ENERCON	CALCULATION COVER SHEET	CALC. NO. TXUT-001-FSAR 2.4.3-CALC-012
		REV. 1
		PAGE NO. 1 of 28

Title:	Probable Maximum Flood Calculation for Comanche Peak Nuclear Power Plant Units 3 and 4 (HEC-HMS & HEC-RAS)	Client: Luminant
		Project: MITS063 – Luminant COLA

Item	Cover Sheet Items	Yes	No
1	Does this calculation contain any open assumptions that require confirmation? (If YES, identify the assumptions)_____		X
2	Does this calculation serve as an "Alternate Calculation"? (If YES, identify the design verified calculation.) Design Verified Calculation No._____		X
3	Does this calculation supersede an existing calculation? (If YES, identify the superseded calculation.) Superseded Calculation No._____		X

Scope of Revision: The calculation has been revised to account for the updated coefficient of peaking (C_p) and lag coefficient (C_t) for the Snyder's unit hydrograph within the HEC-HMS model. Initially C_t and C_p values were referenced from SSI Dam design calculation. The revised calculation uses the combination of C_t and C_p values which will result in highest water surface elevation at the Squaw Creek Reservoir. The storage discharge relation for elevation beyond 790 ft. msl is estimated by extrapolation. Various editorial changes have also been addressed.

Revision Impact on Results: The critical storm centers for Paluxy and Squaw Creek watershed remain unchanged. However, the critical temporal distribution for the Squaw Creek and Paluxy River watershed has been changed to be two-third and one-third respectively. Also, the PMF elevation at the CPNPP site and the backwater elevation at the toe of the dam have been increased to 790.9 ft msl from 788.9 ft msl.

Study Calculation	☐	Final Calculation	☒
Safety-Related	☒	Non-safety-Related	☐

(Print Name and Sign)

Originator: Anubhav Gaur Suraj Balan	A Gaur SBalan	Date: 08/14/09 08/14/09
Design Verifier: Bryan Cline	Bryan A. Cline	Date: August 14, 2009
Approver: Pat Brunette Joe Mancinelli	Pat Brunette J P Mancinelli	Date: 8/14/09 8/14/09

CALCULATION REVISION STATUS

REVISION	DATE	DESCRIPTION
0	August 06, 2008	Original Calculation
1		Revision - Recalculation to account for the updated coefficients for Snyder's unit hydrographs.

PAGE REVISION STATUS

PAGE NO.	REVISION	PAGE NO.	REVISION
All	1		

APPENDIX REVISION STATUS

APPENDIX NO.	PAGE NO.	REVISION NO.	APPENDIX NO.	PAGE NO.	REVISION NO.
A	All	1			

ENERCON	CALCULATION DESIGN VERIFICATION PLAN AND SUMMARY SHEET	CALC. NO. TXUT-001-FSAR 2.4.3-CALC-012 REV. 1 PAGE NO. 3 of 28

Calculation Design Verification Plan:

Apply CSP Number 3.01, Revision 6, Section 4.5.a, Design Review Method and to include at a minimum:

1. Review the changes due to the Revision 1 and determine if the calculation provides a reasonable estimate of the PMF and the resulting water surface elevation.
2. Review the design methodology and determine if it is appropriate and correctly applied and is accurate.

(Print Name and Sign for Approval – mark "N/A" if not required)

Approver:	Pat Brunette Pat Brunette Joe Mancinelli J. Mancinelli	Date: 8/14/09 8/14/09

Calculation Design Verification Summary:

I have reviewed the Comanche Peak PMF calculation and have made the following conclusions:

1. The guidelines for the HEC-HMS and HEC-RAS reports for this calculation are appropriate and applicable for the determination of the PMF.
2. The calculation for the HEC-HMS and HEC-RAS reports follow the correct procedures.
3. The PMP summary tables' calculations have been independently verified.
4. The Originator has addressed the recommendations, which were given during the review process.

Based on the above summary, the calculation is determined to be acceptable.

(Print Name and Sign)

Design Verifier: Bryan Cline Bryan D. Cline	Date: August 14, 2009
Others: NA	Date:

ENERCON	CALCULATION DESIGN VERIFICATION CHECKLIST	CALC. NO. TXUT-001-FSAR 2.4.3-CALC-012 REV. 1 PAGE NO. 4 of 28

Item	Cover Sheet Items	Yes	No	N/A
1	Design Inputs - Were the design inputs correctly selected, referenced (latest revision), consistent with the design basis and incorporated in the calculation?	X		
2	Assumptions – Were the assumptions reasonable and adequately described, justified and/or verified, and documented?	X		
3	Quality Assurance – Were the appropriate QA classification and requirements assigned to the calculation?	X		
4	Codes, Standard and Regulatory Requirements – Were the applicable codes, standards and regulatory requirements, including issue and addenda, properly identified and their requirements satisfied?	X		
5	Construction and Operating Experience – Have applicable construction and operating experience been considered?			X
6	Interfaces – Have the design interface requirements been satisfied, including interactions with other calculations?	X		
7	Methods – Was the calculation methodology appropriate and properly applied to satisfy the calculation objective?	X		
8	Design Outputs – Was the conclusion of the calculation clearly stated, did it correspond directly with the objectives and are the results reasonable compared to the inputs?	X		
9	Radiation Exposure – Has the calculation properly considered radiation exposure to the public and plant personnel?			X
10	Acceptance Criteria – Are the acceptance criteria incorporated in the calculation sufficient to allow verification that the design requirements have been satisfactorily accomplished?	X		
11	Computer Software – Is a computer program or software used, and if so, are the requirements of CSP 3.02 met?	X		

COMMENTS:

(Print Name and Sign)

Design Verifier: Bryan Cline Bryan D. Cline	Date: August 14, 2009
Others: NA	Date:

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Appendix A- HEC-RAS Analysis Report

1.0 Purpose And Scope

To determine the Probable Maximum Flood (PMF) at Comanche Peak Nuclear Power Plant (CPNPP) Units 3 and 4 using HEC-HMS computer software (Reference 7) and HEC-RAS computer software (Reference 8).

2.0 Summary Of Results And Conclusions

The results from the HEC-HMS analysis indicates that due to the PMF at the Squaw Creek Reservoir (SCR) the maximum flow is 221,000 cubic feet per second (cfs) with a water surface elevation of 790.90 feet (ft) above mean sea level (msl). Thus, the maximum outflow from the reservoir is 148,000 cfs.

The results from the HEC-RAS analysis indicate that the resulting maximum backwater flow on the downstream side of the Squaw Creek dam is 88,130 cfs with a water surface elevation of 775.21 ft msl. The plant grade for all CPNPP Units 3 and 4 safety related structures is set at 822 ft (Reference 5). Therefore, the backwater will not negatively impact any safety related structures at CPNPP Units 3 and 4.

3.0 References

1. ESRI ArcGIS, Release 9.2, Copyright 1999-2006.
2. Squaw Creek Dam TXU 04627 Breach Analysis, April 2008, Prepared for TXU by Freese and Nichols, Inc.
3. Enercon Calculation, "TXUT-001-FSAR 2.4.3-CALC-011, Probable Maximum Precipitation Calculation for Comanche Peak Nuclear Power Plant Units 3 and 4 using HMR 51 & HMR 52, Rev 1."
4. Enercon Calculation, "TXUT-001-FSAR 2.4.4-CALC-015, Brazos River Dam Failure Analysis for Comanche Peak Nuclear Power Plant Units 3 and 4."
5. Luminant / Comanche Units 3 & 4 MNES US APWR, Grading and Drainage Plans, Drawing Numbers CVL-12-11-102-001, CVL-12-11-103-001, CVL-12-11-104-001, CVL-12-11-105-001 - Rev. F, August 5, 2008, and CVL-12-11-103-001,Rev F August 6, 2008, by Washington Group of URS.
6. United States Geological Survey USGS, Website http://nwis.waterdata.usgs.gov/, Monthly Statics for USGS 08091750 Squaw Ck near Glen Rose, TX. Data extracted February 7, 2008
7. U.S. Army Corps of Engineers, Hydrologic Engineering Center, Hydrologic Modeling System, HEC-HMS computer software, Version 3.0.1.
8. U.S. Army Corps of Engineers, Hydrologic Engineering Center, River Analysis System, HEC-RAS computer software, Version 3.1.3.
9. U.S. Army Corps of Engineers, Hydrologic Engineering Center, HEC-RAS River Analysis System, Hydraulic Reference Manual, Version 3.1, November 2002.

10. Bedient P.B., Huber W.C., "Hydrology and Flood Plain Analysis, Third Edition", Prentice Hall Upper Saddle River, NJ07458, 2002.
11. Texas Utilities Services Inc., Comanche Peak Stream Electric Station CPSES 1980-1982, Units 1 and 2, "Safe Shutdown Impoundment Dam, Design Calculations and Calculations Check", Volume 1, by Freese and Nichols.
12. Texas Utilities Services Inc., Comanche Peak Stream Electric Station CPSES 1980-1982, Units 1 and 2, "Safe Shutdown Impoundment Dam, Design Calculations and Calculations Check", Volume 2, by Freese and Nichols.
13. The Texas Water Development Board, "Volumetric Survey for Squaw Creek Reservoir", prepared by the Brazos River Authority and Texas Utilities, September 11, 1997.
14. Freese and Nichols, Operation and Maintenance Procedures, Squaw Creek Dam, Fort Worth, Texas, 1977.
15. Chow V.T., Maidment D.R., Mays L.W., "Applied Hydrology", McGraw Hill, NewYork, 1988.
16. Autodesk, AutoCAD Land Desktop software 2006.
17. Comanche Peak Steam Electric Station. Texas Utilities Generation Company (TXU), "Final Safety Analysis Report (FSAR)" Amendment 101. Comanche Peak Steam Electric Station. Glen Rose, Texas (February 1, 2007).
18. U.S. Nuclear Regulatory Commission, "Design Basis Floods for Nuclear Power Plants", Regulatory Guide 1.59, August 1977.
19. American Nuclear Society, "Determining Design Basis Flooding at Power Reactor Sites," ANSI/ANS-2.8-1992, July 28, 1992.
20. U.S. Nuclear Regulatory Commission, "Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants", Regulatory Guide 1.70, November 1978.
21. U.S. Nuclear Regulatory Commission, "Flood Protection for Nuclear Power Plants", Regulatory Guide 1.102, September 1976.
22. U.S. Nuclear Regulatory Commission, "Combined License Applications for Nuclear Power Plants", Regulatory Guide 1.206, June 2007.
23. U.S. Nuclear Regulatory Commission, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants", NUREG-0800, May 2007.
24. U.S. Nuclear Regulatory Commission, "Early Site Permits; Standard design Certifications; and Combined Licenses for Nuclear Power Plants", 10 CFR Part 52, August 2007.
25. U.S. Nuclear Regulatory Commission, "Industry Guidelines for Combined License Applicants under 10 CFR Part 52", NEI 04-05, October 2005.
26. U.S. Geological Survey, Geospatial Data Gateway Website, http://datagateway.nrcs.usda.gov/gatewayhome.html, accessed December 27, 2007.

4.0 Assumptions

The following assumptions were made for this analysis:

1. The drainage areas for Paluxy River and Squaw Creek watersheds are referenced from the Squaw Creek Dam TXU 04627 Breach Analysis (Reference 2), hereafter referred to as the Dam Breach Analysis. The drainage area boundaries shown in the Dam Breach Analysis were digitized in AutoCAD and scaled to represent the respective drainage areas for the four drainage sub-basins. The watershed shape and areas were compared by superimposing the United States Geological Survey's (USGS) topographical map on AutoCAD drawing. USGS topographic maps were obtained from the USDA's Geospatial Data Gateway (Reference 26), and the drainage basin boundaries were mapped using ArcGIS software (Reference 1). The coordinates were verified by comparing the drainage areas with the USGS topographic map. The drainage areas reported for the sub-basins in the Dam Breach Analysis were verified to be an acceptable representation for the watershed.

5.0 Design Inputs

The U.S. Army Corps of Engineers (USACE), Hydrologic Engineering Center-Hydrologic Modeling System (HEC-HMS) software was used for the rainfall runoff calculation. The inputs to the HEC-HMS are the Probable Maximum Precipitation (PMP) estimates, drainage basin characteristics loss rates, unit hydrographs, base flow, reservoir stage discharge, elevation discharge curves, channel slope, reach length, channel cross sections, and roughness coefficients. The methodology and inputs used in determining PMP estimates are explained in detail within the separate Enercon Calculation entitled "TXUT-001-FSAR 2.4.3-CALC-011, Probable Maximum Precipitation Calculation for Comanche Peak Nuclear Power Plant Units 3 and 4 using HMR 51 & HMR 52"(Reference 3), hereafter referred as Enercon PMP Calculation. The source code for the HEC-HMS software has been maintained by USACE.

The U.S. Army Corps of Engineers River Analysis System (HEC-RAS) software, version 3.1.3 was used to calculate the effects of backwater from the confluence of the Squaw Creek, the Paluxy River and the Brazos Rivers due to the PMF and upstream dam failures. Input to the HEC-RAS consists of hydrographs obtained from HEC-HMS, cross section geometry, channel length, channel slope, roughness coefficients, and inline structure geometry. Cross-section geometry, channel length, channel slope and inline structure geometry were the inputs obtained from the Dam Breach Analysis and are explained in Section 7.0. The source code for the HEC-RAS software has been maintained by USACE.

6.0 Methodology

The following listed design guides were considered in evaluating the PMF Calculation for CPNPP Units 3 and 4 using HEC-HMS & HEC-RAS computer software. All other procedures, instructions and design guides listed in Section 5.4 of Project Planning Document (PPD No. TXUT-001, Rev. 3) are not specifically applicable in evaluating the PMF calculation.

- U.S. Nuclear Regulatory Commission, "Standard Review Plan," NUREG-0800, March 2007.
- U.S. Nuclear Regulatory Commission, "Design Basis Floods for Nuclear Power Plants, Alternative Methods of Estimating Probable Maximum Floods," Regulatory Guide 1.59, August 1977.
- American Nuclear Society, "Determining Design Basis Flooding at Power Reactor Sites," ANSI/ANS-2.8-1992, July 28, 1992.
- U.S. Nuclear Regulatory Commission, "Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants", Regulatory Guide 1.70, November 1978.
- U.S. Nuclear Regulatory Commission, "Flood Protection for Nuclear Power Plants", Regulatory Guide 1.102, September 1976.
- U.S. Nuclear Regulatory Commission, "Combined License Applications for Nuclear Power Plants (LWR Edition)," Regulatory Guide 1.206, June 2007.
- U.S. Nuclear Regulatory Commission, "Early Site Permits; Standard design Certifications; and Combined Licenses for Nuclear Power Plants", 10 CFR Part 52, August 2007.
- U.S. Nuclear Regulatory Commission, "Industry Guidelines for Combined License Applicants under 10 CFR Part 52", NEI 04-05, October 2005.

The Regulatory Guide 1.59 (Reference 18) indicates use of ANSI N170-1976 "Standards for Determining Design Basis Flooding at Power Reactor Sites." ANSI/ANS-2.8-1992 (Reference 19) was issued to supersede ANSI N170-1976. Although ANSI/ANS-2.8-1992 has been withdrawn, as of August 2009 a replacement standard has not been issued by American Nuclear Society. The NRC NUREG-0800, March 2007 (Reference 23), includes ANSI/ANS-2.8-1992 as a historical technical reference.

HEC-HMS version 3.0.1 modeling software and HEC-RAS version 3.1.3 modeling software were used to calculate the rainfall runoff and resulting water surface elevation. The methodology used within the HEC-HMS computer software includes Muskingum-Cunge channel routing, Lag Time and Peaking Coefficient, Initial and Constant loss model, constant monthly base flow model and Muskingum-Cunge 8-point cross section routing model.

The methodology used within the HEC-RAS computer software includes the Unsteady NETwork Simulator (UNET) equation solver for unsteady flow momentum equations. The unsteady flow analysis allows the user to view the change in depth as a function of both time and space. The UNET simulates one-dimensional unsteady flow through a network of open channels. In addition to solving the network, UNET provides the ability to apply external and internal boundary conditions. The HEC-RAS uses an unsteady solver at each node for each time step, and data were organized for each cross-section. The unsteady analysis gives the flexibility to view the dynamics of flood wave as it moves downstream.

The HEC-HMS, HEC-RAS, AutoCAD 2006 and Microsoft Excel software's are validated per CSP 3.01, Revision 6. The validation and verification documents are maintained by Enercon as part of the Quality Assurance program.

7.0 Calculations

Background

The Squaw Creek Dam and the Paluxy River watersheds were analyzed in detail within the Texas Utilities Services Inc., Comanche Peak Steam Electric Station Units 1 and 2 CPSES SSI Dam Design Calculation and Calculation Check, Volume 1 and 2 (Reference 11 and Reference 12), hereafter referred as the SSI Dam Design Calculation. The Squaw Creek Dam watershed was further studied within the Dam Breach Analysis. The SSI Dam Design Calculation and Dam Breach Analysis were reviewed by Enercon.

Watershed

CPNPP Units 3 and 4 are located within the Squaw Creek watershed. Squaw Creek is a tributary of the Paluxy River, and in turn the Paluxy River is a tributary of the Brazos River. The Squaw Creek and the Paluxy River watersheds are divided into four basins, as shown in Figure 7-1. Basins 1 and 2 represent the Squaw Creek watershed, and Basins 3 and 4 represent the Paluxy River watershed. The area upstream of the SCR is steeper and has different basin properties compared to the area around and within the SCR. Due to the variation of slope; Basin 1 has been further subdivided into three sub-basins 1a, 1b and 1c. Basin 1a represents the drainage area above SCR, Basin 1b represents the contributing area adjacent to SCR, and Basin 1c represents SCR. Basin 2 represents the Squaw Creek watershed downstream of the Squaw Creek Dam to the confluence of the Squaw Creek and the Paluxy River. Basin 3 represents the Paluxy River watershed from the confluence of Squaw Creek to the city of Glen Rose. Basin 4 represents the drainage area north of Glen Rose. The general drainage pattern is flowing to the southeast and ultimately drains into the Brazos River.

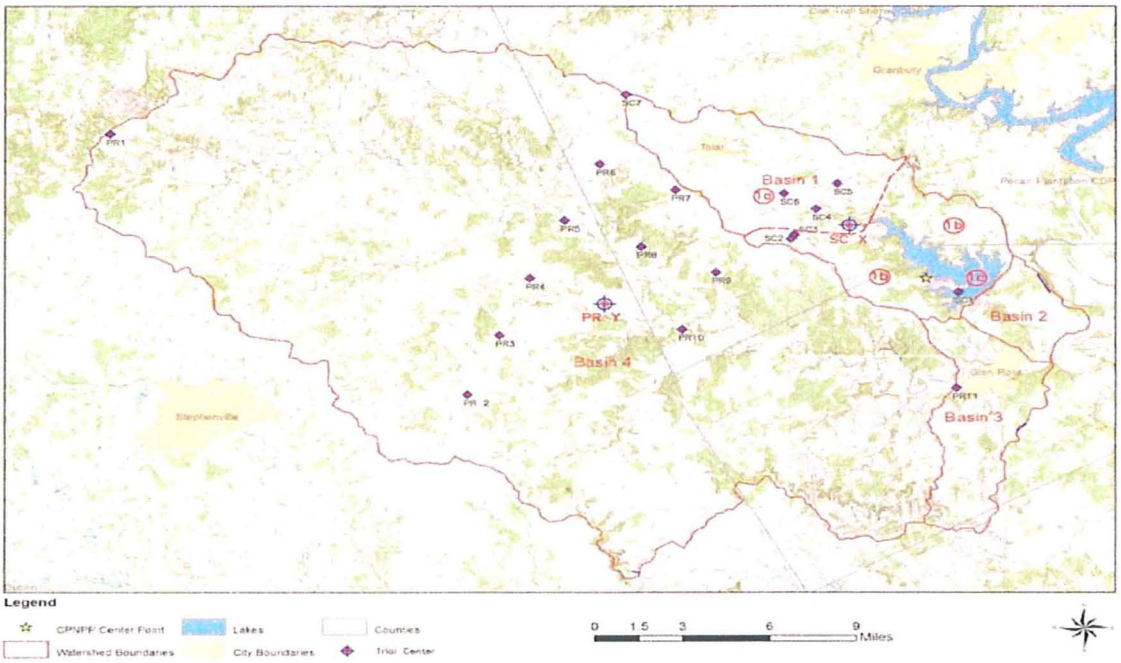

Figure 7-1 – Squaw Creek and Paluxy River watersheds

Rainfall Distribution

The rainfall estimates were obtained from the Enercon PMP Calculation. An antecedent storm equal to 40 percent of the PMP precedes the PMP storm with a 3 day dry period between the storms, as described in Nuclear Regulatory Commission (NRC) Regulatory Guide 1.59 (Reference 18) and ANSI/ANS-2.8-1992 (Reference 19), was considered for the PMF analysis. Sensitivity analysis was performed for various storm center locations within each watershed in determining the critical storm center for the PMP. The hyetograph resulting in the greatest runoff flow and highest elevation was used for the critical storm center. The critical storm centers for the Squaw Creek and the Paluxy River watersheds are SC X and PR Y respectively. The trial storm center locations are shown in Figure 1. The critical temporal distribution of the PMP at critical storm center is determined by watershed rainfall runoff analysis using HEC-HMS. In order to reduce the number of distributions for evaluation, four distributions were chosen and assumed to bracket the results. The four distributions are one-third peaking event, center peaking event, two-thirds peaking event, and end peaking event. The analysis indicates that the two-third and the one-third temporal distributions were used as the critical temporal distributions for the Squaw Creek and the Paluxy River watersheds respectively. The PMP distributions are explained in detail within the Enercon PMP calculation and are not repeated here.

Baseflow

Baseflow information for USGS gage 08091750 was obtained from USGS website (Reference 6). Prior to completion of the Squaw Creek Dam, a USGS gage 08091700 was located upstream of CPNPP Units 3 and 4 on the Panter Branch, a tributary of the Squaw Creek. The flow measurement period of record available for the gage 08091700 is from 1966 to 1973. The gage 08091750 has period of record from 1977 to present. The gage 08091750 represents the more current data and is used to represent the Squaw Creek and the Paluxy River watersheds. The gage locations are shown in Figure 7-2. The area that drains to the gage 08091750 is 70.3 square miles (sq mi). The average monthly flows for gage 08091750 were obtained from the USGS website (Reference 6). The lowest of these monthly flows was used as the baseflow. The baseflow is negligible compared to the higher flows due to the PMF event and shall not alter the water surface elevation. The lowest monthly baseflow of 9.7cfs was for the month of July. Since the basin areas are different from gage area (70.3 sq mi), the baseflow of 9.7cfs was adjusted on the basis of ratio of basin drainage area to the gage area as shown in Tables 7-1 and 7-2 below. The adjusted baseflow was then applied as constant base flow for all months in the HEC-HMS model. Basin 1 has a total area of 64.2 sq mi. The baseflow is calculated for total area of Basin 1 and is applied to sub basins 1a, 1b and 1c. This baseflow will be more than individual baseflow for sub basins 1a, 1b and 1c, and will result in higher runoff to the SCR.

Table 7-1: Average monthly baseflow for USGS Gage 08091750

Month	Average Baseflow (cfs)	Month	Average Baseflow (cfs)
January	12	July	9.7
February	18	August	13
March	28	September	11
April	21	October	13
May	44	November	13
June	46	December	24

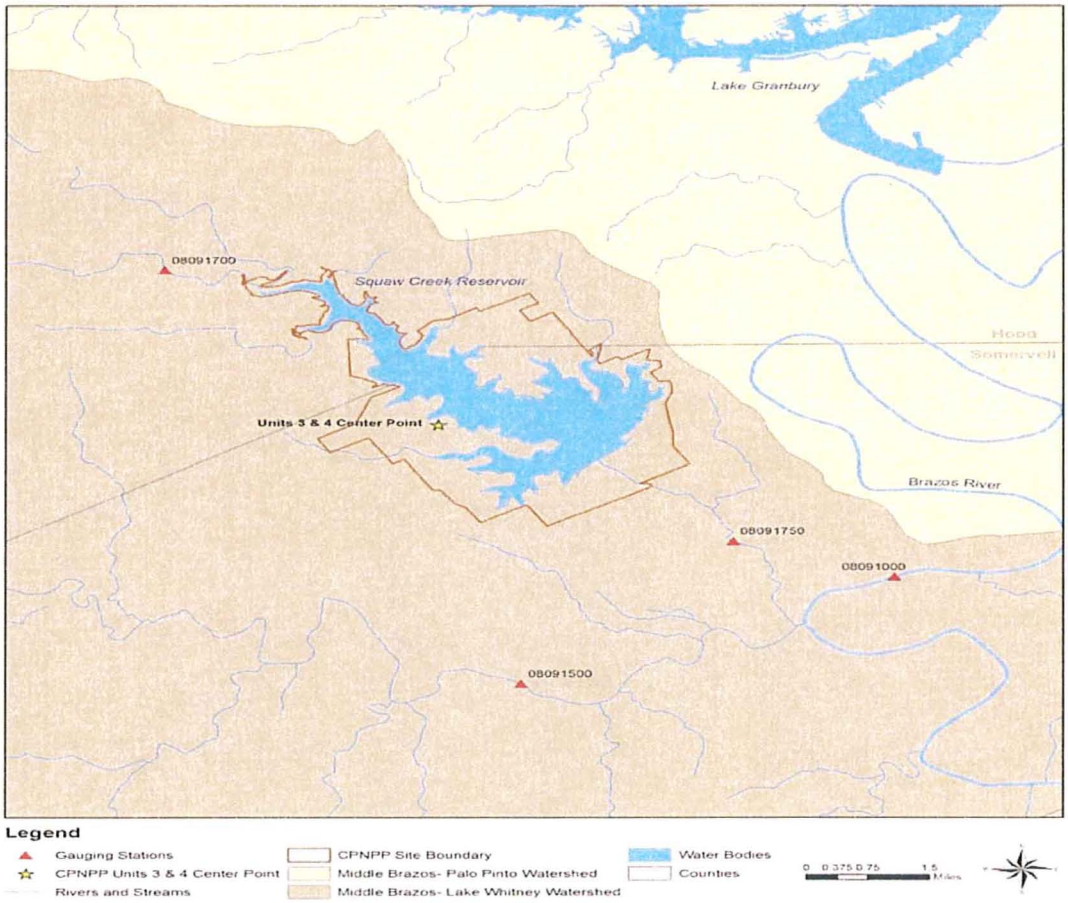

Figure 7-2 – USGS Gage locations

Table 7-2: Adjusted baseflow for PMF analysis

	Area (sq mi)	Multiplication Factor (Basin Area/ Gage Area)	Adjusted Baseflow (9.7* Multiplication factor) (cfs)
Basin1a, 1b & 1c	64.2	64.2/70.3 = 0.91	8.86
Basin2	10.65	10.65/70.3 = 0.15	1.47
Basin3	24.3	24.3/70.3 = 0.35	3.35
Basin4	410	410/70.3 = 5.83	56.57

Loss Rates and Lag time

The initial constant loss method was applied in the runoff calculation through HEC-HMS. The initial losses for each sub-basin were selected from the Dam Breach Analysis. A uniform loss rate of 0.10 inch (in)/hour (hr) for the entire watershed as determined by the SSI Dam Design Calculation has been used to calculate runoff using HEC-HMS.

The Snyder's method (Reference 10) has been used to calculate the Lag Time. The Lag time has been defined as:

$$t_p = C_t (LL_{ca})^{0.3} \qquad \text{(Equation 1)(Reference 10)}$$

where:
t_p = Basin Lag (hr)
L = Length of the main steam from the outlet to divide (mi)
L_{ca} = Length along the main stream to a point nearest the watershed centroid (mi)
C_t = coefficient usually ranging from 1.8 to 2.2 (C_t has found to vary from 0.4 in mountainous areas to 8.0 along the Gulf of Mexico)

The Snyder's unit hydrograph method was used within the HEC-HMS model to calculate runoff.

$$Q_p = 640C_p\, A/t_p \qquad \text{(Equation 2) (Reference 10)}$$

where:
Q_p = peak discharge of the unit hydrograph (cfs)
A = Drainage area (sq mi)
C_p = Peaking coefficient ranging from 0.4 to 0.8 where, larger values of C_p are associated with smaller values of C_t

The value of coefficients C_t (1.1 and 0.6) and $640C_p$ (440 and 420) for the Squaw Creek and the Paluxy River watersheds as obtained from the SSI Dam Design Calculation are shown in Table 7-4. The SSI Dam Design Calculation and Calculation Check were reviewed by Enercon and determined to be acceptable and appropriate to use as the basis for the PMF modeling. There are only two small towns Glen Rose (2.71 sq mi) and Tolar (0.9 sq mi) within the Squaw Creek (64.2 sq mi) and Paluxy River (410 sq mi) watersheds. Remaining watershed areas are mostly grasslands. The topography from AllTopo maps was compared to that from aerial view from the Google Earth. The AllTopo aerial photographs were taken in 1976. The Google Earth aerial view indicates no significant in the watershed as compared to AllTopo maps. Also the areas of two towns are relatively smaller to the watershed areas. The unit hydrographs for each basin were based on the SSI Dam Design study using the synthetic Snyder's Unit Hydrograph. The unit hydrograph characteristics of the existing study were based on U.S. Army Corps of Engineers developed unit hydrographs using gage station records for historical flooding on watersheds of the Paluxy Creek and the Clear Fork of the Trinity River.

As discussed above the peaking and lag coefficients for the watershed are explained in SSI Dam Design Calculation. However, the higher values of C_p (0.8) and lower values of C_t (0.4), results in higher runoff and will be more conservative. Snyder's unit hydrograph method requires basin lag and C_p as the inputs within the HEC-HMS model. The HEC-HMS model uses the computed unit hydrograph peak and time of peak to find an equivalent unit hydrograph using Clark's method. A sensitivity analysis was performed using the values of C_t towards lower end (closer to 0.4) and higher values of C_p (closer to 0.8) for storm center SC X and PC Y. HEC-HMS model was run using lag time based on C_t value of 0.4, 0.5 and 0.6 and C_p value of 0.8. However, the HEC-HMS recalculates the lag time and C_p to find equivalent Clark's unit hydrograph. The combination resulting in higher water surface elevation at the SCR is used to compute rainfall-runoff using HEC-HMS model. The parameters using C_t of 0.4 and C_p of 0.8 generates highest water surface elevation at the SCR and at the confluence of Squaw Creek and Paluxy River. The model recalculates the values of C_p; therefore the recalculated values of C_p along with lag time due to C_t of 0.4 are used in the HEC-HMS analysis. The results of the sensitivity analysis indicating the C_t, C_p, lag time, corresponding runoff and water surface elevation are listed below in Tables 7-5, 7-6 and 7-7.

Additionally, the Dam Breach Analysis accepts the coefficients C_t and C_p directly from the SSI Dam Design Calculation. L is the length of the main stream from the most upstream point to the most downstream point on the reach within the basin, and was calculated using ArcGIS (Reference 1) . The calculated values of L and those obtained from the Dam Breach Analysis are shown in Table 7-3. The calculated values of L are smaller as compared to the L value in the Dam Breach Analysis. It is assumed that Dam Breach Analysis has used L as channel length from basin outlet to the most upstream watershed boundary or the longest travel time length. However, the smaller length will reduce the routing distance and time, which will result in higher runoff. Therefore, calculated values of L were used in Lag time estimates.

L_{ca} is the length along the main stream to a point nearest the watershed centroid and was calculated using ArcGIS. The watershed centroid locations for Basins 1 through 4 were determined using HMR52. The HMR52 methodology and inputs are explained in detail in Enercon PMP Calculation. The centroid location was plotted on AutoCAD using centroid co-ordinates. The length on the main stream nearest centroid location was then calculated using ArcGIS. The calculated L_{ca} lengths are shown in Table 7-4. The L_{ca} values were compared to those found in Dam Breach Analysis. The calculated values of L_{ca} for Paluxy River watershed (Basin 3 and Basin 4) were found to be different than used in Dam Breach Analysis. The calculated values of L_{ca} for Squaw Creek watershed (Basins 1 and 2) are the same as used in Dam Breach Analysis and the SSI Dam Design Calculation. The calculated values of L_{ca} and those obtained from the Dam Breach Analysis are shown in Table 7-3. The Lag time was calculated as shown in Table 7-4.

Table 7-3: Calculated and referenced values of L and L_{ca}

Basin	Calculated L (mi)	Calculated L_{ca} (mi)	Dam Breach Analysis L (mi)	Dam Breach Analysis L_{ca} (mi)
Basin 1a	13.7	6.5	13.7	6.5
Basin 1b	5.3	2.5	5.3	2.5
Basin 1c	-	-	-	-
Basin 2	4.6	3.0	6.3	3.0
Basin 3	4.9	5.6	12.2	5.6
Basin 4	59.3	25.8	60.6	25.8

Table 7-4: Lag time and coefficients for Snyder's Method

Basin	L (mi)	L_{ca} (mi)	C_t	$640C_p$	Lag time (hr)
Basin 1a	13.7	6.5	1.1	440	4.23
Basin 1b	5.3	2.5	0.6	420	1.30
Basin 1c	-	-	-	-	-
Basin 2	4.6	3.0	0.6	420	1.32
Basin 3	4.9	5.6	0.6	420	1.62
Basin 4	59.3	25.8	0.6	420	5.41

Note: Values of C_t and $640C_p$ have been obtained from SSI Dam Design calculation
Lag time has been calculated using Equation 1 (Snyder's method)

Table 7-5: HEC-HMS analysis using C_t value of 0.4 and C_p value of 0.8

Basin	C_t	Lag Time (hr)	C_p	Calculated lag time in HEC-HMS (hr)	Calculated C_p in HEC-HMS	Runoff at SCR with storm center at SC X (cfs)	Runoff at confluence of Paluxy and Squaw Creek with storm center at PR Y (cfs)	Water Surface Elevation at SCR (ft)
Basin 1a		1.54		1.538	0.7820			
Basin 1b		0.87		0.866	0.5384			
Basin 2	0.4	0.88	0.8	0.877	0.5434	212,000	567,000	790.9
Basin 3		1.08		1.078	0.6388			
Basin 4		3.61		3.61	0.8			

Table 7-6: HEC-HMS analysis using Ct value of 0.5 and Cp value of 0.8

Basin	C_t	Lag Time (hr)	C_p	Calculated lag time in HEC-HMS (hr)	Calculated C_p in HEC-HMS	Runoff at SCR with storm center at SC X (cfs)	Runoff at confluence of Paluxy and Squaw Creek with storm center at PR Y (cfs)	Water Surface Elevation at SCR (ft)
Basin 1a		1.92		1.913	0.7574			
Basin 1b		1.08		1.077	0.6388			
Basin 2	0.5	1.09	0.8	1.088	0.6439	205,000	520,000	790.4
Basin 3		1.35		1.354	0.7682			
Basin 4		4.51		4.51	0.8			

Table 7-7: HEC-HMS analysis using Ct value of 0.6 and Cp value of 0.8

Basin	C_t	Lag Time (hr)	C_p	Calculated lag time in HEC-HMS (hr)	Calculated C_p in HEC-HMS	Runoff at SCR with storm center at SC X (cfs)	Runoff at confluence of Paluxy and Squaw Creek with storm center at PR Y (cfs)	Water Surface Elevation at SCR (ft)
Basin 1a	0.6	1.92	0.8	1.913	0.7574	186,100	543,000	790.6
Basin 1b		1.08		1.077	0.6388			
Basin 2		1.09		1.088	0.6439			
Basin 3		1.35		1.354	0.7682			
Basin 4		4.51		4.51	0.8			

Reservoir

SCR is the only reservoir within the watersheds. The storage-elevation for SCR was obtained from following two sources:

- The storage-elevation data for elevation 775 ft msl and below has been obtained from 1997 Texas Water Development Board (TWDB) Volumetric Survey for Squaw Creek Reservoir (Reference 13), hereafter referred as TWDB Volumetric Survey.

- The storage-elevation data for elevation above 775 ft msl has been obtained from and the Operation and Maintenance Procedures for Squaw Creek Dam prepared by Freese and Nichols in 1997 (Reference 14), hereafter referred as Operation and Maintenance Procedure.

The discharge values for service and emergency spillways have been obtained from the Operation and Maintenance Procedure. The elevation-storage data is shown in Tables 7-8 and storage-discharge data is shown in Table 7-9.

