

PLAN ESPECIAL DE INFRAESTRUCTURAS PEI-PFOT-191 PSFV ABARLOAR SOLAR Y SUBESTACIÓN ELÉCTRICA Y LÍNEA ASOCIADA.

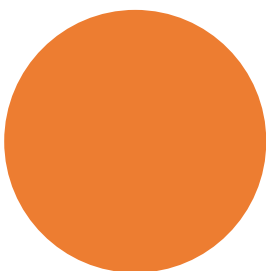
VERSIÓN INICIAL DEL PLAN: DOCUMENTO PARA APROBACIÓN INICIAL

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COMUNIDAD DE MADRID



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1. INTRODUCCIÓN

Se redacta el presente informe en relación a los efectos sobre la hidrología derivados de la ejecución y operación de las Plantas Solares Fotovoltaicas (PFV) denominadas GP07B-191. El presente informe se redacta para dar cumplimiento al documento Evaluación de Impacto Ambiental de Proyectos de Parques Fotovoltaicos Terrestres (MITERD, 2020).

El análisis desarrollado en la presente memoria se ha llevado a cabo atendiendo al proyecto inicial conforme al cual se desarrolló el Estudio de Impacto Ambiental, y, por lo tanto, sin evaluar el ajuste de ocupación presentado para la Planta Solar Fotovoltaica. Sin embargo, los resultados se esperan, en cualquier caso, de menor magnitud tras el ajuste. El Promotor, mantendrá, además, en la misma magnitud aquellas medidas que fueran de aplicación inicialmente.

En el informe se analiza el contexto climatológico (apartado 3) del entorno en el que se desarrolla la actividad prestando atención no sólo a las precipitaciones diarias y eventos extremos (apartado 3.1) sino también al estudio de tormentas específicas (apartado 3.2). Con esta información se realizan los cálculos hidrológicos (apartado 4) que permitirán analizar las consecuencias sobre la dinámica hidrológica de los cauces en cuyo entorno se ejecutan las plantas (apartado 4.1) y en detalle los efectos sobre los fenómenos infiltración/escorrentía derivados de tormentas concretas (apartado 4.2). Se analizan igualmente las consecuencias derivadas de la ejecución de las plantas sobre la planificación hidrológica (apartado 5) y finalmente se abordan los posibles efectos erosivos derivados de la dinámica hidrológica (apartado 6) y se estiman los posibles efectos sobre la hidrología derivados de la ejecución de las obras (apartado 7).

2. DESCRIPCIÓN DE LAS INFRAESTRUCTURAS

El proyecto solar fotovoltaico está integrado por la PSFV Abarloar, así como por las instalaciones de evacuación hasta la subestación elevadora SET Abarloar 30/220 kV para su posterior transporte hasta el punto de acceso designado.

El proyecto consiste en la instalación de una PSFV de generación de energía eléctrica, que permite el aprovechamiento de la energía solar a partir de células fotoeléctricas para transformar la energía procedente del sol en electricidad, que posteriormente se acondicionará y evacuará a la red.

Las infraestructuras del sistema fotovoltaico con conexión a red eléctrica se componen de dos partes fundamentales:

- Un generador fotovoltaico donde se recoge y se transforma la energía de la radiación solar en electricidad, mediante módulos fotovoltaicos
- Una parte de transformación de esta energía eléctrica de corriente continua a corriente alterna que se realiza en el inversor y en los transformadores, para su inyección a la red.

La célula fotoeléctrica es la unidad más pequeña de generación de la planta. Diversas células componen un panel o módulo fotovoltaico. La totalidad de paneles fotovoltaicos, unidos en combinaciones de series y paralelos, componen la parte generadora (denominada generador fotovoltaico) de la instalación.

Los paneles se montan sobre estructuras móviles denominadas seguidores. Los seguidores se orientan en dirección Sur-Norte y permiten la orientación de los paneles en un eje, en dirección Este-Oeste. Los seguidores logran que la radiación incidente de los paneles sea mayor a la que se captaría en una posición fija y por tanto se incrementa la producción de energía eléctrica de la planta fotovoltaica. Estos seguidores se mueven con un pequeño motor alimentado por una placa solar.

Los módulos fotovoltaicos se encuentran anclados en unas estructuras soporte metálicas, orientadas al sur y que los mantiene en un ángulo óptimo de inclinación para todo el año. La estructura donde se sitúan los módulos está fijada al terreno y constituida por diferentes perfiles y soportes, con un sistema de accionamiento para el seguimiento solar y un autómata que permita optimizar el seguimiento del sol todos los días del año. Además, disponen de un sistema de control frente a ráfagas de viento superiores a 60Km/h que coloca los paneles fotovoltaicos en posición horizontal para minimizar los esfuerzos debidos al viento excesivo sobre la estructura.

La electricidad, generada como corriente continua en el generador fotovoltaico, es conducida a un inversor cuyas funciones principales son:

- Transformar la corriente continua en alterna.
- Conseguir el mayor rendimiento del campo fotovoltaico.
- Actuar como protección (Tensión fuera de rango, frecuencia inadecuada, cortocircuitos, baja potencia de paneles fotovoltaicos, sobretensiones, etc.).

El funcionamiento de los inversores es totalmente automático. A partir de que los módulos solares generan potencia suficiente, la electrónica de potencia implementada en el inversor supervisa la tensión, la frecuencia de red y la producción de energía, en este caso corriente alterna senoidal 645V 50Hz. A partir de que ésta es suficiente, el aparato comienza a inyectar a la red.

El inversor fotovoltaico convierte la energía generada por los paneles en corriente continua, en energía en corriente alterna con el nivel de tensión y frecuencia adecuadas para poder ser introducida en la red. La salida de los inversores en baja tensión, se eleva a 30 kV mediante un transformador de MT instalado en el propio centro de inversores.

La energía de cada centro de inversores, es evacuada a través de diversos ramales internos de media tensión, que conectarán los centros de inversores a través de una línea enterrada, con una subestación transformadora colectora común a otras instalaciones fotovoltaicas (SET Abarloar 30/220 kV).

De la SET Abarloar 30/220 kV partirá una línea de alta tensión a 220 kV, la cual mediante subestaciones intermedias se transformará a 400 KV para finalmente verter la energía en la SET 440kV Loeches, de REE.

Las instalaciones eléctricas de evacuación de esta instalación fotovoltaica serán comunes y coordinadas con otros promotores que actualmente están tramitando proyectos de generación renovable con conexión a la SET Loeches 400kV.

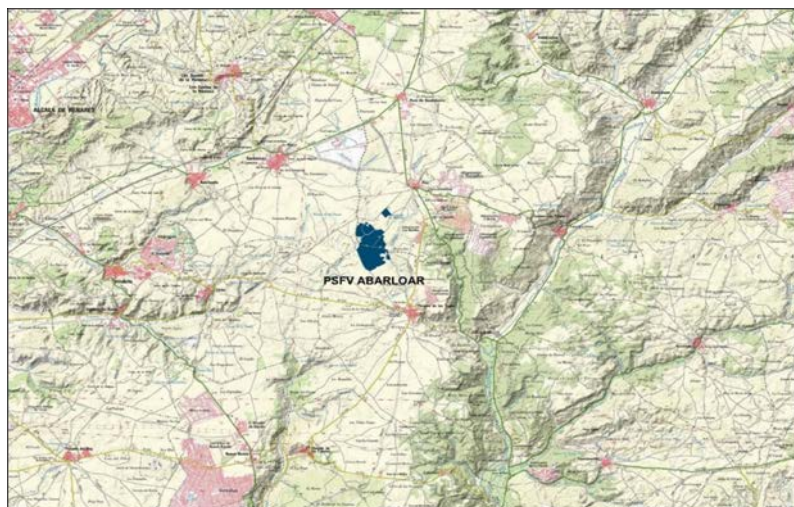


Figura 1. Ubicación de la PFV considerada en el presente estudio.

3. CÁLCULOS CLIMATOLÓGICOS

El presente apartado comprende en primer lugar el análisis de las precipitaciones diarias históricas en términos descriptivos inicialmente y posteriormente ajustando los datos a una distribución de valores extremos (Gümbel) de cara a obtener las precipitaciones para períodos de retorno de 2, 5, 10, 25, 50, 100 y 500 años cumpliendo no solo con los requisitos establecidos en MITERD (2020) sino también incluyendo otros valores de interés para la gestión hidrológica.

El análisis de los eventos individuales se ha completado empleando datos horarios de cara a profundizar en el estudio de los fenómenos de infiltración/escorrentía que deben conducir a tomar decisiones precisas de cara a reponer las condiciones previas en términos de aportaciones a los cauces existentes e infiltración sobre el terreno.

3.1 ANÁLISIS DE DATOS DIARIOS DE PRECIPITACIONES Y EVENTOS EXTREMOS

Para el estudio de tormentas se ha empleado la estación meteorológica perteneciente a la red de estaciones del Sistema de Información Agroclimática para el Regadío (SIAR) ubicada en el término municipal de Marchamalo (coordenadas X/Y: 482270/4503340). Se han empleado registros diarios de precipitación entre los años 2004 y 2020.

La tabla 1 resumen los estadísticos más representativos de los datos diarios registrados en la estación analizada.

Tabla 1. Características de las tormentas registradas a lo largo de todo el periodo

Variable	Todos los datos	Excluyendo P=0
Volumen promedio (mm)	1.13	4.13
Desviación típica (mm)	3.66	6.04
Coefficiente de asimetría	5.22	2.64
Curtosis	34.89	8.82
Cuantil 90 volumen (mm)	3.18	11.54

Las figuras 2 y 3 muestran los valores promedio diarios de precipitación registrados en la estación y periodo referidos y tanto la probabilidad de precipitación como los valores de precipitación máximos registrados.

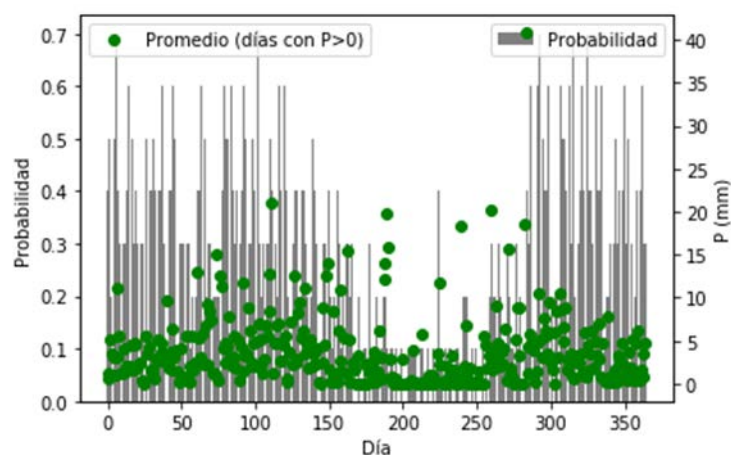


Figura 2. Valores promedio diarios y probabilidad de precipitación.

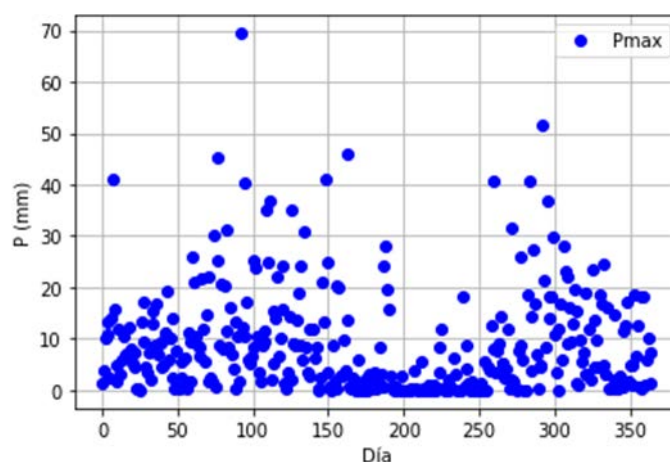


Figura 3. Valores máximos diarios registrados.

La mayor parte de las tormentas son de escasa magnitud tal y como se observa en la figura 4 que presenta la distribución de probabilidad registrada de las tormentas.

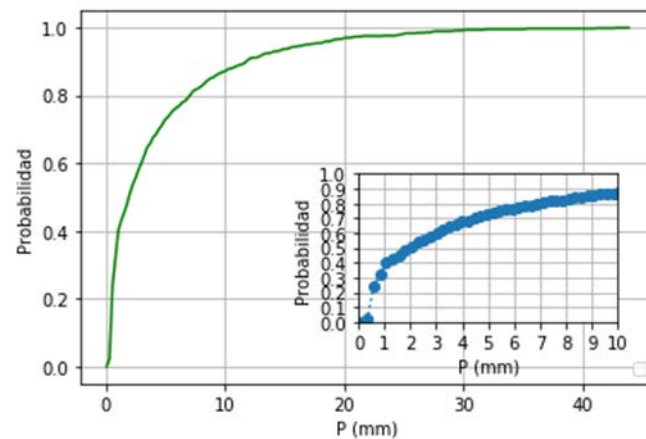
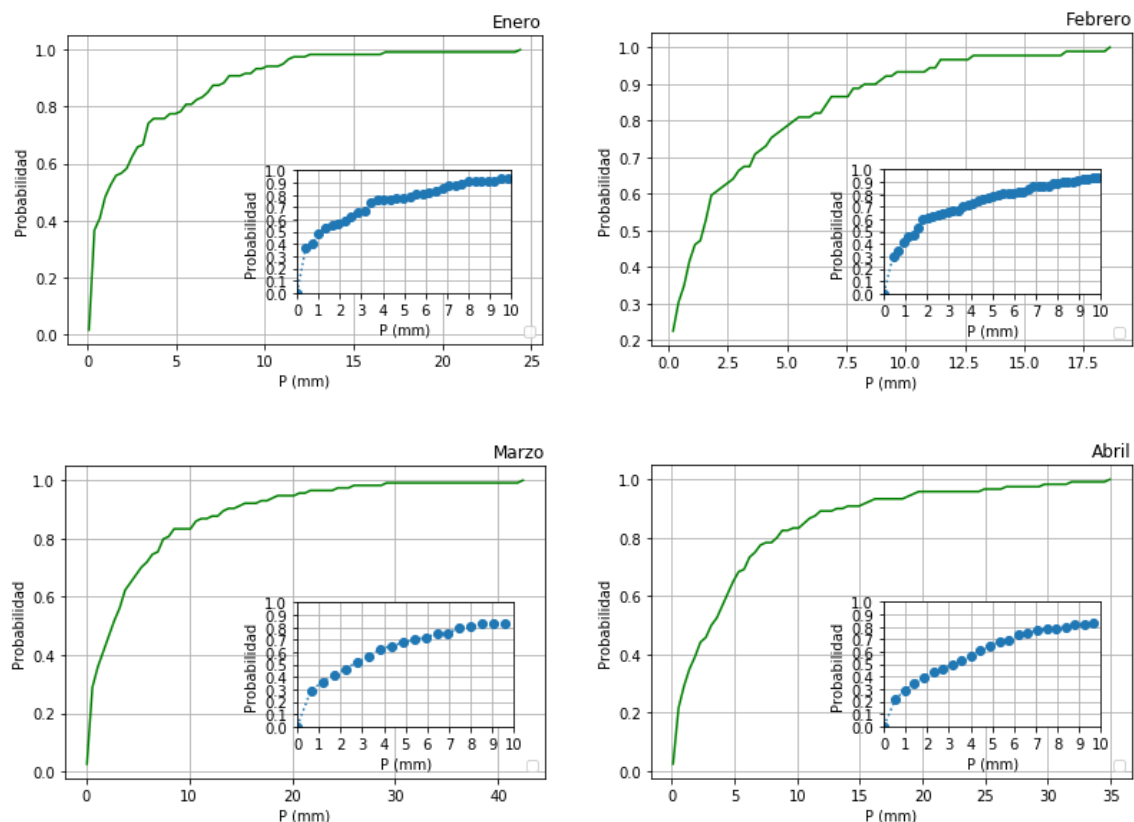


Figura 4. Distribución de probabilidad por volumen de precipitación a partir de los datos registrados en la estación analizada.

La figura 5 presenta la distribución de probabilidad de tormentas por meses.



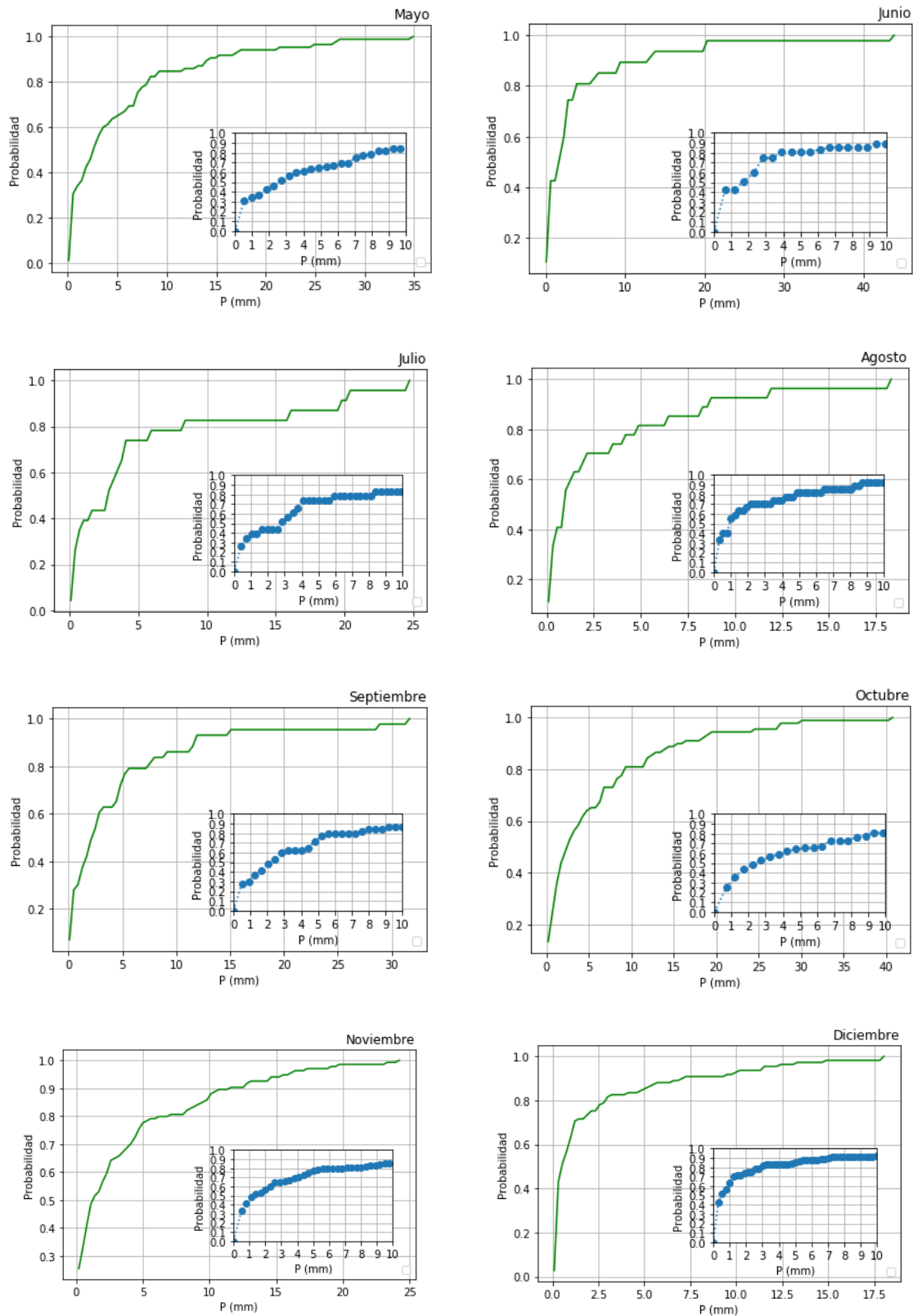


Figura 5. Distribución de probabilidad de tormentas por meses.

Se han ajustado los de precipitación máximos diarios a una distribución de valores extremos (Gümbel, ecuación 1), observándose el resultado en la figura 5.

$$F(x) = \exp\left\{-\exp\left[-(x-u)/\alpha\right]\right\} \quad [1]$$

Donde $F(x)$ representa la función de distribución de probabilidad de la variable aleatoria x (precipitación), \exp la función exponencial y tanto u como α los parámetros de la distribución de Gümbel que se han ajustado por mínimos cuadrados.

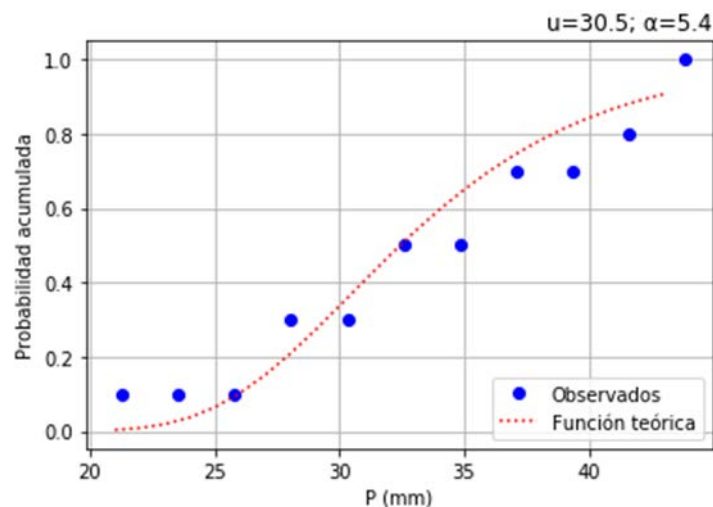


Figura 6. Ajuste de los datos a la distribución de probabilidad de Gümbel.

A partir de [1] y de la definición de período de retorno como el periodo que en promedio ocurre entre dos eventos de una determinada magnitud se despejan los valores de precipitación vinculados a cada período de retorno previsto (ecuación 2).

$$x_T = u - \alpha \ln\left[\ln\left(\frac{T}{T-1}\right)\right] \quad [2]$$

Donde x_T representa la precipitación para un período de retorno T dado, u y α son los parámetros de la función de Gümbel y \ln la función logaritmo natural.

La tabla 2 muestra tanto los valores de precipitación estimados a partir de la distribución de Gümbel ajustada como aquellos deducidos de la monografía Máximas Lluvias Diarias en la España Peninsular (MFOM, 1999). Se han seleccionado como precipitaciones de proyecto aquellas más desfavorables entre ambos valores (marcadas en negrita en la tabla 2).

Tabla 2. Valores de precipitación (mm) para diferentes periodos de retorno.

Periodo de retorno	P (ajuste Gumbel)	P (MFOM, 1999) (cv/Y _t)/P=39mm
2	32.44	36.03 (0.34/.924)
5	38.56	47.24 (0.34/1.2113)
10	42.61	56.08 (0.34/1.438)
25	47.73	66.96 (0.34/1.717)
50	51.52	75.27 (0.34/1.93)
100	55.29	84.78 (0.34/2.17)
500	64.00	108.61 (0.34/2.785)

3.2 ANÁLISIS DE TORMENTAS INDIVIDUALES

Para el estudio de las tormentas individuales se han empleado las estaciones meteorológicas de la red municipal del ayuntamiento de Madrid por disponer de registros horarios disponibles de los años 2019, 2020 y 2021. En concreto se han empleado datos de la estación meteorológica ubicada en el Parque Juan Carlos I. El principal objetivo de este apartado es determinar ejemplos de tormentas representativas que pudieran extrapolarse a las zonas de estudio y por eso se han seleccionado las estaciones cuyas condiciones pudieran resultar más extrapolables por estar fuera de entornos puramente urbanos.

La figura 7 representa los hietogramas de la totalidad de tormentas registradas por meses en la estación referida.

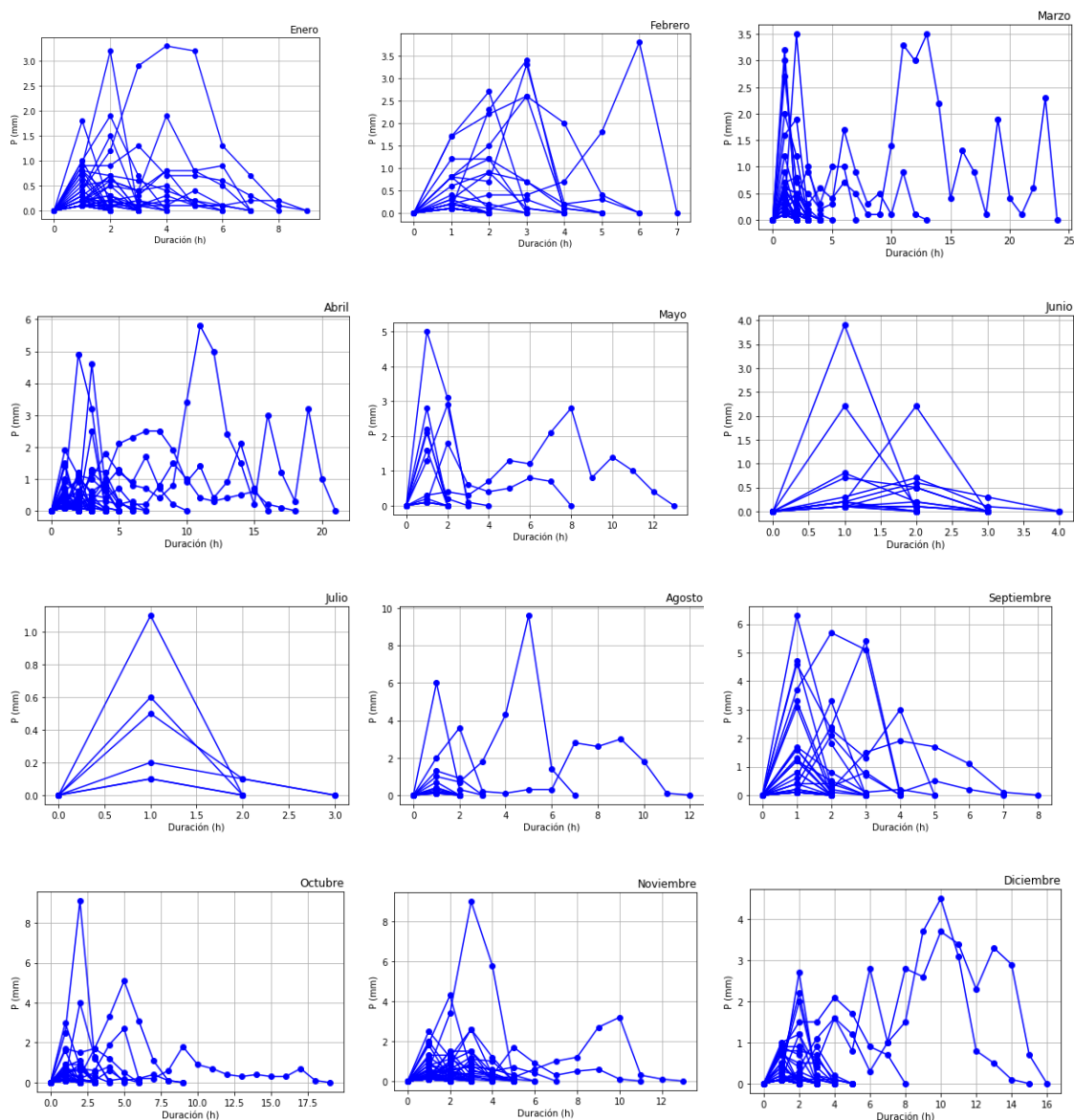


Figura 7. Hietogramas de las tormentas registradas por meses.

La tabla 3 presenta algunas de las características de las tormentas registradas en función de las duraciones.

Tabla 3. Características de las tormentas por duración.

Duración	Número eventos	de	Promedio P (mm)	Cuantil 80 P (mm)	Máxima P (mm)
1	181		0.34	0.4	3.9
2	89		1.26	1.8	8.1
3	36		2.58	3.6	14.5
4	23		4.10	6.6	18.8
5	12		4.1	6.3	13.09
6	12		5.24	7.3	18.79
7	4		7.32	9.79	9.79
8	4		9.77	17.59	17.59
9	1		8.7	8.7	8.7
10	1		8.0	8.0	8.0
11	1		16.8	16.8	16.8
12	3		11.46	12.79	12.79
14	1		20.0	20.0	20.0
15	2		24.75	30.09	30.09
17	1		8.79	8.79	8.79
18	1		8.7	8.7	8.7
20	1		33.0	33.0	33.0
23	1		25.2	25.2	25.2

La tabla 4 muestra algunas de las características más relevantes de las tormentas registradas por meses.

Tabla 4. Características de las tormentas por meses.

Mes	D promedio (h)	P (mm)	promedio	D max (h)	P max (mm)	Cuantil 80 (h)	D	Cuantil 80 (mm)	P
En	2.52	1.21		8	13.1	5		1.7	
Fb	2.14	1.73		6	7.3	4		4.5	
Mz	2.63	1.83		23	25.2	3		1.7	
Ab	3.2	25		20	33	4		3.2	
My	2.75	3.28		12	12.7	3		4.9	
Jn	1.8	0.99		3	3.9	2		2.3	
Jl	1.33	0.47		2	1.1	2		0.6	
Ag	2.21	3.34		11	18.8	2		6.3	
Sp	1.97	2.77		7	14.5	3		5.8	
Oc	2.8	2.52		18	17.6	4		4.1	
Nv	2.45	1.76		12	18.8	4		2.3	
Dc	2.52	2.0		15	30.1	3		2.3	

La tabla 5 resume algunas de las características más relevantes observadas.

Tabla 5. Características de las tormentas registradas a lo largo de todo el periodo.

Variable	Valor
Número de eventos	373
Duración promedio (h)	2.51
Volumen promedio (mm)	2.02
Duración máxima (h)	23
Volumen máximo (mm/h)	33
Duración más frecuente (h)	1
Cuantil 80 duración (h)	3
Cuantil 80 volumen (mm)	2.6

4. ANÁLISIS Y SIMULACIÓN HIDROLÓGICA

En el presente apartado se explican y presentan los resultados de la simulación hidrológica. Este proceso comienza con la delimitación de las cuencas empleando los algoritmos existentes en QGIS sobre cartografía del Instituto Geográfico Nacional (Modelo Digital del Terreno MDT25 del PNOA) y corregido de forma manual empleando los mapas raster publicados por dicho Instituto (MTN25). Las cuencas se han delimitado definiendo la sección de control en el punto identificable más aguas abajo del cauce en cuya cuenca se ubican las instalaciones (generalmente en el punto de confluencia con otro cauce).

Una vez delimitadas las cuencas se ha procedido a la identificación de usos del suelo interiores para lo cual se han empleado la información temática contenida en CORINE CORINE Land Cover (2018).

Para la generación de los modelos espaciales para su importación a HECRAS se han empleado los modelos digitales del terreno con curvas de nivel a 2 m (MDT02) publicados por el Instituto Geográfico Nacional.

Para la estimación de la escorrentía se ha empleado el modelo del número de curva de la EPA de USA (USDA, 1986).

$$E = (P - P_0)^2 / (P - P_0 + S) \quad [3]$$

Empíricamente se determina $P_0 = 0.2 S$ y $S = 25.4 (1000 / CN - 10)$. Siendo CN el número de curva. Los resultados del modelo del número de curva son muy sensibles a las condiciones iniciales del suelo y por eso se han considerado las correcciones para suelos húmedos y secos definidos en USDA (1986).

La tabla 6 muestra los números de curva seleccionados de entre los definidos en USDA (1986) para los usos del suelo incluidos en la capa CORINE Land Cover (2018).

Tabla 6 Usos del suelo de CORINE Land Cover (2018) y CN asignado.

Uso del suelo	CN
1.1.1 Tejido urbano continuo	98
1.1.2 Tejido urbano discontinuo	85
1.2.1. Zonas industriales o comerciales	88
1.2.2. Redes viarias, ferroviarias y terrenos asociados	98
1.2.3. Zonas portuarias	98
1.2.4. Aeropuertos	98
1.3.1. Zonas de extracción minera	74
1.3.2. Escombreras y vertederos	74
1.3.3. Zonas en construcción	86

Uso del suelo	CN
1.4.1. Zonas verdes urbanas	69
1.4.2. Instalaciones deportivas y recreativas	69
2.1.1. Tierras de labor en secano	78
2.1.2. Terrenos regados permanentemente	78
2.1.3. Arrozales	81
2.2.1. Viñedos	60
2.2.2. Frutales	60
2.2.3. Olivares	60
2.3.1. Praderas	69
2.4.1. Cultivos anuales asociados con cultivos permanentes	72
2.4.2. Mosaico de cultivos	72
2.4.3. Terrenos principalmente agrícolas, pero con importantes espacios de vegetación natural	72
2.4.4. Sistemas agroforestales	65
3.1.1. Bosques de frondosas	48
3.1.2. Bosques de coníferas	58
3.1.3. Bosque mixto	58
3.2.1. Pastizales naturales	69
3.2.2. Landas y matorrales	51
3.2.3. Vegetación esclerófila	51
3.2.4 Matorral boscoso de transición	51
3.3.1 Playas, dunas y arenales	79
3.3.2 Roquedo	79
3.3.3 Espacios con vegetación escasa	79
3.3.4 Zonas quemadas	79
3.3.5 Glaciares y nieves permanentes	98
4.1.1 Humedales y zonas pantanosas	98
4.1.2 Turberas	98

Uso del suelo	CN
4.2.1 Marismas	98
4.2.2 Salinas	98

Se ha supuesto que el CN en los terrenos afectados por las PFVs se incrementa un 20% respecto del CN original del uso del suelo en el que se ubica teniendo en consideración la ocupación efectiva del suelo por elementos de cimentación, el vuelo de las placas y la parte de instalaciones auxiliares que conllevan impermeabilizaciones reales de terreno (edificaciones o viales). La incertidumbre existente en cuanto a la validez de los coeficientes asignados recomienda su comprobación en fases posteriores de desarrollo y la realización de trabajos de comprobación en campo del comportamiento real y los efectos de este tipo de instalaciones (en realidad no conllevan impermeabilización como tal de la superficie sino intercepción de la precipitación que no tiene necesariamente que traducirse en impermeabilización).

Para estimar el caudal generado en la cuenca se ha empleado el método racional (eq. 4) empleando la expresión para la intensidad horaria (ecuación artículo 2.2.4 a)) definida en la Instrucción de Drenaje de Carreteras (FOM, 2016) (eq. 5). Para la estimación del caudal punta orientado a la determinación de calados vinculados a los diferentes periodos de retorno se ha supuesto una tormenta de duración igual al tiempo de concentración empleando la expresión de Kirpich (1940) (eq. 6).

$$Q = I \sum c_i A_i \quad [4]$$

$$I = I_d \left(\frac{I_1}{I_d} \right)^{\left(\frac{28^{0.1} - t_c^{0.1}}{28^{0.1} - 1} \right)} \quad [5]$$

$$t_c = 3.976 \frac{L^{0.77}}{I_0^{0.385}} \quad [6]$$

Donde I es la intensidad horaria de una tormenta de duración igual al tiempo de concentración (t_c), c_i es el coeficiente de escorrentía ($c = E/P$), A_i es el área de cada uso del suelo, I_d es la intensidad promedio horaria ($I_d = P/24$), I_1/I_d es un índice de torrencialidad ($I_1/I_d = 10$ según la figura 2.4 de FOM, 2016), L es la longitud de la cuenca e I_0 la pendiente.

Para la simulación de eventos concretos se han generado hietogramas sintéticos empleando el método del bloque alterno (Te Chow et al., 1998) y estimado la abstracción empleando las expresiones de Green and Ampt (1911), ecuaciones 7 y 8.

$$k_s \Delta t = F_{t+\Delta t} - F_t - \tau \Delta \theta \ln \left[\frac{F_{t+\Delta t} + \tau \Delta \theta}{F_t + \tau \Delta \theta} \right] \quad [7]$$

$$f_t = k_s \left(1 + \frac{\tau \Delta \theta}{F_t} \right) \quad [8]$$

Donde F y f representan respectivamente la infiltración acumulada e instantánea, τ es la sorptividad (calculada mediante la expresión de Neuman, 1976), k_s la conductividad hidráulica en saturación, $\Delta \theta$ el intervalo de agua útil del suelo, y Δt el salto de tiempo. Se han empleado los parámetros definidos por Carsel and Parrish (1988) para cada tipo de suelo.

4.1 EFECTOS SOBRE LA GENERACIÓN DE CAUDALES DE ESCORRENTÍA

Se han simulado las condiciones preoperacionales y postoperacionales en términos de generación de caudal. Se ha identificado una única cuenca potencialmente afectada por el proyecto. Las figuras 7 y 8 muestran la identificación de las cuencas, los usos del suelo afectados y la superposición de las cuencas con las PFVs objeto del presente estudio, respectivamente.

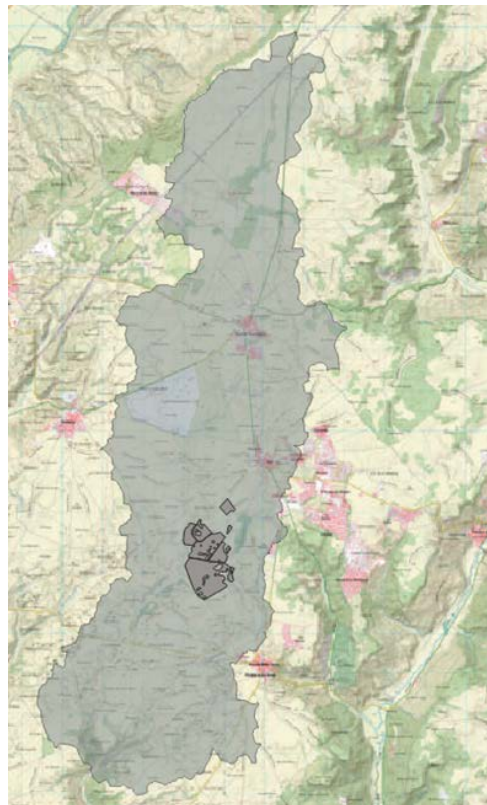


Figura 8. Delimitación de cuencas afectadas por el proyecto.

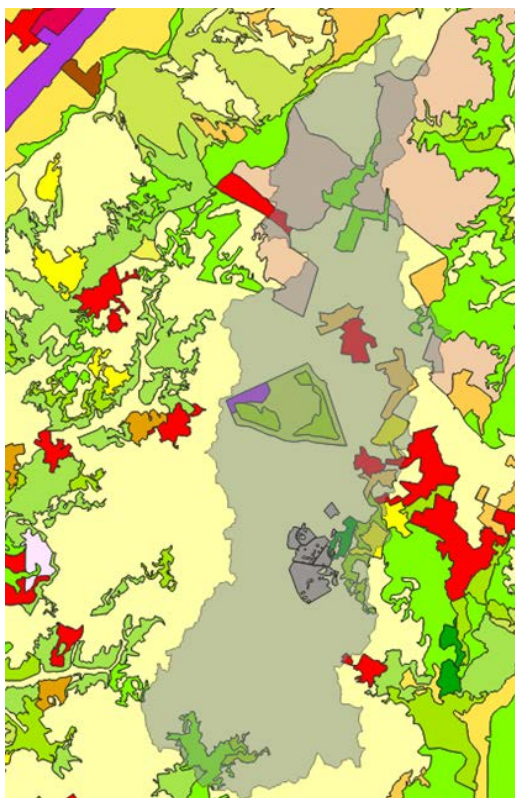


Figura 9. Corte de la capa de usos del suelo CORINE Land Cover (2018) con las cuencas afectadas.

Las tablas 7 y 8 muestran las superficies de cada uso del suelo en las fases pre y postoperacional.

Tabla 7. Superficies de usos del suelo en las cuencas afectadas. Situación preoperacional (m²).

Uso del suelo	Cuenca 1
1.1.1	1505715.29
1.1.2	10322851.5
1.2.1	6282663.17
1.2.2.	369857.269
1.3.1	336338.565
1.3.3	1194368.07
1.4.1	251053.608
1.4.2	688659.147
2.1.1	139647561
2.1.2	327596.41
2.2.1	484482.621

Uso del suelo	Cuenca 1
2.2.3	8259879.61
2.3.1	2799602.75
2.4.2	11298187.5
2.4.3	1893202.82
3.1.1	10276636.9
3.1.2	1504227.42
3.1.3	1678591.24
3.2.1	3486813.87
3.2.3	24705343.4
3.2.4	8192192.44
3.3.3	661675.189

Tabla 8. Superficies de usos del suelo en las cuencas afectadas. Situación postoperacional sin incluir superficie PFV (m²).

Uso del suelo	Cuenca 1
1.1.1	1505715.29
1.1.2	10322851.5
1.2.1	6277524.11
1.2.2.	369857.269
1.3.1	336338.565
1.3.3	1194368.07
1.4.1	251053.608
1.4.2	688659.147
2.1.1	130501570
2.1.2	327596.41
2.2.1	484482.621
2.2.3	7751568.46

Uso del suelo	Cuenca 1
2.3.1	2799602.75
2.4.2	10883831.9
2.4.3	1789549.09
3.1.1	10263560.9
3.1.2	1504227.42
3.1.3	1678591.24
3.2.1	3484782.07
3.2.3	24705325.7
3.2.4	8191198.11
3.3.3	656792.26

Las tablas 9 y 10 muestran los resultados obtenidos para los caudales generados en las cuencas y escenarios considerados para las situaciones preoperacional y postoperacional.

Tabla 9. Caudales obtenidos (m³/s) para las cuencas y escenarios analizados. Situación preoperacional.

Condiciones iniciales	P. retorno	Cuenca 1
AMCI (suelo seco)	T=2	0.17
	T=5	2.16
	T=10	5.44
	T=25	11.33
	T=50	17.11
	T=100	24.97
	T=500	49.53
AMC II (condiciones normales)	T=2	10.87
	T=5	22.71
	T=10	34.1
	T=25	50.1
	T=50	63.51
	T=100	79.92

Condiciones iniciales	P. retorno	Cuenca 1
	T=500	124.79

Tabla 10. Caudales obtenidos (m^3/s) para las cuencas y escenarios analizados. Situación postoperacional.

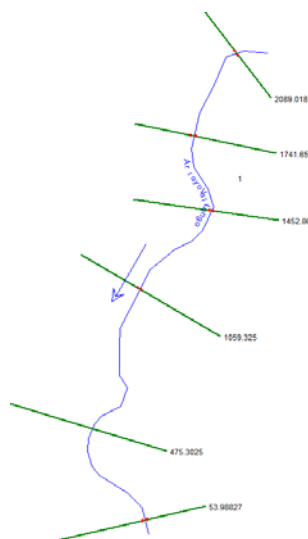
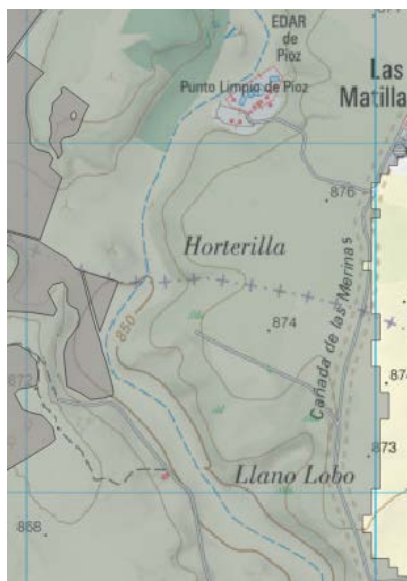
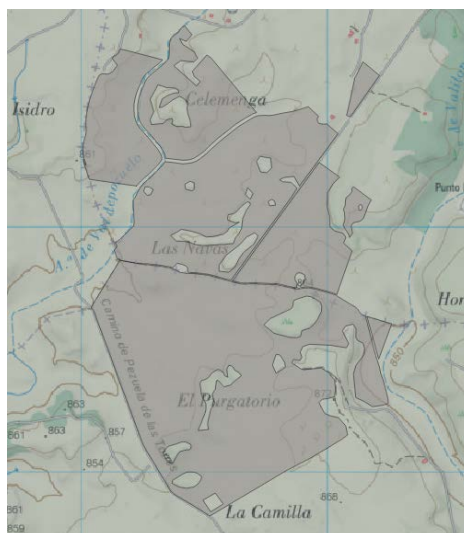
Condiciones iniciales	P. retorno	Cuenca 1
AMCI (suelo seco)	T=2	0.79
	T=5	3.16
	T=10	6.73
	T=25	12.95
	T=50	18.97
	T=100	27.08
	T=500	52.22
AMC II (condiciones normales)	T=2	11.77
	T=5	23.88
	T=10	35.44
	T=25	51.63
	T=50	65.17
	T=100	81.71
	T=500	126.83

Los caudales que se prevé se generen no son elevados, aunque tal y como se puede observar comparando las simulaciones pre y postoperacional el efecto derivado de la implantación de la PFV no es elevado en términos relativos.

4.2 EFECTOS SOBRE LA DINÁMICA HIDROLÓGICA

Los caudales anteriores se han simulado en HECRAS, suponiendo número de Manning (rugosidad del cauce) $n=0.03$, que se corresponde con un cauce con hierbas bajas. Se han simulado los tramos de cauces delimitados en la figura 9 (arroyos Valilongo y Valdepozuelo) potencialmente afectados de forma directa por la implantación de las PFVs (como criterio general se han considerado tramos potencialmente afectados aquellos ubicados a una distancia inferior a 100 m desde cualquier punto de la PFVs, independientemente de que los efectos sobre la escorrentía generada en el apartado anterior se hayan circunscrito a una cuenca de diferente entidad). En general se han considerado

para las simulaciones que la totalidad de los caudales estimados para cada cuenca (expuestos en las tablas 9 y 10) circularían por los tramos de cauce estudiados. Esto sin duda es una situación no real pero que se adopta desde el lado de la prudencia de cara a proveer la mayor protección posible de la variable hidrológica.



Arroyo Valilongo



Arroyo Valdepozuelo

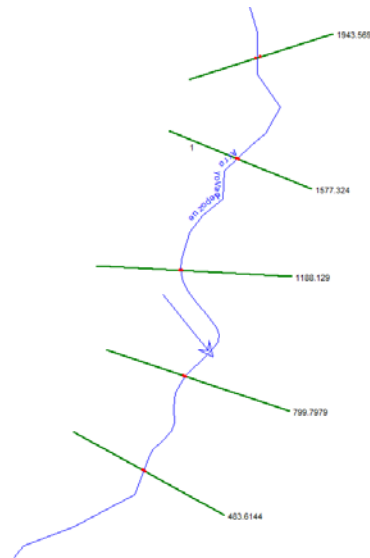


Figura 10. Tramos de cauce simulados

Los resultados de la simulación de las situaciones pre y postoperacional sobre las secciones transversales se incluyen en los apéndices 1 y 2 del presente documento en tanto que las tablas con los parámetros hidráulicos se han incluido en los apéndices 3 y 4, para las situaciones pre y postoperacional, respectivamente.

Las figuras 10 y 11 muestran los perfiles longitudinales del calado para los cauces estudiados.

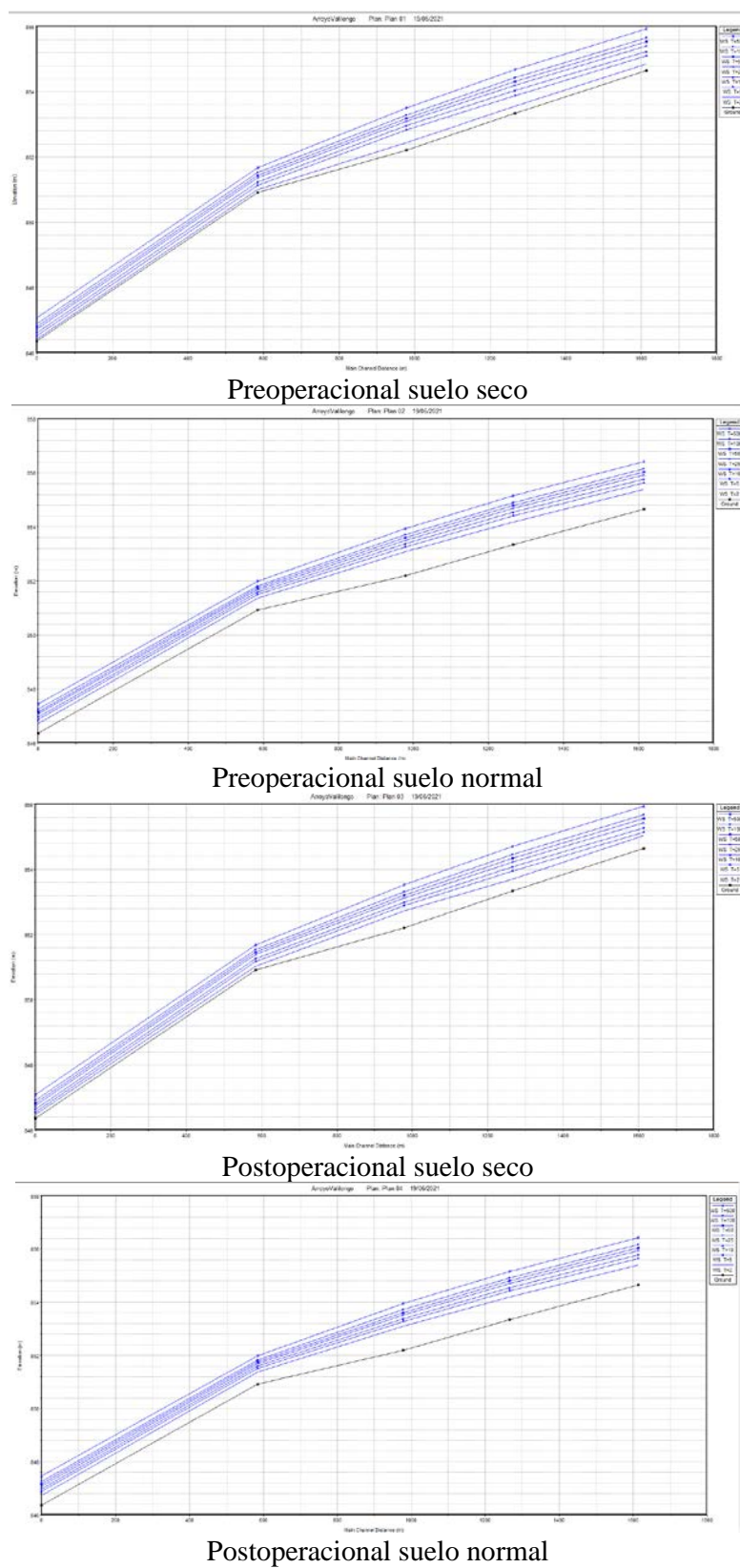
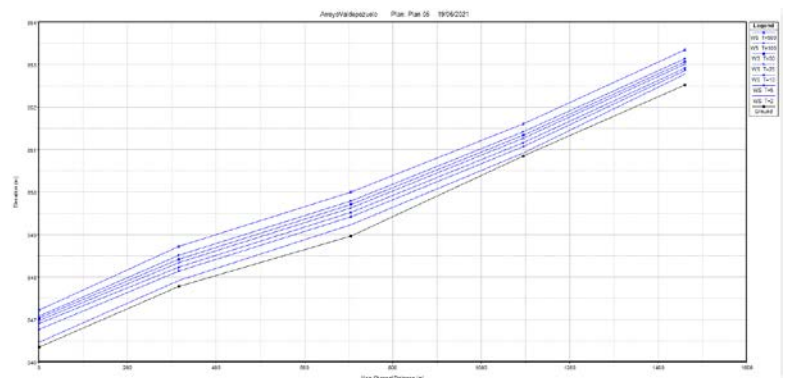
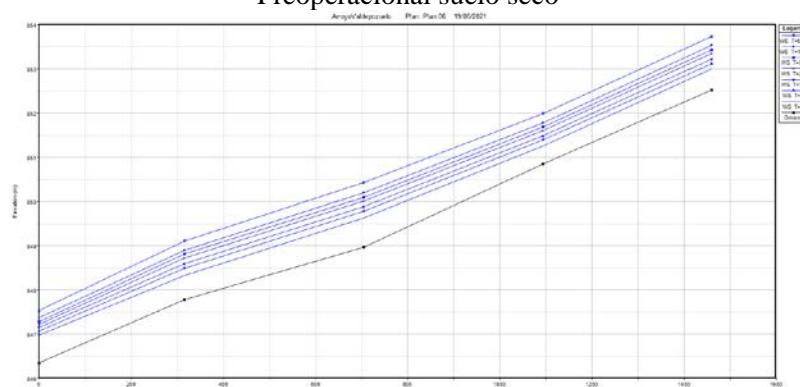


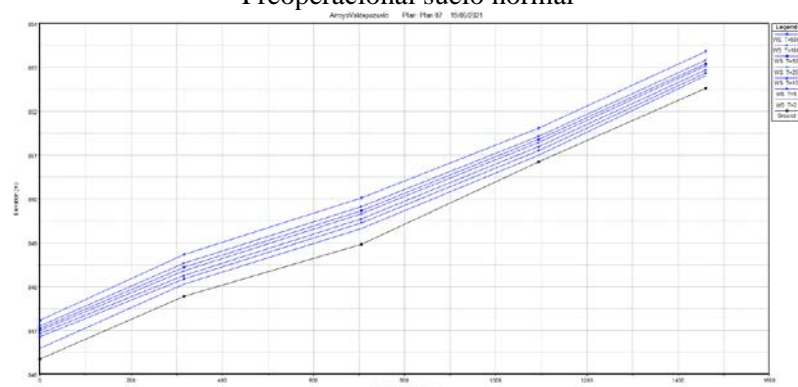
Figura 11. Sección longitudinal Arroyo Valilongo.



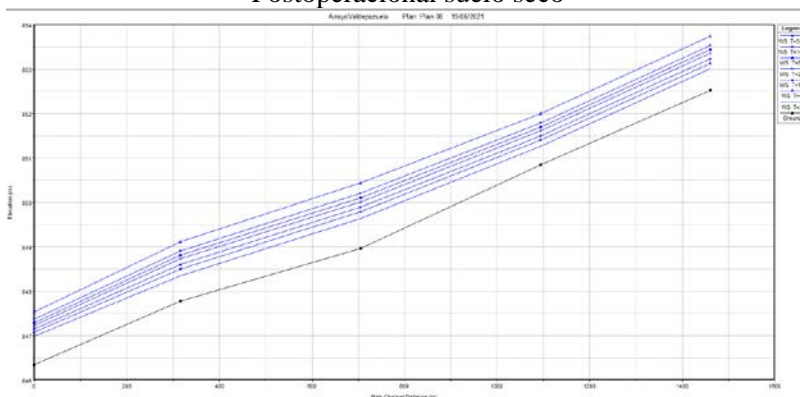
Preoperacional suelo seco



Preoperacional suelo normal



Postoperacional suelo seco



Postoperacional suelo normal

Figura 12. Sección longitudinal Arroyo Valdepozuelo.

En general, tanto de la información incluida en los apéndices del presente proyecto como de los perfiles incluidos en las figuras 10 y 11 se deduce que el efecto adicional derivado de la implantación del proyecto sobre los calados hace que no se generen situaciones significativamente diferentes de las actuales. Respecto de la ocupación de superficies por parte de las PFVs, la figura 12 presenta las líneas de ocupación de las avenidas para periodos de retorno de 10 y 100 años.

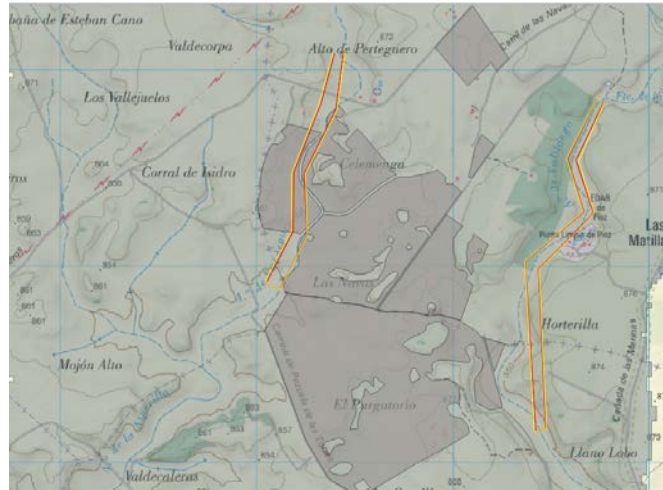


Figura 13. Avenidas (situaciones pre y postoperacional) de 10 (rojo) y 100 (amarillo) años de periodo de retorno sobre plantas de la PFV.

En la figura anterior, se representa en color rojo la línea de inundación correspondiente a un periodo de retorno de 10 años, y en color amarillo la línea de inundación de periodo de retorno 100 años. En ambos casos, se representa la situación pre y postoperacional (con y sin PFV), pero resultan prácticamente coincidentes, debido a que no se produce una variación de flujo significativa una vez implantadas las PFV.

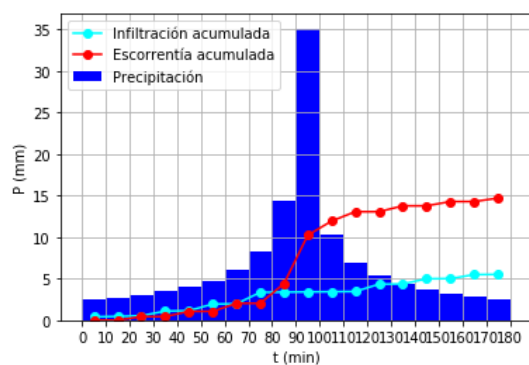
No existe ocupación por parte de las PFVs del arroyo Valilongo, al contrario que en el caso del arroyo Valdepozuelo en el que las PFVs sí ocupan parte de los terrenos que alcanzaría el agua en las tormentas de 10 y 100 años. En este caso convendría realizar una delimitación detallada de estas avenidas y evaluar el diseño de la planta en estas zonas. El efecto de la incorporación de las PFVs no supone un efecto significativo sobre ninguna de las dos llanuras de inundación analizadas en ninguno de los cauces. El agua circularía en régimen lento en estas zonas tal y como se deriva de los perfiles longitudinales y las tablas incluidas en los apéndices lo que contribuye a ampliar el alcance de las avenidas.

Más allá de la simulación de eventos extremos, la determinación de los efectos concretos sobre la relación infiltración/escorrentía recomienda el estudio del régimen variable vinculado a tormentas concretas. Los eventos vinculados a periodos de retorno son artificios estadísticos que se espera que ocurran en promedio una vez cada tantos años como marque el periodo de retorno. El uso de eventos extremos está relacionado con la prevención de efectos adversos y no tanto con la adecuada gestión del recurso.

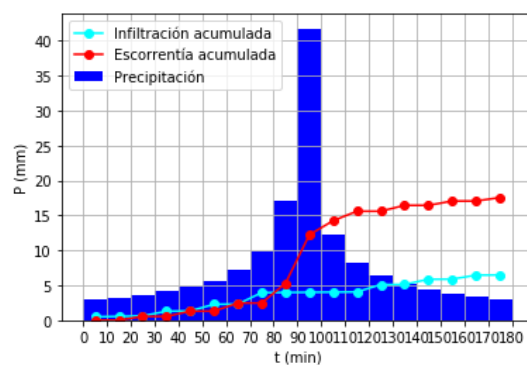
Por ejemplo, diseñar una estructura de retención e infiltración para el caudal vinculado a un periodo de retorno de 100 años implicaría que todas las tormentas que no llegasen a ese volumen quedarían retenidas impidiendo los aportes, necesarios, por escorrentía superficial, a los cauces de agua

naturales. Por otra parte, el empleo del tiempo de concentración, y su significado físico, está sometido a críticas muy relevantes que recomiendan ponerlo en cuestión si de verdad se persigue una gestión eficiente de los recursos hídricos en lugar de la gestión única de eventos extremos.

