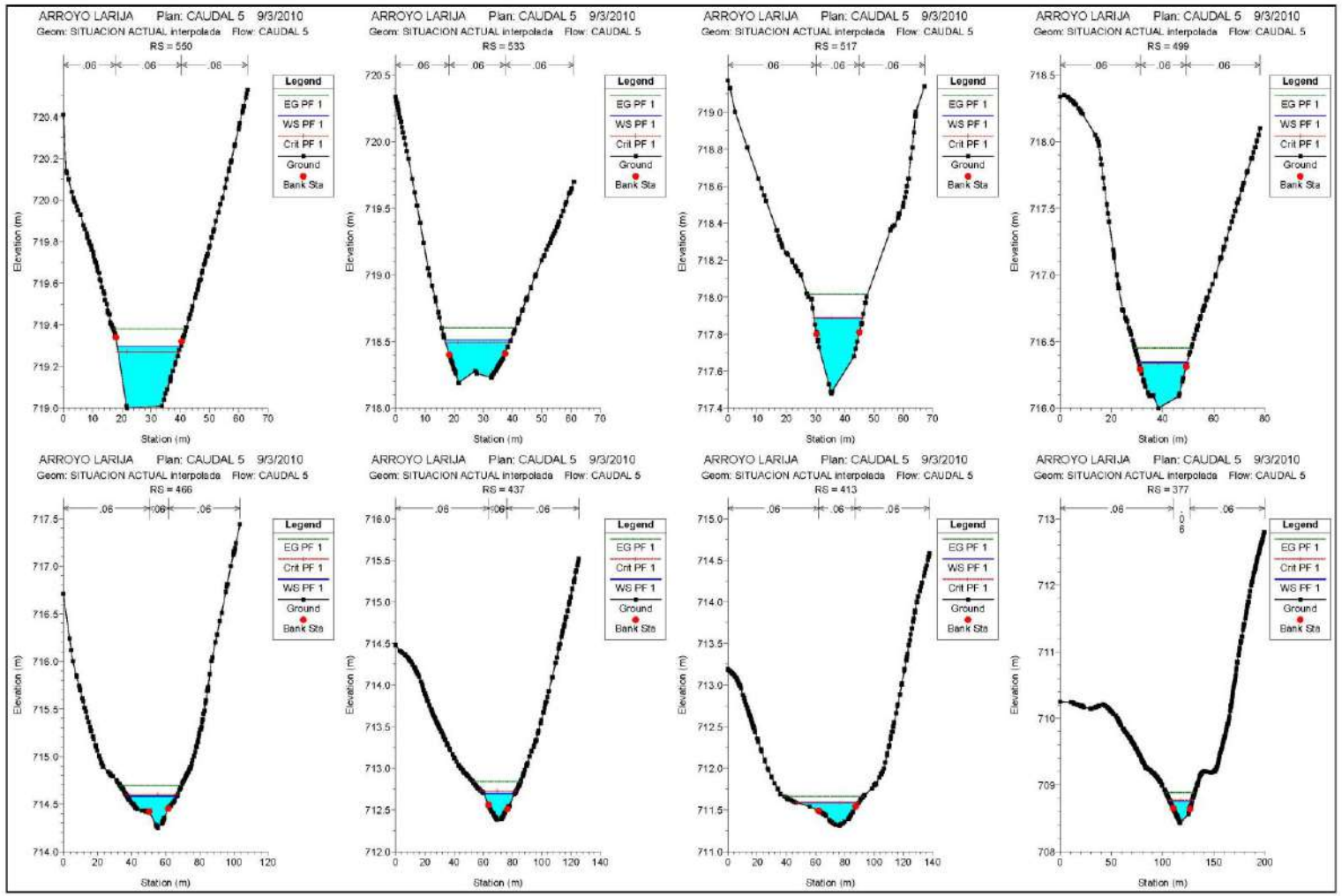
APÉNDICE 3.A.- PERIODO DE RETORNO 5 AÑOS

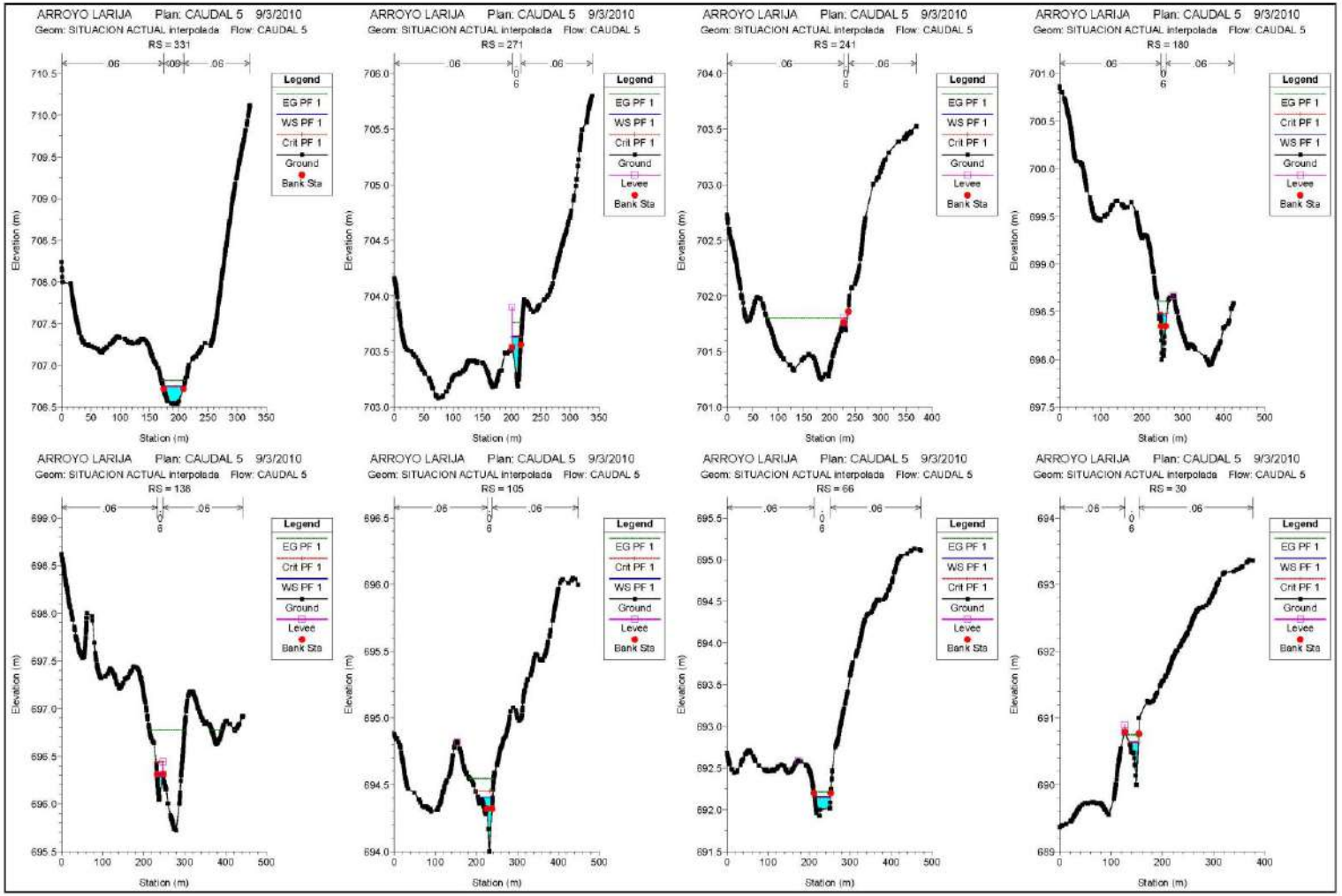

ARROYO LARIJA Plan: CAUDAL 5 9/3/2010
Geom: SITUACION ACTUAL interpolada Flow: CAUDAL 5
RS = 1040
RS = 1030
RS = 1021
RS = 1000
RS = 990
RS = 970
RS = 950
RS = 930
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)

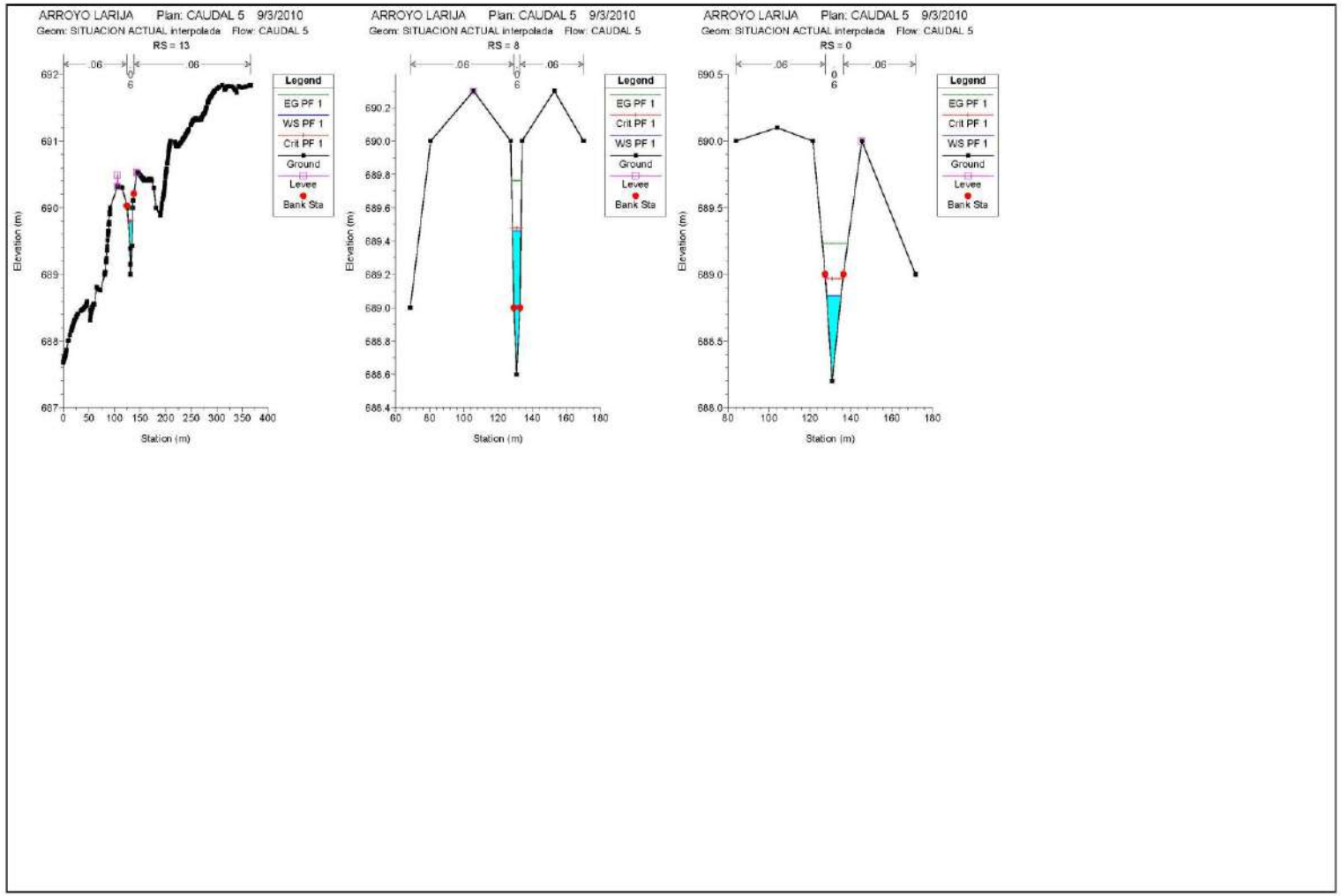

ARROYO LARIJA Plan: CAUDAL 5 9/3/2010
Geom: SITUACION ACTUAL interpolada Flow: CAUDAL 5
RS = 920
RS = 900
RS = 894
RS = 879
RS = 869
RS = 860
RS = 850
RS = 833
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)