Table 7-8: Elevation-Storage data for Squaw Creek Reservoir

Elevation (ft)	Volume (acre-ft)	Elevation (ft)	Volume (acre-ft)	Elevation (ft)	Volume (ac-ft)
650	9	760	108,106	784	181,628
660	262	770	135,752	785	185,229
670	1511	775	151,418	786	188,877
680	4602	776	154,243	787	192,574
690	9167	777	157,562	788	196,321
700	15,421	778	160,903	789	200,119
710	23,898	779	164,270	790	203,967
720	34,682	780	167,665	791	207,867
730	48,044	781	171,093	793	215,821
740	64,712	782	174,560	795	223,980
750	84,638	783	178,072		

Table 7-9: Storage–Discharge data for Squaw Creek Reservoir

Storage	Service Spillway Flow	Emergency Spillway Flow	Total Combined Flow	Storage	Service Spillway Flow	Emergency Spillway Flow	Total Combined Flow
(ac-ft)	(cfs)	(cfs)	(cfs)	(ac-ft)	(cfs)	(cfs)	(cfs)
151,418	0	-	0	178,072	8000	-	8000
154,243	300	-	300	181,628	9600	3500	13100
157,562	900	-	900	185,229	11400	13,000	24400
160,903	1700	-	1700	188,877	13300	26,000	39300
164,270	2700	-	2700	192,574	15300	41,500	56800
167,665	3800	-	3800	196,321	17400	59,500	76900
171,093	5100	-	5100	200,119	19600	81,000	100,600
174,560	6400	-	6400	203,967	21900	104,500	126,400

The storage discharge relationship needed to be extended to account for elevations above 790 ft. Based on the storage-discharge curve, the upper limit approaches linearity. Therefore, storage was extrapolated based on linearity between elevation 790 ft and 795 ft.

The slope of the upper curve is (126,400 cfs – 76,900 cfs/ (203,967 ac-ft. – 196,321 ac-ft) = 6.474 cfs/ac-ft. Therefore the storage at the noted elevations was determined as follows:

Storage at 791 ft. = (207,867 ac-ft. – 203,967 ac-ft.) * 6.474 cfs/ac-ft + 126,400 cfs = 151,649 cfs
Storage at 793 ft. = (215,821 ac-ft. – 203,967 ac-ft.) * 6.474 cfs/ac-ft + 126,400 cfs = 203,143 cfs
Storage at 795 ft. = (223,980 ac-ft. – 203,967 ac-ft.) * 6.474 cfs/ac-ft + 126,400 cfs = 255,964 cfs

The complete storage-discharge relationship is shown in Figure 7-3. Figure 7-3 includes the extrapolated points.

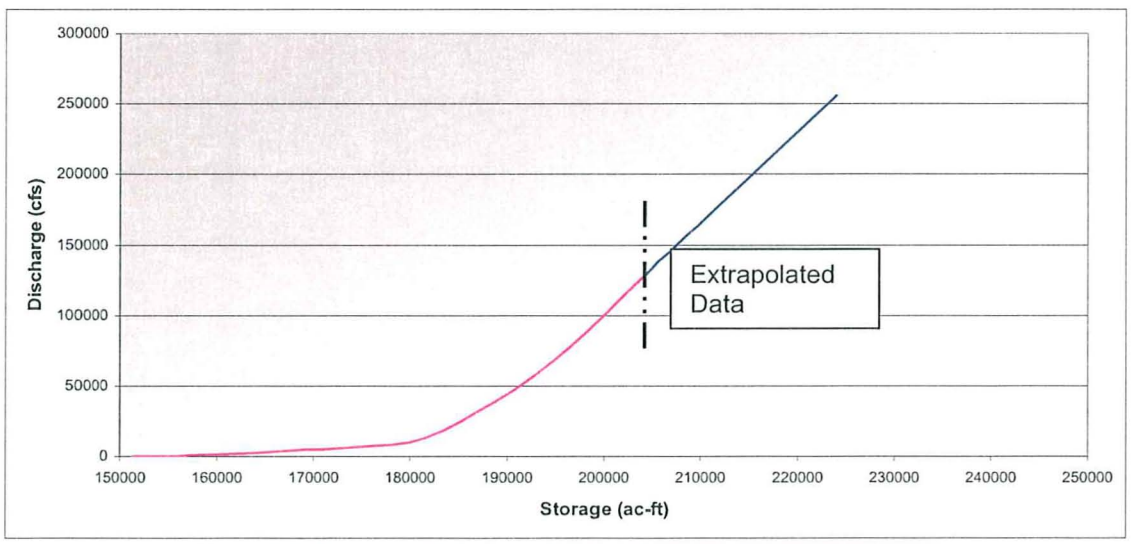

Figure 7-3: Squaw Creek Reservoir Storage-Discharge Relationship

Channel Geometry

The cross-section data used for HEC-RAS analysis were obtained from the Dam Breach Analysis. The Dam Breach Analysis cross-section data was verified with the USGS topographic maps and found to be the same. Since, the topographic maps do not show the depth of the actual channel, the depth and width of the actual channel is negligible when compared to the volume of runoff from a PMF event. The volume of the runoff within the actual channel will be comparatively less and will not affect the backwater elevation from a PMF event. The cross section data for the Squaw Creek, the Paluxy River and the Brazos River as applied within HEC-RAS analysis are included in Appendix A.

Roughness Coefficient

Manning's coefficients range from 0.06 to 0.09 for the Squaw Creek and from 0.045 to 0.07 for the Paluxy River in the Dam Breach Analysis. Reference 15 suggests a Manning's roughness coefficient of n = 0.10, for major streams with irregular and rough section (Reference 15, Table 5-6, Page 113). To account for variability and uncertainty of the Manning's roughness coefficient, the Manning's roughness coefficient was increased by 50 percent, n = 0.15. This value of 0.15 corresponds to natural streams with very weedy reaches, weedy deep pools, floodways with heavy stand of timber and underbrush (Reference 15, Table 5-6). The higher roughness coefficient will cause a higher water surface elevation and will be a conservative approach. Therefore, the Manning's roughness coefficient of 0.15 has been used within HEC-HMS and HEC-RAS analysis.

Snowmelt

Snowmelt does not historically contribute significantly to river floods in the state of Texas (Reference 17). It was deemed appropriate not to include snowmelt to be a factor in modeling the PMF event.

HEC-HMS Analysis

The watersheds are modeled in HEC-HMS model as shown in Figure 7-4. The reaches are modeled using Muskingum-Cunge routing method. The eight point cross-section shape has been used for the reaches. The channel cross-sections used in HEC-RAS are modified to represent eight data sets. The modified cross-sections for Reach 1, 2, 3 and 4 are shown in Table 7-10 and Figure 7- 5. Flows from sub-basins 1a, 1b are routed through Reach 1 to the basin 1c or SCR. Reach 2 routes the overflow from the SCR and Basin 2 to the Junction 2. Basin 4 is routed to Basin 3 through Reach 3. Flows from Basin 3 and 4 are routed to the Junction 2 through Reach 4.

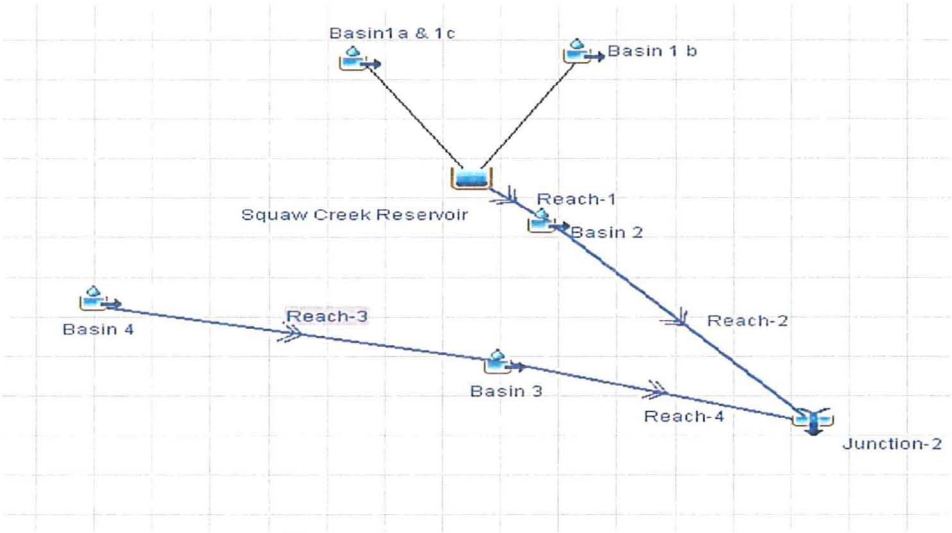

Figure 7-4: HEC-HMS watershed layout

Table 7-10: Eight-Point cross-section data for HEC-HMS analysis

Reach1		Reach2		Reach3		Reach4	
X (ft)	Y (ft)	X (ft)	Y (ft)	X (ft)	Y (ft)	X (ft)	Y (ft)
0	810	0	720	0	740	0	680
1900	670	6000	610	1800	640	1100	610
2800	660	10098	600	2500	628	2300	610
2850	648	11000	570	2600	608	3400	600
2900	648	11025	570	2900	608	3600	570
2950	660	12000	605	3100	636	3700	570
3600	670	13750	610	3400	632	3800	672
3975	780	15000	695	4800	740	4500	740

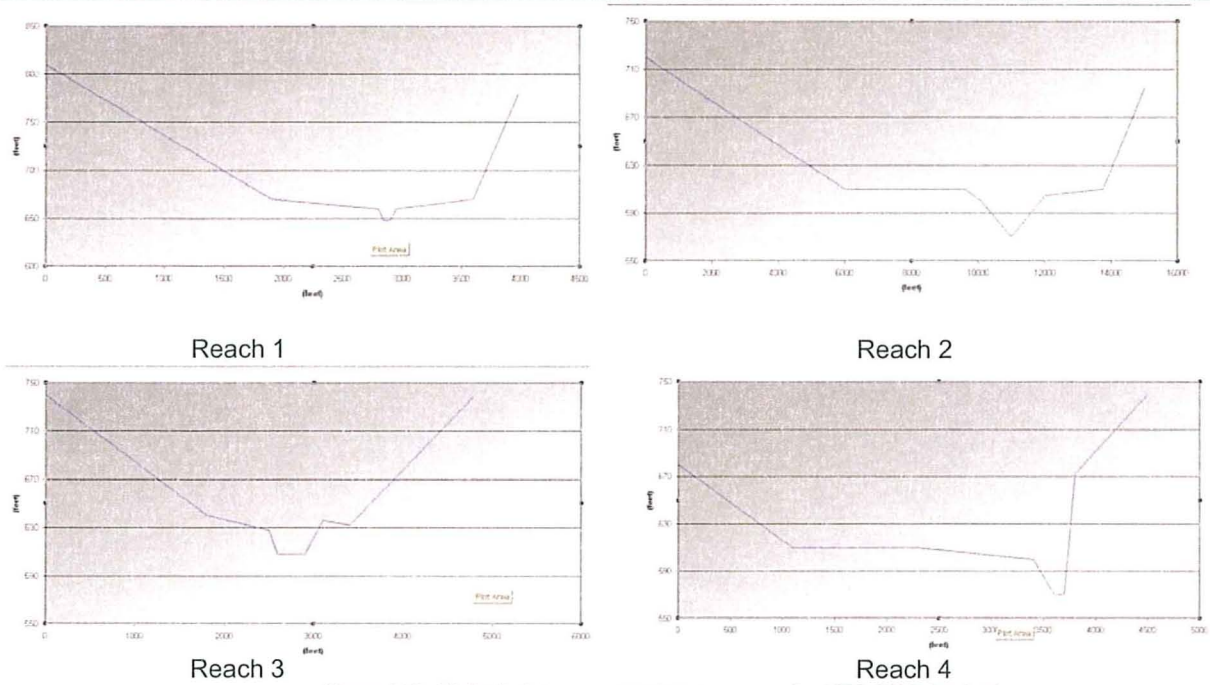

Figure 7-5: Eight-Point cross-section geometry for HEC-HMS Analysis

The length and slopes for the reaches are determined from the topographic maps. The overall slope for the reach is determined by dividing the difference in elevation of the most upstream point and most downstream point by the total distance for that reach. Upper portions of the Squaw Creek are flatter than the area downstream of the Squaw Creek Dam. The slope used to represent Basin 2 has been used to represent Basin 1a and 1b, to be more conservative.

Table 7-11: Reach characteristics for HEC-HMS analysis

Reach	Length (ft)	Slope (ft/ft)	Channel Manning's Coefficient	Overbank Manning's Coefficient
1	300	0.0001	0.15	0.15
2	24,288	0.0035	0.15	0.15
3	313,104	0.0019	0.15	0.15
4	25,872	0.0019	0.15	0.15

The HEC-HMS analysis was performed for two-third and one-third temporal distributions at critical storm centers SC X and PR Y respectively, as described in Enercon PMP Calculation. The critical center SC X results in higher runoff for Basin 1 and Basin 2. The critical storm center PR Y results in higher runoff for Basin 3 and Basin 4. The results from HEC-HMS analysis for the Squaw Creek and the Paluxy River watersheds are summarized in Table 7-12 and Table 7-13 respectively.

Table 7-12: HEC-HMS Analysis with storm center at SC X

Basin/Station	Area (mi^2)	Peak flow (cfs)
Basin 1a & 1c	43.90	150,00
Basin 1b	20.30	71,100
Squaw Creek Reservoir	-	221,000
Basin 2	10.65	30,600
Basin 3	24.30	49,200
Basin 4	410.0	669,000

Table 7-13: HEC-HMS Analysis with storm center at PR Y

Basin/Station	Area (mi^2)	Peak flow (cfs)
Basin 1a & 1c	43.90	102,000
Basin 1b	20.30	48,200
Squaw Creek Reservoir	-	150,000
Basin 2	10.65	25,200
Basin 3	24.30	73,300
Basin 4	410.0	861,000

The inflow and outflow from the SCR will be maximized, with storm center at SC X. The flow values at the SCR for the critical storm center at Squaw Creek watershed are shown in Table 7-14

Table 7-14: HEC-HMS output for Squaw Creek Reservoir

HEC-HMS Analysis					
Basin/Station	Volume (acre-ft)	Peak Inflow (cfs)	Peak Outflow (cfs)	Time to Peak (hrs)	Peak Elev. (ft. msl)
Squaw Creek Reservoir	207,000	221,000	148,000	194	790.9

HEC-RAS Unsteady Flow Routing

An unsteady flow hydraulic analysis was performed to assess the backwater flows downstream of the Squaw Creek Dam. HEC-RAS computer software was used to route the 72 hr PMF hydrographs from the HEC-HMS model. Cross-sections and roughness coefficients, determined by the Dam Breach Analysis were used for the PMF analysis in HEC-RAS. Manning's coefficient of 0.15 was used to maximize the effects of backwater. Additional considerations were made such as energy losses due to contraction or expansion of flow due to change in the cross-section. These energy losses are higher if there is an abrupt change, for example in cases of bridges and culverts. The analysis does not include any structures such as bridges and culverts within the HEC-RAS model. The relative change in cross-section shape for the Squaw Creek and the Paluxy River is gradual. Therefore, the contraction and expansion coefficients based on gradual transitions. HEC-RAS manual (Reference 9) suggests a contraction and expansion coefficients of 0.10 and 0.30 respectively, for gradual transitions.

Squaw Creek's confluence with Paluxy River is approximately 4200 feet upstream of the confluence of Paluxy River and Brazos River. The portion of the Paluxy River downstream of the Squaw Creek is referred to as Lower Paluxy in HEC-RAS Model. The HEC-RAS schematic for the Squaw Creek and the Paluxy River is shown in Figure 7-6.

The hydrographs from HEC-HMS analysis at the SCR and for each sub-basin were routed using HEC-RAS software. As discussed earlier the storm center SC X results in higher runoff for Basin 1 and Basin 2. However, the one-third temporal distribution for storm center PR Y results in maximum runoff at the confluence of Paluxy and Squaw Creek. The maximum runoff at the confluence of Paluxy and Squaw Creek may result in maximum water surface elevation at the toe of the Squaw Creek dam due to backwater from Brazos and Paluxy Rivers. Therefore, hydrographs obtained due to one-third temporal distribution for storm center PR Y were used as input hydrographs within HEC-RAS analysis. The outflow hydrograph from the SCR, resulting from the HEC-HMS analysis with storm center at PR Y, was used as a flow hydrograph boundary condition for Squaw Creek at upstream end of the Squaw Creek (station 24757). The HEC-HMS output hydrograph for Basins 2, resulting from the HEC-HMS analysis with storm center at PR Y, was applied as lateral inflow hydrograph boundary condition at the downstream end of Squaw Creek (station 1214). The HEC-HMS output hydrograph for Basins 4, resulting from the HEC-HMS analysis with storm center at PR Y, was applied as flow hydrograph boundary condition at the upstream end of Paluxy River (station 25092) in HEC-RAS analysis. The HEC-HMS output hydrograph for Basins 3, resulting from the HEC-HMS analysis with storm center at PR Y, was applied as lateral inflow hydrograph boundary condition for the Lower Paluxy River (station 924) in HEC-RAS analysis. The hydrographs are 337 ordinate (hourly) hydrographs spanning 15 days, and include both the antecedent storm peak and the PMP storm peak.

A stage hydrograph with constant elevation of 774.99 ft was used as the boundary condition for the Lower Paluxy River (station 874). The water surface elevation of 774.99 ft at the Brazos River and the Paluxy River confluence was due to the hydrologic domino type dam failure of Hubbard Creek Dam, Morris Sheppard Dam, and De Cordova Bend Dam coincident with the PMF. The methodology and inputs used in dam failure analysis are explained in detail within the separate Enercon Calculation entitled "TXUT-001-FSAR 2.4.4-CALC-015, Brazos River Dam Failure Analysis for Comanche Peak Nuclear Power Plant Units 3 and 4"(Reference 4), hereafter referred as Enercon Dam Failure Calculation. The initial flow was assumed to be zero for the Squaw Creek and Paluxy River as the base flows are already applied within HEC-HMS analysis.

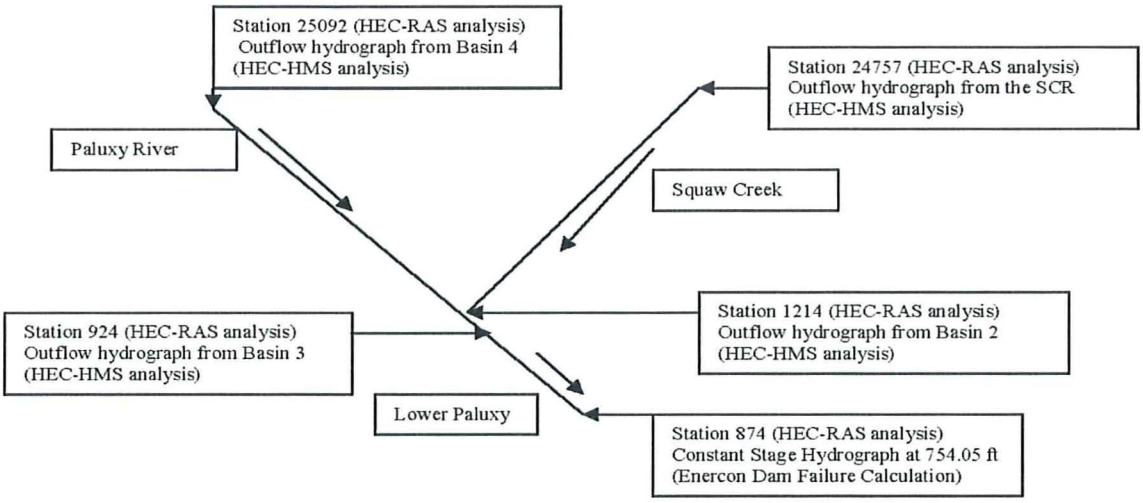

Figure 7-6– HEC-RAS schematic for Squaw Creek, and Paluxy River

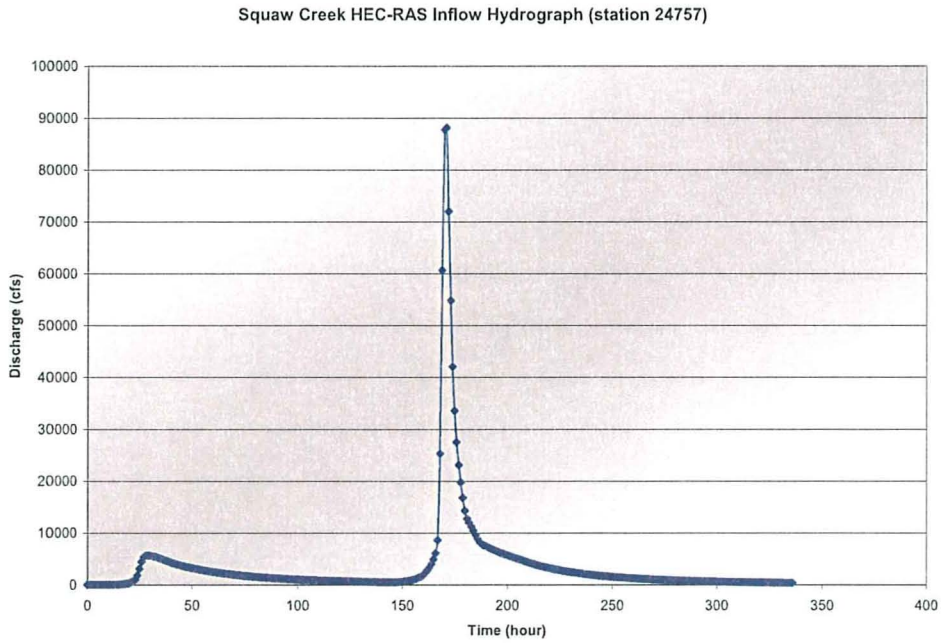

Figure 7-7– Squaw Creek (station 24757) inflow hydrograph from HEC-HMS (Squaw Creek Reservoir, storm center at SC X)

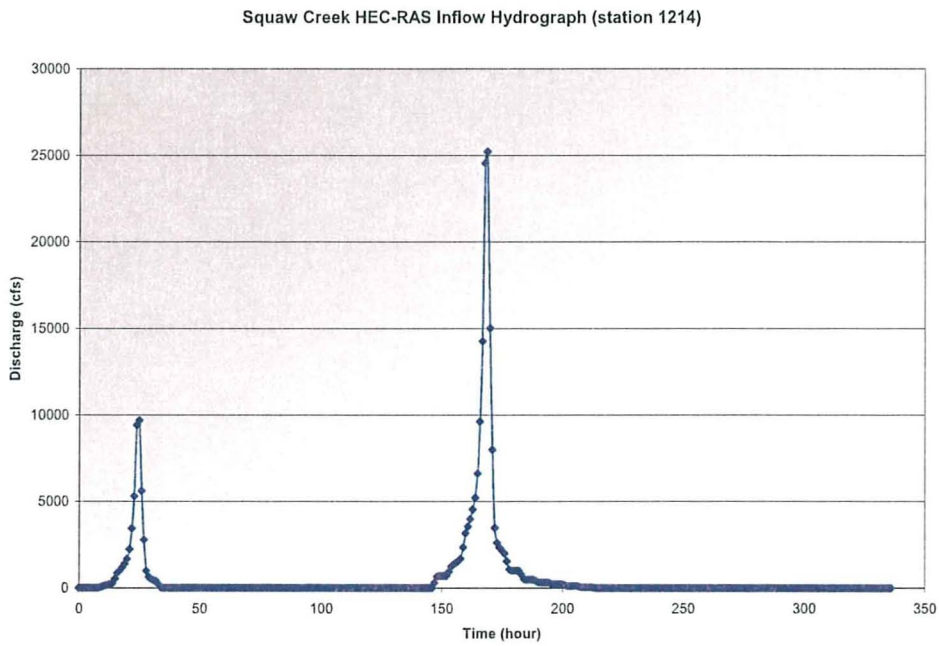

Figure 7-8– Squaw Creek (station 1214) inflow hydrograph from HEC-HMS (Basin 2, storm center at SC X)

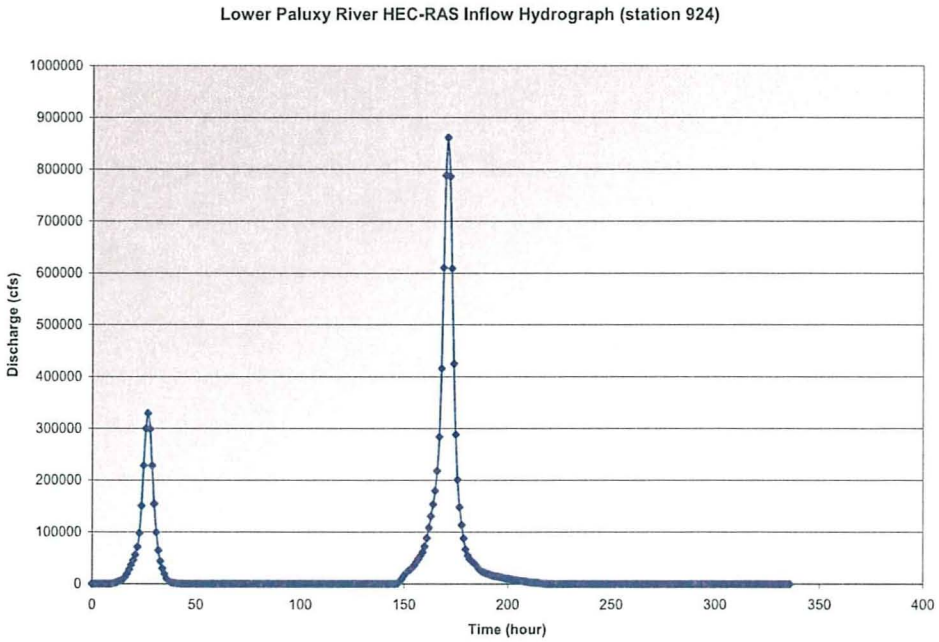

Figure 7-9– Paluxy River (station 25092) inflow hydrograph from HEC-HMS (Basin 4, storm center at PR Y)

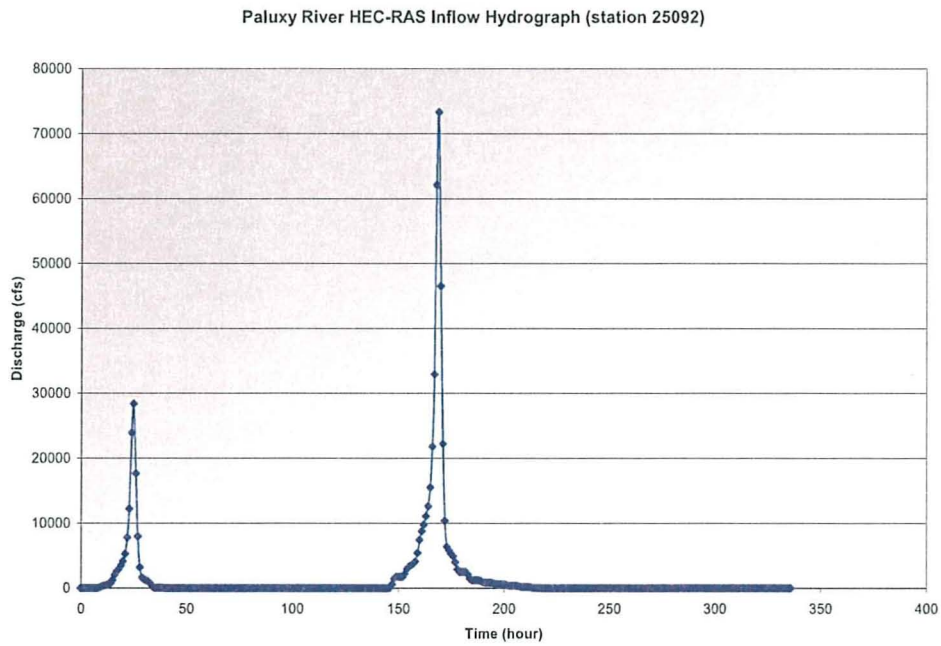

Figure 7-10– Lower Paluxy River (station 924) inflow hydrograph from HEC-HMS (Basin 3, storm center at PR Y)

Cross-sections as determined by the Dam Breach Analysis were further interpolated to stabilize the HEC-RAS model for the PMF analysis. The HEC-RAS analysis extends the cross-sections vertically to accommodate the flows. Extending the cross-section will restrict the runoff within the cross-section and prevents it to spread out in flood plain or further. This will result in higher water surface elevation at the downstream end of the Squaw Creek dam. The peak flow and the peak elevation on the downstream side of the Squaw Creek dam are shown in Table 7-15. A 5-minute computation interval was used along with a 5-minute detailed hydrograph output interval. The HEC-RAS analysis inputs and outputs are included in Appendix A. The results from the HEC-RAS analysis are summarized in Table 7-15.

Table 7-15: HEC-RAS Results

HEC-RAS Analysis		
Location	Peak Flow (cfs)	Peak Elev. (ft msl)
Downstream of Squaw Creek Dam	88,130	775.21

The HEC-RAS outputs at downstream of Squaw Creek Dam (station 24757) downstream end of Lower Paluxy River (station 874) are shown in following Figures 7-11 and 7-12 respectively. The stage hydrograph is at the constant stage of 774.99 ft, which is obtained from the Enercon Dam Failure Calculation. The HEC-RAS model calculates the elevation at the downstream end of the Squaw Creek dam, due to the PMF at the Squaw Creek and Paluxy River watersheds and due to the higher stage at the confluence of the Brazos River and the Paluxy River.

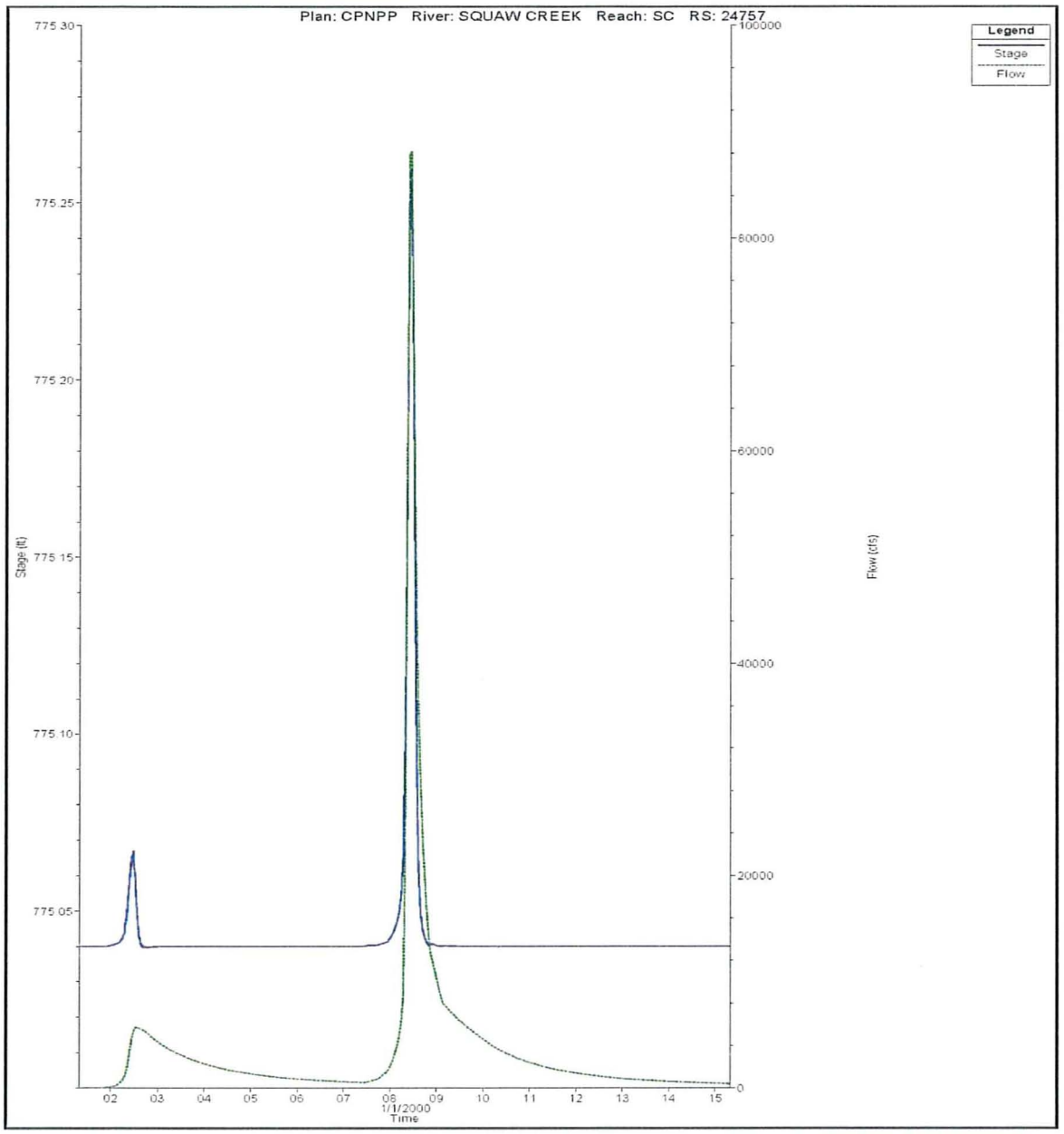

Figure 7-11–Stage-Flow hydrograph downstream of Squaw Creek Dam (station 24757, HEC-RAS Analysis)

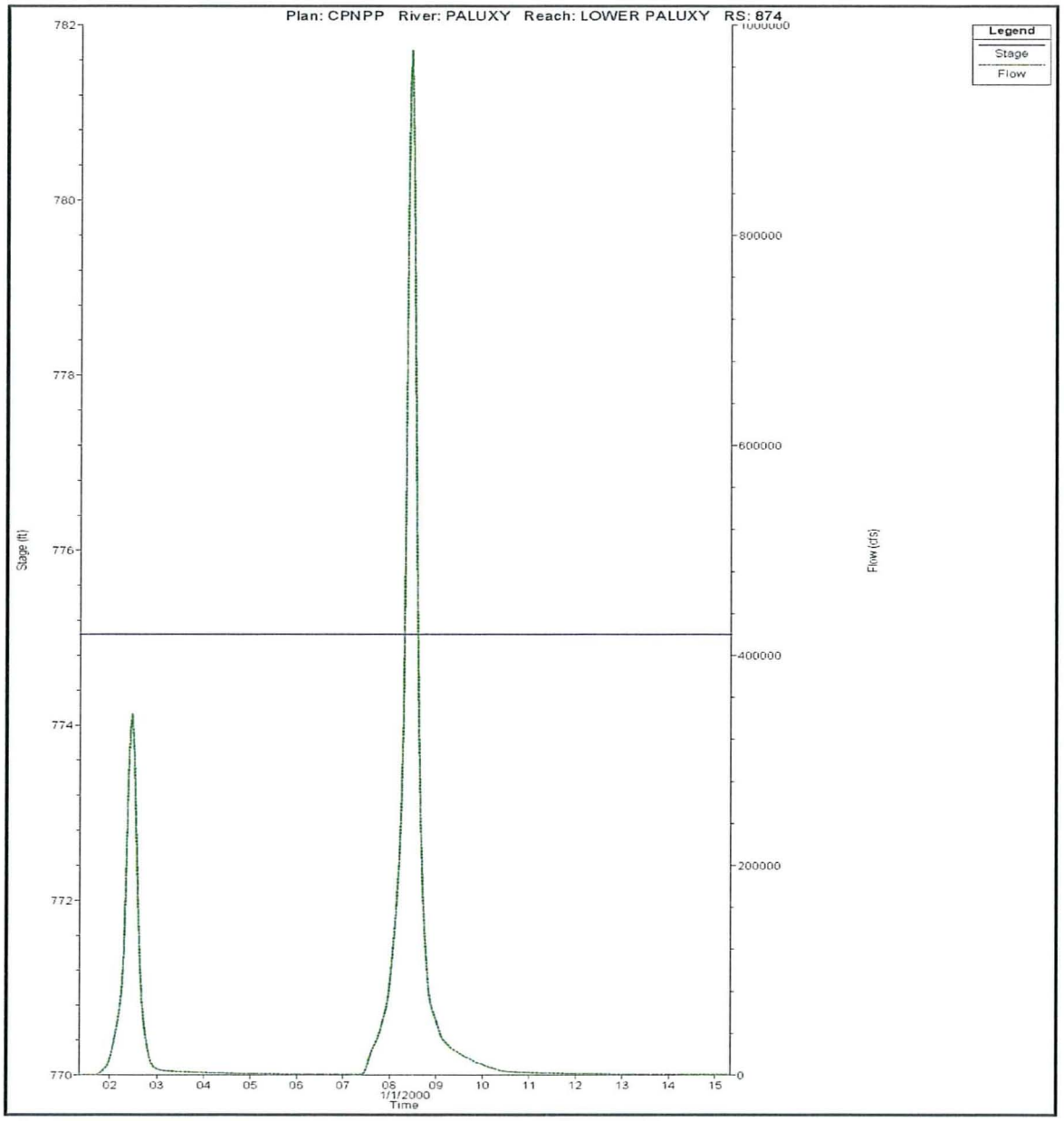

Figure 7-12–Stage-Flow hydrograph at the downstream end of Lower Paluxy River (station 874, HEC-RAS Analysis)

8.0 Appendices

Appendix A includes the results from the HEC-RAS Analysis.