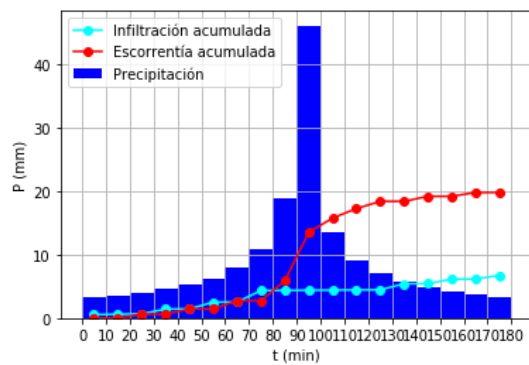
Del estudio de los datos horarios se deriva que el 80% de las tormentas duran 3 horas o menos. El análisis de los datos diarios registrados muestra que el 90 % de las tormentas no superan los 11.54 mm (tabla 1). Las figuras 13, 14 y 15 presentan la evolución prevista de infiltración y escorrentía para los hietogramas sintéticos de tormentas con volúmenes iguales a los períodos de retorno consideradas y duraciones igual a 3 horas. Se han realizado para la situación preoperacional (figura 13), la situación postoperacional sin medidas (figura 14) y la situación postoperacional definiendo un elemento de detención e infiltración de 1.5 mm (figura 15).



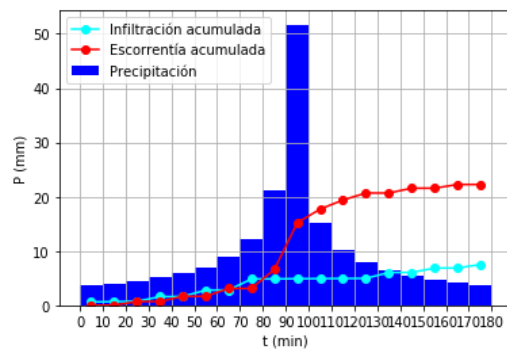
T=2



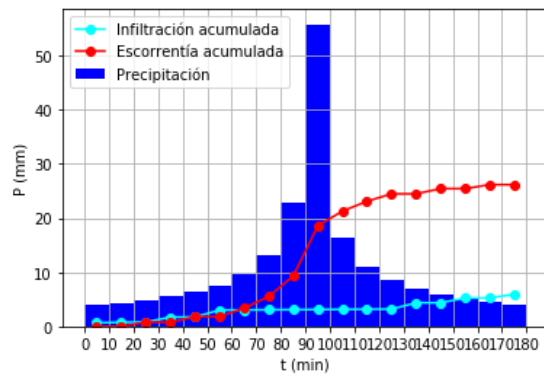
T=5



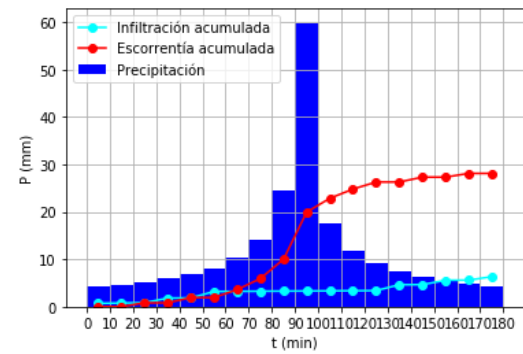
T=10



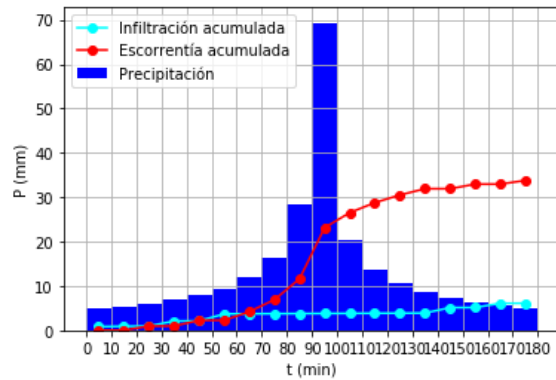
T=25



T=50

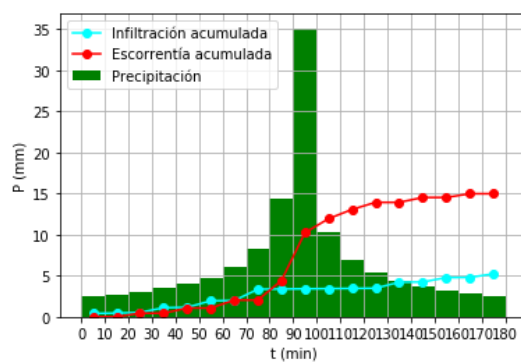


T=100

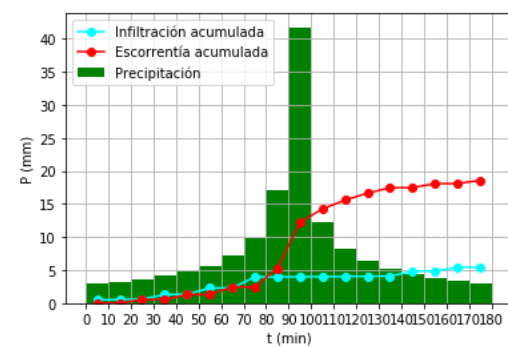


T=500

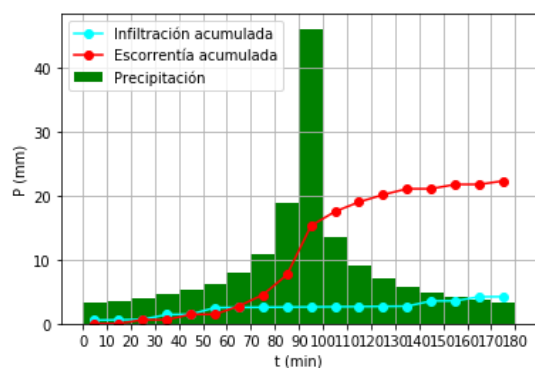
Figura 14 Hietogramas sintéticos e hidrogramas de escorrentía e infiltración para los escenarios descritos. Situación preoperacional.



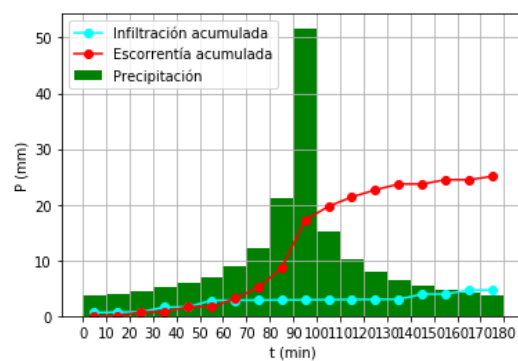
T=2



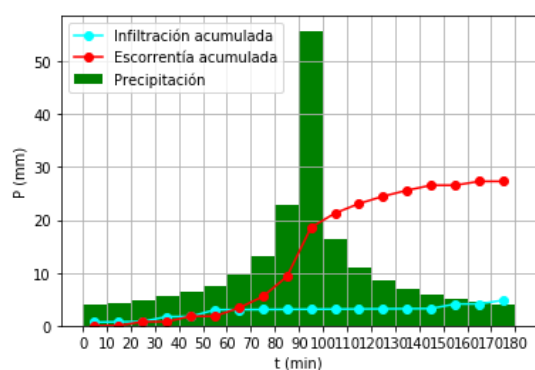
T=5



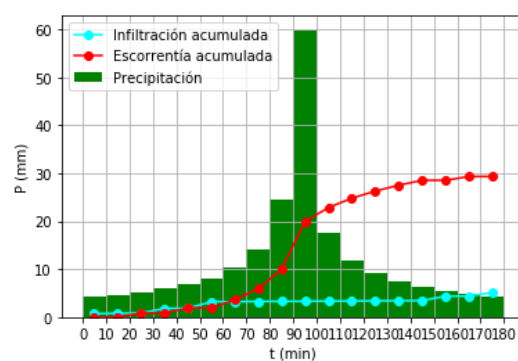
T=10



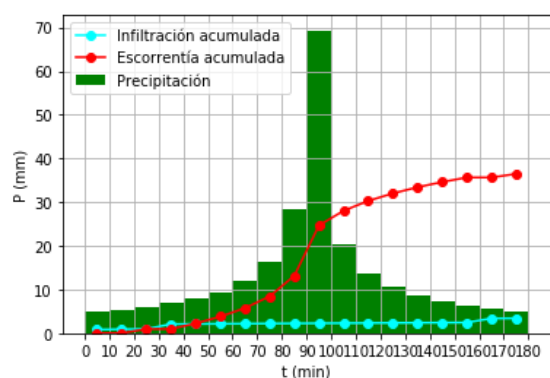
T=25



T=50

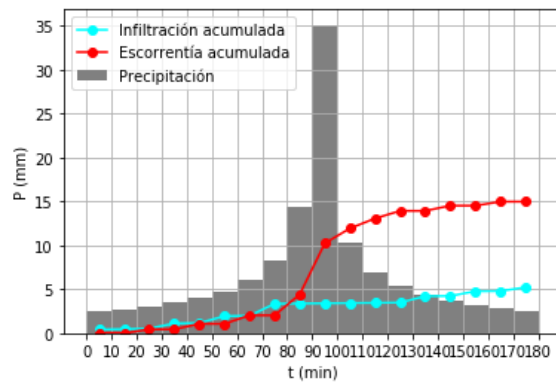


T=100

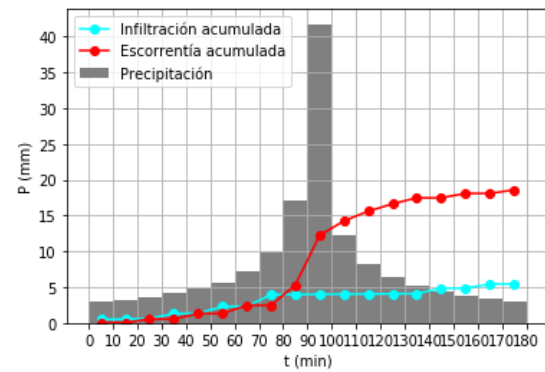


T=500

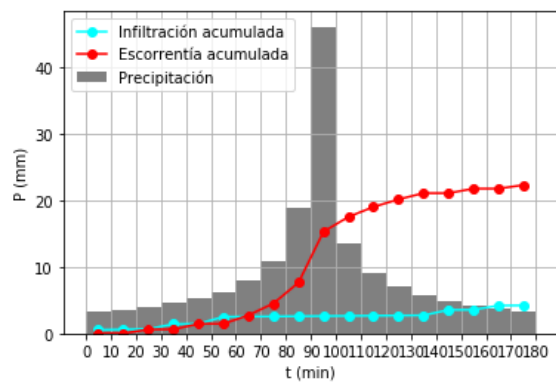
Figura 15 Hietogramas sintéticos e hidrogramas de escorrentía e infiltración para los escenarios descritos.
Situación postoperacional sin medidas.



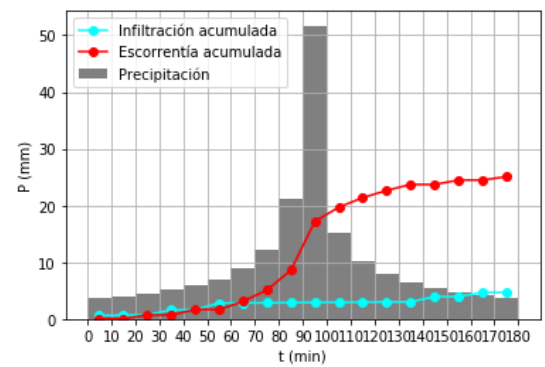
T=2



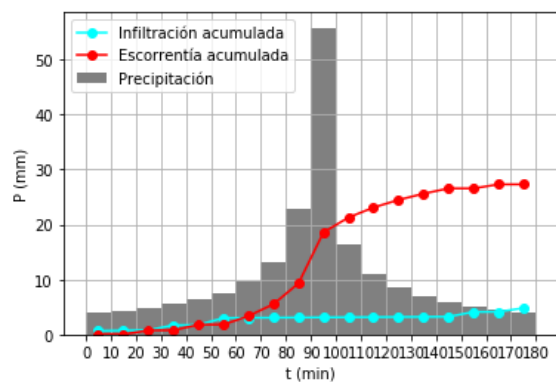
T=5



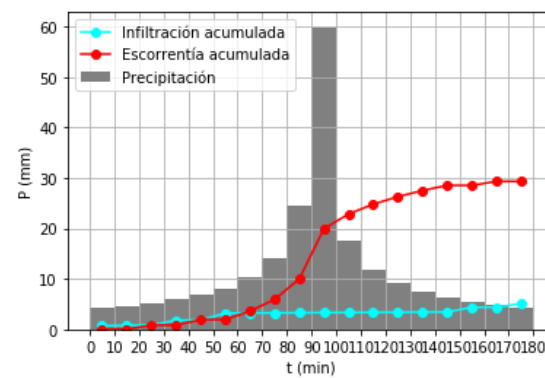
T=10



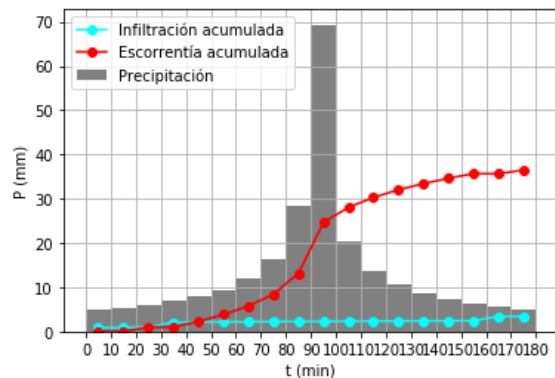
T=25



T=50



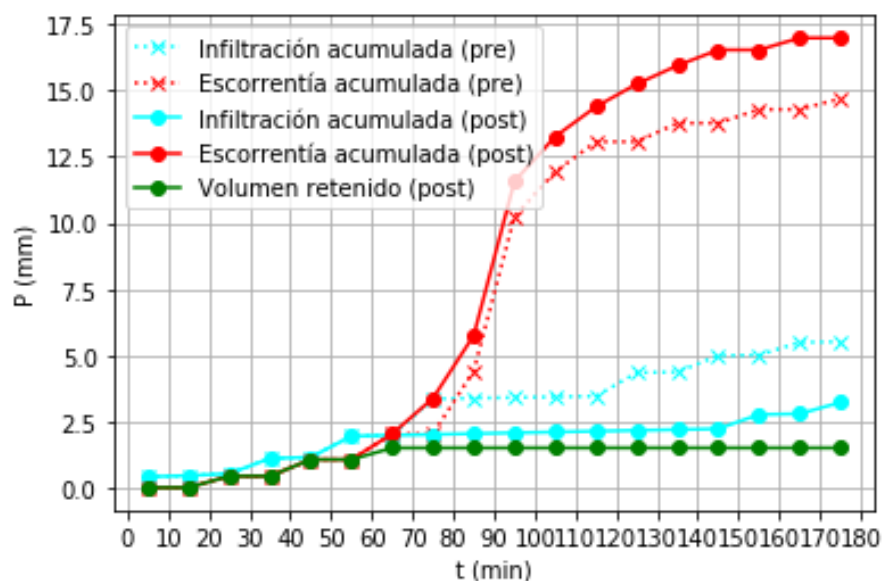
T=100



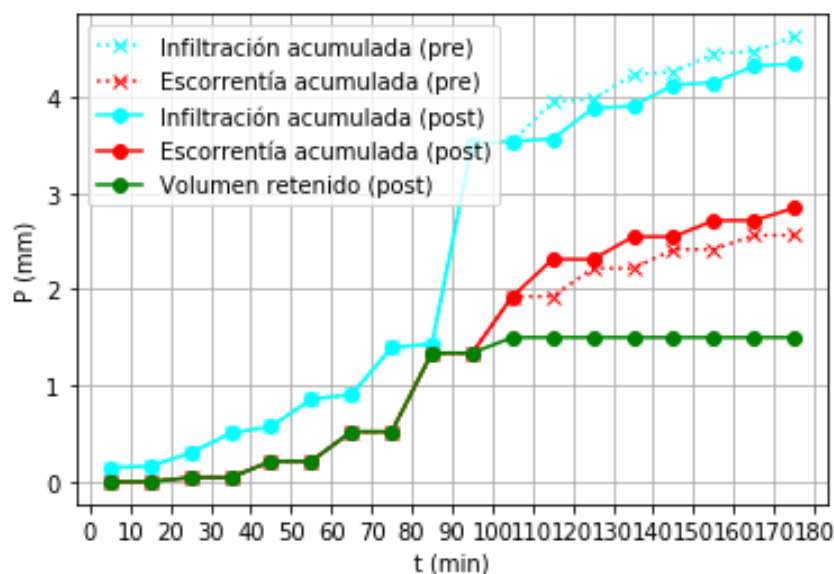
T=500

Figura 16. Hietogramas sintéticos e hidrogramas de escorrentía e infiltración para los escenarios descritos. Situación postoperacional con medidas.

En la figura 16 se presenta la simulación del comportamiento en detalle de las principales variables hidráulicas para el caso de la implantación de las medidas preventivas descritas para tormenta de $P=11.54$ mm (cuantil 90, tabla 1) y $P=32.44$ (T=2, tabla 2) de duración 3 horas.



P=32.44 mm



P=11.54 mm

Figura 17. Simulación de la evolución prevista de las principales variables hidrológicas ante una tormenta de 3 horas de duración.

5. RELACIÓN CON LA PLANIFICACIÓN HIDROLÓGICA

La planificación hidrológica de la zona objeto de estudio viene definida por el Plan hidrológico de la parte española de la Demarcación Hidrográfica del Tajo aprobado por Real Decreto 1/2016, de 8 de enero, por el que se aprueba la revisión de los Planes Hidrológicos de las demarcaciones hidrográficas del Cantábrico Occidental, Guadalquivir, Ceuta, Melilla, Segura y Júcar, y de la parte española de las demarcaciones hidrográficas del Cantábrico Oriental, Miño-Sil, Duero, Tajo, Guadiana y Ebro.

En concreto, en lo relativo a la cuenca del Tajo, el Plan viene a recoger las del artículo 42 del texto refundido de la Ley de aguas. En concreto, los objetivos de la planificación hidrológica recogidos por el plan son los siguientes:

Los objetivos medioambientales para las masas de agua, se concretan en el artículo 92 bis del TRLA y Art. 35 y 36 del Reglamento de Planificación Hidrológica (RPH):

Para las aguas superficiales:

- Prevenir el deterioro del estado de las masas de agua superficial.
- Proteger, mejorar y regenera todas las masas de agua superficial con el objeto de alcanzar un buen estado de las mismas a más tardar el 31 de diciembre de 2015. El buen estado de las aguas superficiales se alcanza cuando tanto el estado ecológico como el químico son al menos buenos.
- Reducir progresivamente la contaminación procedente de sustancias prioritarias y eliminar o suprimir gradualmente los vertidos, las emisiones y las pérdidas de sustancias peligrosas y prioritarias.

Para las aguas subterráneas:

- *Evitar o eliminar la entrada de contaminantes en las aguas subterráneas y evitar el deterioro del estado de todas las masas de agua subterránea*
- *Proteger, mejorar y regenerar las masas de agua subterránea y garantizar el equilibrio entre la extracción y la recarga a fin de conseguir el buen estado de las aguas subterráneas a más tardar el 31 de diciembre de 2015. El buen estado de las aguas subterráneas se alcanza cuando tanto el estado cuantitativo como el químico son al menos buenos.*
- *Invertir tendencias significativas y sostenidas en el aumento de la concertación de cualquier contaminante derivada de la actividad humana a fin de reducir progresivamente la contaminación de las aguas subterráneas.*

Para las zonas protegidas:

- *Cumplir las exigencias de las normas de protección que resulten aplicables en una zona y alcanzar los objetivos ambientales particulares que en ellas se determinen. El plan hidrológico debe identificar cada una de las zonas protegidas, sus objetivos específicos y su grado de cumplimiento. Los objetivos correspondientes a la legislación específica de las zonas protegidas no deben ser objeto de prórrogas u objetivos menos rigurosos.*

A priori y en términos generales a expensas de una mayor concreción en cuanto a las condiciones de ejecución en detalle de las infraestructuras, no se espera que las PFVs generen impactos significativos sobre los objetivos de la planificación hidrológica descritos en los párrafos anteriores.

Por otra parte, el propio plan establece una serie de posibles situaciones excepcionales de cara al cumplimiento de los objetivos anteriores. El RPH, prevé la posibilidad de considerar, en el caso de cumplirse una serie de requisitos, el establecimiento de prórrogas para alcanzar los objetivos, así como las posibles excepciones al cumplimiento de dichos objetivos que se relaciona a continuación:

- *Masas de agua con objetivos menos rigurosos*

Cuando existan masas de agua muy afectadas por la actividad humana o sus condiciones naturales hagan inviable la consecución de los objetivos señalados o su consecución exija un coste desproporcionado, se establecerán objetivos ambientales menos rigurosos en las condiciones que se señalaran en cada caso, mediante los planes hidrológicos (art. 92 bis3 del TRLA y art. 37 del RPH). Las condiciones que deben reunirse para acogerse a esta posibilidad son las siguientes:

- *Que las necesidades socioeconómicas y ecológicas a las que atiende la actividad humana que presiona la masa no puedan lograrse por otros medios que constituyan una alternativa significativamente mejor desde el punto de vista ambiental y que no suponga un coste desproporcionado.*
- *Que se garanticen el mejor estado ecológico y químico posibles para las aguas superficiales y los mínimos cambios posible del buen estado de las aguas subterráneas, teniendo en cuenta, en ambos casos, las repercusiones que no hayan podido evitarse razonablemente debido a la naturaleza de la actividad humana o de la contaminación.*
- *Que no se produzca deterioro ulterior del estado de la masa de agua afectada.*

- *Situaciones excepcionales de deterioro temporal del estado de las masas de agua.*

El artículo 38 del RPH establece que se podrá admitir el deterioro temporal del estado de las masas de agua si éste se debe a causas naturales o de fuerza mayor que sean excepcionales o no hayan podido preverse razonablemente, en particular graves inundaciones y sequías prolongadas, o al resultado de circunstancias derivadas de accidentes que tampoco hayan podido ser previsto razonablemente.

- Nuevas modificaciones o alteraciones de las características físicas de masas de agua superficial o alteraciones del nivel de las masas de agua subterránea.

Bajo una serie de condiciones, definidas en el artículo 39 del RPH, se podrán admitir nuevas modificaciones de las características físicas de una masa de agua superficial o alteraciones del nivel de las masas de agua subterráneas, aunque ello impida lograr un buen estado ecológico, un buen estado de las aguas subterráneas o un buen potencial ecológico, en su caso, o supongan el deterioro del estado de una masa de agua superficial o subterránea. Asimismo, y bajo idénticas condiciones, se podrán realizar nuevas actividades humanas de desarrollo sostenible, aunque supongan el deterioro desde el muy buen estado al buen estado de una masa de agua superficial.

El plan se refiere también a las demandas de agua estableciendo, en el momento de su publicación, *la estimación de las demandas actuales y previsibles en el escenario tendencial correspondiente a los años 2021 y 2033.*

La memoria del Plan reconoce la existencia de una situación de especial presión sobre los recursos hídricos de la cuenca *Las masas de agua de la cuenca del Tajo están afectadas por numerosas presiones, resultado de una gran densidad de población y de una actividad humana intensa, comparada con otras cuencas españolas. Cabe destacar la alta densidad de zonas urbanas en la Comunidad de Madrid: Madrid núcleo y su conurbación con las infraestructuras de transporte que llevan asociadas, que ejercen una fuerte presión sobre las masas de agua de su territorio, así como de El alto número de vertidos, en su mayoría urbanos, junto con la importancia de otras presiones difusas como las debidas a la explotación agraria intensiva, resultan también en una merma de la calidad de las aguas. Como vertidos industriales que ejercen gran presión sobre las aguas, hay ejemplos relevantes como el río Cuerpo de Hombre aguas abajo de Béjar.* En el anejo 7 del plan se detallan las presiones identificadas quedando resumidas en la siguiente tabla.

Tabla 11 Presiones identificadas en la planificación hidrológica de la cuenca del Tajo sobre las aguas superficiales y subterráneas

Tipo de masa de agua	Tipo de presión	Número
Masas superficiales	Vertidos	858
	Vertederos	380
	Extracciones	5961
	Presas	253
	Azudes	451

Tipo de masa de agua	Tipo de presión	Número
	Canalizaciones	31
	Protección de márgenes	28
	Cobertura de cauces	2
	Modificación de conexiones	1
	Puentes con efecto azud	14
	Trasvases	11
	Desvíos hidroeléctricos	25
	Suelos contaminados	2
	Vertidos	274
	Vertederos	56
Masas subterráneas	Extracciones	28206
	Recarga artificial	2
	Suelos contaminados	43

Según reconoce el plan, los principales problemas a los que se enfrenta la cuenca son los siguientes:

- *La concentración de población y actividades económicas en la Comunidad de Madrid y áreas limítrofes de Toledo y Guadalajara, más de 6,5 millones de habitantes (año 2006), origina un gran volumen de aguas residuales que, aun cumpliendo la normativa de vertidos (Directiva 91/271/CEE), da lugar a notables problemas de calidad de las aguas en los ríos y embalses que se propagan hasta el tramo bajo de la cuenca.*
- *En la cabecera del Tajo (embalses de Entrepeñas y Buendía) las aportaciones en el periodo 1980-2006 se han reducido a la mitad de las previstas en el anteproyecto del trasvase Tajo-Segura de 1967. En dicho periodo, los volúmenes trasvasados han sido del orden de la mitad de los previstos, manteniendo dichos embalses con volúmenes mínimos durante largos periodos, causando malestar a los ribereños al anular las posibilidades de desarrollo ligadas al agua.*
- *El fuerte crecimiento de población de la Comunidad de Madrid y Castilla-La Mancha se ha de abastecer desde recursos regulados en la cabecera (embalses de Entrepeñas y Buendía), por carecer de otras posibilidades.*
- *En la cuenca alta del Tajo, se generan el 45% de los recursos y se consume el 85% del total de la cuenca. Talavera de la Reina con una cuenca vertientes de 35000 km², constituye el punto crítico, con caudales medios circulantes en el mes de julio de algunos años inferiores a 2 m³/s y problemas en la calidad del agua y degradación de cauces y riberas.*
- *Cumplimiento del Convenio de Albufeira, con la obligación de transferir a Portugal un volumen mínimo anual de 2700 hm³/año, salvo situaciones de excepción. También existen obligaciones para volúmenes trimestrales y semanales.*

En cuanto a los usos del recurso, el plan reconoce la necesidad de dotar a los principales cauces de caudales ecológicos que garanticen unos mínimos objetivos ambientales. Los caudales inicialmente fijados fueron los expuestos en la tabla 11.

Tabla 12 Caudales ecológicos fijados por la planificación hidrológica para la cuenca del tajo para el horizonte 2015.

Cauce	Oct-Dic	Ene-Mar	Abr-Jun	Jul-Sept
Alagón (Valdeobispo)	2.91	2.75	1.32	0.40
Alberche (Cazalegas)	1.44	1.28	1.16	0.93
Árrago (Bobollón)	0.35	0.52	0.27	0.15
Bornova (Alcorlo)	0.17	0.22	0.27	0.14
Cañamares (Pálmaces)	0.07	0.08	0.11	0.07
Cuervo (La Tosca)	0.50	0.50	0.5	0.50
Guadiela (Molino de Chíncha)	1.44	1.46	1.46	1.41
Jarama (El Vado)	0.40	0.52	0.57	0.32
Jerte (Plasencia)	1.07	0.96	0.91	0.50
Lozoya (El Atazar)	0.82	0.90	1.12	0.52
Manzanares (Santillana)	0.52	0.59	0.63	0.26
Manzanares (El Pardo)	0.82	0.93	0.97	0.49
Rivera de Gata (Rivera de Gata)	0.28	0.25	0.15	0.10
Sorbe (Veleña)	0.53	0.68	0.41	0.41
Tajo (Aranjuez)	6.00	6.00	6.00	6.00
Tajo (Toledo)	10.00	10.00	10.00	10.00
Tajo (Talavera de la Reina)	10.00	10.00	10.00	10.00
Tajuña (Tejera)	0.36	0.36	0.36	0.36
Tiétar (Rosarito)	0.85	1.00	0.60	0.35

No existe tampoco a priori ninguna relación adversa relevante sobre los usos del recurso, los caudales ecológicos (tal y como se ha estudiado en los apartados anteriores, no existen cambios significativos en la proporción infiltración/escorrentía) los problemas identificados o las presiones que identifica la planificación derivados de la ejecución de las PFVs objeto de estudio.

El plan relaciona también una serie de zonas protegidas por la existencia de diferentes factores:

Zonas de captación de agua para abastecimiento, tanto superficiales como subterráneas respecto de las cuales el plan establece lo siguiente:

Conforme a los criterios establecidos en la IPH de las zonas protegidas, en el caso de las captaciones en ríos, se establece como zona protegida el tramo de río comprendido entre la propia captación o captaciones y la masa de agua situada inmediatamente aguas arriba, pudiendo extenderse a otras masas de agua en el caso de que se considere necesaria para una adecuada protección. En el caso de las captaciones en lagos y embalses, se definen como zonas protegidas los propios lagos o embalses excepto para el embalse de Valdecañas y Alcántara que debido a su gran dimensión se ha procedido a zonificar por zonas.

De las captaciones subterráneas registradas en la Confederación Hidrográfica del Tajo, se seleccionan las captaciones para abastecimiento con un volumen medio de, al menos, 10m³ diarios, en total 199 tomas más significativas, distribuidas en el ámbito geográfico de la cuenca del Tajo.

Las zonas protegidas en masas de agua subterránea, se define provisionalmente y aplicando el Principio de precaución hasta que se defina y se apruebe, un perímetro de protección de 1 km de radio. Dentro del perímetro de protección se cumplirán las medidas básicas y otras medidas ambientales que sean de aplicación según la legislación vigente. La zona de reserva total se define como una superficie rectangular de 20x20 m con centro en el punto de la captación.

En la cuenca del Tajo, se establece como zona futura de captación para abastecimiento el Embalse del Portaje.

La distancia existente entre la PFV analizada y la zona de captación de agua para abastecimiento más próxima supera los 16 km con lo que no cabe esperar efectos de ningún tipo.

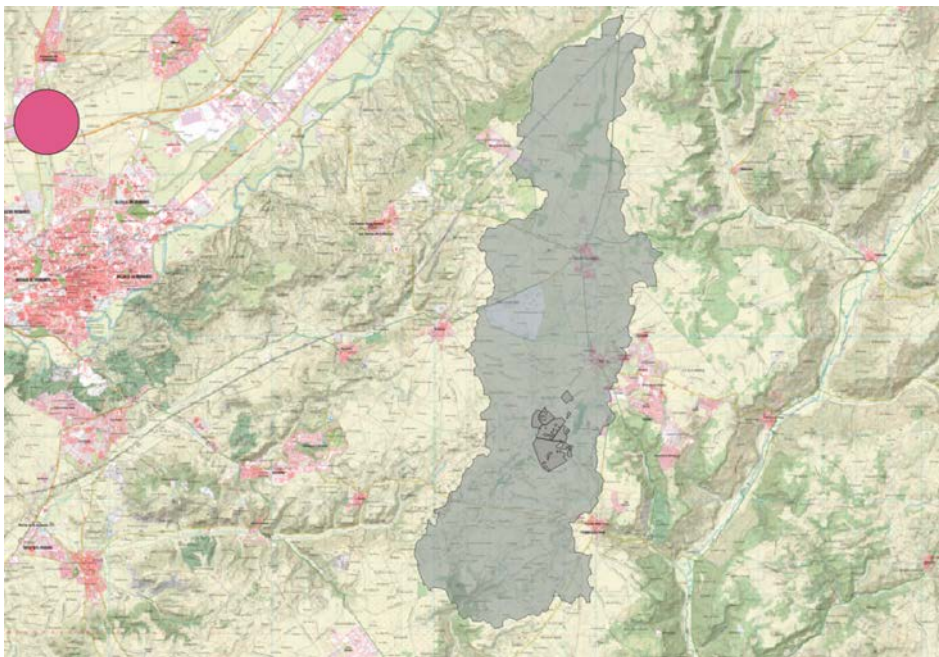


Figura 18 Zonas de abastecimiento de agua para consumo humano (círculo morado) en el entorno de las PFVs.

Zonas de especies acuáticas económicamente significativas.

La relación entre las PFVs y estas zonas ha sido ampliamente analizada en el estudio de impacto ambiental al que el presente estudio hidrológico se anexa con lo que se remite a ese documento para un análisis mucho más preciso.

Masas de agua de uso recreativo

La distancia existente entre la PFV analizada y la masa de agua de uso recreativo más próxima asciende a más de 35 km con lo que no cabe esperar efectos de ningún tipo.

Zonas vulnerables a la contaminación por nitratos

Las PFVs se encuentran dentro de las zonas vulnerables por contaminación por nitratos denominada Masa de Agua Subterránea La Alcarria y La Alcarria-Guadalajara. No se espera que la ejecución del proyecto genere impactos de ningún tipo respecto de la vulnerabilidad asociada a los nitratos en esta zona.

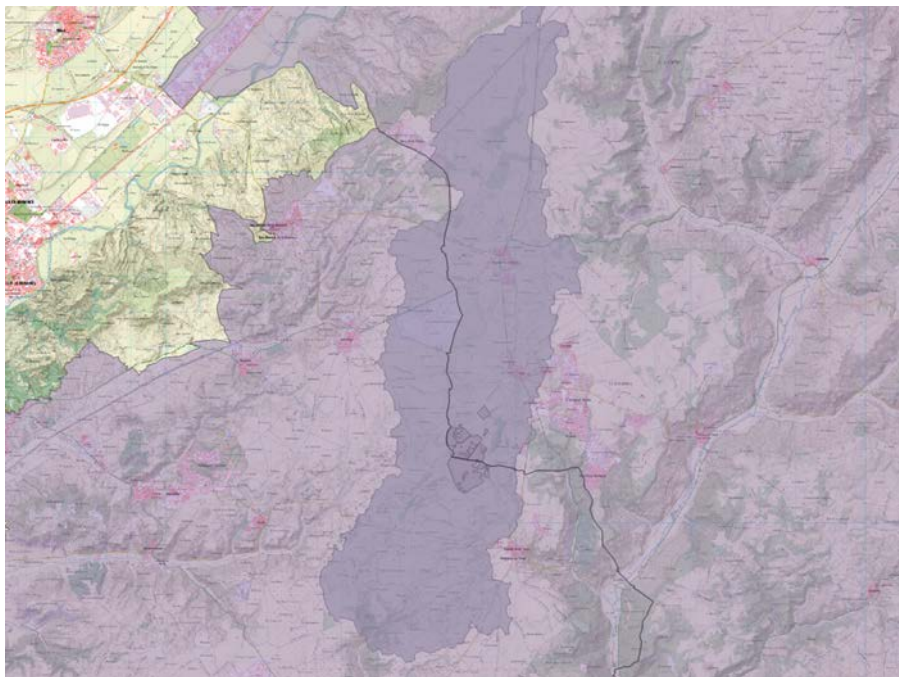


Figura 19 Zonas vulnerables por contaminación por nitratos

Zonas sensibles, definidas en términos de lo descrito en el Real Decreto 509/1996, de 15 de marzo:

a) Lagos, lagunas, embalses, estuarios y aguas marítimas que sean eutróficos o que podrían llegar a ser eutróficos en un futuro próximo si no se adoptan medidas de protección.

b) Aguas continentales superficiales destinadas a la obtención de agua potable que podrían contener una concentración de nitratos superior a la que establecen las disposiciones pertinentes del Real Decreto 927/1988, de 29 de julio, por el que se aprueba el Reglamento de la Administración Pública del Agua y de la Planificación Hidrológica.

c) Masas de agua en las que sea necesario un tratamiento adicional al tratamiento secundario establecido en el artículo 5 del Real Decreto-ley y en este Real Decreto para cumplir lo establecido en la normativa comunitaria.

No consta la existencia de ninguna de las figuras anteriores más allá de lo ya referido respecto de las zonas de captación de aguas para abastecimiento. Las PFVs se ubican sobre la masa de agua subsuperficial denominada La Alcarria y en el entorno del río Tajuña como masa de agua superficial (trama roja figura 19).

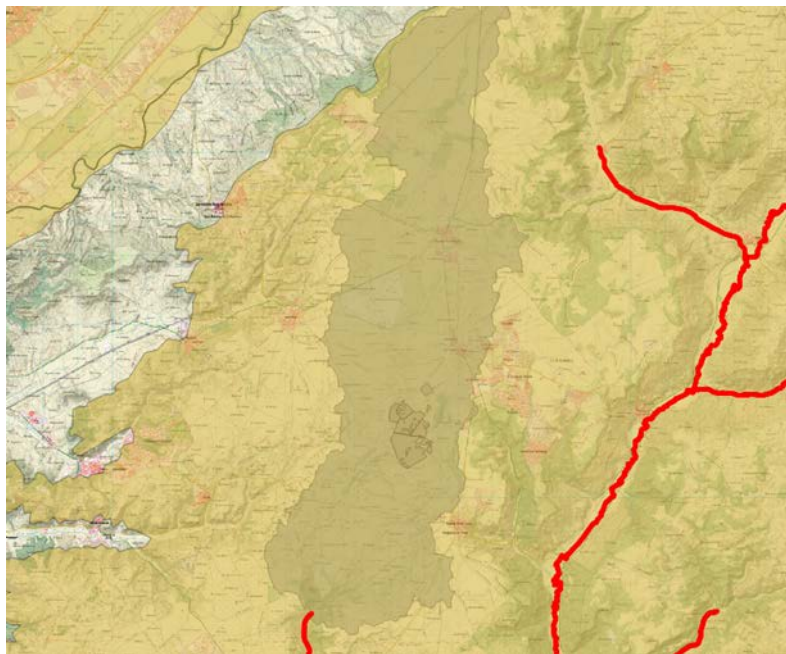


Figura 20 Masas de agua subsuperficial (azul) y superficial (rojo)

Zonas de protección de hábitat o especies que incluyen las figuras de protección ambiental definidas como tales en los instrumentos de carácter ambiental sectorial.

La relación entre las PFVs y estas zonas ha sido ampliamente analizada en el estudio de impacto ambiental al que el presente estudio hidrológico se anexa con lo que se remite a ese documento para un análisis mucho más preciso.

Perímetros de protección de aguas minerales y termales.

La distancia existente entre la PFV analizada y el perímetro de protección de aguas minerales y termales más próximo asciende a 58 km con lo que no cabe esperar efectos de ningún tipo.

Reservas naturales fluviales.

La distancia existente entre la PFV analizada y la reserva natural fluvial más próxima asciende a 75 km con lo que no cabe esperar efectos de ningún tipo.

Zonas de protección especial

La relación entre las PFVs y estas zonas (ZECs Vegas, Cuestas y Páramos del Sureste de Madrid, este en la figura 20 y ZEC Cuencas de los ríos Jarama y Henares, oeste en la figura 20) ha sido ampliamente analizada en el estudio de impacto ambiental al que el presente estudio hidrológico se anexa con lo que se remite a ese documento para un análisis mucho más preciso.

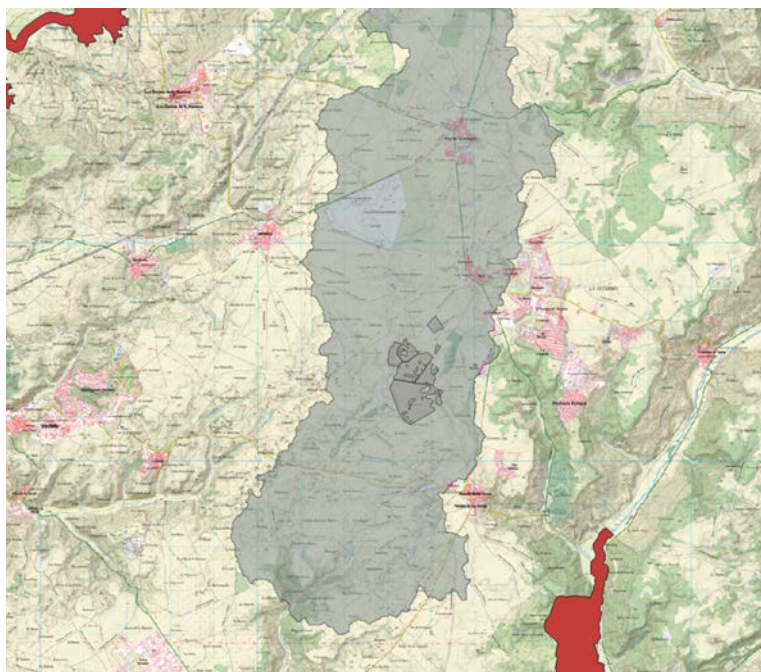


Figura 21 ZECs en el entorno de las PFVs.

Zonas húmedas.

La zona húmeda más próxima se encuentra a 25 km del proyecto con lo que no se esperan efectos directos ni indirectos.

Finalmente, el plan define los objetivos medioambientales para las masas de agua haciendo explícito lo siguiente:

Un objetivo esencial de la planificación hidrológica es la protección de las aguas, prevenir el deterioro, proteger y mejorar el estado de los ecosistemas acuáticos, así como de los ecosistemas terrestres y humedales que dependan de modo directo de los acuáticos en relación con sus necesidades de agua.

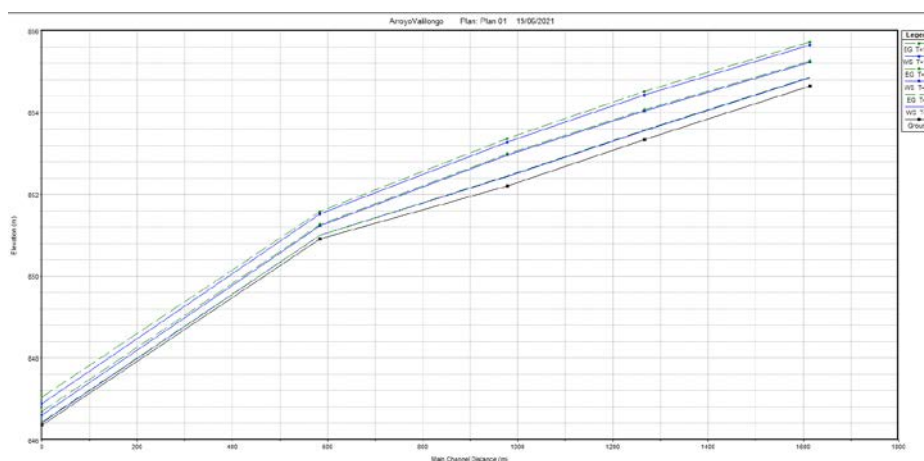
Para conseguir una adecuada protección de las aguas, se deben alcanzar los objetivos medioambientales establecidos en el artículo 92 bis del texto refundido de la Ley de Aguas.

La ejecución de las PFVs no generará ningún impacto negativo que comprometa la ejecución de tales objetivos medioambientales.

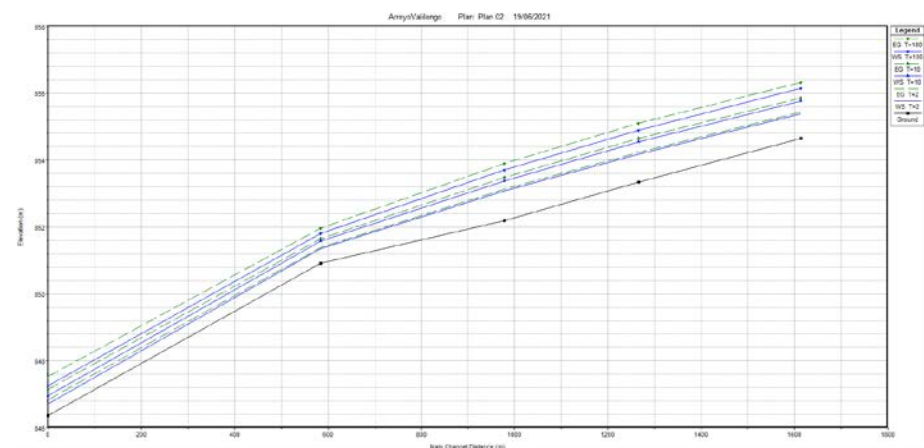
6. ESTIMACIÓN DE RIESGOS EROSIVOS VINCULADOS A FENÓMENOS HIDROLÓGICOS

Las plantas se ubican sobre terrenos de escasa pendiente y tal y como se ha discutido en los apartados anteriores, el principal efecto derivado de la ejecución de las PFVs es la interceptación de la precipitación con carácter previo a su infiltración. La simulación del efecto sobre la erosión derivada de tal interceptación y su vertido de forma más concentrada es muy complejo y por un lado podría reducir los efectos sobre la separación de partículas en superficie al reducir la velocidad de impacto de la gota y, por otro, facilitar la separación al concentrar el flujo. En todo caso, se prevé la ejecución de medidas para la retención de la escorrentía superficial adicional generada por la instalación de las plantas que contribuirá también a la deposición de posibles partículas adicionales arrastradas por el flujo de escorrentía superficial. El diseño definitivo de tales medidas (zanjas de infiltración, balsas de retención, etc.) deberá realizarse en la fase de diseño de detalle del proyecto con arreglo a la información que se disponga.

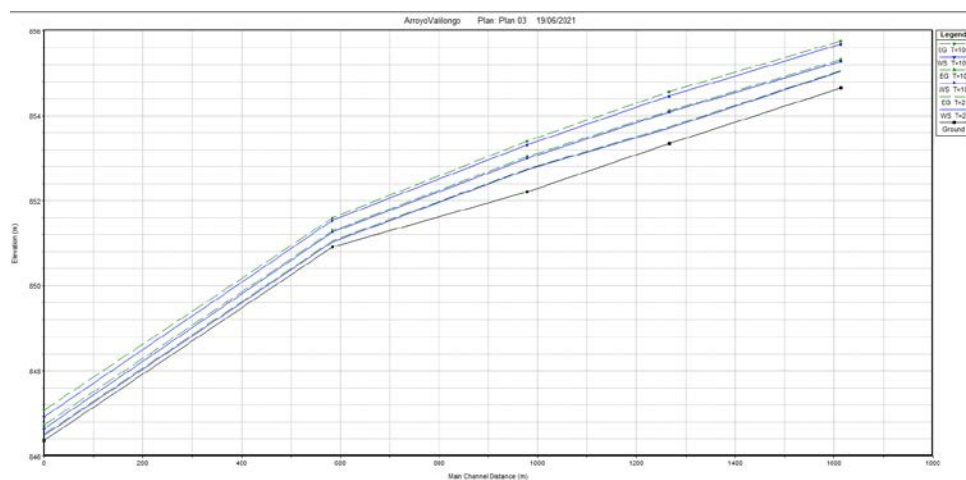
Tal y como se observa en las tablas de parámetros hidráulicos detalladas en los apéndices 3 y 4, así como en los perfiles longitudinales incluidos a continuación, la mayoría de los tramos circulan en régimen supercrítico lo que podría favorecer la deposición de partículas.



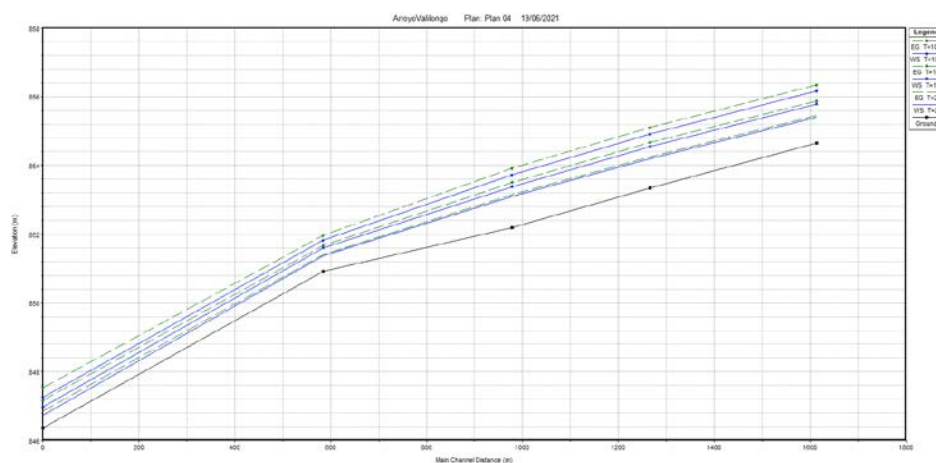
Preoperacional suelo seco



Preoperacional suelo normal

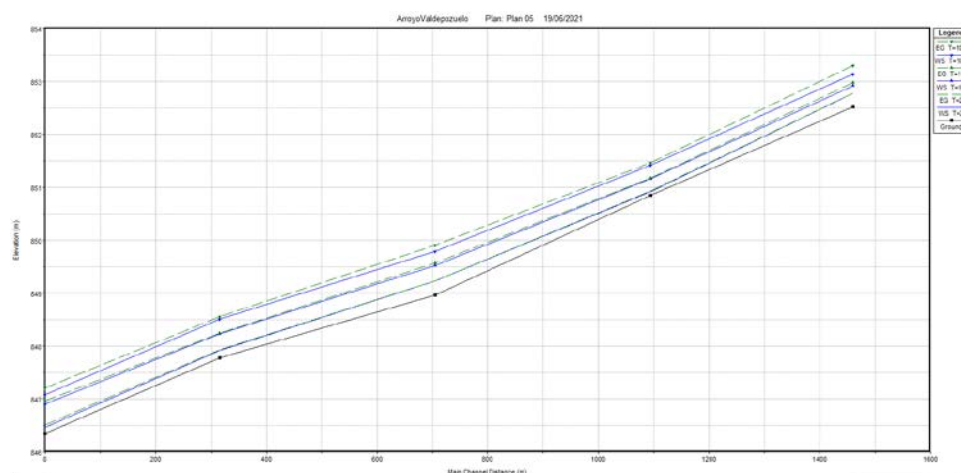


Postoperacional suelo seco

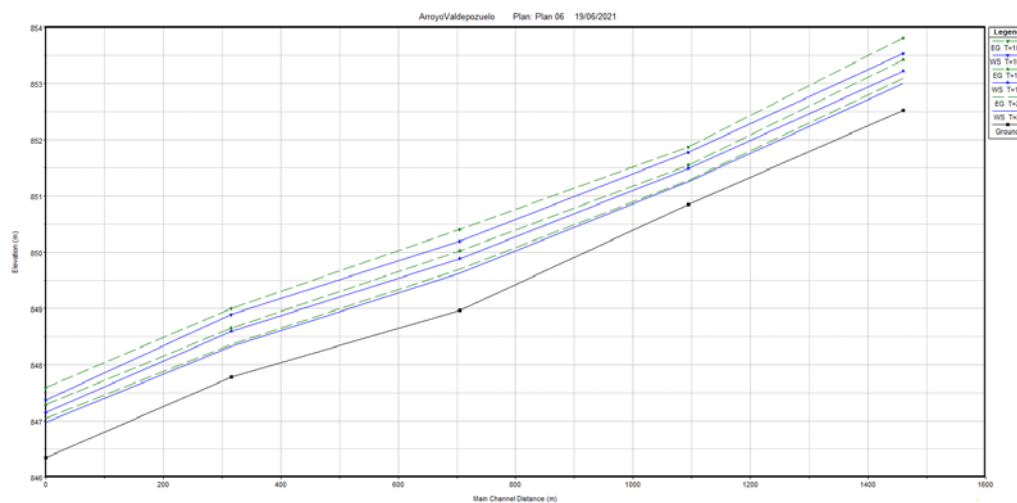


Postoperacional suelo normal

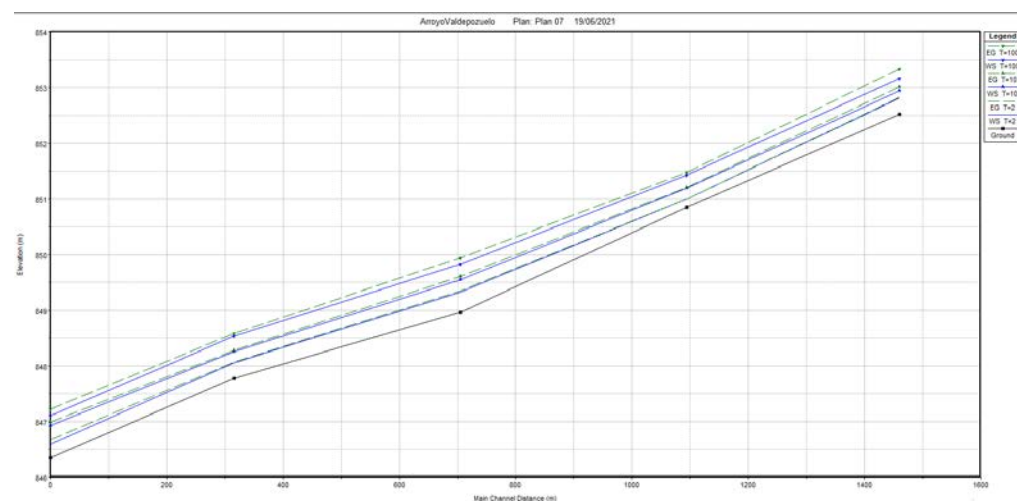
Figura 22 Perfiles longitudinales calado y energía Arroyo Valilongo.



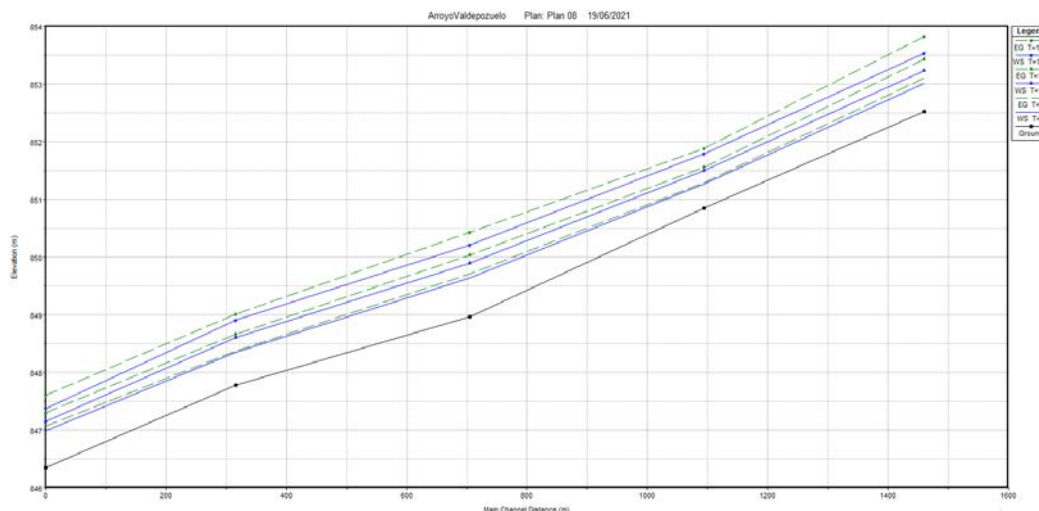
Preoperacional suelo seco



Preoperacional suelo normal



Postoperacional suelo seco



Postoperacional suelo normal

Figura 23 Perfiles longitudinales calado y energía Arroyo Valdepozuelo.

7. ESTIMACIÓN DE IMPACTOS DERIVADOS DE LA EJECUCIÓN DE LAS OBRAS

Los impactos derivados de la ejecución de las obras son compatibles con los objetivos de preservación ambiental. En términos generales el estudio de impacto ambiental al que el presente estudio se anexa incluye una detallada determinación de los impactos derivados tanto del propio diseño como de la construcción y explotación de las PFVs. A continuación, se relacionan una serie de medidas de índole general que en todo caso vienen a complementar las disposiciones en esta materia incluidas en el estudio de impacto ambiental.

Jalonamientos de cauces durante la ejecución de las obras. Se propone el jalonamiento de los cauces en el entorno de las zonas de obras. Se trata de un jalonamiento preventivo que impida ocupaciones del cauce por parte de la maquinaria, vehículos u operarios. Quedará resuelto mediante el hincado de redondos de hierro de 1,20 m de longitud a una distancia máxima de 10 m entre ellos y la colocación de una cuerda con banderolas asida a los redondos antes mencionados.

Intercepción de cauces en los tránsitos de maquinaria, equipos o personal para el acceso a las obras o instalaciones auxiliares. En caso de que se diera esta situación se procederá a la delimitación del cauce, la ejecución de obras encaminadas a mantener la integridad física y la continuidad hidráulica del cauce y la prevención del arrastre de sedimentos mediante las barreras de las que se hablará a continuación.

Se instalarán elementos de protección de los cauces frente al arrastre de partículas procedentes de las obras. Se propone el uso de barreras de láminas filtrantes. Se construyen con postes, telas metálicas, geotextiles. Son estructuras temporales con una vida útil de unos 6 meses y cuyo caudal límite de agua para estas barreras es de 30 l/s. Por cada 1000 m² de superficie afectada debe disponerse de unos 30 m de barrera. La longitud máxima de talud no debe exceder de 30 m. y la pendiente del mismo debe ser inferior al 50% ó 2:1. La altura de la barrera no debe ser superior a

90 cm. Estos dispositivos se ubicarán, consecuentemente, en aquellas zonas de las obras en las que existiese riesgo de arrastre de partículas en la escorrentía superficial.

Se propondrán igualmente balsas de decantación permanentes que garanticen que el arrastre de materiales que produzcan las lluvias no se depositen en las zonas protegidas si las hubiera en el entorno directamente afectado por la ejecución de las obras.

Para la prevención de la contaminación de las aguas subterráneas se proponen las siguientes medidas:

- En ningún caso se verterán directamente al terreno ni a los cursos de agua los aceites, combustibles, restos de hormigonado, escombros, etc. originados por las obras. Los productos residuales se gestionarán de acuerdo con la normativa vigente aplicable.
- Las instalaciones auxiliares de las obras deberán tener un sistema de gestión de las aguas residuales y pluviales.
- Los parques de maquinaria incorporarán plataformas completamente impermeabilizadas y con sistemas de recogida de residuos y, específicamente, de aceites usados, para las operaciones de repostaje, cambio de lubricantes y lavado.
- La totalidad de superficies sobre las que se realicen acopios de materiales potencialmente contaminantes de las aguas o el suelo, serán impermeables y dispondrán de sistema de gestión y depuración de las aguas interiores a la instalación (al menos separación de grasas y sedimentación-filtración).
- Se prohibirá el acopio de materiales potencialmente contaminantes de las aguas y los suelos en el interior de la excavación para la realización del saneo de terrenos y en todo el trazado proyectado.
- Con respecto a los líquidos desencofrantes, así como los riegos de imprimación para las emulsiones asfálticas, éstos se realizarán de manera que se minimicen las posibles afecciones sobre el medio circundante.
- Con respecto a la puesta en obra de hormigón, estabilizados, emulsiones o betunes, ésta se realizará sin generar afección sobre las aguas o los suelos. Las canaletas de las hormigoneras se limpiarán sobre zona habilitada. Respecto del lavado de la cisterna, éste se realizará únicamente en la planta de hormigón.
- El agotamiento de las zanjas se realizará habilitando una zona sobre excavada en la que se acumulen las aguas extraídas de la zanja para permitir la infiltración de nuevo al terreno.