ARROYO LARIJA Plan: CAUDAL 5 9/3/2010
Geom: SITUACION ACTUAL interpolada Flow: CAUDAL 5
RS = 820
RS = 807
RS = 790
RS = 780
RS = 767
RS = 754
RS = 730
RS = 710
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)

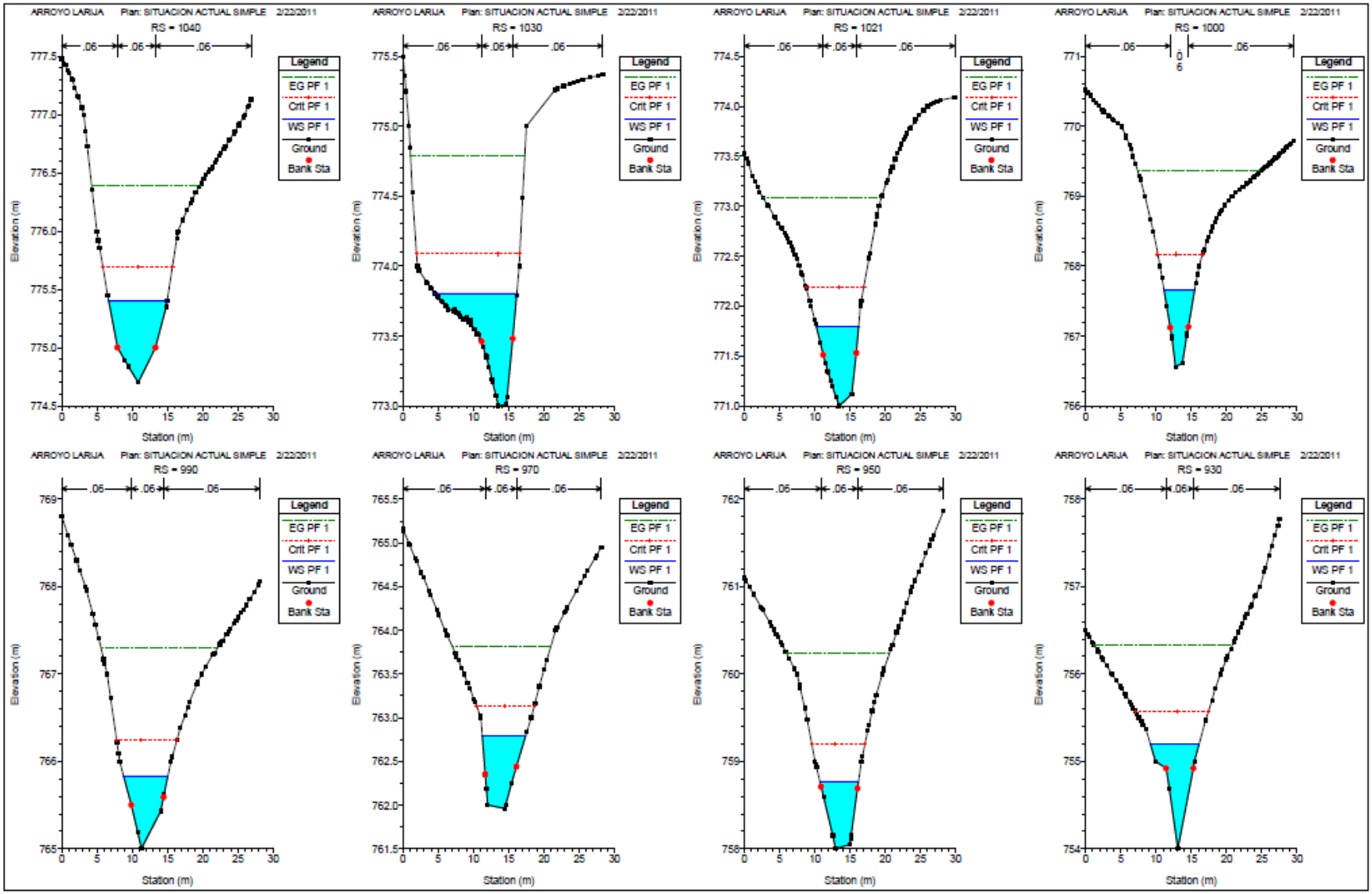

ARROYO LARIJA Plan: CAUDAL 5 9/3/2010
Geom: SITUACION ACTUAL interpolada Flow: CAUDAL 5
RS = 700
RS = 680
RS = 660
RS = 649
RS = 630
RS = 611
RS = 581
RS = 567
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)

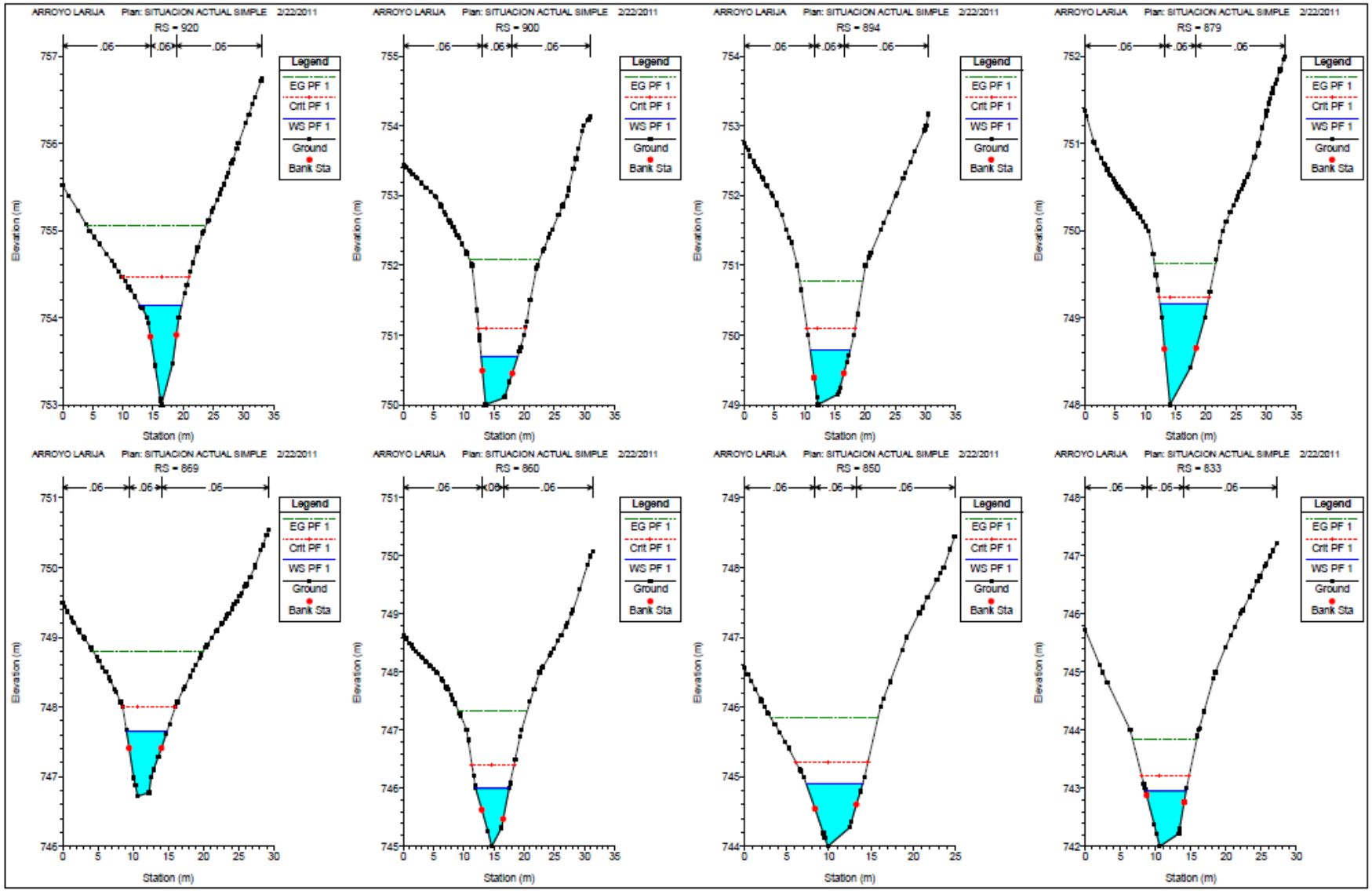

ARROYO LARIJA Plan: CAUDAL 5 9/3/2010
Geom: SITUACION ACTUAL interpolada Flow: CAUDAL 5
RS = 550
RS = 533
RS = 517
RS = 499
RS = 466
RS = 437
RS = 413
RS = 377
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)