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                                                        TXU_Rev1.rep

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                     U.S. Army Corp of Engineers
                    Hydrologic Engineering Center
                          609 Second Street
                          Davis, California


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          X     X  X        X            X   X    X    X   X
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Project in English units

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          Flow File     :

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            Culverts       =    0    Inline Structures  =    0
            Bridges        =    0    Lateral Structures =    0

Computational Information
    Water surface calculation tolerance  =  0.01
    Critical depth calculation tolerance =  0.01
    Maximum number of iterations         =  20
    Maximum difference tolerance         =  0.3
    Flow tolerance factor                =  0.001

Computation Options
    Critical depth computed only where necessary
    Conveyance Calculation Method: At breaks in n values only
    Friction Slope Method:         Average Conveyance
    Computational Flow Regime:     Subcritical Flow



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Reach Connection Table

  River            Reach               Upstream Boundary    Downstream Boundary

  PALUXY           PALUXY RIVER                                LP
  PALUXY           LOWER PALUXY         LP
  SQUAW CREEK      SC                                          LP


JUNCTION INFORMATION

Name: LP
Description:
Energy computation Method

    Length across Junction             Tributary
     River           Reach               River           Reach        Length   Angle
PALUXY          PALUXY RIVER     to PALUXY          LOWER PALUXY          5
SQUAW CREEK     SC               to PALUXY          LOWER PALUXY          5

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER       RS: 25092

INPUT
Description:
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     Sta     Elev     Sta     Elev     Sta     Elev     Sta     Elev     Sta     Elev
       0      710      50      710     350      700     600      660     700      660
     800      650     950      650    1400      640    1600      640    1700      630
                                                                      Page 1
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    1800     612    1900     612    2000     633    2250     637    2350     635
    2450     635    2600     660    2800     660    3800     680    4400     712

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    1700     .15    2000     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          1700    2000             2347    2347    2347             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            776.90    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.05    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            776.85    Reach Len. (ft)          2347.00    2347.00    2347.00
  Crit W.S. (ft)                      Flow Area (sq ft)       192901.00   47506.05   261873.40
  E.G. Slope (ft/ft)      0.000056    Area (sq ft)            192901.00   47506.05   261873.40
  Q Total (cfs)           861337.40    Flow (cfs)              325319.70   101972.60   434045.10
  Top Width (ft)           4400.00    Top Width (ft)           1700.00     300.00    2400.00
  Vel Total (ft/s)            1.71    Avg. Vel. (ft/s)            1.69       2.15       1.66
  Max Chl Dpth (ft)         164.85    Hydr. Depth (ft)          113.47     158.35     109.11
  Conv. Total (cfs)       115379300.0    Conv. (cfs)            43577780.0   13659610.0   58141960.0
  Length Wtd. (ft)         2347.00    Wetted Per. (ft)         1771.31     303.79    2468.03
  Min Ch El (ft)            612.00    Shear (lb/sq ft)            0.38       0.54       0.37
  Alpha                       1.02    Stream Power (lb/ft s)      0.64       1.17       0.61
  Frctn Loss (ft)             0.13    Cum Volume (acre-ft)    198235.10   31707.17   125161.90
  C & E Loss (ft)                     Cum SA (acres)           1561.08     178.85    1035.11

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER       RS: 22745

INPUT
Description:
Station Elevation Data    num=      18
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0     736     300     710     550     690     800     690    1150     670
    1800     640    2600     630    2750     620    2800     608    2900     608
    2950     630    3000     636    3200     630    3400     630    3600     652
    4000     676    4400     740    4600     740

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    2600     .15    2950     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          2600    2950             1698    1698    1698             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            776.66    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.05    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            776.62    Reach Len. (ft)          1698.00    1698.00    1698.00
  Crit W.S. (ft)                      Flow Area (sq ft)       283055.00   55616.06   172168.60
  E.G. Slope (ft/ft)      0.000055    Area (sq ft)            283055.00   55616.06   172168.60
  Q Total (cfs)           860581.90    Flow (cfs)              467681.70   118136.60   274763.60
  Top Width (ft)           4600.00    Top Width (ft)           2600.00     350.00    1650.00
  Vel Total (ft/s)            1.68    Avg. Vel. (ft/s)            1.65       2.12       1.60
  Max Chl Dpth (ft)         168.62    Hydr. Depth (ft)          108.87     158.90     104.34
  Conv. Total (cfs)       116333300.0    Conv. (cfs)            63221140.0   15969680.0   37142500.0
  Length Wtd. (ft)         1698.00    Wetted Per. (ft)         2643.87     356.38    1694.08
  Min Ch El (ft)            608.00    Shear (lb/sq ft)            0.37       0.53       0.35
  Alpha                       1.03    Stream Power (lb/ft s)      0.60       1.13       0.55
  Frctn Loss (ft)             0.09    Cum Volume (acre-ft)    185412.90   28929.07   113468.90
  C & E Loss (ft)                     Cum SA (acres)           1445.23     161.34     926.00

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER       RS: 21047

INPUT
Description:
Station Elevation Data    num=      24
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0     742     150     730     300     710     600     692     800     680
    1400     662    1700     659    2800     650    3050     640    3200     630
    3600     620    3700     620    3800     605    3900     605    4000     630
    4100     650    4200     660    4300     705    4400     705    4450     700
    4550     700    4900     710    5000     728    5200     742

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    3600     .15    4000     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          3600    4000             1716    1716    1716             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            776.16    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.04    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            776.12    Reach Len. (ft)          1716.00    1716.00    1716.00
  Crit W.S. (ft)                      Flow Area (sq ft)       400920.60   64946.73   92315.19
  E.G. Slope (ft/ft)      0.000046    Area (sq ft)            400920.60   64946.73   92315.19
  Q Total (cfs)           860162.00    Flow (cfs)              621177.00   129383.30   109601.70
  Top Width (ft)           5200.00    Top Width (ft)           3600.00     400.00    1200.00
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Vel Total (ft/s)	1.54	Avg. Vel. (ft/s)	1.55	1.99	1.19	
Max Chl Dpth (ft)	171.12	Hydr. Depth (ft)	111.37	162.37	76.93	
Conv. Total (cfs)	126417300.0	Conv. (cfs)	91293890.0	19015360.0	16108080.0	
Length Wtd. (ft)	1716.00	Wetted Per. (ft)	3637.80	404.20	1248.74	
Min Ch El (ft)	605.00	Shear (lb/sq ft)	0.32	0.46	0.21	
Alpha	1.06	Stream Power (lb/ft s)	0.49	0.93	0.25	
Frctn Loss (ft)	0.06	Cum Volume (acre-ft)	172082.00	26579.26	108314.00	
C & E Loss (ft)		Cum SA (acres)	1324.39	146.72	870.46	

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION

RIVER: PALUXY
REACH: PALUXY RIVER RS: 19331

INPUT
Description:
Station Elevation Data num= 20

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	716	250	700	400	700	1000	676	1600	660
2100	650	3000	650	3850	620	3900	605	3900	602
4100	602	4150	625	4400	653	4600	662	4700	664
4800	670	5100	670	5550	680	6000	700	6300	728

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.15	3850	.15	4150	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
3850	4150	2054	2054	2054	.1	.3

CROSS SECTION OUTPUT Profile #Max WS

E.G. Elev (ft)	775.79	Element	Left OB	Channel	Right OB	
Vel Head (ft)	0.02	Wt. n-Val.	0.150	0.150	0.150	
W.S. Elev (ft)	775.76	Reach Len. (ft)	2054.00	2054.00	2054.00	
Crit W.S. (ft)		Flow Area (sq ft)	438844.40	51029.43	214194.30	
E.G. Slope (ft/ft)	0.000028	Area (sq ft)	438844.40	51029.43	214194.30	
Q Total (cfs)	859814.80	Flow (cfs)	539433.00	80951.98	239429.80	
Top Width (ft)	6300.00	Top Width (ft)	3850.00	300.00	2150.00	
Vel Total (ft/s)	1.22	Avg. Vel. (ft/s)	1.23	1.59	1.12	
Max Chl Dpth (ft)	173.76	Hydr. Depth (ft)	113.99	170.10	99.63	
Conv. Total (cfs)	161183000.0	Conv. (cfs)	101123500.0	15175460.0	44884120.0	
Length Wtd. (ft)	2054.00	Wetted Per. (ft)	3911.60	310.24	2201.59	
Min Ch El (ft)	602.00	Shear (lb/sq ft)	0.20	0.29	0.17	
Alpha	1.03	Stream Power (lb/ft s)	0.24	0.46	0.19	
Frctn Loss (ft)	0.06	Cum Volume (acre-ft)	155541.20	24294.88	102276.70	
C & E Loss (ft)		Cum SA (acres)	1177.65	132.93	804.47	

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION

RIVER: PALUXY
REACH: PALUXY RIVER RS: 17277

INPUT
Description:
Station Elevation Data num= 21

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	720	200	720	500	690	800	680	1000	665
1200	650	2000	650	2200	620	2600	620	2800	610
2900	595	3000	595	3100	622	3300	638	3450	645
3600	650	4000	650	4600	660	4800	670	5150	690
5600	740								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.15	2600	.15	3100	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2600	3100	1536	1536	1536	.1	.3

CROSS SECTION OUTPUT Profile #Max WS

E.G. Elev (ft)	775.65	Element	Left OB	Channel	Right OB	
Vel Head (ft)	0.03	Wt. n-Val.	0.150	0.150	0.150	
W.S. Elev (ft)	775.62	Reach Len. (ft)	1536.00	1536.00	1536.00	
Crit W.S. (ft)		Flow Area (sq ft)	294624.70	84212.44	273962.20	
E.G. Slope (ft/ft)	0.000031	Area (sq ft)	294624.70	84212.44	273962.20	
Q Total (cfs)	859490.30	Flow (cfs)	375452.40	141002.40	343035.50	
Top Width (ft)	5600.00	Top Width (ft)	2600.00	500.00	2500.00	
Vel Total (ft/s)	1.32	Avg. Vel. (ft/s)	1.27	1.67	1.25	
Max Chl Dpth (ft)	180.62	Hydr. Depth (ft)	113.32	168.42	109.58	
Conv. Total (cfs)	154068400.0	Conv. (cfs)	67301900.0	25275460.0	61490990.0	
Length Wtd. (ft)	1536.00	Wetted Per. (ft)	2660.65	504.95	2540.18	
Min Ch El (ft)	595.00	Shear (lb/sq ft)	0.22	0.32	0.21	
Alpha	1.04	Stream Power (lb/ft s)	0.27	0.54	0.26	
Frctn Loss (ft)	0.05	Cum Volume (acre-ft)	138248.40	21106.33	90767.59	
C & E Loss (ft)		Cum SA (acres)	1025.58	114.07	694.84	

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION

RIVER: PALUXY
REACH: PALUXY RIVER RS: 15741

INPUT

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Description:
Station Elevation Data     num=      30
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0     720     200     720     450     710     700     708     800     704
     900     700     950     690    1200     690    1450     680    1475     670
    1575     670    1575     630    1900     620    2400     610    2450     600
    2550     593    2650     593    2700     600    2800     620    3000     625
    3050     625    3100     620    3200     620    3550     640    3600     640
    3800     650    4000     650    4300     660    4600     660    5600     750

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    2400     .15    2800     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          2400    2800             1270    1270    1270             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.53    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.03    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.50    Reach Len. (ft)          1270.00    1270.00    1270.00
  Crit W.S. (ft)                      Flow Area (sq ft)       247408.30   70176.40   311534.80
  E.G. Slope (ft/ft)      0.000035    Area (sq ft)            247408.30   70176.40   311534.80
  Q Total (cfs)           859329.10    Flow (cfs)              310884.90   128348.80   420095.50
  Top Width (ft)           5600.00    Top Width (ft)           2400.00     400.00     2800.00
  Vel Total (ft/s)            1.37    Avg. Vel. (ft/s)            1.26       1.83        1.35
  Max Chl Dpth (ft)         182.50    Hydr. Depth (ft)          103.09     175.44      111.26
  Conv. Total (cfs)       144971400.0    Conv. (cfs)            52447200.0   21652820.0   70871350.0
  Length Wtd. (ft)         1270.00    Wetted Per. (ft)         2499.24     403.70     2830.84
  Min Ch El (ft)            593.00    Shear (lb/sq ft)            0.22       0.38        0.24
  Alpha                       1.05    Stream Power (lb/ft s)      0.27       0.70        0.33
  Frctn Loss (ft)             0.04    Cum Volume (acre-ft)    128691.90   18384.32   80444.78
  C & E Loss (ft)                     Cum SA (acres)            937.43      98.20     601.40

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 14471

INPUT
Description:
Station Elevation Data     num=      18
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0     720     100     720     550     670     650     670    2000     640
    2200     640    2750     630    2800     630    2800     620    3000     610
    3050     590    3200     590    3450     615    4400     630    4650     630
    4800     640    5000     740    5200     750

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    3000     .15    3450     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          3000    3450            145.86  145.86  145.86             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.46    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.03    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.43    Reach Len. (ft)           145.86     145.86     145.86
  Crit W.S. (ft)                      Flow Area (sq ft)       358547.10   79819.57   225881.60
  E.G. Slope (ft/ft)      0.000027    Area (sq ft)            358547.10   79819.57   225881.60
  Q Total (cfs)           859225.10    Flow (cfs)              440025.80   128429.80   290769.50
  Top Width (ft)           5200.00    Top Width (ft)           3000.00     450.00     1750.00
  Vel Total (ft/s)            1.29    Avg. Vel. (ft/s)            1.23       1.61        1.29
  Max Chl Dpth (ft)         185.43    Hydr. Depth (ft)          119.52     177.38      129.08
  Conv. Total (cfs)       165751300.0    Conv. (cfs)            84884450.0   24775130.0   56091740.0
  Length Wtd. (ft)          145.86    Wetted Per. (ft)         3068.88     455.10     1799.74
  Min Ch El (ft)            590.00    Shear (lb/sq ft)            0.20       0.29        0.21
  Alpha                       1.03    Stream Power (lb/ft s)      0.24       0.47        0.27
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    119858.50   16197.74   72610.55
  C & E Loss (ft)                     Cum SA (acres)            858.71      85.81     535.07

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 14325.1*

INPUT
Description:
Station Elevation Data     num=      37
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0     720  110.48  718.35  382.42  690.84  478.02  682.32  607.62  668.47
  637.36  667.86   718.1   667.5 1115.38  658.86 1338.46  655.02 1529.67  650.29
 1529.67  649.72 1593.41  647.77 1848.35  643.37 1912.09  642.56 2209.52  637.83
 2230.77  637.86 2294.51  638.57 2430.48  638.57  3038.1     630 3059.34     630
 3093.33  629.62 3093.33  621.05 3123.08  619.56 3250.55  613.04 3314.29     610
 3364.29  589.71 3521.43  589.71 3757.14  613.57 4440.91  625.33 4699.39  629.21
 4861.69  629.43 4947.35  629.89 4966.88  631.13 5096.12  645.01 5282.47  734.81
 5294.49  740.02 5492.86  748.86

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 3314.29     .15 3757.14     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       3314.29 3757.14            145.86  145.86  145.86             .1       .3
                                                                   Page 4
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CROSS SECTION OUTPUT Profile #Max WS

E.G. Elev (ft)	775.45	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.02	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	775.43	Reach Len. (ft)	145.86	145.86	145.86
Crit W.S. (ft)		Flow Area (sq ft)	402599.80	78926.25	224272.80
E.G. Slope (ft/ft)	0.000024	Area (sq ft)	402599.80	78926.25	224272.80
Q Total (cfs)	859213.30	Flow (cfs)	468987.20	119398.10	270828.00
Top Width (ft)	5492.86	Top Width (ft)	3314.29	442.85	1735.72
Vel Total (ft/s)	1.22	Avg. Vel. (ft/s)	1.16	1.51	1.21
Max Chl Dpth (ft)	185.72	Hydr. Depth (ft)	121.47	178.22	129.21
Conv. Total (cfs)	176813500.0	Conv. (cfs)	96510700.0	24570370.0	55732440.0
Length Wtd. (ft)	145.86	Wetted Per. (ft)	3382.02	448.01	1784.99
Min Ch El (ft)	589.71	Shear (lb/sq ft)	0.18	0.26	0.19
Alpha	1.02	Stream Power (lb/ft s)	0.20	0.39	0.22
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	118584.20	15931.96	71856.88
C & E Loss (ft)		Cum SA (acres)	848.14	84.32	529.23

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION

RIVER: PALUXY
REACH: PALUXY RIVER RS: 14179.2*

INPUT
Description:
Station Elevation Data num= 37

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	720	120.95	716.7	418.68	689.04	523.35	681.6	665.24	666.94
697.8	665.71	786.19	664.99	1221.15	655.72	1465.38	652.52	1674.73	646.91
1674.73	645.77	1744.51	643.14	2023.63	639.47	2093.41	639.13	2419.05	635.66
2442.31	635.71	2512.09	637.14	2660.95	637.14	3326.19	630	3349.45	630
3386.67	629.24	3386.67	622.1	3419.23	620.47	3558.79	613.2	3628.57	610
3678.57	589.43	3842.86	589.43	4064.29	612.14	4742.42	624.78	4998.78	628.42
5159.74	628.86	5244.69	629.79	5264.07	630.94	5392.24	650.01	5577.06	735.67
5588.98	740.03	5785.71	747.71						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.15	3628.57	.15	4064.29	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
3628.57	4064.29	145.86	145.86	145.86	.1	.3

CROSS SECTION OUTPUT Profile #Max WS

E.G. Elev (ft)	775.45	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.02	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	775.43	Reach Len. (ft)	145.86	145.86	145.86
Crit W.S. (ft)		Flow Area (sq ft)	447884.20	78013.36	222660.80
E.G. Slope (ft/ft)	0.000021	Area (sq ft)	447884.20	78013.36	222660.80
Q Total (cfs)	859201.00	Flow (cfs)	495600.80	111082.60	252517.70
Top Width (ft)	5785.71	Top Width (ft)	3628.57	435.72	1721.42
Vel Total (ft/s)	1.15	Avg. Vel. (ft/s)	1.11	1.42	1.13
Max Chl Dpth (ft)	186.00	Hydr. Depth (ft)	123.43	179.04	129.35
Conv. Total (cfs)	188383600.0	Conv. (cfs)	108662700.0	24355350.0	55365620.0
Length Wtd. (ft)	145.86	Wetted Per. (ft)	3695.30	440.95	1770.54
Min Ch El (ft)	589.43	Shear (lb/sq ft)	0.16	0.23	0.16
Alpha	1.02	Stream Power (lb/ft s)	0.17	0.33	0.19
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	117160.30	15669.21	71108.61
C & E Loss (ft)		Cum SA (acres)	836.51	82.85	523.45

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION

RIVER: PALUXY
REACH: PALUXY RIVER RS: 14033.4*

INPUT
Description:
Station Elevation Data num= 37

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	720	131.43	715.05	454.95	687.23	568.68	680.88	722.86	665.41
758.24	663.57	854.29	662.49	1326.92	652.58	1592.31	650.01	1819.78	643.53
1819.78	641.81	1895.6	638.51	2198.9	635.58	2274.73	635.7	2628.57	633.49
2653.85	633.57	2729.67	635.71	2891.43	635.71	3614.29	630	3639.56	630
3680	628.86	3680	623.14	3715.38	621.37	3867.03	613.36	3942.86	610
3992.86	589.14	4164.29	589.14	4371.43	610.71	5043.94	624.22	5298.16	627.62
5457.79	628.29	5542.04	629.68	5561.26	630.75	5688.37	655.02	5871.65	736.54
5883.47	740.05	6078.57	746.57						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.15	3942.86	.15	4371.43	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
3942.86	4371.43	145.86	145.86	145.86	.1	.3

CROSS SECTION OUTPUT Profile #Max WS

E.G. Elev (ft)	775.44	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.02	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	775.42	Reach Len. (ft)	145.86	145.86	145.86
Crit W.S. (ft)		Flow Area (sq ft)	494402.60	77079.59	221050.70
E.G. Slope (ft/ft)	0.000018	Area (sq ft)	494402.60	77079.59	221050.70
Q Total (cfs)	859188.00	Flow (cfs)	520079.80	103419.00	235689.30
Top Width (ft)	6078.57	Top Width (ft)	3942.86	428.57	1707.14
Vel Total (ft/s)	1.08	Avg. Vel. (ft/s)	1.05	1.34	1.07
Max Chl Dpth (ft)	186.28	Hydr. Depth (ft)	125.39	179.85	129.49

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                                                                    TXU_Rev1.rep
  Conv. Total (cfs)        200471700.0    Conv. (cfs)              121348600.0   24130430.0   54992660.0
  Length Wtd. (ft)           145.86    Wetted Per. (ft)          4008.72      433.87    1756.42
  Min Ch El (ft)             589.14    Shear (lb/sq ft)            0.14        0.20       0.14
  Alpha                        1.02    Stream Power (lb/ft s)      0.15        0.27       0.15
  Frctn Loss (ft)              0.00    Cum Volume (acre-ft)    115582.70   15409.54   70365.73
  C & E Loss (ft)                      Cum SA (acres)            823.84      81.40     517.71

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 13887.5*

INPUT
Description:
Station Elevation Data     num=      37
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0     720   141.9   713.4  491.21  685.42  614.01  680.16  780.48  663.88
  818.68  661.43  922.38  659.98 1432.69  649.43 1719.23  647.51 1964.84  640.15
 1964.84  637.86  2046.7  633.88 2374.18  631.68 2456.04  632.28  2838.1  631.31
 2865.38  631.43 2947.25  634.29  3121.9  634.29 3902.38     630 3929.67     630
 3973.33  628.48 3973.33  624.19 4011.54  622.28 4175.27  613.52 4257.14     610
 4307.14  588.86 4485.71  588.86 4678.57  609.29 5345.45  623.67 5597.55  626.83
 5755.84  627.71 5839.39  629.58 5858.44  630.56 5984.49  660.03 6166.23   737.4
 6177.96  740.07 6371.43  745.43

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 4257.14     .15 4678.57     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       4257.14 4678.57           145.86  145.86  145.86             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)             775.44    Element                    Left OB    Channel   Right OB
  Vel Head (ft)                0.02    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)             775.42    Reach Len. (ft)            145.86     145.86     145.86
  Crit W.S. (ft)                       Flow Area (sq ft)       542151.50   76123.34   219427.90
  E.G. Slope (ft/ft)       0.000016    Area (sq ft)            542151.50   76123.34   219427.90
  Q Total (cfs)            859174.40    Flow (cfs)             542639.90   96345.27   220189.20
  Top Width (ft)            6371.43    Top Width (ft)          4257.14     421.43    1692.86
  Vel Total (ft/s)             1.03    Avg. Vel. (ft/s)           1.00       1.27       1.00
  Max Chl Dpth (ft)          186.56    Hydr. Depth (ft)          127.35     180.63     129.62
  Conv. Total (cfs)        213078100.0    Conv. (cfs)            134576500.0   23893950.0   54607650.0
  Length Wtd. (ft)           145.86    Wetted Per. (ft)          4322.19     426.79    1742.63
  Min Ch El (ft)             588.86    Shear (lb/sq ft)            0.13       0.18       0.13
  Alpha                        1.02    Stream Power (lb/ft s)      0.13       0.23       0.13
  Frctn Loss (ft)              0.00    Cum Volume (acre-ft)    113847.20   15153.05   69628.26
  C & E Loss (ft)                      Cum SA (acres)            810.11      79.98     512.01

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 13741.7*

INPUT
Description:
Station Elevation Data     num=      37
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0     720   152.38  711.75  527.47  683.61  659.34  679.44   838.1  662.35
  879.12  659.29  990.48  657.48 1538.46  646.29 1846.15  645.01 2109.89  636.76
 2109.89  633.91  2197.8  629.26 2549.45  627.79 2637.36  628.85 3047.62  629.14
 3076.92  629.29 3164.84  632.86 3352.38  632.86 4190.48     630 4219.78     630
 4266.67   628.1 4266.67  625.24 4307.69  623.19 4483.52  613.68 4571.43     610
 4621.43  588.57 4807.14  588.57 4985.71  607.86 5646.97  623.11 5896.94  626.04
  6053.9  627.14 6136.73  629.47 6155.63  630.38 6280.61  665.03 6460.82  738.27
 6472.45  740.08 6664.29  744.29

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 4571.43     .15 4985.71     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       4571.43 4985.71           145.86  145.86  145.86             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)             775.43    Element                    Left OB    Channel   Right OB
  Vel Head (ft)                0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)             775.42    Reach Len. (ft)            145.86     145.86     145.86
  Crit W.S. (ft)                       Flow Area (sq ft)       591130.10   75149.08   217810.10
  E.G. Slope (ft/ft)       0.000014    Area (sq ft)            591130.10   75149.08   217810.10
  Q Total (cfs)            859160.20    Flow (cfs)             563431.40   89815.03   205913.70
  Top Width (ft)            6664.29    Top Width (ft)          4571.43     414.28    1678.58
  Vel Total (ft/s)             0.97    Avg. Vel. (ft/s)           0.95       1.20       0.95
  Max Chl Dpth (ft)          186.85    Hydr. Depth (ft)          129.31     181.40     129.76
  Conv. Total (cfs)        226219600.0    Conv. (cfs)            148353300.0   23648590.0   54217750.0
  Length Wtd. (ft)           145.86    Wetted Per. (ft)          4635.72     419.72    1729.17
  Min Ch El (ft)             588.57    Shear (lb/sq ft)            0.11       0.16       0.11
  Alpha                        1.02    Stream Power (lb/ft s)      0.11       0.19       0.11
  Frctn Loss (ft)              0.00    Cum Volume (acre-ft)    111949.80   14899.78   68896.22
  C & E Loss (ft)                      Cum SA (acres)            795.33      78.58     506.37

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION
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RIVER: PALUXY
REACH: PALUXY RIVER        RS: 13595.8*

INPUT
Description:
Station Elevation Data     num=      37
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0     720  162.86   710.1  563.74  681.81  704.67  678.72  895.71  660.82
  939.56  657.14 1058.57  654.97 1644.23  643.14 1973.08   642.5 2254.95  633.38
 2254.95  629.95  2348.9  624.63 2724.73   623.9 2818.68  625.43 3257.14  626.97
 3288.46  627.14 3382.42  631.43 3582.86  631.43 4478.57     630 4509.89     630
    4560  627.71    4560  626.29 4603.85  624.09 4791.76  613.84 4885.71     610
 4935.71  588.29 5128.57  588.29 5292.86  606.43 5948.48  622.56 6196.33  625.25
 6351.95  626.57 6434.08  629.36 6452.81  630.19 6576.73  670.04 6755.41  739.13
 6766.94   740.1 6957.14  743.14

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 4885.71     .15 5292.86     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       4885.71 5292.86           145.86  145.86  145.86             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.43    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.42    Reach Len. (ft)            145.86     145.86     145.86
  Crit W.S. (ft)                      Flow Area (sq ft)       641349.10   74155.19   216182.20
  E.G. Slope (ft/ft)      0.000013    Area (sq ft)            641349.10   74155.19   216182.20
  Q Total (cfs)           859145.40    Flow (cfs)              582638.90   83774.99   192731.40
  Top Width (ft)           6957.14    Top Width (ft)           4885.71     407.15    1664.28
  Vel Total (ft/s)            0.92    Avg. Vel. (ft/s)           0.91       1.13       0.89
  Max Chl Dpth (ft)         187.13    Hydr. Depth (ft)         131.27     182.13     129.90
  Conv. Total (cfs)       239900800.0    Conv. (cfs)           162691400.0   23392650.0   53816770.0
  Length Wtd. (ft)          145.86    Wetted Per. (ft)        4949.32     412.66    1716.05
  Min Ch El (ft)            588.29    Shear (lb/sq ft)           0.10       0.14       0.10
  Alpha                       1.01    Stream Power (lb/ft s)     0.09       0.16       0.09
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)   109886.40   14649.81   68169.61
  C & E Loss (ft)                     Cum SA (acres)            779.49      77.20     500.77

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 13450

INPUT
Description:
Station Elevation Data     num=      25
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0     720     600     680     750     678    1000     655    1750     640
    2100     640    2400     630    2400     626    2500     620    2900     620
    3000     622    3500     625    3600     630    4800     630    4900     625
    5100     614    5200     610    5250     588    5450     588    5600     605
    6250     622    6650     626    6750     630    7050     740    7250     742

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    5200     .15    5600     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           5200    5600            1321    1321    1321             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.43    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.41    Reach Len. (ft)           1321.00    1321.00    1321.00
  Crit W.S. (ft)                      Flow Area (sq ft)       692799.60   73140.36   214557.10
  E.G. Slope (ft/ft)      0.000011    Area (sq ft)            692799.60   73140.36   214557.10
  Q Total (cfs)           859130.00    Flow (cfs)              600387.30   78183.02   180559.70
  Top Width (ft)           7250.00    Top Width (ft)           5200.00     400.00    1650.00
  Vel Total (ft/s)            0.88    Avg. Vel. (ft/s)           0.87       1.07       0.84
  Max Chl Dpth (ft)         187.41    Hydr. Depth (ft)         133.23     182.85     130.03
  Conv. Total (cfs)       254130400.0    Conv. (cfs)           177594400.0   23126520.0   53409510.0
  Length Wtd. (ft)          1321.00    Wetted Per. (ft)        5262.97     405.59    1703.28
  Min Ch El (ft)            588.00    Shear (lb/sq ft)           0.09       0.13       0.09
  Alpha                       1.01    Stream Power (lb/ft s)     0.08       0.14       0.08
  Frctn Loss (ft)             0.01    Cum Volume (acre-ft)   107652.70   14403.20   67448.45
  C & E Loss (ft)                     Cum SA (acres)            762.61      75.85     495.22

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 12129

INPUT
Description:
Station Elevation Data     num=      21
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0     770     400     740    1200     665    1200     650    1700     630
    2100     630    2400     620    3250     620    4100     615    4200     610
    4400     610    5000     620    5800     620    6400     610    7150     610
    7200     583    7400     583    7500     620    7800     715    8000     740
    8200     745

Manning's n Values         num=       3
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                                                                    TXU_Rev1.rep
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    7150     .15    7500     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          7150    7500             738     738     738            .1        .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.40    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                0.150      0.150      0.150
  W.S. Elev (ft)            775.39    Reach Len. (ft)          738.00     738.00     738.00
  Crit W.S. (ft)                      Flow Area (sq ft)      993920.10   64811.83   48523.65
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)           993920.10   64811.83   48523.65
  Q Total (cfs)           858989.10    Flow (cfs)            776207.00   59901.36   22880.76
  Top Width (ft)           8200.00    Top Width (ft)          7150.00     350.00     700.00
  Vel Total (ft/s)            0.78    Avg. Vel. (ft/s)           0.78       0.92       0.47
  Max Chl Dpth (ft)         192.39    Hydr. Depth (ft)         139.01     185.18      69.32
  Conv. Total (cfs)       291686100.0    Conv. (cfs)          263575900.0   20340650.0   7769599.0
  Length Wtd. (ft)          738.00    Wetted Per. (ft)        7175.90     363.45     746.69
  Min Ch El (ft)            583.00    Shear (lb/sq ft)           0.07       0.10       0.04
  Alpha                       1.02    Stream Power (lb/ft s)     0.06       0.09       0.02
  Frctn Loss (ft)             0.01    Cum Volume (acre-ft)   82076.96   12311.43   63459.35
  C & E Loss (ft)                     Cum SA (acres)           575.34      64.48     459.59

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 11391

INPUT
Description:
Station Elevation Data     num=      20
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0     748     400     700     550     700     600     730     800     730
    1100     620    1800     610    2400     610    2600     612    2800     613
    2950     610    4200     610    4650     615    5000     612    5400     610
    6300     610    6400     582    6600     582    6675     610    6850     730

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    6300     .15    6675     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          6300    6675            24.84   24.84   24.84            .1        .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.39    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                0.150      0.150      0.150
  W.S. Elev (ft)            775.38    Reach Len. (ft)           24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)      926852.40   70066.52   18441.04
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)           926852.40   70066.52   18441.04
  Q Total (cfs)           858918.20    Flow (cfs)            780690.90   68557.78    9669.42
  Top Width (ft)           6850.00    Top Width (ft)          6300.00     375.00     175.00
  Vel Total (ft/s)            0.85    Avg. Vel. (ft/s)           0.84       0.98       0.52
  Max Chl Dpth (ft)         193.38    Hydr. Depth (ft)         147.12     186.84     105.38
  Conv. Total (cfs)       279792400.0    Conv. (cfs)          254309900.0   22332690.0   3149812.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)        6358.25     383.90     257.57
  Min Ch El (ft)            582.00    Shear (lb/sq ft)           0.09       0.11       0.04
  Alpha                       1.01    Stream Power (lb/ft s)     0.07       0.11       0.02
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)   65805.95   11168.87   62892.09
  C & E Loss (ft)                     Cum SA (acres)           461.41      58.34     452.18

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 11366.1*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  747.82  293.86  712.84  398.03  700.28  547.29  700.12  597.05  729.76
  796.06  729.54 1094.59  620.31 1371.34  616.07 1791.14  610.02 2388.19  609.91
 2448.83   610.5 2587.21  611.88 2786.22  612.87 2935.48   609.9 3036.55   609.9
 3918.12     610 4179.33     610 4627.12  614.95  4975.4  611.98 5373.43     610
 5485.38     610 5681.28   609.9    6269   609.9  6368.5  581.97    6568  581.97
 6644.25   609.9 6659.64  618.15 6664.04  620.58 6679.43  628.84 6705.81  642.81
  6714.6  647.57 6732.19  656.99 6749.78  666.41 6758.57   671.1 6769.57  676.84
 6773.96  679.17 6784.96  685.04 6789.35  687.37 6802.54  694.31 6811.34  698.82
 6817.93  702.31 6820.13   703.6 6822.33  704.74 6837.72  712.89 6855.31  722.91
  6868.5   729.9

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    6269     .15 6644.25     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          6269 6644.25            24.84   24.84   24.84            .1        .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.39    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                0.150      0.150      0.150
  W.S. Elev (ft)            775.38    Reach Len. (ft)           24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)      922484.10   70121.64   23675.55
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)           922484.10   70121.64   23675.55
  Q Total (cfs)           858916.00    Flow (cfs)            777041.60   68623.95   13250.50
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                                                                    TXU_Rev1.rep
  Top Width (ft)            6868.50    Top Width (ft)            6269.00     375.25     224.25
  Vel Total (ft/s)            0.85     Avg. Vel. (ft/s)            0.84       0.98       0.56
  Max Chl Dpth (ft)         193.41     Hydr. Depth (ft)          147.15     186.87     105.58
  Conv. Total (cfs)       279816800.0    Conv. (cfs)            253143800.0   22356240.0   4316734.0
  Length Wtd. (ft)           24.84     Wetted Per. (ft)          6327.06     384.05     299.83
  Min Ch El (ft)            581.97     Shear (lb/sq ft)            0.09       0.11       0.05
  Alpha                       1.01     Stream Power (lb/ft s)      0.07       0.11       0.03
  Frctn Loss (ft)             0.00     Cum Volume (acre-ft)    65278.66   11128.90   62880.08
  C & E Loss (ft)                      Cum SA (acres)            457.82      58.12     452.06

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 11341.3*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  747.64  292.41  713.11  396.06  700.57  544.59  700.24    594.1  729.52
  792.13  729.08 1089.17  620.62 1364.56  616.11 1782.29  610.04 2376.38  609.82
 2436.72   610.4 2574.41  611.76 2772.44  612.74 2920.97   609.8 3021.53   609.8
 3898.75     610 4158.67     610 4604.24   614.9 4950.79  611.96 5346.86     610
 5458.25     610 5653.19   609.8    6238   609.8    6337  581.94    6536  581.94
  6613.5   609.8 6632.27  618.07 6637.63  620.58  6656.4  628.85 6688.58  642.68
  6699.3  647.49 6720.75  656.92 6742.21  666.34 6752.93  671.03 6766.34  676.62
  6771.7  678.92 6785.11  684.79 6790.47  687.09 6806.56  693.91 6817.28  698.22
 6825.33  701.68 6828.01  703.08 6830.69  704.19 6849.46  712.26 6870.91  722.88
    6887   729.8