Gestión de las aguas residuales de las instalaciones auxiliares. Los principales contaminantes respecto de la calidad de las aguas que pueden originarse en estas instalaciones auxiliares son de siguientes tipos:

- Contaminantes físicos a base de sólidos en suspensión y disueltos arrastrados por el agua escorrentia superficial procedente del interior de las campas, especialmente relevante en los primeros instantes de los episodios de lluvia.
- Contaminantes químicos principalmente relacionados con las grasas y aceites que pudieran arrastrarse en el agua de escorrentia procedente de las zonas de aparcamiento o reparación de maquinaria.
- Por otro lado, también existe riesgo de contaminación consecuencia de las aguas sanitarias generadas en oficinas y vestuarios.

Frente a dichas fuentes potenciales de contaminación se propone un sistema de gestión separativo de las aguas con los siguientes criterios:

- Las aguas pluviales interiores a las campas (que contarán con superficies impermeables) serán conducidas mediante gravedad al punto más bajo en el que se proyectan una balsa de decantación, un separador de grasas y una arqueta de registro con carácter previo a su vertido. Existirá igualmente una cuneta interior que dirija las aguas de escorrentía interior hacia las instalaciones de depuración y un murete que evite la entrada de aguas procedentes de la escorrentía exterior.
- Para las aguas sanitarias se plantean depósitos estancos (no suponen infiltración al terreno) que acumulan el agua y que periódicamente son vaciados mediante cisterna que transporta el contenido directamente a la EDAR más próxima.

Sistemas de gestión de las aguas pluviales. Se plantea un sistema basado en la recogida de las aguas interiores mediante una base impermeabilizada y una cuneta interior y el tratamiento de las mismas mediante decantación y desengrasado, con carácter previo a su vertido. En cada uno de los siguientes apartados se definirán las características básicas de cada uno de los elementos requeridos para el funcionamiento de este sistema.

Impermeabilización de las superficies. Para evitar las infiltraciones al terreno subyacente, toda la superficie sobre la que se ubiquen las instalaciones auxiliares contará con un tratamiento superficial de la superficie que asegure la impermeabilización del mismo. Este acabado estará definido con una pendiente del 2 % en dirección al punto en el que se ubiquen las instalaciones de decantación y depuración de las aguas. El tamaño de las superficies soladas se justificará en función de las dimensiones de los parques de maquinaria de las obras. La impermeabilización de las zonas interiores se propone con la siguiente sección:

- Suelo natural
- Geomembrana impermeable instalada entre geotextiles
- Capa drenante
- Firme de zahorra compactada

El contratista podrá proponer modificaciones a la sección tipo anterior que habrán de ser aprobadas por la dirección ambiental de las obras siempre y cuando que garantizada la impermeabilización de la superficie de la instalación auxiliar.

Las zonas interiores a las campas que se propongan de manera específica para las operaciones de mantenimiento de maquinaria, contarán con una cuneta delimitadora que dirija las aguas hacia la balsa.

Balsas de decantación de sedimentos: Se dispondrán balsas de decantación en cada una de las zonas de instalaciones auxiliares proyectadas.

Separador de grasas: Aguas abajo de la balsa de decantación se ubicará un separador de grasas que gracias a la diferencia entre pesos específicos proceda a la separación de ambas fases líquidas.

Arquetas de registro: El último paso con carácter previo al vertido de las aguas residuales será la interposición de una arqueta de registro para la toma de muestras.

Cunetas interiores: Se proyectan cunetas interiores a las zonas de instalaciones auxiliares que gestionen las aguas y las envíen hacia los elementos de decantación.

Sistemas de gestión de las aguas residuales: Para la recogida de las aguas procedentes de las instalaciones para la higiene del personal y de las oficinas, así como el resto de aguas equiparables a las residuales de esta naturaleza serán recogidas y almacenadas en un depósito estanco enterrado.

8. REFERENCIAS

Carsel, R. F., & Parrish, R. S. (1988). Developing joint probability distributions of soil water retention characteristics. *Water resources research*, 24(5), 755-769.

FOM (2016). Orden FOM/298/2016, de 15 de febrero, por la que se aprueba la norma 5.2 -IC drenaje superficial de la Instrucción de Carreteras.

Green, W. H., and G. A. Ampt. 1911. Studies on soil physics. *J. Agric. Sci.* 4(1): 1-24.

MFOM (1999). Máximas Lluvias Diarias en la España Peninsular. Ministerio de Fomento. Secretaría de Estado de Infraestructuras y Transportes. Dirección General de Carreteras. Descargado de https://www.mitma.gob.es/recursos_mfom/0610300.pdf. Consultado el 05/06/2021.

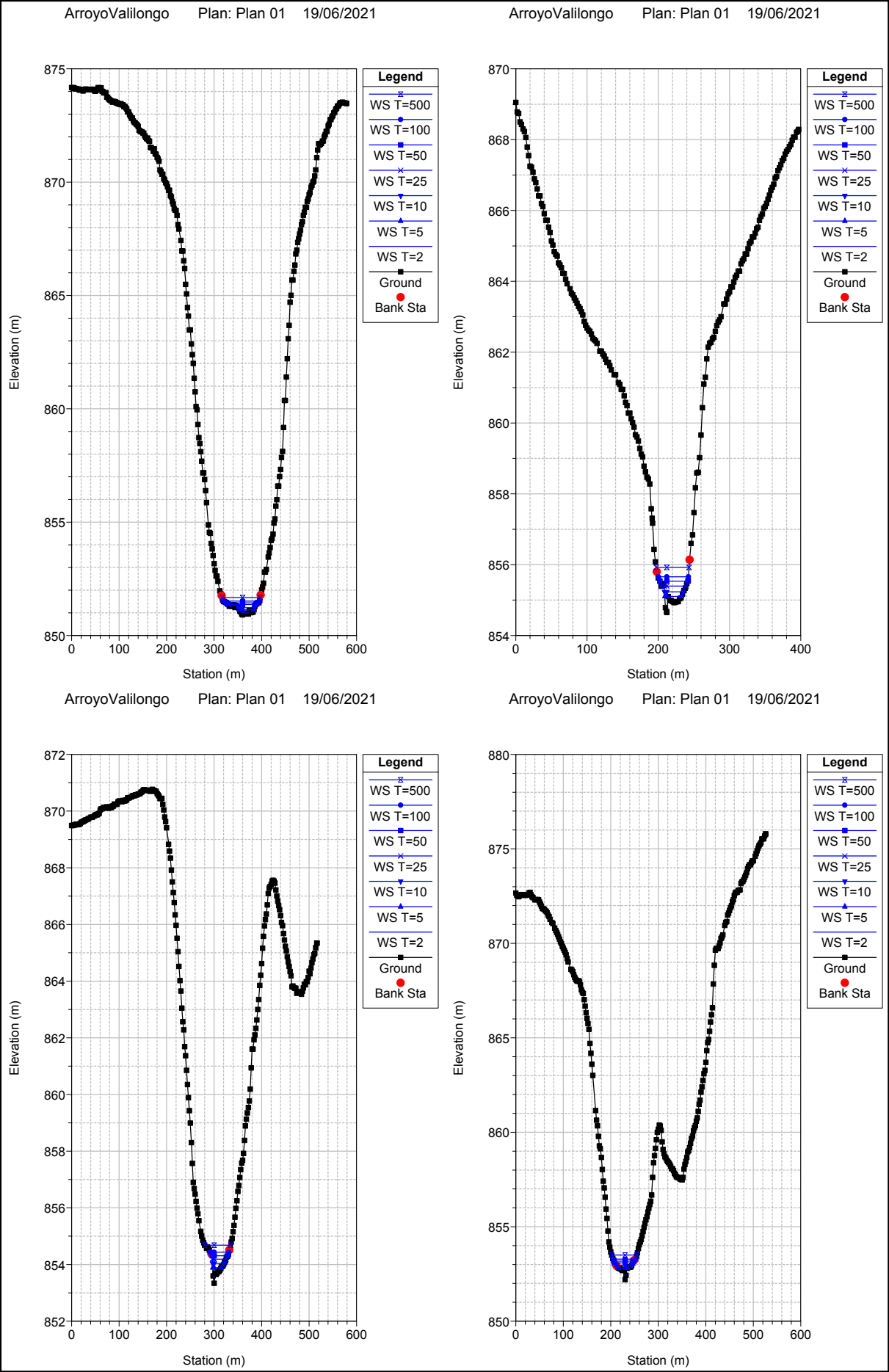
MITERD (2020). Evaluación de Impacto Ambiental de Proyectos de Parques Fotovoltaicos Terrestres, Ministerio para la Transición Ecológica y el Reto Demográfico, versión 14/12/2020. Descargado de: https://www.miteco.gob.es/es/calidad-y-evaluacion-ambiental/temas/red-de-autoridades-ambientales-raa-/tratamientoimpactosparquefotovoltaicogtraafinal_tcm30-523231.pdf. Consultado el 05/06/2021.

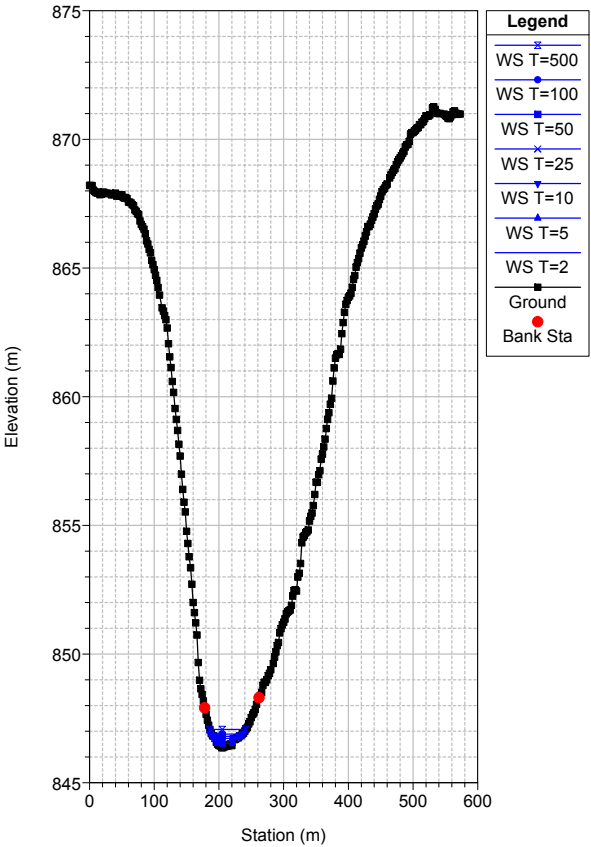
Neuman, S. P. (1976), Wetting front pressure head in the infiltration model of Green and Ampt, *Water Resour. Res.*, 12(3), 564–566

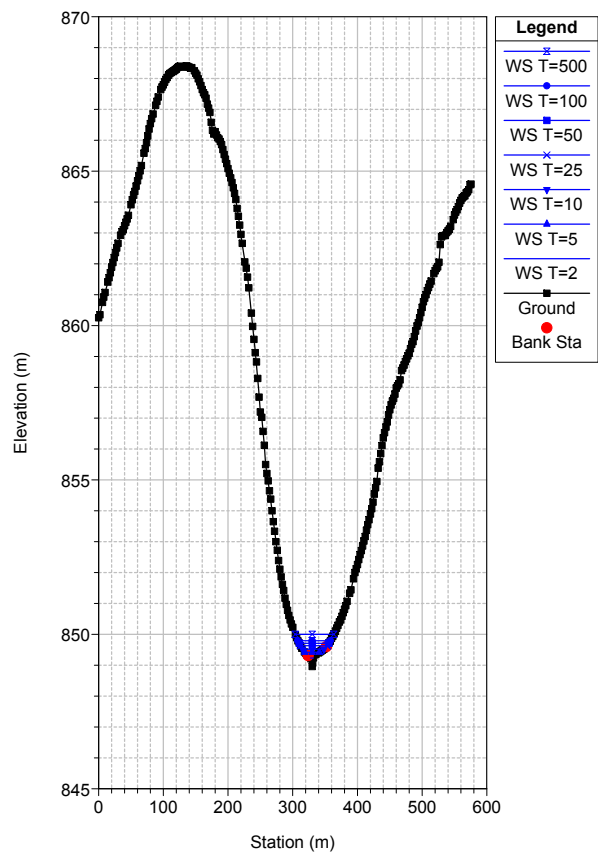
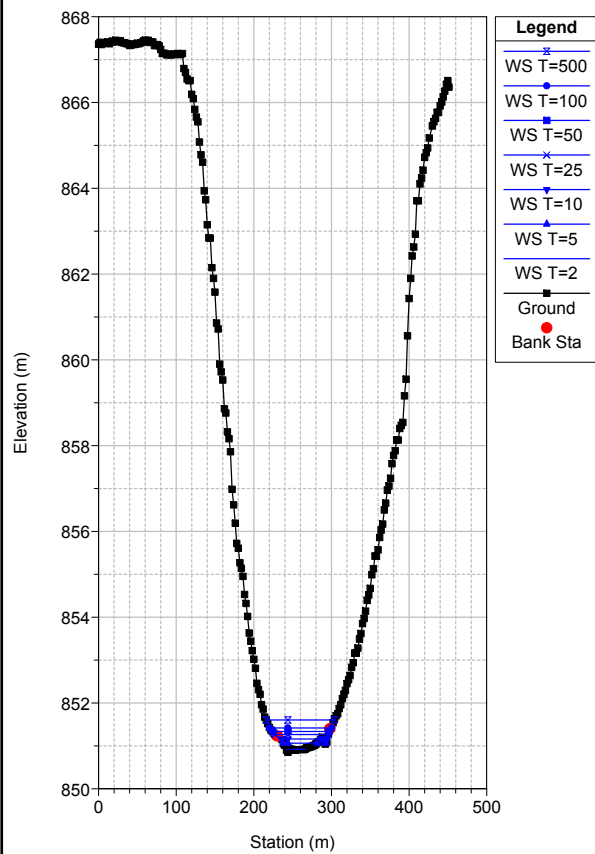
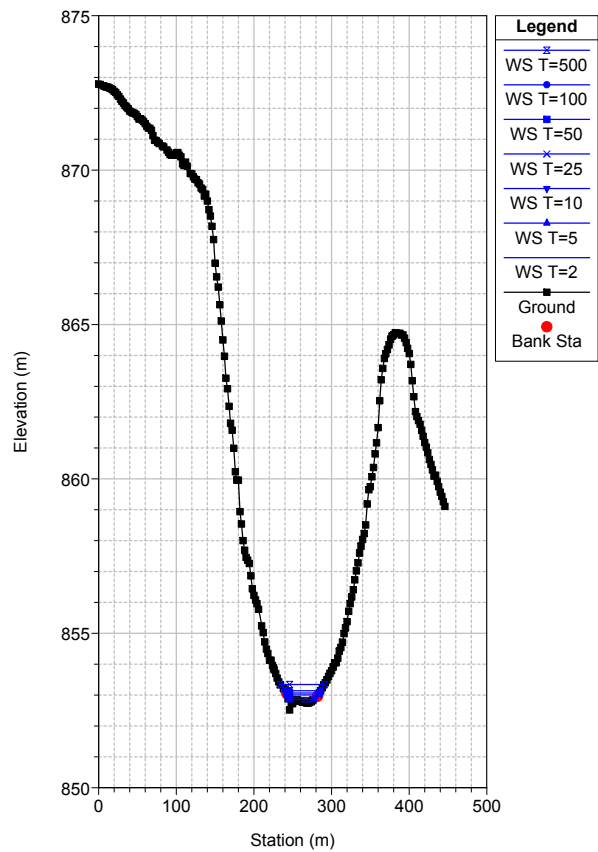
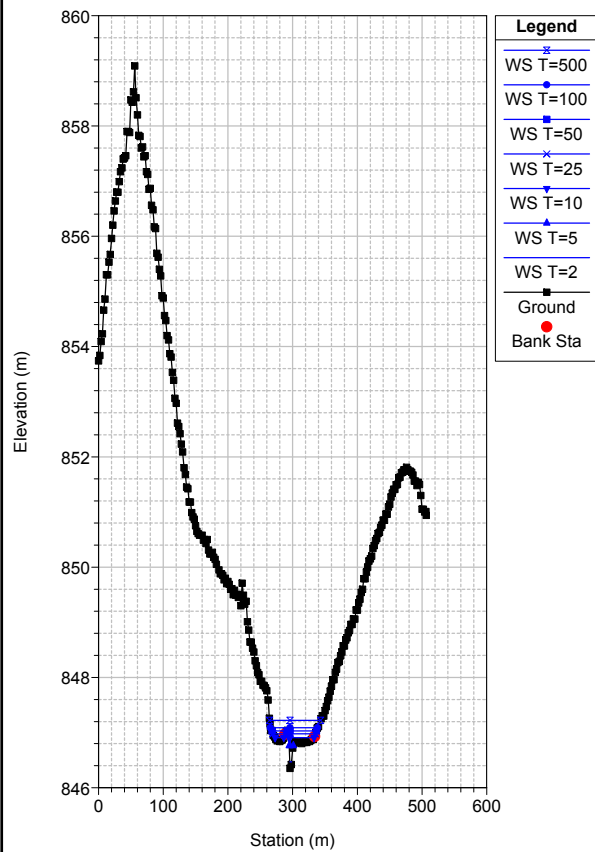
Te Chow, V., Maidment, D. R., & Mays, L. W. (1998). *Applied hydrology*. McGraw Hill Series in Water Resources and Environmental Engineering.

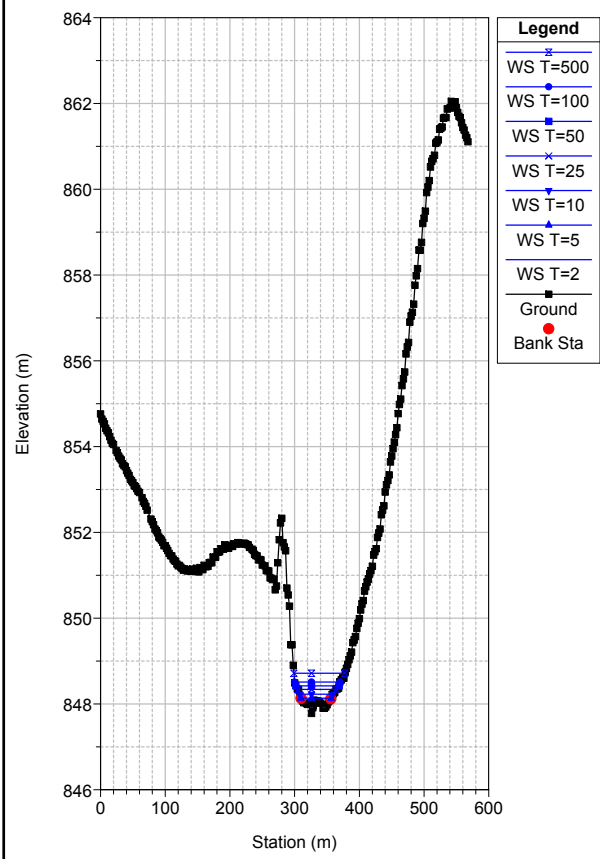
USDA (1986). *Urban Hydrology for Small Watersheds Technical Release TR-55*. United States Department of Agriculture. Natural Resources Conservation Service. Conservation Engineering Division.

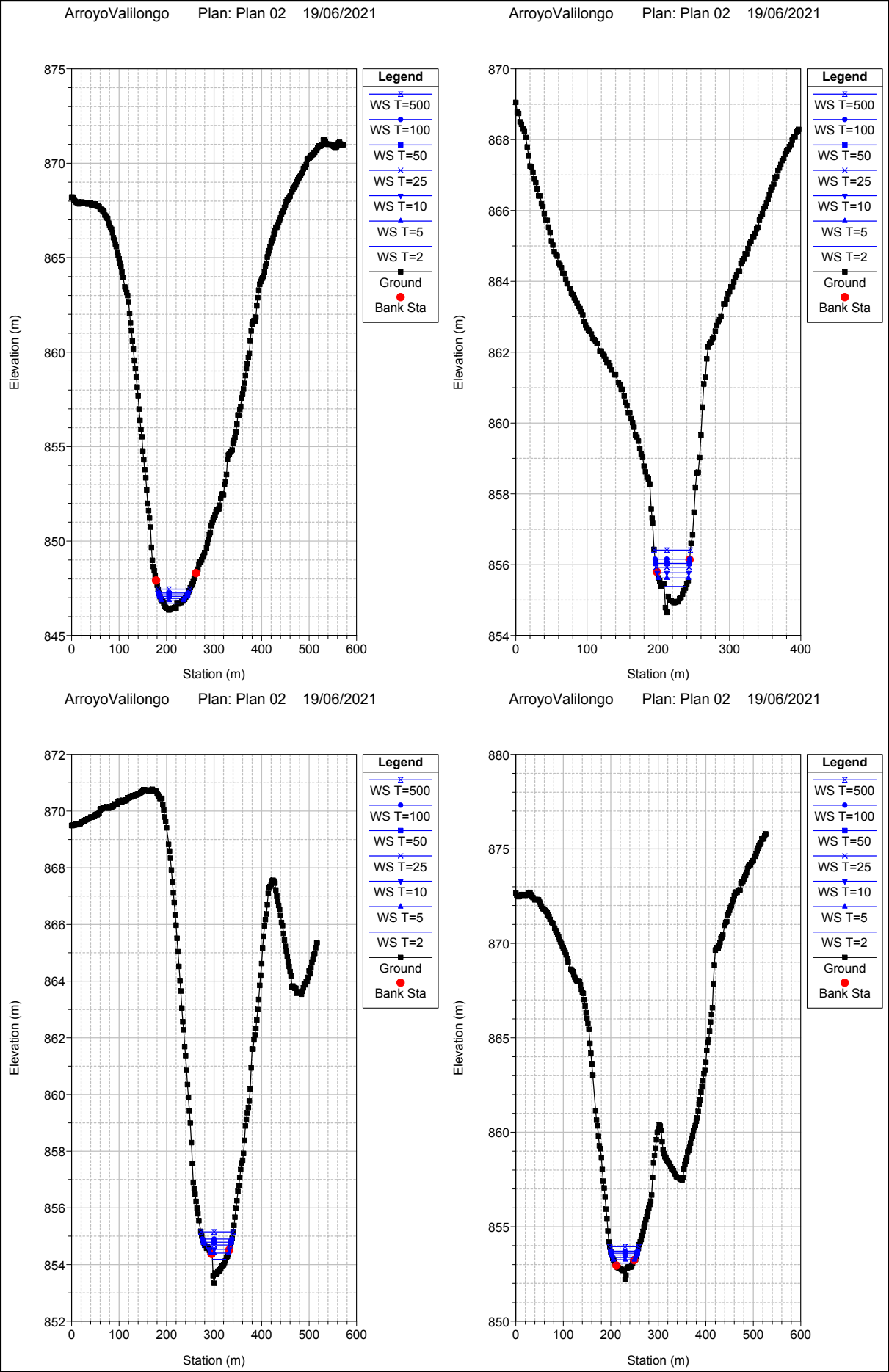
APÉNDICE 1. PERFILES TRANSVERSALES SITUACIÓN PREOPERACIONAL

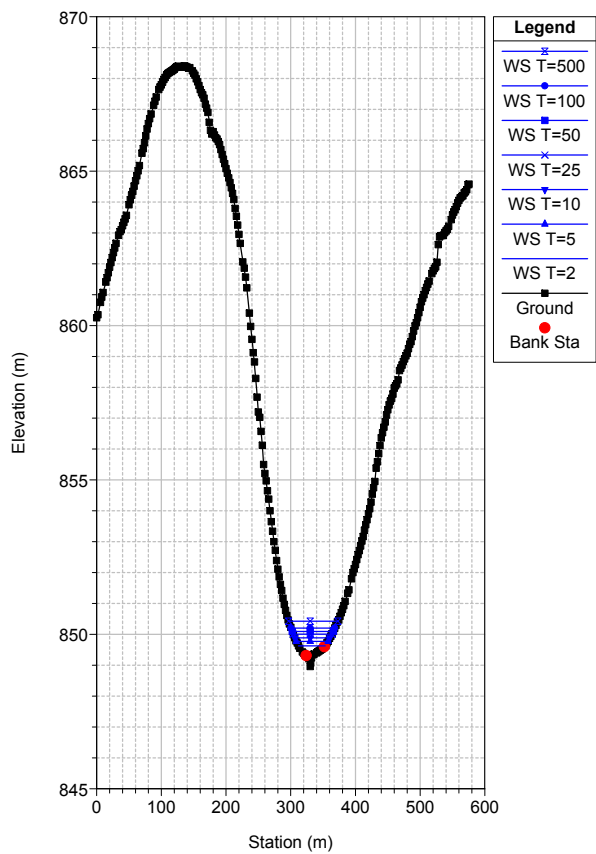
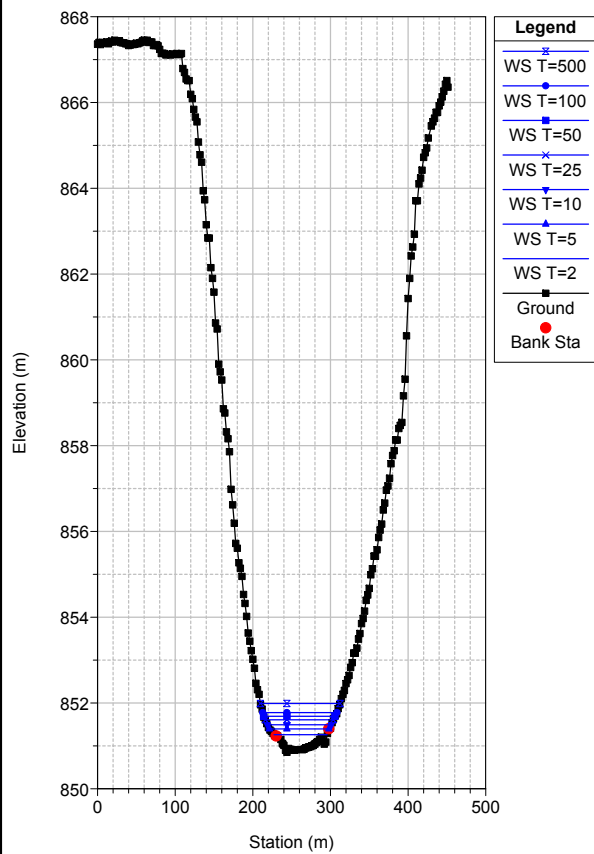
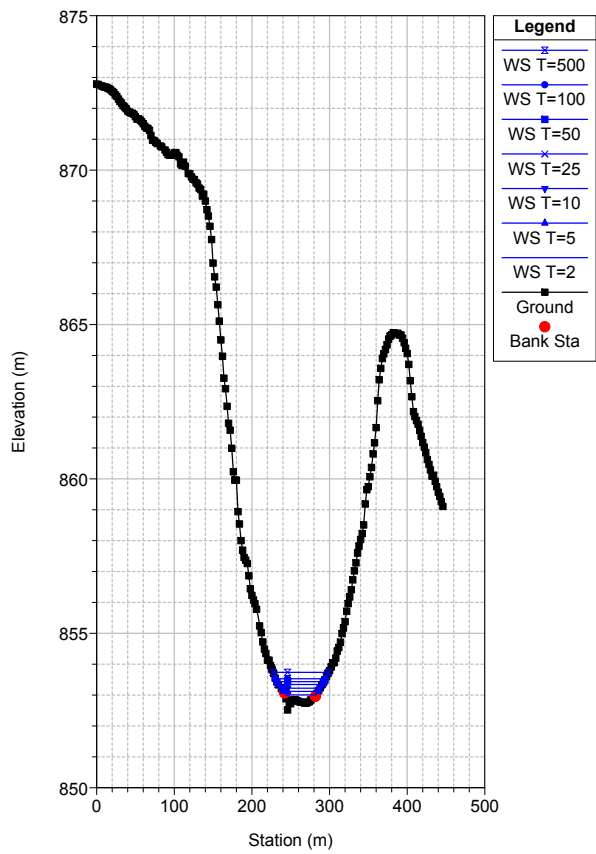
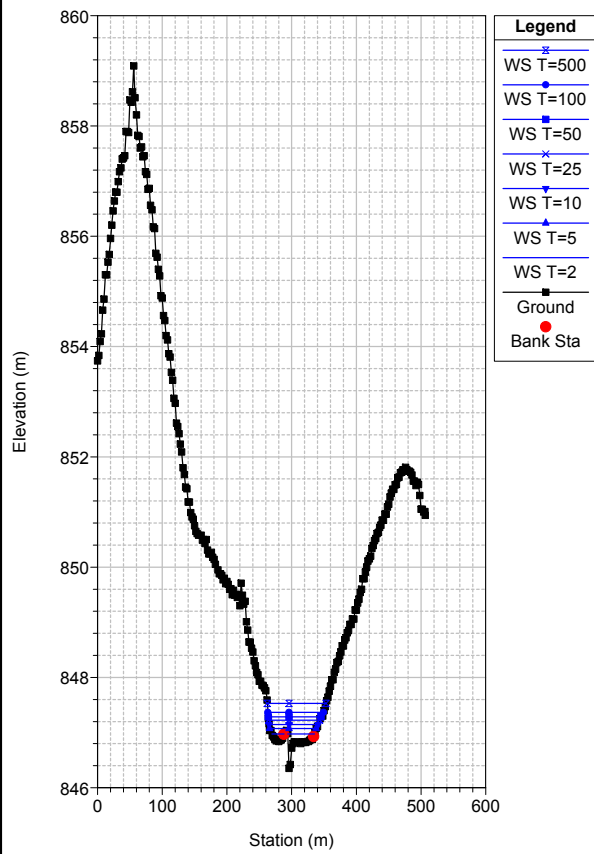


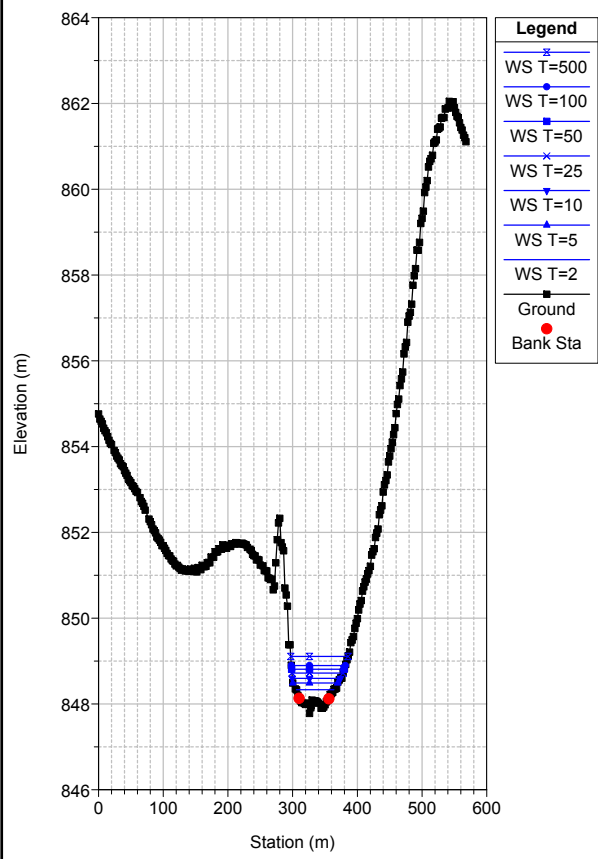




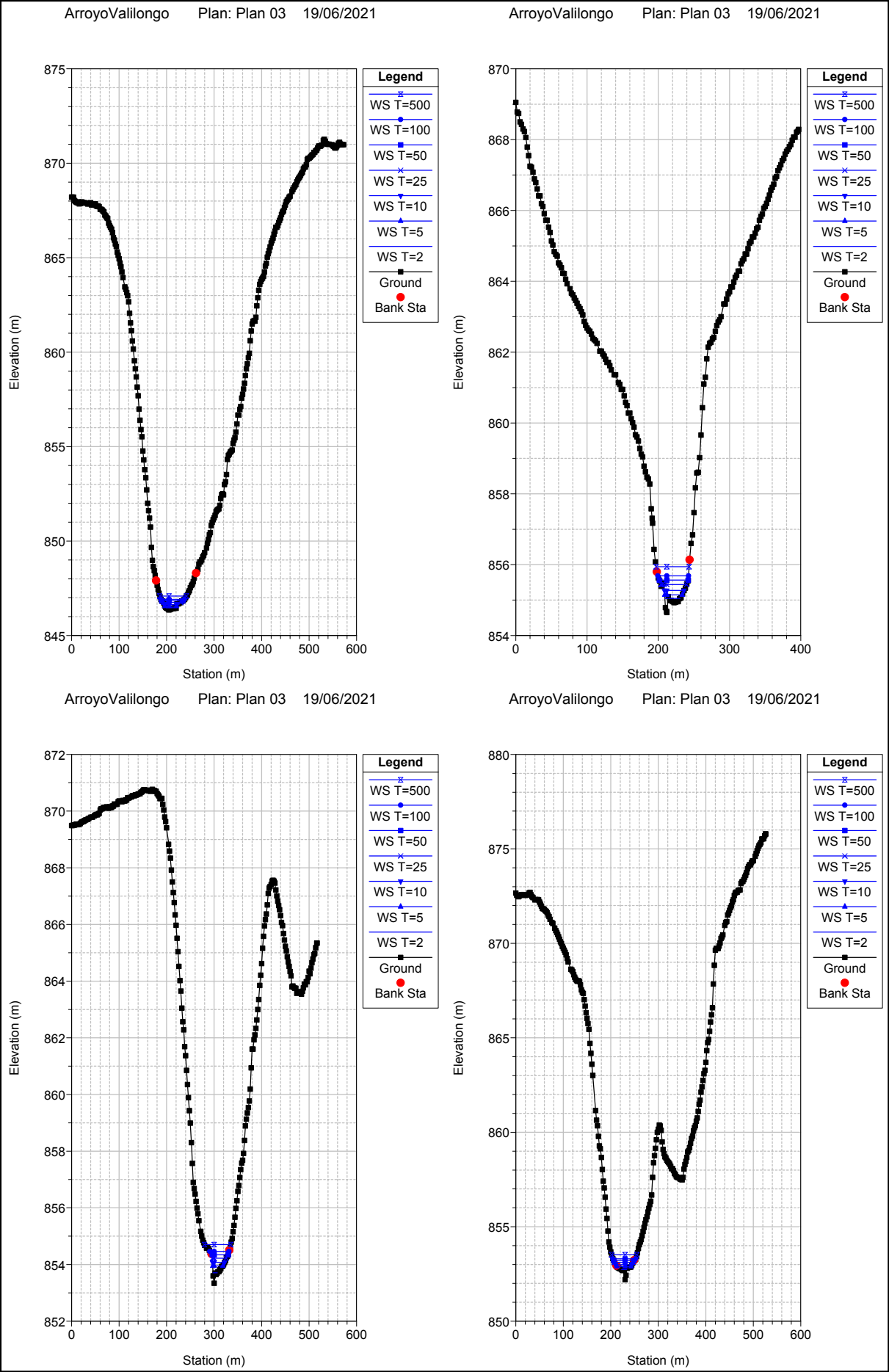


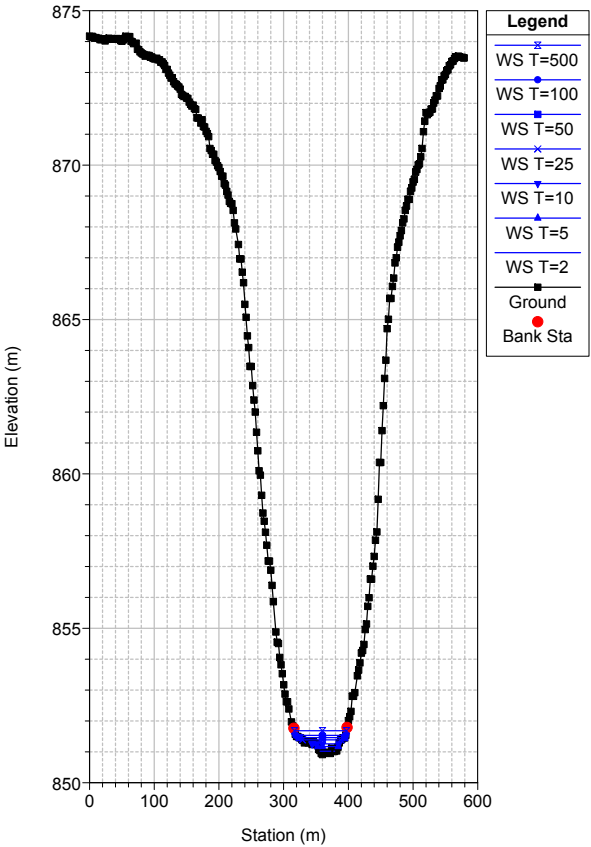


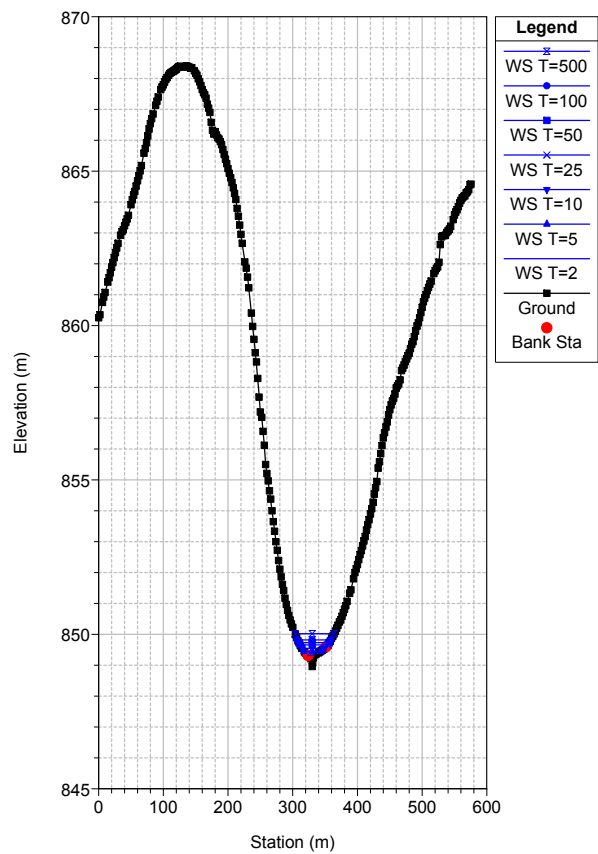
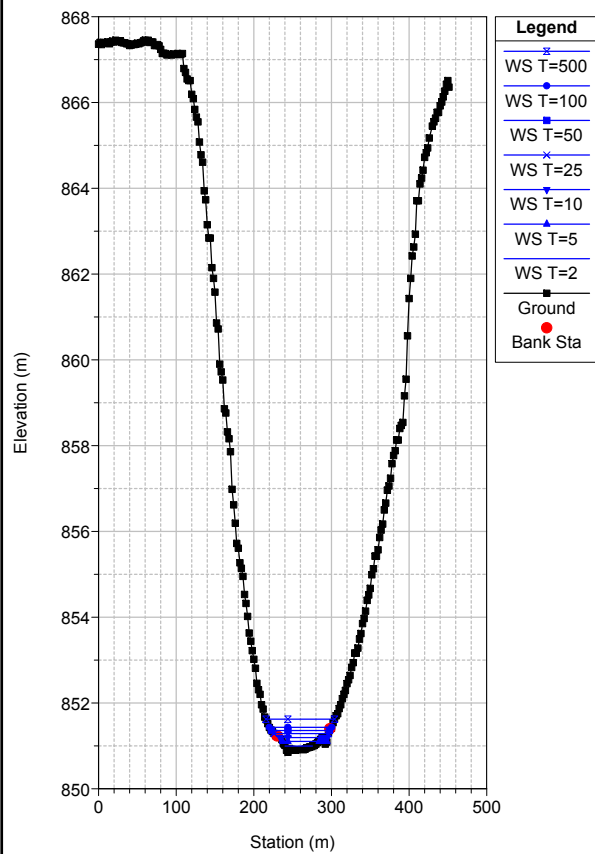
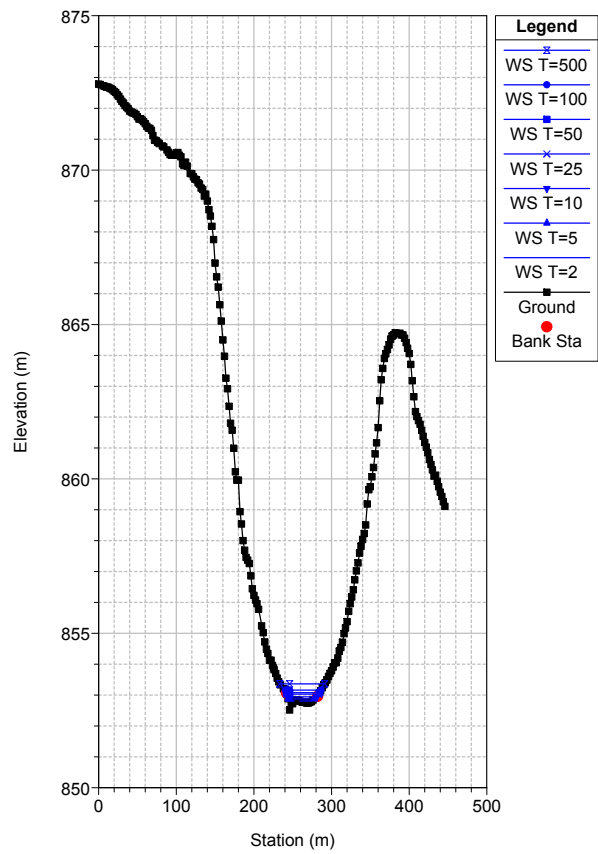
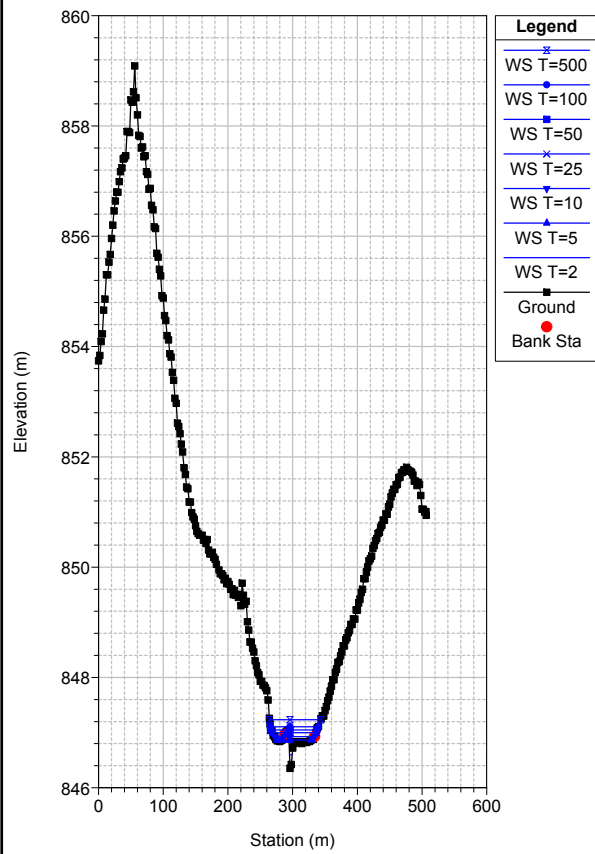


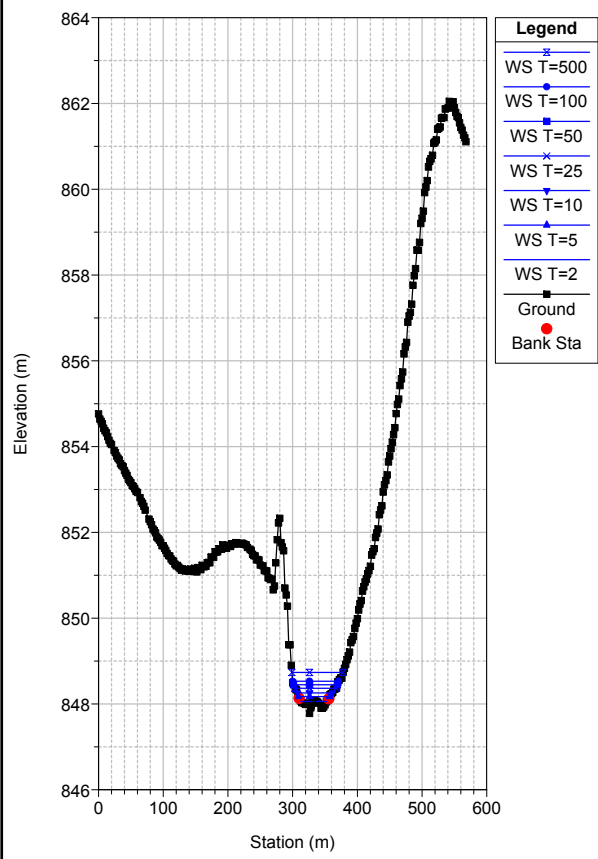


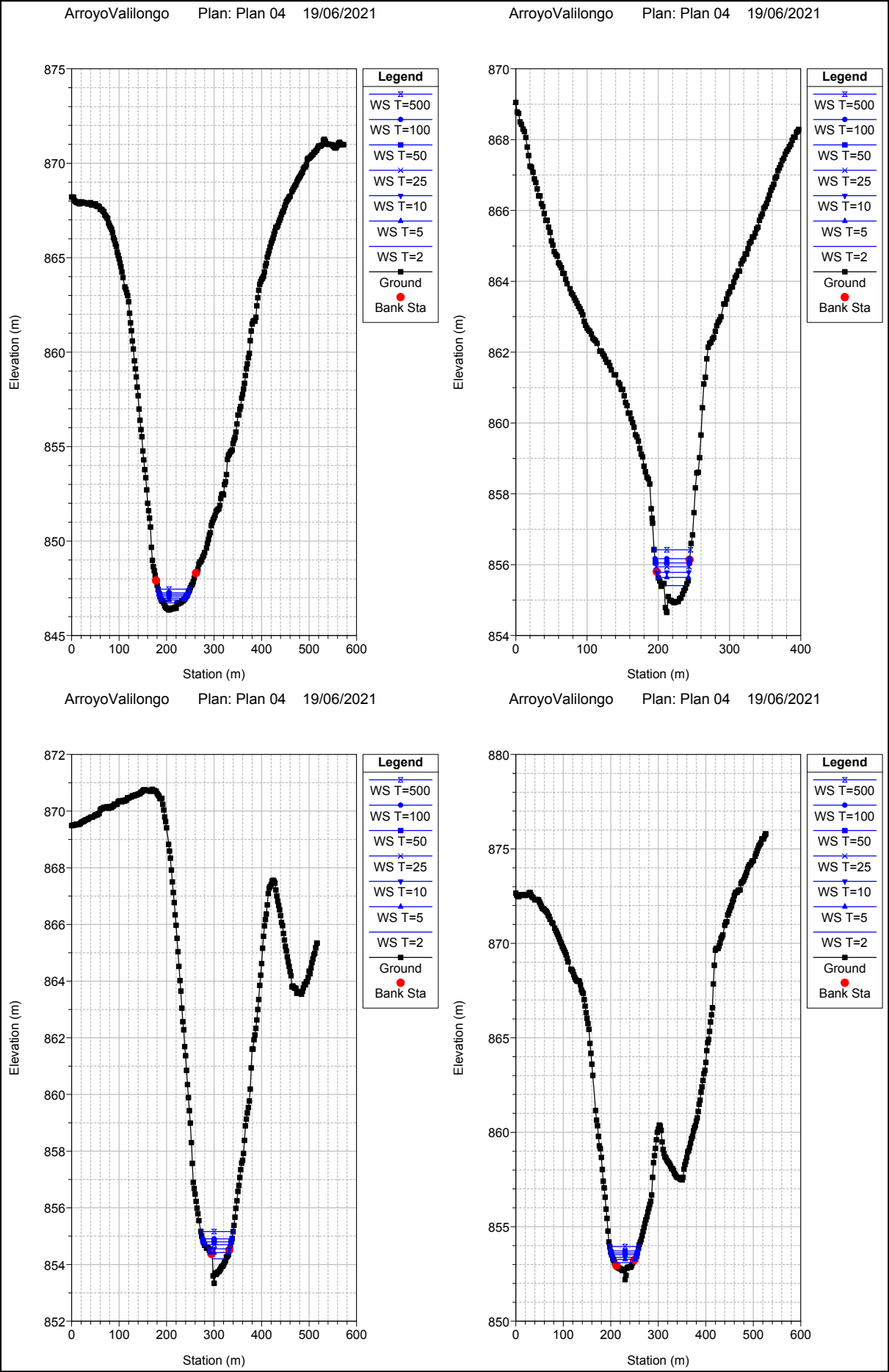
APÉNDICE 2. PERFILES TRANSVERSALES SITUACIÓN POSTOPERACIONAL

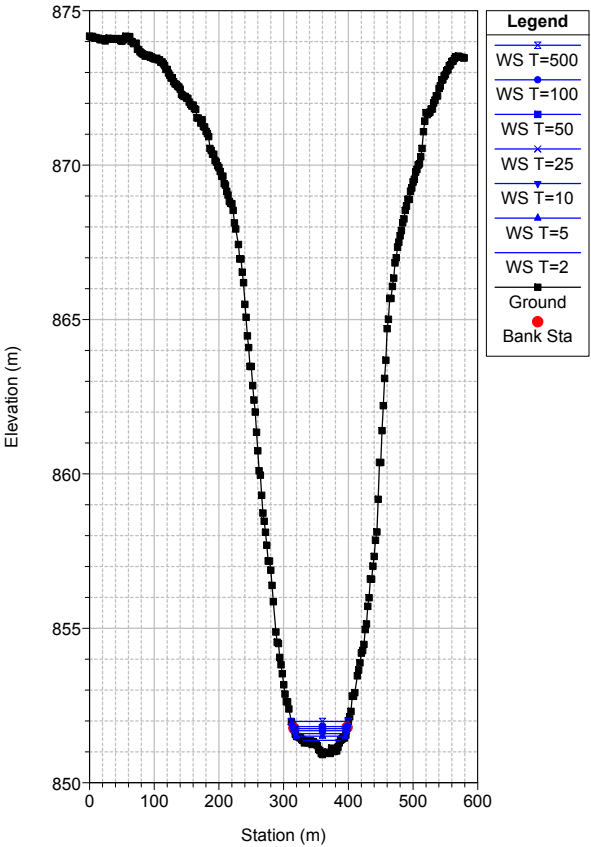


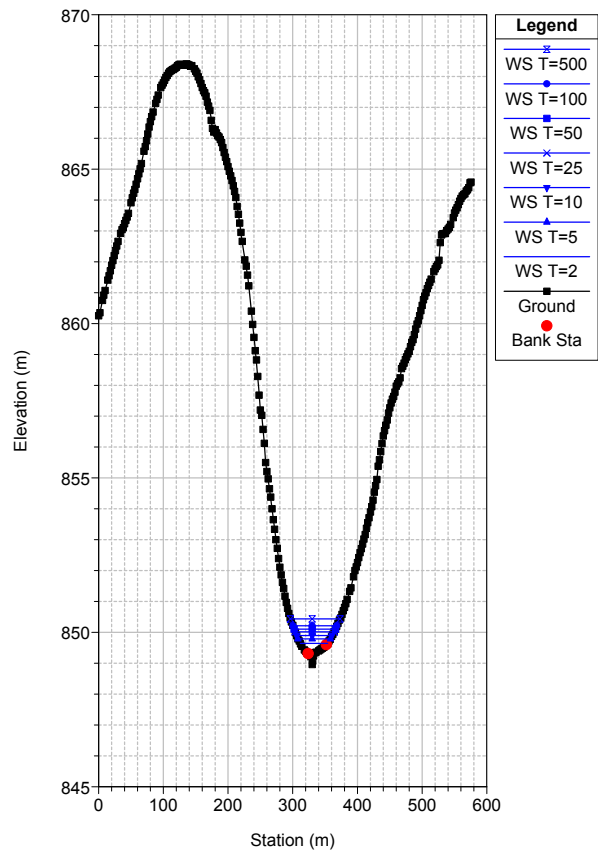
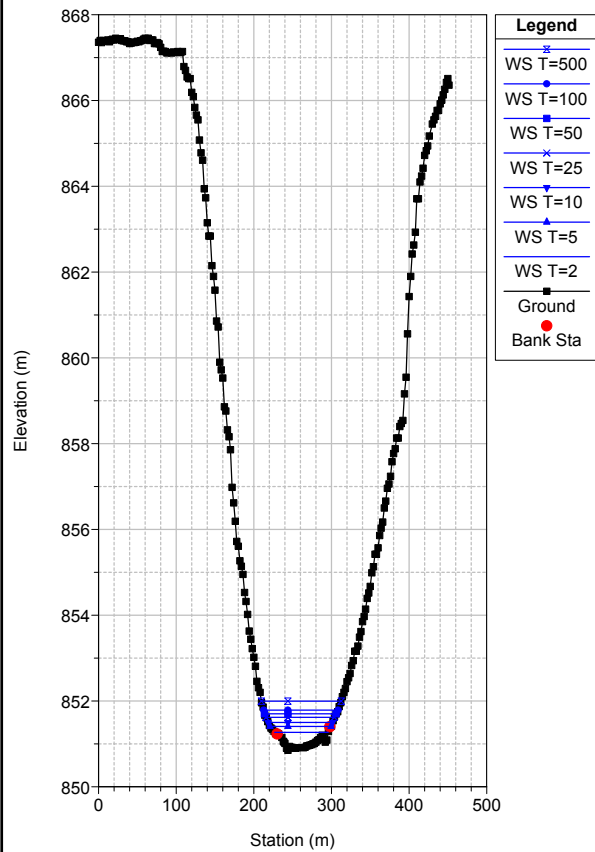
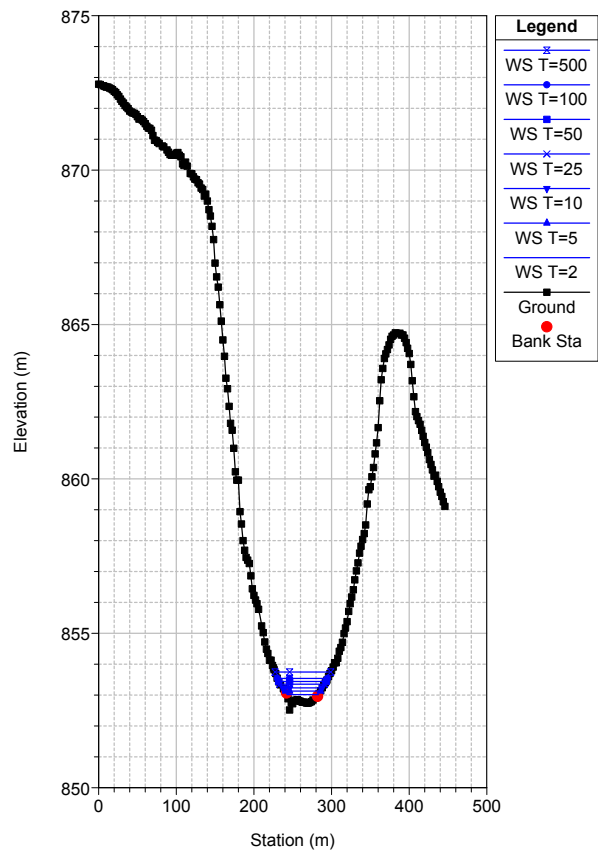
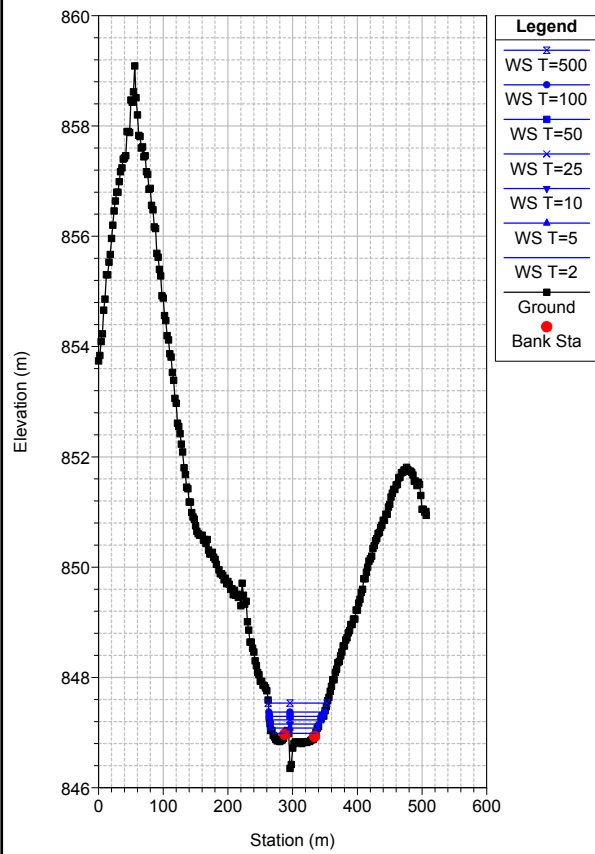


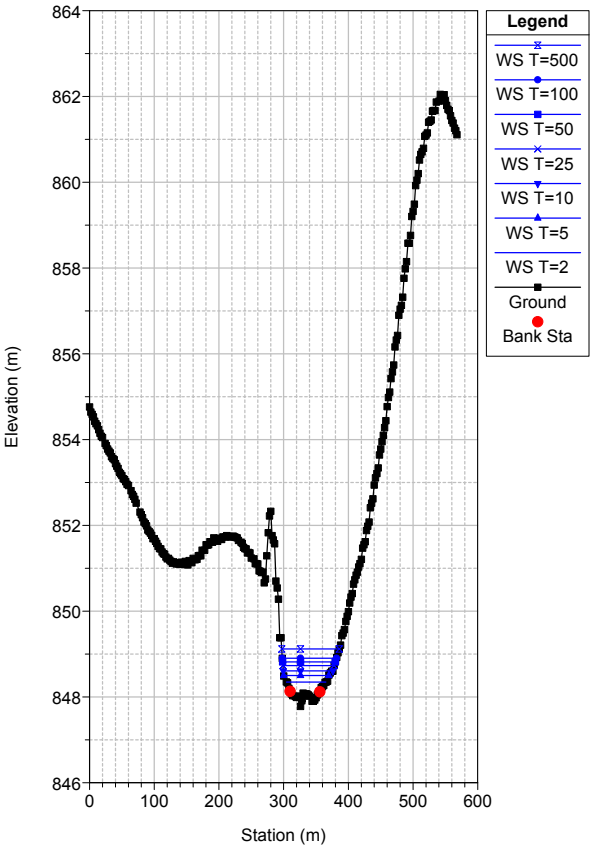












APÉNDICE 3. TABLAS RESUMEN DE PARÁMETROS HIDRÁULICOS DE LAS SECCIONES ESTUDIADAS. SITUACIÓN PROPERACIONAL

Plan: Plan 01 ArroyoValilongo 1 RS: 2089.018 Profile: T=2

E.G. Elev (m)	854.87	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.		0.030	
W.S. Elev (m)	854.86	Reach Len. (m)	251.27	347.36	440.65
Crit W.S. (m)	854.80	Flow Area (m2)		0.37	
E.G. Slope (m/m)	0.003214	Area (m2)		0.37	
Q Total (m3/s)	0.17	Flow (m3/s)		0.17	
Top Width (m)	3.11	Top Width (m)		3.11	
Vel Total (m/s)	0.46	Avg. Vel. (m/s)		0.46	
Max Chl Dpth (m)	0.21	Hydr. Depth (m)		0.12	
Conv. Total (m3/s)	3.0	Conv. (m3/s)		3.0	
Length Wtd. (m)	347.36	Wetted Per. (m)		3.15	
Min Ch El (m)	854.65	Shear (N/m2)		3.73	
Alpha	1.00	Stream Power (N/m s)		1.70	
Frctn Loss (m)	1.29	Cum Volume (1000 m3)		0.71	
C & E Loss (m)	0.00	Cum SA (1000 m2)		12.59	