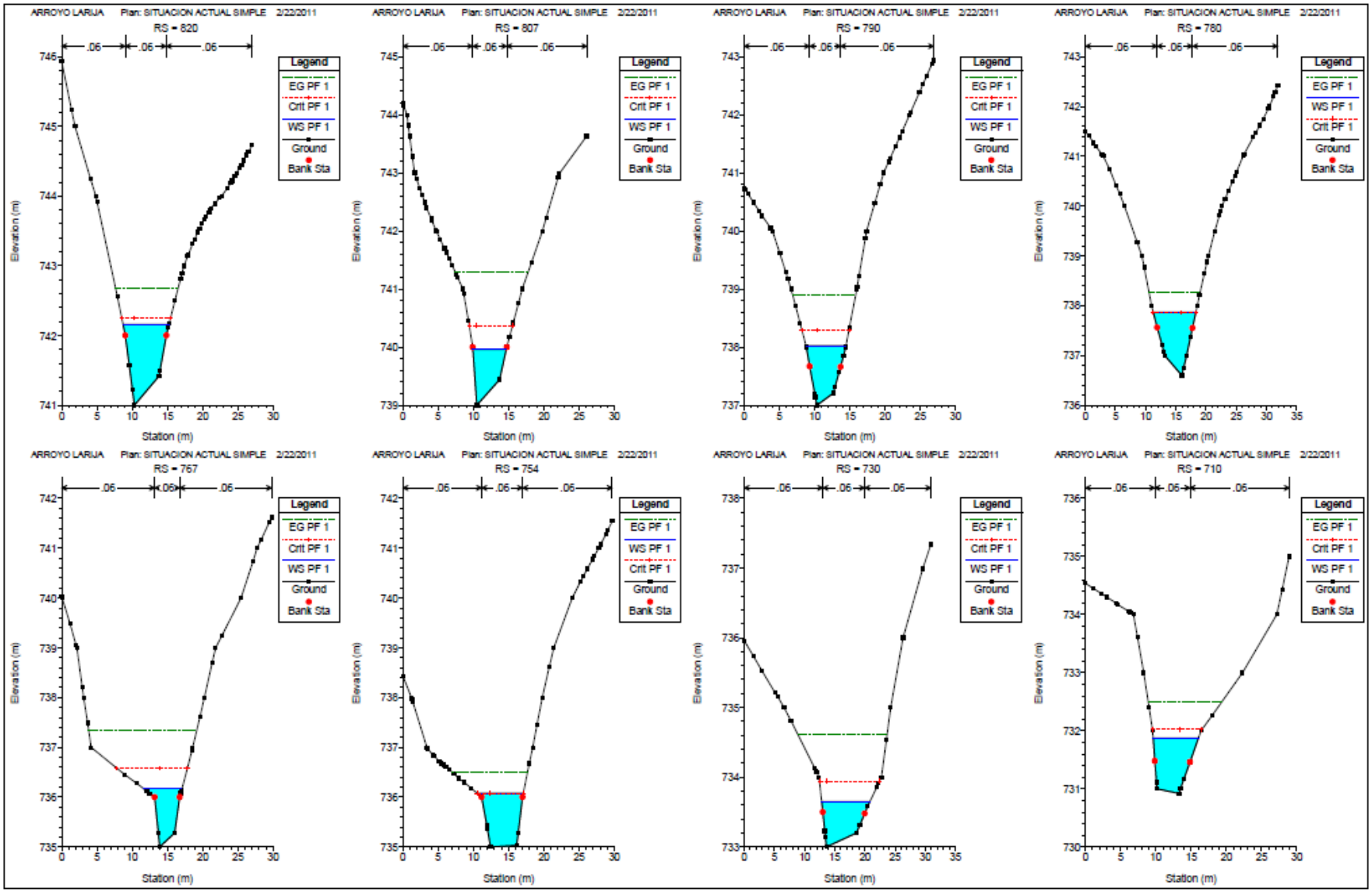

ARROYO LARIJA Plan: CAUDAL 5 9/3/2010
Geom: SITUACION ACTUAL interpolada Flow: CAUDAL 5
RS = 331
RS = 271
RS = 241
RS = 180
RS = 136
RS = 105
RS = 66
RS = 30
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
Station (m)

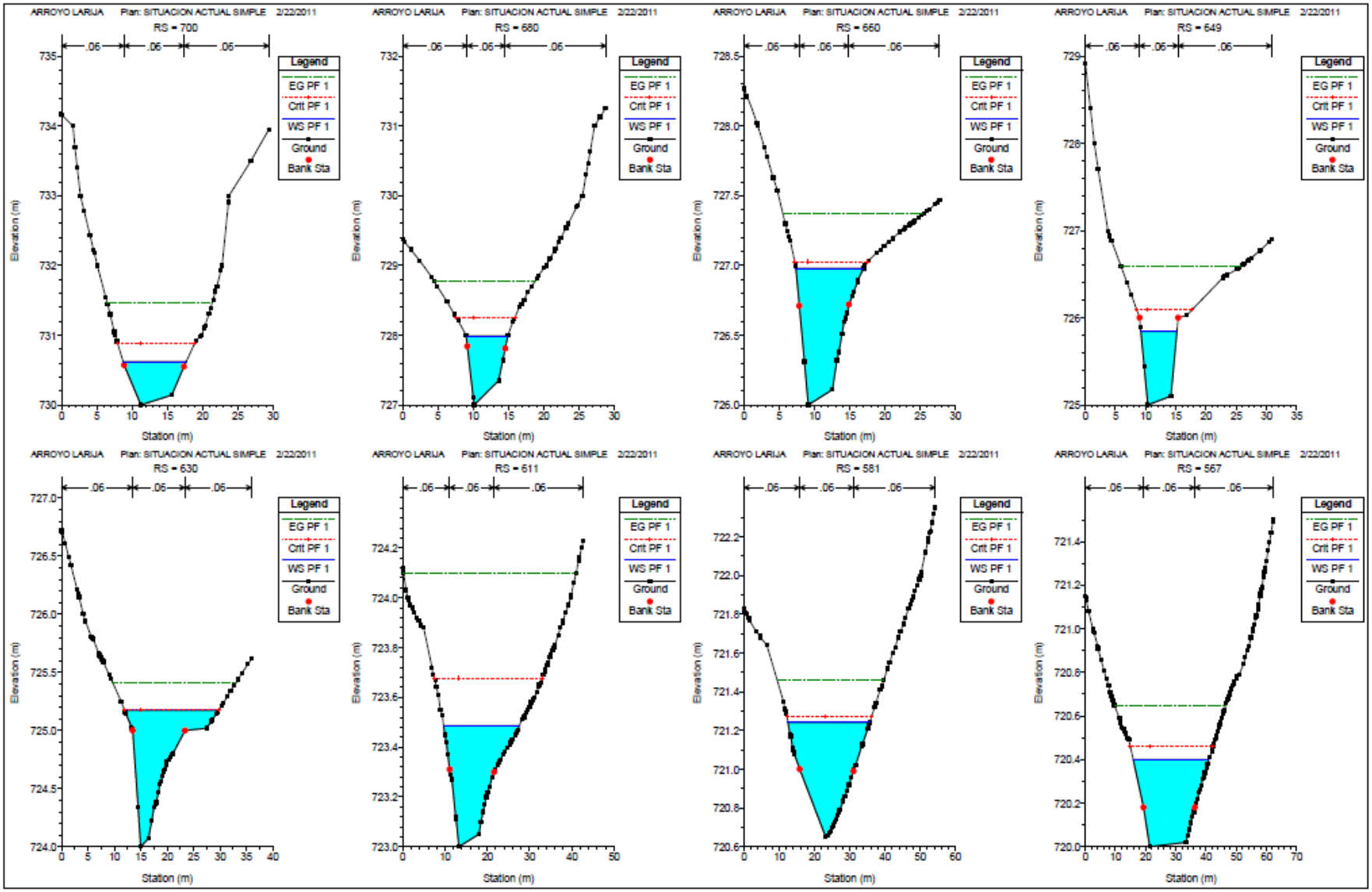

ARROYO LARIJA Plan: CAUDAL 5 9/3/2010
Geom: SITUACION ACTUAL interpolada Flow: CAUDAL 5
RS = 13
RS = 8
RS = 0
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Levee
Bank Sta
Elevation (m)
Station (m)

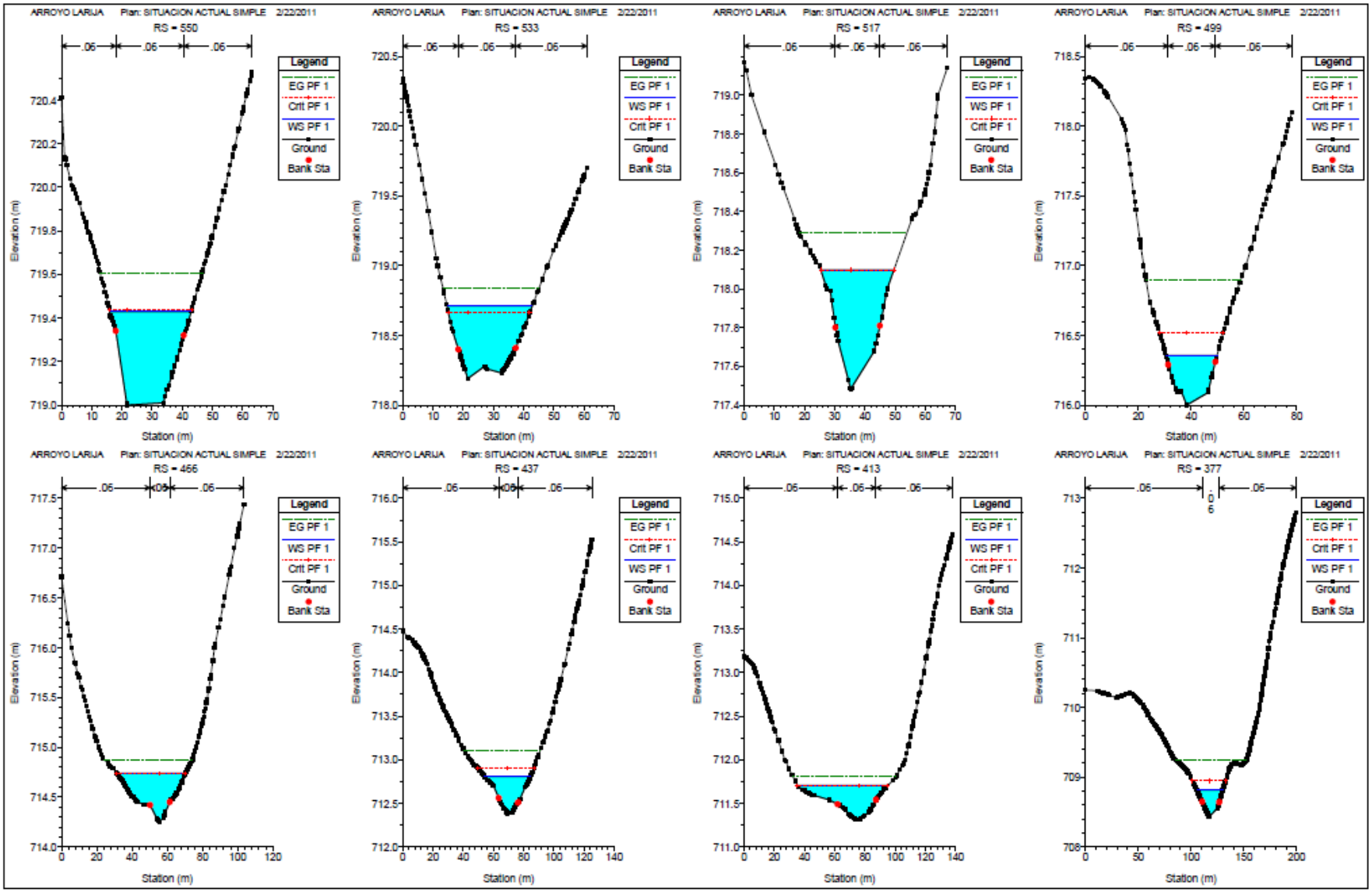
APÉNDICE 3.B.- PERIODO DE RETORNO 500 AÑOS