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    6238     .15  6613.5     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          6238  6613.5             24.84   24.84   24.84            .1        .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.39    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.38    Reach Len. (ft)            24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)       918114.10   70176.79   28929.64
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)            918114.10   70176.79   28929.64
  Q Total (cfs)           858913.80    Flow (cfs)             773353.60   68686.55   16873.64
  Top Width (ft)           6887.00    Top Width (ft)           6238.00     375.50     273.50
  Vel Total (ft/s)            0.84    Avg. Vel. (ft/s)            0.84       0.98       0.58
  Max Chl Dpth (ft)         193.44    Hydr. Depth (ft)          147.18     186.89     105.78
  Conv. Total (cfs)       279854300.0    Conv. (cfs)            251976800.0   22379690.0   5497829.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)          6295.88     384.20     344.29
  Min Ch El (ft)            581.94    Shear (lb/sq ft)            0.09       0.11       0.05
  Alpha                       1.01    Stream Power (lb/ft s)      0.07       0.11       0.03
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    64753.86   11088.89   62865.08
  C & E Loss (ft)                     Cum SA (acres)            454.26      57.91     451.92

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 11316.4*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  747.46  290.95  713.39   394.1  700.85  541.88  700.35  591.14  729.29
  788.19  728.62 1083.76  620.92 1357.78  616.15 1773.43  610.07 2364.57  609.73
 2424.61  610.29 2561.62  611.64 2758.67  612.61 2906.45   609.7 3006.52   609.7
 3879.38     610    4138     610 4581.36  614.85 4926.19  611.94 5320.29     610
 5431.12     610 5625.09   609.7    6207   609.7  6305.5  581.91    6504  581.91
 6582.75   609.7  6604.9  617.99 6611.23  620.57 6633.38  628.86 6671.35  642.55
    6684  647.42 6709.32  656.85 6734.63  666.28 6747.29  670.96 6763.11   676.4
 6769.44  678.68 6785.26  684.54 6791.59  686.82 6810.57  693.51 6823.23  697.63
 6832.72  701.05 6835.89  702.55 6839.05  703.64  6861.2  711.62 6886.51  722.85
  6905.5   729.7

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    6207     .15 6582.75     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          6207 6582.75             24.84   24.84   24.84            .1        .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.39    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.38    Reach Len. (ft)            24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)       913740.20   70232.05   34203.22
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)            913740.20   70232.05   34203.22
  Q Total (cfs)           858911.60    Flow (cfs)             769644.20   68747.54   20519.88
  Top Width (ft)           6905.50    Top Width (ft)           6207.00     375.75     322.75
  Vel Total (ft/s)            0.84    Avg. Vel. (ft/s)            0.84       0.98       0.60
  Max Chl Dpth (ft)         193.47    Hydr. Depth (ft)          147.21     186.91     105.97
  Conv. Total (cfs)       279897600.0    Conv. (cfs)            250807600.0   22403090.0   6686910.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)          6264.72     384.35     390.11
  Min Ch El (ft)            581.91    Shear (lb/sq ft)            0.09       0.11       0.05
  Alpha                       1.01    Stream Power (lb/ft s)      0.07       0.11       0.03
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    64231.56   11048.86   62847.08
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                                                                    TXU_Rev1.rep
  C & E Loss (ft)                    Cum SA (acres)            450.71      57.69     451.75

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 11291.6*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  747.28   289.5  713.66  392.13  701.14  539.17  700.47  588.19  729.05
  784.25  728.16 1078.35  621.23    1351  616.19 1764.57  610.09 2352.76  609.65
  2412.5  610.18 2548.83  611.52 2744.89  612.48 2891.94   609.6  2991.5   609.6
    3860     610 4117.33     610 4558.48   614.8 4901.59  611.92 5293.71     610
    5404     610    5597   609.6    6176   609.6    6274  581.88    6472  581.88
    6552   609.6 6577.53  617.91 6584.82  620.56 6610.35  628.87 6654.12  642.42
 6668.71  647.34 6697.88  656.78 6727.06  666.21 6741.65  670.89 6759.88  676.18
 6767.18  678.44 6785.41  684.28 6792.71  686.54 6814.59  693.12 6829.18  697.04
 6840.12  700.42 6843.76  702.03 6847.41  703.08 6872.94  710.99 6902.12  722.82
    6924   729.6

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    6176     .15    6552     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          6176    6552             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.39    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.38    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)        909364.50   70287.38   39496.80
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)             909364.50   70287.38   39496.80
  Q Total (cfs)           858909.40    Flow (cfs)              765918.90   68806.92   24183.54
  Top Width (ft)           6924.00    Top Width (ft)           6176.00     376.00     372.00
  Vel Total (ft/s)            0.84    Avg. Vel. (ft/s)            0.84       0.98       0.61
  Max Chl Dpth (ft)         193.50    Hydr. Depth (ft)          147.24     186.93     106.17
  Conv. Total (cfs)       279946700.0    Conv. (cfs)            249638000.0   22426430.0   7882205.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)         6233.54     384.51     436.81
  Min Ch El (ft)            581.88    Shear (lb/sq ft)            0.09       0.11       0.05
  Alpha                       1.01    Stream Power (lb/ft s)      0.07       0.11       0.03
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    63711.75   11008.79   62826.07
  C & E Loss (ft)                     Cum SA (acres)            447.18      57.48     451.55

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 11266.8*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   747.1  288.05  713.93  390.16  701.42  536.47  700.59  585.24  728.81
  780.32   727.7 1072.94  621.54 1344.22  616.23 1755.71  610.11 2340.95  609.56
 2400.39  610.08 2536.03   611.4 2731.11  612.35 2877.42   609.5 2976.48   609.5
 3840.62     610 4096.67     610  4535.6  614.75 4876.98   611.9 5267.14     610
 5376.88     610 5568.91   609.5    6145   609.5  6242.5  581.85    6440  581.85
 6521.25   609.5 6550.16  617.82 6558.42  620.56 6587.33  628.88 6636.89  642.29
 6653.41  647.26 6686.45  656.71 6719.49  666.15    6736  670.82 6756.65  675.96
 6764.91  678.19 6785.56  684.03 6793.82  686.26  6818.6  692.72 6835.12  696.44
 6847.51  699.79 6851.64  701.51 6855.77  702.53 6884.68  710.35 6917.72  722.79
  6942.5   729.5

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    6145     .15 6521.25     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          6145 6521.25             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.39    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.38    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)        904989.10   70342.73   44810.05
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)             904989.10   70342.73   44810.05
  Q Total (cfs)           858907.30    Flow (cfs)              762180.00   68864.62   27862.68
  Top Width (ft)           6942.50    Top Width (ft)           6145.00     376.25     421.25
  Vel Total (ft/s)            0.84    Avg. Vel. (ft/s)            0.84       0.98       0.62
  Max Chl Dpth (ft)         193.53    Hydr. Depth (ft)          147.27     186.96     106.37
  Conv. Total (cfs)       280001300.0    Conv. (cfs)            248468500.0   22449670.0   9083152.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)         6202.37     384.67     484.11
  Min Ch El (ft)            581.85    Shear (lb/sq ft)            0.09       0.11       0.05
  Alpha                       1.01    Stream Power (lb/ft s)      0.07       0.11       0.03
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    63194.43   10968.70   62802.03
  C & E Loss (ft)                     Cum SA (acres)            443.67      57.27     451.33

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION
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                                                                    TXU_Rev1.rep
RIVER: PALUXY
REACH: PALUXY RIVER        RS: 11241.9*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  746.92  286.59  714.21  388.19   701.7  533.76  700.71  582.29  728.57
  776.38  727.24 1067.52  621.85 1337.44  616.27 1746.86  610.13 2329.14  609.47
 2388.28  609.97 2523.24  611.28 2717.33  612.22  2862.9   609.4 2961.47   609.4
 3821.25     610    4076     610 4512.71   614.7 4852.38  611.88 5240.57     610
 5349.75     610 5540.81   609.4    6114   609.4    6211  581.82    6408  581.82
  6490.5   609.4 6522.79  617.74 6532.02  620.55  6564.3  628.89 6619.66  642.16
 6638.11  647.19 6675.01  656.64 6711.91  666.08 6730.36  670.75 6753.43  675.74
 6762.65  677.95 6785.72  683.78 6794.94  685.99 6822.62  692.32 6841.07  695.85
 6854.91  699.16 6859.52  700.99 6864.13  701.98 6896.42  709.72 6933.32  722.76
    6961   729.4

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    6114     .15  6490.5     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          6114  6490.5             24.84   24.84   24.84              .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.39    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.38    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)        900612.10   70398.15   50142.20
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)             900612.10   70398.15   50142.20
  Q Total (cfs)           858905.10    Flow (cfs)              758427.70   68920.96   31556.51
  Top Width (ft)           6961.00    Top Width (ft)           6114.00     376.50     470.50
  Vel Total (ft/s)            0.84    Avg. Vel. (ft/s)            0.84       0.98       0.63
  Max Chl Dpth (ft)         193.56    Hydr. Depth (ft)          147.30     186.98     106.57
  Conv. Total (cfs)       280060500.0    Conv. (cfs)           247298100.0   22472840.0   10289530.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)         6171.19     384.83     531.83
  Min Ch El (ft)            581.82    Shear (lb/sq ft)            0.09       0.11       0.06
  Alpha                       1.01    Stream Power (lb/ft s)      0.07       0.11       0.03
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    62679.61   10928.57   62774.96
  C & E Loss (ft)                     Cum SA (acres)            440.17      57.05     451.07

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 11217.1*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  746.74  285.14  714.48  386.22  701.99  531.06  700.82  579.33  728.34
  772.44  726.78 1062.11  622.16 1330.66   616.3    1738  610.15 2317.33  609.38
 2376.17  609.87 2510.44  611.16 2703.56  612.09 2848.39   609.3 2946.45   609.3
 3801.88     610 4055.33     610 4489.83  614.65 4827.78  611.86    5214     610
 5322.62     610 5512.72   609.3    6083   609.3  6179.5  581.79    6376  581.79
 6459.75   609.3 6495.42  617.66 6505.61  620.55 6541.28  628.91 6602.43  642.04
 6622.81  647.11 6663.57  656.56 6704.34  666.02 6724.72  670.67  6750.2  675.51
 6760.39   677.7 6785.87  683.52 6796.06  685.71 6826.63  691.93 6847.01  695.25
  6862.3  698.54  6867.4  700.47 6872.49  701.42 6908.16  709.08 6948.93  722.74
  6979.5   729.3

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    6083     .15 6459.75     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          6083 6459.75             24.84   24.84   24.84              .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.39    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.37    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)        896235.50   70453.66   55494.26
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)             896235.50   70453.66   55494.26
  Q Total (cfs)           858902.80    Flow (cfs)              754660.90   68975.71   35266.21
  Top Width (ft)           6979.50    Top Width (ft)           6083.00     376.75     519.75
  Vel Total (ft/s)            0.84    Avg. Vel. (ft/s)            0.84       0.98       0.64
  Max Chl Dpth (ft)         193.58    Hydr. Depth (ft)          147.33     187.00     106.77
  Conv. Total (cfs)       280125500.0    Conv. (cfs)           246127600.0   22495970.0   11501840.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)         6140.03     385.00     579.86
  Min Ch El (ft)            581.79    Shear (lb/sq ft)            0.09       0.11       0.06
  Alpha                       1.01    Stream Power (lb/ft s)      0.07       0.11       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    62167.29   10888.41   62744.84
  C & E Loss (ft)                     Cum SA (acres)            436.69      56.84     450.79

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 11192.2*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  746.56  283.69  714.76  384.25  702.27  528.35  700.94  576.38   728.1
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  768.51  726.33  1056.7  622.47 1323.88  616.34 1729.14  610.18 2305.52  609.29
 2364.06  609.76 2497.65  611.04 2689.78  611.96 2833.87   609.2 2931.44   609.2
  3782.5     610 4034.67     610 4466.95   614.6 4803.17  611.84 5187.43     610
  5295.5     610 5484.62   609.2    6052   609.2    6148  581.76    6344  581.76
    6429   609.2 6468.05  617.58 6479.21  620.54 6518.25  628.92  6585.2  641.91
 6607.51  647.04 6652.14  656.49 6696.76  665.95 6719.08   670.6 6746.97  675.29
 6758.13  677.46 6786.02  683.27 6797.18  685.44 6830.65  691.53 6852.96  694.66
  6869.7  697.91 6875.27  699.95 6880.85  700.87  6919.9  708.45 6964.53  722.71
    6998   729.2

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    6052     .15    6429     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          6052    6429             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.39    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.37    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)       891846.60   70509.23   60865.53
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)            891846.60   70509.23   60865.53
  Q Total (cfs)           858900.70    Flow (cfs)             750878.20   69030.19   38992.27
  Top Width (ft)           6998.00    Top Width (ft)           6052.00     377.00     569.00
  Vel Total (ft/s)            0.84    Avg. Vel. (ft/s)            0.84       0.98       0.64
  Max Chl Dpth (ft)         193.61    Hydr. Depth (ft)          147.36     187.03     106.97
  Conv. Total (cfs)       280190800.0    Conv. (cfs)           244951700.0   22519050.0   12720070.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)         6108.87     385.16     628.13
  Min Ch El (ft)            581.76    Shear (lb/sq ft)            0.09       0.11       0.06
  Alpha                       1.02    Stream Power (lb/ft s)      0.07       0.11       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    61657.46   10848.21   62711.66
  C & E Loss (ft)                     Cum SA (acres)            433.23      56.62     450.48

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 11167.4*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  746.38  282.23  715.03  382.29  702.56  525.64  701.06  573.43  727.86
  764.57  725.87 1051.29  622.77 1317.09  616.38 1720.29   610.2 2293.71   609.2
 2351.95  609.65 2484.86  610.92    2676  611.83 2819.36   609.1 2916.42   609.1
 3763.12     610    4014     610 4444.07  614.55 4778.57  611.82 5160.86     610
 5268.38     610 5456.53   609.1    6021   609.1  6116.5  581.73    6312  581.73
 6398.25   609.1 6440.68  617.49  6452.8  620.54 6495.23  628.93 6567.97  641.78
 6592.21  646.96  6640.7  656.42 6689.19  665.89 6713.44  670.53 6743.74  675.07
 6755.87  677.21 6786.17  683.02 6798.29  685.16 6834.66  691.13 6858.91  694.06
 6877.09  697.28 6883.15  699.43 6889.21  700.32 6931.64  707.81 6980.13  722.68
  7016.5   729.1

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    6021     .15 6398.25     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          6021 6398.25             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.38    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.37    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)       887467.00   70564.88   66257.36
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)            887467.00   70564.88   66257.36
  Q Total (cfs)           858898.40    Flow (cfs)             747081.60   69081.82   42735.01
  Top Width (ft)           7016.50    Top Width (ft)           6021.00     377.25     618.25
  Vel Total (ft/s)            0.84    Avg. Vel. (ft/s)            0.84       0.98       0.64
  Max Chl Dpth (ft)         193.64    Hydr. Depth (ft)          147.40     187.05     107.17
  Conv. Total (cfs)       280266900.0    Conv. (cfs)           243780000.0   22542070.0   13944850.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)         6077.70     385.33     676.58
  Min Ch El (ft)            581.73    Shear (lb/sq ft)            0.09       0.11       0.06
  Alpha                       1.02    Stream Power (lb/ft s)      0.07       0.11       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    61150.14   10807.99   62675.41
  C & E Loss (ft)                     Cum SA (acres)            429.79      56.41     450.14

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 11142.6*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   746.2  280.78  715.31  380.32  702.84  522.94  701.18  570.48  727.62
  760.63  725.41 1045.87  623.08 1310.31  616.42 1711.43  610.22  2281.9  609.11
 2339.84  609.55 2472.06   610.8 2662.22   611.7 2804.84     609 2901.41     609
 3743.75     610 3993.33     610 4421.19   614.5 4753.97   611.8 5134.29     610
 5241.25     610 5428.44     609    5990     609    6085   581.7    6280   581.7
  6367.5     609 6413.31  617.41  6426.4  620.53 6472.21  628.94 6550.74  641.65
 6576.91  646.88 6629.26  656.35 6681.62  665.82 6707.79  670.46 6740.51  674.85
  6753.6  676.97 6786.32  682.76 6799.41  684.88 6838.68  690.74 6864.85  693.47
 6884.49  696.65 6891.03  698.91 6897.57  699.76 6943.38  707.18 6995.74  722.65
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                                                                    TXU_Rev1.rep
    7035      729

Manning's n Values          num=        3
     Sta   n Val      Sta   n Val      Sta   n Val
       0     .15     5990     .15   6367.5     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          5990  6367.5             24.84   24.84   24.84            .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.38    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.37    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)        883081.80   70620.59   71668.68
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)             883081.80   70620.59   71668.68
  Q Total (cfs)           858896.30    Flow (cfs)              743269.30   69132.37   46494.73
  Top Width (ft)           7035.00    Top Width (ft)           5990.00     377.50     667.50
  Vel Total (ft/s)            0.84    Avg. Vel. (ft/s)            0.84       0.98       0.65
  Max Chl Dpth (ft)         193.67    Hydr. Depth (ft)          147.43     187.07     107.37
  Conv. Total (cfs)       280346800.0    Conv. (cfs)            242605700.0   22565050.0   15176050.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)         6046.54     385.50     725.17
  Min Ch El (ft)            581.70    Shear (lb/sq ft)            0.09       0.11       0.06
  Alpha                       1.02    Stream Power (lb/ft s)      0.07       0.11       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    60645.31   10767.74   62636.09
  C & E Loss (ft)                     Cum SA (acres)            426.37      56.19     449.78

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 11117.7*

INPUT
Description:
Station Elevation Data     num=       46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  746.02  279.33  715.58  378.35  703.12  520.23   701.3  567.52  727.39
   756.7  724.95 1040.46  623.39 1303.53  616.46 1702.57  610.24  2270.1  609.02
 2327.73  609.44 2459.27  610.68 2648.44  611.57 2790.33   608.9 2886.39   608.9
 3724.38     610 3972.67     610 4398.31  614.45 4729.37  611.78 5107.71     610
 5214.12     610 5400.34   608.9    5959   608.9  6053.5  581.67    6248  581.67
 6336.75   608.9 6385.94  617.33 6399.99  620.52 6449.18  628.95  6533.5  641.52
 6561.61  646.81 6617.83  656.28 6674.04  665.76 6702.15  670.39 6737.29  674.63
 6751.34  676.73 6786.48  682.51 6800.53  684.61 6842.69  690.34  6870.8  692.88
 6891.88  696.02 6898.91  698.38 6905.93  699.21 6955.12  706.54 7011.34  722.62
  7053.5   728.9

Manning's n Values          num=        3
     Sta   n Val      Sta   n Val      Sta   n Val
       0     .15     5959     .15  6336.75     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          5959  6336.75            24.84   24.84   24.84            .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.38    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.37    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)        878694.70   70676.35   77098.68
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)             878694.70   70676.35   77098.68
  Q Total (cfs)           858894.10    Flow (cfs)              739442.10   69181.44   50270.55
  Top Width (ft)           7053.50    Top Width (ft)           5959.00     377.75     716.75
  Vel Total (ft/s)            0.84    Avg. Vel. (ft/s)            0.84       0.98       0.65
  Max Chl Dpth (ft)         193.70    Hydr. Depth (ft)          147.46     187.10     107.57
  Conv. Total (cfs)       280431800.0    Conv. (cfs)            241430400.0   22587970.0   16413510.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)         6015.38     385.68     773.88
  Min Ch El (ft)            581.67    Shear (lb/sq ft)            0.09       0.11       0.06
  Alpha                       1.02    Stream Power (lb/ft s)      0.07       0.11       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    60142.99   10727.45   62593.67
  C & E Loss (ft)                     Cum SA (acres)            422.96      55.98     449.38

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 11092.9*

INPUT
Description:
Station Elevation Data     num=       46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  745.84  277.88  715.85  376.38  703.41  517.52  701.41  564.57  727.15
  752.76  724.49 1035.05   623.7 1296.75   616.5 1693.71  610.26 2258.29  608.94
 2315.62  609.34 2446.48  610.56 2634.67  611.44 2775.81   608.8 2871.38   608.8
    3705     610    3952     610 4375.43   614.4 4704.76  611.76 5081.14     610
    5187     610 5372.25   608.8    5928   608.8    6022  581.64    6216  581.64
    6306   608.8 6358.57  617.25 6373.59  620.52 6426.16  628.96 6516.27  641.39
 6546.31  646.73 6606.39  656.21 6666.47  665.69 6696.51  670.32 6734.06  674.41
 6749.08  676.48 6786.63  682.26 6801.65  684.33 6846.71  689.94 6876.75  692.28
 6899.27  695.39 6906.78  697.86 6914.29  698.66 6966.86  705.91 7026.94  722.59
    7072   728.8

Manning's n Values          num=        3
     Sta   n Val      Sta   n Val      Sta   n Val
       0     .15     5928     .15    6306     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          5928    6306             24.84   24.84   24.84            .1       .3
                                                                Page 13
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CROSS SECTION OUTPUT Profile #Max WS

E.G. Elev (ft)	775.38	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.01	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	775.37	Reach Len. (ft)	24.84	24.84	24.84
Crit W.S. (ft)		Flow Area (sq ft)	874303.80	70732.21	82549.20
E.G. Slope (ft/ft)	0.000009	Area (sq ft)	874303.80	70732.21	82549.20
Q Total (cfs)	858891.90	Flow (cfs)	735598.30	69229.10	54064.46
Top Width (ft)	7072.00	Top Width (ft)	5928.00	378.00	766.00
Vel Total (ft/s)	0.84	Avg. Vel. (ft/s)	0.84	0.98	0.65
Max Chl Dpth (ft)	193.73	Hydr. Depth (ft)	147.49	187.12	107.77
Conv. Total (cfs)	280522100.0	Conv. (cfs)	240253300.0	22610870.0	17657960.0
Length Wtd. (ft)	24.84	Wetted Per. (ft)	5984.22	385.85	822.67
Min Ch El (ft)	581.64	Shear (lb/sq ft)	0.09	0.11	0.06
Alpha	1.02	Stream Power (lb/ft s)	0.07	0.11	0.04
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	59643.17	10687.13	62548.15
C & E Loss (ft)		Cum SA (acres)	419.57	55.76	448.96

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION

RIVER: PALUXY
REACH: PALUXY RIVER RS: 11068.0*

INPUT
Description:
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	745.66	276.42	716.13	374.41	703.69	514.82	701.53	561.62	726.91
748.83	724.03	1029.63	624.01	1289.97	616.54	1684.86	610.29	2246.48	608.85
2303.52	609.23	2433.68	610.44	2620.89	611.31	2761.29	608.7	2856.36	608.7
3685.62	610	3931.33	610	4352.55	614.35	4680.16	611.74	5054.57	610
5159.88	610	5344.16	608.7	5897	608.7	5990.5	581.61	6184	581.61
6275.25	608.7	6331.2	617.16	6347.18	620.51	6403.13	628.98	6499.04	641.26
6531.01	646.65	6594.96	656.14	6658.9	665.63	6690.87	670.24	6730.83	674.19
6746.82	676.24	6786.78	682.01	6802.76	684.05	6850.72	689.54	6882.69	691.69
6906.67	694.76	6914.66	697.34	6922.65	698.11	6978.6	705.27	7042.54	722.56
7090.5	728.7								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.15	5897	.15	6275.25	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
5897	6275.25	24.84	24.84	24.84	.1	.3

CROSS SECTION OUTPUT Profile #Max WS

E.G. Elev (ft)	775.38	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.01	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	775.37	Reach Len. (ft)	24.84	24.84	24.84
Crit W.S. (ft)		Flow Area (sq ft)	869907.60	70788.07	88019.00
E.G. Slope (ft/ft)	0.000009	Area (sq ft)	869907.60	70788.07	88019.00
Q Total (cfs)	858889.80	Flow (cfs)	731738.90	69275.46	57875.52
Top Width (ft)	7090.50	Top Width (ft)	5897.00	378.25	815.25
Vel Total (ft/s)	0.83	Avg. Vel. (ft/s)	0.84	0.98	0.66
Max Chl Dpth (ft)	193.76	Hydr. Depth (ft)	147.52	187.15	107.97
Conv. Total (cfs)	280616600.0	Conv. (cfs)	239073900.0	22633690.0	18909100.0
Length Wtd. (ft)	24.84	Wetted Per. (ft)	5953.06	386.03	871.55
Min Ch El (ft)	581.61	Shear (lb/sq ft)	0.09	0.11	0.06
Alpha	1.02	Stream Power (lb/ft s)	0.07	0.10	0.04
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	59145.85	10646.78	62499.52
C & E Loss (ft)		Cum SA (acres)	416.20	55.54	448.51

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION

RIVER: PALUXY
REACH: PALUXY RIVER RS: 11043.2*

INPUT
Description:
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	745.48	274.97	716.4	372.44	703.98	512.11	701.65	558.67	726.67
744.89	723.57	1024.22	624.32	1283.19	616.58	1676	610.31	2234.67	608.76
2291.41	609.12	2420.89	610.32	2607.11	611.18	2746.78	608.6	2841.34	608.6
3666.25	610	3910.67	610	4329.67	614.3	4655.56	611.72	5028	610
5132.75	610	5316.06	608.6	5866	608.6	5959	581.58	6152	581.58
6244.5	608.6	6303.83	617.08	6320.78	620.51	6380.11	628.99	6481.81	641.13
6515.72	646.58	6583.52	656.07	6651.32	665.56	6685.23	670.17	6727.6	673.97
6744.55	675.99	6786.93	681.75	6803.88	683.78	6854.74	689.15	6888.64	691.09
6914.06	694.13	6922.54	696.82	6931.01	697.55	6990.34	704.64	7058.15	722.53
7109	728.6								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.15	5866	.15	6244.5	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
5866	6244.5	24.84	24.84	24.84	.1	.3

CROSS SECTION OUTPUT Profile #Max WS

E.G. Elev (ft)	775.38	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.01	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	775.37	Reach Len. (ft)	24.84	24.84	24.84
Crit W.S. (ft)		Flow Area (sq ft)	865516.60	70844.10	93508.37
E.G. Slope (ft/ft)	0.000009	Area (sq ft)	865516.60	70844.10	93508.37

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  Q Total (cfs)            858887.60    Flow (cfs)                727865.10   69319.57   61703.01
  Top Width (ft)            7109.00    Top Width (ft)            5866.00     378.50     864.50
  Vel Total (ft/s)             0.83    Avg. Vel. (ft/s)             0.84       0.98       0.66
  Max Chl Dpth (ft)          193.79    Hydr. Depth (ft)           147.55     187.17     108.16
  Conv. Total (cfs)        280720400.0    Conv. (cfs)            237896700.0   22656530.0   20167120.0
  Length Wtd. (ft)            24.84    Wetted Per. (ft)          5921.91     386.21     920.48
  Min Ch El (ft)             581.58    Shear (lb/sq ft)             0.09       0.11       0.06
  Alpha                        1.02    Stream Power (lb/ft s)       0.07       0.10       0.04
  Frctn Loss (ft)              0.00    Cum Volume (acre-ft)     58651.04   10606.40   62447.76
  C & E Loss (ft)                      Cum SA (acres)             412.84      55.33     448.03

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 11018.4*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   745.3  273.52  716.68  370.48  704.26   509.4  701.77  555.71  726.44
  740.95  723.11 1018.81  624.62 1276.41  616.62 1667.14  610.33 2222.86  608.67
  2279.3  609.02  2408.1   610.2 2593.33  611.05 2732.26   608.5 2826.33   608.5
 3646.88     610    3890     610 4306.79  614.25 4630.95   611.7 5001.43     610
 5105.62     610 5287.97   608.5    5835   608.5  5927.5  581.55    6120  581.55
 6213.75   608.5 6276.46     617 6294.38   620.5 6357.08     629 6464.58     641
 6500.42   646.5 6572.08     656 6643.75   665.5 6679.58   670.1 6724.38  673.75
 6742.29  675.75 6787.08   681.5    6805   683.5 6858.75  688.75 6894.58   690.5
 6921.46   693.5 6930.42   696.3 6939.38     697 7002.08     704 7073.75   722.5
  7127.5   728.5

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    5835     .15 6213.75     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          5835 6213.75             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)             775.38    Element                   Left OB    Channel   Right OB
  Vel Head (ft)                0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)             775.37    Reach Len. (ft)            24.84      24.84      24.84
  Crit W.S. (ft)                       Flow Area (sq ft)       861121.50   70900.09   99017.45
  E.G. Slope (ft/ft)       0.000009    Area (sq ft)            861121.50   70900.09   99017.45
  Q Total (cfs)            858885.40    Flow (cfs)             723975.20   69362.17   65548.03
  Top Width (ft)            7127.50    Top Width (ft)            5835.00     378.75     913.75
  Vel Total (ft/s)             0.83    Avg. Vel. (ft/s)             0.84       0.98       0.66
  Max Chl Dpth (ft)          193.82    Hydr. Depth (ft)           147.58     187.20     108.36
  Conv. Total (cfs)        280828900.0    Conv. (cfs)            236717500.0   22679280.0   21432180.0
  Length Wtd. (ft)            24.84    Wetted Per. (ft)          5890.76     386.39     969.47
  Min Ch El (ft)             581.55    Shear (lb/sq ft)             0.09       0.11       0.06
  Alpha                        1.02    Stream Power (lb/ft s)       0.07       0.10       0.04
  Frctn Loss (ft)              0.00    Cum Volume (acre-ft)     58158.73   10565.98   62392.87
  C & E Loss (ft)                      Cum SA (acres)             409.51      55.11     447.52

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 10993.5*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  745.12  272.06  716.95  368.51  704.54   506.7  701.88  552.76   726.2
  737.02  722.65  1013.4  624.93 1269.62  616.66 1658.29  610.35 2211.05  608.58
 2267.19  608.91  2395.3  610.08 2579.56  610.92 2717.75   608.4 2811.31   608.4
  3627.5     610 3869.33     610  4283.9   614.2 4606.35  611.68 4974.86     610
  5078.5     610 5259.88   608.4    5804   608.4    5896  581.52    6088  581.52
    6183   608.4 6249.09  616.92 6267.97  620.49 6334.06  629.01 6447.35  640.87
 6485.12  646.42 6560.65  655.93 6636.18  665.44 6673.94  670.03 6721.15  673.53
 6740.03  675.51 6787.24  681.25 6806.12  683.22 6862.76  688.35 6900.53  689.91
 6928.85  692.87 6938.29  695.78 6947.74  696.45 7013.82  703.36 7089.35  722.47
    7146   728.4

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    5804     .15    6183     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          5804    6183             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)             775.38    Element                   Left OB    Channel   Right OB
  Vel Head (ft)                0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)             775.37    Reach Len. (ft)            24.84      24.84      24.84
  Crit W.S. (ft)                       Flow Area (sq ft)       856728.10   70956.23  104546.50
  E.G. Slope (ft/ft)       0.000009    Area (sq ft)            856728.10   70956.23  104546.50
  Q Total (cfs)            858883.20    Flow (cfs)             720070.40   69402.79   69410.05
  Top Width (ft)            7146.00    Top Width (ft)            5804.00     379.00     963.00
  Vel Total (ft/s)             0.83    Avg. Vel. (ft/s)             0.84       0.98       0.66
  Max Chl Dpth (ft)          193.85    Hydr. Depth (ft)           147.61     187.22     108.56
  Conv. Total (cfs)        280945400.0    Conv. (cfs)            235539000.0   22702040.0   22704410.0
  Length Wtd. (ft)            24.84    Wetted Per. (ft)          5859.62     386.58    1018.51
  Min Ch El (ft)             581.52    Shear (lb/sq ft)             0.09       0.11       0.06
  Alpha                        1.02    Stream Power (lb/ft s)       0.07       0.10       0.04
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                                                                    TXU_Rev1.rep
  Frctn Loss (ft)              0.00    Cum Volume (acre-ft)    57668.93   10525.54   62334.83
  C & E Loss (ft)                      Cum SA (acres)            406.19      54.90     446.99

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 10968.7*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  744.94  270.61  717.23  366.54  704.83  503.99     702  549.81  725.96
  733.08  722.19 1007.98  625.24 1262.84   616.7 1649.43  610.38 2199.24  608.49
 2255.08  608.81 2382.51  609.96 2565.78  610.79 2703.23   608.3  2796.3   608.3
 3608.12     610 3848.67     610 4261.02  614.15 4581.75  611.66 4948.29     610
 5051.38     610 5231.78   608.3    5773   608.3  5864.5  581.49    6056  581.49
 6152.25   608.3 6221.72  616.84 6241.57  620.49 6311.03  629.02 6430.12  640.74
 6469.82  646.35 6549.21  655.86  6628.6  665.37  6668.3  669.96 6717.92  673.31
 6737.77  675.26 6787.39  680.99 6807.24  682.95 6866.78  687.96 6906.48  689.31
 6936.25  692.24 6946.17  695.26  6956.1  695.89 7025.56  702.73 7104.96  722.44
  7164.5   728.3

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    5773     .15 6152.25     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          5773 6152.25             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.38    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.37    Reach Len. (ft)            24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)       852323.10   71012.39   110094.40
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)            852323.10   71012.39   110094.40
  Q Total (cfs)           858881.00    Flow (cfs)             716148.90   69442.84   73289.20
  Top Width (ft)           7164.50    Top Width (ft)          5773.00     379.25    1012.25
  Vel Total (ft/s)            0.83    Avg. Vel. (ft/s)           0.84       0.98       0.67
  Max Chl Dpth (ft)         193.88    Hydr. Depth (ft)         147.64     187.24     108.76
  Conv. Total (cfs)       281063600.0    Conv. (cfs)           234355400.0   22724740.0   23983440.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)        5828.47     386.76    1067.58
  Min Ch El (ft)            581.49    Shear (lb/sq ft)           0.09       0.11       0.06
  Alpha                       1.02    Stream Power (lb/ft s)     0.07       0.10       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    57181.64   10485.06   62273.63
  C & E Loss (ft)                     Cum SA (acres)            402.89      54.68     446.42

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 10943.8*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  744.76  269.16   717.5  364.57  705.11  501.29  702.12  546.86  725.72
  729.14  721.73 1002.57  625.55 1256.06  616.74 1640.57   610.4 2187.43   608.4
 2242.97   608.7 2369.71  609.84    2552  610.66 2688.71   608.2 2781.28   608.2
 3588.75     610    3828     610 4238.14   614.1 4557.14  611.64 4921.71     610
 5024.25     610 5203.69   608.2    5742   608.2    5833  581.46    6024  581.46
  6121.5   608.2 6194.35  616.75 6215.16  620.48 6288.01  629.04 6412.89  640.61
 6454.52  646.27 6537.77  655.79 6621.03  665.31 6662.66  669.88 6714.69  673.09
  6735.5  675.02 6787.54  680.74 6808.35  682.67 6870.79  687.56 6912.42  688.72
 6943.64  691.61 6954.05  694.74 6964.46  695.34  7037.3  702.09 7120.56  722.41
    7183   728.2

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    5742     .15  6121.5     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          5742  6121.5             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.38    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.37    Reach Len. (ft)            24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)       847925.00   71068.63   115662.40
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)            847925.00   71068.63   115662.40
  Q Total (cfs)           858878.80    Flow (cfs)             712213.80   69480.22   77184.74
  Top Width (ft)           7183.00    Top Width (ft)          5742.00     379.50    1061.50
  Vel Total (ft/s)            0.83    Avg. Vel. (ft/s)           0.84       0.98       0.67
  Max Chl Dpth (ft)         193.91    Hydr. Depth (ft)         147.67     187.27     108.96
  Conv. Total (cfs)       281192000.0    Conv. (cfs)           233174800.0   22747430.0   25269840.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)        5797.32     386.95    1116.69
  Min Ch El (ft)            581.46    Shear (lb/sq ft)           0.09       0.11       0.06
  Alpha                       1.02    Stream Power (lb/ft s)     0.07       0.10       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    56696.86   10444.55   62209.26
  C & E Loss (ft)                     Cum SA (acres)            399.61      54.46     445.83

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION
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RIVER: PALUXY
REACH: PALUXY RIVER        RS: 10919.0*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  744.58   267.7  717.78   362.6   705.4  498.58  702.24   543.9  725.48
  725.21  721.27  997.16  625.86 1249.28  616.78 1631.71  610.42 2175.62  608.31
 2230.86  608.59 2356.92  609.72 2538.22  610.53  2674.2   608.1 2766.27   608.1
 3569.38     610 3807.33     610 4215.26  614.05 4532.54  611.62 4895.14     610
 4997.12     610 5175.59   608.1    5711   608.1  5801.5  581.43    5992  581.43
 6090.75   608.1 6166.98  616.67 6188.76  620.48 6264.99  629.05 6395.66  640.48
 6439.22  646.19 6526.34  655.72 6613.46  665.24 6657.01  669.81 6711.46  672.87
 6733.24  674.77 6787.69  680.49 6809.47  682.39 6874.81  687.16 6918.37  688.12
 6951.04  690.98 6961.93  694.22 6972.82  694.79 7049.04  701.46 7136.16  722.38
  7201.5   728.1