Plan: Plan 01 ArroyoValilongo 1 RS: 2089.018 Profile: T=5

E.G. Elev (m)	855.12	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.030	
W.S. Elev (m)	855.11	Reach Len. (m)	251.27	347.36	440.65
Crit W.S. (m)	855.03	Flow Area (m2)		3.58	
E.G. Slope (m/m)	0.004099	Area (m2)		3.58	
Q Total (m3/s)	2.16	Flow (m3/s)		2.16	
Top Width (m)	23.74	Top Width (m)		23.74	
Vel Total (m/s)	0.60	Avg. Vel. (m/s)		0.60	
Max Chl Dpth (m)	0.45	Hydr. Depth (m)		0.15	
Conv. Total (m3/s)	33.7	Conv. (m3/s)		33.7	
Length Wtd. (m)	347.36	Wetted Per. (m)		23.86	
Min Ch El (m)	854.65	Shear (N/m2)		6.04	
Alpha	1.00	Stream Power (N/m s)		3.64	
Frctn Loss (m)	1.22	Cum Volume (1000 m3)		5.39	
C & E Loss (m)	0.00	Cum SA (1000 m2)		37.94	

Plan: Plan 01 ArroyoValilongo 1 RS: 2089.018 Profile: T=10

E.G. Elev (m)	855.27	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.030	
W.S. Elev (m)	855.23	Reach Len. (m)	251.27	347.36	440.65
Crit W.S. (m)	855.13	Flow Area (m2)		6.78	
E.G. Slope (m/m)	0.003593	Area (m2)		6.78	
Q Total (m3/s)	5.44	Flow (m3/s)		5.44	
Top Width (m)	26.55	Top Width (m)		26.55	
Vel Total (m/s)	0.80	Avg. Vel. (m/s)		0.80	
Max Chl Dpth (m)	0.58	Hydr. Depth (m)		0.26	
Conv. Total (m3/s)	90.8	Conv. (m3/s)		90.8	
Length Wtd. (m)	347.36	Wetted Per. (m)		26.69	
Min Ch El (m)	854.65	Shear (N/m2)		8.96	
Alpha	1.00	Stream Power (N/m s)		7.18	
Frctn Loss (m)	1.19	Cum Volume (1000 m3)	0.01	10.34	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.49	47.57	

Plan: Plan 01 ArroyoValilongo 1 RS: 2089.018 Profile: T=25

E.G. Elev (m)	855.45	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.		0.030	
W.S. Elev (m)	855.40	Reach Len. (m)	251.27	347.36	440.65
Crit W.S. (m)	855.24	Flow Area (m2)		11.53	
E.G. Slope (m/m)	0.003280	Area (m2)		11.53	
Q Total (m3/s)	11.33	Flow (m3/s)		11.33	

Plan: Plan 01 ArroyoValilongo 1 RS: 2089.018 Profile: T=25 (Continued)

Top Width (m)	31.02	Top Width (m)		31.02	
Vel Total (m/s)	0.98	Avg. Vel. (m/s)		0.98	
Max Chl Dpth (m)	0.75	Hydr. Depth (m)		0.37	
Conv. Total (m3/s)	197.8	Conv. (m3/s)		197.8	
Length Wtd. (m)	347.36	Wetted Per. (m)		31.19	
Min Ch El (m)	854.65	Shear (N/m2)		11.89	
Alpha	1.00	Stream Power (N/m s)		11.68	
Frctn Loss (m)	1.20	Cum Volume (1000 m3)	0.14	17.85	
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.43	63.91	

Plan: Plan 01 ArroyoValilongo 1 RS: 2089.018 Profile: T=50

E.G. Elev (m)	855.59	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.030	
W.S. Elev (m)	855.53	Reach Len. (m)	251.27	347.36	440.65
Crit W.S. (m)	855.33	Flow Area (m2)		16.41	
E.G. Slope (m/m)	0.003184	Area (m2)		16.41	
Q Total (m3/s)	17.11	Flow (m3/s)		17.11	
Top Width (m)	39.58	Top Width (m)		39.58	
Vel Total (m/s)	1.04	Avg. Vel. (m/s)		1.04	
Max Chl Dpth (m)	0.88	Hydr. Depth (m)		0.41	
Conv. Total (m3/s)	303.2	Conv. (m3/s)		303.2	
Length Wtd. (m)	347.36	Wetted Per. (m)		39.77	
Min Ch El (m)	854.65	Shear (N/m2)		12.89	
Alpha	1.00	Stream Power (N/m s)		13.44	
Frctn Loss (m)	1.21	Cum Volume (1000 m3)	0.29	23.97	
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.89	72.64	

Plan: Plan 01 ArroyoValilongo 1 RS: 2089.018 Profile: T=100

E.G. Elev (m)	855.73	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.030	
W.S. Elev (m)	855.66	Reach Len. (m)	251.27	347.36	440.65
Crit W.S. (m)	855.44	Flow Area (m2)		21.47	
E.G. Slope (m/m)	0.003062	Area (m2)		21.47	
Q Total (m3/s)	24.97	Flow (m3/s)		24.97	
Top Width (m)	42.68	Top Width (m)		42.68	
Vel Total (m/s)	1.16	Avg. Vel. (m/s)		1.16	
Max Chl Dpth (m)	1.01	Hydr. Depth (m)		0.50	
Conv. Total (m3/s)	451.3	Conv. (m3/s)		451.3	
Length Wtd. (m)	347.29	Wetted Per. (m)		42.89	
Min Ch El (m)	854.65	Shear (N/m2)		15.03	
Alpha	1.00	Stream Power (N/m s)		17.48	
Frctn Loss (m)	1.20	Cum Volume (1000 m3)	0.54	31.43	0.02
C & E Loss (m)	0.00	Cum SA (1000 m2)	3.32	82.77	0.87

Plan: Plan 01 ArroyoValilongo 1 RS: 2089.018 Profile: T=500

E.G. Elev (m)	856.04	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.	0.030	0.030	
W.S. Elev (m)	855.92	Reach Len. (m)	251.27	347.36	440.65
Crit W.S. (m)	855.67	Flow Area (m2)	0.05	33.28	
E.G. Slope (m/m)	0.003026	Area (m2)	0.05	33.28	
Q Total (m3/s)	49.53	Flow (m3/s)	0.02	49.51	
Top Width (m)	46.14	Top Width (m)	0.88	45.26	
Vel Total (m/s)	1.49	Avg. Vel. (m/s)	0.28	1.49	
Max Chl Dpth (m)	1.27	Hydr. Depth (m)	0.06	0.74	
Conv. Total (m3/s)	900.4	Conv. (m3/s)	0.3	900.1	
Length Wtd. (m)	346.32	Wetted Per. (m)	0.89	45.52	
Min Ch El (m)	854.65	Shear (N/m2)	1.81	21.69	

Plan: Plan 01 ArroyoValilongo 1 RS: 2089.018 Profile: T=500 (Continued)

Alpha	1.00	Stream Power (N/m s)	0.51	32.28	
Frctn Loss (m)	1.20	Cum Volume (1000 m3)	1.71	47.83	0.39
C & E Loss (m)	0.00	Cum SA (1000 m2)	7.32	87.78	2.59

Plan: Plan 01 ArroyoValilongo 1 RS: 1741.656 Profile: T=2

E.G. Elev (m)	853.58	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.		0.030	
W.S. Elev (m)	853.56	Reach Len. (m)	255.86	288.79	264.38
Crit W.S. (m)		Flow Area (m2)		0.33	
E.G. Slope (m/m)	0.004350	Area (m2)		0.33	
Q Total (m3/s)	0.17	Flow (m3/s)		0.17	
Top Width (m)	2.98	Top Width (m)		2.98	
Vel Total (m/s)	0.51	Avg. Vel. (m/s)		0.51	
Max Chl Dpth (m)	0.22	Hydr. Depth (m)		0.11	
Conv. Total (m3/s)	2.6	Conv. (m3/s)		2.6	
Length Wtd. (m)	288.79	Wetted Per. (m)		3.01	
Min Ch El (m)	853.34	Shear (N/m2)		4.74	
Alpha	1.00	Stream Power (N/m s)		2.41	
Frctn Loss (m)	1.13	Cum Volume (1000 m3)		0.59	
C & E Loss (m)	0.00	Cum SA (1000 m2)		11.54	

Plan: Plan 01 ArroyoValilongo 1 RS: 1741.656 Profile: T=5

E.G. Elev (m)	853.90	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.030	
W.S. Elev (m)	853.88	Reach Len. (m)	255.86	288.79	264.38
Crit W.S. (m)		Flow Area (m2)		3.46	
E.G. Slope (m/m)	0.003042	Area (m2)		3.46	
Q Total (m3/s)	2.16	Flow (m3/s)		2.16	
Top Width (m)	17.44	Top Width (m)		17.44	
Vel Total (m/s)	0.62	Avg. Vel. (m/s)		0.62	
Max Chl Dpth (m)	0.54	Hydr. Depth (m)		0.20	
Conv. Total (m3/s)	39.2	Conv. (m3/s)		39.2	
Length Wtd. (m)	288.79	Wetted Per. (m)		17.55	
Min Ch El (m)	853.34	Shear (N/m2)		5.89	
Alpha	1.00	Stream Power (N/m s)		3.67	
Frctn Loss (m)	1.05	Cum Volume (1000 m3)		4.16	
C & E Loss (m)	0.00	Cum SA (1000 m2)		30.79	

Plan: Plan 01 ArroyoValilongo 1 RS: 1741.656 Profile: T=10

E.G. Elev (m)	854.07	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.030	
W.S. Elev (m)	854.04	Reach Len. (m)	255.86	288.79	264.38
Crit W.S. (m)		Flow Area (m2)		6.73	
E.G. Slope (m/m)	0.003285	Area (m2)		6.73	
Q Total (m3/s)	5.44	Flow (m3/s)		5.44	
Top Width (m)	24.35	Top Width (m)		24.35	
Vel Total (m/s)	0.81	Avg. Vel. (m/s)		0.81	
Max Chl Dpth (m)	0.70	Hydr. Depth (m)		0.28	
Conv. Total (m3/s)	94.9	Conv. (m3/s)		94.9	
Length Wtd. (m)	288.79	Wetted Per. (m)		24.49	
Min Ch El (m)	853.34	Shear (N/m2)		8.86	
Alpha	1.00	Stream Power (N/m s)		7.16	
Frctn Loss (m)	1.08	Cum Volume (1000 m3)	0.01	8.00	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.49	38.73	

Plan: Plan 01 ArroyoValilongo 1 RS: 1741.656 Profile: T=25

E.G. Elev (m)	854.25	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.030	
W.S. Elev (m)	854.19	Reach Len. (m)	255.86	288.79	264.38
Crit W.S. (m)		Flow Area (m2)		10.80	
E.G. Slope (m/m)	0.003639	Area (m2)		10.80	
Q Total (m3/s)	11.33	Flow (m3/s)		11.33	
Top Width (m)	28.48	Top Width (m)		28.48	
Vel Total (m/s)	1.05	Avg. Vel. (m/s)		1.05	
Max Chl Dpth (m)	0.85	Hydr. Depth (m)		0.38	
Conv. Total (m3/s)	187.8	Conv. (m3/s)		187.8	
Length Wtd. (m)	288.54	Wetted Per. (m)		28.64	
Min Ch El (m)	853.34	Shear (N/m2)		13.45	
Alpha	1.00	Stream Power (N/m s)		14.12	
Frctn Loss (m)	1.11	Cum Volume (1000 m3)	0.14	13.97	
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.43	53.58	

Plan: Plan 01 ArroyoValilongo 1 RS: 1741.656 Profile: T=50

E.G. Elev (m)	854.38	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.030	
W.S. Elev (m)	854.31	Reach Len. (m)	255.86	288.79	264.38
Crit W.S. (m)		Flow Area (m2)		14.39	
E.G. Slope (m/m)	0.003802	Area (m2)		14.39	
Q Total (m3/s)	17.11	Flow (m3/s)		17.11	
Top Width (m)	32.54	Top Width (m)		32.54	
Vel Total (m/s)	1.19	Avg. Vel. (m/s)		1.19	
Max Chl Dpth (m)	0.97	Hydr. Depth (m)		0.44	
Conv. Total (m3/s)	277.5	Conv. (m3/s)		277.5	
Length Wtd. (m)	288.30	Wetted Per. (m)		32.73	
Min Ch El (m)	853.34	Shear (N/m2)		16.40	
Alpha	1.00	Stream Power (N/m s)		19.49	
Frctn Loss (m)	1.13	Cum Volume (1000 m3)	0.29	18.62	
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.89	60.11	

Plan: Plan 01 ArroyoValilongo 1 RS: 1741.656 Profile: T=100

E.G. Elev (m)	854.52	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.	0.030	0.030	
W.S. Elev (m)	854.43	Reach Len. (m)	255.86	288.79	264.38
Crit W.S. (m)		Flow Area (m2)	0.14	18.68	
E.G. Slope (m/m)	0.003935	Area (m2)	0.14	18.68	
Q Total (m3/s)	24.97	Flow (m3/s)	0.03	24.94	
Top Width (m)	39.58	Top Width (m)	3.17	36.41	
Vel Total (m/s)	1.33	Avg. Vel. (m/s)	0.26	1.33	
Max Chl Dpth (m)	1.09	Hydr. Depth (m)	0.04	0.51	
Conv. Total (m3/s)	398.1	Conv. (m3/s)	0.6	397.5	
Length Wtd. (m)	288.05	Wetted Per. (m)	3.17	36.62	
Min Ch El (m)	853.34	Shear (N/m2)	1.64	19.68	
Alpha	1.01	Stream Power (N/m s)	0.42	26.27	
Frctn Loss (m)	1.15	Cum Volume (1000 m3)	0.53	24.45	0.02
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.92	69.03	0.87

Plan: Plan 01 ArroyoValilongo 1 RS: 1741.656 Profile: T=500

E.G. Elev (m)	854.83	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	854.68	Reach Len. (m)	255.86	288.79	264.38
Crit W.S. (m)		Flow Area (m2)	2.07	27.88	0.29
E.G. Slope (m/m)	0.004008	Area (m2)	2.07	27.88	0.29
Q Total (m3/s)	49.53	Flow (m3/s)	1.18	48.22	0.13

Plan: Plan 01 ArroyoValilongo 1 RS: 1741.656 Profile: T=500 (Continued)

Top Width (m)	54.88	Top Width (m)	14.66	37.36	2.85
Vel Total (m/s)	1.64	Avg. Vel. (m/s)	0.57	1.73	0.46
Max Chl Dpth (m)	1.34	Hydr. Depth (m)	0.14	0.75	0.10
Conv. Total (m3/s)	782.4	Conv. (m3/s)	18.6	761.7	2.1
Length Wtd. (m)	287.00	Wetted Per. (m)	14.67	37.57	2.86
Min Ch El (m)	853.34	Shear (N/m2)	5.53	29.16	3.94
Alpha	1.09	Stream Power (N/m s)	3.16	50.44	1.80
Frctn Loss (m)	1.18	Cum Volume (1000 m3)	1.45	37.21	0.32
C & E Loss (m)	0.00	Cum SA (1000 m2)	5.36	73.43	1.96

Plan: Plan 01 ArroyoValilongo 1 RS: 1452.866 Profile: T=2

E.G. Elev (m)	852.45	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.		0.030	
W.S. Elev (m)	852.44	Reach Len. (m)	440.30	393.54	296.57
Crit W.S. (m)	852.37	Flow Area (m2)		0.36	
E.G. Slope (m/m)	0.003531	Area (m2)		0.36	
Q Total (m3/s)	0.17	Flow (m3/s)		0.17	
Top Width (m)	2.99	Top Width (m)		2.99	
Vel Total (m/s)	0.48	Avg. Vel. (m/s)		0.48	
Max Chl Dpth (m)	0.24	Hydr. Depth (m)		0.12	
Conv. Total (m3/s)	2.9	Conv. (m3/s)		2.9	
Length Wtd. (m)	393.54	Wetted Per. (m)		3.03	
Min Ch El (m)	852.20	Shear (N/m2)		4.08	
Alpha	1.00	Stream Power (N/m s)		1.94	
Frctn Loss (m)	1.44	Cum Volume (1000 m3)		0.49	
C & E Loss (m)	0.00	Cum SA (1000 m2)		10.67	

Plan: Plan 01 ArroyoValilongo 1 RS: 1452.866 Profile: T=5

E.G. Elev (m)	852.85	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.030	
W.S. Elev (m)	852.83	Reach Len. (m)	440.30	393.54	296.57
Crit W.S. (m)	852.72	Flow Area (m2)		3.18	
E.G. Slope (m/m)	0.004464	Area (m2)		3.18	
Q Total (m3/s)	2.16	Flow (m3/s)		2.16	
Top Width (m)	18.79	Top Width (m)		18.79	
Vel Total (m/s)	0.68	Avg. Vel. (m/s)		0.68	
Max Chl Dpth (m)	0.63	Hydr. Depth (m)		0.17	
Conv. Total (m3/s)	32.3	Conv. (m3/s)		32.3	
Length Wtd. (m)	393.54	Wetted Per. (m)		18.90	
Min Ch El (m)	852.20	Shear (N/m2)		7.37	
Alpha	1.00	Stream Power (N/m s)		5.00	
Frctn Loss (m)	1.70	Cum Volume (1000 m3)		3.20	
C & E Loss (m)	0.00	Cum SA (1000 m2)		25.56	

Plan: Plan 01 ArroyoValilongo 1 RS: 1452.866 Profile: T=10

E.G. Elev (m)	852.99	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.	0.030	0.030	
W.S. Elev (m)	852.96	Reach Len. (m)	440.30	393.54	296.57
Crit W.S. (m)	852.87	Flow Area (m2)	0.01	6.95	
E.G. Slope (m/m)	0.004270	Area (m2)	0.01	6.95	
Q Total (m3/s)	5.44	Flow (m3/s)	0.00	5.44	
Top Width (m)	33.59	Top Width (m)	1.41	32.17	
Vel Total (m/s)	0.78	Avg. Vel. (m/s)	0.10	0.78	
Max Chl Dpth (m)	0.76	Hydr. Depth (m)	0.01	0.22	
Conv. Total (m3/s)	83.2	Conv. (m3/s)	0.0	83.2	
Length Wtd. (m)	393.55	Wetted Per. (m)	1.41	32.29	
Min Ch El (m)	852.20	Shear (N/m2)	0.44	9.01	

Plan: Plan 01 ArroyoValilongo 1 RS: 1452.866 Profile: T=10 (Continued)

Alpha	1.00	Stream Power (N/m s)	0.05	7.05	
Frctn Loss (m)	1.73	Cum Volume (1000 m3)	0.00	6.02	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.31	30.57	

Plan: Plan 01 ArroyoValilongo 1 RS: 1452.866 Profile: T=25

E.G. Elev (m)	853.14	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.	0.030	0.030	
W.S. Elev (m)	853.09	Reach Len. (m)	440.30	393.54	296.57
Crit W.S. (m)	852.98	Flow Area (m2)	0.39	11.12	
E.G. Slope (m/m)	0.004064	Area (m2)	0.39	11.12	
Q Total (m3/s)	11.33	Flow (m3/s)	0.17	11.16	
Top Width (m)	38.24	Top Width (m)	4.10	34.14	
Vel Total (m/s)	0.98	Avg. Vel. (m/s)	0.44	1.00	
Max Chl Dpth (m)	0.89	Hydr. Depth (m)	0.09	0.33	
Conv. Total (m3/s)	177.7	Conv. (m3/s)	2.7	175.0	
Length Wtd. (m)	393.89	Wetted Per. (m)	4.10	34.26	
Min Ch El (m)	852.20	Shear (N/m2)	3.77	12.94	
Alpha	1.03	Stream Power (N/m s)	1.66	12.98	
Frctn Loss (m)	1.73	Cum Volume (1000 m3)	0.09	10.81	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.90	44.54	

Plan: Plan 01 ArroyoValilongo 1 RS: 1452.866 Profile: T=50

E.G. Elev (m)	853.25	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.	0.030	0.030	
W.S. Elev (m)	853.18	Reach Len. (m)	440.30	393.54	296.57
Crit W.S. (m)		Flow Area (m2)	0.83	14.40	
E.G. Slope (m/m)	0.004079	Area (m2)	0.83	14.40	
Q Total (m3/s)	17.11	Flow (m3/s)	0.51	16.60	
Top Width (m)	41.45	Top Width (m)	5.44	36.01	
Vel Total (m/s)	1.12	Avg. Vel. (m/s)	0.61	1.15	
Max Chl Dpth (m)	0.98	Hydr. Depth (m)	0.15	0.40	
Conv. Total (m3/s)	267.9	Conv. (m3/s)	8.0	259.9	
Length Wtd. (m)	394.23	Wetted Per. (m)	5.44	36.13	
Min Ch El (m)	852.20	Shear (N/m2)	6.13	15.94	
Alpha	1.03	Stream Power (N/m s)	3.74	18.38	
Frctn Loss (m)	1.75	Cum Volume (1000 m3)	0.18	14.46	
C & E Loss (m)	0.01	Cum SA (1000 m2)	1.20	50.21	

Plan: Plan 01 ArroyoValilongo 1 RS: 1452.866 Profile: T=100

E.G. Elev (m)	853.37	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	853.28	Reach Len. (m)	440.30	393.54	296.57
Crit W.S. (m)		Flow Area (m2)	1.47	18.11	0.05
E.G. Slope (m/m)	0.004083	Area (m2)	1.47	18.11	0.05
Q Total (m3/s)	24.97	Flow (m3/s)	1.08	23.89	0.01
Top Width (m)	47.36	Top Width (m)	7.23	37.04	3.09
Vel Total (m/s)	1.27	Avg. Vel. (m/s)	0.73	1.32	0.14
Max Chl Dpth (m)	1.08	Hydr. Depth (m)	0.20	0.49	0.02
Conv. Total (m3/s)	390.8	Conv. (m3/s)	16.8	373.8	0.1
Length Wtd. (m)	394.53	Wetted Per. (m)	7.24	37.16	3.10
Min Ch El (m)	852.20	Shear (N/m2)	8.11	19.51	0.70
Alpha	1.04	Stream Power (N/m s)	5.95	25.74	0.10
Frctn Loss (m)	1.78	Cum Volume (1000 m3)	0.32	19.14	0.01
C & E Loss (m)	0.01	Cum SA (1000 m2)	1.59	58.42	0.46

Plan: Plan 01 ArroyoValilongo 1 RS: 1452.866 Profile: T=500

E.G. Elev (m)	853.64	Element	Left OB	Channel	Right OB
Vel Head (m)	0.14	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	853.50	Reach Len. (m)	440.30	393.54	296.57
Crit W.S. (m)		Flow Area (m2)	3.40	26.28	1.02
E.G. Slope (m/m)	0.004233	Area (m2)	3.40	26.28	1.02
Q Total (m3/s)	49.53	Flow (m3/s)	3.58	45.24	0.71
Top Width (m)	52.71	Top Width (m)	10.02	37.04	5.65
Vel Total (m/s)	1.61	Avg. Vel. (m/s)	1.05	1.72	0.69
Max Chl Dpth (m)	1.30	Hydr. Depth (m)	0.34	0.71	0.18
Conv. Total (m3/s)	761.3	Conv. (m3/s)	55.1	695.4	10.9
Length Wtd. (m)	394.54	Wetted Per. (m)	10.04	37.16	5.66
Min Ch El (m)	852.20	Shear (N/m2)	14.05	29.35	7.49
Alpha	1.07	Stream Power (N/m s)	14.81	50.53	5.19
Frctn Loss (m)	1.86	Cum Volume (1000 m3)	0.75	29.39	0.15
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.21	62.69	0.84

Plan: Plan 01 ArroyoValilongo 1 RS: 1059.325 Profile: T=2

E.G. Elev (m)	851.01	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.		0.030	
W.S. Elev (m)	851.00	Reach Len. (m)	520.40	584.02	569.02
Crit W.S. (m)	850.98	Flow Area (m2)		0.68	
E.G. Slope (m/m)	0.003812	Area (m2)		0.68	
Q Total (m3/s)	0.17	Flow (m3/s)		0.17	
Top Width (m)	15.77	Top Width (m)		15.77	
Vel Total (m/s)	0.25	Avg. Vel. (m/s)		0.25	
Max Chl Dpth (m)	0.09	Hydr. Depth (m)		0.04	
Conv. Total (m3/s)	2.8	Conv. (m3/s)		2.8	
Length Wtd. (m)	584.02	Wetted Per. (m)		15.77	
Min Ch El (m)	850.91	Shear (N/m2)		1.60	
Alpha	1.00	Stream Power (N/m s)		0.40	
Frctn Loss (m)	4.57	Cum Volume (1000 m3)		0.28	
C & E Loss (m)	0.00	Cum SA (1000 m2)		6.98	

Plan: Plan 01 ArroyoValilongo 1 RS: 1059.325 Profile: T=5

E.G. Elev (m)	851.15	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.030	
W.S. Elev (m)	851.14	Reach Len. (m)	520.40	584.02	569.02
Crit W.S. (m)	851.08	Flow Area (m2)		3.95	
E.G. Slope (m/m)	0.004162	Area (m2)		3.95	
Q Total (m3/s)	2.16	Flow (m3/s)		2.16	
Top Width (m)	30.71	Top Width (m)		30.71	
Vel Total (m/s)	0.55	Avg. Vel. (m/s)		0.55	
Max Chl Dpth (m)	0.23	Hydr. Depth (m)		0.13	
Conv. Total (m3/s)	33.5	Conv. (m3/s)		33.5	
Length Wtd. (m)	584.02	Wetted Per. (m)		30.73	
Min Ch El (m)	850.91	Shear (N/m2)		5.24	
Alpha	1.00	Stream Power (N/m s)		2.87	
Frctn Loss (m)	4.57	Cum Volume (1000 m3)		1.80	
C & E Loss (m)	0.00	Cum SA (1000 m2)		15.82	

Plan: Plan 01 ArroyoValilongo 1 RS: 1059.325 Profile: T=10

E.G. Elev (m)	851.26	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.030	
W.S. Elev (m)	851.23	Reach Len. (m)	520.40	584.02	569.02
Crit W.S. (m)	851.15	Flow Area (m2)		6.99	
E.G. Slope (m/m)	0.004532	Area (m2)		6.99	
Q Total (m3/s)	5.44	Flow (m3/s)		5.44	

Plan: Plan 01 ArroyoValilongo 1 RS: 1059.325 Profile: T=10 (Continued)

Top Width (m)	34.17	Top Width (m)		34.17	
Vel Total (m/s)	0.78	Avg. Vel. (m/s)		0.78	
Max Chl Dpth (m)	0.32	Hydr. Depth (m)		0.20	
Conv. Total (m3/s)	80.8	Conv. (m3/s)		80.8	
Length Wtd. (m)	584.02	Wetted Per. (m)		34.19	
Min Ch El (m)	850.91	Shear (N/m2)		9.08	
Alpha	1.00	Stream Power (N/m s)		7.07	
Frctn Loss (m)	4.56	Cum Volume (1000 m3)		3.28	
C & E Loss (m)	0.01	Cum SA (1000 m2)		17.51	

Plan: Plan 01 ArroyoValilongo 1 RS: 1059.325 Profile: T=25

E.G. Elev (m)	851.40	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.030	
W.S. Elev (m)	851.37	Reach Len. (m)	520.40	584.02	569.02
Crit W.S. (m)		Flow Area (m2)		13.18	
E.G. Slope (m/m)	0.004764	Area (m2)		13.18	
Q Total (m3/s)	11.33	Flow (m3/s)		11.33	
Top Width (m)	57.62	Top Width (m)		57.62	
Vel Total (m/s)	0.86	Avg. Vel. (m/s)		0.86	
Max Chl Dpth (m)	0.46	Hydr. Depth (m)		0.23	
Conv. Total (m3/s)	164.2	Conv. (m3/s)		164.2	
Length Wtd. (m)	584.02	Wetted Per. (m)		57.66	
Min Ch El (m)	850.91	Shear (N/m2)		10.68	
Alpha	1.00	Stream Power (N/m s)		9.18	
Frctn Loss (m)	4.56	Cum Volume (1000 m3)		6.03	
C & E Loss (m)	0.01	Cum SA (1000 m2)		26.48	

Plan: Plan 01 ArroyoValilongo 1 RS: 1059.325 Profile: T=50

E.G. Elev (m)	851.49	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.		0.030	
W.S. Elev (m)	851.44	Reach Len. (m)	520.40	584.02	569.02
Crit W.S. (m)	851.34	Flow Area (m2)		17.59	
E.G. Slope (m/m)	0.004866	Area (m2)		17.59	
Q Total (m3/s)	17.11	Flow (m3/s)		17.11	
Top Width (m)	64.98	Top Width (m)		64.98	
Vel Total (m/s)	0.97	Avg. Vel. (m/s)		0.97	
Max Chl Dpth (m)	0.53	Hydr. Depth (m)		0.27	
Conv. Total (m3/s)	245.3	Conv. (m3/s)		245.3	
Length Wtd. (m)	584.02	Wetted Per. (m)		65.02	
Min Ch El (m)	850.91	Shear (N/m2)		12.91	
Alpha	1.00	Stream Power (N/m s)		12.56	
Frctn Loss (m)	4.54	Cum Volume (1000 m3)		8.16	
C & E Loss (m)	0.01	Cum SA (1000 m2)		30.34	

Plan: Plan 01 ArroyoValilongo 1 RS: 1059.325 Profile: T=100

E.G. Elev (m)	851.58	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.030	
W.S. Elev (m)	851.52	Reach Len. (m)	520.40	584.02	569.02
Crit W.S. (m)		Flow Area (m2)		23.27	
E.G. Slope (m/m)	0.005030	Area (m2)		23.27	
Q Total (m3/s)	24.97	Flow (m3/s)		24.97	
Top Width (m)	76.04	Top Width (m)		76.04	
Vel Total (m/s)	1.07	Avg. Vel. (m/s)		1.07	
Max Chl Dpth (m)	0.61	Hydr. Depth (m)		0.31	
Conv. Total (m3/s)	352.1	Conv. (m3/s)		352.1	
Length Wtd. (m)	584.02	Wetted Per. (m)		76.08	
Min Ch El (m)	850.91	Shear (N/m2)		15.09	

Plan: Plan 01 ArroyoValilongo 1 RS: 1059.325 Profile: T=100 (Continued)

Alpha	1.00	Stream Power (N/m s)		16.19	
Frctn Loss (m)	4.52	Cum Volume (1000 m3)		11.00	
C & E Loss (m)	0.01	Cum SA (1000 m2)		36.17	

Plan: Plan 01 ArroyoValilongo 1 RS: 1059.325 Profile: T=500

E.G. Elev (m)	851.77	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.030	
W.S. Elev (m)	851.67	Reach Len. (m)	520.40	584.02	569.02
Crit W.S. (m)		Flow Area (m2)		35.31	
E.G. Slope (m/m)	0.005285	Area (m2)		35.31	
Q Total (m3/s)	49.53	Flow (m3/s)		49.53	
Top Width (m)	80.12	Top Width (m)		80.12	
Vel Total (m/s)	1.40	Avg. Vel. (m/s)		1.40	
Max Chl Dpth (m)	0.76	Hydr. Depth (m)		0.44	
Conv. Total (m3/s)	681.3	Conv. (m3/s)		681.3	
Length Wtd. (m)	584.02	Wetted Per. (m)		80.18	
Min Ch El (m)	850.91	Shear (N/m2)		22.83	
Alpha	1.00	Stream Power (N/m s)		32.02	
Frctn Loss (m)	4.47	Cum Volume (1000 m3)		17.27	
C & E Loss (m)	0.01	Cum SA (1000 m2)		39.63	

Plan: Plan 01 ArroyoValilongo 1 RS: 53.98827 Profile: T=2

E.G. Elev (m)	846.44	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.030	
W.S. Elev (m)	846.42	Reach Len. (m)			
Crit W.S. (m)	846.42	Flow Area (m2)		0.30	
E.G. Slope (m/m)	0.024295	Area (m2)		0.30	
Q Total (m3/s)	0.17	Flow (m3/s)		0.17	
Top Width (m)	8.14	Top Width (m)		8.14	
Vel Total (m/s)	0.57	Avg. Vel. (m/s)		0.57	
Max Chl Dpth (m)	0.06	Hydr. Depth (m)		0.04	
Conv. Total (m3/s)	1.1	Conv. (m3/s)		1.1	
Length Wtd. (m)		Wetted Per. (m)		8.14	
Min Ch El (m)	846.36	Shear (N/m2)		8.70	
Alpha	1.00	Stream Power (N/m s)		4.97	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 01 ArroyoValilongo 1 RS: 53.98827 Profile: T=5

E.G. Elev (m)	846.58	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.		0.030	
W.S. Elev (m)	846.53	Reach Len. (m)			
Crit W.S. (m)	846.53	Flow Area (m2)		2.22	
E.G. Slope (m/m)	0.019795	Area (m2)		2.22	
Q Total (m3/s)	2.16	Flow (m3/s)		2.16	
Top Width (m)	23.45	Top Width (m)		23.45	
Vel Total (m/s)	0.97	Avg. Vel. (m/s)		0.97	
Max Chl Dpth (m)	0.17	Hydr. Depth (m)		0.09	
Conv. Total (m3/s)	15.4	Conv. (m3/s)		15.4	
Length Wtd. (m)		Wetted Per. (m)		23.46	
Min Ch El (m)	846.36	Shear (N/m2)		18.36	
Alpha	1.00	Stream Power (N/m s)		17.87	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 01 ArroyoValilongo 1 RS: 53.98827 Profile: T=10

E.G. Elev (m)	846.69	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.030	
W.S. Elev (m)	846.61	Reach Len. (m)			
Crit W.S. (m)	846.61	Flow Area (m2)		4.24	
E.G. Slope (m/m)	0.016550	Area (m2)		4.24	
Q Total (m3/s)	5.44	Flow (m3/s)		5.44	
Top Width (m)	25.81	Top Width (m)		25.81	
Vel Total (m/s)	1.28	Avg. Vel. (m/s)		1.28	
Max Chl Dpth (m)	0.25	Hydr. Depth (m)		0.16	
Conv. Total (m3/s)	42.3	Conv. (m3/s)		42.3	
Length Wtd. (m)		Wetted Per. (m)		25.83	
Min Ch El (m)	846.36	Shear (N/m2)		26.61	
Alpha	1.00	Stream Power (N/m s)		34.18	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 01 ArroyoValilongo 1 RS: 53.98827 Profile: T=25

E.G. Elev (m)	846.84	Element	Left OB	Channel	Right OB
Vel Head (m)	0.12	Wt. n-Val.		0.030	
W.S. Elev (m)	846.72	Reach Len. (m)			
Crit W.S. (m)	846.72	Flow Area (m2)		7.47	
E.G. Slope (m/m)	0.015061	Area (m2)		7.47	
Q Total (m3/s)	11.33	Flow (m3/s)		11.33	
Top Width (m)	33.07	Top Width (m)		33.07	
Vel Total (m/s)	1.52	Avg. Vel. (m/s)		1.52	
Max Chl Dpth (m)	0.36	Hydr. Depth (m)		0.23	
Conv. Total (m3/s)	92.3	Conv. (m3/s)		92.3	
Length Wtd. (m)		Wetted Per. (m)		33.10	
Min Ch El (m)	846.36	Shear (N/m2)		33.34	
Alpha	1.00	Stream Power (N/m s)		50.56	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 01 ArroyoValilongo 1 RS: 53.98827 Profile: T=50

E.G. Elev (m)	846.94	Element	Left OB	Channel	Right OB
Vel Head (m)	0.14	Wt. n-Val.		0.030	
W.S. Elev (m)	846.80	Reach Len. (m)			
Crit W.S. (m)	846.80	Flow Area (m2)		10.37	
E.G. Slope (m/m)	0.014312	Area (m2)		10.37	
Q Total (m3/s)	17.11	Flow (m3/s)		17.11	
Top Width (m)	38.93	Top Width (m)		38.93	
Vel Total (m/s)	1.65	Avg. Vel. (m/s)		1.65	
Max Chl Dpth (m)	0.44	Hydr. Depth (m)		0.27	
Conv. Total (m3/s)	143.0	Conv. (m3/s)		143.0	
Length Wtd. (m)		Wetted Per. (m)		38.96	
Min Ch El (m)	846.36	Shear (N/m2)		37.35	
Alpha	1.00	Stream Power (N/m s)		61.64	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 01 ArroyoValilongo 1 RS: 53.98827 Profile: T=100

E.G. Elev (m)	847.05	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.		0.030	
W.S. Elev (m)	846.89	Reach Len. (m)			
Crit W.S. (m)	846.89	Flow Area (m2)		14.41	
E.G. Slope (m/m)	0.013408	Area (m2)		14.41	
Q Total (m3/s)	24.97	Flow (m3/s)		24.97	

Plan: Plan 01 ArroyoValilongo 1 RS: 53.98827 Profile: T=100 (Continued)

Top Width (m)	47.84	Top Width (m)		47.84	
Vel Total (m/s)	1.73	Avg. Vel. (m/s)		1.73	
Max Chl Dpth (m)	0.53	Hydr. Depth (m)		0.30	
Conv. Total (m3/s)	215.6	Conv. (m3/s)		215.6	
Length Wtd. (m)		Wetted Per. (m)		47.88	
Min Ch El (m)	846.36	Shear (N/m2)		39.56	
Alpha	1.00	Stream Power (N/m s)		68.57	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 01 ArroyoValilongo 1 RS: 53.98827 Profile: T=500

E.G. Elev (m)	847.29	Element	Left OB	Channel	Right OB
Vel Head (m)	0.22	Wt. n-Val.		0.030	
W.S. Elev (m)	847.07	Reach Len. (m)			
Crit W.S. (m)	847.07	Flow Area (m2)		23.83	
E.G. Slope (m/m)	0.012055	Area (m2)		23.83	
Q Total (m3/s)	49.53	Flow (m3/s)		49.53	
Top Width (m)	55.60	Top Width (m)		55.60	
Vel Total (m/s)	2.08	Avg. Vel. (m/s)		2.08	
Max Chl Dpth (m)	0.71	Hydr. Depth (m)		0.43	
Conv. Total (m3/s)	451.1	Conv. (m3/s)		451.1	
Length Wtd. (m)		Wetted Per. (m)		55.65	
Min Ch El (m)	846.36	Shear (N/m2)		50.61	
Alpha	1.00	Stream Power (N/m s)		105.21	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 09 ArroyoValdepozue 1 RS: 1943.569 Profile: T=2

E.G. Elev (m)	852.78	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.		0.030	
W.S. Elev (m)	852.78	Reach Len. (m)	420.55	366.25	274.25
Crit W.S. (m)	852.69	Flow Area (m2)		0.89	
E.G. Slope (m/m)	0.001969	Area (m2)		0.89	
Q Total (m3/s)	0.17	Flow (m3/s)		0.17	
Top Width (m)	19.08	Top Width (m)		19.08	
Vel Total (m/s)	0.19	Avg. Vel. (m/s)		0.19	
Max Chl Dpth (m)	0.26	Hydr. Depth (m)		0.05	
Conv. Total (m3/s)	3.8	Conv. (m3/s)		3.8	
Length Wtd. (m)	366.25	Wetted Per. (m)		19.12	
Min Ch El (m)	852.52	Shear (N/m2)		0.90	
Alpha	1.00	Stream Power (N/m s)		0.17	
Frctn Loss (m)	1.85	Cum Volume (1000 m3)		0.67	
C & E Loss (m)	0.00	Cum SA (1000 m2)		16.57	

Plan: Plan 09 ArroyoValdepozue 1 RS: 1943.569 Profile: T=5

E.G. Elev (m)	852.89	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.030	
W.S. Elev (m)	852.86	Reach Len. (m)	420.55	366.25	274.25
Crit W.S. (m)	852.85	Flow Area (m2)		2.81	
E.G. Slope (m/m)	0.014020	Area (m2)		2.81	
Q Total (m3/s)	2.16	Flow (m3/s)		2.16	
Top Width (m)	32.73	Top Width (m)		32.73	
Vel Total (m/s)	0.77	Avg. Vel. (m/s)		0.77	
Max Chl Dpth (m)	0.34	Hydr. Depth (m)		0.09	
Conv. Total (m3/s)	18.2	Conv. (m3/s)		18.2	
Length Wtd. (m)	366.25	Wetted Per. (m)		32.77	
Min Ch El (m)	852.52	Shear (N/m2)		11.80	
Alpha	1.00	Stream Power (N/m s)		9.06	
Frctn Loss (m)	1.81	Cum Volume (1000 m3)	0.11	5.82	0.00
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.01	46.88	0.08

Plan: Plan 09 ArroyoValdepozue 1 RS: 1943.569 Profile: T=10

E.G. Elev (m)	852.98	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.030	
W.S. Elev (m)	852.92	Reach Len. (m)	420.55	366.25	274.25
Crit W.S. (m)	852.92	Flow Area (m2)		5.05	
E.G. Slope (m/m)	0.014593	Area (m2)		5.05	
Q Total (m3/s)	5.44	Flow (m3/s)		5.44	
Top Width (m)	36.53	Top Width (m)		36.53	
Vel Total (m/s)	1.08	Avg. Vel. (m/s)		1.08	
Max Chl Dpth (m)	0.40	Hydr. Depth (m)		0.14	
Conv. Total (m3/s)	45.0	Conv. (m3/s)		45.0	
Length Wtd. (m)	366.25	Wetted Per. (m)		36.58	
Min Ch El (m)	852.52	Shear (N/m2)		19.77	
Alpha	1.00	Stream Power (N/m s)		21.28	
Frctn Loss (m)	1.79	Cum Volume (1000 m3)	0.53	10.99	0.04
C & E Loss (m)	0.01	Cum SA (1000 m2)	6.47	59.44	0.85

Plan: Plan 09 ArroyoValdepozue 1 RS: 1943.569 Profile: T=25

E.G. Elev (m)	853.10	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.030	0.030
W.S. Elev (m)	853.01	Reach Len. (m)	420.55	366.25	274.25
Crit W.S. (m)	853.00	Flow Area (m2)		8.37	0.03
E.G. Slope (m/m)	0.012980	Area (m2)		8.37	0.03
Q Total (m3/s)	11.33	Flow (m3/s)		11.32	0.01

Plan: Plan 09 ArroyoValdepozue 1 RS: 1943.569 Profile: T=25 (Continued)

Top Width (m)	40.42	Top Width (m)		39.35	1.07
Vel Total (m/s)	1.35	Avg. Vel. (m/s)		1.35	0.32
Max Chl Dpth (m)	0.49	Hydr. Depth (m)		0.21	0.02
Conv. Total (m3/s)	99.4	Conv. (m3/s)		99.4	0.1
Length Wtd. (m)	366.25	Wetted Per. (m)		39.41	1.07
Min Ch El (m)	852.52	Shear (N/m2)		27.05	3.06
Alpha	1.00	Stream Power (N/m s)		36.57	0.97
Frctn Loss (m)	1.79	Cum Volume (1000 m3)	1.33	17.47	0.25
C & E Loss (m)	0.02	Cum SA (1000 m2)	10.72	65.56	3.28

Plan: Plan 09 ArroyoValdepozue 1 RS: 1943.569 Profile: T=50

E.G. Elev (m)	853.20	Element	Left OB	Channel	Right OB
Vel Head (m)	0.13	Wt. n-Val.		0.030	0.030
W.S. Elev (m)	853.07	Reach Len. (m)	420.55	366.25	274.25
Crit W.S. (m)	853.06	Flow Area (m2)		10.83	0.13
E.G. Slope (m/m)	0.012757	Area (m2)		10.83	0.13
Q Total (m3/s)	17.11	Flow (m3/s)		17.04	0.07
Top Width (m)	42.44	Top Width (m)		40.00	2.44
Vel Total (m/s)	1.56	Avg. Vel. (m/s)		1.57	0.54
Max Chl Dpth (m)	0.55	Hydr. Depth (m)		0.27	0.05
Conv. Total (m3/s)	151.5	Conv. (m3/s)		150.8	0.6
Length Wtd. (m)	366.23	Wetted Per. (m)		40.06	2.45
Min Ch El (m)	852.52	Shear (N/m2)		33.81	6.87
Alpha	1.01	Stream Power (N/m s)		53.20	3.74
Frctn Loss (m)	1.80	Cum Volume (1000 m3)	2.21	22.22	0.64
C & E Loss (m)	0.03	Cum SA (1000 m2)	13.78	66.86	5.74

Plan: Plan 09 ArroyoValdepozue 1 RS: 1943.569 Profile: T=100

E.G. Elev (m)	853.31	Element	Left OB	Channel	Right OB
Vel Head (m)	0.16	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	853.14	Reach Len. (m)	420.55	366.25	274.25
Crit W.S. (m)	853.14	Flow Area (m2)	0.05	13.68	0.36
E.G. Slope (m/m)	0.012280	Area (m2)	0.05	13.68	0.36
Q Total (m3/s)	24.97	Flow (m3/s)	0.02	24.68	0.27
Top Width (m)	45.31	Top Width (m)	1.29	40.00	4.02
Vel Total (m/s)	1.77	Avg. Vel. (m/s)	0.40	1.80	0.75
Max Chl Dpth (m)	0.62	Hydr. Depth (m)	0.04	0.34	0.09
Conv. Total (m3/s)	225.3	Conv. (m3/s)	0.2	222.7	2.5
Length Wtd. (m)	366.21	Wetted Per. (m)	1.30	40.06	4.02
Min Ch El (m)	852.52	Shear (N/m2)	4.28	41.11	10.92
Alpha	1.03	Stream Power (N/m s)	1.71	74.19	8.14
Frctn Loss (m)	1.79	Cum Volume (1000 m3)	3.46	27.57	1.20
C & E Loss (m)	0.04	Cum SA (1000 m2)	17.55	67.42	8.22

Plan: Plan 09 ArroyoValdepozue 1 RS: 1943.569 Profile: T=500

E.G. Elev (m)	853.57	Element	Left OB	Channel	Right OB
Vel Head (m)	0.23	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	853.34	Reach Len. (m)	420.55	366.25	274.25
Crit W.S. (m)	853.34	Flow Area (m2)	1.03	21.77	1.60
E.G. Slope (m/m)	0.009448	Area (m2)	1.03	21.77	1.60
Q Total (m3/s)	49.53	Flow (m3/s)	0.84	46.98	1.72
Top Width (m)	56.66	Top Width (m)	8.27	40.00	8.39
Vel Total (m/s)	2.03	Avg. Vel. (m/s)	0.81	2.16	1.07
Max Chl Dpth (m)	0.82	Hydr. Depth (m)	0.12	0.54	0.19
Conv. Total (m3/s)	509.6	Conv. (m3/s)	8.6	483.3	17.7
Length Wtd. (m)	366.00	Wetted Per. (m)	8.28	40.06	8.40
Min Ch El (m)	852.52	Shear (N/m2)	11.57	50.35	17.67

Plan: Plan 09 ArroyoValdepozue 1 RS: 1943.569 Profile: T=500 (Continued)

Alpha	1.08	Stream Power (N/m s)	9.37	108.65	18.96
Frctn Loss (m)	1.65	Cum Volume (1000 m3)	7.28	40.41	3.50
C & E Loss (m)	0.05	Cum SA (1000 m2)	22.82	67.42	14.65

Plan: Plan 09 ArroyoValdepozue 1 RS: 1577.324 Profile: T=2

E.G. Elev (m)	850.93	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.		0.030	
W.S. Elev (m)	850.92	Reach Len. (m)	353.19	389.20	406.51
Crit W.S. (m)	850.92	Flow Area (m2)		0.41	
E.G. Slope (m/m)	0.031938	Area (m2)		0.41	
Q Total (m3/s)	0.17	Flow (m3/s)		0.17	
Top Width (m)	22.31	Top Width (m)		22.31	
Vel Total (m/s)	0.41	Avg. Vel. (m/s)		0.41	
Max Chl Dpth (m)	0.07	Hydr. Depth (m)		0.02	
Conv. Total (m3/s)	1.0	Conv. (m3/s)		1.0	
Length Wtd. (m)	389.20	Wetted Per. (m)		22.31	
Min Ch El (m)	850.85	Shear (N/m2)		5.75	
Alpha	1.00	Stream Power (N/m s)		2.39	
Frctn Loss (m)	1.36	Cum Volume (1000 m3)		0.43	
C & E Loss (m)	0.00	Cum SA (1000 m2)		8.99	

Plan: Plan 09 ArroyoValdepozue 1 RS: 1577.324 Profile: T=5

E.G. Elev (m)	851.07	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.		0.030	
W.S. Elev (m)	851.07	Reach Len. (m)	353.19	389.20	406.51
Crit W.S. (m)		Flow Area (m2)		5.35	
E.G. Slope (m/m)	0.002492	Area (m2)		5.35	
Q Total (m3/s)	2.16	Flow (m3/s)		2.16	
Top Width (m)	44.73	Top Width (m)		44.73	
Vel Total (m/s)	0.40	Avg. Vel. (m/s)		0.40	
Max Chl Dpth (m)	0.22	Hydr. Depth (m)		0.12	
Conv. Total (m3/s)	43.3	Conv. (m3/s)		43.3	
Length Wtd. (m)	388.12	Wetted Per. (m)		44.74	
Min Ch El (m)	850.85	Shear (N/m2)		2.92	
Alpha	1.00	Stream Power (N/m s)		1.18	
Frctn Loss (m)	1.62	Cum Volume (1000 m3)	0.11	4.33	0.00
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.01	32.70	0.08

Plan: Plan 09 ArroyoValdepozue 1 RS: 1577.324 Profile: T=10

E.G. Elev (m)	851.18	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.		0.030	
W.S. Elev (m)	851.16	Reach Len. (m)	353.19	389.20	406.51
Crit W.S. (m)		Flow Area (m2)		10.24	
E.G. Slope (m/m)	0.002423	Area (m2)		10.24	
Q Total (m3/s)	5.44	Flow (m3/s)		5.44	
Top Width (m)	55.50	Top Width (m)		55.50	
Vel Total (m/s)	0.53	Avg. Vel. (m/s)		0.53	
Max Chl Dpth (m)	0.31	Hydr. Depth (m)		0.18	
Conv. Total (m3/s)	110.5	Conv. (m3/s)		110.5	
Length Wtd. (m)	386.73	Wetted Per. (m)		55.52	
Min Ch El (m)	850.85	Shear (N/m2)		4.38	
Alpha	1.00	Stream Power (N/m s)		2.33	
Frctn Loss (m)	1.60	Cum Volume (1000 m3)	0.53	8.19	0.04
C & E Loss (m)	0.00	Cum SA (1000 m2)	6.47	42.59	0.85

Plan: Plan 09 ArroyoValdepozue 1 RS: 1577.324 Profile: T=25

E.G. Elev (m)	851.29	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.	0.030	0.030	
W.S. Elev (m)	851.27	Reach Len. (m)	353.19	389.20	406.51
Crit W.S. (m)	851.13	Flow Area (m2)	0.08	16.75	
E.G. Slope (m/m)	0.002543	Area (m2)	0.08	16.75	
Q Total (m3/s)	11.33	Flow (m3/s)	0.01	11.32	
Top Width (m)	68.84	Top Width (m)	3.18	65.66	
Vel Total (m/s)	0.67	Avg. Vel. (m/s)	0.15	0.68	
Max Chl Dpth (m)	0.42	Hydr. Depth (m)	0.03	0.26	
Conv. Total (m3/s)	224.7	Conv. (m3/s)	0.2	224.4	
Length Wtd. (m)	385.90	Wetted Per. (m)	3.18	65.68	
Min Ch El (m)	850.85	Shear (N/m2)	0.64	6.36	
Alpha	1.01	Stream Power (N/m s)	0.09	4.30	
Frctn Loss (m)	1.58	Cum Volume (1000 m3)	1.31	12.87	0.25
C & E Loss (m)	0.00	Cum SA (1000 m2)	10.05	46.33	3.14

Plan: Plan 09 ArroyoValdepozue 1 RS: 1577.324 Profile: T=50

E.G. Elev (m)	851.37	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.	0.030	0.030	
W.S. Elev (m)	851.34	Reach Len. (m)	353.19	389.20	406.51
Crit W.S. (m)	851.19	Flow Area (m2)	0.41	21.41	
E.G. Slope (m/m)	0.002586	Area (m2)	0.41	21.41	
Q Total (m3/s)	17.11	Flow (m3/s)	0.11	17.00	
Top Width (m)	72.75	Top Width (m)	6.00	66.75	
Vel Total (m/s)	0.78	Avg. Vel. (m/s)	0.28	0.79	
Max Chl Dpth (m)	0.49	Hydr. Depth (m)	0.07	0.32	
Conv. Total (m3/s)	336.5	Conv. (m3/s)	2.2	334.2	
Length Wtd. (m)	385.58	Wetted Per. (m)	6.00	66.78	
Min Ch El (m)	850.85	Shear (N/m2)	1.71	8.13	
Alpha	1.02	Stream Power (N/m s)	0.48	6.45	
Frctn Loss (m)	1.56	Cum Volume (1000 m3)	2.13	16.32	0.62
C & E Loss (m)	0.01	Cum SA (1000 m2)	12.52	47.31	5.41

Plan: Plan 09 ArroyoValdepozue 1 RS: 1577.324 Profile: T=100

E.G. Elev (m)	851.46	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	851.42	Reach Len. (m)	353.19	389.20	406.51
Crit W.S. (m)	851.26	Flow Area (m2)	1.06	26.81	0.03
E.G. Slope (m/m)	0.002607	Area (m2)	1.06	26.81	0.03
Q Total (m3/s)	24.97	Flow (m3/s)	0.41	24.56	0.00
Top Width (m)	79.69	Top Width (m)	9.68	67.89	2.11
Vel Total (m/s)	0.90	Avg. Vel. (m/s)	0.39	0.92	0.09
Max Chl Dpth (m)	0.57	Hydr. Depth (m)	0.11	0.39	0.01
Conv. Total (m3/s)	489.0	Conv. (m3/s)	8.0	480.9	0.0
Length Wtd. (m)	385.28	Wetted Per. (m)	9.69	67.92	2.11
Min Ch El (m)	850.85	Shear (N/m2)	2.79	10.09	0.30
Alpha	1.03	Stream Power (N/m s)	1.08	9.24	0.03
Frctn Loss (m)	1.54	Cum Volume (1000 m3)	3.23	20.16	1.15
C & E Loss (m)	0.01	Cum SA (1000 m2)	15.24	47.66	7.38

Plan: Plan 09 ArroyoValdepozue 1 RS: 1577.324 Profile: T=500

E.G. Elev (m)	851.67	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	851.60	Reach Len. (m)	353.19	389.20	406.51
Crit W.S. (m)	851.40	Flow Area (m2)	3.27	39.47	0.70
E.G. Slope (m/m)	0.002641	Area (m2)	3.27	39.47	0.70
Q Total (m3/s)	49.53	Flow (m3/s)	2.13	47.09	0.31

Plan: Plan 09 ArroyoValdepozue 1 RS: 1577.324 Profile: T=500 (Continued)

Top Width (m)	87.28	Top Width (m)	13.97	67.89	5.42
Vel Total (m/s)	1.14	Avg. Vel. (m/s)	0.65	1.19	0.44
Max Chl Dpth (m)	0.75	Hydr. Depth (m)	0.23	0.58	0.13
Conv. Total (m3/s)	963.7	Conv. (m3/s)	41.5	916.3	6.0
Length Wtd. (m)	384.61	Wetted Per. (m)	13.98	67.92	5.42
Min Ch El (m)	850.85	Shear (N/m2)	6.07	15.05	3.35
Alpha	1.06	Stream Power (N/m s)	3.95	17.96	1.47
Frctn Loss (m)	1.49	Cum Volume (1000 m3)	6.37	29.20	3.18
C & E Loss (m)	0.01	Cum SA (1000 m2)	18.15	47.66	12.76

Plan: Plan 09 ArroyoValdepozue 1 RS: 1188.129 Profile: T=2

E.G. Elev (m)	849.24	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.		0.030	
W.S. Elev (m)	849.23	Reach Len. (m)	410.50	388.33	299.28
Crit W.S. (m)	849.12	Flow Area (m2)		0.57	
E.G. Slope (m/m)	0.001251	Area (m2)		0.57	
Q Total (m3/s)	0.17	Flow (m3/s)		0.17	
Top Width (m)	4.53	Top Width (m)		4.53	
Vel Total (m/s)	0.30	Avg. Vel. (m/s)		0.30	
Max Chl Dpth (m)	0.27	Hydr. Depth (m)		0.13	
Conv. Total (m3/s)	4.8	Conv. (m3/s)		4.8	
Length Wtd. (m)	388.33	Wetted Per. (m)		4.57	
Min Ch El (m)	848.96	Shear (N/m2)		1.54	
Alpha	1.00	Stream Power (N/m s)		0.46	
Frctn Loss (m)	1.30	Cum Volume (1000 m3)		0.24	
C & E Loss (m)	0.00	Cum SA (1000 m2)		3.77	

Plan: Plan 09 ArroyoValdepozue 1 RS: 1188.129 Profile: T=5

E.G. Elev (m)	849.45	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.	0.030	0.030	
W.S. Elev (m)	849.42	Reach Len. (m)	410.50	388.33	299.28
Crit W.S. (m)	849.38	Flow Area (m2)	0.29	2.46	
E.G. Slope (m/m)	0.008393	Area (m2)	0.29	2.46	
Q Total (m3/s)	2.16	Flow (m3/s)	0.13	2.03	
Top Width (m)	22.59	Top Width (m)	5.17	17.42	
Vel Total (m/s)	0.79	Avg. Vel. (m/s)	0.45	0.83	
Max Chl Dpth (m)	0.46	Hydr. Depth (m)	0.06	0.14	
Conv. Total (m3/s)	23.6	Conv. (m3/s)	1.4	22.2	
Length Wtd. (m)	388.99	Wetted Per. (m)	5.17	17.46	
Min Ch El (m)	848.96	Shear (N/m2)	4.61	11.58	
Alpha	1.06	Stream Power (N/m s)	2.06	9.57	
Frctn Loss (m)	1.30	Cum Volume (1000 m3)	0.06	2.81	0.00
C & E Loss (m)	0.01	Cum SA (1000 m2)	1.10	20.60	0.08

Plan: Plan 09 ArroyoValdepozue 1 RS: 1188.129 Profile: T=10

E.G. Elev (m)	849.57	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.	0.030	0.030	
W.S. Elev (m)	849.52	Reach Len. (m)	410.50	388.33	299.28
Crit W.S. (m)	849.49	Flow Area (m2)	1.01	4.59	
E.G. Slope (m/m)	0.008665	Area (m2)	1.01	4.59	
Q Total (m3/s)	5.44	Flow (m3/s)	0.75	4.69	
Top Width (m)	33.04	Top Width (m)	8.78	24.26	
Vel Total (m/s)	0.97	Avg. Vel. (m/s)	0.74	1.02	
Max Chl Dpth (m)	0.56	Hydr. Depth (m)	0.12	0.19	
Conv. Total (m3/s)	58.4	Conv. (m3/s)	8.0	50.4	
Length Wtd. (m)	389.73	Wetted Per. (m)	8.78	24.30	
Min Ch El (m)	848.96	Shear (N/m2)	9.80	16.06	