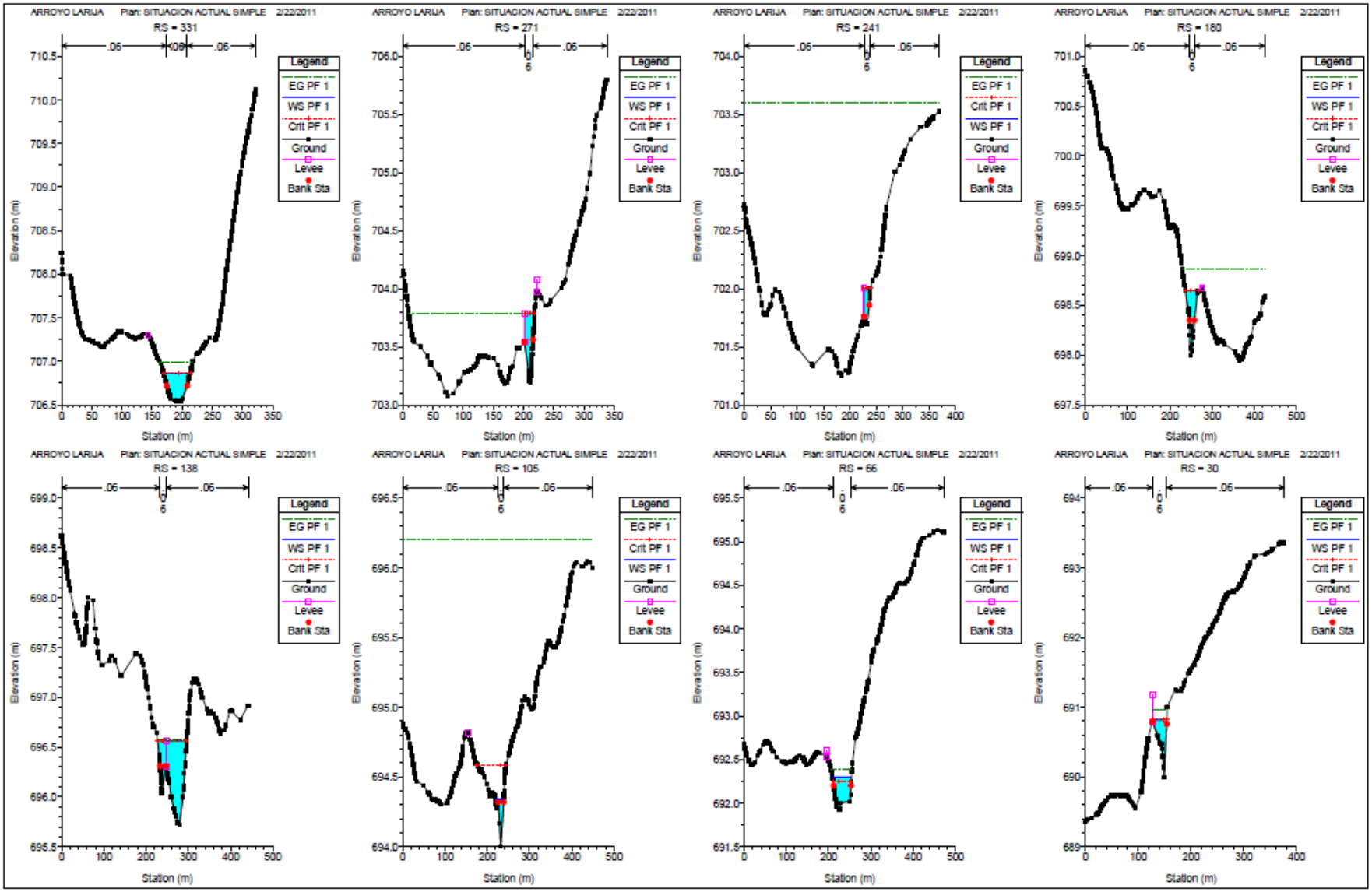

ARROYO LARIJA Plan: SITUACION ACTUAL SIMPLE 2/22/2011
RS = 1040
RS = 1030
RS = 1021
RS = 1000
RS = 990
RS = 970
RS = 950
RS = 930
.06
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)

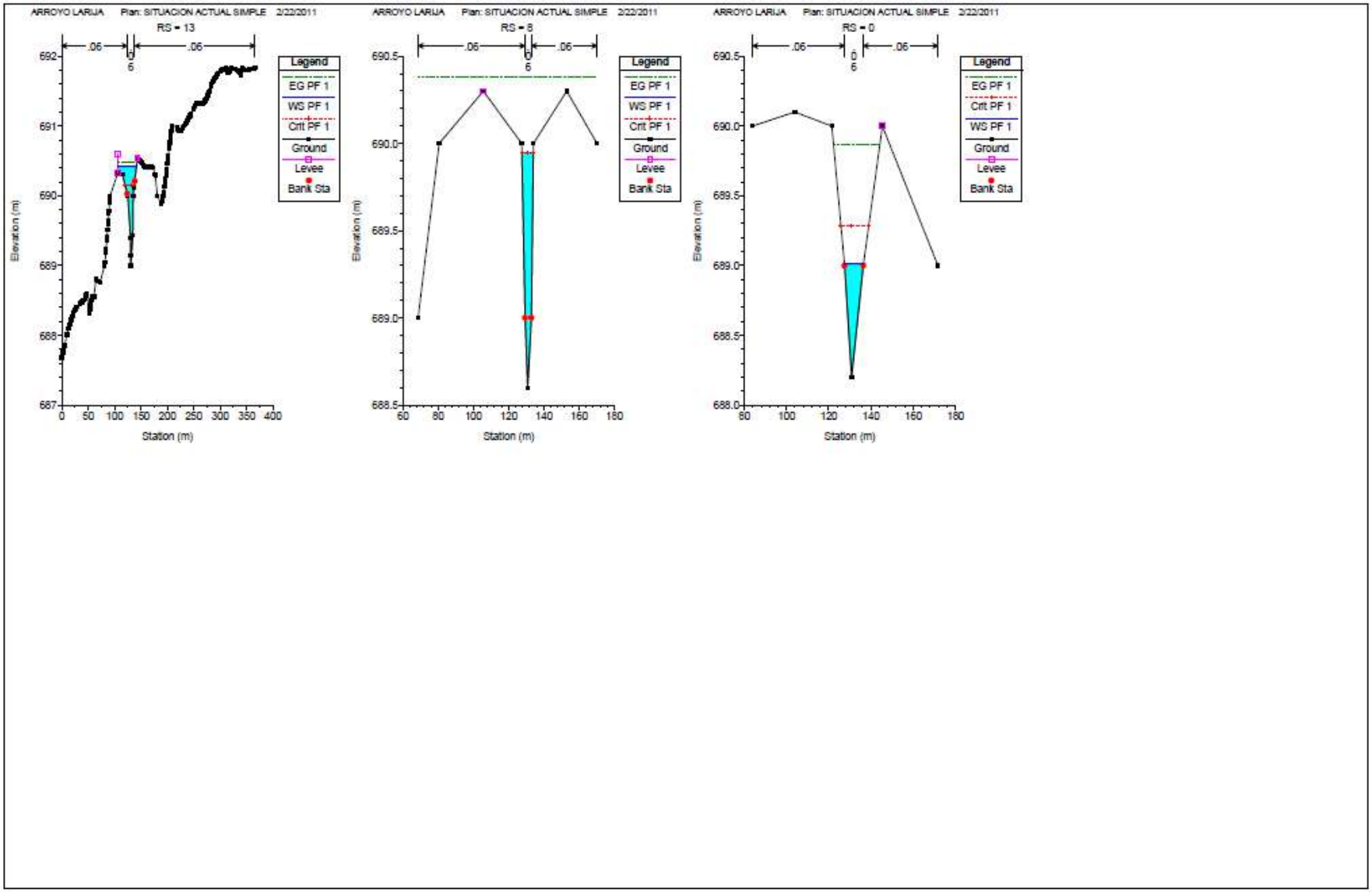

ARROYO LARIJA Plan: SITUACION ACTUAL SIMPLE 2/22/2011
RS = 920
RS = 900
RS = 894
RS = 879
RS = 869
RS = 860
RS = 850
RS = 833
.06
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)


ARROYO LARIJA Plan: SITUACION ACTUAL SIMPLE 2/22/2011
RS = 820
RS = 807
RS = 790
RS = 780
RS = 767
RS = 754
RS = 730
RS = 710
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
.06


ARROYO LARIJA Plan: SITUACION ACTUAL SIMPLE 2/22/2011
RS = 700
RS = 680
RS = 660
RS = 649
RS = 630
RS = 611
RS = 581
RS = 567
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
.06