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    5711     .15 6090.75     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          5711 6090.75             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.38    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.37    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)       843521.20   71124.95   121250.40
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)            843521.20   71124.95   121250.40
  Q Total (cfs)           858876.60    Flow (cfs)             708262.50   69516.37   81097.79
  Top Width (ft)           7201.50    Top Width (ft)           5711.00     379.75    1110.75
  Vel Total (ft/s)            0.83    Avg. Vel. (ft/s)            0.84       0.98       0.67
  Max Chl Dpth (ft)         193.94    Hydr. Depth (ft)          147.70     187.29     109.16
  Conv. Total (cfs)       281325200.0    Conv. (cfs)           231991500.0   22770090.0   26563590.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)         5766.18     387.14    1165.83
  Min Ch El (ft)            581.43    Shear (lb/sq ft)            0.09       0.11       0.06
  Alpha                       1.02    Stream Power (lb/ft s)      0.07       0.10       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    56214.59   10404.00   62141.71
  C & E Loss (ft)                     Cum SA (acres)            396.34      54.25     445.21

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 10894.2*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   744.4  266.25  718.05  360.63  705.68  495.87  702.35  540.95  725.25
  721.27  720.81  991.75  626.16  1242.5  616.82 1622.86  610.44 2163.81  608.23
 2218.75  608.49 2344.13   609.6 2524.44   610.4 2659.68     608 2751.25     608
    3550     610 3786.67     610 4192.38     614 4507.94   611.6 4868.57     610
    4970     610  5147.5     608    5680     608    5770   581.4    5960   581.4
    6060     608 6139.61  616.59 6162.35  620.47 6241.96  629.06 6378.43  640.35
 6423.92  646.12  6514.9  655.65 6605.88  665.18 6651.37  669.74 6708.24  672.65
 6730.98  674.53 6787.84  680.24 6810.59  682.12 6878.82  686.76 6924.31  687.53
 6958.43  690.35  6969.8  693.69 6981.18  694.24 7060.78  700.82 7151.76  722.35
    7220     728

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    5680     .15    6060     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          5680    6060             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.38    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.37    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)       839117.60   71181.34   126856.50
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)            839117.60   71181.34   126856.50
  Q Total (cfs)           858874.40    Flow (cfs)             704297.90   69550.78   85025.77
  Top Width (ft)           7220.00    Top Width (ft)           5680.00     380.00    1160.00
  Vel Total (ft/s)            0.83    Avg. Vel. (ft/s)            0.84       0.98       0.67
  Max Chl Dpth (ft)         193.97    Hydr. Depth (ft)          147.73     187.32     109.36
  Conv. Total (cfs)       281464800.0    Conv. (cfs)           230808000.0   22792730.0   27864090.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)         5735.05     387.33    1214.98
  Min Ch El (ft)            581.40    Shear (lb/sq ft)            0.09       0.11       0.06
  Alpha                       1.02    Stream Power (lb/ft s)      0.07       0.10       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    55734.82   10363.43   62070.97
  C & E Loss (ft)                     Cum SA (acres)            393.09      54.03     444.56

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 10869.3*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
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       0  744.22   264.8  718.32  358.67  705.96  493.17  702.47     538  725.01
  717.33  720.35  986.33  626.47 1235.72  616.86    1614  610.46    2152  608.14
 2206.64  608.38 2331.33  609.48 2510.67  610.27 2645.17   607.9 2736.23   607.9
 3530.62     610    3766     610  4169.5  613.95 4483.33  611.58    4842     610
 4942.88     610 5119.41   607.9    5649   607.9  5738.5  581.37    5928  581.37
 6029.25   607.9 6112.24  616.51 6135.95  620.46 6218.94  629.07  6361.2  640.22
 6408.62  646.04 6503.47  655.58 6598.31  665.11 6645.73  669.67 6705.01  672.43
 6728.72  674.29    6788  679.98 6811.71  681.84 6882.84  686.37 6930.26  686.94
 6965.83  689.72 6977.68  693.17 6989.54  693.68 7072.52  700.19 7167.37  722.32
  7238.5   727.9

Manning's n Values          num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    5649     .15 6029.25     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          5649 6029.25             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.38    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.37    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)        834713.70   71237.78   132484.00
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)             834713.70   71237.78   132484.00
  Q Total (cfs)           858872.20    Flow (cfs)              700317.60   69583.13   88971.41
  Top Width (ft)           7238.50    Top Width (ft)            5649.00     380.25    1209.25
  Vel Total (ft/s)            0.83    Avg. Vel. (ft/s)             0.84       0.98       0.67
  Max Chl Dpth (ft)         194.00    Hydr. Depth (ft)           147.76     187.34     109.56
  Conv. Total (cfs)       281612300.0    Conv. (cfs)            229624500.0   22815350.0   29172490.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)          5703.91     387.52    1264.17
  Min Ch El (ft)            581.37    Shear (lb/sq ft)             0.08       0.11       0.06
  Alpha                       1.02    Stream Power (lb/ft s)       0.07       0.10       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)     55257.57   10322.82   61997.02
  C & E Loss (ft)                     Cum SA (acres)             389.86      53.81     443.89

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 10844.5*

INPUT
Description:
Station Elevation Data      num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  744.04  263.34  718.6   356.7  706.25  490.46  702.59  535.05  724.77
   713.4   719.9  980.92  626.78 1228.94   616.9 1605.14  610.49 2140.19  608.05
 2194.53  608.28 2318.54  609.36 2496.89  610.14 2630.65   607.8 2721.22   607.8
 3511.25     610 3745.33     610 4146.62   613.9 4458.73  611.56 4815.43     610
 4915.75     610 5091.31   607.8    5618   607.8    5707  581.34    5896  581.34
  5998.5   607.8 6084.87  616.42 6109.54  620.46 6195.91  629.08 6343.97  640.09
 6393.32  645.96 6492.03  655.51 6590.74  665.05 6640.09   669.6 6701.78  672.21
 6726.46  674.04 6788.15  679.73 6812.82  681.56 6886.85  685.97 6936.21  686.34
 6973.22  689.09 6985.56  692.65  6997.9  693.13 7084.26  699.55 7182.97  722.29
    7257   727.8

Manning's n Values          num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    5618     .15  5998.5     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          5618  5998.5             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.38    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.37    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)        830296.90   71294.30   138131.30
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)             830296.90   71294.30   138131.30
  Q Total (cfs)           858870.10    Flow (cfs)              696320.10   69615.08   92934.94
  Top Width (ft)           7257.00    Top Width (ft)            5618.00     380.50    1258.50
  Vel Total (ft/s)            0.83    Avg. Vel. (ft/s)             0.84       0.98       0.67
  Max Chl Dpth (ft)         194.03    Hydr. Depth (ft)           147.79     187.37     109.76
  Conv. Total (cfs)       281761300.0    Conv. (cfs)            228435100.0   22837950.0   30488270.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)          5672.77     387.71    1313.37
  Min Ch El (ft)            581.34    Shear (lb/sq ft)             0.08       0.11       0.06
  Alpha                       1.02    Stream Power (lb/ft s)       0.07       0.10       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)     54782.84   10282.18   61919.86
  C & E Loss (ft)                     Cum SA (acres)             386.65      53.60     443.19

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 10819.6*

INPUT
Description:
Station Elevation Data      num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  743.86  261.89  718.87  354.73  706.53  487.75  702.71   532.1  724.53
  709.46  719.44  975.51  627.09 1222.16  616.94 1596.29  610.51 2128.38  607.96
 2182.42  608.17 2305.75  609.24 2483.11  610.01 2616.14   607.7  2706.2   607.7
 3491.88     610 3724.67     610 4123.74  613.85 4434.13  611.54 4788.86     610
 4888.62     610 5063.22   607.7    5587   607.7  5675.5  581.31    5864  581.31
 5967.75   607.7  6057.5  616.34 6083.14  620.45 6172.89  629.09 6326.74  639.96
 6378.02  645.89 6480.59  655.44 6583.16  664.98 6634.45  669.53 6698.55  671.99
 6724.19   673.8  6788.3  679.48 6813.94  681.29 6890.87  685.57 6942.15  685.75
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                                                                    TXU_Rev1.rep
 6980.62  688.46 6993.44  692.13 7006.26  692.58    7096  698.92 7198.57  722.26
  7275.5   727.7

Manning's n Values          num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    5587     .15 5967.75     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          5587 5967.75             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.38    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.37    Reach Len. (ft)            24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)       825887.90   71350.84   143795.90
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)            825887.90   71350.84   143795.90
  Q Total (cfs)           858867.90    Flow (cfs)             692312.80   69644.34    96910.67
  Top Width (ft)           7275.50    Top Width (ft)          5587.00     380.75     1307.75
  Vel Total (ft/s)            0.83    Avg. Vel. (ft/s)           0.84       0.98        0.67
  Max Chl Dpth (ft)         194.06    Hydr. Depth (ft)         147.82     187.40      109.96
  Conv. Total (cfs)       281920300.0    Conv. (cfs)          227249200.0   22860500.0   31810580.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)        5641.64     387.90     1362.59
  Min Ch El (ft)            581.31    Shear (lb/sq ft)           0.08       0.11        0.06
  Alpha                       1.02    Stream Power (lb/ft s)     0.07       0.10        0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    54310.62   10241.51    61839.48
  C & E Loss (ft)                     Cum SA (acres)            383.46      53.38      442.45

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 10794.8*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  743.68  260.44  719.15  352.76  706.82  485.05  702.83  529.14   724.3
  705.52  718.98   970.1   627.4 1215.38  616.98 1587.43  610.53 2116.57  607.87
 2170.31  608.06 2292.95  609.12 2469.33  609.88 2601.62   607.6 2691.19   607.6
  3472.5     610    3704     610 4100.86   613.8 4409.52  611.52 4762.29     610
  4861.5     610 5035.12   607.6    5556   607.6    5644  581.28    5832  581.28
    5937   607.6 6030.13  616.26 6056.74  620.45 6149.86  629.11 6309.51  639.84
 6362.73  645.81 6469.16  655.36 6575.59  664.92  6628.8  669.45 6695.32  671.76
 6721.93  673.55 6788.45  679.22 6815.06  681.01 6894.88  685.18  6948.1  685.15
 6988.01  687.84 7001.31  691.61 7014.62  692.02 7107.75  698.28 7214.18  722.24
    7294   727.6

Manning's n Values          num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    5556     .15    5937     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          5556    5937             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.38    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.37    Reach Len. (ft)            24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)       821474.40   71407.50   149481.50
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)            821474.40   71407.50   149481.50
  Q Total (cfs)           858865.60    Flow (cfs)             688289.60   69672.26    100903.80
  Top Width (ft)           7294.00    Top Width (ft)          5556.00     381.00     1357.00
  Vel Total (ft/s)            0.82    Avg. Vel. (ft/s)           0.84       0.98        0.68
  Max Chl Dpth (ft)         194.09    Hydr. Depth (ft)         147.85     187.42      110.16
  Conv. Total (cfs)       282084800.0    Conv. (cfs)          226061000.0   22883070.0   33140720.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)        5610.51     388.10     1411.83
  Min Ch El (ft)            581.28    Shear (lb/sq ft)           0.08       0.11        0.06
  Alpha                       1.02    Stream Power (lb/ft s)     0.07       0.10        0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    53840.92   10200.80    61755.86
  C & E Loss (ft)                     Cum SA (acres)            380.28      53.16      441.69

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 10770.*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   743.5  258.98  719.42  350.79   707.1  482.34  702.94  526.19  724.06
  701.59  718.52  964.68  627.71 1208.59  617.02 1578.57  610.55 2104.76  607.78
  2158.2  607.96 2280.16     609 2455.56  609.75  2587.1   607.5 2676.17   607.5
 3453.12     610 3683.33     610 4077.98  613.75 4384.92   611.5 4735.71     610
 4834.38     610 5007.03   607.5    5525   607.5  5612.5  581.25    5800  581.25
 5906.25   607.5 6002.76  616.18 6030.33  620.44 6126.84  629.12 6292.28  639.71
 6347.43  645.74 6457.72  655.29 6568.01  664.85 6623.16  669.38  6692.1  671.54
 6719.67  673.31  6788.6  678.97 6816.18  680.74  6898.9  684.78 6954.04  684.56
  6995.4  687.21 7009.19  691.09 7022.98  691.47 7119.49  697.65 7229.78  722.21
  7312.5   727.5

Manning's n Values          num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    5525     .15 5906.25     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
                                                                  Page 19
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                                                                    TXU_Rev1.rep
        5525 5906.25            24.84   24.84   24.84                .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.38    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.37    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)        817062.70   71464.21   155185.30
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)             817062.70   71464.21   155185.30
  Q Total (cfs)           858863.50    Flow (cfs)              684254.80   69698.16   104910.50
  Top Width (ft)           7312.50    Top Width (ft)           5525.00     381.25    1406.25
  Vel Total (ft/s)            0.82    Avg. Vel. (ft/s)            0.84       0.98       0.68
  Max Chl Dpth (ft)         194.12    Hydr. Depth (ft)          147.88     187.45     110.35
  Conv. Total (cfs)       282257100.0    Conv. (cfs)           224873600.0   22905620.0   34477820.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)         5579.39     388.30    1461.08
  Min Ch El (ft)            581.25    Shear (lb/sq ft)            0.08       0.11       0.06
  Alpha                       1.02    Stream Power (lb/ft s)      0.07       0.10       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    53373.73   10160.07   61668.99
  C & E Loss (ft)                     Cum SA (acres)            377.12      52.95     440.91

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER       RS: 10745.1*

INPUT
Description:
Station Elevation Data    num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  743.32  257.53   719.7  348.83  707.38  479.63  703.06  523.24  723.82
  697.65  718.06  959.27  628.01 1201.81  617.06 1569.71  610.57 2092.95  607.69
 2146.09  607.85 2267.36  608.88 2441.78  609.62 2572.59   607.4 2661.16   607.4
 3433.75     610 3662.67     610  4055.1   613.7 4360.32  611.48 4709.14     610
 4807.25     610 4978.94   607.4    5494   607.4    5581  581.22    5768  581.22
  5875.5   607.4 5975.39  616.09 6003.93  620.44 6103.81  629.13 6275.05  639.58
 6332.13  645.66 6446.28  655.22 6560.44  664.79 6617.52  669.31 6688.87  671.32
 6717.41  673.06 6788.75  678.72 6817.29  680.46 6902.91  684.38 6959.99  683.96
  7002.8  686.58 7017.07  690.57 7031.34  690.92 7131.23  697.01 7245.38  722.18
    7331   727.4

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    5494     .15  5875.5     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          5494  5875.5            24.84   24.84   24.84              .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.38    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.37    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)        812649.90   71521.02   160911.30
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)             812649.90   71521.02   160911.30
  Q Total (cfs)           858861.30    Flow (cfs)              680204.40   69722.10   108934.80
  Top Width (ft)           7331.00    Top Width (ft)           5494.00     381.50    1455.50
  Vel Total (ft/s)            0.82    Avg. Vel. (ft/s)            0.84       0.97       0.68
  Max Chl Dpth (ft)         194.15    Hydr. Depth (ft)          147.92     187.47     110.55
  Conv. Total (cfs)       282437200.0    Conv. (cfs)           223685700.0   22928160.0   35823280.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)         5548.27     388.50    1510.34
  Min Ch El (ft)            581.22    Shear (lb/sq ft)            0.08       0.11       0.06
  Alpha                       1.02    Stream Power (lb/ft s)      0.07       0.10       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    52909.06   10119.30   61578.87
  C & E Loss (ft)                     Cum SA (acres)            373.98      52.73     440.09

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER       RS: 10720.3*

INPUT
Description:
Station Elevation Data    num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  743.14  256.08  719.97  346.86  707.67  476.93  703.18  520.29  723.58
  693.71   717.6  953.86  628.32 1195.03   617.1 1560.86   610.6 2081.14   607.6
 2133.98  607.74 2254.57  608.76    2428  609.49 2558.07   607.3 2646.14   607.3
 3414.38     610    3642     610 4032.21  613.65 4335.71  611.46 4682.57     610
 4780.12     610 4950.84   607.3    5463   607.3  5549.5  581.19    5736  581.19
 5844.75   607.3 5948.02  616.01 5977.52  620.43 6080.79  629.14 6257.82  639.45
 6316.83  645.58 6434.85  655.15 6552.87  664.72 6611.88  669.24 6685.64   671.1
 6715.14  672.82 6788.91  678.46 6818.41  680.18 6906.93  683.99 6965.94  683.37
 7010.19  685.95 7024.95  690.05  7039.7  690.36 7142.97  696.38 7260.99  722.15
  7349.5   727.3

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    5463     .15 5844.75     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          5463 5844.75            24.84   24.84   24.84              .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.38    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.37    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)        808227.90   71577.80   166656.20
                                                                   Page 20
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                                                                    TXU_Rev1.rep
  E.G. Slope (ft/ft)        0.000009    Area (sq ft)             808227.90   71577.80   166656.20
  Q Total (cfs)            858859.10     Flow (cfs)              676139.40   69745.10   112974.60
  Top Width (ft)            7349.50    Top Width (ft)            5463.00     381.75     1504.75
  Vel Total (ft/s)             0.82    Avg. Vel. (ft/s)             0.84       0.97        0.68
  Max Chl Dpth (ft)          194.18    Hydr. Depth (ft)           147.95     187.50      110.75
  Conv. Total (cfs)       282620300.0     Conv. (cfs)            222493600.0  22950650.0   37175960.0
  Length Wtd. (ft)            24.84    Wetted Per. (ft)          5517.14     388.70     1559.61
  Min Ch El (ft)             581.19    Shear (lb/sq ft)             0.08       0.11        0.06
  Alpha                        1.02    Stream Power (lb/ft s)       0.07       0.10        0.04
  Frctn Loss (ft)              0.00    Cum Volume (acre-ft)     52446.91   10078.50    61485.47
  C & E Loss (ft)                      Cum SA (acres)             370.85      52.51      439.25

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 10695.4*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  742.96  254.62  720.24  344.89  707.95  474.22   703.3  517.33  723.35
  689.78  717.14  948.44  628.63 1188.25  617.14    1552  610.62 2069.33  607.52
 2121.88  607.64 2241.78  608.64 2414.22  609.36 2543.56   607.2 2631.12   607.2
    3395     610 3621.33     610 4009.33   613.6 4311.11  611.44    4656     610
    4753     610 4922.75   607.2    5432   607.2    5518  581.16    5704  581.16
    5814   607.2 5920.65  615.93 5951.12  620.42 6057.76  629.15 6240.59  639.32
 6301.53  645.51 6423.41  655.08 6545.29  664.66 6606.24  669.17 6682.41  670.88
 6712.88  672.58 6789.06  678.21 6819.53  679.91 6910.94  683.59 6971.88  682.78
 7017.59  685.32 7032.82  689.52 7048.06  689.81 7154.71  695.74 7276.59  722.12
    7368   727.2

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    5432     .15    5814     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          5432    5814             24.84   24.84   24.84              .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.38    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.37    Reach Len. (ft)            24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)       803805.90   71634.74   172419.10
  E.G. Slope (ft/ft)       0.000009   Area (sq ft)            803805.90   71634.74   172419.10
  Q Total (cfs)            858856.90   Flow (cfs)             672062.90   69766.51   117027.40
  Top Width (ft)            7368.00   Top Width (ft)            5432.00     382.00     1554.00
  Vel Total (ft/s)             0.82   Avg. Vel. (ft/s)             0.84       0.97        0.68
  Max Chl Dpth (ft)          194.21   Hydr. Depth (ft)           147.98     187.53      110.95
  Conv. Total (cfs)       282810000.0    Conv. (cfs)            221301300.0  22973180.0   38535550.0
  Length Wtd. (ft)            24.84   Wetted Per. (ft)          5486.03     388.90     1608.89
  Min Ch El (ft)             581.16   Shear (lb/sq ft)             0.08       0.11        0.06
  Alpha                        1.02   Stream Power (lb/ft s)       0.07       0.10        0.04
  Frctn Loss (ft)              0.00   Cum Volume (acre-ft)     51987.28   10037.67    61388.79
  C & E Loss (ft)                     Cum SA (acres)             367.75      52.29      438.37

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 10670.6*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  742.78  253.17  720.52  342.92  708.24  471.52  703.41  514.38  723.11
  685.84  716.68  943.03  628.94 1181.47  617.18 1543.14  610.64 2057.52  607.43
 2109.77  607.53 2228.98  608.52 2400.44  609.23 2529.04   607.1 2616.11   607.1
 3375.62     610 3600.67     610 3986.45  613.55 4286.51  611.42 4629.43     610
 4725.88     610 4894.66   607.1    5401   607.1  5486.5  581.13    5672  581.13
 5783.25   607.1 5893.28  615.85 5924.71  620.42 6034.74  629.16 6223.36  639.19
 6286.23  645.43 6411.98  655.01 6537.72  664.59 6600.59   669.1 6679.18  670.66
 6710.62  672.33 6789.21  677.96 6820.65  679.63 6914.96  683.19 6977.83  682.18
 7024.98  684.69  7040.7     689 7056.42  689.26 7166.45  695.11 7292.19  722.09
  7386.5   727.1

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    5401     .15 5783.25     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          5401 5783.25             24.84   24.84   24.84              .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.38    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.37    Reach Len. (ft)            24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)       799384.40   71691.71   178203.30
  E.G. Slope (ft/ft)       0.000009   Area (sq ft)            799384.40   71691.71   178203.30
  Q Total (cfs)            858854.70   Flow (cfs)             667973.20   69785.80   121095.70
  Top Width (ft)            7386.50   Top Width (ft)            5401.00     382.25     1603.25
  Vel Total (ft/s)             0.82   Avg. Vel. (ft/s)             0.84       0.97        0.68
  Max Chl Dpth (ft)          194.24   Hydr. Depth (ft)           148.01     187.55      111.15
  Conv. Total (cfs)       283008000.0    Conv. (cfs)            220109200.0  22995670.0   39903220.0
  Length Wtd. (ft)            24.84   Wetted Per. (ft)          5454.91     389.10     1658.19
  Min Ch El (ft)             581.13   Shear (lb/sq ft)             0.08       0.11        0.06
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Alpha	1.02	Stream Power (lb/ft s)	0.07	0.10	0.04
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	51530.17	9996.80	61288.82
C & E Loss (ft)		Cum SA (acres)	364.66	52.07	437.47

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION

RIVER: PALUXY
REACH: PALUXY RIVER RS: 10645.8*

INPUT
Description:
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	742.6	251.72	720.79	340.95	708.52	468.81	703.53	511.43	722.87
681.9	716.22	937.62	629.25	1174.69	617.22	1534.29	610.66	2045.71	607.34
2097.66	607.43	2216.19	608.4	2386.67	609.1	2514.52	607	2601.09	607
3356.25	610	3580	610	3963.57	613.5	4261.9	611.4	4602.86	610
4698.75	610	4866.56	607	5370	607	5455	581.1	5640	581.1
5752.5	607	5865.91	615.76	5898.31	620.41	6011.72	629.18	6206.13	639.06
6270.93	645.35	6400.54	654.94	6530.15	664.53	6594.95	669.02	6675.96	670.44
6708.36	672.09	6789.36	677.71	6821.76	679.35	6918.97	682.79	6983.77	681.59
7032.38	684.06	7048.58	688.48	7064.78	688.71	7178.19	694.47	7307.79	722.06
7405	727								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.15	5370	.15	5752.5	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
5370	5752.5	24.84	24.84	24.84	.1	.3

CROSS SECTION OUTPUT Profile #Max WS

E.G. Elev (ft)	775.38	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.01	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	775.37	Reach Len. (ft)	24.84	24.84	24.84
Crit W.S. (ft)		Flow Area (sq ft)	794962.40	71748.79	184006.90
E.G. Slope (ft/ft)	0.000009	Area (sq ft)	794962.40	71748.79	184006.90
Q Total (cfs)	858852.50	Flow (cfs)	663871.40	69803.28	125177.80
Top Width (ft)	7405.00	Top Width (ft)	5370.00	382.50	1652.50
Vel Total (ft/s)	0.82	Avg. Vel. (ft/s)	0.84	0.97	0.68
Max Chl Dpth (ft)	194.27	Hydr. Depth (ft)	148.04	187.58	111.35
Conv. Total (cfs)	283213300.0	Conv. (cfs)	218916800.0	23018180.0	41278360.0
Length Wtd. (ft)	24.84	Wetted Per. (ft)	5423.80	389.30	1707.49
Min Ch El (ft)	581.10	Shear (lb/sq ft)	0.08	0.11	0.06
Alpha	1.02	Stream Power (lb/ft s)	0.07	0.10	0.04
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	51075.58	9955.90	61185.54
C & E Loss (ft)		Cum SA (acres)	361.59	51.86	436.55

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION

RIVER: PALUXY
REACH: PALUXY RIVER RS: 10620.9*

INPUT
Description:
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	742.42	250.27	721.07	338.98	708.8	466.1	703.65	508.48	722.63
677.97	715.76	932.21	629.55	1167.91	617.26	1525.43	610.68	2033.9	607.25
2085.55	607.32	2203.4	608.28	2372.89	608.97	2500.01	606.9	2586.08	606.9
3336.87	610	3559.33	610	3940.69	613.45	4237.3	611.38	4576.29	610
4671.62	610	4838.47	606.9	5339	606.9	5423.5	581.07	5608	581.07
5721.75	606.9	5838.54	615.68	5871.9	620.41	5988.69	629.19	6188.9	638.93
6255.63	645.28	6389.1	654.87	6522.57	664.46	6589.31	668.95	6672.73	670.22
6706.1	671.84	6789.51	677.45	6822.88	679.08	6922.99	682.4	6989.72	680.99
7039.77	683.43	7056.46	687.96	7073.14	688.15	7189.93	693.84	7323.4	722.03
7423.5	726.9								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.15	5339	.15	5721.75	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
5339	5721.75	24.84	24.84	24.84	.1	.3

CROSS SECTION OUTPUT Profile #Max WS

E.G. Elev (ft)	775.38	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.01	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	775.36	Reach Len. (ft)	24.84	24.84	24.84
Crit W.S. (ft)		Flow Area (sq ft)	790539.30	71805.88	189829.00
E.G. Slope (ft/ft)	0.000009	Area (sq ft)	790539.30	71805.88	189829.00
Q Total (cfs)	858850.30	Flow (cfs)	659758.80	69819.08	129272.50
Top Width (ft)	7423.50	Top Width (ft)	5339.00	382.75	1701.75
Vel Total (ft/s)	0.82	Avg. Vel. (ft/s)	0.83	0.97	0.68
Max Chl Dpth (ft)	194.29	Hydr. Depth (ft)	148.07	187.61	111.55
Conv. Total (cfs)	283425000.0	Conv. (cfs)	217723800.0	23040660.0	42660590.0
Length Wtd. (ft)	24.84	Wetted Per. (ft)	5392.69	389.51	1756.80
Min Ch El (ft)	581.07	Shear (lb/sq ft)	0.08	0.11	0.06
Alpha	1.02	Stream Power (lb/ft s)	0.07	0.10	0.04
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	50623.52	9914.97	61078.95
C & E Loss (ft)		Cum SA (acres)	358.53	51.64	435.59

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION

TXU_Rev1.rep

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RIVER: PALUXY
REACH: PALUXY RIVER        RS: 10596.1*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  742.24  248.81  721.34  337.02  709.09   463.4  703.77  505.52  722.39
  674.03   715.3  926.79  629.86 1161.12   617.3 1516.57  610.71  2022.1  607.16
 2073.44  607.21  2190.6  608.16 2359.11  608.84 2485.49   606.8 2571.06   606.8
  3317.5     610 3538.67     610 3917.81   613.4  4212.7  611.36 4549.71     610
  4644.5     610 4810.37   606.8    5308   606.8    5392  581.04    5576  581.04
    5691   606.8 5811.17   615.6  5845.5   620.4 5965.67   629.2 6171.67   638.8
 6240.33   645.2 6377.67   654.8    6515   664.4 6583.67  668.88  6669.5     670
 6703.83   671.6 6789.67   677.2    6824   678.8    6927     682 6995.67   680.4
 7047.17   682.8 7064.33  687.44  7081.5   687.6 7201.67   693.2    7339     722
    7442   726.8

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    5308     .15    5691     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          5308    5691             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.37    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.36    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)       786108.90   71863.05   195671.80
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)            786108.90   71863.05   195671.80
  Q Total (cfs)           858848.10    Flow (cfs)             655631.40   69833.70   133383.10
  Top Width (ft)           7442.00    Top Width (ft)          5308.00     383.00    1751.00
  Vel Total (ft/s)            0.82    Avg. Vel. (ft/s)           0.83       0.97       0.68
  Max Chl Dpth (ft)         194.32    Hydr. Depth (ft)         148.10     187.63     111.75
  Conv. Total (cfs)       283641400.0    Conv. (cfs)          216527500.0   23063130.0   44050840.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)        5361.58     389.71    1806.11
  Min Ch El (ft)            581.04    Shear (lb/sq ft)           0.08       0.11       0.06
  Alpha                       1.02    Stream Power (lb/ft s)     0.07       0.10       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)   50173.98    9874.01   60969.04
  C & E Loss (ft)                     Cum SA (acres)           355.50      51.42     434.60

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 10571.2*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  742.06  247.36  721.62  335.05  709.37  460.69  703.89  502.57  722.16
   670.1  714.84  921.38  630.17 1154.34  617.34 1507.71  610.73 2010.29  607.07
 2061.33  607.11 2177.81  608.04 2345.33  608.71 2470.98   606.7 2556.05   606.7
 3298.12     610    3518     610 3894.93  613.35  4188.1  611.34 4523.14     610
 4617.37     610 4782.28   606.7    5277   606.7  5360.5  581.01    5544  581.01
 5660.25   606.7  5783.8  615.52  5819.1  620.39 5942.64  629.21 6154.44  638.67
 6225.03  645.12 6366.23  654.73 6507.43  664.34 6578.02  668.81 6666.27  669.78
 6701.57  671.36 6789.82  676.95 6825.12  678.52 6931.01   681.6 7001.61  679.81
 7054.56  682.17 7072.21  686.92 7089.86  687.05 7213.41  692.56  7354.6  721.97
  7460.5   726.7

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    5277     .15 5660.25     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          5277 5660.25             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.37    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.36    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)       781677.60   71920.29   201534.10
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)            781677.60   71920.29   201534.10
  Q Total (cfs)           858845.80    Flow (cfs)             651492.40   69846.55   137506.90
  Top Width (ft)           7460.50    Top Width (ft)          5277.00     383.25    1800.25
  Vel Total (ft/s)            0.81    Avg. Vel. (ft/s)           0.83       0.97       0.68
  Max Chl Dpth (ft)         194.35    Hydr. Depth (ft)         148.13     187.66     111.95
  Conv. Total (cfs)       283864700.0    Conv. (cfs)          215330500.0   23085600.0   45448630.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)        5330.49     389.92    1855.44
  Min Ch El (ft)            581.01    Shear (lb/sq ft)           0.08       0.11       0.06
  Alpha                       1.02    Stream Power (lb/ft s)     0.07       0.10       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)   49726.96    9833.01   60855.79
  C & E Loss (ft)                     Cum SA (acres)           352.48      51.20     433.59

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 10546.4*

INPUT
Description:
Station Elevation Data     num=      46
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                                                                    TXU_Rev1.rep
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  741.88  245.91  721.89  333.08  709.66  457.98     704  499.62  721.92
  666.16  714.38  915.97  630.48 1147.56  617.38 1498.86  610.75 1998.48  606.98
 2049.22     607 2165.02  607.92 2331.56  608.58 2456.46   606.6 2541.03   606.6
 3278.75     610 3497.33     610 3872.05   613.3 4163.49  611.32 4496.57     610
 4590.25     610 4754.19   606.6    5246   606.6    5329  580.98    5512  580.98
  5629.5   606.6 5756.43  615.44 5792.69  620.39 5919.62  629.22 6137.21  638.54
 6209.73  645.05 6354.79  654.66 6499.85  664.27 6572.38  668.74 6663.04  669.56
 6699.31  671.11 6789.97  676.69 6826.24  678.25 6935.03  681.21 7007.56  679.21
 7061.96  681.54 7080.09   686.4 7098.22  686.49 7225.15  691.93 7370.21  721.94
    7479   726.6

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    5246     .15  5629.5     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          5246  5629.5            24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.37    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.36    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)        777247.90   71977.59   207415.00
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)             777247.90   71977.59   207415.00
  Q Total (cfs)           858843.60    Flow (cfs)              647344.10   69857.45   141642.00
  Top Width (ft)           7479.00    Top Width (ft)            5246.00     383.50    1849.50
  Vel Total (ft/s)            0.81    Avg. Vel. (ft/s)             0.83       0.97       0.68
  Max Chl Dpth (ft)         194.38    Hydr. Depth (ft)           148.16     187.69     112.15
  Conv. Total (cfs)       284095900.0    Conv. (cfs)            214134300.0   23108070.0   46853610.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)          5299.39     390.12    1904.77
  Min Ch El (ft)            580.98    Shear (lb/sq ft)             0.08       0.11       0.06
  Alpha                       1.02    Stream Power (lb/ft s)       0.07       0.10       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)     49282.48    9791.98   60739.18
  C & E Loss (ft)                     Cum SA (acres)             349.48      50.98     432.55

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 10521.6*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   741.7  244.45  722.17  331.11  709.94  455.28  704.12  496.67  721.68
  662.22  713.92  910.56  630.79 1140.78  617.42    1490  610.77 1986.67  606.89
 2037.11   606.9 2152.22   607.8 2317.78  608.45 2441.94   606.5 2526.02   606.5
 3259.37     610 3476.67     610 3849.17  613.25 4138.89   611.3    4470     610
 4563.12     610 4726.09   606.5    5215   606.5  5297.5  580.95    5480  580.95
 5598.75   606.5 5729.06  615.35 5766.29  620.38 5896.59  629.24 6119.98  638.41
 6194.44  644.97 6343.36  654.59 6492.28  664.21 6566.74  668.66 6659.82  669.34
 6697.05  670.87 6790.12  676.44 6827.35  677.97 6939.04  680.81  7013.5  678.62
 7069.35  680.91 7087.97  685.88 7106.58  685.94 7236.89  691.29 7385.81  721.91
  7497.5   726.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    5215     .15 5598.75     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          5215 5598.75            24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.37    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.36    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)        772815.10   72035.01   213316.90
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)             772815.10   72035.01   213316.90
  Q Total (cfs)           858841.30    Flow (cfs)              643182.90   69866.75   145791.60
  Top Width (ft)           7497.50    Top Width (ft)            5215.00     383.75    1898.75
  Vel Total (ft/s)            0.81    Avg. Vel. (ft/s)             0.83       0.97       0.68
  Max Chl Dpth (ft)         194.41    Hydr. Depth (ft)           148.19     187.71     112.35
  Conv. Total (cfs)       284333900.0    Conv. (cfs)            212936500.0   23130560.0   48266760.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)          5268.29     390.33    1954.10
  Min Ch El (ft)            580.95    Shear (lb/sq ft)             0.08       0.11       0.06
  Alpha                       1.02    Stream Power (lb/ft s)       0.07       0.10       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)     48840.52    9750.92   60619.22
  C & E Loss (ft)                     Cum SA (acres)             346.50      50.76     431.48

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 10496.7*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  741.52     243  722.44  329.14  710.22  452.57  704.24  493.71  721.44
  658.29  713.46  905.14   631.1    1134  617.46 1481.14  610.79 1974.86  606.81
    2025  606.79 2139.43  607.68    2304  608.32 2427.43   606.4    2511   606.4
    3240     610    3456     610 3826.29   613.2 4114.29  611.28 4443.43     610
    4536     610    4698   606.4    5184   606.4    5266  580.92    5448  580.92
    5568   606.4 5701.69  615.27 5739.88  620.38 5873.57  629.25 6102.74  638.28
 6179.14  644.89 6331.92  654.52 6484.71  664.14  6561.1  668.59 6656.59  669.12
                                                                   Page 24
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 6694.78  670.62 6790.27  676.19 6828.47  677.69 6943.06  680.41 7019.45  678.02
 7076.75  680.28 7095.84  685.36 7114.94  685.39 7248.63  690.66 7401.41  721.88
    7516   726.4

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    5184     .15    5568     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          5184    5568            24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.37    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.36    Reach Len. (ft)            24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)       768380.10   72092.51   219238.50
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)            768380.10   72092.51   219238.50
  Q Total (cfs)           858839.10    Flow (cfs)             639010.90   69874.45   149953.90
  Top Width (ft)           7516.00    Top Width (ft)          5184.00     384.00     1948.00
  Vel Total (ft/s)            0.81    Avg. Vel. (ft/s)           0.83       0.97       0.68
  Max Chl Dpth (ft)         194.44    Hydr. Depth (ft)         148.22     187.74     112.55
  Conv. Total (cfs)       284578300.0    Conv. (cfs)          211737700.0   23153060.0   49687550.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)        5237.20     390.54     2003.44
  Min Ch El (ft)            580.92    Shear (lb/sq ft)           0.08       0.10       0.06
  Alpha                       1.02    Stream Power (lb/ft s)     0.07       0.10       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    48401.08    9709.83   60495.89
  C & E Loss (ft)                     Cum SA (acres)            343.53      50.55     430.39