Plan: Plan 09 ArroyoValdepozue 1 RS: 1188.129 Profile: T=10 (Continued)

Alpha	1.04	Stream Power (N/m s)	7.21	16.42	
Frctn Loss (m)	1.32	Cum Volume (1000 m3)	0.35	5.31	0.04
C & E Loss (m)	0.01	Cum SA (1000 m2)	4.92	27.07	0.85

Plan: Plan 09 ArroyoValdepozue 1 RS: 1188.129 Profile: T=25

E.G. Elev (m)	849.70	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	849.63	Reach Len. (m)	410.50	388.33	299.28
Crit W.S. (m)	849.58	Flow Area (m2)	2.18	7.60	0.03
E.G. Slope (m/m)	0.007686	Area (m2)	2.18	7.60	0.03
Q Total (m3/s)	11.33	Flow (m3/s)	2.06	9.26	0.01
Top Width (m)	41.70	Top Width (m)	11.83	28.23	1.63
Vel Total (m/s)	1.15	Avg. Vel. (m/s)	0.95	1.22	0.19
Max Chl Dpth (m)	0.67	Hydr. Depth (m)	0.18	0.27	0.02
Conv. Total (m3/s)	129.2	Conv. (m3/s)	23.5	105.6	0.1
Length Wtd. (m)	389.50	Wetted Per. (m)	11.84	28.27	1.63
Min Ch El (m)	848.96	Shear (N/m2)	13.89	20.27	1.23
Alpha	1.03	Stream Power (N/m s)	13.14	24.69	0.23
Frctn Loss (m)	1.33	Cum Volume (1000 m3)	0.91	8.13	0.24
C & E Loss (m)	0.01	Cum SA (1000 m2)	7.40	28.06	2.80

Plan: Plan 09 ArroyoValdepozue 1 RS: 1188.129 Profile: T=50

E.G. Elev (m)	849.80	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	849.71	Reach Len. (m)	410.50	388.33	299.28
Crit W.S. (m)	849.65	Flow Area (m2)	3.15	9.77	0.24
E.G. Slope (m/m)	0.007218	Area (m2)	3.15	9.77	0.24
Q Total (m3/s)	17.11	Flow (m3/s)	3.38	13.62	0.11
Top Width (m)	45.50	Top Width (m)	13.54	28.23	3.74
Vel Total (m/s)	1.30	Avg. Vel. (m/s)	1.07	1.39	0.45
Max Chl Dpth (m)	0.75	Hydr. Depth (m)	0.23	0.35	0.06
Conv. Total (m3/s)	201.4	Conv. (m3/s)	39.8	160.3	1.3
Length Wtd. (m)	388.68	Wetted Per. (m)	13.54	28.27	3.74
Min Ch El (m)	848.96	Shear (N/m2)	16.48	24.46	4.52
Alpha	1.05	Stream Power (N/m s)	17.66	34.10	2.05
Frctn Loss (m)	1.32	Cum Volume (1000 m3)	1.50	10.25	0.57
C & E Loss (m)	0.02	Cum SA (1000 m2)	9.07	28.83	4.65

Plan: Plan 09 ArroyoValdepozue 1 RS: 1188.129 Profile: T=100

E.G. Elev (m)	849.91	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	849.80	Reach Len. (m)	410.50	388.33	299.28
Crit W.S. (m)	849.74	Flow Area (m2)	4.42	12.20	0.68
E.G. Slope (m/m)	0.006922	Area (m2)	4.42	12.20	0.68
Q Total (m3/s)	24.97	Flow (m3/s)	5.22	19.32	0.42
Top Width (m)	50.46	Top Width (m)	15.88	28.23	6.35
Vel Total (m/s)	1.44	Avg. Vel. (m/s)	1.18	1.58	0.62
Max Chl Dpth (m)	0.84	Hydr. Depth (m)	0.28	0.43	0.11
Conv. Total (m3/s)	300.1	Conv. (m3/s)	62.8	232.3	5.1
Length Wtd. (m)	387.50	Wetted Per. (m)	15.89	28.27	6.35
Min Ch El (m)	848.96	Shear (N/m2)	18.88	29.30	7.23
Alpha	1.08	Stream Power (N/m s)	22.32	46.40	4.50
Frctn Loss (m)	1.33	Cum Volume (1000 m3)	2.27	12.57	1.01
C & E Loss (m)	0.02	Cum SA (1000 m2)	10.73	28.96	5.66

Plan: Plan 09 ArroyoValdepozue 1 RS: 1188.129 Profile: T=500

E.G. Elev (m)	850.17	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	850.00	Reach Len. (m)	410.50	388.33	299.28
Crit W.S. (m)	849.93	Flow Area (m2)	8.15	18.07	2.53
E.G. Slope (m/m)	0.006243	Area (m2)	8.15	18.07	2.53
Q Total (m3/s)	49.53	Flow (m3/s)	11.81	35.32	2.41
Top Width (m)	59.81	Top Width (m)	20.00	28.23	11.58
Vel Total (m/s)	1.72	Avg. Vel. (m/s)	1.45	1.95	0.95
Max Chl Dpth (m)	1.04	Hydr. Depth (m)	0.41	0.64	0.22
Conv. Total (m3/s)	626.9	Conv. (m3/s)	149.4	447.0	30.5
Length Wtd. (m)	385.10	Wetted Per. (m)	20.01	28.27	11.59
Min Ch El (m)	848.96	Shear (N/m2)	24.95	39.13	13.34
Alpha	1.10	Stream Power (N/m s)	36.12	76.48	12.72
Frctn Loss (m)	1.35	Cum Volume (1000 m3)	4.35	18.00	2.53
C & E Loss (m)	0.03	Cum SA (1000 m2)	12.15	28.96	9.30

Plan: Plan 09 ArroyoValdepozue 1 RS: 799.7979 Profile: T=2

E.G. Elev (m)	847.94	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.030	
W.S. Elev (m)	847.92	Reach Len. (m)	331.65	316.18	280.19
Crit W.S. (m)	847.92	Flow Area (m2)		0.28	
E.G. Slope (m/m)	0.025335	Area (m2)		0.28	
Q Total (m3/s)	0.17	Flow (m3/s)		0.17	
Top Width (m)	6.98	Top Width (m)		6.98	
Vel Total (m/s)	0.62	Avg. Vel. (m/s)		0.62	
Max Chl Dpth (m)	0.14	Hydr. Depth (m)		0.04	
Conv. Total (m3/s)	1.1	Conv. (m3/s)		1.1	
Length Wtd. (m)		Wetted Per. (m)		6.99	
Min Ch El (m)	847.78	Shear (N/m2)		9.82	
Alpha	1.00	Stream Power (N/m s)		6.04	
Frctn Loss (m)		Cum Volume (1000 m3)		0.08	
C & E Loss (m)		Cum SA (1000 m2)		1.53	

Plan: Plan 09 ArroyoValdepozue 1 RS: 799.7979 Profile: T=5

E.G. Elev (m)	848.14	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.	0.000	0.030	0.030
W.S. Elev (m)	848.13	Reach Len. (m)	331.65	316.18	280.19
Crit W.S. (m)		Flow Area (m2)	0.00	5.97	0.00
E.G. Slope (m/m)	0.001793	Area (m2)	0.00	5.97	0.00
Q Total (m3/s)	2.16	Flow (m3/s)	0.00	2.16	0.00
Top Width (m)	46.39	Top Width (m)	0.11	46.00	0.28
Vel Total (m/s)	0.36	Avg. Vel. (m/s)	0.02	0.36	0.05
Max Chl Dpth (m)	0.35	Hydr. Depth (m)	0.00	0.13	0.01
Conv. Total (m3/s)	51.0	Conv. (m3/s)	0.0	51.0	0.0
Length Wtd. (m)	316.18	Wetted Per. (m)	0.11	46.03	0.28
Min Ch El (m)	847.78	Shear (N/m2)		2.28	0.12
Alpha	1.00	Stream Power (N/m s)		0.83	0.01
Frctn Loss (m)	1.25	Cum Volume (1000 m3)	0.00	1.17	0.00
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.02	8.29	0.04

Plan: Plan 09 ArroyoValdepozue 1 RS: 799.7979 Profile: T=10

E.G. Elev (m)	848.24	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	848.23	Reach Len. (m)	331.65	316.18	280.19
Crit W.S. (m)	848.12	Flow Area (m2)	0.14	10.35	0.12
E.G. Slope (m/m)	0.001787	Area (m2)	0.14	10.35	0.12
Q Total (m3/s)	5.44	Flow (m3/s)	0.03	5.39	0.02

Plan: Plan 09 ArroyoValdepozue 1 RS: 799.7979 Profile: T=10 (Continued)

Top Width (m)	51.37	Top Width (m)	2.45	46.00	2.92
Vel Total (m/s)	0.51	Avg. Vel. (m/s)	0.20	0.52	0.17
Max Chl Dpth (m)	0.45	Hydr. Depth (m)	0.06	0.22	0.04
Conv. Total (m3/s)	128.7	Conv. (m3/s)	0.7	127.6	0.5
Length Wtd. (m)	316.56	Wetted Per. (m)	2.45	46.03	2.92
Min Ch El (m)	847.78	Shear (N/m2)	0.96	3.94	0.74
Alpha	1.02	Stream Power (N/m s)	0.20	2.05	0.13
Frctn Loss (m)	1.28	Cum Volume (1000 m3)	0.12	2.40	0.02
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.61	13.42	0.41

Plan: Plan 09 ArroyoValdepozue 1 RS: 799.7979 Profile: T=25

E.G. Elev (m)	848.37	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	848.34	Reach Len. (m)	331.65	316.18	280.19
Crit W.S. (m)		Flow Area (m2)	0.51	15.49	0.81
E.G. Slope (m/m)	0.001910	Area (m2)	0.51	15.49	0.81
Q Total (m3/s)	11.33	Flow (m3/s)	0.16	10.92	0.25
Top Width (m)	59.27	Top Width (m)	5.09	46.00	8.18
Vel Total (m/s)	0.67	Avg. Vel. (m/s)	0.31	0.70	0.31
Max Chl Dpth (m)	0.56	Hydr. Depth (m)	0.10	0.34	0.10
Conv. Total (m3/s)	259.2	Conv. (m3/s)	3.7	249.8	5.8
Length Wtd. (m)	316.80	Wetted Per. (m)	5.09	46.03	8.18
Min Ch El (m)	847.78	Shear (N/m2)	1.87	6.30	1.85
Alpha	1.06	Stream Power (N/m s)	0.59	4.44	0.58
Frctn Loss (m)	1.30	Cum Volume (1000 m3)	0.36	3.65	0.12
C & E Loss (m)	0.01	Cum SA (1000 m2)	3.93	13.65	1.33

Plan: Plan 09 ArroyoValdepozue 1 RS: 799.7979 Profile: T=50

E.G. Elev (m)	848.46	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	848.42	Reach Len. (m)	331.65	316.18	280.19
Crit W.S. (m)		Flow Area (m2)	1.08	19.28	1.77
E.G. Slope (m/m)	0.001977	Area (m2)	1.08	19.28	1.77
Q Total (m3/s)	17.11	Flow (m3/s)	0.42	15.99	0.70
Top Width (m)	66.85	Top Width (m)	8.09	46.00	12.76
Vel Total (m/s)	0.77	Avg. Vel. (m/s)	0.39	0.83	0.40
Max Chl Dpth (m)	0.64	Hydr. Depth (m)	0.13	0.42	0.14
Conv. Total (m3/s)	384.8	Conv. (m3/s)	9.3	359.7	15.8
Length Wtd. (m)	316.84	Wetted Per. (m)	8.10	46.03	12.77
Min Ch El (m)	847.78	Shear (N/m2)	2.58	8.12	2.69
Alpha	1.09	Stream Power (N/m s)	0.99	6.74	1.07
Frctn Loss (m)	1.32	Cum Volume (1000 m3)	0.63	4.61	0.27
C & E Loss (m)	0.01	Cum SA (1000 m2)	4.63	14.41	2.18

Plan: Plan 09 ArroyoValdepozue 1 RS: 799.7979 Profile: T=100

E.G. Elev (m)	848.56	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	848.51	Reach Len. (m)	331.65	316.18	280.19
Crit W.S. (m)		Flow Area (m2)	1.90	23.37	2.96
E.G. Slope (m/m)	0.002051	Area (m2)	1.90	23.37	2.96
Q Total (m3/s)	24.97	Flow (m3/s)	0.94	22.45	1.58
Top Width (m)	70.20	Top Width (m)	10.11	46.00	14.09
Vel Total (m/s)	0.88	Avg. Vel. (m/s)	0.50	0.96	0.53
Max Chl Dpth (m)	0.73	Hydr. Depth (m)	0.19	0.51	0.21
Conv. Total (m3/s)	551.4	Conv. (m3/s)	20.8	495.7	34.9
Length Wtd. (m)	316.63	Wetted Per. (m)	10.12	46.03	14.10
Min Ch El (m)	847.78	Shear (N/m2)	3.78	10.21	4.22

Plan: Plan 09 ArroyoValdepozue 1 RS: 799.7979 Profile: T=100 (Continued)

Alpha	1.10	Stream Power (N/m s)	1.87	9.81	2.25
Frctn Loss (m)	1.34	Cum Volume (1000 m3)	0.97	5.66	0.46
C & E Loss (m)	0.01	Cum SA (1000 m2)	5.39	14.54	2.60

Plan: Plan 09 ArroyoValdepozue 1 RS: 799.7979 Profile: T=500

E.G. Elev (m)	848.79	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	848.72	Reach Len. (m)	331.65	316.18	280.19
Crit W.S. (m)		Flow Area (m2)	4.07	32.76	6.78
E.G. Slope (m/m)	0.002252	Area (m2)	4.07	32.76	6.78
Q Total (m3/s)	49.53	Flow (m3/s)	3.29	41.30	4.94
Top Width (m)	78.77	Top Width (m)	11.10	46.00	21.66
Vel Total (m/s)	1.14	Avg. Vel. (m/s)	0.81	1.26	0.73
Max Chl Dpth (m)	0.94	Hydr. Depth (m)	0.37	0.71	0.31
Conv. Total (m3/s)	1043.8	Conv. (m3/s)	69.3	870.3	104.2
Length Wtd. (m)	316.20	Wetted Per. (m)	11.13	46.03	21.68
Min Ch El (m)	847.78	Shear (N/m2)	8.07	15.71	6.91
Alpha	1.10	Stream Power (N/m s)	6.52	19.81	5.04
Frctn Loss (m)	1.38	Cum Volume (1000 m3)	1.84	8.13	1.13
C & E Loss (m)	0.01	Cum SA (1000 m2)	5.76	14.54	4.33

Plan: Plan 09 ArroyoValdepozue 1 RS: 483.6144 Profile: T=2

E.G. Elev (m)	846.51	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.030	
W.S. Elev (m)	846.47	Reach Len. (m)			
Crit W.S. (m)	846.47	Flow Area (m2)		0.20	
E.G. Slope (m/m)	0.021399	Area (m2)		0.20	
Q Total (m3/s)	0.17	Flow (m3/s)		0.17	
Top Width (m)	2.71	Top Width (m)		2.71	
Vel Total (m/s)	0.85	Avg. Vel. (m/s)		0.85	
Max Chl Dpth (m)	0.12	Hydr. Depth (m)		0.07	
Conv. Total (m3/s)	1.2	Conv. (m3/s)		1.2	
Length Wtd. (m)		Wetted Per. (m)		2.73	
Min Ch El (m)	846.35	Shear (N/m2)		15.33	
Alpha	1.00	Stream Power (N/m s)		13.06	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 09 ArroyoValdepozue 1 RS: 483.6144 Profile: T=5

E.G. Elev (m)	846.88	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.		0.030	
W.S. Elev (m)	846.76	Reach Len. (m)			
Crit W.S. (m)	846.76	Flow Area (m2)		1.44	
E.G. Slope (m/m)	0.015000	Area (m2)		1.44	
Q Total (m3/s)	2.16	Flow (m3/s)		2.16	
Top Width (m)	6.43	Top Width (m)		6.43	
Vel Total (m/s)	1.50	Avg. Vel. (m/s)		1.50	
Max Chl Dpth (m)	0.41	Hydr. Depth (m)		0.22	
Conv. Total (m3/s)	17.6	Conv. (m3/s)		17.6	
Length Wtd. (m)		Wetted Per. (m)		6.51	
Min Ch El (m)	846.35	Shear (N/m2)		32.62	
Alpha	1.00	Stream Power (N/m s)		48.78	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 09 ArroyoValdepozue 1 RS: 483.6144 Profile: T=10

E.G. Elev (m)	846.96	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.	0.030	0.030	
W.S. Elev (m)	846.91	Reach Len. (m)			
Crit W.S. (m)	846.91	Flow Area (m2)	0.56	4.86	
E.G. Slope (m/m)	0.016307	Area (m2)	0.56	4.86	
Q Total (m3/s)	5.44	Flow (m3/s)	0.29	5.15	
Top Width (m)	52.24	Top Width (m)	13.32	38.92	
Vel Total (m/s)	1.00	Avg. Vel. (m/s)	0.52	1.06	
Max Chl Dpth (m)	0.56	Hydr. Depth (m)	0.04	0.12	
Conv. Total (m3/s)	42.6	Conv. (m3/s)	2.3	40.3	
Length Wtd. (m)		Wetted Per. (m)	13.32	39.03	
Min Ch El (m)	846.35	Shear (N/m2)	6.74	19.89	
Alpha	1.07	Stream Power (N/m s)	3.48	21.10	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 09 ArroyoValdepozue 1 RS: 483.6144 Profile: T=25

E.G. Elev (m)	847.06	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	846.98	Reach Len. (m)			
Crit W.S. (m)	846.98	Flow Area (m2)	1.68	7.58	0.03
E.G. Slope (m/m)	0.014536	Area (m2)	1.68	7.58	0.03
Q Total (m3/s)	11.33	Flow (m3/s)	1.35	9.97	0.01
Top Width (m)	60.31	Top Width (m)	18.61	40.35	1.35
Vel Total (m/s)	1.22	Avg. Vel. (m/s)	0.81	1.32	0.33
Max Chl Dpth (m)	0.63	Hydr. Depth (m)	0.09	0.19	0.02
Conv. Total (m3/s)	94.0	Conv. (m3/s)	11.2	82.7	0.1
Length Wtd. (m)		Wetted Per. (m)	18.61	40.48	1.35
Min Ch El (m)	846.35	Shear (N/m2)	12.83	26.69	3.36
Alpha	1.07	Stream Power (N/m s)	10.36	35.10	1.11
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 09 ArroyoValdepozue 1 RS: 483.6144 Profile: T=50

E.G. Elev (m)	847.13	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	847.03	Reach Len. (m)			
Crit W.S. (m)	847.03	Flow Area (m2)	2.72	9.90	0.15
E.G. Slope (m/m)	0.014029	Area (m2)	2.72	9.90	0.15
Q Total (m3/s)	17.11	Flow (m3/s)	2.86	14.17	0.08
Top Width (m)	67.79	Top Width (m)	19.82	45.18	2.79
Vel Total (m/s)	1.34	Avg. Vel. (m/s)	1.05	1.43	0.55
Max Chl Dpth (m)	0.68	Hydr. Depth (m)	0.14	0.22	0.05
Conv. Total (m3/s)	144.5	Conv. (m3/s)	24.1	119.6	0.7
Length Wtd. (m)		Wetted Per. (m)	19.82	45.30	2.79
Min Ch El (m)	846.35	Shear (N/m2)	18.88	30.05	7.18
Alpha	1.05	Stream Power (N/m s)	19.84	43.04	3.96
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 09 ArroyoValdepozue 1 RS: 483.6144 Profile: T=100

E.G. Elev (m)	847.21	Element	Left OB	Channel	Right OB
Vel Head (m)	0.12	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	847.09	Reach Len. (m)			
Crit W.S. (m)	847.09	Flow Area (m2)	3.93	12.44	0.34
E.G. Slope (m/m)	0.013358	Area (m2)	3.93	12.44	0.34
Q Total (m3/s)	24.97	Flow (m3/s)	4.74	20.00	0.23

Plan: Plan 09 ArroyoValdepozue 1 RS: 483.6144 Profile: T=100 (Continued)

Top Width (m)	72.88	Top Width (m)	22.42	46.00	4.46
Vel Total (m/s)	1.49	Avg. Vel. (m/s)	1.21	1.61	0.69
Max Chl Dpth (m)	0.74	Hydr. Depth (m)	0.18	0.27	0.08
Conv. Total (m3/s)	216.0	Conv. (m3/s)	41.0	173.0	2.0
Length Wtd. (m)		Wetted Per. (m)	22.43	46.13	4.46
Min Ch El (m)	846.35	Shear (N/m2)	22.95	35.32	9.96
Alpha	1.05	Stream Power (N/m s)	27.68	56.79	6.88
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 09 ArroyoValdepozue 1 RS: 483.6144 Profile: T=500

E.G. Elev (m)	847.40	Element	Left OB	Channel	Right OB
Vel Head (m)	0.18	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	847.22	Reach Len. (m)			
Crit W.S. (m)	847.22	Flow Area (m2)	7.05	18.68	1.32
E.G. Slope (m/m)	0.011714	Area (m2)	7.05	18.68	1.32
Q Total (m3/s)	49.53	Flow (m3/s)	11.36	36.88	1.30
Top Width (m)	78.87	Top Width (m)	23.66	46.00	9.21
Vel Total (m/s)	1.83	Avg. Vel. (m/s)	1.61	1.97	0.99
Max Chl Dpth (m)	0.87	Hydr. Depth (m)	0.30	0.41	0.14
Conv. Total (m3/s)	457.6	Conv. (m3/s)	104.9	340.7	12.0
Length Wtd. (m)		Wetted Per. (m)	23.67	46.13	9.22
Min Ch El (m)	846.35	Shear (N/m2)	34.24	46.51	16.40
Alpha	1.05	Stream Power (N/m s)	55.11	91.84	16.17
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 06 ArroyoValdepozue 1 RS: 1943.569 Profile: T=2

E.G. Elev (m)	853.09	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.030	0.030
W.S. Elev (m)	853.00	Reach Len. (m)	420.55	366.25	274.25
Crit W.S. (m)	852.99	Flow Area (m2)		8.22	0.02
E.G. Slope (m/m)	0.012672	Area (m2)		8.22	0.02
Q Total (m3/s)	10.87	Flow (m3/s)		10.86	0.01
Top Width (m)	40.29	Top Width (m)		39.31	0.99
Vel Total (m/s)	1.32	Avg. Vel. (m/s)		1.32	0.30
Max Chl Dpth (m)	0.48	Hydr. Depth (m)		0.21	0.02
Conv. Total (m3/s)	96.6	Conv. (m3/s)		96.5	0.1
Length Wtd. (m)	366.24	Wetted Per. (m)		39.37	0.99
Min Ch El (m)	852.52	Shear (N/m2)		25.96	2.75
Alpha	1.00	Stream Power (N/m s)		34.29	0.81
Frctn Loss (m)	1.79	Cum Volume (1000 m3)	1.28	17.05	0.23
C & E Loss (m)	0.02	Cum SA (1000 m2)	10.21	65.52	3.06

Plan: Plan 06 ArroyoValdepozue 1 RS: 1943.569 Profile: T=5

E.G. Elev (m)	853.28	Element	Left OB	Channel	Right OB
Vel Head (m)	0.16	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	853.12	Reach Len. (m)	420.55	366.25	274.25
Crit W.S. (m)	853.12	Flow Area (m2)	0.02	12.76	0.28
E.G. Slope (m/m)	0.012883	Area (m2)	0.02	12.76	0.28
Q Total (m3/s)	22.71	Flow (m3/s)	0.01	22.51	0.19
Top Width (m)	44.39	Top Width (m)	0.88	40.00	3.51
Vel Total (m/s)	1.74	Avg. Vel. (m/s)	0.32	1.76	0.70
Max Chl Dpth (m)	0.60	Hydr. Depth (m)	0.02	0.32	0.08
Conv. Total (m3/s)	200.1	Conv. (m3/s)	0.1	198.3	1.7
Length Wtd. (m)	366.21	Wetted Per. (m)	0.88	40.06	3.52
Min Ch El (m)	852.52	Shear (N/m2)	3.04	40.23	9.99
Alpha	1.02	Stream Power (N/m s)	0.96	70.99	6.97
Frctn Loss (m)		Cum Volume (1000 m3)	3.11	26.11	1.03
C & E Loss (m)		Cum SA (1000 m2)	16.88	67.39	7.03

Plan: Plan 06 ArroyoValdepozue 1 RS: 1943.569 Profile: T=10

E.G. Elev (m)	853.42	Element	Left OB	Channel	Right OB
Vel Head (m)	0.19	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	853.22	Reach Len. (m)	420.55	366.25	274.25
Crit W.S. (m)	853.22	Flow Area (m2)	0.25	16.88	0.75
E.G. Slope (m/m)	0.011075	Area (m2)	0.25	16.88	0.75
Q Total (m3/s)	34.10	Flow (m3/s)	0.13	33.28	0.69
Top Width (m)	50.00	Top Width (m)	4.38	40.00	5.62
Vel Total (m/s)	1.91	Avg. Vel. (m/s)	0.52	1.97	0.92
Max Chl Dpth (m)	0.70	Hydr. Depth (m)	0.06	0.42	0.13
Conv. Total (m3/s)	324.0	Conv. (m3/s)	1.2	316.3	6.5
Length Wtd. (m)	366.09	Wetted Per. (m)	4.38	40.06	5.63
Min Ch El (m)	852.52	Shear (N/m2)	6.22	45.76	14.49
Alpha	1.05	Stream Power (N/m s)	3.24	90.23	13.27
Frctn Loss (m)	1.76	Cum Volume (1000 m3)	4.92	32.81	1.99
C & E Loss (m)	0.04	Cum SA (1000 m2)	19.81	67.42	10.98

Plan: Plan 06 ArroyoValdepozue 1 RS: 1943.569 Profile: T=25

E.G. Elev (m)	853.58	Element	Left OB	Channel	Right OB
Vel Head (m)	0.23	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	853.34	Reach Len. (m)	420.55	366.25	274.25
Crit W.S. (m)	853.34	Flow Area (m2)	1.04	21.82	1.61
E.G. Slope (m/m)	0.009586	Area (m2)	1.04	21.82	1.61
Q Total (m3/s)	50.10	Flow (m3/s)	0.86	47.50	1.74

Plan: Plan 06 ArroyoValdepozue 1 RS: 1943.569 Profile: T=25 (Continued)

Top Width (m)	56.72	Top Width (m)	8.30	40.00	8.42
Vel Total (m/s)	2.05	Avg. Vel. (m/s)	0.82	2.18	1.08
Max Chl Dpth (m)	0.82	Hydr. Depth (m)	0.13	0.55	0.19
Conv. Total (m3/s)	511.7	Conv. (m3/s)	8.7	485.1	17.8
Length Wtd. (m)	366.00	Wetted Per. (m)	8.30	40.06	8.43
Min Ch El (m)	852.52	Shear (N/m2)	11.82	51.21	17.96
Alpha	1.08	Stream Power (N/m s)	9.69	111.46	19.45
Frctn Loss (m)	1.66	Cum Volume (1000 m3)	7.35	40.65	3.55
C & E Loss (m)	0.05	Cum SA (1000 m2)	22.90	67.42	14.74

Plan: Plan 06 ArroyoValdepozue 1 RS: 1943.569 Profile: T=50

E.G. Elev (m)	853.69	Element	Left OB	Channel	Right OB
Vel Head (m)	0.26	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	853.43	Reach Len. (m)	420.55	366.25	274.25
Crit W.S. (m)	853.43	Flow Area (m2)	1.87	25.43	2.48
E.G. Slope (m/m)	0.008788	Area (m2)	1.87	25.43	2.48
Q Total (m3/s)	63.51	Flow (m3/s)	1.91	58.69	2.91
Top Width (m)	60.86	Top Width (m)	10.08	40.00	10.78
Vel Total (m/s)	2.13	Avg. Vel. (m/s)	1.02	2.31	1.17
Max Chl Dpth (m)	0.91	Hydr. Depth (m)	0.19	0.64	0.23
Conv. Total (m3/s)	677.5	Conv. (m3/s)	20.3	626.1	31.1
Length Wtd. (m)	365.94	Wetted Per. (m)	10.09	40.06	10.79
Min Ch El (m)	852.52	Shear (N/m2)	16.00	54.70	19.84
Alpha	1.10	Stream Power (N/m s)	16.28	126.26	23.29
Frctn Loss (m)	1.61	Cum Volume (1000 m3)	9.34	46.30	4.92
C & E Loss (m)	0.05	Cum SA (1000 m2)	24.95	67.42	17.43

Plan: Plan 06 ArroyoValdepozue 1 RS: 1943.569 Profile: T=100

E.G. Elev (m)	853.81	Element	Left OB	Channel	Right OB
Vel Head (m)	0.28	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	853.53	Reach Len. (m)	420.55	366.25	274.25
Crit W.S. (m)	853.53	Flow Area (m2)	2.92	29.26	3.61
E.G. Slope (m/m)	0.008217	Area (m2)	2.92	29.26	3.61
Q Total (m3/s)	79.92	Flow (m3/s)	3.49	71.72	4.71
Top Width (m)	64.42	Top Width (m)	11.68	40.00	12.74
Vel Total (m/s)	2.23	Avg. Vel. (m/s)	1.20	2.45	1.30
Max Chl Dpth (m)	1.01	Hydr. Depth (m)	0.25	0.73	0.28
Conv. Total (m3/s)	881.7	Conv. (m3/s)	38.5	791.1	52.0
Length Wtd. (m)	365.80	Wetted Per. (m)	11.69	40.06	12.75
Min Ch El (m)	852.52	Shear (N/m2)	20.10	58.86	22.84
Alpha	1.11	Stream Power (N/m s)	24.08	144.25	29.77
Frctn Loss (m)	1.59	Cum Volume (1000 m3)	11.73	52.35	6.68
C & E Loss (m)	0.06	Cum SA (1000 m2)	26.55	67.42	20.48

Plan: Plan 06 ArroyoValdepozue 1 RS: 1943.569 Profile: T=500

E.G. Elev (m)	854.10	Element	Left OB	Channel	Right OB
Vel Head (m)	0.36	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	853.74	Reach Len. (m)	420.55	366.25	274.25
Crit W.S. (m)	853.74	Flow Area (m2)	5.63	37.53	6.66
E.G. Slope (m/m)	0.007761	Area (m2)	5.63	37.53	6.66
Q Total (m3/s)	124.79	Flow (m3/s)	8.74	105.52	10.52
Top Width (m)	71.46	Top Width (m)	14.62	40.00	16.83
Vel Total (m/s)	2.50	Avg. Vel. (m/s)	1.55	2.81	1.58
Max Chl Dpth (m)	1.22	Hydr. Depth (m)	0.39	0.94	0.40
Conv. Total (m3/s)	1416.5	Conv. (m3/s)	99.3	1197.8	119.4
Length Wtd. (m)	365.20	Wetted Per. (m)	14.64	40.06	16.85
Min Ch El (m)	852.52	Shear (N/m2)	29.27	71.30	30.06

Plan: Plan 06 ArroyoValdepozue 1 RS: 1943.569 Profile: T=500 (Continued)

Alpha	1.13	Stream Power (N/m s)	45.45	200.48	47.51
Frctn Loss (m)	1.55	Cum Volume (1000 m3)	17.68	66.43	11.56
C & E Loss (m)	0.07	Cum SA (1000 m2)	30.33	67.42	25.84

Plan: Plan 06 ArroyoValdepozue 1 RS: 1577.324 Profile: T=2

E.G. Elev (m)	851.28	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.	0.030	0.030	
W.S. Elev (m)	851.26	Reach Len. (m)	353.19	389.20	406.51
Crit W.S. (m)	851.13	Flow Area (m2)	0.06	16.27	
E.G. Slope (m/m)	0.002574	Area (m2)	0.06	16.27	
Q Total (m3/s)	10.87	Flow (m3/s)	0.01	10.86	
Top Width (m)	68.48	Top Width (m)	2.89	65.59	
Vel Total (m/s)	0.67	Avg. Vel. (m/s)	0.13	0.67	
Max Chl Dpth (m)	0.41	Hydr. Depth (m)	0.02	0.25	
Conv. Total (m3/s)	214.3	Conv. (m3/s)	0.2	214.1	
Length Wtd. (m)	385.93	Wetted Per. (m)	2.89	65.61	
Min Ch El (m)	850.85	Shear (N/m2)	0.52	6.26	
Alpha	1.01	Stream Power (N/m s)	0.07	4.18	
Frctn Loss (m)	1.58	Cum Volume (1000 m3)	1.27	12.56	0.22
C & E Loss (m)	0.00	Cum SA (1000 m2)	9.60	46.31	2.93

Plan: Plan 06 ArroyoValdepozue 1 RS: 1577.324 Profile: T=5

E.G. Elev (m)	851.43	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.	0.030	0.030	
W.S. Elev (m)	851.40	Reach Len. (m)	353.19	389.20	406.51
Crit W.S. (m)	851.24	Flow Area (m2)	0.85	25.32	
E.G. Slope (m/m)	0.002624	Area (m2)	0.85	25.32	
Q Total (m3/s)	22.71	Flow (m3/s)	0.30	22.41	
Top Width (m)	76.76	Top Width (m)	8.95	67.81	
Vel Total (m/s)	0.87	Avg. Vel. (m/s)	0.36	0.89	
Max Chl Dpth (m)	0.55	Hydr. Depth (m)	0.10	0.37	
Conv. Total (m3/s)	443.4	Conv. (m3/s)	5.9	437.4	
Length Wtd. (m)	385.37	Wetted Per. (m)	8.95	67.84	
Min Ch El (m)	850.85	Shear (N/m2)	2.45	9.60	
Alpha	1.03	Stream Power (N/m s)	0.87	8.50	
Frctn Loss (m)	1.55	Cum Volume (1000 m3)	2.93	19.13	0.99
C & E Loss (m)	0.01	Cum SA (1000 m2)	14.81	47.65	6.55

Plan: Plan 06 ArroyoValdepozue 1 RS: 1577.324 Profile: T=10

E.G. Elev (m)	851.55	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	851.49	Reach Len. (m)	353.19	389.20	406.51
Crit W.S. (m)	851.31	Flow Area (m2)	1.84	31.81	0.22
E.G. Slope (m/m)	0.002678	Area (m2)	1.84	31.81	0.22
Q Total (m3/s)	34.10	Flow (m3/s)	0.94	33.10	0.06
Top Width (m)	82.60	Top Width (m)	11.46	67.89	3.25
Vel Total (m/s)	1.01	Avg. Vel. (m/s)	0.51	1.04	0.29
Max Chl Dpth (m)	0.64	Hydr. Depth (m)	0.16	0.47	0.07
Conv. Total (m3/s)	658.9	Conv. (m3/s)	18.1	639.6	1.2
Length Wtd. (m)	384.96	Wetted Per. (m)	11.47	67.92	3.25
Min Ch El (m)	850.85	Shear (N/m2)	4.21	12.30	1.80
Alpha	1.04	Stream Power (N/m s)	2.15	12.80	0.52
Frctn Loss (m)	1.52	Cum Volume (1000 m3)	4.49	23.89	1.85
C & E Loss (m)	0.01	Cum SA (1000 m2)	16.48	47.66	9.77

Plan: Plan 06 ArroyoValdepozue 1 RS: 1577.324 Profile: T=25

E.G. Elev (m)	851.68	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	851.61	Reach Len. (m)	353.19	389.20	406.51
Crit W.S. (m)	851.41	Flow Area (m2)	3.34	39.77	0.72
E.G. Slope (m/m)	0.002631	Area (m2)	3.34	39.77	0.72
Q Total (m3/s)	50.10	Flow (m3/s)	2.19	47.59	0.32
Top Width (m)	87.48	Top Width (m)	14.07	67.89	5.51
Vel Total (m/s)	1.14	Avg. Vel. (m/s)	0.65	1.20	0.44
Max Chl Dpth (m)	0.76	Hydr. Depth (m)	0.24	0.59	0.13
Conv. Total (m3/s)	976.7	Conv. (m3/s)	42.6	927.8	6.2
Length Wtd. (m)	384.60	Wetted Per. (m)	14.08	67.92	5.52
Min Ch El (m)	850.85	Shear (N/m2)	6.12	15.11	3.39
Alpha	1.06	Stream Power (N/m s)	4.01	18.08	1.50
Frctn Loss (m)	1.49	Cum Volume (1000 m3)	6.43	29.38	3.23
C & E Loss (m)	0.01	Cum SA (1000 m2)	18.19	47.66	12.83

Plan: Plan 06 ArroyoValdepozue 1 RS: 1577.324 Profile: T=50

E.G. Elev (m)	851.77	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	851.69	Reach Len. (m)	353.19	389.20	406.51
Crit W.S. (m)	851.47	Flow Area (m2)	4.62	45.43	1.27
E.G. Slope (m/m)	0.002635	Area (m2)	4.62	45.43	1.27
Q Total (m3/s)	63.51	Flow (m3/s)	3.40	59.45	0.65
Top Width (m)	91.99	Top Width (m)	16.34	67.89	7.76
Vel Total (m/s)	1.24	Avg. Vel. (m/s)	0.74	1.31	0.51
Max Chl Dpth (m)	0.84	Hydr. Depth (m)	0.28	0.67	0.16
Conv. Total (m3/s)	1237.1	Conv. (m3/s)	66.3	1158.1	12.7
Length Wtd. (m)	384.39	Wetted Per. (m)	16.34	67.92	7.77
Min Ch El (m)	850.85	Shear (N/m2)	7.30	17.29	4.24
Alpha	1.07	Stream Power (N/m s)	5.38	22.62	2.17
Frctn Loss (m)	1.48	Cum Volume (1000 m3)	7.97	33.32	4.41
C & E Loss (m)	0.01	Cum SA (1000 m2)	19.40	47.66	14.89

Plan: Plan 06 ArroyoValdepozue 1 RS: 1577.324 Profile: T=100

E.G. Elev (m)	851.88	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	851.78	Reach Len. (m)	353.19	389.20	406.51
Crit W.S. (m)	851.54	Flow Area (m2)	6.05	51.24	2.07
E.G. Slope (m/m)	0.002696	Area (m2)	6.05	51.24	2.07
Q Total (m3/s)	79.92	Flow (m3/s)	5.21	73.49	1.21
Top Width (m)	95.58	Top Width (m)	17.24	67.89	10.45
Vel Total (m/s)	1.35	Avg. Vel. (m/s)	0.86	1.43	0.59
Max Chl Dpth (m)	0.93	Hydr. Depth (m)	0.35	0.75	0.20
Conv. Total (m3/s)	1539.2	Conv. (m3/s)	100.4	1415.4	23.4
Length Wtd. (m)	384.20	Wetted Per. (m)	17.25	67.92	10.46
Min Ch El (m)	850.85	Shear (N/m2)	9.28	19.95	5.23
Alpha	1.07	Stream Power (N/m s)	7.99	28.61	3.07
Frctn Loss (m)	1.46	Cum Volume (1000 m3)	9.84	37.60	5.90
C & E Loss (m)	0.01	Cum SA (1000 m2)	20.47	47.66	17.30

Plan: Plan 06 ArroyoValdepozue 1 RS: 1577.324 Profile: T=500

E.G. Elev (m)	852.12	Element	Left OB	Channel	Right OB
Vel Head (m)	0.13	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	851.99	Reach Len. (m)	353.19	389.20	406.51
Crit W.S. (m)	851.71	Flow Area (m2)	10.02	65.63	4.69
E.G. Slope (m/m)	0.002658	Area (m2)	10.02	65.63	4.69
Q Total (m3/s)	124.79	Flow (m3/s)	10.73	110.24	3.82

Plan: Plan 06 ArroyoValdepozue 1 RS: 1577.324 Profile: T=500 (Continued)

Top Width (m)	102.66	Top Width (m)	20.35	67.89	14.41
Vel Total (m/s)	1.55	Avg. Vel. (m/s)	1.07	1.68	0.81
Max Chl Dpth (m)	1.14	Hydr. Depth (m)	0.49	0.97	0.33
Conv. Total (m3/s)	2420.4	Conv. (m3/s)	208.1	2138.3	74.0
Length Wtd. (m)	383.94	Wetted Per. (m)	20.37	67.92	14.43
Min Ch El (m)	850.85	Shear (N/m2)	12.82	25.19	8.48
Alpha	1.08	Stream Power (N/m s)	13.73	42.31	6.89
Frctn Loss (m)	1.42	Cum Volume (1000 m3)	14.39	47.53	10.00
C & E Loss (m)	0.01	Cum SA (1000 m2)	22.97	47.66	21.56

Plan: Plan 06 ArroyoValdepozue 1 RS: 1188.129 Profile: T=2

E.G. Elev (m)	849.70	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	849.63	Reach Len. (m)	410.50	388.33	299.28
Crit W.S. (m)	849.58	Flow Area (m2)	2.13	7.48	0.02
E.G. Slope (m/m)	0.007508	Area (m2)	2.13	7.48	0.02
Q Total (m3/s)	10.87	Flow (m3/s)	1.97	8.90	0.00
Top Width (m)	41.36	Top Width (m)	11.73	28.23	1.41
Vel Total (m/s)	1.13	Avg. Vel. (m/s)	0.93	1.19	0.17
Max Chl Dpth (m)	0.67	Hydr. Depth (m)	0.18	0.26	0.01
Conv. Total (m3/s)	125.5	Conv. (m3/s)	22.7	102.7	0.0
Length Wtd. (m)	389.58	Wetted Per. (m)	11.73	28.27	1.41
Min Ch El (m)	848.96	Shear (N/m2)	13.36	19.47	1.03
Alpha	1.03	Stream Power (N/m s)	12.36	23.17	0.17
Frctn Loss (m)	1.33	Cum Volume (1000 m3)	0.88	7.94	0.22
C & E Loss (m)	0.01	Cum SA (1000 m2)	7.02	28.05	2.64

Plan: Plan 06 ArroyoValdepozue 1 RS: 1188.129 Profile: T=5

E.G. Elev (m)	849.88	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	849.77	Reach Len. (m)	410.50	388.33	299.28
Crit W.S. (m)	849.71	Flow Area (m2)	4.08	11.59	0.54
E.G. Slope (m/m)	0.006901	Area (m2)	4.08	11.59	0.54
Q Total (m3/s)	22.71	Flow (m3/s)	4.68	17.72	0.31
Top Width (m)	49.35	Top Width (m)	15.31	28.23	5.80
Vel Total (m/s)	1.40	Avg. Vel. (m/s)	1.15	1.53	0.57
Max Chl Dpth (m)	0.81	Hydr. Depth (m)	0.27	0.41	0.09
Conv. Total (m3/s)	273.4	Conv. (m3/s)	56.4	213.3	3.7
Length Wtd. (m)	387.80	Wetted Per. (m)	15.32	28.27	5.80
Min Ch El (m)	848.96	Shear (N/m2)	18.04	27.75	6.35
Alpha	1.07	Stream Power (N/m s)	20.68	42.41	3.63
Frctn Loss (m)	1.33	Cum Volume (1000 m3)	2.05	11.95	0.88
C & E Loss (m)	0.02	Cum SA (1000 m2)	10.52	28.96	5.37

Plan: Plan 06 ArroyoValdepozue 1 RS: 1188.129 Profile: T=10

E.G. Elev (m)	850.02	Element	Left OB	Channel	Right OB
Vel Head (m)	0.13	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	849.89	Reach Len. (m)	410.50	388.33	299.28
Crit W.S. (m)	849.82	Flow Area (m2)	5.92	14.73	1.33
E.G. Slope (m/m)	0.006402	Area (m2)	5.92	14.73	1.33
Q Total (m3/s)	34.10	Flow (m3/s)	7.62	25.44	1.04
Top Width (m)	54.34	Top Width (m)	17.67	28.23	8.44
Vel Total (m/s)	1.55	Avg. Vel. (m/s)	1.29	1.73	0.78
Max Chl Dpth (m)	0.93	Hydr. Depth (m)	0.34	0.52	0.16
Conv. Total (m3/s)	426.2	Conv. (m3/s)	95.2	317.9	13.0
Length Wtd. (m)	386.66	Wetted Per. (m)	17.68	28.27	8.44
Min Ch El (m)	848.96	Shear (N/m2)	21.03	32.71	9.93

Plan: Plan 06 ArroyoValdepozue 1 RS: 1188.129 Profile: T=10 (Continued)

Alpha	1.09	Stream Power (N/m s)	27.05	56.49	7.74
Frctn Loss (m)	1.34	Cum Volume (1000 m3)	3.11	14.83	1.54
C & E Loss (m)	0.02	Cum SA (1000 m2)	11.34	28.96	7.39

Plan: Plan 06 ArroyoValdepozue 1 RS: 1188.129 Profile: T=25

E.G. Elev (m)	850.17	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	850.01	Reach Len. (m)	410.50	388.33	299.28
Crit W.S. (m)	849.94	Flow Area (m2)	8.21	18.15	2.56
E.G. Slope (m/m)	0.006275	Area (m2)	8.21	18.15	2.56
Q Total (m3/s)	50.10	Flow (m3/s)	11.96	35.68	2.46
Top Width (m)	59.93	Top Width (m)	20.05	28.23	11.66
Vel Total (m/s)	1.73	Avg. Vel. (m/s)	1.46	1.97	0.96
Max Chl Dpth (m)	1.05	Hydr. Depth (m)	0.41	0.64	0.22
Conv. Total (m3/s)	632.5	Conv. (m3/s)	151.0	450.4	31.0
Length Wtd. (m)	385.04	Wetted Per. (m)	20.06	28.27	11.67
Min Ch El (m)	848.96	Shear (N/m2)	25.20	39.51	13.50
Alpha	1.10	Stream Power (N/m s)	36.69	77.66	12.97
Frctn Loss (m)	1.36	Cum Volume (1000 m3)	4.39	18.10	2.56
C & E Loss (m)	0.03	Cum SA (1000 m2)	12.17	28.96	9.34

Plan: Plan 06 ArroyoValdepozue 1 RS: 1188.129 Profile: T=50

E.G. Elev (m)	850.29	Element	Left OB	Channel	Right OB
Vel Head (m)	0.19	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	850.10	Reach Len. (m)	410.50	388.33	299.28
Crit W.S. (m)	850.02	Flow Area (m2)	10.06	20.66	3.70
E.G. Slope (m/m)	0.006120	Area (m2)	10.06	20.66	3.70
Q Total (m3/s)	63.51	Flow (m3/s)	15.80	43.73	3.99
Top Width (m)	63.64	Top Width (m)	21.53	28.23	13.88
Vel Total (m/s)	1.84	Avg. Vel. (m/s)	1.57	2.12	1.08
Max Chl Dpth (m)	1.14	Hydr. Depth (m)	0.47	0.73	0.27
Conv. Total (m3/s)	811.8	Conv. (m3/s)	201.9	559.0	50.9
Length Wtd. (m)	383.92	Wetted Per. (m)	21.54	28.27	13.89
Min Ch El (m)	848.96	Shear (N/m2)	28.03	43.87	15.96
Alpha	1.11	Stream Power (N/m s)	44.01	92.83	17.22
Frctn Loss (m)	1.36	Cum Volume (1000 m3)	5.38	20.46	3.40
C & E Loss (m)	0.03	Cum SA (1000 m2)	12.71	28.96	10.49

Plan: Plan 06 ArroyoValdepozue 1 RS: 1188.129 Profile: T=100

E.G. Elev (m)	850.41	Element	Left OB	Channel	Right OB
Vel Head (m)	0.21	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	850.20	Reach Len. (m)	410.50	388.33	299.28
Crit W.S. (m)	850.12	Flow Area (m2)	12.45	23.67	5.29
E.G. Slope (m/m)	0.005706	Area (m2)	12.45	23.67	5.29
Q Total (m3/s)	79.92	Flow (m3/s)	20.63	52.94	6.35
Top Width (m)	67.57	Top Width (m)	23.30	28.23	16.04
Vel Total (m/s)	1.93	Avg. Vel. (m/s)	1.66	2.24	1.20
Max Chl Dpth (m)	1.24	Hydr. Depth (m)	0.53	0.84	0.33
Conv. Total (m3/s)	1058.0	Conv. (m3/s)	273.0	700.8	84.1
Length Wtd. (m)	382.75	Wetted Per. (m)	23.32	28.27	16.05
Min Ch El (m)	848.96	Shear (N/m2)	29.87	46.85	18.44
Alpha	1.11	Stream Power (N/m s)	49.50	104.79	22.15
Frctn Loss (m)	1.38	Cum Volume (1000 m3)	6.58	23.03	4.41
C & E Loss (m)	0.03	Cum SA (1000 m2)	13.31	28.96	11.92

Plan: Plan 06 ArroyoValdepozue 1 RS: 1188.129 Profile: T=500

E.G. Elev (m)	850.69	Element	Left OB	Channel	Right OB
Vel Head (m)	0.27	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	850.43	Reach Len. (m)	410.50	388.33	299.28
Crit W.S. (m)		Flow Area (m2)	18.14	30.04	9.44
E.G. Slope (m/m)	0.005448	Area (m2)	18.14	30.04	9.44
Q Total (m3/s)	124.79	Flow (m3/s)	34.13	76.94	13.71
Top Width (m)	76.12	Top Width (m)	27.11	28.23	20.78
Vel Total (m/s)	2.17	Avg. Vel. (m/s)	1.88	2.56	1.45
Max Chl Dpth (m)	1.47	Hydr. Depth (m)	0.67	1.06	0.45
Conv. Total (m3/s)	1690.7	Conv. (m3/s)	462.5	1042.5	185.8
Length Wtd. (m)	380.43	Wetted Per. (m)	27.14	28.27	20.80
Min Ch El (m)	848.96	Shear (N/m2)	35.72	56.76	24.24
Alpha	1.12	Stream Power (N/m s)	67.20	145.40	35.22
Frctn Loss (m)	1.40	Cum Volume (1000 m3)	9.41	28.92	7.13
C & E Loss (m)	0.04	Cum SA (1000 m2)	14.59	28.96	14.40

Plan: Plan 06 ArroyoValdepozue 1 RS: 799.7979 Profile: T=2

E.G. Elev (m)	848.36	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	848.33	Reach Len. (m)	331.65	316.18	280.19
Crit W.S. (m)		Flow Area (m2)	0.47	15.05	0.73
E.G. Slope (m/m)	0.001942	Area (m2)	0.47	15.05	0.73
Q Total (m3/s)	10.87	Flow (m3/s)	0.16	10.49	0.22
Top Width (m)	57.88	Top Width (m)	4.13	46.00	7.75
Vel Total (m/s)	0.67	Avg. Vel. (m/s)	0.34	0.70	0.30
Max Chl Dpth (m)	0.55	Hydr. Depth (m)	0.11	0.33	0.09
Conv. Total (m3/s)	246.6	Conv. (m3/s)	3.6	238.0	5.1
Length Wtd. (m)	316.82	Wetted Per. (m)	4.13	46.03	7.75
Min Ch El (m)	847.78	Shear (N/m2)	2.15	6.23	1.80
Alpha	1.05	Stream Power (N/m s)	0.74	4.34	0.55
Frctn Loss (m)	1.30	Cum Volume (1000 m3)	0.35	3.57	0.11
C & E Loss (m)	0.01	Cum SA (1000 m2)	3.77	13.64	1.27

Plan: Plan 06 ArroyoValdepozue 1 RS: 799.7979 Profile: T=5

E.G. Elev (m)	848.53	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	848.49	Reach Len. (m)	331.65	316.18	280.19
Crit W.S. (m)		Flow Area (m2)	1.65	22.23	2.62
E.G. Slope (m/m)	0.002049	Area (m2)	1.65	22.23	2.62
Q Total (m3/s)	22.71	Flow (m3/s)	0.76	20.64	1.31
Top Width (m)	69.61	Top Width (m)	9.93	46.00	13.68
Vel Total (m/s)	0.86	Avg. Vel. (m/s)	0.46	0.93	0.50
Max Chl Dpth (m)	0.71	Hydr. Depth (m)	0.17	0.48	0.19
Conv. Total (m3/s)	501.7	Conv. (m3/s)	16.7	456.0	29.0
Length Wtd. (m)	316.66	Wetted Per. (m)	9.93	46.03	13.69
Min Ch El (m)	847.78	Shear (N/m2)	3.35	9.70	3.84
Alpha	1.10	Stream Power (N/m s)	1.53	9.01	1.92
Frctn Loss (m)	1.34	Cum Volume (1000 m3)	0.88	5.38	0.41
C & E Loss (m)	0.01	Cum SA (1000 m2)	5.34	14.54	2.45

Plan: Plan 06 ArroyoValdepozue 1 RS: 799.7979 Profile: T=10

E.G. Elev (m)	848.65	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	848.60	Reach Len. (m)	331.65	316.18	280.19
Crit W.S. (m)		Flow Area (m2)	2.76	27.18	4.27
E.G. Slope (m/m)	0.002180	Area (m2)	2.76	27.18	4.27
Q Total (m3/s)	34.10	Flow (m3/s)	1.76	29.77	2.57

Plan: Plan 06 ArroyoValdepozue 1 RS: 799.7979 Profile: T=10 (Continued)

Top Width (m)	74.26	Top Width (m)	10.51	46.00	17.75
Vel Total (m/s)	1.00	Avg. Vel. (m/s)	0.64	1.10	0.60
Max Chl Dpth (m)	0.81	Hydr. Depth (m)	0.26	0.59	0.24
Conv. Total (m3/s)	730.4	Conv. (m3/s)	37.6	637.7	55.1
Length Wtd. (m)	316.57	Wetted Per. (m)	10.53	46.03	17.76
Min Ch El (m)	847.78	Shear (N/m2)	5.60	12.62	5.14
Alpha	1.10	Stream Power (N/m s)	3.56	13.83	3.09
Frctn Loss (m)	1.36	Cum Volume (1000 m3)	1.33	6.69	0.70
C & E Loss (m)	0.01	Cum SA (1000 m2)	5.55	14.54	3.47

Plan: Plan 06 ArroyoValdepozue 1 RS: 799.7979 Profile: T=25

E.G. Elev (m)	848.79	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	848.72	Reach Len. (m)	331.65	316.18	280.19
Crit W.S. (m)		Flow Area (m2)	4.12	32.96	6.88
E.G. Slope (m/m)	0.002249	Area (m2)	4.12	32.96	6.88
Q Total (m3/s)	50.10	Flow (m3/s)	3.35	41.70	5.05
Top Width (m)	78.85	Top Width (m)	11.13	46.00	21.73
Vel Total (m/s)	1.14	Avg. Vel. (m/s)	0.81	1.27	0.73
Max Chl Dpth (m)	0.94	Hydr. Depth (m)	0.37	0.72	0.32
Conv. Total (m3/s)	1056.5	Conv. (m3/s)	70.6	879.4	106.5
Length Wtd. (m)	316.18	Wetted Per. (m)	11.16	46.03	21.74
Min Ch El (m)	847.78	Shear (N/m2)	8.14	15.79	6.98
Alpha	1.10	Stream Power (N/m s)	6.62	19.98	5.12
Frctn Loss (m)	1.38	Cum Volume (1000 m3)	1.86	8.18	1.15
C & E Loss (m)	0.01	Cum SA (1000 m2)	5.77	14.54	4.34

Plan: Plan 06 ArroyoValdepozue 1 RS: 799.7979 Profile: T=50

E.G. Elev (m)	848.90	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	848.81	Reach Len. (m)	331.65	316.18	280.19
Crit W.S. (m)		Flow Area (m2)	5.12	37.03	8.87
E.G. Slope (m/m)	0.002312	Area (m2)	5.12	37.03	8.87
Q Total (m3/s)	63.51	Flow (m3/s)	4.76	51.33	7.42
Top Width (m)	81.10	Top Width (m)	11.56	46.00	23.54
Vel Total (m/s)	1.24	Avg. Vel. (m/s)	0.93	1.39	0.84
Max Chl Dpth (m)	1.03	Hydr. Depth (m)	0.44	0.80	0.38
Conv. Total (m3/s)	1320.9	Conv. (m3/s)	98.9	1067.6	154.3
Length Wtd. (m)	315.90	Wetted Per. (m)	11.60	46.03	23.56
Min Ch El (m)	847.78	Shear (N/m2)	10.01	18.24	8.54
Alpha	1.10	Stream Power (N/m s)	9.30	25.28	7.14
Frctn Loss (m)	1.39	Cum Volume (1000 m3)	2.26	9.26	1.52
C & E Loss (m)	0.01	Cum SA (1000 m2)	5.92	14.54	4.89

Plan: Plan 06 ArroyoValdepozue 1 RS: 799.7979 Profile: T=100

E.G. Elev (m)	849.00	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	848.90	Reach Len. (m)	331.65	316.18	280.19
Crit W.S. (m)		Flow Area (m2)	6.13	40.97	10.97
E.G. Slope (m/m)	0.002486	Area (m2)	6.13	40.97	10.97
Q Total (m3/s)	79.92	Flow (m3/s)	6.50	63.01	10.41
Top Width (m)	83.42	Top Width (m)	11.98	46.00	25.44
Vel Total (m/s)	1.38	Avg. Vel. (m/s)	1.06	1.54	0.95
Max Chl Dpth (m)	1.11	Hydr. Depth (m)	0.51	0.89	0.43
Conv. Total (m3/s)	1602.8	Conv. (m3/s)	130.3	1263.7	208.7
Length Wtd. (m)	315.59	Wetted Per. (m)	12.02	46.03	25.46
Min Ch El (m)	847.78	Shear (N/m2)	12.43	21.70	10.51

Plan: Plan 06 ArroyoValdepozue 1 RS: 799.7979 Profile: T=100 (Continued)

Alpha	1.09	Stream Power (N/m s)	13.18	33.38	9.97
Frctn Loss (m)	1.40	Cum Volume (1000 m3)	2.76	10.48	1.97
C & E Loss (m)	0.01	Cum SA (1000 m2)	6.07	14.54	5.71

Plan: Plan 06 ArroyoValdepozue 1 RS: 799.7979 Profile: T=500

E.G. Elev (m)	849.26	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	849.11	Reach Len. (m)	331.65	316.18	280.19
Crit W.S. (m)		Flow Area (m2)	8.79	50.81	16.86
E.G. Slope (m/m)	0.002659	Area (m2)	8.79	50.81	16.86
Q Total (m3/s)	124.79	Flow (m3/s)	11.66	93.28	19.84
Top Width (m)	88.62	Top Width (m)	12.87	46.00	29.75
Vel Total (m/s)	1.63	Avg. Vel. (m/s)	1.33	1.84	1.18
Max Chl Dpth (m)	1.33	Hydr. Depth (m)	0.68	1.10	0.57
Conv. Total (m3/s)	2420.0	Conv. (m3/s)	226.2	1809.0	384.8
Length Wtd. (m)	314.79	Wetted Per. (m)	12.94	46.03	29.77
Min Ch El (m)	847.78	Shear (N/m2)	17.70	28.78	14.77
Alpha	1.09	Stream Power (N/m s)	23.50	52.84	17.38
Frctn Loss (m)	1.42	Cum Volume (1000 m3)	3.89	13.22	3.19
C & E Loss (m)	0.01	Cum SA (1000 m2)	6.39	14.54	6.84