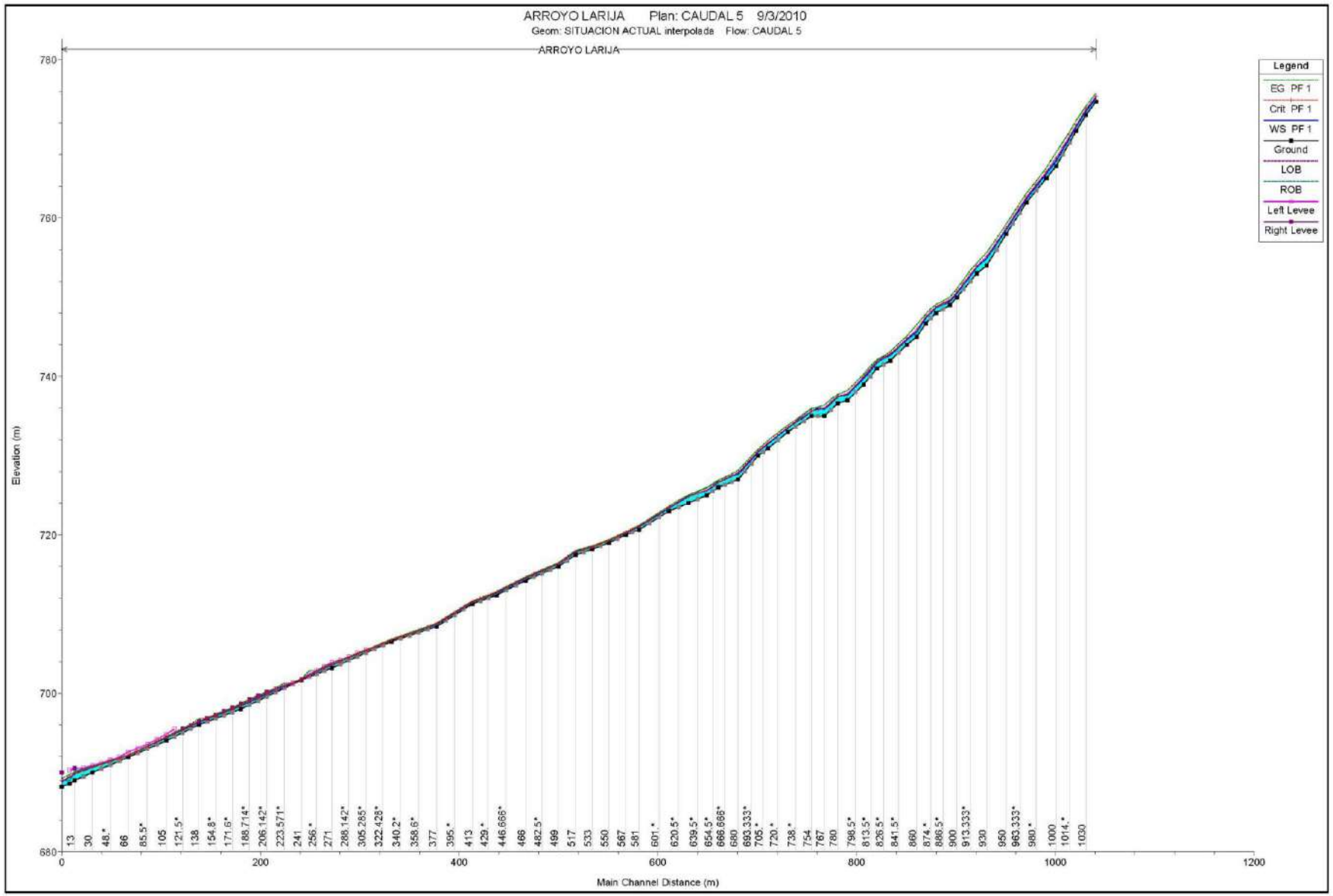

ARROYO LARIJA Plan: SITUACION ACTUAL SIMPLE 2/22/2011
RS = 550
RS = 533
RS = 517
RS = 499
RS = 466
RS = 437
RS = 413
RS = 377
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)


ARROYO LARIJA Plan: SITUACION ACTUAL SIMPLE 2/22/2011
RS = 331
RS = 271
RS = 241
RS = 180
RS = 138
RS = 105
RS = 66
RS = 30
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
Station (m)

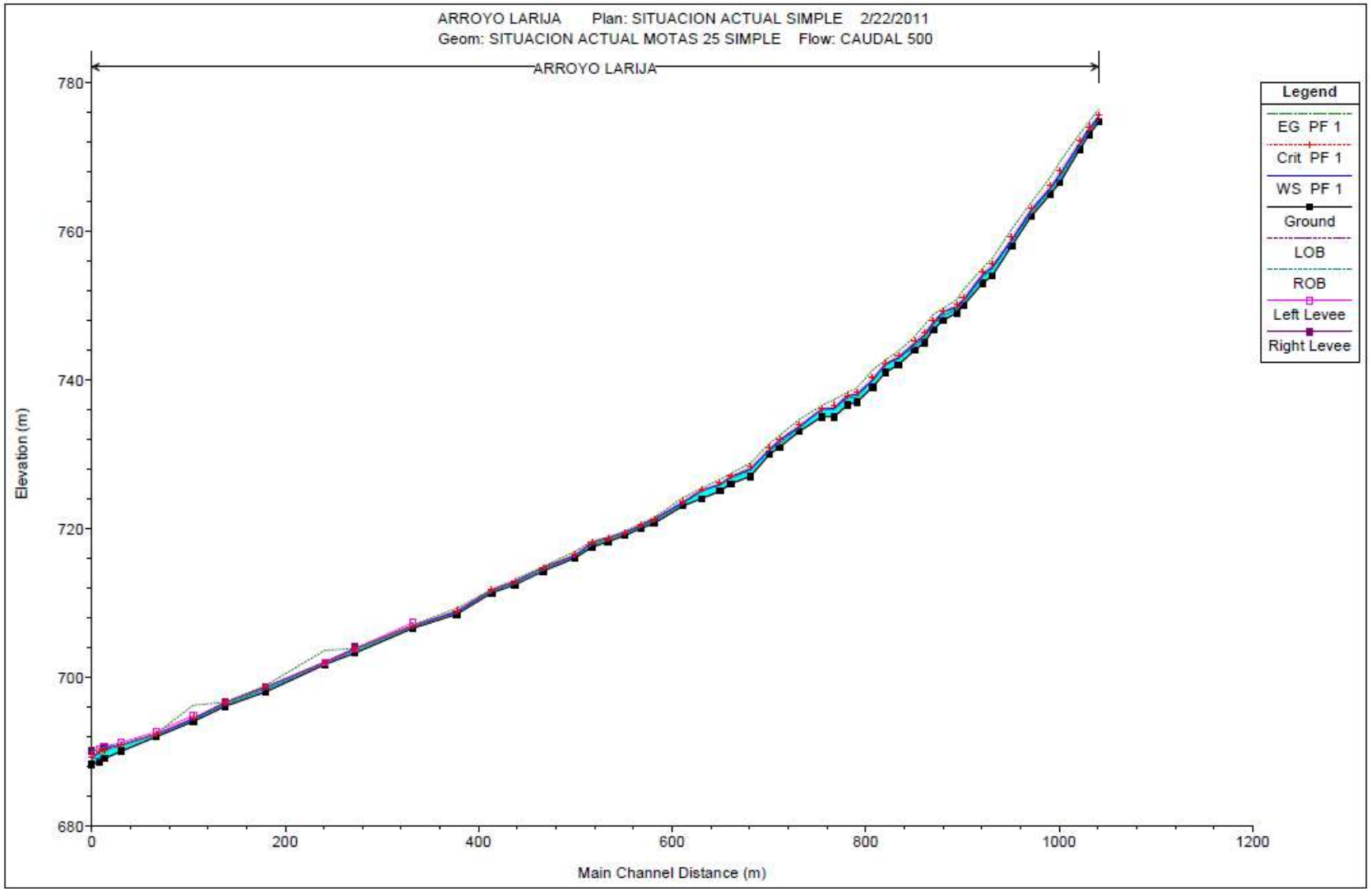

ARROYO LARIJA Plan: SITUACION ACTUAL SIMPLE 2/22/2011
RS = 13
.06
.06
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
Station (m)
ARROYO LARIJA Plan: SITUACION ACTUAL SIMPLE 2/22/2011
RS = 8
ARROYO LARIJA Plan: SITUACION ACTUAL SIMPLE 2/22/2011
RS = 0

APÉNDICE 4.- PERFIL LONGITUDINAL

APÉNDICE 4.A.- PERIODO DE RETORNO A 5 AÑOS

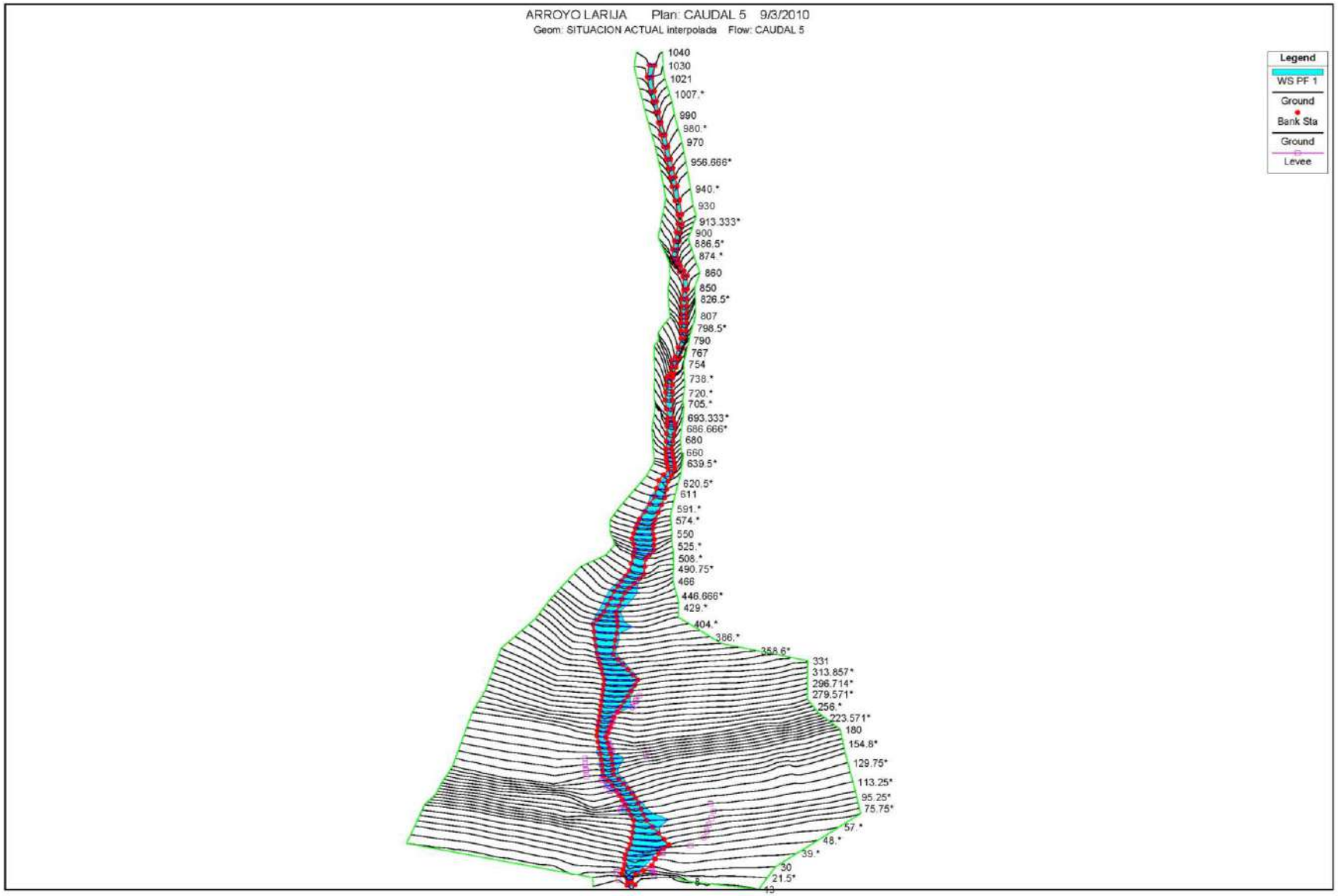

ARROYO LARIJA Plan: CAUDAL 5 9/3/2010
Geom: SITUACION ACTUAL interpolada Flow: CAUDAL 5
ARROYO LARIJA
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
LOB
ROB
Left Levee
Right Levee
Elevation (m)
Main Channel Distance (m)