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER       RS: 10471.9*

INPUT
Description:
Station Elevation Data    num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  741.34  241.55  722.71  327.17  710.51  449.87  704.36  490.76  721.21
  654.35  713.01  899.73   631.4 1127.22   617.5 1472.29  610.82 1963.05  606.72
 2012.89  606.68 2126.63  607.56 2290.22  608.19 2412.91   606.3 2495.98   606.3
 3220.62     610 3435.33     610  3803.4  613.15 4089.68  611.26 4416.86     610
 4508.87     610 4669.91   606.3    5153   606.3  5234.5  580.89    5416  580.89
 5537.25   606.3 5674.32  615.19 5713.48  620.37 5850.54  629.26 6085.51  638.15
 6163.84  644.82 6320.49  654.45 6477.13  664.08 6555.46  668.52 6653.36   668.9
 6692.52  670.38 6790.43  675.94 6829.59  677.42 6947.07  680.01  7025.4  677.43
 7084.14  679.65 7103.72  684.83  7123.3  684.84 7260.37  690.02 7417.02  721.85
  7534.5   726.3

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    5153     .15 5537.25     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          5153 5537.25            24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.37    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.36    Reach Len. (ft)            24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)       763938.90   72149.99   225177.70
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)            763938.90   72149.99   225177.70
  Q Total (cfs)           858836.80    Flow (cfs)             634827.90   69881.06   154127.80
  Top Width (ft)           7534.50    Top Width (ft)          5153.00     384.25     1997.25
  Vel Total (ft/s)            0.81    Avg. Vel. (ft/s)           0.83       0.97       0.68
  Max Chl Dpth (ft)         194.47    Hydr. Depth (ft)         148.25     187.77     112.74
  Conv. Total (cfs)       284826600.0    Conv. (cfs)          210535700.0   23175510.0   51115300.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)        5206.11     390.75     2052.78
  Min Ch El (ft)            580.89    Shear (lb/sq ft)           0.08       0.10       0.06
  Alpha                       1.02    Stream Power (lb/ft s)     0.07       0.10       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    47964.18    9668.70   60369.18
  C & E Loss (ft)                     Cum SA (acres)            340.58      50.33     429.26

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER       RS: 10447.0*

INPUT
Description:
Station Elevation Data    num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  741.16  240.09  722.99  325.21  710.79  447.16  704.47  487.81  720.97
  650.41  712.55  894.32  631.71 1120.44  617.54 1463.43  610.84 1951.24  606.63
 2000.78  606.58 2113.84  607.44 2276.44  608.06  2398.4   606.2 2480.97   606.2
 3201.25     610 3414.67     610 3780.52   613.1 4065.08  611.24 4390.29     610
 4481.75     610 4641.81   606.2    5122   606.2    5203  580.86    5384  580.86
  5506.5   606.2 5646.95  615.11 5687.07  620.36 5827.52  629.27 6068.28  638.02
 6148.54  644.74 6309.05  654.38 6469.56  664.01 6549.81  668.45 6650.13  668.68
 6690.26  670.14 6790.58  675.68 6830.71  677.14 6951.09  679.62 7031.34  676.84
 7091.53  679.02  7111.6  684.31 7131.66  684.28 7272.11  689.39 7432.62  721.82
    7553   726.2

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    5122     .15  5506.5     .15
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                                                                    TXU_Rev1.rep
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          5122  5506.5             24.84   24.84   24.84          .1        .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.37    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                0.150      0.150      0.150
  W.S. Elev (ft)            775.36    Reach Len. (ft)           24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)       759500.90   72207.60   231138.50
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)            759500.90   72207.60   231138.50
  Q Total (cfs)           858834.50    Flow (cfs)             630634.90   69885.33   158314.30
  Top Width (ft)           7553.00    Top Width (ft)          5122.00     384.50     2046.50
  Vel Total (ft/s)            0.81    Avg. Vel. (ft/s)          0.83       0.97       0.68
  Max Chl Dpth (ft)         194.50    Hydr. Depth (ft)        148.28     187.80      112.94
  Conv. Total (cfs)       285084700.0    Conv. (cfs)          209335300.0   23198000.0   52551450.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)        5175.03     390.96     2102.13
  Min Ch El (ft)            580.86    Shear (lb/sq ft)          0.08       0.10       0.06
  Alpha                       1.02    Stream Power (lb/ft s)    0.07       0.10       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    47529.81    9627.54   60239.07
  C & E Loss (ft)                     Cum SA (acres)            337.65      50.11     428.11

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 10422.2*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  740.98  238.64  723.26  323.24  711.08  444.45  704.59  484.86  720.73
  646.48  712.09   888.9  632.02 1113.66  617.58 1454.57  610.86 1939.43  606.54
 1988.67  606.47 2101.05  607.32 2262.67  607.93 2383.88   606.1 2465.95   606.1
 3181.87     610    3394     610 3757.64  613.05 4040.48  611.22 4363.71     610
 4454.62     610 4613.72   606.1    5091   606.1  5171.5  580.83    5352  580.83
 5475.75   606.1 5619.58  615.02 5660.67  620.36 5804.49  629.28 6051.05  637.89
 6133.24  644.66 6297.61  654.31 6461.99  663.95 6544.17  668.38  6646.9  668.46
    6688  669.89 6790.73  675.43 6831.82  676.86  6955.1  679.22 7037.29  676.24
 7098.93  678.39 7119.48  683.79 7140.02  683.73 7283.85  688.75 7448.22  721.79
  7571.5   726.1

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    5091     .15 5475.75     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          5091 5475.75             24.84   24.84   24.84          .1        .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.37    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                0.150      0.150      0.150
  W.S. Elev (ft)            775.36    Reach Len. (ft)           24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)       755061.20   72265.25   237120.10
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)            755061.20   72265.25   237120.10
  Q Total (cfs)           858832.30    Flow (cfs)             626431.10   69887.77   162513.40
  Top Width (ft)           7571.50    Top Width (ft)          5091.00     384.75     2095.75
  Vel Total (ft/s)            0.81    Avg. Vel. (ft/s)          0.83       0.97       0.69
  Max Chl Dpth (ft)         194.53    Hydr. Depth (ft)        148.31     187.82      113.14
  Conv. Total (cfs)       285350200.0    Conv. (cfs)          208134100.0   23220470.0   53995680.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)        5143.95     391.18     2151.49
  Min Ch El (ft)            580.83    Shear (lb/sq ft)          0.08       0.10       0.06
  Alpha                       1.02    Stream Power (lb/ft s)    0.07       0.10       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    47097.97    9586.35   60105.56
  C & E Loss (ft)                     Cum SA (acres)            334.74      49.89     426.93

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 10397.4*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   740.8  237.19  723.54  321.27  711.36  441.75  704.71   481.9  720.49
  642.54  711.63  883.49  632.33 1106.87  617.62 1445.71  610.88 1927.62  606.45
 1976.56  606.37 2088.25   607.2 2248.89   607.8 2369.36     606 2450.94     606
  3162.5     610 3373.33     610 3734.76     613 4015.87   611.2 4337.14     610
  4427.5     610 4585.62     606    5060     606    5140   580.8    5320   580.8
    5445     606 5592.21  614.94 5634.26  620.35 5781.47  629.29 6033.82  637.76
 6117.94  644.59 6286.18  654.24 6454.41  663.88 6538.53  668.31 6643.68  668.24
 6685.74  669.65 6790.88  675.18 6832.94  676.59 6959.12  678.82 7043.24  675.65
 7106.32  677.76 7127.35  683.27 7148.38  683.18 7295.59  688.12 7463.82  721.76
    7590     726

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    5060     .15    5445     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          5060    5445             24.84   24.84   24.84          .1        .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.37    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                0.150      0.150      0.150
  W.S. Elev (ft)            775.36    Reach Len. (ft)           24.84      24.84      24.84
                                                                Page 26
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  Crit W.S. (ft)                          Flow Area (sq ft)        750618.50   72322.99   243117.60
  E.G. Slope (ft/ft)        0.000009      Area (sq ft)             750618.50   72322.99   243117.60
  Q Total (cfs)             858830.00      Flow (cfs)              622220.10   69889.05   166720.90
  Top Width (ft)             7590.00      Top Width (ft)            5060.00     385.00     2145.00
  Vel Total (ft/s)              0.81      Avg. Vel. (ft/s)             0.83       0.97        0.69
  Max Chl Dpth (ft)           194.56      Hydr. Depth (ft)           148.34     187.85      113.34
  Conv. Total (cfs)         285620500.0      Conv. (cfs)           206931300.0   23242960.0   55446250.0
  Length Wtd. (ft)             24.84      Wetted Per. (ft)          5112.87     391.39     2200.84
  Min Ch El (ft)              580.80      Shear (lb/sq ft)             0.08       0.10        0.06
  Alpha                         1.02      Stream Power (lb/ft s)       0.07       0.10        0.04
  Frctn Loss (ft)               0.00      Cum Volume (acre-ft)     46668.66    9545.12    59968.63
  C & E Loss (ft)                         Cum SA (acres)             331.85      49.67      425.72

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 10372.5*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  740.62  235.73  723.81   319.3  711.64  439.04  704.83  478.95  720.26
   638.6  711.17  878.08  632.64 1100.09  617.66 1436.86  610.91 1915.81  606.36
 1964.45  606.26 2075.46  607.08 2235.11  607.67 2354.85   605.9 2435.92   605.9
 3143.12     610 3352.67     610 3711.88  612.95 3991.27  611.18 4310.57     610
 4400.37     610 4557.53   605.9    5029   605.9  5108.5  580.77    5288  580.77
 5414.25   605.9 5564.84  614.86 5607.86  620.35 5758.45  629.31 6016.59  637.64
 6102.64  644.51 6274.74  654.16 6446.84  663.82 6532.89  668.23 6640.45  668.01
 6683.47   669.4 6791.03  674.92 6834.06  676.31 6963.13  678.43 7049.18  675.05
 7113.72  677.14 7135.23  682.75 7156.74  682.62 7307.33  687.48 7479.43  721.74
  7608.5   725.9

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    5029     .15 5414.25     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          5029 5414.25             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.37      Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.01      Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.36      Reach Len. (ft)            24.84      24.84      24.84
  Crit W.S. (ft)                        Flow Area (sq ft)       746171.70   72380.82   249136.30
  E.G. Slope (ft/ft)        0.000009    Area (sq ft)            746171.70   72380.82   249136.30
  Q Total (cfs)             858827.70    Flow (cfs)             617997.30   69888.84   170941.50
  Top Width (ft)             7608.50    Top Width (ft)           5029.00     385.25     2194.25
  Vel Total (ft/s)              0.80    Avg. Vel. (ft/s)            0.83       0.97        0.69
  Max Chl Dpth (ft)           194.59    Hydr. Depth (ft)           148.37     187.88      113.54
  Conv. Total (cfs)         285897200.0    Conv. (cfs)           205726600.0   23265460.0   56905120.0
  Length Wtd. (ft)             24.84    Wetted Per. (ft)          5081.80     391.60     2250.20
  Min Ch El (ft)            580.77      Shear (lb/sq ft)            0.08       0.10        0.06
  Alpha                         1.02    Stream Power (lb/ft s)      0.07       0.10        0.04
  Frctn Loss (ft)               0.00    Cum Volume (acre-ft)    46241.89    9503.86    59828.28
  C & E Loss (ft)                       Cum SA (acres)            328.97      49.45      424.48

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 10347.7*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  740.44  234.28  724.09  317.33  711.93  436.33  704.95     476  720.02
  634.67  710.71  872.67  632.95 1093.31   617.7    1428  610.93    1904  606.27
 1952.34  606.15 2062.67  606.96 2221.33  607.54 2340.33   605.8 2420.91   605.8
 3123.75     610    3332     610    3689   612.9 3966.67  611.16    4284     610
 4373.25     610 4529.44   605.8    4998   605.8    5077  580.74    5256  580.74
  5383.5   605.8 5537.47  614.78 5581.46  620.34 5735.42  629.32 5999.36  637.51
 6087.34  644.44  6263.3  654.09 6439.26  663.75 6527.25  668.16 6637.22  667.79
 6681.21  669.16 6791.19  674.67 6835.18  676.04 6967.15  678.03 7055.13  674.46
 7121.11  676.51 7143.11  682.23  7165.1  682.07 7319.07  686.85 7495.03  721.71
    7627   725.8

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    4998     .15  5383.5     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          4998  5383.5             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.37      Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.01      Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.36      Reach Len. (ft)            24.84      24.84      24.84
  Crit W.S. (ft)                        Flow Area (sq ft)       741724.00   72438.66   255172.50
  E.G. Slope (ft/ft)        0.000009    Area (sq ft)            741724.00   72438.66   255172.50
  Q Total (cfs)             858825.40    Flow (cfs)             613767.50   69886.95   175170.90
  Top Width (ft)             7627.00    Top Width (ft)           4998.00     385.50     2243.50
  Vel Total (ft/s)              0.80    Avg. Vel. (ft/s)            0.83       0.96        0.69
  Max Chl Dpth (ft)           194.62    Hydr. Depth (ft)           148.40     187.91      113.74
  Conv. Total (cfs)         286180300.0    Conv. (cfs)           204521400.0   23287930.0   58370970.0
  Length Wtd. (ft)             24.84    Wetted Per. (ft)          5050.72     391.82     2299.56
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                                                                    TXU_Rev1.rep
  Min Ch El (ft)              580.74    Shear (lb/sq ft)              0.08        0.10        0.06
  Alpha                         1.03    Stream Power (lb/ft s)        0.07        0.10        0.04
  Frctn Loss (ft)               0.00    Cum Volume (acre-ft)      45817.66     9462.57    59684.49
  C & E Loss (ft)                       Cum SA (acres)              326.11       49.23      423.22

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 10322.8*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  740.26  232.83  724.36  315.37  712.21  433.63  705.06  473.05  719.78
  630.73  710.25  867.25  633.25 1086.53  617.74 1419.14  610.95 1892.19  606.18
 1940.23  606.05 2049.87  606.84 2207.56  607.41 2325.82   605.7 2405.89   605.7
 3104.37     610 3311.33     610 3666.12  612.85 3942.06  611.14 4257.43     610
 4346.12     610 4501.34   605.7    4967   605.7   5045.5  580.71    5224  580.71
 5352.75   605.7  5510.1  614.69 5555.05  620.34   5712.4  629.33 5982.13  637.38
 6072.04  644.36 6251.87  654.02 6431.69  663.69   6521.6  668.09 6633.99  667.57
 6678.95  668.91 6791.34  674.42 6836.29  675.76 6971.16  677.63 7061.07  673.86
 7128.51  675.88 7150.99  681.71 7173.46  681.52 7330.81  686.21 7510.63  721.68
  7645.5   725.7

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    4967     .15 5352.75     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          4967 5352.75             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)              775.37    Element                    Left OB    Channel   Right OB
  Vel Head (ft)                 0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)              775.36    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                        Flow Area (sq ft)       737280.30   72496.56   261232.80
  E.G. Slope (ft/ft)        0.000009    Area (sq ft)            737280.30   72496.56   261232.80
  Q Total (cfs)             858823.20    Flow (cfs)             609527.50   69882.44   179413.30
  Top Width (ft)             7645.50    Top Width (ft)           4967.00     385.75    2292.75
  Vel Total (ft/s)              0.80    Avg. Vel. (ft/s)            0.83       0.96       0.69
  Max Chl Dpth (ft)           194.65    Hydr. Depth (ft)          148.44     187.94     113.94
  Conv. Total (cfs)         286474300.0    Conv. (cfs)            203317700.0   23310420.0   59846190.0
  Length Wtd. (ft)             24.84    Wetted Per. (ft)         5019.66     392.03    2348.93
  Min Ch El (ft)              580.71    Shear (lb/sq ft)            0.08       0.10       0.06
  Alpha                         1.03    Stream Power (lb/ft s)      0.07       0.10       0.04
  Frctn Loss (ft)               0.00    Cum Volume (acre-ft)    45395.96    9421.25   59537.25
  C & E Loss (ft)                       Cum SA (acres)            323.27      49.01     421.92

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 10298.0*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  740.08  231.37  724.64   313.4   712.5  430.92  705.18   470.1  719.54
  626.79  709.79  861.84  633.56 1079.75  617.78 1410.29  610.97 1880.38   606.1
 1928.12  605.94 2037.08  606.72 2193.78  607.28  2311.3   605.6 2390.87   605.6
    3085     610 3290.67     610 3643.24   612.8 3917.46  611.12 4230.86     610
    4319     610 4473.25   605.6    4936   605.6    5014  580.68    5192  580.68
    5322   605.6 5482.73  614.61 5528.65  620.33 5689.37  629.34  5964.9  637.25
 6056.74  644.28 6240.43  653.95 6424.12  663.62 6515.96  668.02 6630.76  667.35
 6676.69  668.67 6791.49  674.16 6837.41  675.48 6975.18  677.24 7067.02  673.27
  7135.9  675.25 7158.86  681.19 7181.82  680.96 7342.55  685.58 7526.24  721.65
    7664   725.6

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    4936     .15    5322     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          4936    5322             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)              775.37    Element                    Left OB    Channel   Right OB
  Vel Head (ft)                 0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)              775.36    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                        Flow Area (sq ft)       732827.10   72554.56   267311.40
  E.G. Slope (ft/ft)        0.000009    Area (sq ft)            732827.10   72554.56   267311.40
  Q Total (cfs)             858820.90    Flow (cfs)             605276.90   69877.21   183666.70
  Top Width (ft)             7664.00    Top Width (ft)           4936.00     386.00    2342.00
  Vel Total (ft/s)              0.80    Avg. Vel. (ft/s)            0.83       0.96       0.69
  Max Chl Dpth (ft)           194.68    Hydr. Depth (ft)          148.47     187.97     114.14
  Conv. Total (cfs)         286771600.0    Conv. (cfs)            202109900.0   23332920.0   61328730.0
  Length Wtd. (ft)             24.84    Wetted Per. (ft)         4988.60     392.25    2398.30
  Min Ch El (ft)              580.68    Shear (lb/sq ft)            0.08       0.10       0.06
  Alpha                         1.03    Stream Power (lb/ft s)      0.07       0.10       0.04
  Frctn Loss (ft)               0.00    Cum Volume (acre-ft)    44976.80    9379.89   59386.55
  C & E Loss (ft)                       Cum SA (acres)            320.45      48.79     420.60

Warning: The cross-section end points had to be extended vertically for the computed water surface.
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TXU_Rev1.rep

CROSS SECTION

RIVER: PALUXY
REACH: PALUXY RIVER RS: 10273.2*

INPUT
Description:
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	739.9	229.92	724.91	311.43	712.78	428.21	705.3	467.14	719.31
622.86	709.33	856.43	633.87	1072.97	617.81	1401.43	610.99	1868.57	606.01
1916.02	605.84	2024.29	606.6	2180	607.15	2296.79	605.5	2375.86	605.5
3065.62	610	3270	610	3620.36	612.75	3892.86	611.1	4204.29	610
4291.87	610	4445.16	605.5	4905	605.5	4982.5	580.65	5160	580.65
5291.25	605.5	5455.35	614.53	5502.24	620.32	5666.35	629.35	5947.67	637.12
6041.45	644.21	6229	653.88	6416.54	663.56	6510.32	667.95	6627.54	667.13
6674.42	668.43	6791.64	673.91	6838.53	675.21	6979.19	676.84	7072.97	672.68
7143.3	674.62	7166.74	680.66	7190.18	680.41	7354.29	684.94	7541.84	721.62
7682.5	725.5								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.15	4905	.15	5291.25	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
4905	5291.25	24.84	24.84	24.84	.1	.3

CROSS SECTION OUTPUT Profile #Max WS

E.G. Elev (ft)	775.37	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.01	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	775.36	Reach Len. (ft)	24.84	24.84	24.84
Crit W.S. (ft)		Flow Area (sq ft)	728377.00	72612.59	273407.00
E.G. Slope (ft/ft)	0.000009	Area (sq ft)	728377.00	72612.59	273407.00
Q Total (cfs)	858818.60	Flow (cfs)	601021.90	69870.02	187926.70
Top Width (ft)	7682.50	Top Width (ft)	4905.00	386.25	2391.25
Vel Total (ft/s)	0.80	Avg. Vel. (ft/s)	0.83	0.96	0.69
Max Chl Dpth (ft)	194.71	Hydr. Depth (ft)	148.50	187.99	114.34
Conv. Total (cfs)	287076700.0	Conv. (cfs)	200903200.0	23355400.0	62818110.0
Length Wtd. (ft)	24.84	Wetted Per. (ft)	4957.54	392.47	2447.67
Min Ch El (ft)	580.65	Shear (lb/sq ft)	0.08	0.10	0.06
Alpha	1.03	Stream Power (lb/ft s)	0.07	0.10	0.04
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	44560.17	9338.50	59232.38
C & E Loss (ft)		Cum SA (acres)	317.64	48.57	419.25

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION

RIVER: PALUXY
REACH: PALUXY RIVER RS: 10248.3*

INPUT
Description:
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	739.72	228.47	725.18	309.46	713.06	425.51	705.42	464.19	719.07
618.92	708.87	851.02	634.18	1066.19	617.85	1392.57	611.02	1856.76	605.92
1903.91	605.73	2011.49	606.48	2166.22	607.02	2282.27	605.4	2360.84	605.4
3046.25	610	3249.33	610	3597.48	612.7	3868.25	611.08	4177.71	610
4264.75	610	4417.06	605.4	4874	605.4	4951	580.62	5128	580.62
5260.5	605.4	5427.98	614.45	5475.84	620.32	5643.32	629.36	5930.44	636.99
6026.15	644.13	6217.56	653.81	6408.97	663.49	6504.68	667.88	6624.31	666.91
6672.16	668.18	6791.79	673.66	6839.65	674.93	6983.21	676.44	7078.91	672.08
7150.69	673.99	7174.62	680.14	7198.54	679.86	7366.03	684.31	7557.44	721.59
7701	725.4								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.15	4874	.15	5260.5	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
4874	5260.5	24.84	24.84	24.84	.1	.3

CROSS SECTION OUTPUT Profile #Max WS

E.G. Elev (ft)	775.37	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.01	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	775.36	Reach Len. (ft)	24.84	24.84	24.84
Crit W.S. (ft)		Flow Area (sq ft)	723921.60	72670.76	279525.00
E.G. Slope (ft/ft)	0.000009	Area (sq ft)	723921.60	72670.76	279525.00
Q Total (cfs)	858816.30	Flow (cfs)	596755.40	69861.42	192199.50
Top Width (ft)	7701.00	Top Width (ft)	4874.00	386.50	2440.50
Vel Total (ft/s)	0.80	Avg. Vel. (ft/s)	0.82	0.96	0.69
Max Chl Dpth (ft)	194.74	Hydr. Depth (ft)	148.53	188.02	114.54
Conv. Total (cfs)	287388300.0	Conv. (cfs)	199694000.0	23377940.0	64316290.0
Length Wtd. (ft)	24.84	Wetted Per. (ft)	4926.49	392.69	2497.04
Min Ch El (ft)	580.62	Shear (lb/sq ft)	0.08	0.10	0.06
Alpha	1.03	Stream Power (lb/ft s)	0.07	0.10	0.04
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	44146.09	9297.08	59074.73
C & E Loss (ft)		Cum SA (acres)	314.85	48.35	417.87

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION

RIVER: PALUXY
REACH: PALUXY RIVER RS: 10223.5*

INPUT
Description:

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                                                                    TXU_Rev1.rep
Station Elevation Data     num=      46
     Sta    Elev     Sta     Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  739.54  227.02  725.46  307.49  713.35   422.8  705.53  461.24  718.83
  614.98  708.41   845.6  634.49 1059.41  617.89 1383.71  611.04 1844.95  605.83
  1891.8  605.62  1998.7  606.36 2152.44  606.89 2267.75   605.3 2345.83   605.3
 3026.87     610 3228.67     610 3574.59  612.65 3843.65  611.06 4151.14     610
 4237.62     610 4388.97   605.3    4843   605.3  4919.5  580.59    5096  580.59
 5229.75   605.3 5400.61  614.36 5449.43  620.31  5620.3  629.38 5913.21  636.86
 6010.85  644.05 6206.12  653.74  6401.4  663.43 6499.03   667.8 6621.08  666.69
  6669.9  667.94 6791.95  673.41 6840.76  674.65 6987.22  676.04 7084.86  671.49
 7158.09  673.36  7182.5  679.62  7206.9  679.31 7377.77  683.67 7573.04  721.56
  7719.5   725.3

Manning's n Values         num=       3
     Sta   n Val     Sta    n Val     Sta   n Val
       0     .15    4843      .15 5229.75     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          4843 5229.75              24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.37    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.36    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)        719466.70   72728.96   285662.20
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)             719466.70   72728.96   285662.20
  Q Total (cfs)           858814.00    Flow (cfs)              592482.40   69850.98   196480.60
  Top Width (ft)           7719.50    Top Width (ft)           4843.00     386.75     2489.75
  Vel Total (ft/s)            0.80    Avg. Vel. (ft/s)            0.82       0.96        0.69
  Max Chl Dpth (ft)         194.77    Hydr. Depth (ft)          148.56     188.05      114.74
  Conv. Total (cfs)       287707400.0    Conv. (cfs)           198484900.0   23400460.0   65822090.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)         4895.44     392.91     2546.42
  Min Ch El (ft)            580.59    Shear (lb/sq ft)            0.08       0.10        0.06
  Alpha                       1.03    Stream Power (lb/ft s)      0.07       0.10        0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    43734.54    9255.62    58913.58
  C & E Loss (ft)                     Cum SA (acres)            312.08      48.13      416.47

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 10198.6*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta     Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  739.36  225.56  725.73  305.52  713.63   420.1  705.65  458.29  718.59
  611.05  707.95  840.19  634.79 1052.62  617.93 1374.86  611.06 1833.14  605.74
 1879.69  605.52  1985.9  606.24 2138.67  606.76 2253.24   605.2 2330.81   605.2
  3007.5     610    3208     610 3551.71   612.6 3819.05  611.04 4124.57     610
  4210.5     610 4360.87   605.2    4812   605.2    4888  580.56    5064  580.56
    5199   605.2 5373.24  614.28 5423.03  620.31 5597.27  629.39 5895.98  636.73
 5995.55  643.98 6194.69  653.67 6393.82  663.36 6493.39  667.73 6617.85  666.47
 6667.64  667.69  6792.1  673.15 6841.88  674.38 6991.24  675.65  7090.8  670.89
 7165.48  672.73 7190.37   679.1 7215.26  678.75 7389.51  683.04 7588.65  721.53
    7738   725.2

Manning's n Values         num=       3
     Sta   n Val     Sta    n Val     Sta   n Val
       0     .15    4812      .15    5199     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          4812    5199              24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.37    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.36    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)        715012.00   72787.23   291817.40
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)             715012.00   72787.23   291817.40
  Q Total (cfs)           858811.70    Flow (cfs)              588204.10   69838.78   200768.70
  Top Width (ft)           7738.00    Top Width (ft)           4812.00     387.00     2539.00
  Vel Total (ft/s)            0.80    Avg. Vel. (ft/s)            0.82       0.96        0.69
  Max Chl Dpth (ft)         194.80    Hydr. Depth (ft)          148.59     188.08      114.93
  Conv. Total (cfs)       288033900.0    Conv. (cfs)           197275800.0   23422990.0   67335130.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)         4864.39     393.12     2595.80
  Min Ch El (ft)            580.56    Shear (lb/sq ft)            0.08       0.10        0.06
  Alpha                       1.03    Stream Power (lb/ft s)      0.07       0.10        0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    43325.54    9214.13    58748.93
  C & E Loss (ft)                     Cum SA (acres)            309.33      47.91      415.03

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 10173.8*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta     Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  739.18  224.11  726.01  303.56  713.92  417.39  705.77  455.33  718.35
  607.11  707.49  834.78   635.1 1045.84  617.97    1366  611.08 1821.33  605.65
 1867.58  605.41 1973.11  606.12 2124.89  606.63 2238.72   605.1 2315.8   605.1
 2988.12     610 3187.33     610 3528.83  612.55 3794.44  611.02    4098     610
 4183.37     610 4332.78   605.1    4781   605.1  4856.5  580.53    5032  580.53
 5168.25   605.1 5345.87   614.2 5396.62   620.3 5574.25   629.4 5878.75   636.6
                                                                  Page 30
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                                                                TXU_Rev1.rep
 5980.25   643.9 6183.25   653.6 6386.25   663.3 6487.75  667.66 6614.62  666.25
 6665.38  667.45 6792.25   672.9    6843   674.1 6995.25  675.25 7096.75   670.3
 7172.88   672.1 7198.25  678.58 7223.62   678.2 7401.25   682.4 7604.25   721.5
  7756.5   725.1

Manning's n Values          num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    4781     .15 5168.25     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          4781 5168.25             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.37    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                0.150      0.150      0.150
  W.S. Elev (ft)            775.36    Reach Len. (ft)           24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)       710552.20  72845.59  297994.10
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)            710552.20  72845.59  297994.10
  Q Total (cfs)           858809.30    Flow (cfs)             583915.90  69825.20  205068.20
  Top Width (ft)           7756.50    Top Width (ft)          4781.00    387.25    2588.25
  Vel Total (ft/s)            0.79    Avg. Vel. (ft/s)           0.82       0.96       0.69
  Max Chl Dpth (ft)         194.83    Hydr. Depth (ft)         148.62     188.11     115.13
  Conv. Total (cfs)       288366500.0    Conv. (cfs)          196064200.0  23445540.0  68856710.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)        4833.35     393.34    2645.18
  Min Ch El (ft)            580.53    Shear (lb/sq ft)           0.08       0.10       0.06
  Alpha                       1.03    Stream Power (lb/ft s)     0.07       0.10       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    42919.08   9172.61   58580.76
  C & E Loss (ft)                     Cum SA (acres)            306.59     47.69     413.57

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 10149.*

INPUT
Description:
Station Elevation Data      num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0     739  222.66  726.28  301.59   714.2  414.68  705.89  452.38  718.12
  603.17  707.03  829.37  635.41 1039.06  618.01 1357.14   611.1 1809.52  605.56
 1855.47   605.3 1960.32     606 2111.11   606.5 2224.21     605 2300.78     605
 2968.75     610 3166.67     610 3505.95   612.5 3769.84     611 4071.43     610
 4156.25     610 4304.69     605    4750     605    4825   580.5    5000   580.5
  5137.5     605  5318.5  614.12 5370.22  620.29 5551.23  629.41 5861.52  636.47
 5964.95  643.82 6171.81  653.53 6378.68  663.24 6482.11  667.59  6611.4  666.03
 6663.11  667.21  6792.4  672.65 6844.12  673.82 6999.26  674.85  7102.7  669.71
 7180.27  671.47 7206.13  678.06 7231.99  677.65 7412.99  681.76 7619.85  721.47
    7775     725

Manning's n Values          num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    4750     .15  5137.5     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          4750  5137.5             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.37    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                0.150      0.150      0.150
  W.S. Elev (ft)            775.36    Reach Len. (ft)           24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)       706091.80  72904.01  304190.30
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)            706091.80  72904.01  304190.30
  Q Total (cfs)           858806.90    Flow (cfs)             579621.40  69809.88  209375.60
  Top Width (ft)           7775.00    Top Width (ft)          4750.00    387.50    2637.50
  Vel Total (ft/s)            0.79    Avg. Vel. (ft/s)           0.82       0.96       0.69
  Max Chl Dpth (ft)         194.86    Hydr. Depth (ft)         148.65     188.14     115.33
  Conv. Total (cfs)       288706500.0    Conv. (cfs)          194852300.0  23468100.0  70386130.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)        4802.31     393.57    2694.57
  Min Ch El (ft)            580.50    Shear (lb/sq ft)           0.08       0.10       0.06
  Alpha                       1.03    Stream Power (lb/ft s)     0.07       0.10       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    42515.16   9131.05   58409.07
  C & E Loss (ft)                     Cum SA (acres)            303.88     47.47     412.08

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 10124.1*

INPUT
Description:
Station Elevation Data      num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  738.82   221.2  726.56  299.62  714.48  411.98  706.01  449.43  717.88
  599.24  706.58  823.95  635.72 1032.28  618.05 1348.29  611.13 1797.71  605.47
 1843.36   605.2 1947.52  605.88 2097.33  606.37 2209.69   604.9 2285.77   604.9
 2949.37     610    3146     610 3483.07  612.45 3745.24  610.98 4044.86     610
 4129.12     610 4276.59   604.9    4719   604.9  4793.5  580.47    4968  580.47
 5106.75   604.9 5291.13  614.04 5343.82  620.29  5528.2  629.42 5844.29  636.34
 5949.65  643.75 6160.38  653.46  6371.1  663.17 6476.47  667.52 6608.17  665.81
 6660.85  666.96 6792.55  672.39 6845.24  673.55 7003.28  674.46 7108.64  669.11
 7187.66  670.84    7214  677.54 7240.35  677.09 7424.73  681.13 7635.46  721.44
  7793.5   724.9

Manning's n Values          num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    4719     .15 5106.75     .15
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                                                        TXU_Rev1.rep
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          4719 5106.75            24.84   24.84   24.84            .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.37    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.36    Reach Len. (ft)            24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)       701622.20   72962.47   310404.40
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)            701622.20   72962.47   310404.40
  Q Total (cfs)           858804.60    Flow (cfs)             575318.60   69793.92   213692.10
  Top Width (ft)           7793.50    Top Width (ft)           4719.00     387.75     2686.75
  Vel Total (ft/s)            0.79    Avg. Vel. (ft/s)            0.82       0.96        0.69
  Max Chl Dpth (ft)         194.89    Hydr. Depth (ft)          148.68     188.17      115.53
  Conv. Total (cfs)       289049200.0    Conv. (cfs)           193635900.0   23490650.0   71922680.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)         4771.29     393.79     2743.95
  Min Ch El (ft)            580.47    Shear (lb/sq ft)            0.08       0.10        0.06
  Alpha                       1.03    Stream Power (lb/ft s)      0.07       0.10        0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    42113.79    9089.46    58233.83
  C & E Loss (ft)                     Cum SA (acres)            301.18      47.24      410.56

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 10099.3*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  738.64  219.75  726.83  297.65  714.77  409.27  706.12  446.48  717.64
   595.3  706.12  818.54  636.03  1025.5  618.09 1339.43  611.15  1785.9  605.39
 1831.25  605.09 1934.73  605.76 2083.56  606.24 2195.17   604.8 2270.75   604.8
    2930     610 3125.33     610 3460.19   612.4 3720.63  610.96 4018.29     610
    4102     610  4248.5   604.8    4688   604.8    4762  580.44    4936  580.44
    5076   604.8 5263.76  613.95 5317.41  620.28 5505.18  629.44 5827.06  636.21
 5934.35  643.67 6148.94  653.39 6363.53  663.11 6470.82  667.44 6604.94  665.59
 6658.59  666.72 6792.71  672.14 6846.35  673.27 7007.29  674.06 7114.59  668.52
 7195.06  670.21 7221.88  677.02 7248.71  676.54 7436.47  680.49 7651.06  721.41
    7812   724.8

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    4688     .15    5076     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          4688    5076            24.84   24.84   24.84            .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.37    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.36    Reach Len. (ft)            24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)       697156.60   73021.04   316639.80
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)            697156.60   73021.04   316639.80
  Q Total (cfs)           858802.20    Flow (cfs)             571010.60   69775.59   218016.00
  Top Width (ft)           7812.00    Top Width (ft)           4688.00     388.00     2736.00
  Vel Total (ft/s)            0.79    Avg. Vel. (ft/s)            0.82       0.96        0.69
  Max Chl Dpth (ft)         194.92    Hydr. Depth (ft)          148.71     188.20      115.73
  Conv. Total (cfs)       289402400.0    Conv. (cfs)           192421300.0   23513240.0   73467840.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)         4740.26     394.01     2793.34
  Min Ch El (ft)            580.44    Shear (lb/sq ft)            0.08       0.10        0.06
  Alpha                       1.03    Stream Power (lb/ft s)      0.07       0.10        0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    41714.96    9047.84    58055.05
  C & E Loss (ft)                     Cum SA (acres)            298.50      47.02      409.02