Plan: Plan 06 ArroyoValdepozue 1 RS: 483.6144 Profile: T=2

E.G. Elev (m)	847.05	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	846.98	Reach Len. (m)			
Crit W.S. (m)	846.98	Flow Area (m2)	1.65	7.53	0.03
E.G. Slope (m/m)	0.013658	Area (m2)	1.65	7.53	0.03
Q Total (m3/s)	10.87	Flow (m3/s)	1.29	9.58	0.01
Top Width (m)	60.19	Top Width (m)	18.58	40.29	1.32
Vel Total (m/s)	1.18	Avg. Vel. (m/s)	0.78	1.27	0.31
Max Chl Dpth (m)	0.63	Hydr. Depth (m)	0.09	0.19	0.02
Conv. Total (m3/s)	93.0	Conv. (m3/s)	11.0	81.9	0.1
Length Wtd. (m)		Wetted Per. (m)	18.59	40.42	1.32
Min Ch El (m)	846.35	Shear (N/m2)	11.92	24.96	3.08
Alpha	1.07	Stream Power (N/m s)	9.26	31.73	0.97
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 06 ArroyoValdepozue 1 RS: 483.6144 Profile: T=5

E.G. Elev (m)	847.19	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	847.07	Reach Len. (m)			
Crit W.S. (m)	847.07	Flow Area (m2)	3.64	11.83	0.29
E.G. Slope (m/m)	0.013287	Area (m2)	3.64	11.83	0.29
Q Total (m3/s)	22.71	Flow (m3/s)	4.17	18.35	0.19
Top Width (m)	72.15	Top Width (m)	22.31	46.00	3.84
Vel Total (m/s)	1.44	Avg. Vel. (m/s)	1.15	1.55	0.68
Max Chl Dpth (m)	0.72	Hydr. Depth (m)	0.16	0.26	0.07
Conv. Total (m3/s)	197.0	Conv. (m3/s)	36.1	159.2	1.7
Length Wtd. (m)		Wetted Per. (m)	22.31	46.13	3.84
Min Ch El (m)	846.35	Shear (N/m2)	21.23	33.42	9.67
Alpha	1.05	Stream Power (N/m s)	24.33	51.84	6.57
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 06 ArroyoValdepozue 1 RS: 483.6144 Profile: T=10

E.G. Elev (m)	847.29	Element	Left OB	Channel	Right OB
Vel Head (m)	0.14	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	847.15	Reach Len. (m)			
Crit W.S. (m)	847.15	Flow Area (m2)	5.28	15.17	0.70
E.G. Slope (m/m)	0.011959	Area (m2)	5.28	15.17	0.70
Q Total (m3/s)	34.10	Flow (m3/s)	7.22	26.34	0.54
Top Width (m)	76.00	Top Width (m)	22.96	46.00	7.04
Vel Total (m/s)	1.61	Avg. Vel. (m/s)	1.37	1.74	0.78
Max Chl Dpth (m)	0.80	Hydr. Depth (m)	0.23	0.33	0.10
Conv. Total (m3/s)	311.8	Conv. (m3/s)	66.0	240.9	5.0
Length Wtd. (m)		Wetted Per. (m)	22.97	46.13	7.04
Min Ch El (m)	846.35	Shear (N/m2)	26.94	38.56	11.60
Alpha	1.05	Stream Power (N/m s)	36.84	66.97	9.05
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 06 ArroyoValdepozue 1 RS: 483.6144 Profile: T=25

E.G. Elev (m)	847.41	Element	Left OB	Channel	Right OB
Vel Head (m)	0.18	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	847.22	Reach Len. (m)			
Crit W.S. (m)	847.22	Flow Area (m2)	7.10	18.77	1.34
E.G. Slope (m/m)	0.011761	Area (m2)	7.10	18.77	1.34
Q Total (m3/s)	50.10	Flow (m3/s)	11.51	37.27	1.33
Top Width (m)	78.95	Top Width (m)	23.68	46.00	9.27
Vel Total (m/s)	1.84	Avg. Vel. (m/s)	1.62	1.99	0.99
Max Chl Dpth (m)	0.87	Hydr. Depth (m)	0.30	0.41	0.14
Conv. Total (m3/s)	462.0	Conv. (m3/s)	106.1	343.6	12.2
Length Wtd. (m)		Wetted Per. (m)	23.69	46.13	9.28
Min Ch El (m)	846.35	Shear (N/m2)	34.59	46.94	16.60
Alpha	1.05	Stream Power (N/m s)	56.01	93.19	16.49
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 06 ArroyoValdepozue 1 RS: 483.6144 Profile: T=50

E.G. Elev (m)	847.50	Element	Left OB	Channel	Right OB
Vel Head (m)	0.21	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	847.28	Reach Len. (m)			
Crit W.S. (m)	847.28	Flow Area (m2)	8.54	21.53	1.95
E.G. Slope (m/m)	0.011431	Area (m2)	8.54	21.53	1.95
Q Total (m3/s)	63.51	Flow (m3/s)	15.21	46.16	2.14
Top Width (m)	81.53	Top Width (m)	24.15	46.00	11.38
Vel Total (m/s)	1.98	Avg. Vel. (m/s)	1.78	2.14	1.10
Max Chl Dpth (m)	0.93	Hydr. Depth (m)	0.35	0.47	0.17
Conv. Total (m3/s)	594.0	Conv. (m3/s)	142.2	431.8	20.0
Length Wtd. (m)		Wetted Per. (m)	24.17	46.13	11.38
Min Ch El (m)	846.35	Shear (N/m2)	39.60	52.32	19.19
Alpha	1.05	Stream Power (N/m s)	70.53	112.19	21.09
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 06 ArroyoValdepozue 1 RS: 483.6144 Profile: T=100

E.G. Elev (m)	847.59	Element	Left OB	Channel	Right OB
Vel Head (m)	0.23	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	847.37	Reach Len. (m)			
Crit W.S. (m)	847.37	Flow Area (m2)	10.54	25.30	3.11
E.G. Slope (m/m)	0.009979	Area (m2)	10.54	25.30	3.11
Q Total (m3/s)	79.92	Flow (m3/s)	19.90	56.45	3.57

Plan: Plan 06 ArroyoValdepozue 1 RS: 483.6144 Profile: T=100 (Continued)

Top Width (m)	85.98	Top Width (m)	24.65	46.00	15.33
Vel Total (m/s)	2.05	Avg. Vel. (m/s)	1.89	2.23	1.15
Max Chl Dpth (m)	1.02	Hydr. Depth (m)	0.43	0.55	0.20
Conv. Total (m3/s)	800.0	Conv. (m3/s)	199.2	565.1	35.7
Length Wtd. (m)		Wetted Per. (m)	24.67	46.13	15.34
Min Ch El (m)	846.35	Shear (N/m2)	41.80	53.68	19.82
Alpha	1.06	Stream Power (N/m s)	78.95	119.77	22.75
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 06 ArroyoValdepozue 1 RS: 483.6144 Profile: T=500

E.G. Elev (m)	847.83	Element	Left OB	Channel	Right OB
Vel Head (m)	0.29	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	847.53	Reach Len. (m)			
Crit W.S. (m)	847.53	Flow Area (m2)	14.65	32.82	5.93
E.G. Slope (m/m)	0.009239	Area (m2)	14.65	32.82	5.93
Q Total (m3/s)	124.79	Flow (m3/s)	32.28	83.80	8.71
Top Width (m)	90.73	Top Width (m)	25.64	46.00	19.09
Vel Total (m/s)	2.34	Avg. Vel. (m/s)	2.20	2.55	1.47
Max Chl Dpth (m)	1.18	Hydr. Depth (m)	0.57	0.71	0.31
Conv. Total (m3/s)	1298.3	Conv. (m3/s)	335.8	871.8	90.7
Length Wtd. (m)		Wetted Per. (m)	25.68	46.13	19.10
Min Ch El (m)	846.35	Shear (N/m2)	51.68	64.46	28.13
Alpha	1.06	Stream Power (N/m s)	113.90	164.60	41.33
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

APÉNDICE 4. TABLAS RESUMEN DE PARÁMETROS HIDRÁULICOS DE LAS SECCIONES ESTUDIADAS. SITUACIÓN POSTOPERACIONAL

Plan: Plan 03 ArroyoValilongo 1 RS: 2089.018 Profile: T=2

E.G. Elev (m)	855.05	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.		0.030	
W.S. Elev (m)	855.05	Reach Len. (m)	251.27	347.36	440.65
Crit W.S. (m)	854.97	Flow Area (m2)		2.28	
E.G. Slope (m/m)	0.001994	Area (m2)		2.28	
Q Total (m3/s)	0.79	Flow (m3/s)		0.79	
Top Width (m)	20.28	Top Width (m)		20.28	
Vel Total (m/s)	0.35	Avg. Vel. (m/s)		0.35	
Max Chl Dpth (m)	0.40	Hydr. Depth (m)		0.11	
Conv. Total (m3/s)	17.7	Conv. (m3/s)		17.7	
Length Wtd. (m)	347.36	Wetted Per. (m)		20.38	
Min Ch El (m)	854.65	Shear (N/m2)		2.19	
Alpha	1.00	Stream Power (N/m s)		0.76	
Frctn Loss (m)	1.31	Cum Volume (1000 m3)		2.18	
C & E Loss (m)	0.00	Cum SA (1000 m2)		24.47	

Plan: Plan 03 ArroyoValilongo 1 RS: 2089.018 Profile: T=5

E.G. Elev (m)	855.17	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.030	
W.S. Elev (m)	855.15	Reach Len. (m)	251.27	347.36	440.65
Crit W.S. (m)	855.07	Flow Area (m2)		4.63	
E.G. Slope (m/m)	0.003932	Area (m2)		4.63	
Q Total (m3/s)	3.16	Flow (m3/s)		3.16	
Top Width (m)	24.65	Top Width (m)		24.65	
Vel Total (m/s)	0.68	Avg. Vel. (m/s)		0.68	
Max Chl Dpth (m)	0.50	Hydr. Depth (m)		0.19	
Conv. Total (m3/s)	50.4	Conv. (m3/s)		50.4	
Length Wtd. (m)	347.36	Wetted Per. (m)		24.78	
Min Ch El (m)	854.65	Shear (N/m2)		7.20	
Alpha	1.00	Stream Power (N/m s)		4.92	
Frctn Loss (m)	1.20	Cum Volume (1000 m3)		7.21	
C & E Loss (m)	0.00	Cum SA (1000 m2)		43.79	

Plan: Plan 03 ArroyoValilongo 1 RS: 2089.018 Profile: T=10

E.G. Elev (m)	855.31	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.030	
W.S. Elev (m)	855.27	Reach Len. (m)	251.27	347.36	440.65
Crit W.S. (m)	855.16	Flow Area (m2)		7.90	
E.G. Slope (m/m)	0.003472	Area (m2)		7.90	
Q Total (m3/s)	6.73	Flow (m3/s)		6.73	
Top Width (m)	27.53	Top Width (m)		27.53	
Vel Total (m/s)	0.85	Avg. Vel. (m/s)		0.85	
Max Chl Dpth (m)	0.62	Hydr. Depth (m)		0.29	
Conv. Total (m3/s)	114.2	Conv. (m3/s)		114.2	
Length Wtd. (m)	347.36	Wetted Per. (m)		27.68	
Min Ch El (m)	854.65	Shear (N/m2)		9.72	
Alpha	1.00	Stream Power (N/m s)		8.28	
Frctn Loss (m)	1.20	Cum Volume (1000 m3)	0.03	11.94	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.85	49.59	

Plan: Plan 03 ArroyoValilongo 1 RS: 2089.018 Profile: T=25

E.G. Elev (m)	855.49	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.		0.030	
W.S. Elev (m)	855.44	Reach Len. (m)	251.27	347.36	440.65
Crit W.S. (m)	855.26	Flow Area (m2)		12.91	
E.G. Slope (m/m)	0.003252	Area (m2)		12.91	
Q Total (m3/s)	12.95	Flow (m3/s)		12.95	

Plan: Plan 03 ArroyoValilongo 1 RS: 2089.018 Profile: T=25 (Continued)

Top Width (m)	33.51	Top Width (m)		33.51	
Vel Total (m/s)	1.00	Avg. Vel. (m/s)		1.00	
Max Chl Dpth (m)	0.79	Hydr. Depth (m)		0.39	
Conv. Total (m3/s)	227.1	Conv. (m3/s)		227.1	
Length Wtd. (m)	347.36	Wetted Per. (m)		33.69	
Min Ch El (m)	854.65	Shear (N/m2)		12.22	
Alpha	1.00	Stream Power (N/m s)		12.26	
Frctn Loss (m)	1.20	Cum Volume (1000 m3)	0.18	19.65	
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.57	66.80	

Plan: Plan 03 ArroyoValilongo 1 RS: 2089.018 Profile: T=50

E.G. Elev (m)	855.63	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.030	
W.S. Elev (m)	855.57	Reach Len. (m)	251.27	347.36	440.65
Crit W.S. (m)	855.35	Flow Area (m2)		17.72	
E.G. Slope (m/m)	0.003141	Area (m2)		17.72	
Q Total (m3/s)	18.97	Flow (m3/s)		18.97	
Top Width (m)	40.66	Top Width (m)		40.66	
Vel Total (m/s)	1.07	Avg. Vel. (m/s)		1.07	
Max Chl Dpth (m)	0.92	Hydr. Depth (m)		0.44	
Conv. Total (m3/s)	338.5	Conv. (m3/s)		338.5	
Length Wtd. (m)	347.36	Wetted Per. (m)		40.85	
Min Ch El (m)	854.65	Shear (N/m2)		13.36	
Alpha	1.00	Stream Power (N/m s)		14.30	
Frctn Loss (m)	1.20	Cum Volume (1000 m3)	0.34	26.09	
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.03	77.70	

Plan: Plan 03 ArroyoValilongo 1 RS: 2089.018 Profile: T=100

E.G. Elev (m)	855.76	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.030	
W.S. Elev (m)	855.68	Reach Len. (m)	251.27	347.36	440.65
Crit W.S. (m)	855.47	Flow Area (m2)		22.65	
E.G. Slope (m/m)	0.003054	Area (m2)		22.65	
Q Total (m3/s)	27.08	Flow (m3/s)		27.08	
Top Width (m)	43.09	Top Width (m)		43.09	
Vel Total (m/s)	1.20	Avg. Vel. (m/s)		1.20	
Max Chl Dpth (m)	1.03	Hydr. Depth (m)		0.53	
Conv. Total (m3/s)	490.1	Conv. (m3/s)		490.1	
Length Wtd. (m)	347.23	Wetted Per. (m)		43.31	
Min Ch El (m)	854.65	Shear (N/m2)		15.66	
Alpha	1.00	Stream Power (N/m s)		18.72	
Frctn Loss (m)	1.20	Cum Volume (1000 m3)	0.63	33.12	0.04
C & E Loss (m)	0.00	Cum SA (1000 m2)	3.63	83.85	0.94

Plan: Plan 03 ArroyoValilongo 1 RS: 2089.018 Profile: T=500

E.G. Elev (m)	856.06	Element	Left OB	Channel	Right OB
Vel Head (m)	0.12	Wt. n-Val.	0.030	0.030	
W.S. Elev (m)	855.95	Reach Len. (m)	251.27	347.36	440.65
Crit W.S. (m)	855.68	Flow Area (m2)	0.08	34.27	
E.G. Slope (m/m)	0.003054	Area (m2)	0.08	34.27	
Q Total (m3/s)	52.22	Flow (m3/s)	0.02	52.20	
Top Width (m)	46.38	Top Width (m)	1.04	45.34	
Vel Total (m/s)	1.52	Avg. Vel. (m/s)	0.32	1.52	
Max Chl Dpth (m)	1.29	Hydr. Depth (m)	0.07	0.76	
Conv. Total (m3/s)	944.9	Conv. (m3/s)	0.4	944.5	
Length Wtd. (m)	346.14	Wetted Per. (m)	1.05	45.60	
Min Ch El (m)	854.65	Shear (N/m2)	2.15	22.51	

Plan: Plan 03 ArroyoValilongo 1 RS: 2089.018 Profile: T=500 (Continued)

Alpha	1.00	Stream Power (N/m s)	0.68	34.29	
Frctn Loss (m)	1.21	Cum Volume (1000 m3)	1.87	49.34	0.44
C & E Loss (m)	0.00	Cum SA (1000 m2)	7.54	88.08	2.73

Plan: Plan 03 ArroyoValilongo 1 RS: 1741.656 Profile: T=2

E.G. Elev (m)	853.74	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.030	
W.S. Elev (m)	853.71	Reach Len. (m)	255.86	288.79	264.38
Crit W.S. (m)	853.67	Flow Area (m2)		1.03	
E.G. Slope (m/m)	0.009760	Area (m2)		1.03	
Q Total (m3/s)	0.79	Flow (m3/s)		0.79	
Top Width (m)	9.07	Top Width (m)		9.07	
Vel Total (m/s)	0.77	Avg. Vel. (m/s)		0.77	
Max Chl Dpth (m)	0.37	Hydr. Depth (m)		0.11	
Conv. Total (m3/s)	8.0	Conv. (m3/s)		8.0	
Length Wtd. (m)	288.79	Wetted Per. (m)		9.14	
Min Ch El (m)	853.34	Shear (N/m2)		10.78	
Alpha	1.00	Stream Power (N/m s)		8.28	
Frctn Loss (m)	0.99	Cum Volume (1000 m3)		1.60	
C & E Loss (m)	0.01	Cum SA (1000 m2)		19.38	

Plan: Plan 03 ArroyoValilongo 1 RS: 1741.656 Profile: T=5

E.G. Elev (m)	853.97	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.030	
W.S. Elev (m)	853.95	Reach Len. (m)	255.86	288.79	264.38
Crit W.S. (m)		Flow Area (m2)		4.71	
E.G. Slope (m/m)	0.003057	Area (m2)		4.71	
Q Total (m3/s)	3.16	Flow (m3/s)		3.16	
Top Width (m)	21.34	Top Width (m)		21.34	
Vel Total (m/s)	0.67	Avg. Vel. (m/s)		0.67	
Max Chl Dpth (m)	0.61	Hydr. Depth (m)		0.22	
Conv. Total (m3/s)	57.2	Conv. (m3/s)		57.2	
Length Wtd. (m)	288.79	Wetted Per. (m)		21.46	
Min Ch El (m)	853.34	Shear (N/m2)		6.58	
Alpha	1.00	Stream Power (N/m s)		4.41	
Frctn Loss (m)	1.06	Cum Volume (1000 m3)		5.59	
C & E Loss (m)	0.00	Cum SA (1000 m2)		35.80	

Plan: Plan 03 ArroyoValilongo 1 RS: 1741.656 Profile: T=10

E.G. Elev (m)	854.12	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.030	
W.S. Elev (m)	854.08	Reach Len. (m)	255.86	288.79	264.38
Crit W.S. (m)		Flow Area (m2)		7.70	
E.G. Slope (m/m)	0.003423	Area (m2)		7.70	
Q Total (m3/s)	6.73	Flow (m3/s)		6.73	
Top Width (m)	25.48	Top Width (m)		25.48	
Vel Total (m/s)	0.87	Avg. Vel. (m/s)		0.87	
Max Chl Dpth (m)	0.74	Hydr. Depth (m)		0.30	
Conv. Total (m3/s)	115.0	Conv. (m3/s)		115.0	
Length Wtd. (m)	288.75	Wetted Per. (m)		25.62	
Min Ch El (m)	853.34	Shear (N/m2)		10.08	
Alpha	1.00	Stream Power (N/m s)		8.82	
Frctn Loss (m)	1.09	Cum Volume (1000 m3)	0.03	9.23	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.85	40.39	

Plan: Plan 03 ArroyoValilongo 1 RS: 1741.656 Profile: T=25

E.G. Elev (m)	854.29	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.030	
W.S. Elev (m)	854.22	Reach Len. (m)	255.86	288.79	264.38
Crit W.S. (m)		Flow Area (m2)		11.74	
E.G. Slope (m/m)	0.003698	Area (m2)		11.74	
Q Total (m3/s)	12.95	Flow (m3/s)		12.95	
Top Width (m)	29.06	Top Width (m)		29.06	
Vel Total (m/s)	1.10	Avg. Vel. (m/s)		1.10	
Max Chl Dpth (m)	0.88	Hydr. Depth (m)		0.40	
Conv. Total (m3/s)	213.0	Conv. (m3/s)		213.0	
Length Wtd. (m)	288.47	Wetted Per. (m)		29.24	
Min Ch El (m)	853.34	Shear (N/m2)		14.56	
Alpha	1.00	Stream Power (N/m s)		16.06	
Frctn Loss (m)	1.11	Cum Volume (1000 m3)	0.18	15.36	
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.57	55.93	

Plan: Plan 03 ArroyoValilongo 1 RS: 1741.656 Profile: T=50

E.G. Elev (m)	854.42	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.030	
W.S. Elev (m)	854.34	Reach Len. (m)	255.86	288.79	264.38
Crit W.S. (m)		Flow Area (m2)		15.48	
E.G. Slope (m/m)	0.003843	Area (m2)		15.48	
Q Total (m3/s)	18.97	Flow (m3/s)		18.97	
Top Width (m)	33.72	Top Width (m)		33.72	
Vel Total (m/s)	1.23	Avg. Vel. (m/s)		1.23	
Max Chl Dpth (m)	1.00	Hydr. Depth (m)		0.46	
Conv. Total (m3/s)	306.0	Conv. (m3/s)		306.0	
Length Wtd. (m)	288.23	Wetted Per. (m)		33.92	
Min Ch El (m)	853.34	Shear (N/m2)		17.20	
Alpha	1.00	Stream Power (N/m s)		21.08	
Frctn Loss (m)	1.14	Cum Volume (1000 m3)	0.34	20.32	
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.03	64.78	

Plan: Plan 03 ArroyoValilongo 1 RS: 1741.656 Profile: T=100

E.G. Elev (m)	854.56	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.	0.030	0.030	
W.S. Elev (m)	854.46	Reach Len. (m)	255.86	288.79	264.38
Crit W.S. (m)		Flow Area (m2)	0.23	19.66	
E.G. Slope (m/m)	0.003936	Area (m2)	0.23	19.66	
Q Total (m3/s)	27.08	Flow (m3/s)	0.07	27.01	
Top Width (m)	40.52	Top Width (m)	3.77	36.75	
Vel Total (m/s)	1.36	Avg. Vel. (m/s)	0.32	1.37	
Max Chl Dpth (m)	1.12	Hydr. Depth (m)	0.06	0.54	
Conv. Total (m3/s)	431.6	Conv. (m3/s)	1.2	430.4	
Length Wtd. (m)	287.98	Wetted Per. (m)	3.77	36.96	
Min Ch El (m)	853.34	Shear (N/m2)	2.34	20.54	
Alpha	1.02	Stream Power (N/m s)	0.76	28.21	
Frctn Loss (m)	1.16	Cum Volume (1000 m3)	0.60	25.77	0.04
C & E Loss (m)	0.00	Cum SA (1000 m2)	3.16	69.99	0.94

Plan: Plan 03 ArroyoValilongo 1 RS: 1741.656 Profile: T=500

E.G. Elev (m)	854.86	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	854.70	Reach Len. (m)	255.86	288.79	264.38
Crit W.S. (m)		Flow Area (m2)	2.39	28.69	0.35
E.G. Slope (m/m)	0.004010	Area (m2)	2.39	28.69	0.35
Q Total (m3/s)	52.22	Flow (m3/s)	1.47	50.58	0.17

Plan: Plan 03 ArroyoValilongo 1 RS: 1741.656 Profile: T=500 (Continued)

Top Width (m)	55.58	Top Width (m)	15.14	37.36	3.08
Vel Total (m/s)	1.66	Avg. Vel. (m/s)	0.62	1.76	0.50
Max Chl Dpth (m)	1.36	Hydr. Depth (m)	0.16	0.77	0.11
Conv. Total (m3/s)	824.7	Conv. (m3/s)	23.2	798.7	2.7
Length Wtd. (m)	286.86	Wetted Per. (m)	15.15	37.57	3.09
Min Ch El (m)	853.34	Shear (N/m2)	6.19	30.02	4.47
Alpha	1.09	Stream Power (N/m s)	3.81	52.93	2.21
Frctn Loss (m)	1.18	Cum Volume (1000 m3)	1.56	38.41	0.37
C & E Loss (m)	0.00	Cum SA (1000 m2)	5.51	73.72	2.06

Plan: Plan 03 ArroyoValilongo 1 RS: 1452.866 Profile: T=2

E.G. Elev (m)	852.75	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.		0.030	
W.S. Elev (m)	852.74	Reach Len. (m)	440.30	393.54	296.57
Crit W.S. (m)		Flow Area (m2)		1.88	
E.G. Slope (m/m)	0.001728	Area (m2)		1.88	
Q Total (m3/s)	0.79	Flow (m3/s)		0.79	
Top Width (m)	11.09	Top Width (m)		11.09	
Vel Total (m/s)	0.42	Avg. Vel. (m/s)		0.42	
Max Chl Dpth (m)	0.54	Hydr. Depth (m)		0.17	
Conv. Total (m3/s)	19.0	Conv. (m3/s)		19.0	
Length Wtd. (m)	393.54	Wetted Per. (m)		11.20	
Min Ch El (m)	852.20	Shear (N/m2)		2.84	
Alpha	1.00	Stream Power (N/m s)		1.20	
Frctn Loss (m)	1.69	Cum Volume (1000 m3)		1.18	
C & E Loss (m)	0.00	Cum SA (1000 m2)		16.46	

Plan: Plan 03 ArroyoValilongo 1 RS: 1452.866 Profile: T=5

E.G. Elev (m)	852.91	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.030	
W.S. Elev (m)	852.89	Reach Len. (m)	440.30	393.54	296.57
Crit W.S. (m)	852.78	Flow Area (m2)		4.78	
E.G. Slope (m/m)	0.004474	Area (m2)		4.78	
Q Total (m3/s)	3.16	Flow (m3/s)		3.16	
Top Width (m)	29.44	Top Width (m)		29.44	
Vel Total (m/s)	0.66	Avg. Vel. (m/s)		0.66	
Max Chl Dpth (m)	0.69	Hydr. Depth (m)		0.16	
Conv. Total (m3/s)	47.2	Conv. (m3/s)		47.2	
Length Wtd. (m)	393.54	Wetted Per. (m)		29.55	
Min Ch El (m)	852.20	Shear (N/m2)		7.09	
Alpha	1.00	Stream Power (N/m s)		4.69	
Frctn Loss (m)	1.73	Cum Volume (1000 m3)		4.22	
C & E Loss (m)	0.00	Cum SA (1000 m2)		28.47	

Plan: Plan 03 ArroyoValilongo 1 RS: 1452.866 Profile: T=10

E.G. Elev (m)	853.03	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.	0.030	0.030	
W.S. Elev (m)	852.99	Reach Len. (m)	440.30	393.54	296.57
Crit W.S. (m)	852.90	Flow Area (m2)	0.08	8.00	
E.G. Slope (m/m)	0.004154	Area (m2)	0.08	8.00	
Q Total (m3/s)	6.73	Flow (m3/s)	0.02	6.71	
Top Width (m)	35.10	Top Width (m)	2.43	32.67	
Vel Total (m/s)	0.83	Avg. Vel. (m/s)	0.22	0.84	
Max Chl Dpth (m)	0.79	Hydr. Depth (m)	0.03	0.24	
Conv. Total (m3/s)	104.4	Conv. (m3/s)	0.3	104.1	
Length Wtd. (m)	393.60	Wetted Per. (m)	2.43	32.79	
Min Ch El (m)	852.20	Shear (N/m2)	1.38	9.94	

Plan: Plan 03 ArroyoValilongo 1 RS: 1452.866 Profile: T=10 (Continued)

Alpha	1.01	Stream Power (N/m s)	0.31	8.34	
Frctn Loss (m)	1.73	Cum Volume (1000 m3)	0.02	6.97	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.53	31.99	

Plan: Plan 03 ArroyoValilongo 1 RS: 1452.866 Profile: T=25

E.G. Elev (m)	853.17	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.	0.030	0.030	
W.S. Elev (m)	853.12	Reach Len. (m)	440.30	393.54	296.57
Crit W.S. (m)		Flow Area (m2)	0.51	12.12	
E.G. Slope (m/m)	0.004033	Area (m2)	0.51	12.12	
Q Total (m3/s)	12.95	Flow (m3/s)	0.26	12.69	
Top Width (m)	39.24	Top Width (m)	4.52	34.72	
Vel Total (m/s)	1.02	Avg. Vel. (m/s)	0.50	1.05	
Max Chl Dpth (m)	0.92	Hydr. Depth (m)	0.11	0.35	
Conv. Total (m3/s)	203.9	Conv. (m3/s)	4.0	199.9	
Length Wtd. (m)	394.00	Wetted Per. (m)	4.52	34.84	
Min Ch El (m)	852.20	Shear (N/m2)	4.49	13.76	
Alpha	1.03	Stream Power (N/m s)	2.23	14.41	
Frctn Loss (m)	1.74	Cum Volume (1000 m3)	0.11	11.92	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.99	46.72	

Plan: Plan 03 ArroyoValilongo 1 RS: 1452.866 Profile: T=50

E.G. Elev (m)	853.28	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.	0.030	0.030	
W.S. Elev (m)	853.21	Reach Len. (m)	440.30	393.54	296.57
Crit W.S. (m)		Flow Area (m2)	0.99	15.39	
E.G. Slope (m/m)	0.004070	Area (m2)	0.99	15.39	
Q Total (m3/s)	18.97	Flow (m3/s)	0.64	18.33	
Top Width (m)	42.40	Top Width (m)	5.82	36.58	
Vel Total (m/s)	1.16	Avg. Vel. (m/s)	0.65	1.19	
Max Chl Dpth (m)	1.01	Hydr. Depth (m)	0.17	0.42	
Conv. Total (m3/s)	297.3	Conv. (m3/s)	10.1	287.3	
Length Wtd. (m)	394.33	Wetted Per. (m)	5.83	36.70	
Min Ch El (m)	852.20	Shear (N/m2)	6.75	16.73	
Alpha	1.03	Stream Power (N/m s)	4.39	19.93	
Frctn Loss (m)	1.76	Cum Volume (1000 m3)	0.22	15.86	
C & E Loss (m)	0.01	Cum SA (1000 m2)	1.28	54.63	

Plan: Plan 03 ArroyoValilongo 1 RS: 1452.866 Profile: T=100

E.G. Elev (m)	853.40	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	853.30	Reach Len. (m)	440.30	393.54	296.57
Crit W.S. (m)		Flow Area (m2)	1.63	18.94	0.13
E.G. Slope (m/m)	0.004102	Area (m2)	1.63	18.94	0.13
Q Total (m3/s)	27.08	Flow (m3/s)	1.24	25.81	0.03
Top Width (m)	48.08	Top Width (m)	7.68	37.04	3.36
Vel Total (m/s)	1.31	Avg. Vel. (m/s)	0.76	1.36	0.24
Max Chl Dpth (m)	1.10	Hydr. Depth (m)	0.21	0.51	0.04
Conv. Total (m3/s)	422.8	Conv. (m3/s)	19.4	403.0	0.5
Length Wtd. (m)	394.56	Wetted Per. (m)	7.69	37.16	3.36
Min Ch El (m)	852.20	Shear (N/m2)	8.55	20.50	1.51
Alpha	1.05	Stream Power (N/m s)	6.49	27.93	0.36
Frctn Loss (m)	1.79	Cum Volume (1000 m3)	0.36	20.20	0.02
C & E Loss (m)	0.01	Cum SA (1000 m2)	1.69	59.33	0.50

Plan: Plan 03 ArroyoValilongo 1 RS: 1452.866 Profile: T=500

E.G. Elev (m)	853.67	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	853.52	Reach Len. (m)	440.30	393.54	296.57
Crit W.S. (m)	853.37	Flow Area (m2)	3.61	27.05	1.14
E.G. Slope (m/m)	0.004237	Area (m2)	3.61	27.05	1.14
Q Total (m3/s)	52.22	Flow (m3/s)	3.90	47.49	0.83
Top Width (m)	53.19	Top Width (m)	10.27	37.04	5.88
Vel Total (m/s)	1.64	Avg. Vel. (m/s)	1.08	1.76	0.73
Max Chl Dpth (m)	1.32	Hydr. Depth (m)	0.35	0.73	0.19
Conv. Total (m3/s)	802.2	Conv. (m3/s)	59.9	729.6	12.7
Length Wtd. (m)	394.52	Wetted Per. (m)	10.29	37.16	5.89
Min Ch El (m)	852.20	Shear (N/m2)	14.58	30.24	8.05
Alpha	1.08	Stream Power (N/m s)	15.75	53.10	5.85
Frctn Loss (m)	1.87	Cum Volume (1000 m3)	0.79	30.36	0.17
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.26	62.97	0.87

Plan: Plan 03 ArroyoValilongo 1 RS: 1059.325 Profile: T=2

E.G. Elev (m)	851.05	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.030	
W.S. Elev (m)	851.02	Reach Len. (m)	520.40	584.02	569.02
Crit W.S. (m)	851.02	Flow Area (m2)		1.02	
E.G. Slope (m/m)	0.024013	Area (m2)		1.02	
Q Total (m3/s)	0.79	Flow (m3/s)		0.79	
Top Width (m)	17.74	Top Width (m)		17.74	
Vel Total (m/s)	0.77	Avg. Vel. (m/s)		0.77	
Max Chl Dpth (m)	0.11	Hydr. Depth (m)		0.06	
Conv. Total (m3/s)	5.1	Conv. (m3/s)		5.1	
Length Wtd. (m)		Wetted Per. (m)		17.75	
Min Ch El (m)	850.91	Shear (N/m2)		13.59	
Alpha	1.00	Stream Power (N/m s)		10.48	
Frctn Loss (m)		Cum Volume (1000 m3)		0.61	
C & E Loss (m)		Cum SA (1000 m2)		10.79	

Plan: Plan 03 ArroyoValilongo 1 RS: 1059.325 Profile: T=5

E.G. Elev (m)	851.19	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.030	
W.S. Elev (m)	851.17	Reach Len. (m)	520.40	584.02	569.02
Crit W.S. (m)	851.11	Flow Area (m2)		4.98	
E.G. Slope (m/m)	0.004301	Area (m2)		4.98	
Q Total (m3/s)	3.16	Flow (m3/s)		3.16	
Top Width (m)	31.76	Top Width (m)		31.76	
Vel Total (m/s)	0.64	Avg. Vel. (m/s)		0.64	
Max Chl Dpth (m)	0.26	Hydr. Depth (m)		0.16	
Conv. Total (m3/s)	48.2	Conv. (m3/s)		48.2	
Length Wtd. (m)	584.02	Wetted Per. (m)		31.78	
Min Ch El (m)	850.91	Shear (N/m2)		6.60	
Alpha	1.00	Stream Power (N/m s)		4.19	
Frctn Loss (m)	4.57	Cum Volume (1000 m3)		2.30	
C & E Loss (m)	0.00	Cum SA (1000 m2)		16.42	

Plan: Plan 03 ArroyoValilongo 1 RS: 1059.325 Profile: T=10

E.G. Elev (m)	851.30	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.030	
W.S. Elev (m)	851.26	Reach Len. (m)	520.40	584.02	569.02
Crit W.S. (m)	851.18	Flow Area (m2)		8.07	
E.G. Slope (m/m)	0.004685	Area (m2)		8.07	
Q Total (m3/s)	6.73	Flow (m3/s)		6.73	

Plan: Plan 03 ArroyoValilongo 1 RS: 1059.325 Profile: T=10 (Continued)

Top Width (m)	36.54	Top Width (m)		36.54	
Vel Total (m/s)	0.83	Avg. Vel. (m/s)		0.83	
Max Chl Dpth (m)	0.35	Hydr. Depth (m)		0.22	
Conv. Total (m3/s)	98.3	Conv. (m3/s)		98.3	
Length Wtd. (m)	584.02	Wetted Per. (m)		36.56	
Min Ch El (m)	850.91	Shear (N/m2)		10.15	
Alpha	1.00	Stream Power (N/m s)		8.46	
Frctn Loss (m)	4.56	Cum Volume (1000 m3)		3.80	
C & E Loss (m)	0.01	Cum SA (1000 m2)		18.37	

Plan: Plan 03 ArroyoValilongo 1 RS: 1059.325 Profile: T=25

E.G. Elev (m)	851.43	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.030	
W.S. Elev (m)	851.39	Reach Len. (m)	520.40	584.02	569.02
Crit W.S. (m)		Flow Area (m2)		14.41	
E.G. Slope (m/m)	0.004836	Area (m2)		14.41	
Q Total (m3/s)	12.95	Flow (m3/s)		12.95	
Top Width (m)	59.66	Top Width (m)		59.66	
Vel Total (m/s)	0.90	Avg. Vel. (m/s)		0.90	
Max Chl Dpth (m)	0.48	Hydr. Depth (m)		0.24	
Conv. Total (m3/s)	186.2	Conv. (m3/s)		186.2	
Length Wtd. (m)	584.02	Wetted Per. (m)		59.70	
Min Ch El (m)	850.91	Shear (N/m2)		11.45	
Alpha	1.00	Stream Power (N/m s)		10.29	
Frctn Loss (m)	4.55	Cum Volume (1000 m3)		6.70	
C & E Loss (m)	0.01	Cum SA (1000 m2)		28.15	

Plan: Plan 03 ArroyoValilongo 1 RS: 1059.325 Profile: T=50

E.G. Elev (m)	851.51	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.		0.030	
W.S. Elev (m)	851.46	Reach Len. (m)	520.40	584.02	569.02
Crit W.S. (m)		Flow Area (m2)		19.28	
E.G. Slope (m/m)	0.004913	Area (m2)		19.28	
Q Total (m3/s)	18.97	Flow (m3/s)		18.97	
Top Width (m)	70.48	Top Width (m)		70.48	
Vel Total (m/s)	0.98	Avg. Vel. (m/s)		0.98	
Max Chl Dpth (m)	0.55	Hydr. Depth (m)		0.27	
Conv. Total (m3/s)	270.6	Conv. (m3/s)		270.6	
Length Wtd. (m)	584.02	Wetted Per. (m)		70.52	
Min Ch El (m)	850.91	Shear (N/m2)		13.17	
Alpha	1.00	Stream Power (N/m s)		12.96	
Frctn Loss (m)	4.53	Cum Volume (1000 m3)		9.04	
C & E Loss (m)	0.01	Cum SA (1000 m2)		33.56	

Plan: Plan 03 ArroyoValilongo 1 RS: 1059.325 Profile: T=100

E.G. Elev (m)	851.60	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.030	
W.S. Elev (m)	851.53	Reach Len. (m)	520.40	584.02	569.02
Crit W.S. (m)		Flow Area (m2)		24.51	
E.G. Slope (m/m)	0.005044	Area (m2)		24.51	
Q Total (m3/s)	27.08	Flow (m3/s)		27.08	
Top Width (m)	76.86	Top Width (m)		76.86	
Vel Total (m/s)	1.10	Avg. Vel. (m/s)		1.10	
Max Chl Dpth (m)	0.62	Hydr. Depth (m)		0.32	
Conv. Total (m3/s)	381.3	Conv. (m3/s)		381.3	
Length Wtd. (m)	584.02	Wetted Per. (m)		76.91	
Min Ch El (m)	850.91	Shear (N/m2)		15.77	

Plan: Plan 03 ArroyoValilongo 1 RS: 1059.325 Profile: T=100 (Continued)

Alpha	1.00	Stream Power (N/m s)		17.42	
Frctn Loss (m)	4.52	Cum Volume (1000 m3)		11.65	
C & E Loss (m)	0.01	Cum SA (1000 m2)		36.92	

Plan: Plan 03 ArroyoValilongo 1 RS: 1059.325 Profile: T=500

E.G. Elev (m)	851.79	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.030	
W.S. Elev (m)	851.69	Reach Len. (m)	520.40	584.02	569.02
Crit W.S. (m)		Flow Area (m2)		36.40	
E.G. Slope (m/m)	0.005330	Area (m2)		36.40	
Q Total (m3/s)	52.22	Flow (m3/s)		52.22	
Top Width (m)	80.38	Top Width (m)		80.38	
Vel Total (m/s)	1.43	Avg. Vel. (m/s)		1.43	
Max Chl Dpth (m)	0.78	Hydr. Depth (m)		0.45	
Conv. Total (m3/s)	715.3	Conv. (m3/s)		715.3	
Length Wtd. (m)	584.02	Wetted Per. (m)		80.43	
Min Ch El (m)	850.91	Shear (N/m2)		23.65	
Alpha	1.00	Stream Power (N/m s)		33.93	
Frctn Loss (m)	4.46	Cum Volume (1000 m3)		17.88	
C & E Loss (m)	0.01	Cum SA (1000 m2)		39.87	

Plan: Plan 03 ArroyoValilongo 1 RS: 53.98827 Profile: T=2

E.G. Elev (m)	846.50	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.030	
W.S. Elev (m)	846.48	Reach Len. (m)			
Crit W.S. (m)	846.48	Flow Area (m2)		1.07	
E.G. Slope (m/m)	0.022799	Area (m2)		1.07	
Q Total (m3/s)	0.79	Flow (m3/s)		0.79	
Top Width (m)	19.21	Top Width (m)		19.21	
Vel Total (m/s)	0.74	Avg. Vel. (m/s)		0.74	
Max Chl Dpth (m)	0.12	Hydr. Depth (m)		0.06	
Conv. Total (m3/s)	5.2	Conv. (m3/s)		5.2	
Length Wtd. (m)		Wetted Per. (m)		19.22	
Min Ch El (m)	846.36	Shear (N/m2)		12.49	
Alpha	1.00	Stream Power (N/m s)		9.19	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 03 ArroyoValilongo 1 RS: 53.98827 Profile: T=5

E.G. Elev (m)	846.62	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.030	
W.S. Elev (m)	846.56	Reach Len. (m)			
Crit W.S. (m)	846.56	Flow Area (m2)		2.90	
E.G. Slope (m/m)	0.018414	Area (m2)		2.90	
Q Total (m3/s)	3.16	Flow (m3/s)		3.16	
Top Width (m)	24.48	Top Width (m)		24.48	
Vel Total (m/s)	1.09	Avg. Vel. (m/s)		1.09	
Max Chl Dpth (m)	0.20	Hydr. Depth (m)		0.12	
Conv. Total (m3/s)	23.3	Conv. (m3/s)		23.3	
Length Wtd. (m)		Wetted Per. (m)		24.49	
Min Ch El (m)	846.36	Shear (N/m2)		21.37	
Alpha	1.00	Stream Power (N/m s)		23.30	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 03 ArroyoValilongo 1 RS: 53.98827 Profile: T=10

E.G. Elev (m)	846.73	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.030	
W.S. Elev (m)	846.64	Reach Len. (m)			
Crit W.S. (m)	846.64	Flow Area (m2)		4.95	
E.G. Slope (m/m)	0.015532	Area (m2)		4.95	
Q Total (m3/s)	6.73	Flow (m3/s)		6.73	
Top Width (m)	26.39	Top Width (m)		26.39	
Vel Total (m/s)	1.36	Avg. Vel. (m/s)		1.36	
Max Chl Dpth (m)	0.28	Hydr. Depth (m)		0.19	
Conv. Total (m3/s)	54.0	Conv. (m3/s)		54.0	
Length Wtd. (m)		Wetted Per. (m)		26.41	
Min Ch El (m)	846.36	Shear (N/m2)		28.54	
Alpha	1.00	Stream Power (N/m s)		38.82	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 03 ArroyoValilongo 1 RS: 53.98827 Profile: T=25

E.G. Elev (m)	846.87	Element	Left OB	Channel	Right OB
Vel Head (m)	0.12	Wt. n-Val.		0.030	
W.S. Elev (m)	846.75	Reach Len. (m)			
Crit W.S. (m)	846.75	Flow Area (m2)		8.53	
E.G. Slope (m/m)	0.014577	Area (m2)		8.53	
Q Total (m3/s)	12.95	Flow (m3/s)		12.95	
Top Width (m)	36.74	Top Width (m)		36.74	
Vel Total (m/s)	1.52	Avg. Vel. (m/s)		1.52	
Max Chl Dpth (m)	0.39	Hydr. Depth (m)		0.23	
Conv. Total (m3/s)	107.3	Conv. (m3/s)		107.3	
Length Wtd. (m)		Wetted Per. (m)		36.77	
Min Ch El (m)	846.36	Shear (N/m2)		33.15	
Alpha	1.00	Stream Power (N/m s)		50.35	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 03 ArroyoValilongo 1 RS: 53.98827 Profile: T=50

E.G. Elev (m)	846.97	Element	Left OB	Channel	Right OB
Vel Head (m)	0.13	Wt. n-Val.		0.030	
W.S. Elev (m)	846.83	Reach Len. (m)			
Crit W.S. (m)	846.83	Flow Area (m2)		11.69	
E.G. Slope (m/m)	0.014068	Area (m2)		11.69	
Q Total (m3/s)	18.97	Flow (m3/s)		18.97	
Top Width (m)	44.46	Top Width (m)		44.46	
Vel Total (m/s)	1.62	Avg. Vel. (m/s)		1.62	
Max Chl Dpth (m)	0.47	Hydr. Depth (m)		0.26	
Conv. Total (m3/s)	159.9	Conv. (m3/s)		159.9	
Length Wtd. (m)		Wetted Per. (m)		44.49	
Min Ch El (m)	846.36	Shear (N/m2)		36.26	
Alpha	1.00	Stream Power (N/m s)		58.82	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 03 ArroyoValilongo 1 RS: 53.98827 Profile: T=100

E.G. Elev (m)	847.07	Element	Left OB	Channel	Right OB
Vel Head (m)	0.16	Wt. n-Val.		0.030	
W.S. Elev (m)	846.91	Reach Len. (m)			
Crit W.S. (m)	846.91	Flow Area (m2)		15.37	
E.G. Slope (m/m)	0.013330	Area (m2)		15.37	
Q Total (m3/s)	27.08	Flow (m3/s)		27.08	

Plan: Plan 03 ArroyoValilongo 1 RS: 53.98827 Profile: T=100 (Continued)

Top Width (m)	49.56	Top Width (m)		49.56	
Vel Total (m/s)	1.76	Avg. Vel. (m/s)		1.76	
Max Chl Dpth (m)	0.55	Hydr. Depth (m)		0.31	
Conv. Total (m3/s)	234.5	Conv. (m3/s)		234.5	
Length Wtd. (m)		Wetted Per. (m)		49.60	
Min Ch El (m)	846.36	Shear (N/m2)		40.50	
Alpha	1.00	Stream Power (N/m s)		71.37	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 03 ArroyoValilongo 1 RS: 53.98827 Profile: T=500

E.G. Elev (m)	847.32	Element	Left OB	Channel	Right OB
Vel Head (m)	0.23	Wt. n-Val.		0.030	
W.S. Elev (m)	847.09	Reach Len. (m)			
Crit W.S. (m)	847.09	Flow Area (m2)		24.81	
E.G. Slope (m/m)	0.011855	Area (m2)		24.81	
Q Total (m3/s)	52.22	Flow (m3/s)		52.22	
Top Width (m)	56.16	Top Width (m)		56.16	
Vel Total (m/s)	2.10	Avg. Vel. (m/s)		2.10	
Max Chl Dpth (m)	0.73	Hydr. Depth (m)		0.44	
Conv. Total (m3/s)	479.6	Conv. (m3/s)		479.6	
Length Wtd. (m)		Wetted Per. (m)		56.20	
Min Ch El (m)	846.36	Shear (N/m2)		51.33	
Alpha	1.00	Stream Power (N/m s)		108.01	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 07 ArroyoValdepozue 1 RS: 1943.569 Profile: T=2

E.G. Elev (m)	852.82	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.		0.030	
W.S. Elev (m)	852.81	Reach Len. (m)	420.55	366.25	274.25
Crit W.S. (m)	852.79	Flow Area (m2)		1.48	
E.G. Slope (m/m)	0.010110	Area (m2)		1.48	
Q Total (m3/s)	0.79	Flow (m3/s)		0.79	
Top Width (m)	23.40	Top Width (m)		23.40	
Vel Total (m/s)	0.53	Avg. Vel. (m/s)		0.53	
Max Chl Dpth (m)	0.29	Hydr. Depth (m)		0.06	
Conv. Total (m3/s)	7.9	Conv. (m3/s)		7.9	
Length Wtd. (m)	366.25	Wetted Per. (m)		23.44	
Min Ch El (m)	852.52	Shear (N/m2)		6.28	
Alpha	1.00	Stream Power (N/m s)		3.34	
Frctn Loss (m)	1.82	Cum Volume (1000 m3)	0.00	2.79	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.30	34.33	

Plan: Plan 07 ArroyoValdepozue 1 RS: 1943.569 Profile: T=5

E.G. Elev (m)	852.92	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.030	
W.S. Elev (m)	852.87	Reach Len. (m)	420.55	366.25	274.25
Crit W.S. (m)	852.87	Flow Area (m2)		3.37	
E.G. Slope (m/m)	0.016999	Area (m2)		3.37	
Q Total (m3/s)	3.16	Flow (m3/s)		3.16	
Top Width (m)	33.66	Top Width (m)		33.66	
Vel Total (m/s)	0.94	Avg. Vel. (m/s)		0.94	
Max Chl Dpth (m)	0.35	Hydr. Depth (m)		0.10	
Conv. Total (m3/s)	24.2	Conv. (m3/s)		24.2	
Length Wtd. (m)	366.25	Wetted Per. (m)		33.71	
Min Ch El (m)	852.52	Shear (N/m2)		16.68	
Alpha	1.00	Stream Power (N/m s)		15.62	
Frctn Loss (m)	1.79	Cum Volume (1000 m3)	0.20	7.73	0.01
C & E Loss (m)	0.01	Cum SA (1000 m2)	4.11	54.32	0.29

Plan: Plan 07 ArroyoValdepozue 1 RS: 1943.569 Profile: T=10

E.G. Elev (m)	853.01	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.030	
W.S. Elev (m)	852.94	Reach Len. (m)	420.55	366.25	274.25
Crit W.S. (m)	852.93	Flow Area (m2)		5.86	
E.G. Slope (m/m)	0.014303	Area (m2)		5.86	
Q Total (m3/s)	6.73	Flow (m3/s)		6.73	
Top Width (m)	37.84	Top Width (m)		37.84	
Vel Total (m/s)	1.15	Avg. Vel. (m/s)		1.15	
Max Chl Dpth (m)	0.42	Hydr. Depth (m)		0.15	
Conv. Total (m3/s)	56.3	Conv. (m3/s)		56.3	
Length Wtd. (m)	366.25	Wetted Per. (m)		37.90	
Min Ch El (m)	852.52	Shear (N/m2)		21.69	
Alpha	1.00	Stream Power (N/m s)		24.91	
Frctn Loss (m)	1.79	Cum Volume (1000 m3)	0.70	12.65	0.07
C & E Loss (m)	0.02	Cum SA (1000 m2)	7.18	62.05	1.52

Plan: Plan 07 ArroyoValdepozue 1 RS: 1943.569 Profile: T=25

E.G. Elev (m)	853.13	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.030	0.030
W.S. Elev (m)	853.03	Reach Len. (m)	420.55	366.25	274.25
Crit W.S. (m)	853.02	Flow Area (m2)		9.22	0.05
E.G. Slope (m/m)	0.012376	Area (m2)		9.22	0.05
Q Total (m3/s)	12.95	Flow (m3/s)		12.93	0.02

Plan: Plan 07 ArroyoValdepozue 1 RS: 1943.569 Profile: T=25 (Continued)

Top Width (m)	41.12	Top Width (m)		39.57	1.55
Vel Total (m/s)	1.40	Avg. Vel. (m/s)		1.40	0.39
Max Chl Dpth (m)	0.51	Hydr. Depth (m)		0.23	0.03
Conv. Total (m3/s)	116.4	Conv. (m3/s)		116.2	0.2
Length Wtd. (m)	366.24	Wetted Per. (m)		39.63	1.55
Min Ch El (m)	852.52	Shear (N/m2)		28.23	4.21
Alpha	1.01	Stream Power (N/m s)		39.59	1.66
Frctn Loss (m)	1.80	Cum Volume (1000 m3)	1.59	18.90	0.35
C & E Loss (m)	0.02	Cum SA (1000 m2)	11.81	65.93	4.68

Plan: Plan 07 ArroyoValdepozue 1 RS: 1943.569 Profile: T=50

E.G. Elev (m)	853.22	Element	Left OB	Channel	Right OB
Vel Head (m)	0.14	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	853.08	Reach Len. (m)	420.55	366.25	274.25
Crit W.S. (m)	853.08	Flow Area (m2)	0.00	11.27	0.16
E.G. Slope (m/m)	0.013693	Area (m2)	0.00	11.27	0.16
Q Total (m3/s)	18.97	Flow (m3/s)	0.00	18.87	0.10
Top Width (m)	42.89	Top Width (m)	0.20	40.00	2.69
Vel Total (m/s)	1.66	Avg. Vel. (m/s)	0.12	1.67	0.60
Max Chl Dpth (m)	0.56	Hydr. Depth (m)	0.01	0.28	0.06
Conv. Total (m3/s)	162.1	Conv. (m3/s)	0.0	161.3	0.8
Length Wtd. (m)	366.22	Wetted Per. (m)	0.20	40.06	2.69
Min Ch El (m)	852.52	Shear (N/m2)	0.74	37.77	8.12
Alpha	1.01	Stream Power (N/m s)	0.09	63.26	4.88
Frctn Loss (m)		Cum Volume (1000 m3)	2.51	23.54	0.76
C & E Loss (m)		Cum SA (1000 m2)	15.15	67.13	6.15

Plan: Plan 07 ArroyoValdepozue 1 RS: 1943.569 Profile: T=100

E.G. Elev (m)	853.33	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	853.16	Reach Len. (m)	420.55	366.25	274.25
Crit W.S. (m)	853.16	Flow Area (m2)	0.08	14.47	0.45
E.G. Slope (m/m)	0.011914	Area (m2)	0.08	14.47	0.45
Q Total (m3/s)	27.08	Flow (m3/s)	0.03	26.69	0.35
Top Width (m)	46.07	Top Width (m)	1.65	40.00	4.42
Vel Total (m/s)	1.81	Avg. Vel. (m/s)	0.46	1.85	0.79
Max Chl Dpth (m)	0.64	Hydr. Depth (m)	0.05	0.36	0.10
Conv. Total (m3/s)	248.1	Conv. (m3/s)	0.3	244.5	3.2
Length Wtd. (m)	366.18	Wetted Per. (m)	1.65	40.06	4.42
Min Ch El (m)	852.52	Shear (N/m2)	5.30	42.19	11.84
Alpha	1.03	Stream Power (N/m s)	2.46	77.84	9.37
Frctn Loss (m)	1.80	Cum Volume (1000 m3)	3.82	28.83	1.37
C & E Loss (m)	0.04	Cum SA (1000 m2)	18.07	67.42	8.92

Plan: Plan 07 ArroyoValdepozue 1 RS: 1943.569 Profile: T=500

E.G. Elev (m)	853.60	Element	Left OB	Channel	Right OB
Vel Head (m)	0.23	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	853.36	Reach Len. (m)	420.55	366.25	274.25
Crit W.S. (m)	853.36	Flow Area (m2)	1.19	22.53	1.76
E.G. Slope (m/m)	0.009274	Area (m2)	1.19	22.53	1.76
Q Total (m3/s)	52.22	Flow (m3/s)	1.02	49.28	1.92
Top Width (m)	57.58	Top Width (m)	8.65	40.00	8.93
Vel Total (m/s)	2.05	Avg. Vel. (m/s)	0.86	2.19	1.09
Max Chl Dpth (m)	0.84	Hydr. Depth (m)	0.14	0.56	0.20
Conv. Total (m3/s)	542.3	Conv. (m3/s)	10.6	511.7	19.9
Length Wtd. (m)	365.99	Wetted Per. (m)	8.66	40.06	8.94
Min Ch El (m)	852.52	Shear (N/m2)	12.55	51.15	17.96

Plan: Plan 07 ArroyoValdepozue 1 RS: 1943.569 Profile: T=500 (Continued)

Alpha	1.09	Stream Power (N/m s)	10.75	111.86	19.55
Frctn Loss (m)	1.64	Cum Volume (1000 m3)	7.67	41.60	3.76
C & E Loss (m)	0.05	Cum SA (1000 m2)	23.27	67.42	15.14

Plan: Plan 07 ArroyoValdepozue 1 RS: 1577.324 Profile: T=2

E.G. Elev (m)	851.00	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.		0.030	
W.S. Elev (m)	850.99	Reach Len. (m)	353.19	389.20	406.51
Crit W.S. (m)		Flow Area (m2)		2.53	
E.G. Slope (m/m)	0.002953	Area (m2)		2.53	
Q Total (m3/s)	0.79	Flow (m3/s)		0.79	
Top Width (m)	35.19	Top Width (m)		35.19	
Vel Total (m/s)	0.31	Avg. Vel. (m/s)		0.31	
Max Chl Dpth (m)	0.14	Hydr. Depth (m)		0.07	
Conv. Total (m3/s)	14.5	Conv. (m3/s)		14.5	
Length Wtd. (m)	389.19	Wetted Per. (m)		35.19	
Min Ch El (m)	850.85	Shear (N/m2)		2.08	
Alpha	1.00	Stream Power (N/m s)		0.65	
Frctn Loss (m)	1.66	Cum Volume (1000 m3)	0.00	2.06	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.30	23.60	

Plan: Plan 07 ArroyoValdepozue 1 RS: 1577.324 Profile: T=5

E.G. Elev (m)	851.11	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.		0.030	
W.S. Elev (m)	851.10	Reach Len. (m)	353.19	389.20	406.51
Crit W.S. (m)		Flow Area (m2)		7.22	
E.G. Slope (m/m)	0.002289	Area (m2)		7.22	
Q Total (m3/s)	3.16	Flow (m3/s)		3.16	
Top Width (m)	50.23	Top Width (m)		50.23	
Vel Total (m/s)	0.44	Avg. Vel. (m/s)		0.44	
Max Chl Dpth (m)	0.25	Hydr. Depth (m)		0.14	
Conv. Total (m3/s)	66.1	Conv. (m3/s)		66.1	
Length Wtd. (m)	387.65	Wetted Per. (m)		50.25	
Min Ch El (m)	850.85	Shear (N/m2)		3.23	
Alpha	1.00	Stream Power (N/m s)		1.41	
Frctn Loss (m)	1.62	Cum Volume (1000 m3)	0.20	5.79	0.01
C & E Loss (m)	0.00	Cum SA (1000 m2)	4.11	38.96	0.29

Plan: Plan 07 ArroyoValdepozue 1 RS: 1577.324 Profile: T=10

E.G. Elev (m)	851.21	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.030	
W.S. Elev (m)	851.19	Reach Len. (m)	353.19	389.20	406.51
Crit W.S. (m)		Flow Area (m2)		11.99	
E.G. Slope (m/m)	0.002431	Area (m2)		11.99	
Q Total (m3/s)	6.73	Flow (m3/s)		6.73	
Top Width (m)	60.04	Top Width (m)		60.04	
Vel Total (m/s)	0.56	Avg. Vel. (m/s)		0.56	
Max Chl Dpth (m)	0.34	Hydr. Depth (m)		0.20	
Conv. Total (m3/s)	136.5	Conv. (m3/s)		136.5	
Length Wtd. (m)	386.48	Wetted Per. (m)		60.06	
Min Ch El (m)	850.85	Shear (N/m2)		4.76	
Alpha	1.00	Stream Power (N/m s)		2.67	
Frctn Loss (m)	1.60	Cum Volume (1000 m3)	0.70	9.38	0.07
C & E Loss (m)	0.00	Cum SA (1000 m2)	7.18	44.13	1.52