APÉNDICE 4.B.- PERIODO DE RETORNO A 500 AÑOS

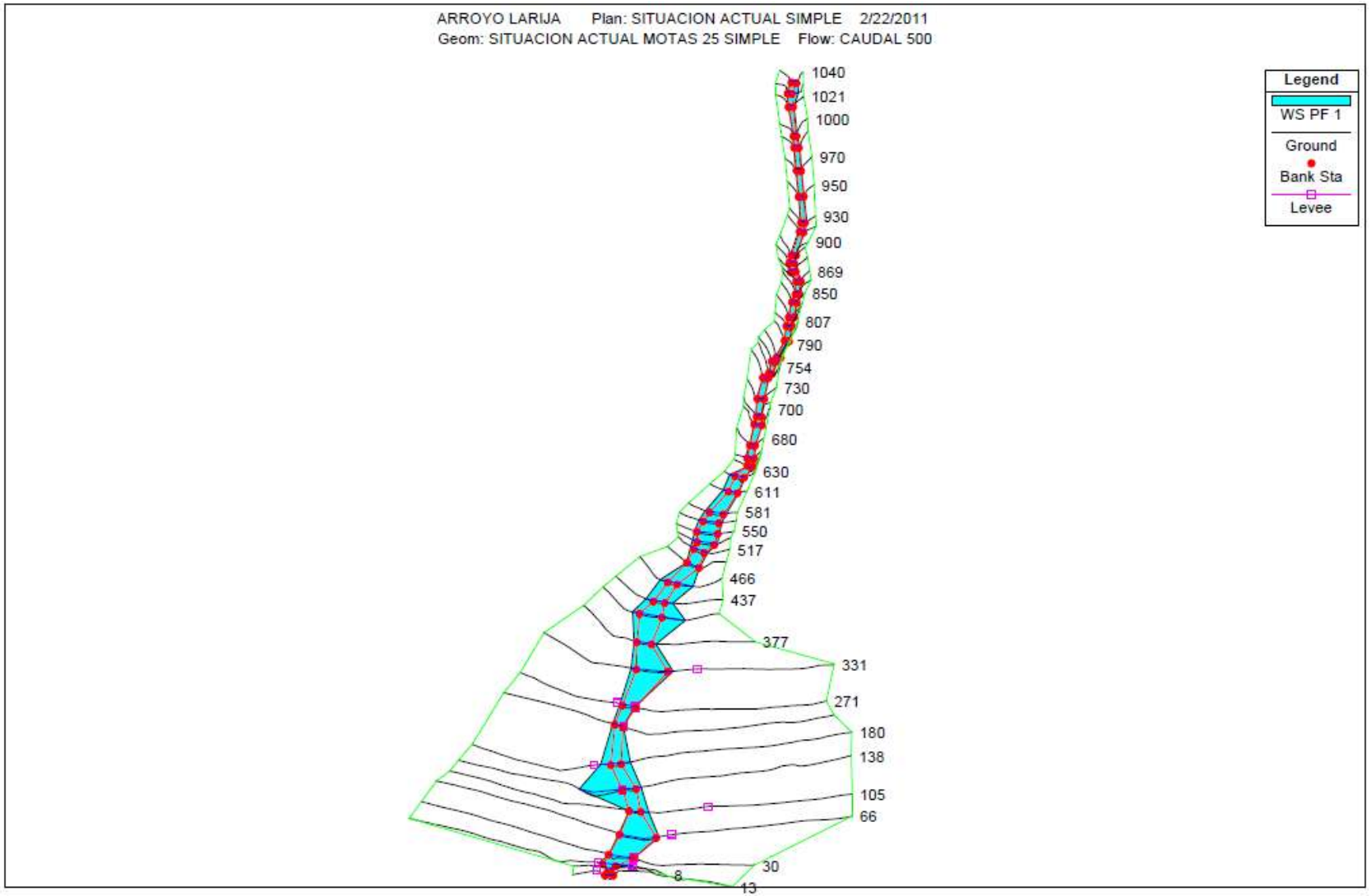

ARROYO LARIJA Plan: SITUACION ACTUAL SIMPLE 2/22/2011
Geom: SITUACION ACTUAL MOTAS 25 SIMPLE Flow: CAUDAL 500
ARROYO LARIJA
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
LOB
ROB
Left Levee
Right Levee
Elevation (m)
780
760
740
720
700
680
0
200
400
600
800
1000
1200
Main Channel Distance (m)

APÉNDICE 5.- PERSPECTIVA DE LA LLANURA DE INUNDACIÓN

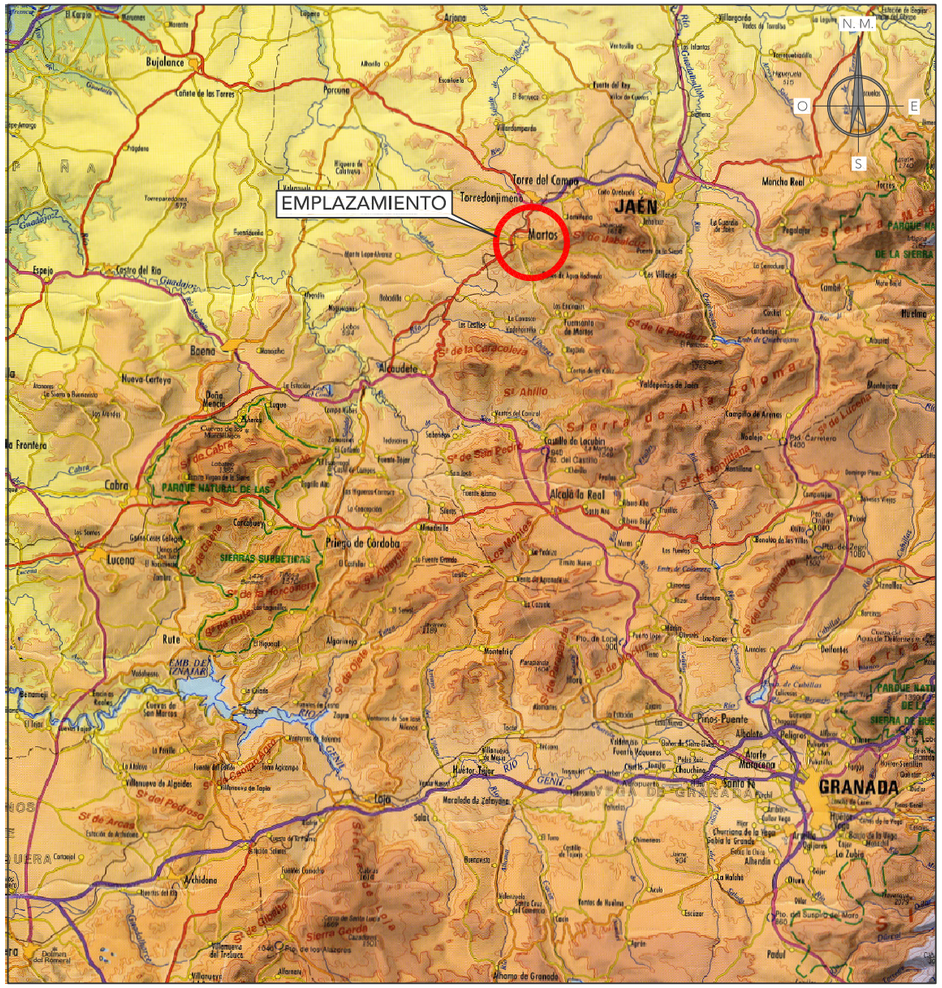
APÉNDICE 5.A.- PERIODO DE RETORNO A 5 AÑOS