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 10074.4*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  738.46   218.3   727.1  295.68  715.05  406.56  706.24  443.52   717.4
  591.37  705.66  813.13  636.34 1018.72  618.13 1330.57  611.17  1774.1   605.3
 1819.14  604.99 1921.94  605.64 2069.78  606.11 2180.66   604.7 2255.73   604.7
 2910.62     610 3104.67     610 3437.31  612.35 3696.03  610.94 3991.71     610
 4074.87     610 4220.41   604.7    4657   604.7  4730.5  580.41    4904  580.41
 5045.25   604.7 5236.39  613.87 5291.01  620.28 5482.15  629.45 5809.83  636.08
 5919.05  643.59  6137.5  653.32 6355.96  663.04 6465.18  667.37 6601.71  665.37
 6656.33  666.47 6792.86  671.89 6847.47  672.99 7011.31  673.66 7120.53  667.92
 7202.45  669.58 7229.76   676.5 7257.07  675.99 7448.21  679.86 7666.66  721.38
  7830.5   724.7

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    4657     .15 5045.25     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          4657 5045.25            24.84   24.84   24.84            .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.37    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
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  W.S. Elev (ft)            775.36    Reach Len. (ft)              24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)        692690.40   73079.66   322895.10
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)             692690.40   73079.66   322895.10
  Q Total (cfs)           858799.80    Flow (cfs)              566697.30   69755.48   222347.10
  Top Width (ft)           7830.50    Top Width (ft)            4657.00     388.25    2785.25
  Vel Total (ft/s)            0.79    Avg. Vel. (ft/s)             0.82       0.95       0.69
  Max Chl Dpth (ft)         194.95    Hydr. Depth (ft)           148.74     188.23     115.93
  Conv. Total (cfs)       289763100.0    Conv. (cfs)            191206300.0  23535830.0  75020970.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)          4709.24     394.23    2842.73
  Min Ch El (ft)            580.41    Shear (lb/sq ft)             0.08       0.10       0.06
  Alpha                       1.03    Stream Power (lb/ft s)       0.07       0.10       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)     41318.69    9006.18   57872.70
  C & E Loss (ft)                     Cum SA (acres)             295.83      46.80     407.44

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 10049.6*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  738.28  216.84  727.38  293.71  715.34  403.86  706.36  440.57  717.17
  587.43   705.2  807.71  636.64 1011.94  618.17 1321.71  611.19 1762.29  605.21
 1807.03  604.88 1909.14  605.52    2056  605.98 2166.14   604.6 2240.72   604.6
 2891.25     610    3084     610 3414.43   612.3 3671.43  610.92 3965.14     610
 4047.75     610 4192.31   604.6    4626   604.6    4699  580.38    4872  580.38
  5014.5   604.6 5209.02  613.79  5264.6  620.27 5459.13  629.46  5792.6  635.95
 5903.75  643.52 6126.07  653.25 6348.38  662.98 6459.54   667.3 6598.49  665.15
 6654.06  666.23 6793.01  671.64 6848.59  672.72 7015.32  673.26 7126.48  667.33
 7209.85  668.95 7237.64  675.97 7265.43  675.44 7459.95  679.22 7682.26  721.35
    7849   724.6

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    4626     .15  5014.5     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          4626  5014.5             24.84   24.84   24.84            .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.37    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.36    Reach Len. (ft)              24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)        688222.10   73138.29   329166.90
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)             688222.10   73138.29   329166.90
  Q Total (cfs)           858797.40    Flow (cfs)              562380.20   69734.02   226683.20
  Top Width (ft)           7849.00    Top Width (ft)            4626.00     388.50    2834.50
  Vel Total (ft/s)            0.79    Avg. Vel. (ft/s)             0.82       0.95       0.69
  Max Chl Dpth (ft)         194.98    Hydr. Depth (ft)           148.77     188.26     116.13
  Conv. Total (cfs)       290129400.0    Conv. (cfs)            189990100.0  23558400.0  76580880.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)          4678.22     394.46    2892.12
  Min Ch El (ft)            580.38    Shear (lb/sq ft)             0.08       0.10       0.06
  Alpha                       1.03    Stream Power (lb/ft s)       0.07       0.10       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)     40924.96    8964.49   57686.78
  C & E Loss (ft)                     Cum SA (acres)             293.18      46.58     405.84

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 10024.8*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   738.1  215.39  727.65  291.75  715.62  401.15  706.48  437.62  716.93
  583.49  704.74   802.3  636.95 1005.16  618.21 1312.86  611.21 1750.48  605.12
 1794.92  604.77 1896.35   605.4 2042.22  605.85 2151.63   604.5  2225.7   604.5
 2871.88     610 3063.33     610 3391.55  612.25 3646.83   610.9 3938.57     610
 4020.62     610 4164.22   604.5    4595   604.5  4667.5  580.35    4840  580.35
 4983.75   604.5 5181.65  613.71  5238.2  620.26  5436.1  629.47 5775.37  635.82
 5888.46  643.44 6114.63  653.18 6340.81  662.91  6453.9  667.23 6595.26  664.93
  6651.8  665.99 6793.16  671.38 6849.71  672.44 7019.34  672.87 7132.43  666.74
 7217.24  668.32 7245.51  675.45 7273.79  674.88 7471.69  678.59 7697.87  721.32
  7867.5   724.5

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    4595     .15 4983.75     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          4595 4983.75             24.84   24.84   24.84            .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.37    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.36    Reach Len. (ft)              24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)        683753.10   73197.07   335461.90
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)             683753.10   73197.07   335461.90
  Q Total (cfs)           858795.10    Flow (cfs)              558055.90   69710.64   231028.60
  Top Width (ft)           7867.50    Top Width (ft)            4595.00     388.75    2883.75
  Vel Total (ft/s)            0.79    Avg. Vel. (ft/s)             0.82       0.95       0.69
  Max Chl Dpth (ft)         195.01    Hydr. Depth (ft)           148.80     188.29     116.33
  Conv. Total (cfs)       290504700.0    Conv. (cfs)            188773600.0  23581020.0  78150050.0
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  Length Wtd. (ft)          24.84    Wetted Per. (ft)         4647.21     394.68    2941.51
  Min Ch El (ft)           580.35    Shear (lb/sq ft)           0.08       0.10       0.06
  Alpha                      1.03    Stream Power (lb/ft s)     0.07       0.10       0.04
  Frctn Loss (ft)            0.00    Cum Volume (acre-ft)    40533.77    8922.77   57497.28
  C & E Loss (ft)                    Cum SA (acres)            290.55      46.36     404.21

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 9999.96*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  737.92  213.94  727.93  289.78   715.9  398.44  706.59  434.67  716.69
  579.56  704.28  796.89  637.26  998.38  618.25    1304  611.24 1738.67  605.03
 1782.81  604.67 1883.56  605.28 2028.44  605.72 2137.11   604.4 2210.69   604.4
  2852.5     610 3042.67     610 3368.67   612.2 3622.22  610.88    3912     610
  3993.5     610 4136.12   604.4    4564   604.4    4636  580.32    4808  580.32
    4953   604.4 5154.28  613.62 5211.79  620.26 5413.08  629.48 5758.14  635.69
 5873.16  643.36  6103.2  653.11 6333.24  662.85 6448.25  667.16 6592.03  664.71
 6649.54  665.74 6793.31  671.13 6850.82  672.16 7023.35  672.47 7138.37  666.14
 7224.64  667.69 7253.39  674.93 7282.15  674.33 7483.43  677.95 7713.47  721.29
    7886   724.4

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    4564     .15    4953     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          4564    4953            24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)           775.36    Element                   Left OB    Channel   Right OB
  Vel Head (ft)              0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)           775.35    Reach Len. (ft)            24.84      24.84      24.84
  Crit W.S. (ft)                     Flow Area (sq ft)       679276.40   73255.85  341777.80
  E.G. Slope (ft/ft)     0.000009    Area (sq ft)            679276.40   73255.85  341777.80
  Q Total (cfs)          858792.60    Flow (cfs)             553722.90   69686.13  235383.60
  Top Width (ft)          7886.00    Top Width (ft)           4564.00     389.00    2933.00
  Vel Total (ft/s)           0.78    Avg. Vel. (ft/s)           0.82       0.95       0.69
  Max Chl Dpth (ft)        195.03    Hydr. Depth (ft)         148.83     188.32     116.53
  Conv. Total (cfs)     290884500.0    Conv. (cfs)           187553300.0  23603620.0  79727580.0
  Length Wtd. (ft)          24.84    Wetted Per. (ft)         4616.20     394.91    2990.90
  Min Ch El (ft)           580.32    Shear (lb/sq ft)           0.08       0.10       0.06
  Alpha                      1.03    Stream Power (lb/ft s)     0.07       0.10       0.04
  Frctn Loss (ft)            0.00    Cum Volume (acre-ft)    40145.14    8881.01   57304.18
  C & E Loss (ft)                    Cum SA (acres)            287.94      46.14     402.55

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 9975.12*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  737.74  212.48   728.2  287.81  716.19  395.74  706.71  431.71  716.45
  575.62  703.82  791.48  637.57  991.59  618.29 1295.14  611.26 1726.86  604.94
  1770.7  604.56 1870.76  605.16 2014.67  605.59  2122.6   604.3 2195.67   604.3
 2833.12     610    3022     610 3345.79  612.15 3597.62  610.86 3885.43     610
 3966.38     610 4108.03   604.3    4533   604.3  4604.5  580.29    4776  580.29
 4922.25   604.3 5126.91  613.54 5185.39  620.25 5390.05  629.49 5740.91  635.56
 5857.86  643.29 6091.76  653.04 6325.66  662.78 6442.61  667.09  6588.8  664.49
 6647.28   665.5 6793.47  670.88 6851.94  671.89 7027.37  672.07 7144.32  665.55
 7232.03  667.06 7261.27  674.41 7290.51  673.78 7495.17  677.32 7729.07  721.26
  7904.5   724.3

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    4533     .15 4922.25     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          4533 4922.25            24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)           775.36    Element                   Left OB    Channel   Right OB
  Vel Head (ft)              0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)           775.35    Reach Len. (ft)            24.84      24.84      24.84
  Crit W.S. (ft)                     Flow Area (sq ft)       674802.60   73314.73  348107.70
  E.G. Slope (ft/ft)     0.000009    Area (sq ft)            674802.60   73314.73  348107.70
  Q Total (cfs)          858790.30    Flow (cfs)             549391.50   69660.06  239738.80
  Top Width (ft)          7904.50    Top Width (ft)           4533.00     389.25    2982.25
  Vel Total (ft/s)           0.78    Avg. Vel. (ft/s)           0.81       0.95       0.69
  Max Chl Dpth (ft)        195.06    Hydr. Depth (ft)         148.86     188.35     116.73
  Conv. Total (cfs)     291271600.0    Conv. (cfs)           186334400.0  23626250.0  81310990.0
  Length Wtd. (ft)          24.84    Wetted Per. (ft)         4585.20     395.13    3040.30
  Min Ch El (ft)           580.29    Shear (lb/sq ft)           0.08       0.10       0.06
  Alpha                      1.03    Stream Power (lb/ft s)     0.07       0.10       0.04
  Frctn Loss (ft)            0.00    Cum Volume (acre-ft)    39759.06    8839.22   57107.48
  C & E Loss (ft)                    Cum SA (acres)            285.35      45.92     400.87

Warning: The cross-section end points had to be extended vertically for the computed water surface.
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CROSS SECTION

RIVER: PALUXY
REACH: PALUXY RIVER RS: 9950.28*

INPUT
Description:
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	737.56	211.03	728.48	285.84	716.47	393.03	706.83	428.76	716.22
571.68	703.36	786.06	637.88	984.81	618.33	1286.29	611.28	1715.05	604.85
1758.59	604.46	1857.97	605.04	2000.89	605.46	2108.08	604.2	2180.66	604.2
2813.75	610	3001.33	610	3322.9	612.1	3573.02	610.84	3858.86	610
3939.25	610	4079.94	604.2	4502	604.2	4573	580.26	4744	580.26
4891.5	604.2	5099.54	613.46	5158.99	620.25	5367.03	629.51	5723.68	635.44
5842.56	643.21	6080.32	652.96	6318.09	662.72	6436.97	667.01	6585.57	664.26
6645.01	665.25	6793.62	670.62	6853.06	671.61	7031.38	671.68	7150.26	664.95
7239.43	666.44	7269.15	673.89	7298.87	673.22	7506.91	676.68	7744.68	721.24
7923	724.2								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.15	4502	.15	4891.5	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
4502	4891.5	24.84	24.84	24.84	.1	.3

CROSS SECTION OUTPUT Profile #Max WS

E.G. Elev (ft)	775.36	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.01	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	775.35	Reach Len. (ft)	24.84	24.84	24.84
Crit W.S. (ft)		Flow Area (sq ft)	670325.20	73373.66	354459.60
E.G. Slope (ft/ft)	0.000009	Area (sq ft)	670325.20	73373.66	354459.60
Q Total (cfs)	858787.90	Flow (cfs)	545053.00	69632.44	244102.40
Top Width (ft)	7923.00	Top Width (ft)	4502.00	389.50	3031.50
Vel Total (ft/s)	0.78	Avg. Vel. (ft/s)	0.81	0.95	0.69
Max Chl Dpth (ft)	195.09	Hydr. Depth (ft)	148.90	188.38	116.93
Conv. Total (cfs)	291665600.0	Conv. (cfs)	185113500.0	23648890.0	82903210.0
Length Wtd. (ft)	24.84	Wetted Per. (ft)	4554.21	395.36	3089.70
Min Ch El (ft)	580.26	Shear (lb/sq ft)	0.08	0.10	0.06
Alpha	1.03	Stream Power (lb/ft s)	0.06	0.10	0.04
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	39375.53	8797.39	56907.16
C & E Loss (ft)		Cum SA (acres)	282.77	45.69	399.15

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION

RIVER: PALUXY
REACH: PALUXY RIVER RS: 9925.44*

INPUT
Description:
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	737.38	209.58	728.75	283.87	716.75	390.33	706.95	425.81	715.98
567.75	702.9	780.65	638.19	978.03	618.37	1277.43	611.3	1703.24	604.76
1746.48	604.35	1845.17	604.92	1987.11	605.33	2093.56	604.1	2165.64	604.1
2794.38	610	2980.67	610	3300.02	612.05	3548.41	610.82	3832.29	610
3912.12	610	4051.84	604.1	4471	604.1	4541.5	580.23	4712	580.23
4860.75	604.1	5072.17	613.38	5132.58	620.24	5344	629.52	5706.45	635.31
5827.26	643.14	6068.89	652.89	6310.51	662.65	6431.33	666.94	6582.35	664.04
6642.75	665.01	6793.77	670.37	6854.18	671.34	7035.4	671.28	7156.21	664.36
7246.82	665.81	7277.02	673.37	7307.23	672.67	7518.65	676.05	7760.28	721.21
7941.5	724.1								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.15	4471	.15	4860.75	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
4471	4860.75	24.84	24.84	24.84	.1	.3

CROSS SECTION OUTPUT Profile #Max WS

E.G. Elev (ft)	775.36	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.01	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	775.35	Reach Len. (ft)	24.84	24.84	24.84
Crit W.S. (ft)		Flow Area (sq ft)	665847.90	73432.67	360828.50
E.G. Slope (ft/ft)	0.000009	Area (sq ft)	665847.90	73432.67	360828.50
Q Total (cfs)	858785.40	Flow (cfs)	540713.30	69603.23	248468.90
Top Width (ft)	7941.50	Top Width (ft)	4471.00	389.75	3080.75
Vel Total (ft/s)	0.78	Avg. Vel. (ft/s)	0.81	0.95	0.69
Max Chl Dpth (ft)	195.12	Hydr. Depth (ft)	148.93	188.41	117.12
Conv. Total (cfs)	292066600.0	Conv. (cfs)	183892600.0	23671550.0	84502450.0
Length Wtd. (ft)	24.84	Wetted Per. (ft)	4523.21	395.58	3139.09
Min Ch El (ft)	580.23	Shear (lb/sq ft)	0.08	0.10	0.06
Alpha	1.03	Stream Power (lb/ft s)	0.06	0.09	0.04
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	38994.55	8755.53	56703.21
C & E Loss (ft)		Cum SA (acres)	280.22	45.47	397.41

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION

RIVER: PALUXY
REACH: PALUXY RIVER RS: 9900.6*

INPUT

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                                                                    TXU_Rev1.rep
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   737.2  208.12  729.03   281.9  717.04  387.62  707.06  422.86  715.74
  563.81  702.44  775.24  638.49  971.25  618.41 1268.57  611.32 1691.43  604.68
 1734.38  604.24 1832.38   604.8 1973.33   605.2 2079.05     604 2150.62     604
    2775     610    2960     610 3277.14     612 3523.81   610.8 3805.71     610
    3885     610 4023.75     604    4440     604    4510   580.2    4680   580.2
    4830     604  5044.8  613.29 5106.18  620.24 5320.98  629.53 5689.22  635.18
 5811.96  643.06 6057.45  652.82 6302.94  662.59 6425.69  666.87 6579.12  663.82
 6640.49  664.76 6793.92  670.12 6855.29  671.06 7039.41  670.88 7162.16  663.76
 7254.22  665.18  7284.9  672.85 7315.59  672.12 7530.39  675.41 7775.88  721.18
    7960     724

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    4440     .15    4830     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          4440    4830            24.84   24.84   24.84              .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.36    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.35    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)        661367.80   73491.77   367223.30
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)             661367.80   73491.77   367223.30
  Q Total (cfs)           858783.10    Flow (cfs)              536364.60   69572.14   252846.40
  Top Width (ft)           7960.00    Top Width (ft)            4440.00     390.00     3130.00
  Vel Total (ft/s)            0.78    Avg. Vel. (ft/s)             0.81       0.95        0.69
  Max Chl Dpth (ft)         195.15    Hydr. Depth (ft)           148.96     188.44      117.32
  Conv. Total (cfs)       292476400.0    Conv. (cfs)           182670100.0   23694230.0   86112070.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)          4492.23     395.81     3188.49
  Min Ch El (ft)            580.20    Shear (lb/sq ft)             0.08       0.10        0.06
  Alpha                       1.03    Stream Power (lb/ft s)       0.06       0.09        0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)     38616.13    8713.64    56495.63
  C & E Loss (ft)                     Cum SA (acres)             277.67      45.25      395.64

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 9875.76*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  737.02  206.67   729.3  279.94  717.32  384.91  707.18   419.9   715.5
  559.87  701.98  769.83   638.8  964.47  618.45 1259.71  611.35 1679.62  604.59
 1722.27  604.14 1819.59  604.68 1959.56  605.07 2064.53   603.9 2135.61   603.9
 2755.62     610 2939.33     610 3254.26  611.95 3499.21  610.78 3779.14     610
 3857.88     610 3995.66   603.9    4409   603.9  4478.5  580.17    4648  580.17
 4799.25   603.9 5017.43  613.21 5079.77  620.23 5297.96  629.54 5671.99  635.05
 5796.66  642.98 6046.01  652.75 6295.37  662.52 6420.04   666.8 6575.89   663.6
 6638.23  664.52 6794.07  669.86 6856.41  670.78 7043.43  670.49  7168.1  663.17
 7261.61  664.55 7292.78  672.33 7323.95  671.56 7542.13  674.78 7791.49  721.15
  7978.5   723.9

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    4409     .15 4799.25     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          4409 4799.25            24.84   24.84   24.84              .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.36    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.35    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)        656882.30   73550.88   373635.40
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)             656882.30   73550.88   373635.40
  Q Total (cfs)           858780.70    Flow (cfs)              532012.30   69539.92   257228.40
  Top Width (ft)           7978.50    Top Width (ft)            4409.00     390.25     3179.25
  Vel Total (ft/s)            0.78    Avg. Vel. (ft/s)             0.81       0.95        0.69
  Max Chl Dpth (ft)         195.18    Hydr. Depth (ft)           148.99     188.47      117.52
  Conv. Total (cfs)       292890900.0    Conv. (cfs)           181445100.0   23716900.0   87728880.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)          4461.25     396.04     3237.89
  Min Ch El (ft)            580.17    Shear (lb/sq ft)             0.08       0.10        0.06
  Alpha                       1.03    Stream Power (lb/ft s)       0.06       0.09        0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)     38240.27    8671.72    56284.39
  C & E Loss (ft)                     Cum SA (acres)             275.15      45.03      393.84

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 9850.92*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  736.84  205.22  729.57  277.97  717.61  382.21   707.3  416.95  715.26
  555.94  701.52  764.41  639.11  957.69  618.49 1250.86  611.37 1667.81   604.5
 1710.16  604.03 1806.79  604.56 1945.78  604.94 2050.02   603.8 2120.59   603.8
 2736.25     610 2918.67     610 3231.38   611.9  3474.6  610.76 3752.57     610
 3830.75     610 3967.56   603.8    4378   603.8    4447  580.14    4616  580.14
                                                                    Page 36
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                                                                    TXU_Rev1.rep
  4768.5   603.8 4990.06  613.13 5053.37  620.22 5274.93  629.55 5654.75  634.92
 5781.36  642.91 6034.58  652.68 6287.79  662.46  6414.4  666.73 6572.66  663.38
 6635.97  664.28 6794.23  669.61 6857.53  670.51 7047.44  670.09 7174.05  662.58
    7269  663.92 7300.66   671.8 7332.31  671.01 7553.87  674.14 7807.09  721.12
    7997   723.8

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    4378     .15  4768.5     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          4378  4768.5            24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.36    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.35    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)       652399.40   73610.13   380064.40
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)            652399.40   73610.13   380064.40
  Q Total (cfs)           858778.20    Flow (cfs)             527660.90   69506.06   261611.20
  Top Width (ft)           7997.00    Top Width (ft)          4378.00     390.50     3228.50
  Vel Total (ft/s)            0.78    Avg. Vel. (ft/s)           0.81       0.94        0.69
  Max Chl Dpth (ft)         195.21    Hydr. Depth (ft)         149.02     188.50      117.72
  Conv. Total (cfs)       293313400.0    Conv. (cfs)          180221200.0   23739610.0   89352630.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)        4430.28     396.27     3287.29
  Min Ch El (ft)            580.14    Shear (lb/sq ft)           0.08       0.10        0.06
  Alpha                       1.03    Stream Power (lb/ft s)     0.06       0.09        0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)   37866.96    8629.76    56069.49
  C & E Loss (ft)                     Cum SA (acres)           272.65      44.80      392.01

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 9826.08*

INPUT
Description:
Station Elevation Data    num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  736.66  203.77  729.85     276  717.89   379.5  707.42     414  715.03
     552  701.06     759  639.42  950.91  618.53    1242  611.39    1656  604.41
 1698.05  603.93    1794  604.44    1932  604.81  2035.5   603.7 2105.58   603.7
 2716.88     610    2898     610  3208.5  611.85    3450  610.74    3726     610
 3803.63     610 3939.47   603.7    4347   603.7  4415.5  580.11    4584  580.11
 4737.75   603.7 4962.69  613.05 5026.96  620.22 5251.91  629.56 5637.52  634.79
 5766.06  642.83 6023.14  652.61 6280.22  662.39 6408.76  666.66 6569.43  663.16
  6633.7  664.03 6794.38  669.36 6858.65  670.23 7051.46  669.69    7180  661.98
  7276.4  663.29 7308.53  671.28 7340.67  670.46 7565.61  673.51 7822.69  721.09
  8015.5   723.7

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    4347     .15 4737.75     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          4347 4737.75              24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.36    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.35    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)       647912.10   73669.42   386515.80
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)            647912.10   73669.42   386515.80
  Q Total (cfs)           858775.80    Flow (cfs)             523303.20   69470.71   266001.90
  Top Width (ft)           8015.50    Top Width (ft)          4347.00     390.75     3277.75
  Vel Total (ft/s)            0.78    Avg. Vel. (ft/s)           0.81       0.94        0.69
  Max Chl Dpth (ft)         195.24    Hydr. Depth (ft)         149.05     188.53      117.92
  Conv. Total (cfs)       293742800.0    Conv. (cfs)          178995000.0   23762340.0   90985490.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)        4399.31     396.50     3336.69
  Min Ch El (ft)            580.11    Shear (lb/sq ft)           0.08       0.10        0.06
  Alpha                       1.03    Stream Power (lb/ft s)     0.06       0.09        0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)   37496.21    8587.77    55850.92
  C & E Loss (ft)                     Cum SA (acres)           270.16      44.58      390.16

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 9801.24*

INPUT
Description:
Station Elevation Data    num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  736.48  202.31  730.12  274.03  718.17  376.79  707.54  411.05  714.79
  548.06   700.6  753.59  639.73   944.13  618.57 1233.14  611.41 1644.19  604.32
 1685.94  603.82 1781.21  604.32 1918.22  604.68 2020.98   603.6 2090.56   603.6
  2697.5     610 2877.33     610 3185.62   611.8  3425.4  610.72 3699.43     610
  3776.5     610 3911.38   603.6    4316   603.6    4384  580.08    4552  580.08
    4707   603.6 4935.32  612.96 5000.56  620.21 5228.88  629.58 5620.29  634.66
 5750.76  642.75 6011.71  652.54 6272.65  662.33 6403.12  666.58 6566.21  662.94
 6631.44  663.79 6794.53  669.11 6859.76  669.95 7055.47  669.29 7185.94  661.39
 7283.79  662.66 7316.41  670.76 7349.03  669.91 7577.35  672.87 7838.29  721.06
    8034   723.6

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
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                                                                    TXU_Rev1.rep
      0     .15    4316     .15    4707     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          4316    4707             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.36    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.35    Reach Len. (ft)            24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)       643425.80   73728.74   392986.50
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)            643425.80   73728.74   392986.50
  Q Total (cfs)           858773.40    Flow (cfs)             518944.80   69433.48   270395.10
  Top Width (ft)           8034.00    Top Width (ft)          4316.00     391.00     3327.00
  Vel Total (ft/s)            0.77    Avg. Vel. (ft/s)           0.81       0.94       0.69
  Max Chl Dpth (ft)         195.27    Hydr. Depth (ft)         149.08     188.56     118.12
  Conv. Total (cfs)       294180400.0    Conv. (cfs)          177769100.0   23785050.0   92626220.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)        4368.35     396.73     3386.09
  Min Ch El (ft)            580.08    Shear (lb/sq ft)           0.08       0.10       0.06
  Alpha                       1.03    Stream Power (lb/ft s)     0.06       0.09       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    37128.02    8545.74   55628.67
  C & E Loss (ft)                     Cum SA (acres)            267.69      44.36     388.27

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 9776.4*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   736.3  200.86   730.4  272.06  718.46  374.09  707.65   408.1  714.55
  544.13  700.15  748.17  640.03  937.34  618.61 1224.29  611.44 1632.38  604.23
 1673.83  603.71 1768.41   604.2 1904.44  604.55 2006.47   603.5 2075.55   603.5
 2678.13     610 2856.67     610 3162.74  611.75 3400.79   610.7 3672.86     610
 3749.38     610 3883.28   603.5    4285   603.5  4352.5  580.05    4520  580.05
 4676.25   603.5 4907.95  612.88 4974.15  620.21 5205.86  629.59 5603.06  634.53
 5735.47  642.68 6000.27  652.47 6265.07  662.26 6397.48  666.51 6562.98  662.72
 6629.18  663.54 6794.68  668.85 6860.88  669.68 7059.49   668.9 7191.89  660.79
 7291.19  662.03 7324.29  670.24 7357.39  669.35 7589.09  672.24  7853.9  721.03
  8052.5   723.5

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    4285     .15 4676.25     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          4285 4676.25             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.36    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.35    Reach Len. (ft)            24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)       638932.90   73788.17   399475.10
  E.G. Slope (ft/ft)      0.000008    Area (sq ft)            638932.90   73788.17   399475.10
  Q Total (cfs)           858770.90    Flow (cfs)             514582.40   69395.51   274793.00
  Top Width (ft)           8052.50    Top Width (ft)          4285.00     391.25     3376.25
  Vel Total (ft/s)            0.77    Avg. Vel. (ft/s)           0.81       0.94       0.69
  Max Chl Dpth (ft)         195.30    Hydr. Depth (ft)         149.11     188.60     118.32
  Conv. Total (cfs)       294622100.0    Conv. (cfs)          176539900.0   23807800.0   94274370.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)        4337.40     396.96     3435.50
  Min Ch El (ft)            580.05    Shear (lb/sq ft)           0.08       0.10       0.06
  Alpha                       1.03    Stream Power (lb/ft s)     0.06       0.09       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    36762.39    8503.68   55402.72
  C & E Loss (ft)                     Cum SA (acres)            265.24      44.14     386.36

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 9751.56*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  736.12  199.41  730.67   270.1  718.74  371.38  707.77  405.14  714.31
  540.19  699.69  742.76  640.34  930.56  618.65 1215.43  611.46 1620.57  604.14
 1661.72  603.61 1755.62  604.08 1890.67  604.42 1991.95   603.4 2060.53   603.4
 2658.75     610    2836     610 3139.86   611.7 3376.19  610.68 3646.29     610
 3722.25     610 3855.19   603.4    4254   603.4    4321  580.02    4488  580.02
  4645.5   603.4 4880.58   612.8 4947.75   620.2 5182.83   629.6 5585.83   634.4
 5720.17   642.6 5988.83   652.4  6257.5   662.2 6391.83  666.44 6559.75   662.5
 6626.92   663.3 6794.83   668.6    6862   669.4  7063.5   668.5 7197.83   660.2
 7298.58   661.4 7332.17  669.72 7365.75   668.8 7600.83   671.6  7869.5     721
    8071   723.4

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    4254     .15  4645.5     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          4254  4645.5             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.36    Element                   Left OB    Channel   Right OB
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                                                                    TXU_Rev1.rep
  Vel Head (ft)                0.01    Wt. n-Val.                    0.150      0.150      0.150
  W.S. Elev (ft)             775.35    Reach Len. (ft)               24.84      24.84      24.84
  Crit W.S. (ft)                       Flow Area (sq ft)        634441.80   73847.63   405985.10
  E.G. Slope (ft/ft)       0.000008    Area (sq ft)             634441.80   73847.63   405985.10
  Q Total (cfs)            858768.50    Flow (cfs)              510219.00   69355.41   279194.20
  Top Width (ft)            8071.00    Top Width (ft)            4254.00     391.50     3425.50
  Vel Total (ft/s)             0.77    Avg. Vel. (ft/s)             0.80       0.94        0.69
  Max Chl Dpth (ft)          195.33    Hydr. Depth (ft)           149.14     188.63      118.52
  Conv. Total (cfs)        295073300.0    Conv. (cfs)           175311500.0   23830550.0   95931260.0
  Length Wtd. (ft)            24.84    Wetted Per. (ft)          4306.45     397.19     3484.90
  Min Ch El (ft)             580.02    Shear (lb/sq ft)             0.08       0.10        0.06
  Alpha                        1.03    Stream Power (lb/ft s)       0.06       0.09        0.04
  Frctn Loss (ft)              0.00    Cum Volume (acre-ft)     36399.32    8461.58    55173.06
  C & E Loss (ft)                      Cum SA (acres)             262.80      43.91      384.42

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 9726.72*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  735.94  197.95  730.95  268.13  719.03  368.67  707.89  402.19  714.08
  536.25  699.23  737.35  640.65  923.78  618.69 1206.57  611.48 1608.76  604.05
 1649.61   603.5 1742.83  603.96 1876.89  604.29 1977.44   603.3 2045.52   603.3
 2639.38     610 2815.33     610 3116.98  611.65 3351.59  610.66 3619.71     610
 3695.13     610 3827.09   603.3    4223   603.3  4289.5  579.99    4456  579.99
 4614.75   603.3 4853.21  612.72 4921.35  620.19 5159.81  629.61  5568.6  634.27
 5704.87  642.52  5977.4  652.33 6249.93  662.14 6386.19  666.37 6556.52  662.28
 6624.65  663.06 6794.99  668.35 6863.12  669.12 7067.51   668.1 7203.78  659.61
 7305.98  660.77 7340.04   669.2 7374.11  668.25 7612.57  670.96  7885.1  720.97
  8089.5   723.3

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    4223     .15 4614.75     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          4223 4614.75             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)             775.36    Element                   Left OB    Channel   Right OB
  Vel Head (ft)                0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)             775.35    Reach Len. (ft)            24.84      24.84      24.84
  Crit W.S. (ft)                       Flow Area (sq ft)        629947.00   73907.20   412515.10
  E.G. Slope (ft/ft)       0.000008    Area (sq ft)             629947.00   73907.20   412515.10
  Q Total (cfs)            858766.10    Flow (cfs)              505852.30   69314.03   283599.80
  Top Width (ft)            8089.50    Top Width (ft)            4223.00     391.75     3474.75
  Vel Total (ft/s)             0.77    Avg. Vel. (ft/s)             0.80       0.94        0.69
  Max Chl Dpth (ft)          195.36    Hydr. Depth (ft)           149.17     188.66      118.72
  Conv. Total (cfs)        295530900.0    Conv. (cfs)           174081100.0   23853340.0   97596420.0
  Length Wtd. (ft)            24.84    Wetted Per. (ft)          4275.51     397.42     3534.31
  Min Ch El (ft)             579.99    Shear (lb/sq ft)             0.08       0.10        0.06
  Alpha                        1.03    Stream Power (lb/ft s)       0.06       0.09        0.04
  Frctn Loss (ft)              0.00    Cum Volume (acre-ft)     36038.81    8419.45    54939.69
  C & E Loss (ft)                      Cum SA (acres)             260.38      43.69      382.45

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 9701.88*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  735.76   196.5  731.22  266.16  719.31  365.97  708.01  399.24  713.84
  532.32  698.77  731.94  640.96     917  618.73 1197.71   611.5 1596.95  603.97
  1637.5   603.4 1730.03  603.84 1863.11  604.16 1962.92   603.2  2030.5   603.2
    2620     610 2794.67     610  3094.1   611.6 3326.98  610.64 3593.14     610
    3668     610    3799   603.2    4192   603.2    4258  579.96    4424  579.96
    4584   603.2 4825.84  612.64 4894.94  620.19 5136.78  629.62 5551.37  634.14
 5689.57  642.45 5965.96  652.26 6242.35  662.07 6380.55   666.3 6553.29  662.06
 6622.39  662.81 6795.14  668.09 6864.24  668.85 7071.53  667.71 7209.73  659.01
 7313.37  660.14 7347.92  668.68 7382.47  667.69 7624.31  670.33 7900.71  720.94
    8108   723.2

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    4192     .15    4584     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          4192    4584             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)             775.36    Element                   Left OB    Channel   Right OB
  Vel Head (ft)                0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)             775.35    Reach Len. (ft)            24.84      24.84      24.84
  Crit W.S. (ft)                       Flow Area (sq ft)        625450.10   73966.84   419062.50
  E.G. Slope (ft/ft)       0.000008    Area (sq ft)             625450.10   73966.84   419062.50
  Q Total (cfs)            858763.60    Flow (cfs)              501485.60   69271.39   288006.60
  Top Width (ft)            8108.00    Top Width (ft)            4192.00     392.00     3524.00
  Vel Total (ft/s)             0.77    Avg. Vel. (ft/s)             0.80       0.94        0.69
  Max Chl Dpth (ft)          195.39    Hydr. Depth (ft)           149.20     188.69      118.92
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                                                                    TXU_Rev1.rep
  Conv. Total (cfs)        295994700.0    Conv. (cfs)              172849700.0   23876140.0   99268800.0
  Length Wtd. (ft)            24.84    Wetted Per. (ft)          4244.58     397.65    3583.72
  Min Ch El (ft)             579.96    Shear (lb/sq ft)             0.08       0.10       0.06
  Alpha                        1.03    Stream Power (lb/ft s)       0.06       0.09       0.04
  Frctn Loss (ft)              0.00    Cum Volume (acre-ft)     35680.86    8377.29   54702.59
  C & E Loss (ft)                      Cum SA (acres)             257.98      43.47     380.46

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 9677.04*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  735.58  195.05  731.49  264.19  719.59  363.26  708.12  396.29   713.6
  528.38  698.31  726.52  641.27  910.22  618.77 1188.86  611.52 1585.14  603.88
 1625.39  603.29 1717.24  603.72 1849.33  604.03 1948.41   603.1 2015.48   603.1
 2600.63     610    2774     610 3071.21  611.55 3302.38  610.62 3566.57     610
 3640.88     610 3770.91   603.1    4161   603.1  4226.5  579.93    4392  579.93
 4553.25   603.1 4798.47  612.55 4868.54  620.18 5113.76  629.64 5534.14  634.01
 5674.27  642.37 5954.52  652.19 6234.78  662.01 6374.91  666.22 6550.07  661.84
 6620.13  662.57 6795.29  667.84 6865.35  668.57 7075.54  667.31 7215.67  658.42
 7320.77  659.51  7355.8  668.16 7390.83  667.14 7636.05  669.69 7916.31  720.91
  8126.5   723.1