Plan: Plan 07 ArroyoValdepozue 1 RS: 1577.324 Profile: T=25

E.G. Elev (m)	851.31	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.	0.030	0.030	
W.S. Elev (m)	851.29	Reach Len. (m)	353.19	389.20	406.51
Crit W.S. (m)	851.15	Flow Area (m2)	0.15	18.01	
E.G. Slope (m/m)	0.002612	Area (m2)	0.15	18.01	
Q Total (m3/s)	12.95	Flow (m3/s)	0.03	12.92	
Top Width (m)	69.80	Top Width (m)	3.95	65.85	
Vel Total (m/s)	0.71	Avg. Vel. (m/s)	0.19	0.72	
Max Chl Dpth (m)	0.44	Hydr. Depth (m)	0.04	0.27	
Conv. Total (m3/s)	253.4	Conv. (m3/s)	0.6	252.8	
Length Wtd. (m)	385.79	Wetted Per. (m)	3.95	65.88	
Min Ch El (m)	850.85	Shear (N/m2)	0.98	7.00	
Alpha	1.01	Stream Power (N/m s)	0.19	5.02	
Frctn Loss (m)	1.58	Cum Volume (1000 m3)	1.56	13.92	0.34
C & E Loss (m)	0.00	Cum SA (1000 m2)	10.98	46.62	4.47

Plan: Plan 07 ArroyoValdepozue 1 RS: 1577.324 Profile: T=50

E.G. Elev (m)	851.39	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.	0.030	0.030	
W.S. Elev (m)	851.36	Reach Len. (m)	353.19	389.20	406.51
Crit W.S. (m)	851.21	Flow Area (m2)	0.54	22.77	
E.G. Slope (m/m)	0.002596	Area (m2)	0.54	22.77	
Q Total (m3/s)	18.97	Flow (m3/s)	0.16	18.81	
Top Width (m)	74.40	Top Width (m)	7.28	67.12	
Vel Total (m/s)	0.81	Avg. Vel. (m/s)	0.30	0.83	
Max Chl Dpth (m)	0.51	Hydr. Depth (m)	0.07	0.34	
Conv. Total (m3/s)	372.3	Conv. (m3/s)	3.2	369.1	
Length Wtd. (m)	385.51	Wetted Per. (m)	7.28	67.15	
Min Ch El (m)	850.85	Shear (N/m2)	1.89	8.63	
Alpha	1.02	Stream Power (N/m s)	0.57	7.13	
Frctn Loss (m)	1.56	Cum Volume (1000 m3)	2.39	17.31	0.74
C & E Loss (m)	0.01	Cum SA (1000 m2)	13.57	47.51	5.79

Plan: Plan 07 ArroyoValdepozue 1 RS: 1577.324 Profile: T=100

E.G. Elev (m)	851.48	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	851.43	Reach Len. (m)	353.19	389.20	406.51
Crit W.S. (m)	851.27	Flow Area (m2)	1.22	27.92	0.06
E.G. Slope (m/m)	0.002666	Area (m2)	1.22	27.92	0.06
Q Total (m3/s)	27.08	Flow (m3/s)	0.51	26.56	0.01
Top Width (m)	80.44	Top Width (m)	10.19	67.89	2.36
Vel Total (m/s)	0.93	Avg. Vel. (m/s)	0.42	0.95	0.15
Max Chl Dpth (m)	0.58	Hydr. Depth (m)	0.12	0.41	0.03
Conv. Total (m3/s)	524.5	Conv. (m3/s)	9.9	514.5	0.2
Length Wtd. (m)	385.20	Wetted Per. (m)	10.19	67.92	2.36
Min Ch El (m)	850.85	Shear (N/m2)	3.13	10.74	0.68
Alpha	1.04	Stream Power (N/m s)	1.31	10.22	0.10
Frctn Loss (m)	1.54	Cum Volume (1000 m3)	3.55	21.06	1.30
C & E Loss (m)	0.01	Cum SA (1000 m2)	15.58	47.66	7.99

Plan: Plan 07 ArroyoValdepozue 1 RS: 1577.324 Profile: T=500

E.G. Elev (m)	851.69	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	851.62	Reach Len. (m)	353.19	389.20	406.51
Crit W.S. (m)	851.42	Flow Area (m2)	3.53	40.69	0.80
E.G. Slope (m/m)	0.002637	Area (m2)	3.53	40.69	0.80
Q Total (m3/s)	52.22	Flow (m3/s)	2.36	49.50	0.37

Plan: Plan 07 ArroyoValdepozue 1 RS: 1577.324 Profile: T=500 (Continued)

Top Width (m)	88.21	Top Width (m)	14.50	67.89	5.82
Vel Total (m/s)	1.16	Avg. Vel. (m/s)	0.67	1.22	0.46
Max Chl Dpth (m)	0.77	Hydr. Depth (m)	0.24	0.60	0.14
Conv. Total (m3/s)	1016.9	Conv. (m3/s)	45.9	963.9	7.1
Length Wtd. (m)	384.56	Wetted Per. (m)	14.51	67.92	5.82
Min Ch El (m)	850.85	Shear (N/m2)	6.29	15.49	3.56
Alpha	1.06	Stream Power (N/m s)	4.20	18.85	1.63
Frctn Loss (m)	1.49	Cum Volume (1000 m3)	6.68	30.02	3.41
C & E Loss (m)	0.01	Cum SA (1000 m2)	18.41	47.66	13.12

Plan: Plan 07 ArroyoValdepozue 1 RS: 1188.129 Profile: T=2

E.G. Elev (m)	849.35	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.	0.030	0.030	
W.S. Elev (m)	849.32	Reach Len. (m)	410.50	388.33	299.28
Crit W.S. (m)		Flow Area (m2)	0.01	1.19	
E.G. Slope (m/m)	0.006650	Area (m2)	0.01	1.19	
Q Total (m3/s)	0.79	Flow (m3/s)	0.00	0.79	
Top Width (m)	10.67	Top Width (m)	0.78	9.89	
Vel Total (m/s)	0.66	Avg. Vel. (m/s)	0.10	0.66	
Max Chl Dpth (m)	0.36	Hydr. Depth (m)	0.01	0.12	
Conv. Total (m3/s)	9.7	Conv. (m3/s)	0.0	9.7	
Length Wtd. (m)	388.34	Wetted Per. (m)	0.78	9.93	
Min Ch El (m)	848.96	Shear (N/m2)	0.43	7.83	
Alpha	1.01	Stream Power (N/m s)	0.04	5.18	
Frctn Loss (m)	1.28	Cum Volume (1000 m3)	0.00	1.33	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.16	14.83	

Plan: Plan 07 ArroyoValdepozue 1 RS: 1188.129 Profile: T=5

E.G. Elev (m)	849.49	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.	0.030	0.030	
W.S. Elev (m)	849.45	Reach Len. (m)	410.50	388.33	299.28
Crit W.S. (m)	849.43	Flow Area (m2)	0.47	3.02	
E.G. Slope (m/m)	0.009874	Area (m2)	0.47	3.02	
Q Total (m3/s)	3.16	Flow (m3/s)	0.27	2.89	
Top Width (m)	25.87	Top Width (m)	6.39	19.48	
Vel Total (m/s)	0.90	Avg. Vel. (m/s)	0.58	0.96	
Max Chl Dpth (m)	0.49	Hydr. Depth (m)	0.07	0.16	
Conv. Total (m3/s)	31.8	Conv. (m3/s)	2.7	29.1	
Length Wtd. (m)	389.25	Wetted Per. (m)	6.39	19.52	
Min Ch El (m)	848.96	Shear (N/m2)	7.10	15.00	
Alpha	1.05	Stream Power (N/m s)	4.12	14.33	
Frctn Loss (m)	1.30	Cum Volume (1000 m3)	0.12	3.80	0.01
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.98	25.39	0.29

Plan: Plan 07 ArroyoValdepozue 1 RS: 1188.129 Profile: T=10

E.G. Elev (m)	849.60	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.	0.030	0.030	
W.S. Elev (m)	849.55	Reach Len. (m)	410.50	388.33	299.28
Crit W.S. (m)	849.51	Flow Area (m2)	1.28	5.30	
E.G. Slope (m/m)	0.008591	Area (m2)	1.28	5.30	
Q Total (m3/s)	6.73	Flow (m3/s)	1.02	5.71	
Top Width (m)	35.39	Top Width (m)	9.72	25.67	
Vel Total (m/s)	1.02	Avg. Vel. (m/s)	0.80	1.08	
Max Chl Dpth (m)	0.59	Hydr. Depth (m)	0.13	0.21	
Conv. Total (m3/s)	72.6	Conv. (m3/s)	11.0	61.6	
Length Wtd. (m)	389.79	Wetted Per. (m)	9.73	25.71	
Min Ch El (m)	848.96	Shear (N/m2)	11.05	17.37	

Plan: Plan 07 ArroyoValdepozue 1 RS: 1188.129 Profile: T=10 (Continued)

Alpha	1.03	Stream Power (N/m s)	8.81	18.72	
Frctn Loss (m)	1.32	Cum Volume (1000 m3)	0.47	6.02	0.07
C & E Loss (m)	0.01	Cum SA (1000 m2)	5.46	27.45	1.52

Plan: Plan 07 ArroyoValdepozue 1 RS: 1188.129 Profile: T=25

E.G. Elev (m)	849.73	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	849.66	Reach Len. (m)	410.50	388.33	299.28
Crit W.S. (m)	849.61	Flow Area (m2)	2.49	8.33	0.08
E.G. Slope (m/m)	0.007273	Area (m2)	2.49	8.33	0.08
Q Total (m3/s)	12.95	Flow (m3/s)	2.43	10.49	0.02
Top Width (m)	43.10	Top Width (m)	12.41	28.23	2.46
Vel Total (m/s)	1.19	Avg. Vel. (m/s)	0.98	1.26	0.29
Max Chl Dpth (m)	0.70	Hydr. Depth (m)	0.20	0.30	0.03
Conv. Total (m3/s)	151.8	Conv. (m3/s)	28.5	123.0	0.3
Length Wtd. (m)	389.43	Wetted Per. (m)	12.41	28.27	2.46
Min Ch El (m)	848.96	Shear (N/m2)	14.33	21.03	2.35
Alpha	1.04	Stream Power (N/m s)	13.98	26.47	0.69
Frctn Loss (m)	1.33	Cum Volume (1000 m3)	1.09	8.79	0.33
C & E Loss (m)	0.01	Cum SA (1000 m2)	8.09	28.32	3.97

Plan: Plan 07 ArroyoValdepozue 1 RS: 1188.129 Profile: T=50

E.G. Elev (m)	849.83	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	849.73	Reach Len. (m)	410.50	388.33	299.28
Crit W.S. (m)	849.67	Flow Area (m2)	3.46	10.39	0.33
E.G. Slope (m/m)	0.007132	Area (m2)	3.46	10.39	0.33
Q Total (m3/s)	18.97	Flow (m3/s)	3.81	15.00	0.16
Top Width (m)	46.70	Top Width (m)	14.10	28.23	4.38
Vel Total (m/s)	1.34	Avg. Vel. (m/s)	1.10	1.44	0.50
Max Chl Dpth (m)	0.77	Hydr. Depth (m)	0.25	0.37	0.07
Conv. Total (m3/s)	224.6	Conv. (m3/s)	45.1	177.6	1.9
Length Wtd. (m)	388.37	Wetted Per. (m)	14.10	28.27	4.38
Min Ch El (m)	848.96	Shear (N/m2)	17.14	25.70	5.22
Alpha	1.06	Stream Power (N/m s)	18.89	37.10	2.61
Frctn Loss (m)	1.33	Cum Volume (1000 m3)	1.69	10.86	0.67
C & E Loss (m)	0.02	Cum SA (1000 m2)	9.80	28.96	4.90

Plan: Plan 07 ArroyoValdepozue 1 RS: 1188.129 Profile: T=100

E.G. Elev (m)	849.94	Element	Left OB	Channel	Right OB
Vel Head (m)	0.12	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	849.82	Reach Len. (m)	410.50	388.33	299.28
Crit W.S. (m)	849.76	Flow Area (m2)	4.82	12.90	0.84
E.G. Slope (m/m)	0.006624	Area (m2)	4.82	12.90	0.84
Q Total (m3/s)	27.08	Flow (m3/s)	5.78	20.74	0.56
Top Width (m)	51.50	Top Width (m)	16.38	28.23	6.90
Vel Total (m/s)	1.46	Avg. Vel. (m/s)	1.20	1.61	0.67
Max Chl Dpth (m)	0.86	Hydr. Depth (m)	0.29	0.46	0.12
Conv. Total (m3/s)	332.7	Conv. (m3/s)	71.0	254.8	6.9
Length Wtd. (m)	387.29	Wetted Per. (m)	16.38	28.27	6.90
Min Ch El (m)	848.96	Shear (N/m2)	19.11	29.64	7.91
Alpha	1.08	Stream Power (N/m s)	22.92	47.65	5.27
Frctn Loss (m)	1.34	Cum Volume (1000 m3)	2.48	13.12	1.12
C & E Loss (m)	0.02	Cum SA (1000 m2)	10.89	28.96	6.11

Plan: Plan 07 ArroyoValdepozue 1 RS: 1188.129 Profile: T=500

E.G. Elev (m)	850.19	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	850.02	Reach Len. (m)	410.50	388.33	299.28
Crit W.S. (m)	849.95	Flow Area (m2)	8.52	18.58	2.74
E.G. Slope (m/m)	0.006238	Area (m2)	8.52	18.58	2.74
Q Total (m3/s)	52.22	Flow (m3/s)	12.56	36.97	2.69
Top Width (m)	60.56	Top Width (m)	20.30	28.23	12.03
Vel Total (m/s)	1.75	Avg. Vel. (m/s)	1.48	1.99	0.98
Max Chl Dpth (m)	1.06	Hydr. Depth (m)	0.42	0.66	0.23
Conv. Total (m3/s)	661.2	Conv. (m3/s)	159.1	468.1	34.0
Length Wtd. (m)	384.84	Wetted Per. (m)	20.31	28.27	12.04
Min Ch El (m)	848.96	Shear (N/m2)	25.65	40.20	13.91
Alpha	1.10	Stream Power (N/m s)	37.84	80.00	13.64
Frctn Loss (m)	1.36	Cum Volume (1000 m3)	4.55	18.49	2.69
C & E Loss (m)	0.03	Cum SA (1000 m2)	12.26	28.96	9.49

Plan: Plan 07 ArroyoValdepozue 1 RS: 799.7979 Profile: T=2

E.G. Elev (m)	848.07	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.		0.030	
W.S. Elev (m)	848.06	Reach Len. (m)	331.65	316.18	280.19
Crit W.S. (m)		Flow Area (m2)		2.85	
E.G. Slope (m/m)	0.001956	Area (m2)		2.85	
Q Total (m3/s)	0.79	Flow (m3/s)		0.79	
Top Width (m)	34.87	Top Width (m)		34.87	
Vel Total (m/s)	0.28	Avg. Vel. (m/s)		0.28	
Max Chl Dpth (m)	0.28	Hydr. Depth (m)		0.08	
Conv. Total (m3/s)	17.9	Conv. (m3/s)		17.9	
Length Wtd. (m)	316.18	Wetted Per. (m)		34.90	
Min Ch El (m)	847.78	Shear (N/m2)		1.57	
Alpha	1.00	Stream Power (N/m s)		0.43	
Frctn Loss (m)	1.38	Cum Volume (1000 m3)		0.55	
C & E Loss (m)	0.01	Cum SA (1000 m2)		6.14	

Plan: Plan 07 ArroyoValdepozue 1 RS: 799.7979 Profile: T=5

E.G. Elev (m)	848.18	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	848.17	Reach Len. (m)	331.65	316.18	280.19
Crit W.S. (m)	848.08	Flow Area (m2)	0.02	7.66	0.03
E.G. Slope (m/m)	0.001668	Area (m2)	0.02	7.66	0.03
Q Total (m3/s)	3.16	Flow (m3/s)	0.00	3.15	0.00
Top Width (m)	48.18	Top Width (m)	1.16	46.00	1.01
Vel Total (m/s)	0.41	Avg. Vel. (m/s)	0.10	0.41	0.12
Max Chl Dpth (m)	0.39	Hydr. Depth (m)	0.02	0.17	0.03
Conv. Total (m3/s)	77.4	Conv. (m3/s)	0.1	77.2	0.1
Length Wtd. (m)	316.21	Wetted Per. (m)	1.16	46.03	1.02
Min Ch El (m)	847.78	Shear (N/m2)	0.33	2.72	0.41
Alpha	1.01	Stream Power (N/m s)	0.03	1.12	0.05
Frctn Loss (m)	1.26	Cum Volume (1000 m3)	0.02	1.73	0.00
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.43	12.68	0.14

Plan: Plan 07 ArroyoValdepozue 1 RS: 799.7979 Profile: T=10

E.G. Elev (m)	848.27	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	848.26	Reach Len. (m)	331.65	316.18	280.19
Crit W.S. (m)	848.13	Flow Area (m2)	0.21	11.70	0.25
E.G. Slope (m/m)	0.001793	Area (m2)	0.21	11.70	0.25
Q Total (m3/s)	6.73	Flow (m3/s)	0.05	6.63	0.05

Plan: Plan 07 ArroyoValdepozue 1 RS: 799.7979 Profile: T=10 (Continued)

Top Width (m)	54.15	Top Width (m)	2.90	46.00	5.24
Vel Total (m/s)	0.55	Avg. Vel. (m/s)	0.25	0.57	0.18
Max Chl Dpth (m)	0.48	Hydr. Depth (m)	0.07	0.25	0.05
Conv. Total (m3/s)	158.9	Conv. (m3/s)	1.3	156.6	1.1
Length Wtd. (m)	316.67	Wetted Per. (m)	2.91	46.03	5.25
Min Ch El (m)	847.78	Shear (N/m2)	1.29	4.47	0.83
Alpha	1.04	Stream Power (N/m s)	0.32	2.53	0.15
Frctn Loss (m)	1.29	Cum Volume (1000 m3)	0.16	2.72	0.03
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.87	13.53	0.73

Plan: Plan 07 ArroyoValdepozue 1 RS: 799.7979 Profile: T=25

E.G. Elev (m)	848.39	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	848.37	Reach Len. (m)	331.65	316.18	280.19
Crit W.S. (m)		Flow Area (m2)	0.65	16.59	1.05
E.G. Slope (m/m)	0.001967	Area (m2)	0.65	16.59	1.05
Q Total (m3/s)	12.95	Flow (m3/s)	0.21	12.43	0.31
Top Width (m)	63.92	Top Width (m)	6.42	46.00	11.50
Vel Total (m/s)	0.71	Avg. Vel. (m/s)	0.32	0.75	0.30
Max Chl Dpth (m)	0.58	Hydr. Depth (m)	0.10	0.36	0.09
Conv. Total (m3/s)	292.0	Conv. (m3/s)	4.7	280.1	7.1
Length Wtd. (m)	316.91	Wetted Per. (m)	6.43	46.03	11.50
Min Ch El (m)	847.78	Shear (N/m2)	1.96	6.95	1.76
Alpha	1.08	Stream Power (N/m s)	0.63	5.21	0.53
Frctn Loss (m)	1.31	Cum Volume (1000 m3)	0.45	3.95	0.16
C & E Loss (m)	0.01	Cum SA (1000 m2)	4.22	13.90	1.88

Plan: Plan 07 ArroyoValdepozue 1 RS: 799.7979 Profile: T=50

E.G. Elev (m)	848.48	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	848.45	Reach Len. (m)	331.65	316.18	280.19
Crit W.S. (m)		Flow Area (m2)	1.27	20.32	2.06
E.G. Slope (m/m)	0.001997	Area (m2)	1.27	20.32	2.06
Q Total (m3/s)	18.97	Flow (m3/s)	0.52	17.55	0.90
Top Width (m)	67.83	Top Width (m)	8.74	46.00	13.09
Vel Total (m/s)	0.80	Avg. Vel. (m/s)	0.41	0.86	0.43
Max Chl Dpth (m)	0.67	Hydr. Depth (m)	0.15	0.44	0.16
Conv. Total (m3/s)	424.6	Conv. (m3/s)	11.7	392.8	20.1
Length Wtd. (m)	316.74	Wetted Per. (m)	8.75	46.03	13.10
Min Ch El (m)	847.78	Shear (N/m2)	2.84	8.64	3.09
Alpha	1.09	Stream Power (N/m s)	1.17	7.47	1.34
Frctn Loss (m)	1.33	Cum Volume (1000 m3)	0.72	4.89	0.32
C & E Loss (m)	0.01	Cum SA (1000 m2)	5.11	14.54	2.28

Plan: Plan 07 ArroyoValdepozue 1 RS: 799.7979 Profile: T=100

E.G. Elev (m)	848.58	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	848.53	Reach Len. (m)	331.65	316.18	280.19
Crit W.S. (m)		Flow Area (m2)	2.09	24.20	3.22
E.G. Slope (m/m)	0.002118	Area (m2)	2.09	24.20	3.22
Q Total (m3/s)	27.08	Flow (m3/s)	1.11	24.18	1.79
Top Width (m)	71.01	Top Width (m)	10.20	46.00	14.81
Vel Total (m/s)	0.92	Avg. Vel. (m/s)	0.53	1.00	0.55
Max Chl Dpth (m)	0.75	Hydr. Depth (m)	0.20	0.53	0.22
Conv. Total (m3/s)	588.4	Conv. (m3/s)	24.1	525.4	38.8
Length Wtd. (m)	316.65	Wetted Per. (m)	10.21	46.03	14.82
Min Ch El (m)	847.78	Shear (N/m2)	4.25	10.92	4.52

Plan: Plan 07 ArroyoValdepozue 1 RS: 799.7979 Profile: T=100 (Continued)

Alpha	1.10	Stream Power (N/m s)	2.26	10.91	2.50
Frctn Loss (m)	1.35	Cum Volume (1000 m3)	1.06	5.92	0.51
C & E Loss (m)	0.01	Cum SA (1000 m2)	5.44	14.54	2.86

Plan: Plan 07 ArroyoValdepozue 1 RS: 799.7979 Profile: T=500

E.G. Elev (m)	848.81	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	848.74	Reach Len. (m)	331.65	316.18	280.19
Crit W.S. (m)		Flow Area (m2)	4.28	33.62	7.19
E.G. Slope (m/m)	0.002263	Area (m2)	4.28	33.62	7.19
Q Total (m3/s)	52.22	Flow (m3/s)	3.56	43.24	5.42
Top Width (m)	79.13	Top Width (m)	11.20	46.00	21.93
Vel Total (m/s)	1.16	Avg. Vel. (m/s)	0.83	1.29	0.75
Max Chl Dpth (m)	0.95	Hydr. Depth (m)	0.38	0.73	0.33
Conv. Total (m3/s)	1097.7	Conv. (m3/s)	74.9	908.9	113.9
Length Wtd. (m)	316.13	Wetted Per. (m)	11.23	46.03	21.94
Min Ch El (m)	847.78	Shear (N/m2)	8.45	16.21	7.27
Alpha	1.10	Stream Power (N/m s)	7.04	20.85	5.48
Frctn Loss (m)	1.38	Cum Volume (1000 m3)	1.93	8.35	1.21
C & E Loss (m)	0.01	Cum SA (1000 m2)	5.80	14.54	4.41

Plan: Plan 07 ArroyoValdepozue 1 RS: 483.6144 Profile: T=2

E.G. Elev (m)	846.68	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.030	
W.S. Elev (m)	846.60	Reach Len. (m)			
Crit W.S. (m)	846.60	Flow Area (m2)		0.63	
E.G. Slope (m/m)	0.016998	Area (m2)		0.63	
Q Total (m3/s)	0.79	Flow (m3/s)		0.79	
Top Width (m)	3.97	Top Width (m)		3.97	
Vel Total (m/s)	1.26	Avg. Vel. (m/s)		1.26	
Max Chl Dpth (m)	0.25	Hydr. Depth (m)		0.16	
Conv. Total (m3/s)	6.1	Conv. (m3/s)		6.1	
Length Wtd. (m)		Wetted Per. (m)		4.02	
Min Ch El (m)	846.35	Shear (N/m2)		26.00	
Alpha	1.00	Stream Power (N/m s)		32.74	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 07 ArroyoValdepozue 1 RS: 483.6144 Profile: T=5

E.G. Elev (m)	846.91	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.	0.030	0.030	
W.S. Elev (m)	846.87	Reach Len. (m)			
Crit W.S. (m)	846.87	Flow Area (m2)	0.08	3.26	
E.G. Slope (m/m)	0.019364	Area (m2)	0.08	3.26	
Q Total (m3/s)	3.16	Flow (m3/s)	0.02	3.14	
Top Width (m)	41.68	Top Width (m)	7.48	34.21	
Vel Total (m/s)	0.95	Avg. Vel. (m/s)	0.23	0.97	
Max Chl Dpth (m)	0.52	Hydr. Depth (m)	0.01	0.10	
Conv. Total (m3/s)	22.7	Conv. (m3/s)	0.1	22.6	
Length Wtd. (m)		Wetted Per. (m)	7.48	34.31	
Min Ch El (m)	846.35	Shear (N/m2)	1.98	18.02	
Alpha	1.03	Stream Power (N/m s)	0.45	17.39	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 07 ArroyoValdepozue 1 RS: 483.6144 Profile: T=10

E.G. Elev (m)	846.99	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.	0.030	0.030	
W.S. Elev (m)	846.92	Reach Len. (m)			
Crit W.S. (m)	846.92	Flow Area (m2)	0.78	5.47	
E.G. Slope (m/m)	0.016514	Area (m2)	0.78	5.47	
Q Total (m3/s)	6.73	Flow (m3/s)	0.48	6.25	
Top Width (m)	54.01	Top Width (m)	14.41	39.60	
Vel Total (m/s)	1.08	Avg. Vel. (m/s)	0.61	1.14	
Max Chl Dpth (m)	0.57	Hydr. Depth (m)	0.05	0.14	
Conv. Total (m3/s)	52.4	Conv. (m3/s)	3.7	48.7	
Length Wtd. (m)		Wetted Per. (m)	14.41	39.71	
Min Ch El (m)	846.35	Shear (N/m2)	8.75	22.31	
Alpha	1.07	Stream Power (N/m s)	5.36	25.50	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 07 ArroyoValdepozue 1 RS: 483.6144 Profile: T=25

E.G. Elev (m)	847.08	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	847.00	Reach Len. (m)			
Crit W.S. (m)	847.00	Flow Area (m2)	2.05	8.40	0.06
E.G. Slope (m/m)	0.013516	Area (m2)	2.05	8.40	0.06
Q Total (m3/s)	12.95	Flow (m3/s)	1.80	11.12	0.03
Top Width (m)	62.91	Top Width (m)	19.05	41.94	1.92
Vel Total (m/s)	1.23	Avg. Vel. (m/s)	0.88	1.32	0.40
Max Chl Dpth (m)	0.65	Hydr. Depth (m)	0.11	0.20	0.03
Conv. Total (m3/s)	111.4	Conv. (m3/s)	15.5	95.7	0.2
Length Wtd. (m)		Wetted Per. (m)	19.06	42.06	1.92
Min Ch El (m)	846.35	Shear (N/m2)	14.27	26.47	4.45
Alpha	1.06	Stream Power (N/m s)	12.52	35.05	1.79
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 07 ArroyoValdepozue 1 RS: 483.6144 Profile: T=50

E.G. Elev (m)	847.15	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	847.05	Reach Len. (m)			
Crit W.S. (m)	847.05	Flow Area (m2)	3.06	10.64	0.19
E.G. Slope (m/m)	0.013762	Area (m2)	3.06	10.64	0.19
Q Total (m3/s)	18.97	Flow (m3/s)	3.21	15.65	0.12
Top Width (m)	71.27	Top Width (m)	22.07	46.00	3.20
Vel Total (m/s)	1.37	Avg. Vel. (m/s)	1.05	1.47	0.60
Max Chl Dpth (m)	0.70	Hydr. Depth (m)	0.14	0.23	0.06
Conv. Total (m3/s)	161.7	Conv. (m3/s)	27.3	133.4	1.0
Length Wtd. (m)		Wetted Per. (m)	22.08	46.13	3.20
Min Ch El (m)	846.35	Shear (N/m2)	18.71	31.13	8.20
Alpha	1.06	Stream Power (N/m s)	19.60	45.78	4.95
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 07 ArroyoValdepozue 1 RS: 483.6144 Profile: T=100

E.G. Elev (m)	847.23	Element	Left OB	Channel	Right OB
Vel Head (m)	0.12	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	847.10	Reach Len. (m)			
Crit W.S. (m)	847.10	Flow Area (m2)	4.32	13.24	0.43
E.G. Slope (m/m)	0.012485	Area (m2)	4.32	13.24	0.43
Q Total (m3/s)	27.08	Flow (m3/s)	5.34	21.45	0.28

Plan: Plan 07 ArroyoValdepozue 1 RS: 483.6144 Profile: T=100 (Continued)

Top Width (m)	74.21	Top Width (m)	22.58	46.00	5.63
Vel Total (m/s)	1.51	Avg. Vel. (m/s)	1.24	1.62	0.67
Max Chl Dpth (m)	0.75	Hydr. Depth (m)	0.19	0.29	0.08
Conv. Total (m3/s)	242.4	Conv. (m3/s)	47.8	192.0	2.6
Length Wtd. (m)		Wetted Per. (m)	22.59	46.13	5.63
Min Ch El (m)	846.35	Shear (N/m2)	23.42	35.14	9.29
Alpha	1.05	Stream Power (N/m s)	28.97	56.94	6.20
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 07 ArroyoValdepozue 1 RS: 483.6144 Profile: T=500

E.G. Elev (m)	847.42	Element	Left OB	Channel	Right OB
Vel Head (m)	0.19	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	847.23	Reach Len. (m)			
Crit W.S. (m)	847.23	Flow Area (m2)	7.34	19.22	1.43
E.G. Slope (m/m)	0.011715	Area (m2)	7.34	19.22	1.43
Q Total (m3/s)	52.22	Flow (m3/s)	12.08	38.69	1.45
Top Width (m)	79.32	Top Width (m)	23.77	46.00	9.55
Vel Total (m/s)	1.87	Avg. Vel. (m/s)	1.65	2.01	1.02
Max Chl Dpth (m)	0.88	Hydr. Depth (m)	0.31	0.42	0.15
Conv. Total (m3/s)	482.5	Conv. (m3/s)	111.6	357.4	13.4
Length Wtd. (m)		Wetted Per. (m)	23.78	46.13	9.56
Min Ch El (m)	846.35	Shear (N/m2)	35.44	47.87	17.16
Alpha	1.05	Stream Power (N/m s)	58.37	96.36	17.43
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 04 ArroyoValilongo 1 RS: 2089.018 Profile: T=2

E.G. Elev (m)	855.46	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.		0.030	
W.S. Elev (m)	855.41	Reach Len. (m)	251.27	347.36	440.65
Crit W.S. (m)	855.25	Flow Area (m2)		11.89	
E.G. Slope (m/m)	0.003284	Area (m2)		11.89	
Q Total (m3/s)	11.77	Flow (m3/s)		11.77	
Top Width (m)	31.69	Top Width (m)		31.69	
Vel Total (m/s)	0.99	Avg. Vel. (m/s)		0.99	
Max Chl Dpth (m)	0.76	Hydr. Depth (m)		0.38	
Conv. Total (m3/s)	205.4	Conv. (m3/s)		205.4	
Length Wtd. (m)	347.36	Wetted Per. (m)		31.86	
Min Ch El (m)	854.65	Shear (N/m2)		12.02	
Alpha	1.00	Stream Power (N/m s)		11.89	
Frctn Loss (m)	1.20	Cum Volume (1000 m3)	0.15	18.32	
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.46	64.41	

Plan: Plan 04 ArroyoValilongo 1 RS: 2089.018 Profile: T=5

E.G. Elev (m)	855.71	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.030	
W.S. Elev (m)	855.64	Reach Len. (m)	251.27	347.36	440.65
Crit W.S. (m)	855.42	Flow Area (m2)		20.83	
E.G. Slope (m/m)	0.003075	Area (m2)		20.83	
Q Total (m3/s)	23.88	Flow (m3/s)		23.88	
Top Width (m)	42.45	Top Width (m)		42.45	
Vel Total (m/s)	1.15	Avg. Vel. (m/s)		1.15	
Max Chl Dpth (m)	0.99	Hydr. Depth (m)		0.49	
Conv. Total (m3/s)	430.6	Conv. (m3/s)		430.6	
Length Wtd. (m)	347.32	Wetted Per. (m)		42.66	
Min Ch El (m)	854.65	Shear (N/m2)		14.73	
Alpha	1.00	Stream Power (N/m s)		16.88	
Frctn Loss (m)	1.20	Cum Volume (1000 m3)	0.50	30.54	0.01
C & E Loss (m)	0.00	Cum SA (1000 m2)	3.16	82.26	0.26

Plan: Plan 04 ArroyoValilongo 1 RS: 2089.018 Profile: T=10

E.G. Elev (m)	855.87	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.030	
W.S. Elev (m)	855.78	Reach Len. (m)	251.27	347.36	440.65
Crit W.S. (m)	855.56	Flow Area (m2)		27.05	
E.G. Slope (m/m)	0.003032	Area (m2)		27.05	
Q Total (m3/s)	35.44	Flow (m3/s)		35.44	
Top Width (m)	44.61	Top Width (m)		44.61	
Vel Total (m/s)	1.31	Avg. Vel. (m/s)		1.31	
Max Chl Dpth (m)	1.13	Hydr. Depth (m)		0.61	
Conv. Total (m3/s)	643.6	Conv. (m3/s)		643.6	
Length Wtd. (m)	346.92	Wetted Per. (m)		44.85	
Min Ch El (m)	854.65	Shear (N/m2)		17.93	
Alpha	1.00	Stream Power (N/m s)		23.50	
Frctn Loss (m)	1.20	Cum Volume (1000 m3)	0.97	39.11	0.13
C & E Loss (m)	0.00	Cum SA (1000 m2)	4.59	85.99	1.54

Plan: Plan 04 ArroyoValilongo 1 RS: 2089.018 Profile: T=25

E.G. Elev (m)	856.06	Element	Left OB	Channel	Right OB
Vel Head (m)	0.12	Wt. n-Val.	0.030	0.030	
W.S. Elev (m)	855.94	Reach Len. (m)	251.27	347.36	440.65
Crit W.S. (m)	855.68	Flow Area (m2)	0.07	34.06	
E.G. Slope (m/m)	0.003047	Area (m2)	0.07	34.06	
Q Total (m3/s)	51.63	Flow (m3/s)	0.02	51.61	

Plan: Plan 04 ArroyoValilongo 1 RS: 2089.018 Profile: T=25 (Continued)

Top Width (m)	46.33	Top Width (m)	1.00	45.32	
Vel Total (m/s)	1.51	Avg. Vel. (m/s)	0.31	1.52	
Max Chl Dpth (m)	1.29	Hydr. Depth (m)	0.07	0.75	
Conv. Total (m3/s)	935.4	Conv. (m3/s)	0.4	935.0	
Length Wtd. (m)	346.18	Wetted Per. (m)	1.01	45.58	
Min Ch El (m)	854.65	Shear (N/m2)	2.08	22.33	
Alpha	1.00	Stream Power (N/m s)	0.65	33.83	
Frctn Loss (m)	1.20	Cum Volume (1000 m3)	1.84	49.01	0.43
C & E Loss (m)	0.00	Cum SA (1000 m2)	7.49	88.01	2.70

Plan: Plan 04 ArroyoValilongo 1 RS: 2089.018 Profile: T=50

E.G. Elev (m)	856.19	Element	Left OB	Channel	Right OB
Vel Head (m)	0.14	Wt. n-Val.	0.030	0.030	
W.S. Elev (m)	856.05	Reach Len. (m)	251.27	347.36	440.65
Crit W.S. (m)	855.77	Flow Area (m2)	0.22	39.07	
E.G. Slope (m/m)	0.003101	Area (m2)	0.22	39.07	
Q Total (m3/s)	65.17	Flow (m3/s)	0.10	65.07	
Top Width (m)	47.48	Top Width (m)	1.79	45.70	
Vel Total (m/s)	1.66	Avg. Vel. (m/s)	0.46	1.67	
Max Chl Dpth (m)	1.40	Hydr. Depth (m)	0.13	0.85	
Conv. Total (m3/s)	1170.2	Conv. (m3/s)	1.9	1168.4	
Length Wtd. (m)	345.30	Wetted Per. (m)	1.81	45.97	
Min Ch El (m)	854.65	Shear (N/m2)	3.77	25.85	
Alpha	1.01	Stream Power (N/m s)	1.74	43.05	
Frctn Loss (m)	1.21	Cum Volume (1000 m3)	2.63	56.33	0.73
C & E Loss (m)	0.00	Cum SA (1000 m2)	8.55	89.69	3.39

Plan: Plan 04 ArroyoValilongo 1 RS: 2089.018 Profile: T=100

E.G. Elev (m)	856.34	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	856.17	Reach Len. (m)	251.27	347.36	440.65
Crit W.S. (m)	855.88	Flow Area (m2)	0.48	44.50	0.00
E.G. Slope (m/m)	0.003175	Area (m2)	0.48	44.50	0.00
Q Total (m3/s)	81.71	Flow (m3/s)	0.30	81.41	0.00
Top Width (m)	48.63	Top Width (m)	2.51	46.00	0.13
Vel Total (m/s)	1.82	Avg. Vel. (m/s)	0.62	1.83	0.11
Max Chl Dpth (m)	1.52	Hydr. Depth (m)	0.19	0.97	0.01
Conv. Total (m3/s)	1450.1	Conv. (m3/s)	5.3	1444.9	0.0
Length Wtd. (m)	344.35	Wetted Per. (m)	2.53	46.29	0.13
Min Ch El (m)	854.65	Shear (N/m2)	5.90	29.93	0.44
Alpha	1.01	Stream Power (N/m s)	3.65	54.76	0.05
Frctn Loss (m)	1.22	Cum Volume (1000 m3)	3.62	64.24	1.14
C & E Loss (m)	0.00	Cum SA (1000 m2)	10.23	90.65	4.38

Plan: Plan 04 ArroyoValilongo 1 RS: 2089.018 Profile: T=500

E.G. Elev (m)	856.67	Element	Left OB	Channel	Right OB
Vel Head (m)	0.25	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	856.42	Reach Len. (m)	251.27	347.36	440.65
Crit W.S. (m)	856.12	Flow Area (m2)	1.30	56.14	0.17
E.G. Slope (m/m)	0.003479	Area (m2)	1.30	56.14	0.17
Q Total (m3/s)	126.83	Flow (m3/s)	1.20	125.54	0.09
Top Width (m)	51.18	Top Width (m)	3.95	46.00	1.23
Vel Total (m/s)	2.20	Avg. Vel. (m/s)	0.93	2.24	0.52
Max Chl Dpth (m)	1.77	Hydr. Depth (m)	0.33	1.22	0.14
Conv. Total (m3/s)	2150.3	Conv. (m3/s)	20.4	2128.3	1.5
Length Wtd. (m)	342.52	Wetted Per. (m)	4.00	46.29	1.26
Min Ch El (m)	854.65	Shear (N/m2)	11.06	41.38	4.69

Plan: Plan 04 ArroyoValilongo 1 RS: 2089.018 Profile: T=500 (Continued)

Alpha	1.02	Stream Power (N/m s)	10.26	92.53	2.45
Frctn Loss (m)	1.25	Cum Volume (1000 m3)	6.41	82.70	2.46
C & E Loss (m)	0.00	Cum SA (1000 m2)	13.16	92.26	6.67

Plan: Plan 04 ArroyoValilongo 1 RS: 1741.656 Profile: T=2

E.G. Elev (m)	854.26	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.030	
W.S. Elev (m)	854.20	Reach Len. (m)	255.86	288.79	264.38
Crit W.S. (m)		Flow Area (m2)		11.08	
E.G. Slope (m/m)	0.003638	Area (m2)		11.08	
Q Total (m3/s)	11.77	Flow (m3/s)		11.77	
Top Width (m)	28.65	Top Width (m)		28.65	
Vel Total (m/s)	1.06	Avg. Vel. (m/s)		1.06	
Max Chl Dpth (m)	0.86	Hydr. Depth (m)		0.39	
Conv. Total (m3/s)	195.1	Conv. (m3/s)		195.1	
Length Wtd. (m)	288.52	Wetted Per. (m)		28.82	
Min Ch El (m)	853.34	Shear (N/m2)		13.71	
Alpha	1.00	Stream Power (N/m s)		14.57	
Frctn Loss (m)	1.11	Cum Volume (1000 m3)	0.15	14.33	
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.46	53.93	

Plan: Plan 04 ArroyoValilongo 1 RS: 1741.656 Profile: T=5

E.G. Elev (m)	854.51	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.	0.030	0.030	
W.S. Elev (m)	854.42	Reach Len. (m)	255.86	288.79	264.38
Crit W.S. (m)		Flow Area (m2)	0.09	18.18	
E.G. Slope (m/m)	0.003917	Area (m2)	0.09	18.18	
Q Total (m3/s)	23.88	Flow (m3/s)	0.02	23.86	
Top Width (m)	39.11	Top Width (m)	2.87	36.24	
Vel Total (m/s)	1.31	Avg. Vel. (m/s)	0.21	1.31	
Max Chl Dpth (m)	1.08	Hydr. Depth (m)	0.03	0.50	
Conv. Total (m3/s)	381.6	Conv. (m3/s)	0.3	381.2	
Length Wtd. (m)	288.09	Wetted Per. (m)	2.87	36.44	
Min Ch El (m)	853.34	Shear (N/m2)	1.26	19.16	
Alpha	1.01	Stream Power (N/m s)	0.27	25.15	
Frctn Loss (m)	1.15	Cum Volume (1000 m3)	0.49	23.77	0.01
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.80	68.59	0.26

Plan: Plan 04 ArroyoValilongo 1 RS: 1741.656 Profile: T=10

E.G. Elev (m)	854.67	Element	Left OB	Channel	Right OB
Vel Head (m)	0.12	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	854.55	Reach Len. (m)	255.86	288.79	264.38
Crit W.S. (m)		Flow Area (m2)	0.68	23.08	0.02
E.G. Slope (m/m)	0.003988	Area (m2)	0.68	23.08	0.02
Q Total (m3/s)	35.44	Flow (m3/s)	0.33	35.11	0.00
Top Width (m)	44.45	Top Width (m)	6.15	37.36	0.95
Vel Total (m/s)	1.49	Avg. Vel. (m/s)	0.48	1.52	0.16
Max Chl Dpth (m)	1.21	Hydr. Depth (m)	0.11	0.62	0.02
Conv. Total (m3/s)	561.2	Conv. (m3/s)	5.2	556.0	0.1
Length Wtd. (m)	287.62	Wetted Per. (m)	6.15	37.57	0.95
Min Ch El (m)	853.34	Shear (N/m2)	4.31	24.02	0.84
Alpha	1.03	Stream Power (N/m s)	2.08	36.54	0.14
Frctn Loss (m)	1.17	Cum Volume (1000 m3)	0.89	30.40	0.12
C & E Loss (m)	0.00	Cum SA (1000 m2)	3.82	71.75	1.33

Plan: Plan 04 ArroyoValilongo 1 RS: 1741.656 Profile: T=25

E.G. Elev (m)	854.85	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	854.70	Reach Len. (m)	255.86	288.79	264.38
Crit W.S. (m)		Flow Area (m2)	2.31	28.50	0.34
E.G. Slope (m/m)	0.004014	Area (m2)	2.31	28.50	0.34
Q Total (m3/s)	51.63	Flow (m3/s)	1.40	50.06	0.16
Top Width (m)	55.42	Top Width (m)	15.03	37.36	3.03
Vel Total (m/s)	1.66	Avg. Vel. (m/s)	0.61	1.76	0.49
Max Chl Dpth (m)	1.36	Hydr. Depth (m)	0.15	0.76	0.11
Conv. Total (m3/s)	814.9	Conv. (m3/s)	22.1	790.2	2.6
Length Wtd. (m)	286.89	Wetted Per. (m)	15.04	37.57	3.04
Min Ch El (m)	853.34	Shear (N/m2)	6.05	29.86	4.36
Alpha	1.09	Stream Power (N/m s)	3.67	52.45	2.12
Frctn Loss (m)	1.18	Cum Volume (1000 m3)	1.54	38.15	0.36
C & E Loss (m)	0.00	Cum SA (1000 m2)	5.48	73.65	2.04

Plan: Plan 04 ArroyoValilongo 1 RS: 1741.656 Profile: T=50

E.G. Elev (m)	854.98	Element	Left OB	Channel	Right OB
Vel Head (m)	0.18	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	854.80	Reach Len. (m)	255.86	288.79	264.38
Crit W.S. (m)		Flow Area (m2)	3.96	32.31	0.70
E.G. Slope (m/m)	0.004000	Area (m2)	3.96	32.31	0.70
Q Total (m3/s)	65.17	Flow (m3/s)	3.12	61.60	0.45
Top Width (m)	58.81	Top Width (m)	17.30	37.36	4.15
Vel Total (m/s)	1.76	Avg. Vel. (m/s)	0.79	1.91	0.64
Max Chl Dpth (m)	1.46	Hydr. Depth (m)	0.23	0.86	0.17
Conv. Total (m3/s)	1030.5	Conv. (m3/s)	49.4	974.0	7.1
Length Wtd. (m)	286.25	Wetted Per. (m)	17.31	37.57	4.16
Min Ch El (m)	853.34	Shear (N/m2)	8.98	33.73	6.59
Alpha	1.12	Stream Power (N/m s)	7.08	64.30	4.23
Frctn Loss (m)	1.19	Cum Volume (1000 m3)	2.10	43.94	0.57
C & E Loss (m)	0.00	Cum SA (1000 m2)	6.16	75.27	2.48

Plan: Plan 04 ArroyoValilongo 1 RS: 1741.656 Profile: T=100

E.G. Elev (m)	855.11	Element	Left OB	Channel	Right OB
Vel Head (m)	0.20	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	854.91	Reach Len. (m)	255.86	288.79	264.38
Crit W.S. (m)		Flow Area (m2)	5.95	36.34	1.24
E.G. Slope (m/m)	0.004013	Area (m2)	5.95	36.34	1.24
Q Total (m3/s)	81.71	Flow (m3/s)	5.72	75.06	0.93
Top Width (m)	62.49	Top Width (m)	19.32	37.36	5.81
Vel Total (m/s)	1.88	Avg. Vel. (m/s)	0.96	2.07	0.75
Max Chl Dpth (m)	1.57	Hydr. Depth (m)	0.31	0.97	0.21
Conv. Total (m3/s)	1289.8	Conv. (m3/s)	90.3	1184.8	14.7
Length Wtd. (m)	285.55	Wetted Per. (m)	19.33	37.57	5.83
Min Ch El (m)	853.34	Shear (N/m2)	12.11	38.07	8.36
Alpha	1.13	Stream Power (N/m s)	11.65	78.62	6.28
Frctn Loss (m)	1.19	Cum Volume (1000 m3)	2.82	50.20	0.87
C & E Loss (m)	0.00	Cum SA (1000 m2)	7.48	76.17	3.07

Plan: Plan 04 ArroyoValilongo 1 RS: 1741.656 Profile: T=500

E.G. Elev (m)	855.42	Element	Left OB	Channel	Right OB
Vel Head (m)	0.26	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	855.16	Reach Len. (m)	255.86	288.79	264.38
Crit W.S. (m)		Flow Area (m2)	11.33	45.92	3.02
E.G. Slope (m/m)	0.003864	Area (m2)	11.33	45.92	3.02
Q Total (m3/s)	126.83	Flow (m3/s)	14.83	108.75	3.25

Plan: Plan 04 ArroyoValilongo 1 RS: 1741.656 Profile: T=500 (Continued)

Top Width (m)	67.96	Top Width (m)	22.57	37.36	8.04
Vel Total (m/s)	2.10	Avg. Vel. (m/s)	1.31	2.37	1.08
Max Chl Dpth (m)	1.82	Hydr. Depth (m)	0.50	1.23	0.38
Conv. Total (m3/s)	2040.4	Conv. (m3/s)	238.6	1749.5	52.3
Length Wtd. (m)	284.06	Wetted Per. (m)	22.59	37.57	8.07
Min Ch El (m)	853.34	Shear (N/m2)	19.01	46.30	14.20
Alpha	1.14	Stream Power (N/m s)	24.87	109.67	15.29
Frctn Loss (m)	1.19	Cum Volume (1000 m3)	4.82	64.97	1.75
C & E Loss (m)	0.00	Cum SA (1000 m2)	9.83	77.78	4.63

Plan: Plan 04 ArroyoValilongo 1 RS: 1452.866 Profile: T=2

E.G. Elev (m)	853.15	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.	0.030	0.030	
W.S. Elev (m)	853.09	Reach Len. (m)	440.30	393.54	296.57
Crit W.S. (m)	852.98	Flow Area (m2)	0.42	11.37	
E.G. Slope (m/m)	0.004087	Area (m2)	0.42	11.37	
Q Total (m3/s)	11.77	Flow (m3/s)	0.19	11.58	
Top Width (m)	38.49	Top Width (m)	4.20	34.28	
Vel Total (m/s)	1.00	Avg. Vel. (m/s)	0.46	1.02	
Max Chl Dpth (m)	0.89	Hydr. Depth (m)	0.10	0.33	
Conv. Total (m3/s)	184.1	Conv. (m3/s)	3.0	181.1	
Length Wtd. (m)	393.92	Wetted Per. (m)	4.21	34.40	
Min Ch El (m)	852.20	Shear (N/m2)	3.99	13.24	
Alpha	1.03	Stream Power (N/m s)	1.82	13.49	
Frctn Loss (m)	1.73	Cum Volume (1000 m3)	0.09	11.09	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.93	44.84	

Plan: Plan 04 ArroyoValilongo 1 RS: 1452.866 Profile: T=5

E.G. Elev (m)	853.35	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	853.27	Reach Len. (m)	440.30	393.54	296.57
Crit W.S. (m)		Flow Area (m2)	1.38	17.64	0.02
E.G. Slope (m/m)	0.004088	Area (m2)	1.38	17.64	0.02
Q Total (m3/s)	23.88	Flow (m3/s)	0.99	22.88	0.00
Top Width (m)	44.95	Top Width (m)	6.98	37.04	0.93
Vel Total (m/s)	1.25	Avg. Vel. (m/s)	0.72	1.30	0.15
Max Chl Dpth (m)	1.07	Hydr. Depth (m)	0.20	0.48	0.02
Conv. Total (m3/s)	373.5	Conv. (m3/s)	15.5	357.9	0.0
Length Wtd. (m)	394.51	Wetted Per. (m)	6.99	37.16	0.93
Min Ch El (m)	852.20	Shear (N/m2)	7.90	19.03	0.78
Alpha	1.04	Stream Power (N/m s)	5.70	24.69	0.12
Frctn Loss (m)	1.78	Cum Volume (1000 m3)	0.30	18.60	0.00
C & E Loss (m)	0.01	Cum SA (1000 m2)	1.54	58.01	0.14

Plan: Plan 04 ArroyoValilongo 1 RS: 1452.866 Profile: T=10

E.G. Elev (m)	853.50	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	853.38	Reach Len. (m)	440.30	393.54	296.57
Crit W.S. (m)		Flow Area (m2)	2.30	21.92	0.43
E.G. Slope (m/m)	0.004176	Area (m2)	2.30	21.92	0.43
Q Total (m3/s)	35.44	Flow (m3/s)	2.03	33.21	0.20
Top Width (m)	50.06	Top Width (m)	8.71	37.04	4.30
Vel Total (m/s)	1.44	Avg. Vel. (m/s)	0.88	1.52	0.47
Max Chl Dpth (m)	1.18	Hydr. Depth (m)	0.26	0.59	0.10
Conv. Total (m3/s)	548.4	Conv. (m3/s)	31.4	513.8	3.1
Length Wtd. (m)	394.60	Wetted Per. (m)	8.73	37.16	4.31
Min Ch El (m)	852.20	Shear (N/m2)	10.78	24.16	4.13

Plan: Plan 04 ArroyoValilongo 1 RS: 1452.866 Profile: T=10 (Continued)

Alpha	1.06	Stream Power (N/m s)	9.53	36.60	1.93
Frctn Loss (m)	1.82	Cum Volume (1000 m3)	0.51	23.91	0.06
C & E Loss (m)	0.01	Cum SA (1000 m2)	1.92	61.01	0.64

Plan: Plan 04 ArroyoValilongo 1 RS: 1452.866 Profile: T=25

E.G. Elev (m)	853.66	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	853.52	Reach Len. (m)	440.30	393.54	296.57
Crit W.S. (m)		Flow Area (m2)	3.56	26.88	1.12
E.G. Slope (m/m)	0.004235	Area (m2)	3.56	26.88	1.12
Q Total (m3/s)	51.63	Flow (m3/s)	3.83	47.00	0.80
Top Width (m)	53.08	Top Width (m)	10.21	37.04	5.83
Vel Total (m/s)	1.64	Avg. Vel. (m/s)	1.07	1.75	0.72
Max Chl Dpth (m)	1.32	Hydr. Depth (m)	0.35	0.73	0.19
Conv. Total (m3/s)	793.4	Conv. (m3/s)	58.8	722.2	12.3
Length Wtd. (m)	394.52	Wetted Per. (m)	10.23	37.16	5.84
Min Ch El (m)	852.20	Shear (N/m2)	14.47	30.05	7.93
Alpha	1.07	Stream Power (N/m s)	15.54	52.53	5.70
Frctn Loss (m)	1.87	Cum Volume (1000 m3)	0.78	30.15	0.17
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.25	62.91	0.86

Plan: Plan 04 ArroyoValilongo 1 RS: 1452.866 Profile: T=50

E.G. Elev (m)	853.79	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	853.61	Reach Len. (m)	440.30	393.54	296.57
Crit W.S. (m)	853.46	Flow Area (m2)	4.58	30.39	1.72
E.G. Slope (m/m)	0.004316	Area (m2)	4.58	30.39	1.72
Q Total (m3/s)	65.17	Flow (m3/s)	5.48	58.20	1.49
Top Width (m)	55.25	Top Width (m)	11.33	37.04	6.88
Vel Total (m/s)	1.78	Avg. Vel. (m/s)	1.20	1.91	0.87
Max Chl Dpth (m)	1.41	Hydr. Depth (m)	0.40	0.82	0.25
Conv. Total (m3/s)	992.0	Conv. (m3/s)	83.5	885.9	22.6
Length Wtd. (m)	394.40	Wetted Per. (m)	11.35	37.16	6.90
Min Ch El (m)	852.20	Shear (N/m2)	17.09	34.61	10.54
Alpha	1.08	Stream Power (N/m s)	20.45	66.28	9.13
Frctn Loss (m)	1.90	Cum Volume (1000 m3)	1.01	34.88	0.25
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.49	64.53	1.02

Plan: Plan 04 ArroyoValilongo 1 RS: 1452.866 Profile: T=100

E.G. Elev (m)	853.92	Element	Left OB	Channel	Right OB
Vel Head (m)	0.20	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	853.72	Reach Len. (m)	440.30	393.54	296.57
Crit W.S. (m)	853.56	Flow Area (m2)	5.85	34.32	2.50
E.G. Slope (m/m)	0.004329	Area (m2)	5.85	34.32	2.50
Q Total (m3/s)	81.71	Flow (m3/s)	7.76	71.39	2.55
Top Width (m)	57.25	Top Width (m)	12.39	37.04	7.82
Vel Total (m/s)	1.91	Avg. Vel. (m/s)	1.33	2.08	1.02
Max Chl Dpth (m)	1.52	Hydr. Depth (m)	0.47	0.93	0.32
Conv. Total (m3/s)	1242.0	Conv. (m3/s)	118.0	1085.1	38.8
Length Wtd. (m)	394.25	Wetted Per. (m)	12.42	37.16	7.84
Min Ch El (m)	852.20	Shear (N/m2)	19.99	39.21	13.52
Alpha	1.09	Stream Power (N/m s)	26.53	81.54	13.83
Frctn Loss (m)	1.94	Cum Volume (1000 m3)	1.31	40.00	0.37
C & E Loss (m)	0.02	Cum SA (1000 m2)	3.43	65.43	1.27

Plan: Plan 04 ArroyoValilongo 1 RS: 1452.866 Profile: T=500

E.G. Elev (m)	854.23	Element	Left OB	Channel	Right OB
Vel Head (m)	0.28	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	853.95	Reach Len. (m)	440.30	393.54	296.57
Crit W.S. (m)	853.79	Flow Area (m2)	8.95	42.94	4.56
E.G. Slope (m/m)	0.004528	Area (m2)	8.95	42.94	4.56
Q Total (m3/s)	126.83	Flow (m3/s)	14.70	106.07	6.06
Top Width (m)	61.25	Top Width (m)	14.24	37.04	9.98
Vel Total (m/s)	2.25	Avg. Vel. (m/s)	1.64	2.47	1.33
Max Chl Dpth (m)	1.75	Hydr. Depth (m)	0.63	1.16	0.46
Conv. Total (m3/s)	1884.7	Conv. (m3/s)	218.5	1576.3	90.0
Length Wtd. (m)	393.96	Wetted Per. (m)	14.28	37.16	10.01
Min Ch El (m)	852.20	Shear (N/m2)	27.83	51.32	20.22
Alpha	1.09	Stream Power (N/m s)	45.72	126.76	26.85
Frctn Loss (m)	2.01	Cum Volume (1000 m3)	2.22	52.14	0.75
C & E Loss (m)	0.02	Cum SA (1000 m2)	5.12	67.04	2.25

Plan: Plan 04 ArroyoValilongo 1 RS: 1059.325 Profile: T=2

E.G. Elev (m)	851.41	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.030	
W.S. Elev (m)	851.37	Reach Len. (m)	520.40	584.02	569.02
Crit W.S. (m)		Flow Area (m2)		13.53	
E.G. Slope (m/m)	0.004745	Area (m2)		13.53	
Q Total (m3/s)	11.77	Flow (m3/s)		11.77	
Top Width (m)	58.01	Top Width (m)		58.01	
Vel Total (m/s)	0.87	Avg. Vel. (m/s)		0.87	
Max Chl Dpth (m)	0.46	Hydr. Depth (m)		0.23	
Conv. Total (m3/s)	170.9	Conv. (m3/s)		170.9	
Length Wtd. (m)	584.02	Wetted Per. (m)		58.04	
Min Ch El (m)	850.91	Shear (N/m2)		10.85	
Alpha	1.00	Stream Power (N/m s)		9.44	
Frctn Loss (m)	4.55	Cum Volume (1000 m3)		6.19	
C & E Loss (m)	0.01	Cum SA (1000 m2)		26.68	