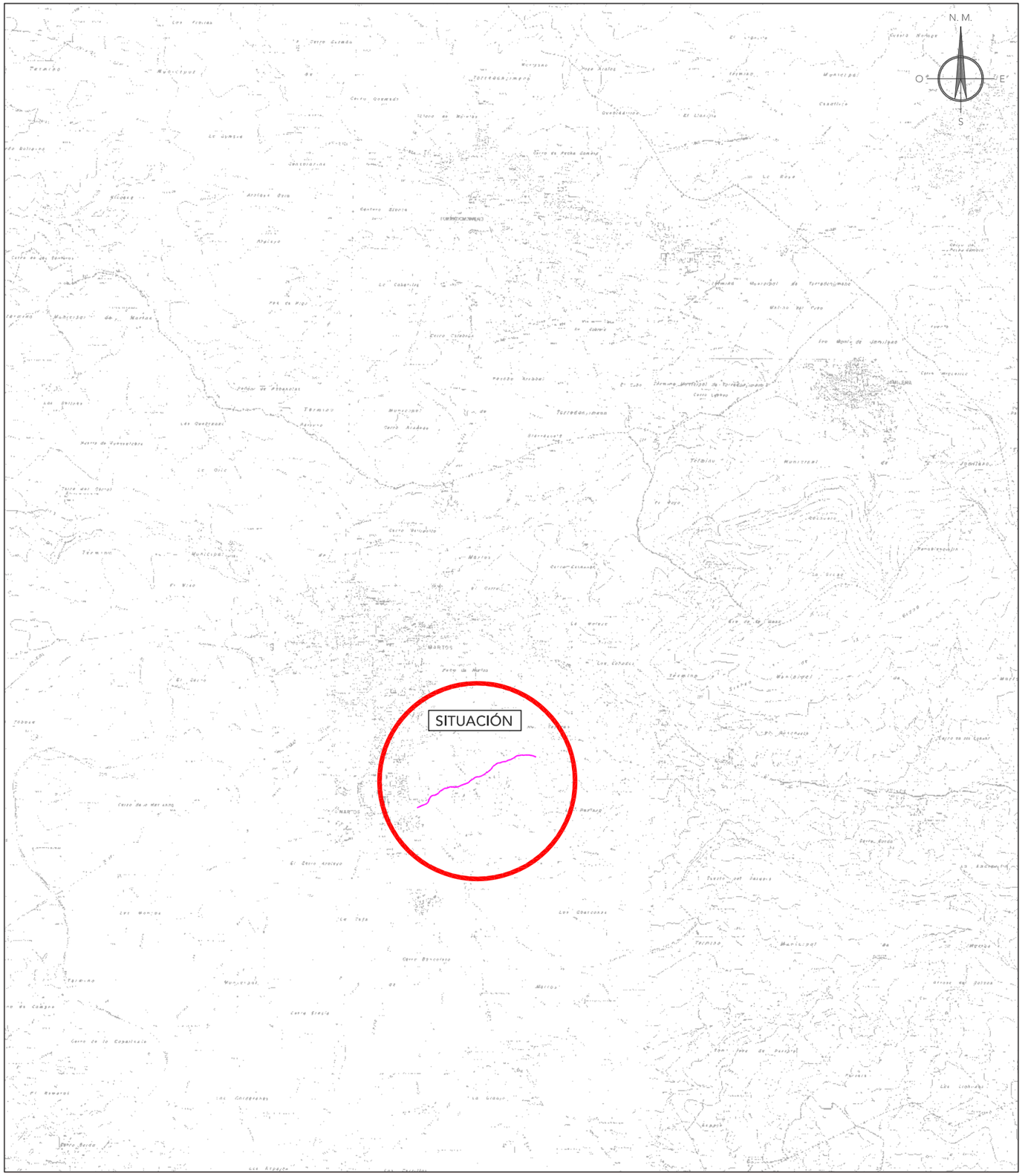

ARROYO LARIJA Plan: CAUDAL 5 9/3/2010
Geom: SITUACION ACTUAL interpolada Flow: CAUDAL 5
Legend
WS PF 1
Ground
Bank Sta
Ground
Levee
1040
1030
1021
1007.*
990
980.*
970
956.666*
940.*
930
913.333*
900
886.5*
874.*
860
850
826.5*
807
798.5*
790
767
754
738.*
720.*
705.*
693.333*
686.666*
680
660
639.5*
620.5*
611
591.*
574.*
550
525.*
508.*
490.75*
466
446.666*
429.*
404.*
386.*
358.6*
331
313.857*
296.714*
279.571*
256.*
223.571*
180
154.8*
129.75*
113.25*
95.25*
75.75*
57.*
48.*
39.*
30
21.5*
13

APÉNDICE 5.B.- PERIODO DE RETORNO A 500 AÑOS


ARROYO LARIJA Plan: SITUACION ACTUAL SIMPLE 2/22/2011
Geom: SITUACION ACTUAL MOTAS 25 SIMPLE Flow: CAUDAL 500
Legend
WS PF 1
Ground
Bank Sta
Levee
1040
1021
1000
970
950
930
900
869
850
807
790
754
730
700
680
630
611
581
550
517
466
437
377
331
271
180
138
105
66
30
13
8

DOCUMENTO N MERO 2. PLANOS





Nº DE PLANO	DESIGNACIÓN	HOJAS
2.1	SITUACIÓN E INDICE	1
2.2	CARTOGRÁFICO DE LA ZONA	1
2.3	CUENCA HIDROLÓGICA	1
2.4	DELIMITACIÓN DE DPH	1
2.5	LLANURA DE INUNDACIÓN PARA T 500 AÑOS	1

ENCARGO
ANTONIO ESTRELLA LARA
JACINTA ORTIZ MIRANDA
ARQUITECTOS

UNGESA

REDACCIÓN DEL ESTUDIO
LOURDES MARTÍNEZ JUGUERA
INGENIERO DE CAMINOS C Y P.

ESTUDIO DE INUNDABILIDAD DEL ARROYO LARIJA EN EL TÉRMINO MUNICIPAL DE MARTOS (JAÉN)