Plan: Plan 04 ArroyoValilongo 1 RS: 1059.325 Profile: T=5

E.G. Elev (m)	851.57	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.030	
W.S. Elev (m)	851.51	Reach Len. (m)	520.40	584.02	569.02
Crit W.S. (m)		Flow Area (m2)		22.64	
E.G. Slope (m/m)	0.005002	Area (m2)		22.64	
Q Total (m3/s)	23.88	Flow (m3/s)		23.88	
Top Width (m)	75.62	Top Width (m)		75.62	
Vel Total (m/s)	1.05	Avg. Vel. (m/s)		1.05	
Max Chl Dpth (m)	0.60	Hydr. Depth (m)		0.30	
Conv. Total (m3/s)	337.7	Conv. (m3/s)		337.7	
Length Wtd. (m)	584.02	Wetted Per. (m)		75.66	
Min Ch El (m)	850.91	Shear (N/m2)		14.68	
Alpha	1.00	Stream Power (N/m s)		15.48	
Frctn Loss (m)	4.52	Cum Volume (1000 m3)		10.67	
C & E Loss (m)	0.01	Cum SA (1000 m2)		35.84	

Plan: Plan 04 ArroyoValilongo 1 RS: 1059.325 Profile: T=10

E.G. Elev (m)	851.67	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.030	
W.S. Elev (m)	851.59	Reach Len. (m)	520.40	584.02	569.02
Crit W.S. (m)		Flow Area (m2)		28.94	
E.G. Slope (m/m)	0.005123	Area (m2)		28.94	
Q Total (m3/s)	35.44	Flow (m3/s)		35.44	

Plan: Plan 04 ArroyoValilongo 1 RS: 1059.325 Profile: T=10 (Continued)

Top Width (m)	78.63	Top Width (m)		78.63	
Vel Total (m/s)	1.22	Avg. Vel. (m/s)		1.22	
Max Chl Dpth (m)	0.68	Hydr. Depth (m)		0.37	
Conv. Total (m3/s)	495.1	Conv. (m3/s)		495.1	
Length Wtd. (m)	584.02	Wetted Per. (m)		78.68	
Min Ch El (m)	850.91	Shear (N/m2)		18.48	
Alpha	1.00	Stream Power (N/m s)		22.63	
Frctn Loss (m)	4.50	Cum Volume (1000 m3)		13.90	
C & E Loss (m)	0.01	Cum SA (1000 m2)		38.25	

Plan: Plan 04 ArroyoValilongo 1 RS: 1059.325 Profile: T=25

E.G. Elev (m)	851.79	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.030	
W.S. Elev (m)	851.68	Reach Len. (m)	520.40	584.02	569.02
Crit W.S. (m)		Flow Area (m2)		36.18	
E.G. Slope (m/m)	0.005315	Area (m2)		36.18	
Q Total (m3/s)	51.63	Flow (m3/s)		51.63	
Top Width (m)	80.32	Top Width (m)		80.32	
Vel Total (m/s)	1.43	Avg. Vel. (m/s)		1.43	
Max Chl Dpth (m)	0.77	Hydr. Depth (m)		0.45	
Conv. Total (m3/s)	708.2	Conv. (m3/s)		708.2	
Length Wtd. (m)	584.02	Wetted Per. (m)		80.38	
Min Ch El (m)	850.91	Shear (N/m2)		23.46	
Alpha	1.00	Stream Power (N/m s)		33.48	
Frctn Loss (m)	4.47	Cum Volume (1000 m3)		17.74	
C & E Loss (m)	0.01	Cum SA (1000 m2)		39.81	

Plan: Plan 04 ArroyoValilongo 1 RS: 1059.325 Profile: T=50

E.G. Elev (m)	851.87	Element	Left OB	Channel	Right OB
Vel Head (m)	0.12	Wt. n-Val.		0.030	
W.S. Elev (m)	851.75	Reach Len. (m)	520.40	584.02	569.02
Crit W.S. (m)		Flow Area (m2)		41.63	
E.G. Slope (m/m)	0.005412	Area (m2)		41.63	
Q Total (m3/s)	65.17	Flow (m3/s)		65.17	
Top Width (m)	81.57	Top Width (m)		81.57	
Vel Total (m/s)	1.57	Avg. Vel. (m/s)		1.57	
Max Chl Dpth (m)	0.84	Hydr. Depth (m)		0.51	
Conv. Total (m3/s)	885.8	Conv. (m3/s)		885.8	
Length Wtd. (m)	584.02	Wetted Per. (m)		81.64	
Min Ch El (m)	850.91	Shear (N/m2)		27.07	
Alpha	1.00	Stream Power (N/m s)		42.37	
Frctn Loss (m)	4.44	Cum Volume (1000 m3)		20.71	
C & E Loss (m)	0.01	Cum SA (1000 m2)		41.19	

Plan: Plan 04 ArroyoValilongo 1 RS: 1059.325 Profile: T=100

E.G. Elev (m)	851.97	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	851.82	Reach Len. (m)	520.40	584.02	569.02
Crit W.S. (m)		Flow Area (m2)	0.04	47.25	0.00
E.G. Slope (m/m)	0.005619	Area (m2)	0.04	47.25	0.00
Q Total (m3/s)	81.71	Flow (m3/s)	0.01	81.70	0.00
Top Width (m)	83.71	Top Width (m)	1.46	82.00	0.26
Vel Total (m/s)	1.73	Avg. Vel. (m/s)	0.24	1.73	0.15
Max Chl Dpth (m)	0.91	Hydr. Depth (m)	0.03	0.58	0.01
Conv. Total (m3/s)	1090.0	Conv. (m3/s)	0.1	1089.9	0.0
Length Wtd. (m)	584.02	Wetted Per. (m)	1.46	82.07	0.26
Min Ch El (m)	850.91	Shear (N/m2)	1.61	31.72	0.78

Plan: Plan 04 ArroyoValilongo 1 RS: 1059.325 Profile: T=100 (Continued)

Alpha	1.00	Stream Power (N/m s)	0.38	54.86	0.11
Frctn Loss (m)	4.42	Cum Volume (1000 m3)	0.01	23.95	0.00
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.38	42.01	0.07

Plan: Plan 04 ArroyoValilongo 1 RS: 1059.325 Profile: T=500

E.G. Elev (m)	852.20	Element	Left OB	Channel	Right OB
Vel Head (m)	0.22	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	851.98	Reach Len. (m)	520.40	584.02	569.02
Crit W.S. (m)	851.87	Flow Area (m2)	0.53	60.88	0.17
E.G. Slope (m/m)	0.005778	Area (m2)	0.53	60.88	0.17
Q Total (m3/s)	126.83	Flow (m3/s)	0.34	126.40	0.09
Top Width (m)	87.91	Top Width (m)	4.14	82.00	1.77
Vel Total (m/s)	2.06	Avg. Vel. (m/s)	0.64	2.08	0.53
Max Chl Dpth (m)	1.07	Hydr. Depth (m)	0.13	0.74	0.10
Conv. Total (m3/s)	1668.6	Conv. (m3/s)	4.5	1662.9	1.2
Length Wtd. (m)	583.93	Wetted Per. (m)	4.15	82.07	1.78
Min Ch El (m)	850.91	Shear (N/m2)	7.23	42.03	5.48
Alpha	1.01	Stream Power (N/m s)	4.64	87.26	2.93
Frctn Loss (m)	4.37	Cum Volume (1000 m3)	0.14	31.71	0.05
C & E Loss (m)	0.01	Cum SA (1000 m2)	1.08	43.61	0.50

Plan: Plan 04 ArroyoValilongo 1 RS: 53.98827 Profile: T=2

E.G. Elev (m)	846.85	Element	Left OB	Channel	Right OB
Vel Head (m)	0.12	Wt. n-Val.		0.030	
W.S. Elev (m)	846.73	Reach Len. (m)			
Crit W.S. (m)	846.73	Flow Area (m2)		7.66	
E.G. Slope (m/m)	0.015111	Area (m2)		7.66	
Q Total (m3/s)	11.77	Flow (m3/s)		11.77	
Top Width (m)	33.37	Top Width (m)		33.37	
Vel Total (m/s)	1.54	Avg. Vel. (m/s)		1.54	
Max Chl Dpth (m)	0.37	Hydr. Depth (m)		0.23	
Conv. Total (m3/s)	95.7	Conv. (m3/s)		95.7	
Length Wtd. (m)		Wetted Per. (m)		33.40	
Min Ch El (m)	846.36	Shear (N/m2)		34.00	
Alpha	1.00	Stream Power (N/m s)		52.23	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 04 ArroyoValilongo 1 RS: 53.98827 Profile: T=5

E.G. Elev (m)	847.03	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.		0.030	
W.S. Elev (m)	846.88	Reach Len. (m)			
Crit W.S. (m)	846.88	Flow Area (m2)		13.89	
E.G. Slope (m/m)	0.013562	Area (m2)		13.89	
Q Total (m3/s)	23.88	Flow (m3/s)		23.88	
Top Width (m)	47.13	Top Width (m)		47.13	
Vel Total (m/s)	1.72	Avg. Vel. (m/s)		1.72	
Max Chl Dpth (m)	0.52	Hydr. Depth (m)		0.29	
Conv. Total (m3/s)	205.1	Conv. (m3/s)		205.1	
Length Wtd. (m)		Wetted Per. (m)		47.17	
Min Ch El (m)	846.36	Shear (N/m2)		39.18	
Alpha	1.00	Stream Power (N/m s)		67.33	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 04 ArroyoValilongo 1 RS: 53.98827 Profile: T=10

E.G. Elev (m)	847.16	Element	Left OB	Channel	Right OB
Vel Head (m)	0.18	Wt. n-Val.		0.030	
W.S. Elev (m)	846.98	Reach Len. (m)			
Crit W.S. (m)	846.98	Flow Area (m2)		18.67	
E.G. Slope (m/m)	0.012838	Area (m2)		18.67	
Q Total (m3/s)	35.44	Flow (m3/s)		35.44	
Top Width (m)	52.34	Top Width (m)		52.34	
Vel Total (m/s)	1.90	Avg. Vel. (m/s)		1.90	
Max Chl Dpth (m)	0.62	Hydr. Depth (m)		0.36	
Conv. Total (m3/s)	312.8	Conv. (m3/s)		312.8	
Length Wtd. (m)		Wetted Per. (m)		52.38	
Min Ch El (m)	846.36	Shear (N/m2)		44.87	
Alpha	1.00	Stream Power (N/m s)		85.19	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 04 ArroyoValilongo 1 RS: 53.98827 Profile: T=25

E.G. Elev (m)	847.31	Element	Left OB	Channel	Right OB
Vel Head (m)	0.23	Wt. n-Val.		0.030	
W.S. Elev (m)	847.09	Reach Len. (m)			
Crit W.S. (m)	847.09	Flow Area (m2)		24.58	
E.G. Slope (m/m)	0.011929	Area (m2)		24.58	
Q Total (m3/s)	51.63	Flow (m3/s)		51.63	
Top Width (m)	56.02	Top Width (m)		56.02	
Vel Total (m/s)	2.10	Avg. Vel. (m/s)		2.10	
Max Chl Dpth (m)	0.73	Hydr. Depth (m)		0.44	
Conv. Total (m3/s)	472.7	Conv. (m3/s)		472.7	
Length Wtd. (m)		Wetted Per. (m)		56.07	
Min Ch El (m)	846.36	Shear (N/m2)		51.28	
Alpha	1.00	Stream Power (N/m s)		107.72	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 04 ArroyoValilongo 1 RS: 53.98827 Profile: T=50

E.G. Elev (m)	847.42	Element	Left OB	Channel	Right OB
Vel Head (m)	0.25	Wt. n-Val.		0.030	
W.S. Elev (m)	847.17	Reach Len. (m)			
Crit W.S. (m)	847.17	Flow Area (m2)		29.29	
E.G. Slope (m/m)	0.011467	Area (m2)		29.29	
Q Total (m3/s)	65.17	Flow (m3/s)		65.17	
Top Width (m)	59.47	Top Width (m)		59.47	
Vel Total (m/s)	2.22	Avg. Vel. (m/s)		2.22	
Max Chl Dpth (m)	0.81	Hydr. Depth (m)		0.49	
Conv. Total (m3/s)	608.6	Conv. (m3/s)		608.6	
Length Wtd. (m)		Wetted Per. (m)		59.53	
Min Ch El (m)	846.36	Shear (N/m2)		55.34	
Alpha	1.00	Stream Power (N/m s)		123.12	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 04 ArroyoValilongo 1 RS: 53.98827 Profile: T=100

E.G. Elev (m)	847.54	Element	Left OB	Channel	Right OB
Vel Head (m)	0.28	Wt. n-Val.		0.030	
W.S. Elev (m)	847.26	Reach Len. (m)			
Crit W.S. (m)	847.26	Flow Area (m2)		34.77	
E.G. Slope (m/m)	0.010730	Area (m2)		34.77	
Q Total (m3/s)	81.71	Flow (m3/s)		81.71	

Plan: Plan 04 ArroyoValilongo 1 RS: 53.98827 Profile: T=100 (Continued)

Top Width (m)	61.86	Top Width (m)		61.86	
Vel Total (m/s)	2.35	Avg. Vel. (m/s)		2.35	
Max Chl Dpth (m)	0.90	Hydr. Depth (m)		0.56	
Conv. Total (m3/s)	788.8	Conv. (m3/s)		788.8	
Length Wtd. (m)		Wetted Per. (m)		61.91	
Min Ch El (m)	846.36	Shear (N/m2)		59.09	
Alpha	1.00	Stream Power (N/m s)		138.86	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 04 ArroyoValilongo 1 RS: 53.98827 Profile: T=500

E.G. Elev (m)	847.82	Element	Left OB	Channel	Right OB
Vel Head (m)	0.36	Wt. n-Val.		0.030	
W.S. Elev (m)	847.46	Reach Len. (m)			
Crit W.S. (m)	847.46	Flow Area (m2)		47.73	
E.G. Slope (m/m)	0.010073	Area (m2)		47.73	
Q Total (m3/s)	126.83	Flow (m3/s)		126.83	
Top Width (m)	67.35	Top Width (m)		67.35	
Vel Total (m/s)	2.66	Avg. Vel. (m/s)		2.66	
Max Chl Dpth (m)	1.10	Hydr. Depth (m)		0.71	
Conv. Total (m3/s)	1263.7	Conv. (m3/s)		1263.7	
Length Wtd. (m)		Wetted Per. (m)		67.42	
Min Ch El (m)	846.36	Shear (N/m2)		69.93	
Alpha	1.00	Stream Power (N/m s)		185.82	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 08 ArroyoValdepozue 1 RS: 1943.569 Profile: T=2

E.G. Elev (m)	853.11	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.030	0.030
W.S. Elev (m)	853.02	Reach Len. (m)	420.55	366.25	274.25
Crit W.S. (m)	853.00	Flow Area (m2)		8.72	0.04
E.G. Slope (m/m)	0.012257	Area (m2)		8.72	0.04
Q Total (m3/s)	11.77	Flow (m3/s)		11.76	0.01
Top Width (m)	40.71	Top Width (m)		39.44	1.27
Vel Total (m/s)	1.34	Avg. Vel. (m/s)		1.35	0.34
Max Chl Dpth (m)	0.50	Hydr. Depth (m)		0.22	0.03
Conv. Total (m3/s)	106.3	Conv. (m3/s)		106.2	0.1
Length Wtd. (m)	366.24	Wetted Per. (m)		39.50	1.27
Min Ch El (m)	852.52	Shear (N/m2)		26.54	3.42
Alpha	1.01	Stream Power (N/m s)		35.78	1.17
Frctn Loss (m)	1.79	Cum Volume (1000 m3)	1.42	17.88	0.27
C & E Loss (m)	0.02	Cum SA (1000 m2)	11.07	65.71	3.76

Plan: Plan 08 ArroyoValdepozue 1 RS: 1943.569 Profile: T=5

E.G. Elev (m)	853.29	Element	Left OB	Channel	Right OB
Vel Head (m)	0.16	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	853.13	Reach Len. (m)	420.55	366.25	274.25
Crit W.S. (m)	853.13	Flow Area (m2)	0.03	13.27	0.33
E.G. Slope (m/m)	0.012456	Area (m2)	0.03	13.27	0.33
Q Total (m3/s)	23.88	Flow (m3/s)	0.01	23.63	0.23
Top Width (m)	44.91	Top Width (m)	1.11	40.00	3.80
Vel Total (m/s)	1.75	Avg. Vel. (m/s)	0.36	1.78	0.72
Max Chl Dpth (m)	0.61	Hydr. Depth (m)	0.03	0.33	0.09
Conv. Total (m3/s)	214.0	Conv. (m3/s)	0.1	211.8	2.1
Length Wtd. (m)	366.22	Wetted Per. (m)	1.11	40.06	3.80
Min Ch El (m)	852.52	Shear (N/m2)	3.72	40.46	10.44
Alpha	1.02	Stream Power (N/m s)	1.35	72.06	7.54
Frctn Loss (m)	1.81	Cum Volume (1000 m3)	3.30	26.88	1.11
C & E Loss (m)	0.04	Cum SA (1000 m2)	17.26	67.42	7.73

Plan: Plan 08 ArroyoValdepozue 1 RS: 1943.569 Profile: T=10

E.G. Elev (m)	853.43	Element	Left OB	Channel	Right OB
Vel Head (m)	0.19	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	853.24	Reach Len. (m)	420.55	366.25	274.25
Crit W.S. (m)	853.24	Flow Area (m2)	0.32	17.48	0.84
E.G. Slope (m/m)	0.010592	Area (m2)	0.32	17.48	0.84
Q Total (m3/s)	35.44	Flow (m3/s)	0.18	34.48	0.78
Top Width (m)	50.79	Top Width (m)	4.87	40.00	5.92
Vel Total (m/s)	1.90	Avg. Vel. (m/s)	0.56	1.97	0.93
Max Chl Dpth (m)	0.72	Hydr. Depth (m)	0.07	0.44	0.14
Conv. Total (m3/s)	344.4	Conv. (m3/s)	1.7	335.1	7.6
Length Wtd. (m)	366.06	Wetted Per. (m)	4.88	40.06	5.93
Min Ch El (m)	852.52	Shear (N/m2)	6.81	45.31	14.66
Alpha	1.05	Stream Power (N/m s)	3.80	89.41	13.64
Frctn Loss (m)	1.74	Cum Volume (1000 m3)	5.15	33.57	2.12
C & E Loss (m)	0.04	Cum SA (1000 m2)	20.13	67.42	11.92

Plan: Plan 08 ArroyoValdepozue 1 RS: 1943.569 Profile: T=25

E.G. Elev (m)	853.59	Element	Left OB	Channel	Right OB
Vel Head (m)	0.24	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	853.36	Reach Len. (m)	420.55	366.25	274.25
Crit W.S. (m)	853.36	Flow Area (m2)	1.13	22.23	1.70
E.G. Slope (m/m)	0.009519	Area (m2)	1.13	22.23	1.70
Q Total (m3/s)	51.63	Flow (m3/s)	0.96	48.82	1.86

Plan: Plan 08 ArroyoValdepozue 1 RS: 1943.569 Profile: T=25 (Continued)

Top Width (m)	57.21	Top Width (m)	8.50	40.00	8.71
Vel Total (m/s)	2.06	Avg. Vel. (m/s)	0.85	2.20	1.09
Max Chl Dpth (m)	0.83	Hydr. Depth (m)	0.13	0.56	0.19
Conv. Total (m3/s)	529.2	Conv. (m3/s)	9.8	500.3	19.0
Length Wtd. (m)	366.00	Wetted Per. (m)	8.51	40.06	8.72
Min Ch El (m)	852.52	Shear (N/m2)	12.40	51.80	18.18
Alpha	1.09	Stream Power (N/m s)	10.50	113.76	19.86
Frctn Loss (m)	1.66	Cum Volume (1000 m3)	7.58	41.32	3.70
C & E Loss (m)	0.05	Cum SA (1000 m2)	23.16	67.42	15.02

Plan: Plan 08 ArroyoValdepozue 1 RS: 1943.569 Profile: T=50

E.G. Elev (m)	853.70	Element	Left OB	Channel	Right OB
Vel Head (m)	0.26	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	853.44	Reach Len. (m)	420.55	366.25	274.25
Crit W.S. (m)	853.44	Flow Area (m2)	1.95	25.74	2.57
E.G. Slope (m/m)	0.008842	Area (m2)	1.95	25.74	2.57
Q Total (m3/s)	65.17	Flow (m3/s)	2.03	60.08	3.06
Top Width (m)	61.16	Top Width (m)	10.21	40.00	10.95
Vel Total (m/s)	2.15	Avg. Vel. (m/s)	1.04	2.33	1.19
Max Chl Dpth (m)	0.92	Hydr. Depth (m)	0.19	0.64	0.23
Conv. Total (m3/s)	693.1	Conv. (m3/s)	21.6	638.9	32.5
Length Wtd. (m)	365.93	Wetted Per. (m)	10.22	40.06	10.96
Min Ch El (m)	852.52	Shear (N/m2)	16.57	55.72	20.32
Alpha	1.10	Stream Power (N/m s)	17.23	130.04	24.20
Frctn Loss (m)	1.61	Cum Volume (1000 m3)	9.59	46.94	5.09
C & E Loss (m)	0.05	Cum SA (1000 m2)	25.12	67.42	17.75

Plan: Plan 08 ArroyoValdepozue 1 RS: 1943.569 Profile: T=100

E.G. Elev (m)	853.83	Element	Left OB	Channel	Right OB
Vel Head (m)	0.29	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	853.54	Reach Len. (m)	420.55	366.25	274.25
Crit W.S. (m)	853.54	Flow Area (m2)	2.99	29.52	3.70
E.G. Slope (m/m)	0.008307	Area (m2)	2.99	29.52	3.70
Q Total (m3/s)	81.71	Flow (m3/s)	3.64	73.18	4.89
Top Width (m)	64.65	Top Width (m)	11.79	40.00	12.86
Vel Total (m/s)	2.26	Avg. Vel. (m/s)	1.22	2.48	1.32
Max Chl Dpth (m)	1.02	Hydr. Depth (m)	0.25	0.74	0.29
Conv. Total (m3/s)	896.5	Conv. (m3/s)	40.0	802.9	53.7
Length Wtd. (m)	365.78	Wetted Per. (m)	11.80	40.06	12.87
Min Ch El (m)	852.52	Shear (N/m2)	20.66	60.03	23.40
Alpha	1.11	Stream Power (N/m s)	25.16	148.81	30.95
Frctn Loss (m)	1.60	Cum Volume (1000 m3)	11.97	52.96	6.87
C & E Loss (m)	0.06	Cum SA (1000 m2)	26.70	67.42	20.72

Plan: Plan 08 ArroyoValdepozue 1 RS: 1943.569 Profile: T=500

E.G. Elev (m)	854.11	Element	Left OB	Channel	Right OB
Vel Head (m)	0.36	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	853.75	Reach Len. (m)	420.55	366.25	274.25
Crit W.S. (m)	853.75	Flow Area (m2)	5.77	37.92	6.82
E.G. Slope (m/m)	0.007707	Area (m2)	5.77	37.92	6.82
Q Total (m3/s)	126.83	Flow (m3/s)	9.02	106.98	10.83
Top Width (m)	71.84	Top Width (m)	14.79	40.00	17.05
Vel Total (m/s)	2.51	Avg. Vel. (m/s)	1.56	2.82	1.59
Max Chl Dpth (m)	1.23	Hydr. Depth (m)	0.39	0.95	0.40
Conv. Total (m3/s)	1444.7	Conv. (m3/s)	102.7	1218.6	123.4
Length Wtd. (m)	365.17	Wetted Per. (m)	14.81	40.06	17.07
Min Ch El (m)	852.52	Shear (N/m2)	29.48	71.54	30.20

Plan: Plan 08 ArroyoValdepozue 1 RS: 1943.569 Profile: T=500 (Continued)

Alpha	1.13	Stream Power (N/m s)	46.04	201.82	47.94
Frctn Loss (m)	1.54	Cum Volume (1000 m3)	17.94	67.02	11.79
C & E Loss (m)	0.07	Cum SA (1000 m2)	30.46	67.42	26.08

Plan: Plan 08 ArroyoValdepozue 1 RS: 1577.324 Profile: T=2

E.G. Elev (m)	851.29	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.	0.030	0.030	
W.S. Elev (m)	851.27	Reach Len. (m)	353.19	389.20	406.51
Crit W.S. (m)	851.14	Flow Area (m2)	0.09	16.99	
E.G. Slope (m/m)	0.002616	Area (m2)	0.09	16.99	
Q Total (m3/s)	11.77	Flow (m3/s)	0.01	11.76	
Top Width (m)	69.03	Top Width (m)	3.33	65.70	
Vel Total (m/s)	0.69	Avg. Vel. (m/s)	0.16	0.69	
Max Chl Dpth (m)	0.42	Hydr. Depth (m)	0.03	0.26	
Conv. Total (m3/s)	230.1	Conv. (m3/s)	0.3	229.8	
Length Wtd. (m)	385.86	Wetted Per. (m)	3.33	65.72	
Min Ch El (m)	850.85	Shear (N/m2)	0.73	6.63	
Alpha	1.01	Stream Power (N/m s)	0.11	4.59	
Frctn Loss (m)	1.58	Cum Volume (1000 m3)	1.40	13.17	0.27
C & E Loss (m)	0.00	Cum SA (1000 m2)	10.37	46.46	3.59

Plan: Plan 08 ArroyoValdepozue 1 RS: 1577.324 Profile: T=5

E.G. Elev (m)	851.45	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	851.41	Reach Len. (m)	353.19	389.20	406.51
Crit W.S. (m)	851.25	Flow Area (m2)	0.95	26.08	0.00
E.G. Slope (m/m)	0.002624	Area (m2)	0.95	26.08	0.00
Q Total (m3/s)	23.88	Flow (m3/s)	0.36	23.52	0.00
Top Width (m)	78.52	Top Width (m)	9.32	67.89	1.31
Vel Total (m/s)	0.88	Avg. Vel. (m/s)	0.37	0.90	0.04
Max Chl Dpth (m)	0.56	Hydr. Depth (m)	0.10	0.38	0.00
Conv. Total (m3/s)	466.2	Conv. (m3/s)	7.0	459.2	0.0
Length Wtd. (m)	385.32	Wetted Per. (m)	9.33	67.92	1.31
Min Ch El (m)	850.85	Shear (N/m2)	2.63	9.88	0.09
Alpha	1.03	Stream Power (N/m s)	0.98	8.91	0.00
Frctn Loss (m)	1.54	Cum Volume (1000 m3)	3.09	19.67	1.07
C & E Loss (m)	0.01	Cum SA (1000 m2)	15.07	47.66	7.03

Plan: Plan 08 ArroyoValdepozue 1 RS: 1577.324 Profile: T=10

E.G. Elev (m)	851.56	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	851.50	Reach Len. (m)	353.19	389.20	406.51
Crit W.S. (m)	851.32	Flow Area (m2)	1.96	32.51	0.26
E.G. Slope (m/m)	0.002682	Area (m2)	1.96	32.51	0.26
Q Total (m3/s)	35.44	Flow (m3/s)	1.03	34.33	0.08
Top Width (m)	82.99	Top Width (m)	11.69	67.89	3.40
Vel Total (m/s)	1.02	Avg. Vel. (m/s)	0.52	1.06	0.31
Max Chl Dpth (m)	0.65	Hydr. Depth (m)	0.17	0.48	0.08
Conv. Total (m3/s)	684.3	Conv. (m3/s)	19.8	662.9	1.5
Length Wtd. (m)	384.92	Wetted Per. (m)	11.70	67.92	3.41
Min Ch El (m)	850.85	Shear (N/m2)	4.40	12.59	1.98
Alpha	1.05	Stream Power (N/m s)	2.31	13.30	0.61
Frctn Loss (m)	1.52	Cum Volume (1000 m3)	4.67	24.42	1.97
C & E Loss (m)	0.01	Cum SA (1000 m2)	16.65	47.66	10.64

Plan: Plan 08 ArroyoValdepozue 1 RS: 1577.324 Profile: T=25

E.G. Elev (m)	851.69	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	851.62	Reach Len. (m)	353.19	389.20	406.51
Crit W.S. (m)	851.41	Flow Area (m2)	3.48	40.44	0.78
E.G. Slope (m/m)	0.002634	Area (m2)	3.48	40.44	0.78
Q Total (m3/s)	51.63	Flow (m3/s)	2.31	48.97	0.35
Top Width (m)	88.00	Top Width (m)	14.38	67.89	5.73
Vel Total (m/s)	1.16	Avg. Vel. (m/s)	0.66	1.21	0.45
Max Chl Dpth (m)	0.77	Hydr. Depth (m)	0.24	0.60	0.14
Conv. Total (m3/s)	1006.0	Conv. (m3/s)	45.0	954.1	6.9
Length Wtd. (m)	384.57	Wetted Per. (m)	14.39	67.92	5.74
Min Ch El (m)	850.85	Shear (N/m2)	6.24	15.38	3.51
Alpha	1.06	Stream Power (N/m s)	4.14	18.62	1.59
Frctn Loss (m)	1.49	Cum Volume (1000 m3)	6.61	29.85	3.36
C & E Loss (m)	0.01	Cum SA (1000 m2)	18.35	47.66	13.04

Plan: Plan 08 ArroyoValdepozue 1 RS: 1577.324 Profile: T=50

E.G. Elev (m)	851.79	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	851.70	Reach Len. (m)	353.19	389.20	406.51
Crit W.S. (m)	851.48	Flow Area (m2)	4.77	46.07	1.35
E.G. Slope (m/m)	0.002638	Area (m2)	4.77	46.07	1.35
Q Total (m3/s)	65.17	Flow (m3/s)	3.58	60.89	0.70
Top Width (m)	92.37	Top Width (m)	16.44	67.89	8.04
Vel Total (m/s)	1.25	Avg. Vel. (m/s)	0.75	1.32	0.52
Max Chl Dpth (m)	0.85	Hydr. Depth (m)	0.29	0.68	0.17
Conv. Total (m3/s)	1268.9	Conv. (m3/s)	69.7	1185.5	13.7
Length Wtd. (m)	384.36	Wetted Per. (m)	16.44	67.92	8.05
Min Ch El (m)	850.85	Shear (N/m2)	7.51	17.55	4.33
Alpha	1.07	Stream Power (N/m s)	5.63	23.19	2.25
Frctn Loss (m)	1.47	Cum Volume (1000 m3)	8.17	33.79	4.56
C & E Loss (m)	0.01	Cum SA (1000 m2)	19.51	47.66	15.15

Plan: Plan 08 ArroyoValdepozue 1 RS: 1577.324 Profile: T=100

E.G. Elev (m)	851.89	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	851.79	Reach Len. (m)	353.19	389.20	406.51
Crit W.S. (m)	851.55	Flow Area (m2)	6.22	51.88	2.17
E.G. Slope (m/m)	0.002692	Area (m2)	6.22	51.88	2.17
Q Total (m3/s)	81.71	Flow (m3/s)	5.43	74.98	1.30
Top Width (m)	95.84	Top Width (m)	17.34	67.89	10.61
Vel Total (m/s)	1.36	Avg. Vel. (m/s)	0.87	1.45	0.60
Max Chl Dpth (m)	0.94	Hydr. Depth (m)	0.36	0.76	0.20
Conv. Total (m3/s)	1574.9	Conv. (m3/s)	104.6	1445.3	25.1
Length Wtd. (m)	384.18	Wetted Per. (m)	17.35	67.92	10.62
Min Ch El (m)	850.85	Shear (N/m2)	9.46	20.16	5.39
Alpha	1.07	Stream Power (N/m s)	8.26	29.14	3.23
Frctn Loss (m)	1.45	Cum Volume (1000 m3)	10.03	38.05	6.07
C & E Loss (m)	0.01	Cum SA (1000 m2)	20.58	47.66	17.50

Plan: Plan 08 ArroyoValdepozue 1 RS: 1577.324 Profile: T=500

E.G. Elev (m)	852.13	Element	Left OB	Channel	Right OB
Vel Head (m)	0.13	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	852.00	Reach Len. (m)	353.19	389.20	406.51
Crit W.S. (m)	851.72	Flow Area (m2)	10.20	66.24	4.82
E.G. Slope (m/m)	0.002653	Area (m2)	10.20	66.24	4.82
Q Total (m3/s)	126.83	Flow (m3/s)	11.02	111.85	3.97

Plan: Plan 08 ArroyoValdepozue 1 RS: 1577.324 Profile: T=500 (Continued)

Top Width (m)	102.86	Top Width (m)	20.43	67.89	14.54
Vel Total (m/s)	1.56	Avg. Vel. (m/s)	1.08	1.69	0.82
Max Chl Dpth (m)	1.15	Hydr. Depth (m)	0.50	0.98	0.33
Conv. Total (m3/s)	2462.2	Conv. (m3/s)	213.9	2171.3	77.0
Length Wtd. (m)	383.93	Wetted Per. (m)	20.45	67.92	14.56
Min Ch El (m)	850.85	Shear (N/m2)	12.98	25.38	8.62
Alpha	1.08	Stream Power (N/m s)	14.02	42.85	7.09
Frctn Loss (m)	1.41	Cum Volume (1000 m3)	14.58	47.94	10.19
C & E Loss (m)	0.01	Cum SA (1000 m2)	23.06	47.66	21.75

Plan: Plan 08 ArroyoValdepozue 1 RS: 1188.129 Profile: T=2

E.G. Elev (m)	849.71	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	849.64	Reach Len. (m)	410.50	388.33	299.28
Crit W.S. (m)	849.59	Flow Area (m2)	2.30	7.90	0.05
E.G. Slope (m/m)	0.007265	Area (m2)	2.30	7.90	0.05
Q Total (m3/s)	11.77	Flow (m3/s)	2.17	9.59	0.01
Top Width (m)	42.37	Top Width (m)	12.06	28.23	2.08
Vel Total (m/s)	1.15	Avg. Vel. (m/s)	0.94	1.21	0.22
Max Chl Dpth (m)	0.68	Hydr. Depth (m)	0.19	0.28	0.02
Conv. Total (m3/s)	138.1	Conv. (m3/s)	25.5	112.5	0.1
Length Wtd. (m)	389.52	Wetted Per. (m)	12.07	28.27	2.08
Min Ch El (m)	848.96	Shear (N/m2)	13.61	19.90	1.58
Alpha	1.03	Stream Power (N/m s)	12.83	24.16	0.35
Frctn Loss (m)	1.33	Cum Volume (1000 m3)	0.98	8.32	0.26
C & E Loss (m)	0.01	Cum SA (1000 m2)	7.65	28.18	3.17

Plan: Plan 08 ArroyoValdepozue 1 RS: 1188.129 Profile: T=5

E.G. Elev (m)	849.90	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	849.79	Reach Len. (m)	410.50	388.33	299.28
Crit W.S. (m)	849.73	Flow Area (m2)	4.28	11.95	0.62
E.G. Slope (m/m)	0.006841	Area (m2)	4.28	11.95	0.62
Q Total (m3/s)	23.88	Flow (m3/s)	4.96	18.55	0.37
Top Width (m)	50.05	Top Width (m)	15.67	28.23	6.15
Vel Total (m/s)	1.42	Avg. Vel. (m/s)	1.16	1.55	0.60
Max Chl Dpth (m)	0.83	Hydr. Depth (m)	0.27	0.42	0.10
Conv. Total (m3/s)	288.7	Conv. (m3/s)	60.0	224.3	4.5
Length Wtd. (m)	387.64	Wetted Per. (m)	15.68	28.27	6.15
Min Ch El (m)	848.96	Shear (N/m2)	18.30	28.35	6.76
Alpha	1.07	Stream Power (N/m s)	21.23	44.01	4.04
Frctn Loss (m)	1.33	Cum Volume (1000 m3)	2.17	12.27	0.94
C & E Loss (m)	0.02	Cum SA (1000 m2)	10.66	28.96	5.51

Plan: Plan 08 ArroyoValdepozue 1 RS: 1188.129 Profile: T=10

E.G. Elev (m)	850.03	Element	Left OB	Channel	Right OB
Vel Head (m)	0.14	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	849.90	Reach Len. (m)	410.50	388.33	299.28
Crit W.S. (m)	849.83	Flow Area (m2)	6.14	15.08	1.44
E.G. Slope (m/m)	0.006332	Area (m2)	6.14	15.08	1.44
Q Total (m3/s)	35.44	Flow (m3/s)	7.98	26.31	1.15
Top Width (m)	54.94	Top Width (m)	17.92	28.23	8.79
Vel Total (m/s)	1.56	Avg. Vel. (m/s)	1.30	1.74	0.79
Max Chl Dpth (m)	0.94	Hydr. Depth (m)	0.34	0.53	0.16
Conv. Total (m3/s)	445.4	Conv. (m3/s)	100.3	330.7	14.4
Length Wtd. (m)	386.71	Wetted Per. (m)	17.93	28.27	8.80
Min Ch El (m)	848.96	Shear (N/m2)	21.28	33.13	10.18

Plan: Plan 08 ArroyoValdepozue 1 RS: 1188.129 Profile: T=10 (Continued)

Alpha	1.09	Stream Power (N/m s)	27.64	57.80	8.09
Frctn Loss (m)	1.34	Cum Volume (1000 m3)	3.24	15.16	1.63
C & E Loss (m)	0.02	Cum SA (1000 m2)	11.42	28.96	8.16

Plan: Plan 08 ArroyoValdepozue 1 RS: 1188.129 Profile: T=25

E.G. Elev (m)	850.19	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	850.02	Reach Len. (m)	410.50	388.33	299.28
Crit W.S. (m)	849.95	Flow Area (m2)	8.43	18.46	2.69
E.G. Slope (m/m)	0.006251	Area (m2)	8.43	18.46	2.69
Q Total (m3/s)	51.63	Flow (m3/s)	12.39	36.61	2.62
Top Width (m)	60.38	Top Width (m)	20.23	28.23	11.93
Vel Total (m/s)	1.75	Avg. Vel. (m/s)	1.47	1.98	0.98
Max Chl Dpth (m)	1.06	Hydr. Depth (m)	0.42	0.65	0.23
Conv. Total (m3/s)	653.0	Conv. (m3/s)	156.8	463.1	33.1
Length Wtd. (m)	384.90	Wetted Per. (m)	20.24	28.27	11.94
Min Ch El (m)	848.96	Shear (N/m2)	25.54	40.03	13.80
Alpha	1.10	Stream Power (N/m s)	37.54	79.39	13.46
Frctn Loss (m)	1.36	Cum Volume (1000 m3)	4.51	18.38	2.66
C & E Loss (m)	0.03	Cum SA (1000 m2)	12.24	28.96	9.45

Plan: Plan 08 ArroyoValdepozue 1 RS: 1188.129 Profile: T=50

E.G. Elev (m)	850.30	Element	Left OB	Channel	Right OB
Vel Head (m)	0.19	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	850.11	Reach Len. (m)	410.50	388.33	299.28
Crit W.S. (m)	850.03	Flow Area (m2)	10.31	20.99	3.86
E.G. Slope (m/m)	0.006067	Area (m2)	10.31	20.99	3.86
Q Total (m3/s)	65.17	Flow (m3/s)	16.28	44.68	4.21
Top Width (m)	64.08	Top Width (m)	21.72	28.23	14.14
Vel Total (m/s)	1.85	Avg. Vel. (m/s)	1.58	2.13	1.09
Max Chl Dpth (m)	1.15	Hydr. Depth (m)	0.47	0.74	0.27
Conv. Total (m3/s)	836.7	Conv. (m3/s)	209.0	573.6	54.0
Length Wtd. (m)	383.79	Wetted Per. (m)	21.73	28.27	14.15
Min Ch El (m)	848.96	Shear (N/m2)	28.22	44.17	16.22
Alpha	1.11	Stream Power (N/m s)	44.57	94.02	17.70
Frctn Loss (m)	1.36	Cum Volume (1000 m3)	5.51	20.74	3.50
C & E Loss (m)	0.03	Cum SA (1000 m2)	12.78	28.96	10.64

Plan: Plan 08 ArroyoValdepozue 1 RS: 1188.129 Profile: T=100

E.G. Elev (m)	850.43	Element	Left OB	Channel	Right OB
Vel Head (m)	0.21	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	850.21	Reach Len. (m)	410.50	388.33	299.28
Crit W.S. (m)	850.13	Flow Area (m2)	12.68	23.95	5.45
E.G. Slope (m/m)	0.005698	Area (m2)	12.68	23.95	5.45
Q Total (m3/s)	81.71	Flow (m3/s)	21.15	53.95	6.61
Top Width (m)	67.95	Top Width (m)	23.46	28.23	16.26
Vel Total (m/s)	1.94	Avg. Vel. (m/s)	1.67	2.25	1.21
Max Chl Dpth (m)	1.25	Hydr. Depth (m)	0.54	0.85	0.34
Conv. Total (m3/s)	1082.5	Conv. (m3/s)	280.2	714.7	87.6
Length Wtd. (m)	382.64	Wetted Per. (m)	23.48	28.27	16.27
Min Ch El (m)	848.96	Shear (N/m2)	30.17	47.33	18.71
Alpha	1.11	Stream Power (N/m s)	50.33	106.62	22.70
Frctn Loss (m)	1.38	Cum Volume (1000 m3)	6.70	23.29	4.52
C & E Loss (m)	0.03	Cum SA (1000 m2)	13.37	28.96	12.03

Plan: Plan 08 ArroyoValdepozue 1 RS: 1188.129 Profile: T=500

E.G. Elev (m)	850.71	Element	Left OB	Channel	Right OB
Vel Head (m)	0.27	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	850.44	Reach Len. (m)	410.50	388.33	299.28
Crit W.S. (m)		Flow Area (m2)	18.38	30.28	9.62
E.G. Slope (m/m)	0.005450	Area (m2)	18.38	30.28	9.62
Q Total (m3/s)	126.83	Flow (m3/s)	34.77	78.01	14.05
Top Width (m)	76.51	Top Width (m)	27.25	28.23	21.03
Vel Total (m/s)	2.18	Avg. Vel. (m/s)	1.89	2.58	1.46
Max Chl Dpth (m)	1.48	Hydr. Depth (m)	0.67	1.07	0.46
Conv. Total (m3/s)	1718.0	Conv. (m3/s)	471.0	1056.7	190.3
Length Wtd. (m)	380.35	Wetted Per. (m)	27.27	28.27	21.05
Min Ch El (m)	848.96	Shear (N/m2)	36.02	57.25	24.43
Alpha	1.12	Stream Power (N/m s)	68.14	147.48	35.67
Frctn Loss (m)	1.40	Cum Volume (1000 m3)	9.53	29.16	7.25
C & E Loss (m)	0.04	Cum SA (1000 m2)	14.64	28.96	14.52

Plan: Plan 08 ArroyoValdepozue 1 RS: 799.7979 Profile: T=2

E.G. Elev (m)	848.37	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	848.35	Reach Len. (m)	331.65	316.18	280.19
Crit W.S. (m)		Flow Area (m2)	0.53	15.70	0.85
E.G. Slope (m/m)	0.001974	Area (m2)	0.53	15.70	0.85
Q Total (m3/s)	11.77	Flow (m3/s)	0.17	11.35	0.26
Top Width (m)	60.60	Top Width (m)	5.53	46.00	9.07
Vel Total (m/s)	0.69	Avg. Vel. (m/s)	0.31	0.72	0.30
Max Chl Dpth (m)	0.57	Hydr. Depth (m)	0.10	0.34	0.09
Conv. Total (m3/s)	264.9	Conv. (m3/s)	3.7	255.4	5.8
Length Wtd. (m)	316.87	Wetted Per. (m)	5.54	46.03	9.07
Min Ch El (m)	847.78	Shear (N/m2)	1.87	6.60	1.81
Alpha	1.07	Stream Power (N/m s)	0.58	4.77	0.55
Frctn Loss (m)	1.30	Cum Volume (1000 m3)	0.40	3.74	0.13
C & E Loss (m)	0.01	Cum SA (1000 m2)	4.04	13.77	1.50

Plan: Plan 08 ArroyoValdepozue 1 RS: 799.7979 Profile: T=5

E.G. Elev (m)	848.54	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	848.50	Reach Len. (m)	331.65	316.18	280.19
Crit W.S. (m)		Flow Area (m2)	1.77	22.77	2.78
E.G. Slope (m/m)	0.002068	Area (m2)	1.77	22.77	2.78
Q Total (m3/s)	23.88	Flow (m3/s)	0.84	21.59	1.44
Top Width (m)	69.89	Top Width (m)	10.04	46.00	13.85
Vel Total (m/s)	0.87	Avg. Vel. (m/s)	0.48	0.95	0.52
Max Chl Dpth (m)	0.72	Hydr. Depth (m)	0.18	0.50	0.20
Conv. Total (m3/s)	525.1	Conv. (m3/s)	18.6	474.8	31.8
Length Wtd. (m)	316.65	Wetted Per. (m)	10.05	46.03	13.86
Min Ch El (m)	847.78	Shear (N/m2)	3.57	10.03	4.07
Alpha	1.10	Stream Power (N/m s)	1.70	9.51	2.11
Frctn Loss (m)	1.34	Cum Volume (1000 m3)	0.93	5.53	0.43
C & E Loss (m)	0.01	Cum SA (1000 m2)	5.38	14.54	2.52

Plan: Plan 08 ArroyoValdepozue 1 RS: 799.7979 Profile: T=10

E.G. Elev (m)	848.67	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	848.61	Reach Len. (m)	331.65	316.18	280.19
Crit W.S. (m)		Flow Area (m2)	2.89	27.77	4.52
E.G. Slope (m/m)	0.002192	Area (m2)	2.89	27.77	4.52
Q Total (m3/s)	35.44	Flow (m3/s)	1.90	30.94	2.60

Plan: Plan 08 ArroyoValdepozue 1 RS: 799.7979 Profile: T=10 (Continued)

Top Width (m)	76.69	Top Width (m)	10.57	46.00	20.11
Vel Total (m/s)	1.01	Avg. Vel. (m/s)	0.66	1.11	0.58
Max Chl Dpth (m)	0.83	Hydr. Depth (m)	0.27	0.60	0.22
Conv. Total (m3/s)	756.9	Conv. (m3/s)	40.6	660.7	55.6
Length Wtd. (m)	316.62	Wetted Per. (m)	10.59	46.03	20.12
Min Ch El (m)	847.78	Shear (N/m2)	5.87	12.97	4.83
Alpha	1.11	Stream Power (N/m s)	3.85	14.45	2.78
Frctn Loss (m)	1.36	Cum Volume (1000 m3)	1.38	6.84	0.74
C & E Loss (m)	0.01	Cum SA (1000 m2)	5.57	14.54	3.83

Plan: Plan 08 ArroyoValdepozue 1 RS: 799.7979 Profile: T=25

E.G. Elev (m)	848.81	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	848.73	Reach Len. (m)	331.65	316.18	280.19
Crit W.S. (m)	848.50	Flow Area (m2)	4.23	33.44	7.11
E.G. Slope (m/m)	0.002257	Area (m2)	4.23	33.44	7.11
Q Total (m3/s)	51.63	Flow (m3/s)	3.50	42.81	5.32
Top Width (m)	79.05	Top Width (m)	11.18	46.00	21.88
Vel Total (m/s)	1.15	Avg. Vel. (m/s)	0.83	1.28	0.75
Max Chl Dpth (m)	0.95	Hydr. Depth (m)	0.38	0.73	0.32
Conv. Total (m3/s)	1086.7	Conv. (m3/s)	73.8	901.0	111.9
Length Wtd. (m)	316.14	Wetted Per. (m)	11.21	46.03	21.89
Min Ch El (m)	847.78	Shear (N/m2)	8.36	16.08	7.19
Alpha	1.10	Stream Power (N/m s)	6.92	20.59	5.38
Frctn Loss (m)	1.38	Cum Volume (1000 m3)	1.91	8.31	1.19
C & E Loss (m)	0.01	Cum SA (1000 m2)	5.79	14.54	4.39

Plan: Plan 08 ArroyoValdepozue 1 RS: 799.7979 Profile: T=50

E.G. Elev (m)	848.91	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	848.82	Reach Len. (m)	331.65	316.18	280.19
Crit W.S. (m)		Flow Area (m2)	5.23	37.45	9.09
E.G. Slope (m/m)	0.002330	Area (m2)	5.23	37.45	9.09
Q Total (m3/s)	65.17	Flow (m3/s)	4.93	52.53	7.71
Top Width (m)	81.35	Top Width (m)	11.60	46.00	23.74
Vel Total (m/s)	1.26	Avg. Vel. (m/s)	0.94	1.40	0.85
Max Chl Dpth (m)	1.04	Hydr. Depth (m)	0.45	0.81	0.38
Conv. Total (m3/s)	1350.0	Conv. (m3/s)	102.1	1088.1	159.8
Length Wtd. (m)	315.87	Wetted Per. (m)	11.64	46.03	23.76
Min Ch El (m)	847.78	Shear (N/m2)	10.26	18.59	8.75
Alpha	1.10	Stream Power (N/m s)	9.68	26.08	7.42
Frctn Loss (m)	1.39	Cum Volume (1000 m3)	2.32	9.39	1.56
C & E Loss (m)	0.01	Cum SA (1000 m2)	5.94	14.54	4.97

Plan: Plan 08 ArroyoValdepozue 1 RS: 799.7979 Profile: T=100

E.G. Elev (m)	849.01	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	848.90	Reach Len. (m)	331.65	316.18	280.19
Crit W.S. (m)		Flow Area (m2)	6.25	41.42	11.23
E.G. Slope (m/m)	0.002492	Area (m2)	6.25	41.42	11.23
Q Total (m3/s)	81.71	Flow (m3/s)	6.70	64.25	10.76
Top Width (m)	83.68	Top Width (m)	12.02	46.00	25.66
Vel Total (m/s)	1.39	Avg. Vel. (m/s)	1.07	1.55	0.96
Max Chl Dpth (m)	1.12	Hydr. Depth (m)	0.52	0.90	0.44
Conv. Total (m3/s)	1636.8	Conv. (m3/s)	134.2	1287.1	215.5
Length Wtd. (m)	315.55	Wetted Per. (m)	12.07	46.03	25.68
Min Ch El (m)	847.78	Shear (N/m2)	12.65	21.99	10.68

Plan: Plan 08 ArroyoValdepozue 1 RS: 799.7979 Profile: T=100 (Continued)

Alpha	1.09	Stream Power (N/m s)	13.57	34.11	10.24
Frctn Loss (m)	1.40	Cum Volume (1000 m3)	2.81	10.60	2.02
C & E Loss (m)	0.01	Cum SA (1000 m2)	6.09	14.54	5.76

Plan: Plan 08 ArroyoValdepozue 1 RS: 799.7979 Profile: T=500

E.G. Elev (m)	849.27	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	849.12	Reach Len. (m)	331.65	316.18	280.19
Crit W.S. (m)		Flow Area (m2)	8.91	51.25	17.15
E.G. Slope (m/m)	0.002658	Area (m2)	8.91	51.25	17.15
Q Total (m3/s)	126.83	Flow (m3/s)	11.91	94.61	20.31
Top Width (m)	88.87	Top Width (m)	12.91	46.00	29.96
Vel Total (m/s)	1.64	Avg. Vel. (m/s)	1.34	1.85	1.18
Max Chl Dpth (m)	1.34	Hydr. Depth (m)	0.69	1.11	0.57
Conv. Total (m3/s)	2459.9	Conv. (m3/s)	231.0	1835.0	393.9
Length Wtd. (m)	314.76	Wetted Per. (m)	12.98	46.03	29.99
Min Ch El (m)	847.78	Shear (N/m2)	17.89	29.02	14.91
Alpha	1.09	Stream Power (N/m s)	23.91	53.58	17.65
Frctn Loss (m)	1.42	Cum Volume (1000 m3)	3.93	13.33	3.25
C & E Loss (m)	0.01	Cum SA (1000 m2)	6.40	14.54	6.89

Plan: Plan 08 ArroyoValdepozue 1 RS: 483.6144 Profile: T=2

E.G. Elev (m)	847.06	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	846.99	Reach Len. (m)			
Crit W.S. (m)	846.99	Flow Area (m2)	1.86	7.98	0.05
E.G. Slope (m/m)	0.013202	Area (m2)	1.86	7.98	0.05
Q Total (m3/s)	11.77	Flow (m3/s)	1.52	10.23	0.02
Top Width (m)	61.55	Top Width (m)	18.83	41.09	1.63
Vel Total (m/s)	1.19	Avg. Vel. (m/s)	0.82	1.28	0.36
Max Chl Dpth (m)	0.64	Hydr. Depth (m)	0.10	0.19	0.03
Conv. Total (m3/s)	102.4	Conv. (m3/s)	13.3	89.0	0.1
Length Wtd. (m)		Wetted Per. (m)	18.83	41.22	1.63
Min Ch El (m)	846.35	Shear (N/m2)	12.79	25.07	3.69
Alpha	1.07	Stream Power (N/m s)	10.47	32.13	1.32
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 08 ArroyoValdepozue 1 RS: 483.6144 Profile: T=5

E.G. Elev (m)	847.20	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	847.08	Reach Len. (m)			
Crit W.S. (m)	847.08	Flow Area (m2)	3.82	12.21	0.32
E.G. Slope (m/m)	0.013083	Area (m2)	3.82	12.21	0.32
Q Total (m3/s)	23.88	Flow (m3/s)	4.48	19.18	0.22
Top Width (m)	72.50	Top Width (m)	22.38	46.00	4.12
Vel Total (m/s)	1.46	Avg. Vel. (m/s)	1.17	1.57	0.69
Max Chl Dpth (m)	0.73	Hydr. Depth (m)	0.17	0.27	0.08
Conv. Total (m3/s)	208.8	Conv. (m3/s)	39.1	167.7	1.9
Length Wtd. (m)		Wetted Per. (m)	22.39	46.13	4.13
Min Ch El (m)	846.35	Shear (N/m2)	21.88	33.95	9.88
Alpha	1.05	Stream Power (N/m s)	25.66	53.36	6.82
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 08 ArroyoValdepozue 1 RS: 483.6144 Profile: T=10

E.G. Elev (m)	847.30	Element	Left OB	Channel	Right OB
Vel Head (m)	0.14	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	847.15	Reach Len. (m)			
Crit W.S. (m)	847.15	Flow Area (m2)	5.45	15.51	0.75
E.G. Slope (m/m)	0.011884	Area (m2)	5.45	15.51	0.75
Q Total (m3/s)	35.44	Flow (m3/s)	7.58	27.26	0.60
Top Width (m)	76.28	Top Width (m)	23.03	46.00	7.25
Vel Total (m/s)	1.63	Avg. Vel. (m/s)	1.39	1.76	0.80
Max Chl Dpth (m)	0.80	Hydr. Depth (m)	0.24	0.34	0.10
Conv. Total (m3/s)	325.1	Conv. (m3/s)	69.5	250.1	5.5
Length Wtd. (m)		Wetted Per. (m)	23.04	46.13	7.26
Min Ch El (m)	846.35	Shear (N/m2)	27.57	39.20	12.05
Alpha	1.05	Stream Power (N/m s)	38.33	68.89	9.65
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 08 ArroyoValdepozue 1 RS: 483.6144 Profile: T=25

E.G. Elev (m)	847.42	Element	Left OB	Channel	Right OB
Vel Head (m)	0.19	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	847.23	Reach Len. (m)			
Crit W.S. (m)	847.23	Flow Area (m2)	7.27	19.10	1.40
E.G. Slope (m/m)	0.011726	Area (m2)	7.27	19.10	1.40
Q Total (m3/s)	51.63	Flow (m3/s)	11.92	38.29	1.42
Top Width (m)	79.22	Top Width (m)	23.74	46.00	9.48
Vel Total (m/s)	1.86	Avg. Vel. (m/s)	1.64	2.01	1.01
Max Chl Dpth (m)	0.88	Hydr. Depth (m)	0.31	0.42	0.15
Conv. Total (m3/s)	476.8	Conv. (m3/s)	110.1	353.6	13.1
Length Wtd. (m)		Wetted Per. (m)	23.76	46.13	9.48
Min Ch El (m)	846.35	Shear (N/m2)	35.20	47.61	17.01
Alpha	1.05	Stream Power (N/m s)	57.71	95.47	17.16
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 08 ArroyoValdepozue 1 RS: 483.6144 Profile: T=50

E.G. Elev (m)	847.51	Element	Left OB	Channel	Right OB
Vel Head (m)	0.21	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	847.29	Reach Len. (m)			
Crit W.S. (m)	847.29	Flow Area (m2)	8.75	21.94	2.05
E.G. Slope (m/m)	0.011228	Area (m2)	8.75	21.94	2.05
Q Total (m3/s)	65.17	Flow (m3/s)	15.69	47.22	2.27
Top Width (m)	81.94	Top Width (m)	24.20	46.00	11.74
Vel Total (m/s)	1.99	Avg. Vel. (m/s)	1.79	2.15	1.10
Max Chl Dpth (m)	0.94	Hydr. Depth (m)	0.36	0.48	0.17
Conv. Total (m3/s)	615.0	Conv. (m3/s)	148.0	445.6	21.4
Length Wtd. (m)		Wetted Per. (m)	24.22	46.13	11.74
Min Ch El (m)	846.35	Shear (N/m2)	39.79	52.37	19.25
Alpha	1.05	Stream Power (N/m s)	71.31	112.72	21.26
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 08 ArroyoValdepozue 1 RS: 483.6144 Profile: T=100

E.G. Elev (m)	847.60	Element	Left OB	Channel	Right OB
Vel Head (m)	0.23	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	847.37	Reach Len. (m)			
Crit W.S. (m)	847.37	Flow Area (m2)	10.71	25.62	3.21
E.G. Slope (m/m)	0.009955	Area (m2)	10.71	25.62	3.21
Q Total (m3/s)	81.71	Flow (m3/s)	20.40	57.57	3.74

Plan: Plan 08 ArroyoValdepozue 1 RS: 483.6144 Profile: T=100 (Continued)

Top Width (m)	86.16	Top Width (m)	24.69	46.00	15.47
Vel Total (m/s)	2.07	Avg. Vel. (m/s)	1.90	2.25	1.17
Max Chl Dpth (m)	1.02	Hydr. Depth (m)	0.43	0.56	0.21
Conv. Total (m3/s)	818.9	Conv. (m3/s)	204.4	577.0	37.5
Length Wtd. (m)		Wetted Per. (m)	24.71	46.13	15.48
Min Ch El (m)	846.35	Shear (N/m2)	42.30	54.22	20.26
Alpha	1.06	Stream Power (N/m s)	80.56	121.85	23.63
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 08 ArroyoValdepozue 1 RS: 483.6144 Profile: T=500

E.G. Elev (m)	847.83	Element	Left OB	Channel	Right OB
Vel Head (m)	0.30	Wt. n-Val.	0.030	0.030	0.030
W.S. Elev (m)	847.54	Reach Len. (m)			
Crit W.S. (m)	847.54	Flow Area (m2)	14.80	33.08	6.04
E.G. Slope (m/m)	0.009259	Area (m2)	14.80	33.08	6.04
Q Total (m3/s)	126.83	Flow (m3/s)	32.83	85.03	8.96
Top Width (m)	90.87	Top Width (m)	25.67	46.00	19.20
Vel Total (m/s)	2.35	Avg. Vel. (m/s)	2.22	2.57	1.48
Max Chl Dpth (m)	1.19	Hydr. Depth (m)	0.58	0.72	0.31
Conv. Total (m3/s)	1318.0	Conv. (m3/s)	341.2	883.7	93.2
Length Wtd. (m)		Wetted Per. (m)	25.71	46.13	19.21
Min Ch El (m)	846.35	Shear (N/m2)	52.25	65.13	28.56
Alpha	1.06	Stream Power (N/m s)	115.96	167.39	42.38
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			