ESCALA
1:50.000

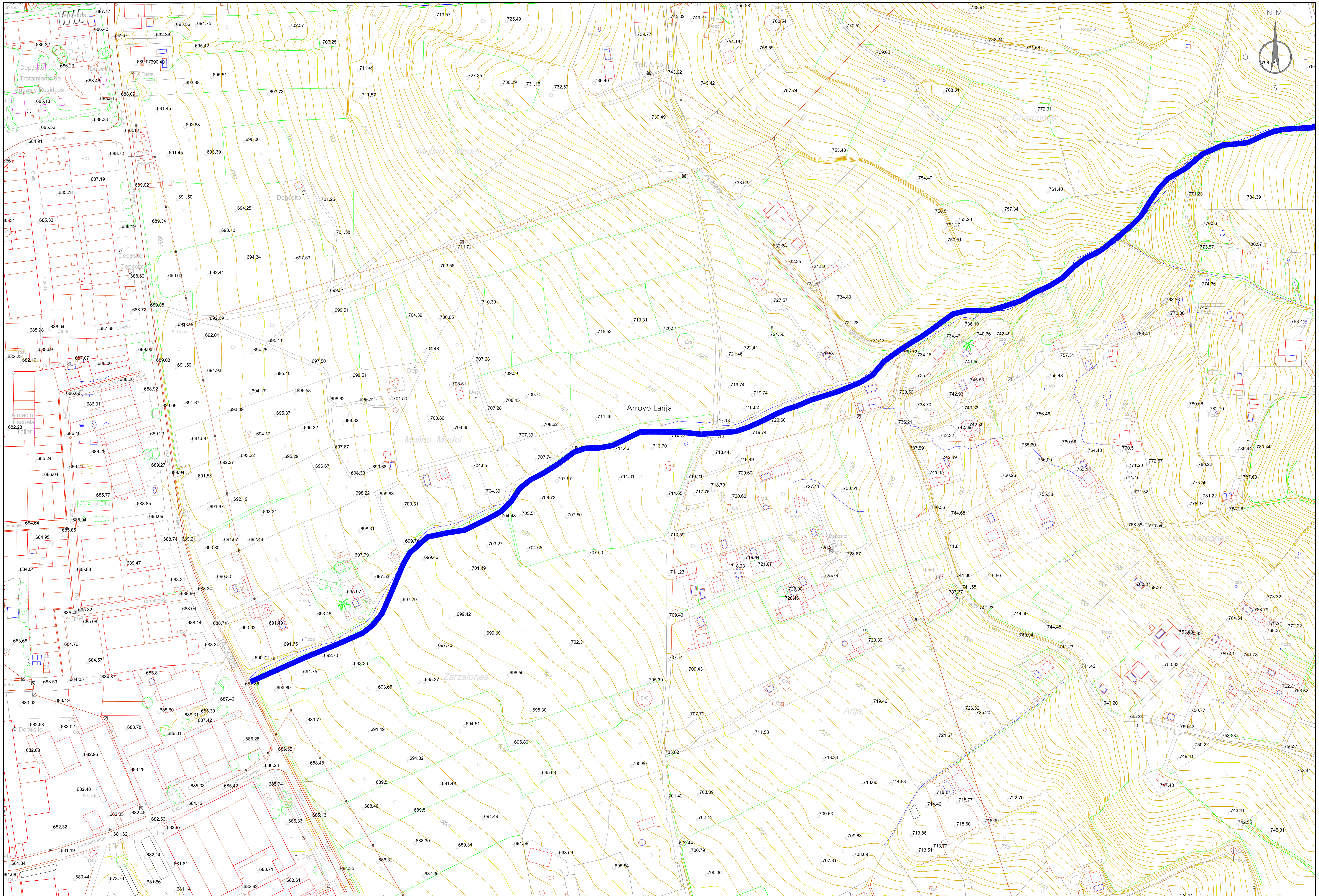
DOCUMENTO
PLANOS

TITULO
ARROYO LARIJA
SITUACIÓN E INDICE

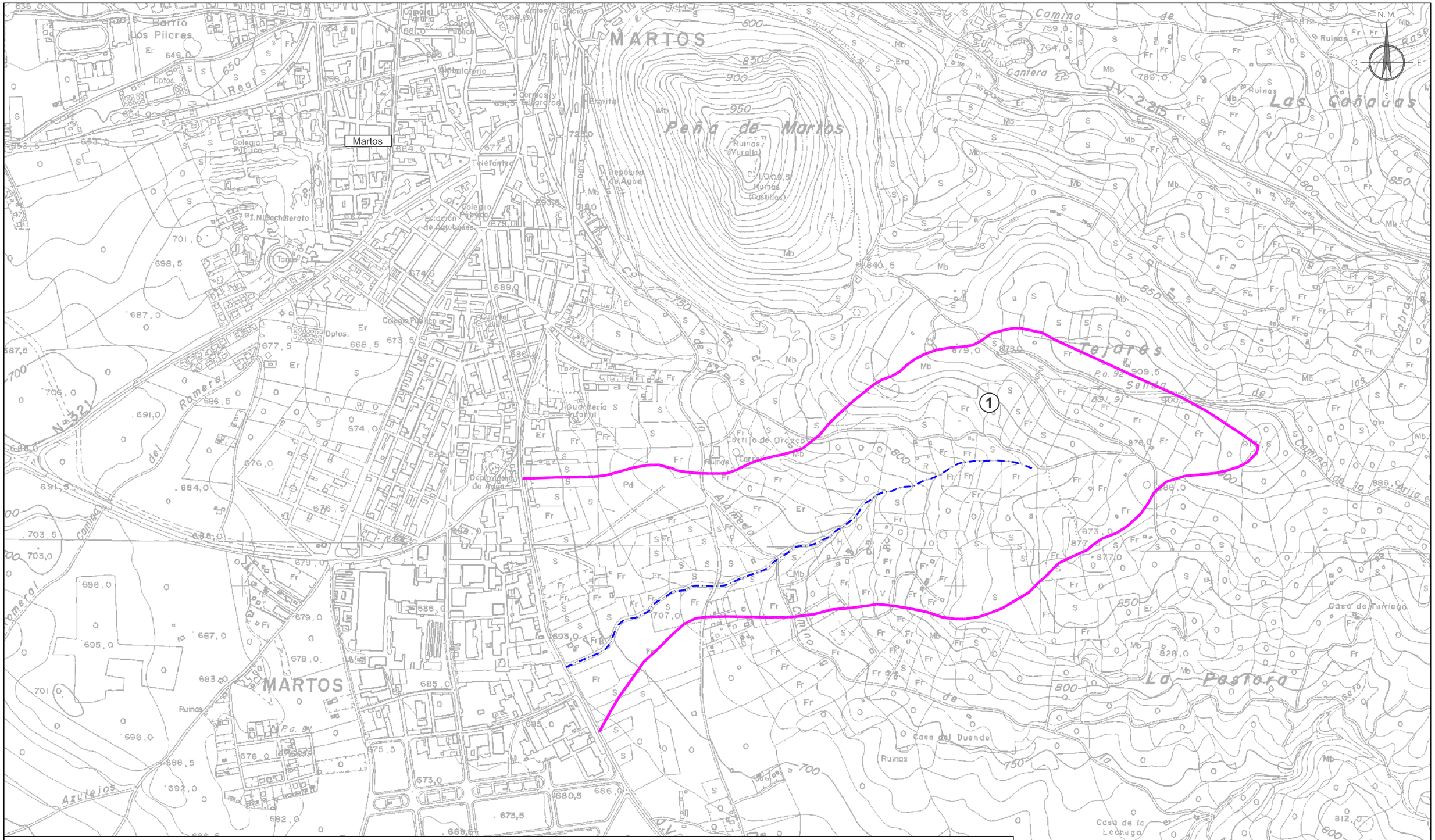
Nº DE PLANO
2.1

FECHA
AGOSTO 2010

DE



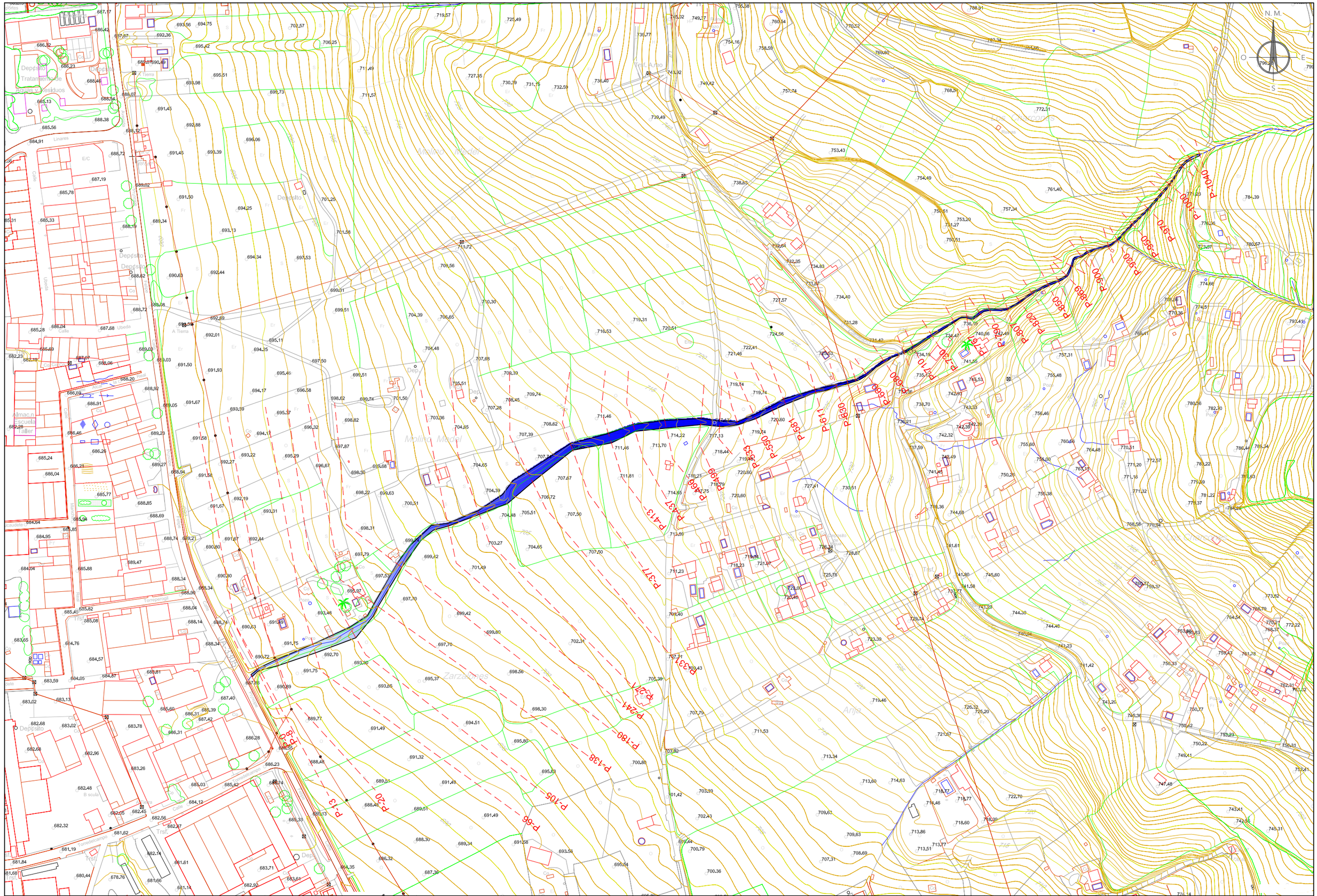
ENCARGO		REDACCIÓN DEL ESTUDIO		ESCALA	DOCUMENTO	TITULO	Nº DE PLANO	FECHA
ANTONIO ESTRELLA LARA JACINTA ORTIZ MIRANDA ARQUITECTOS	INGESA	LOURDES MARTÍNEZ JUGUERA INGENIERO DE CAMINOS C Y P.	ESTUDIO DE INUNDABILIDAD DEL ARROYO LARIJA EN EL TÉRMINO MUNICIPAL DE MARTOS (JAÉN)	1:3.000	PLANOS	ARROYO LARIJA CARTOGRÁFICO DE LA ZONA	2.2	AGOSTO 2010 DE



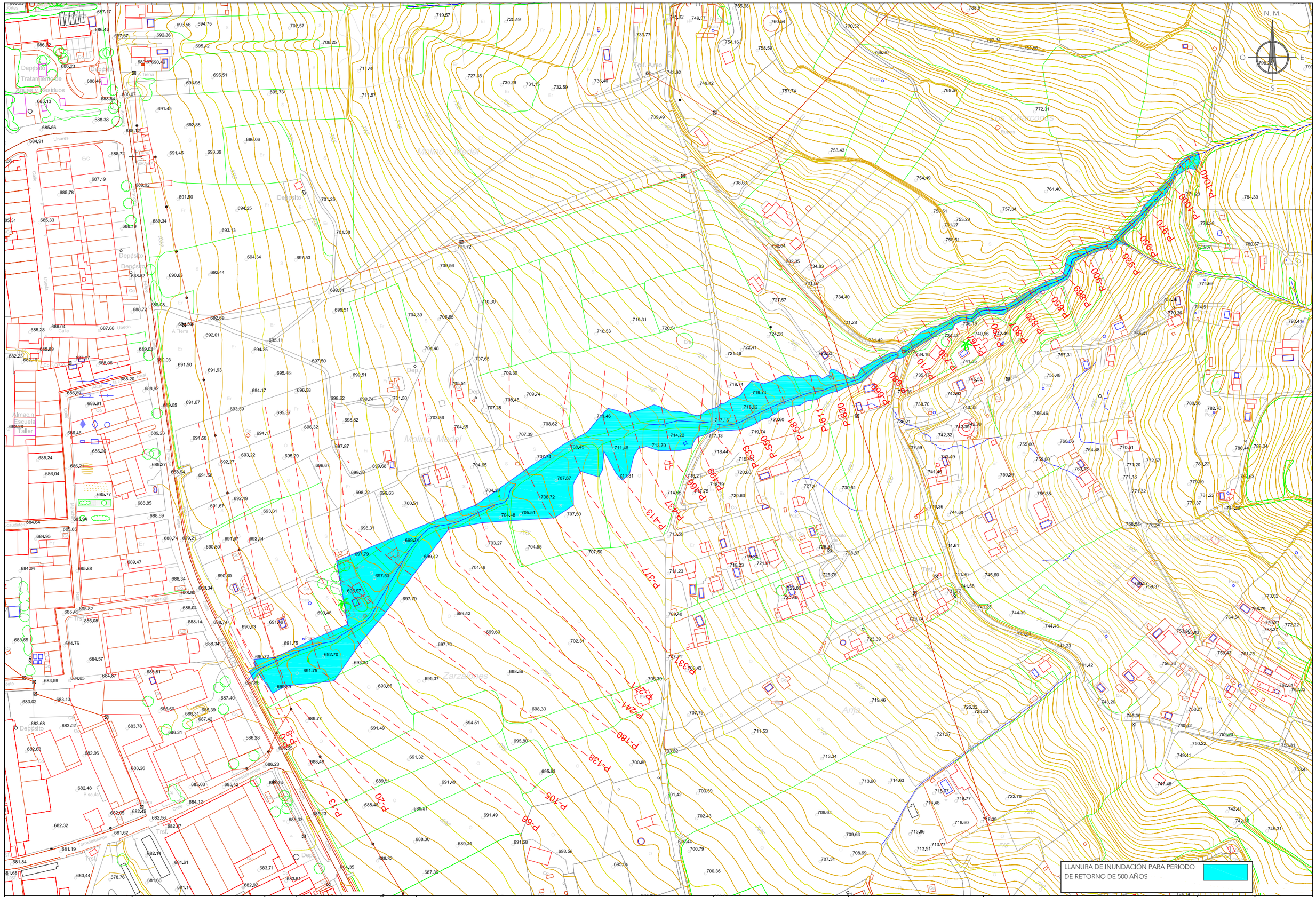
DATOS CUENCA ARROYO LARIJA

CUENCA	NOMBRE ARROYO	COTA PUNTO BAJO CAUCE	COTA PUNTO ALTO CAUCE	COTA PUNTO ALTO CUENCA	LONGITUD CUENCA	LONGITUD CAUCE Km	PENDIENTE %	SUPERFICIE Km²
1	Arroyo Larija	690	835	914	2.15	1.50	9.67	1.04

ENCARGO ANTONIO ESTRELLA LARA JACINTA ORTIZ MIRANDA ARQUITECTOS	INGESA	REDACCIÓN DEL ESTUDIO LOURDES MARTÍNEZ JUGUERA INGENIERO DE CAMINOS C.Y P.	ESTUDIO DE INUNDABILIDAD DEL ARROYO LARIJA EN EL TÉRMINO MUNICIPAL DE MARTOS (JAÉN)	ESCALA 1:10.000	DOCUMENTO PLANOS	TITULO ARROYO LARIJA CUENCA HIDROLÓGICA	Nº DE PLANO 2.3	FECHA AGOSTO 2010 DE



ENCARGO ANTONIO ESTRELLA LARA JACINTA ORTIZ MIRANDA ARQUITECTOS	UNGESA	REDACCIÓN DEL ESTUDIO LOURDES MARTÍNEZ JUGUERA INGENIERO DE CAMINOS C.Y.P.	ESTUDIO DE INUNDABILIDAD DEL ARROYO LARIJA EN EL TÉRMINO MUNICIPAL DE MARTOS (JAÉN)	ESCALA 1:3.000	DOCUMENTO PLANOS	TITULO ARROYO LARIJA DELIMITACIÓN DEL DPH	Nº DE PLANO 2.4	FECHA AGOSTO 2010 DE



ENCARGO ANTONIO ESTRELLA LARA JACINTA ORTIZ MIRANDA ARQUITECTOS	INGESA	REDACCIÓN DEL ESTUDIO LOURDES MARTÍNEZ JUGUERA INGENIERO DE CAMINOS C Y P.	ESTUDIO DE INUNDABILIDAD DEL ARROYO LARIJA EN EL TÉRMINO MUNICIPAL DE MARTOS (JAÉN)	ESCALA 1:3.000	DOCUMENTO PLANOS	TITULO ARROYO LARIJA LLANURA DE INUNDACIÓN PARA T500 AÑOS	Nº DE PLANO 2.5	FECHA AGOSTO 2010 DE