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    4161     .15 4553.25     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          4161 4553.25             24.84   24.84   24.84              .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)             775.36    Element                   Left OB    Channel   Right OB
  Vel Head (ft)                0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)             775.35    Reach Len. (ft)            24.84      24.84      24.84
  Crit W.S. (ft)                       Flow Area (sq ft)       620954.50   74026.47   425630.80
  E.G. Slope (ft/ft)       0.000008    Area (sq ft)            620954.50   74026.47   425630.80
  Q Total (cfs)            858761.20    Flow (cfs)             497118.50   69226.74   292416.00
  Top Width (ft)            8126.50    Top Width (ft)           4161.00     392.25    3573.25
  Vel Total (ft/s)             0.77    Avg. Vel. (ft/s)            0.80       0.94       0.69
  Max Chl Dpth (ft)          195.42    Hydr. Depth (ft)          149.23     188.72     119.12
  Conv. Total (cfs)        296467400.0    Conv. (cfs)            171618600.0   23898930.0   100949800.0
  Length Wtd. (ft)            24.84    Wetted Per. (ft)          4213.65     397.88    3633.12
  Min Ch El (ft)             579.93    Shear (lb/sq ft)             0.08       0.10       0.06
  Alpha                        1.03    Stream Power (lb/ft s)       0.06       0.09       0.04
  Frctn Loss (ft)              0.00    Cum Volume (acre-ft)     35325.48    8335.10   54461.74
  C & E Loss (ft)                      Cum SA (acres)             255.60      43.24     378.44

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 9652.2*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   735.4  193.59  731.77  262.22  719.88  360.56  708.24  393.33  713.36
  524.44  697.85  721.11  641.58  903.44  618.81    1180  611.55 1573.33  603.79
 1613.28  603.18 1704.44   603.6 1835.56   603.9 1933.89     603 2000.47     603
 2581.25     610 2753.33     610 3048.33   611.5 3277.78   610.6    3540     610
 3613.75     610 3742.81     603    4130     603    4195   579.9    4360   579.9
  4522.5     603  4771.1  612.47 4842.13  620.18 5090.74  629.65 5516.91  633.88
 5658.97  642.29 5943.09  652.12 6227.21  661.94 6369.26  666.15 6546.84  661.62
 6617.87  662.32 6795.44  667.59 6866.47  668.29 7079.56  666.91 7221.62  657.82
 7328.16  658.88 7363.68  667.64 7399.19  666.59 7647.79  669.06 7931.91  720.88
    8145     723

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    4130     .15  4522.5     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          4130  4522.5             24.84   24.84   24.84              .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)             775.36    Element                   Left OB    Channel   Right OB
  Vel Head (ft)                0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)             775.35    Reach Len. (ft)            24.84      24.84      24.84
  Crit W.S. (ft)                       Flow Area (sq ft)       616451.90   74086.27   432220.20
  E.G. Slope (ft/ft)       0.000008    Area (sq ft)            616451.90   74086.27   432220.20
  Q Total (cfs)            858758.70    Flow (cfs)             492746.60   69181.16   296830.90
  Top Width (ft)            8145.00    Top Width (ft)           4130.00     392.50    3622.50
  Vel Total (ft/s)             0.76    Avg. Vel. (ft/s)            0.80       0.93       0.69
  Max Chl Dpth (ft)          195.45    Hydr. Depth (ft)          149.26     188.75     119.32
  Conv. Total (cfs)        296945500.0    Conv. (cfs)            170384200.0   23921780.0   102639500.0
  Length Wtd. (ft)            24.84    Wetted Per. (ft)          4182.73     398.12    3682.53
  Min Ch El (ft)             579.90    Shear (lb/sq ft)             0.08       0.10       0.06
  Alpha                        1.03    Stream Power (lb/ft s)       0.06       0.09       0.04
  Frctn Loss (ft)              0.00    Cum Volume (acre-ft)     34972.67    8292.87   54217.15
  C & E Loss (ft)                      Cum SA (acres)             253.24      43.02     376.38
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Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 9627.36*

INPUT
Description:
Station Elevation Data     num=      46
      Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
        0  735.22  192.14  732.04  260.25  720.16  357.85  708.36  390.38  713.13
   520.51  697.39   715.7  641.88  896.66  618.85 1171.14  611.57 1561.52   603.7
  1601.17  603.08 1691.65  603.48 1821.78  603.77 1919.37   602.9 1985.45   602.9
  2561.88      610 2732.67     610 3025.45  611.45 3253.18  610.58 3513.43     610
  3586.63      610 3714.72   602.9    4099   602.9  4163.5  579.87    4328  579.87
  4491.75    602.9 4743.73  612.39 4815.73  620.17 5067.71  629.66 5499.68  633.75
  5643.67   642.22 5931.65  652.05 6219.63  661.88 6363.62  666.08 6543.61   661.4
  6615.61   662.08 6795.59  667.34 6867.59  668.02 7083.57  666.51 7227.56  657.23
  7335.56   658.25 7371.55  667.11 7407.55  666.04 7659.53  668.42 7947.51  720.85
   8163.5    722.9

Manning's n Values         num=       3
      Sta   n Val     Sta   n Val     Sta   n Val
        0     .15    4099     .15 4491.75     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          4099 4491.75             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.36    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.35    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)       611952.10   74146.08   438825.20
  E.G. Slope (ft/ft)      0.000008    Area (sq ft)            611952.10   74146.08   438825.20
  Q Total (cfs)           858756.30    Flow (cfs)             488379.40   69133.95   301243.00
  Top Width (ft)           8163.50    Top Width (ft)           4099.00     392.75    3671.75
  Vel Total (ft/s)            0.76    Avg. Vel. (ft/s)            0.80       0.93       0.69
  Max Chl Dpth (ft)         195.48    Hydr. Depth (ft)          149.29     188.79     119.51
  Conv. Total (cfs)       297431100.0    Conv. (cfs)           169150700.0   23944610.0   104335800.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)         4151.82     398.35    3731.94
  Min Ch El (ft)            579.87    Shear (lb/sq ft)            0.08       0.10       0.06
  Alpha                       1.03    Stream Power (lb/ft s)      0.06       0.09       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    34622.43    8250.60   53968.79
  C & E Loss (ft)                     Cum SA (acres)            250.89      42.79     374.30


Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 9602.52*

INPUT
Description:
Station Elevation Data     num=      46
      Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
        0  735.04  190.69  732.32  258.29  720.45  355.14  708.48  387.43  712.89
   516.57  696.93  710.29  642.19  889.88  618.89 1162.29  611.59 1549.71  603.61
  1589.06  602.97 1678.86  603.36    1808  603.64 1904.86   602.8 1970.44   602.8
   2542.5      610    2712     610 3002.57   611.4 3228.57  610.56 3486.86     610
   3559.5      610 3686.63   602.8    4068   602.8    4132  579.84    4296  579.84
     4461    602.8 4716.36  612.31 4789.32  620.16 5044.69  629.67 5482.45  633.62
  5628.37   642.14 5920.22  651.98 6212.06  661.81 6357.98  666.01 6540.38  661.18
  6613.34   661.84 6795.75  667.08 6868.71  667.74 7087.59  666.12 7233.51  656.64
  7342.95   657.62 7379.43  666.59 7415.91  665.48 7671.27  667.79 7963.12  720.82
     8182    722.8

Manning's n Values         num=       3
      Sta   n Val     Sta   n Val     Sta   n Val
        0     .15    4068     .15    4461     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          4068    4461             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.36    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.35    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)       607448.10   74205.95   445453.40
  E.G. Slope (ft/ft)      0.000008    Area (sq ft)            607448.10   74205.95   445453.40
  Q Total (cfs)           858753.80    Flow (cfs)             484008.10   69085.16   305660.50
  Top Width (ft)           8182.00    Top Width (ft)           4068.00     393.00    3721.00
  Vel Total (ft/s)            0.76    Avg. Vel. (ft/s)            0.80       0.93       0.69
  Max Chl Dpth (ft)         195.51    Hydr. Depth (ft)          149.32     188.82     119.71
  Conv. Total (cfs)       297924400.0    Conv. (cfs)           167915200.0   23967470.0   106041700.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)         4120.92     398.58    3781.35
  Min Ch El (ft)            579.84    Shear (lb/sq ft)            0.08       0.10       0.06
  Alpha                       1.03    Stream Power (lb/ft s)      0.06       0.09       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    34274.75    8208.30   53716.66
  C & E Loss (ft)                     Cum SA (acres)            248.56      42.57     372.20


Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 9577.68*
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                                                                    TXU_Rev1.rep
INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  734.86  189.23  732.59  256.32  720.73  352.44   708.6  384.48  712.65
  512.64  696.47  704.87   642.5  883.09  618.93 1153.43  611.61 1537.91  603.52
 1576.95  602.86 1666.06  603.24 1794.22  603.51 1890.34   602.7 1955.42   602.7
 2523.13     610 2691.33     610 2979.69  611.35 3203.97  610.54 3460.29     610
 3532.38     610 3658.53   602.7    4037   602.7  4100.5  579.81    4264  579.81
 4430.25   602.7 4688.99  612.22 4762.92  620.16 5021.66  629.68 5465.22  633.49
 5613.07  642.06 5908.78  651.91 6204.49  661.75 6352.34  665.94 6537.15  660.96
 6611.08  661.59  6795.9  666.83 6869.82  667.46  7091.6  665.72 7239.46  656.04
 7350.35  656.99 7387.31  666.07 7424.27  664.93 7683.01  667.15 7978.72  720.79
  8200.5   722.7

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    4037     .15 4430.25     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          4037 4430.25            24.84   24.84   24.84              .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.36    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.35    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)        602944.90   74265.91   452103.60
  E.G. Slope (ft/ft)      0.000008    Area (sq ft)             602944.90   74265.91   452103.60
  Q Total (cfs)           858751.30    Flow (cfs)              479637.10   69034.48   310079.80
  Top Width (ft)           8200.50    Top Width (ft)           4037.00     393.25     3770.25
  Vel Total (ft/s)            0.76    Avg. Vel. (ft/s)            0.80       0.93        0.69
  Max Chl Dpth (ft)         195.54    Hydr. Depth (ft)          149.35     188.85      119.91
  Conv. Total (cfs)       298426800.0    Conv. (cfs)           166679900.0   23990350.0   107756600.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)         4090.02     398.82     3830.76
  Min Ch El (ft)            579.81    Shear (lb/sq ft)            0.08       0.10        0.06
  Alpha                       1.03    Stream Power (lb/ft s)      0.06       0.09        0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    33929.63    8165.97    53460.75
  C & E Loss (ft)                     Cum SA (acres)            246.25      42.35      370.06

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 9552.84*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  734.68  187.78  732.87  254.35  721.01  349.73  708.71  381.52  712.41
   508.7  696.01  699.46  642.81  876.31  618.97 1144.57  611.63  1526.1  603.43
 1564.84  602.76 1653.27  603.12 1780.44  603.38 1875.83   602.6 1940.41   602.6
 2503.75     610 2670.67     610 2956.81   611.3 3179.37  610.52 3433.71     610
 3505.25     610 3630.44   602.6    4006   602.6    4069  579.78    4232  579.78
  4399.5   602.6 4661.62  612.14 4736.52  620.15 4998.64  629.69 5447.99  633.36
 5597.77  641.99 5897.34  651.84 6196.91  661.68  6346.7  665.87 6533.93  660.74
 6608.82  661.35 6796.05  666.58 6870.94  667.19 7095.62  665.32  7245.4  655.45
 7357.74  656.36 7395.19  665.55 7432.63  664.38 7694.75  666.52 7994.32  720.76
    8219   722.6

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    4006     .15  4399.5     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          4006  4399.5            24.84   24.84   24.84              .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.36    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.35    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)        598438.10   74325.91   458766.10
  E.G. Slope (ft/ft)      0.000008    Area (sq ft)             598438.10   74325.91   458766.10
  Q Total (cfs)           858748.90    Flow (cfs)              475269.60   68983.23   314496.10
  Top Width (ft)           8219.00    Top Width (ft)           4006.00     393.50     3819.50
  Vel Total (ft/s)            0.76    Avg. Vel. (ft/s)            0.79       0.93        0.69
  Max Chl Dpth (ft)         195.57    Hydr. Depth (ft)          149.39     188.88      120.11
  Conv. Total (cfs)       298932700.0    Conv. (cfs)           165442600.0   24013240.0   109476900.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)         4059.13     399.05     3880.17
  Min Ch El (ft)            579.78    Shear (lb/sq ft)            0.08       0.10        0.06
  Alpha                       1.03    Stream Power (lb/ft s)      0.06       0.09        0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    33587.09    8123.60    53201.04
  C & E Loss (ft)                     Cum SA (acres)            243.96      42.12      367.90

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 9528.00*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   734.5  186.33  733.14  252.38   721.3  347.02  708.83  378.57  712.18
  504.76  695.55  694.05  643.12  869.53  619.01 1135.71  611.66 1514.29  603.34
 1552.73  602.65 1640.48     603 1766.67  603.25 1861.31   602.5 1925.39   602.5
 2484.38     610    2650     610 2933.93  611.25 3154.76   610.5 3407.14     610
                                                                  Page 42
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                                                                    TXU_Rev1.rep
 3478.13      610 3602.34   602.5    3975   602.5  4037.5  579.75     4200  579.75
 4368.75    602.5 4634.25  612.06 4710.11  620.15 4975.61  629.71 5430.76  633.24
 5582.48   641.91 5885.91  651.76 6189.34  661.62 6341.05  665.79  6530.7  660.51
 6606.56    661.1  6796.2  666.32 6872.06  666.91 7099.63  664.93 7251.35  654.85
 7365.13   655.74 7403.06  665.03 7440.99  663.82 7706.49  665.88 8009.93  720.74
  8237.5    722.5

Manning's n Values          num=       3
     Sta   n Val      Sta   n Val      Sta   n Val
       0     .15     3975     .15 4368.75     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          3975 4368.75             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.36    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.35    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)        593926.20   74386.03   465451.40
  E.G. Slope (ft/ft)      0.000008    Area (sq ft)             593926.20   74386.03   465451.40
  Q Total (cfs)           858746.40    Flow (cfs)              470898.80   68930.64   318917.00
  Top Width (ft)           8237.50    Top Width (ft)           3975.00     393.75     3868.75
  Vel Total (ft/s)            0.76    Avg. Vel. (ft/s)            0.79       0.93       0.69
  Max Chl Dpth (ft)         195.60    Hydr. Depth (ft)          149.42     188.92     120.31
  Conv. Total (cfs)       299445400.0    Conv. (cfs)            164202700.0   24036160.0   111206600.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)         4028.25     399.29     3929.58
  Min Ch El (ft)            579.75    Shear (lb/sq ft)            0.08       0.10       0.06
  Alpha                       1.02    Stream Power (lb/ft s)      0.06       0.09       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    33247.12    8081.20   52937.52
  C & E Loss (ft)                     Cum SA (acres)            241.68      41.90     365.70

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 9503.16*

INPUT
Description:
Station Elevation Data      num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  734.32  184.88  733.41  250.41  721.58  344.32  708.95  375.62  711.94
  500.83  695.09  688.64  643.43  862.75  619.05 1126.86  611.68 1502.48  603.26
 1540.63  602.55 1627.68  602.88 1752.89  603.12 1846.79   602.4 1910.38   602.4
    2465     610 2629.33     610 2911.05   611.2 3130.16  610.48 3380.57     610
    3451     610 3574.25   602.4    3944   602.4    4006  579.72    4168  579.72
    4338   602.4 4606.88  611.98 4683.71  620.14 4952.59  629.72 5413.53  633.11
 5567.18  641.84 5874.47  651.69 6181.77  661.55 6335.41  665.72 6527.47  660.29
 6604.29  660.86 6796.35  666.07 6873.18  666.64 7103.65  664.53 7257.29  654.26
 7372.53  655.11 7410.94  664.51 7449.35  663.27 7718.23  665.25 8025.53  720.71
    8256   722.4

Manning's n Values          num=       3
     Sta   n Val      Sta   n Val      Sta   n Val
       0     .15     3944     .15     4338     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          3944    4338             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.36    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.35    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)        589413.90   74446.20   472153.60
  E.G. Slope (ft/ft)      0.000008    Area (sq ft)             589413.90   74446.20   472153.60
  Q Total (cfs)           858744.00    Flow (cfs)              466531.50   68876.73   323335.80
  Top Width (ft)           8256.00    Top Width (ft)           3944.00     394.00     3918.00
  Vel Total (ft/s)            0.76    Avg. Vel. (ft/s)            0.79       0.93       0.68
  Max Chl Dpth (ft)         195.63    Hydr. Depth (ft)          149.45     188.95     120.51
  Conv. Total (cfs)       299965000.0    Conv. (cfs)            162962500.0   24059100.0   112943300.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)         3997.38     399.52     3978.99
  Min Ch El (ft)            579.72    Shear (lb/sq ft)            0.08       0.10       0.06
  Alpha                       1.02    Stream Power (lb/ft s)      0.06       0.09       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    32909.72    8038.77   52670.19
  C & E Loss (ft)                     Cum SA (acres)            239.43      41.67     363.48

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 9478.32*

INPUT
Description:
Station Elevation Data      num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  734.14  183.42  733.69  248.44  721.87  341.61  709.07  372.67   711.7
  496.89  694.63  683.22  643.73  855.97  619.09    1118   611.7 1490.67  603.17
 1528.52  602.44 1614.89  602.76 1739.11  602.99 1832.28   602.3 1895.36   602.3
 2445.63     610 2608.67     610 2888.17  611.15 3105.56  610.46    3354     610
 3423.88     610 3546.16   602.3    3913   602.3  3974.5  579.69    4136  579.69
 4307.25   602.3 4579.51  611.89  4657.3  620.14 4929.56  629.73  5396.3  632.98
 5551.88  641.76 5863.03  651.62 6174.19  661.49 6329.77  665.65 6524.24  660.07
 6602.03  660.61  6796.5  665.82 6874.29  666.36 7107.66  664.13 7263.24  653.66
 7379.92  654.48 7418.82  663.99 7457.71  662.72 7729.98  664.61 8041.13  720.68
  8274.5    722.3

Manning's n Values          num=       3
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     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    3913     .15 4307.25     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          3913 4307.25             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.36    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.35    Reach Len. (ft)            24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)       584902.80   74506.41   478882.10
  E.G. Slope (ft/ft)      0.000008    Area (sq ft)            584902.80   74506.41   478882.10
  Q Total (cfs)           858741.50    Flow (cfs)             462162.80   68820.45   327758.30
  Top Width (ft)           8274.50    Top Width (ft)           3913.00     394.25     3967.25
  Vel Total (ft/s)            0.75    Avg. Vel. (ft/s)            0.79       0.92       0.68
  Max Chl Dpth (ft)         195.66    Hydr. Depth (ft)          149.48     188.98     120.71
  Conv. Total (cfs)       300495600.0    Conv. (cfs)            161722600.0   24082040.0   114691000.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)         3966.51     399.76    4028.41
  Min Ch El (ft)            579.69    Shear (lb/sq ft)            0.08       0.10       0.06
  Alpha                       1.02    Stream Power (lb/ft s)      0.06       0.09       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    32574.89    7996.30   52399.03
  C & E Loss (ft)                     Cum SA (acres)            237.19      41.45     361.24

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 9453.48*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  733.96  181.97  733.96  246.48  722.15   338.9  709.18  369.71  711.46
  492.95  694.17  677.81  644.04  849.19  619.13 1109.14  611.72 1478.86  603.08
 1516.41  602.33  1602.1  602.64 1725.33  602.86 1817.76   602.2 1880.34   602.2
 2426.25     610    2588     610 2865.29   611.1 3080.95  610.44 3327.43     610
 3396.75     610 3518.06   602.2    3882   602.2    3943  579.66    4104  579.66
  4276.5   602.2 4552.14  611.81  4630.9  620.13 4906.54  629.74 5379.07  632.85
 5536.58  641.68  5851.6  651.55 6166.62  661.42 6324.13  665.58 6521.01  659.85
 6599.77  660.37 6796.66  665.56 6875.41  666.08 7111.68  663.74 7269.19  653.07
 7387.32  653.85  7426.7  663.47 7466.07  662.16 7741.72  663.98 8056.73  720.65
    8293   722.2

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    3882     .15  4276.5     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          3882  4276.5             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.36    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.35    Reach Len. (ft)            24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)       580390.40   74566.71   485628.30
  E.G. Slope (ft/ft)      0.000008    Area (sq ft)            580390.40   74566.71   485628.30
  Q Total (cfs)           858739.00    Flow (cfs)             457796.90   68762.92   332179.10
  Top Width (ft)           8293.00    Top Width (ft)           3882.00     394.50    4016.50
  Vel Total (ft/s)            0.75    Avg. Vel. (ft/s)            0.79       0.92       0.68
  Max Chl Dpth (ft)         195.66    Hydr. Depth (ft)          149.51     189.02     120.91
  Conv. Total (cfs)       301033100.0    Conv. (cfs)            160481800.0   24105010.0   116446200.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)         3935.66     400.00    4077.82
  Min Ch El (ft)            579.66    Shear (lb/sq ft)            0.07       0.09       0.06
  Alpha                       1.02    Stream Power (lb/ft s)      0.06       0.09       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    32242.64    7953.79   52124.02
  C & E Loss (ft)                     Cum SA (acres)            234.96      41.22     358.96

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 9428.64*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  733.78  180.52  734.24  244.51  722.43   336.2   709.3  366.76  711.22
  489.02  693.71   672.4  644.35  842.41  619.17 1100.29  611.74 1467.05  602.99
  1504.3  602.23  1589.3  602.52 1711.56  602.73 1803.25   602.1 1865.33   602.1
 2406.88     610 2567.33     610 2842.41  611.05 3056.35  610.42 3300.86     610
 3369.63     610 3489.97   602.1    3851   602.1  3911.5  579.63    4072  579.63
 4245.75   602.1 4524.77  611.73 4604.49  620.12 4883.52  629.75 5361.84  632.72
 5521.28  641.61 5840.16  651.48 6159.04  661.36 6318.49  665.51 6517.79  659.63
 6597.51  660.13 6796.81  665.31 6876.53  665.81 7115.69  663.34 7275.13  652.48
 7394.71  653.22 7434.57  662.94 7474.43  661.61 7753.46  663.34 8072.34  720.62
  8311.5   722.1

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    3851     .15 4245.75     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          3851 4245.75             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS
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                                                                    TXU_Rev1.rep
  E.G. Elev (ft)            775.35    Element                      Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                    0.150      0.150      0.150
  W.S. Elev (ft)            775.35    Reach Len. (ft)              24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)        575872.90   74627.05   492389.90
  E.G. Slope (ft/ft)      0.000008    Area (sq ft)             575872.90   74627.05   492389.90
  Q Total (cfs)           858736.60    Flow (cfs)              453433.50   68704.70   336598.40
  Top Width (ft)           8311.50    Top Width (ft)           3851.00     394.75    4065.75
  Vel Total (ft/s)            0.75    Avg. Vel. (ft/s)            0.79       0.92       0.68
  Max Chl Dpth (ft)         195.72    Hydr. Depth (ft)           149.54     189.05     121.11
  Conv. Total (cfs)       301574500.0    Conv. (cfs)            159238500.0   24127980.0   118208000.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)         3904.81     400.23    4127.23
  Min Ch El (ft)            579.63    Shear (lb/sq ft)            0.07       0.09       0.06
  Alpha                       1.02    Stream Power (lb/ft s)      0.06       0.09       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    31912.96    7911.25   51845.17
  C & E Loss (ft)                     Cum SA (acres)            232.76      41.00     356.66

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 9403.80*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   733.6  179.06  734.51  242.54  722.72  333.49  709.42  363.81  710.99
  485.08  693.26  666.98  644.66  835.63  619.21 1091.43  611.77 1455.24   602.9
 1492.19  602.12 1576.51   602.4 1697.78   602.6 1788.73     602 1850.31     602
  2387.5     610 2546.67     610 2819.52     611 3031.75   610.4 3274.29     610
  3342.5     610 3461.88     602    3820     602    3880   579.6    4040   579.6
    4215     602  4497.4  611.65 4578.09  620.12 4860.49  629.76 5344.61  632.59
 5505.98  641.53 5828.73  651.41 6151.47  661.29 6312.84  665.44 6514.56  659.41
 6595.25  659.88 6796.96  665.06 6877.65  665.53 7119.71  662.94 7281.08  651.88
 7402.11  652.59 7442.45  662.42 7482.79  661.06  7765.2  662.71 8087.94  720.59
    8330     722

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    3820     .15    4215     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          3820    4215             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.35    Element                      Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                    0.150      0.150      0.150
  W.S. Elev (ft)            775.35    Reach Len. (ft)              24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)        571350.50   74687.51   499175.60
  E.G. Slope (ft/ft)      0.000008    Area (sq ft)             571350.50   74687.51   499175.60
  Q Total (cfs)           858734.10    Flow (cfs)              449067.20   68645.13   341021.80
  Top Width (ft)           8330.00    Top Width (ft)           3820.00     395.00    4115.00
  Vel Total (ft/s)            0.75    Avg. Vel. (ft/s)            0.79       0.92       0.68
  Max Chl Dpth (ft)         195.75    Hydr. Depth (ft)           149.57     189.08     121.31
  Conv. Total (cfs)       302123300.0    Conv. (cfs)            157992600.0   24151000.0   119979700.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)         3873.98     400.47    4176.65
  Min Ch El (ft)            579.60    Shear (lb/sq ft)            0.07       0.09       0.06
  Alpha                       1.02    Stream Power (lb/ft s)      0.06       0.09       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    31585.86    7868.68   51562.45
  C & E Loss (ft)                     Cum SA (acres)            230.57      40.77     354.32

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 9378.96*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  733.42  177.61  734.79  240.57     723  330.79  709.54  360.86  710.75
  481.14   692.8  661.57  644.97  828.84  619.25 1082.57  611.79 1443.43  602.81
 1480.08  602.02 1563.71  602.28    1684  602.47 1774.21   601.9  1835.3   601.9
 2368.13     610    2526     610 2796.64  610.95 3007.14  610.38 3247.72     610
 3315.38     610 3433.78   601.9    3789   601.9  3848.5  579.57    4008  579.57
 4184.25   601.9 4470.03  611.56 4551.68  620.11 4837.47  629.78 5327.38  632.46
 5490.68  641.45 5817.29  651.34  6143.9  661.23  6307.2  665.36 6511.33  659.19
 6592.98  659.64 6797.11  664.81 6878.76  665.25 7123.72  662.54 7287.02  651.29
  7409.5  651.96 7450.33   661.9 7491.15  660.51 7776.94  662.07 8103.54  720.56
  8348.5   721.9

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    3789     .15 4184.25     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          3789 4184.25             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.35    Element                      Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                    0.150      0.150      0.150
  W.S. Elev (ft)            775.35    Reach Len. (ft)              24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)        566830.20   74748.00   505979.90
  E.G. Slope (ft/ft)      0.000008    Area (sq ft)             566830.20   74748.00   505979.90
  Q Total (cfs)           858731.60    Flow (cfs)              444706.10   68583.79   345441.70
  Top Width (ft)           8348.50    Top Width (ft)           3789.00     395.25    4164.25
  Vel Total (ft/s)            0.75    Avg. Vel. (ft/s)            0.78       0.92       0.68
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                                                                TXU_Rev1.rep
  Max Chl Dpth (ft)          195.78    Hydr. Depth (ft)          149.60     189.12     121.51
  Conv. Total (cfs)        302680800.0    Conv. (cfs)           156747500.0   24174020.0   121759300.0
  Length Wtd. (ft)            24.84    Wetted Per. (ft)         3843.15     400.71    4226.06
  Min Ch El (ft)             579.57    Shear (lb/sq ft)            0.07       0.09       0.06
  Alpha                        1.02    Stream Power (lb/ft s)      0.06       0.09       0.04
  Frctn Loss (ft)              0.00    Cum Volume (acre-ft)    31261.34    7826.07   51275.86
  C & E Loss (ft)                      Cum SA (acres)            228.40      40.55     351.96

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 9354.12*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  733.24  176.16  735.06   238.6  723.29  328.08  709.66   357.9  710.51
  477.21  692.34  656.16  645.27  822.06  619.28 1073.71  611.81 1431.62  602.72
 1467.97  601.91 1550.92  602.16 1670.22  602.34  1759.7   601.8 1820.28   601.8
 2348.75     610 2505.33     610 2773.76   610.9 2982.54  610.36 3221.14     610
 3288.25     610 3405.69   601.8    3758   601.8    3817  579.54    3976  579.54
  4153.5   601.8 4442.66  611.48 4525.28  620.11 4814.44  629.79 5310.15  632.33
 5475.38  641.38 5805.85  651.27 6136.32  661.16 6301.56  665.29  6508.1  658.97
 6590.72  659.39 6797.26  664.55 6879.88  664.98 7127.74  662.15 7292.97  650.69
  7416.9  651.33 7458.21  661.38 7499.51  659.95 7788.68  661.44 8119.15  720.53
    8367   721.8

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    3758     .15  4153.5     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          3758  4153.5            24.84   24.84   24.84            .1        .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)             775.35    Element                   Left OB    Channel   Right OB
  Vel Head (ft)                0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)             775.34    Reach Len. (ft)            24.84      24.84      24.84
  Crit W.S. (ft)                       Flow Area (sq ft)       562312.10   74808.55   512801.40
  E.G. Slope (ft/ft)       0.000008    Area (sq ft)            562312.10   74808.55   512801.40
  Q Total (cfs)            858729.10    Flow (cfs)             440351.50   68520.91   349856.70
  Top Width (ft)            8367.00    Top Width (ft)           3758.00     395.50    4213.50
  Vel Total (ft/s)             0.75    Avg. Vel. (ft/s)            0.78       0.92       0.68
  Max Chl Dpth (ft)          195.80    Hydr. Depth (ft)          149.63     189.15     121.70
  Conv. Total (cfs)        303246400.0    Conv. (cfs)           155503100.0   24197060.0   123546300.0
  Length Wtd. (ft)            24.84    Wetted Per. (ft)         3812.33     400.95    4275.48
  Min Ch El (ft)             579.54    Shear (lb/sq ft)            0.07       0.09       0.06
  Alpha                        1.02    Stream Power (lb/ft s)      0.06       0.09       0.04
  Frctn Loss (ft)              0.00    Cum Volume (acre-ft)    30939.39    7783.43   50985.38
  C & E Loss (ft)                      Cum SA (acres)            226.25      40.32     349.57

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 9329.28*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  733.06   174.7  735.34  236.63  723.57  325.37  709.77  354.95  710.27
  473.27  691.88  650.75  645.58  815.28  619.32 1064.86  611.83 1419.81  602.63
 1455.86   601.8 1538.13  602.04 1656.44  602.21 1745.18   601.7 1805.27   601.7
 2329.38     610 2484.67     610 2750.88  610.85 2957.94  610.34 3194.57     610
 3261.13     610 3377.59   601.7    3727   601.7  3785.5  579.51    3944  579.51
 4122.75   601.7 4415.29   611.4 4498.88   620.1 4791.42   629.8 5292.92   632.2
 5460.08   641.3 5794.42   651.2 6128.75   661.1 6295.92  665.22 6504.88  658.75
 6588.46  659.15 6797.42   664.3    6881   664.7 7131.75  661.75 7298.92   650.1
 7424.29   650.7 7466.08  660.86 7507.88   659.4 7800.42   660.8 8134.75   720.5
  8385.5   721.7

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    3727     .15 4122.75     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          3727 4122.75            24.84   24.84   24.84            .1        .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)             775.35    Element                   Left OB    Channel   Right OB
  Vel Head (ft)                0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)             775.34    Reach Len. (ft)            24.84      24.84      24.84
  Crit W.S. (ft)                       Flow Area (sq ft)       557789.20   74869.20   519645.50
  E.G. Slope (ft/ft)       0.000008    Area (sq ft)            557789.20   74869.20   519645.50
  Q Total (cfs)            858726.60    Flow (cfs)             435996.00   68456.78   354273.80
  Top Width (ft)            8385.50    Top Width (ft)           3727.00     395.75    4262.75
  Vel Total (ft/s)             0.75    Avg. Vel. (ft/s)            0.78       0.91       0.68
  Max Chl Dpth (ft)          195.83    Hydr. Depth (ft)          149.66     189.18     121.90
  Conv. Total (cfs)        303819000.0    Conv. (cfs)           154256100.0   24220130.0   125342700.0
  Length Wtd. (ft)            24.84    Wetted Per. (ft)         3781.53     401.19    4324.89
  Min Ch El (ft)             579.51    Shear (lb/sq ft)            0.07       0.09       0.06
  Alpha                        1.02    Stream Power (lb/ft s)      0.06       0.09       0.04
  Frctn Loss (ft)              0.00    Cum Volume (acre-ft)    30620.02    7740.75   50691.00
  C & E Loss (ft)                      Cum SA (acres)            224.12      40.10     347.16
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Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION

RIVER: PALUXY
REACH: PALUXY RIVER RS: 9304.44*

INPUT
Description:
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	732.88	173.25	735.61	234.67	723.85	322.67	709.89	352	710.04
469.33	691.42	645.33	645.89	808.5	619.36	1056	611.85	1408	602.55
1443.75	601.7	1525.33	601.92	1642.67	602.08	1730.67	601.6	1790.25	601.6
2310	610	2464	610	2728	610.8	2933.33	610.32	3168	610
3234	610	3349.5	601.6	3696	601.6	3754	579.48	3912	579.48
4092	601.6	4387.92	611.32	4472.47	620.09	4768.39	629.81	5275.69	632.07
5444.78	641.22	5782.98	651.13	6121.18	661.04	6290.27	665.15	6501.65	658.53
6586.2	658.91	6797.57	664.05	6882.12	664.42	7135.76	661.35	7304.86	649.51
7431.69	650.07	7473.96	660.34	7516.23	658.85	7812.16	660.16	8150.35	720.47
8404	721.6								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.15	3696	.15	4092	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
3696	4092	24.84	24.84	24.84	.1	.3

CROSS SECTION OUTPUT Profile #Max WS

E.G. Elev (ft)	775.35	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.01	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	775.34	Reach Len. (ft)	24.84	24.84	24.84
Crit W.S. (ft)		Flow Area (sq ft)	553261.60	74929.91	526509.00
E.G. Slope (ft/ft)	0.000008	Area (sq ft)	553261.60	74929.91	526509.00
Q Total (cfs)	858724.10	Flow (cfs)	431641.90	68391.62	358690.60
Top Width (ft)	8404.00	Top Width (ft)	3696.00	396.00	4312.00
Vel Total (ft/s)	0.74	Avg. Vel. (ft/s)	0.78	0.91	0.68
Max Chl Dpth (ft)	195.86	Hydr. Depth (ft)	149.69	189.22	122.10
Conv. Total (cfs)	304397400.0	Conv. (cfs)	153006800.0	24243210.0	127147400.0
Length Wtd. (ft)	24.84	Wetted Per. (ft)	3750.73	401.43	4374.31
Min Ch El (ft)	579.48	Shear (lb/sq ft)	0.07	0.09	0.06
Alpha	1.02	Stream Power (lb/ft s)	0.06	0.08	0.04
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	30303.24	7698.04	50392.71
C & E Loss (ft)		Cum SA (acres)	222.00	39.87	344.71

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION

RIVER: PALUXY
REACH: PALUXY RIVER RS: 9279.60*

INPUT
Description:
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	732.7	171.8	735.88	232.7	724.14	319.96	710.01	349.05	709.8
465.4	690.96	639.92	646.2	801.72	619.4	1047.14	611.88	1396.19	602.46
1431.64	601.59	1512.54	601.8	1628.89	601.95	1716.15	601.5	1775.23	601.5
2290.63	610	2443.33	610	2705.12	610.75	2908.73	610.3	3141.43	610
3206.88	610	3321.41	601.5	3665	601.5	3722.5	579.45	3880	579.45
4061.25	601.5	4360.55	611.24	4446.07	620.09	4745.37	629.82	5258.46	631.94
5429.49	641.15	5771.54	651.06	6113.6	660.97	6284.63	665.08	6498.42	658.31
6583.93	658.66	6797.72	663.79	6883.24	664.15	7139.78	660.96	7310.81	648.91
7439.08	649.44	7481.84	659.82	7524.6	658.29	7823.9	659.53	8165.96	720.44
8422.5	721.5								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.15	3665	.15	4061.25	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
3665	4061.25	24.84	24.84	24.84	.1	.3

CROSS SECTION OUTPUT Profile #Max WS

E.G. Elev (ft)	775.35	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.01	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	775.34	Reach Len. (ft)	24.84	24.84	24.84
Crit W.S. (ft)		Flow Area (sq ft)	548730.80	74990.65	533389.30
E.G. Slope (ft/ft)	0.000008	Area (sq ft)	548730.80	74990.65	533389.30
Q Total (cfs)	858721.60	Flow (cfs)	427291.80	68325.46	363104.30
Top Width (ft)	8422.50	Top Width (ft)	3665.00	396.25	4361.25
Vel Total (ft/s)	0.74	Avg. Vel. (ft/s)	0.78	0.91	0.68
Max Chl Dpth (ft)	195.89	Hydr. Depth (ft)	149.72	189.25	122.30
Conv. Total (cfs)	304981300.0	Conv. (cfs)	151755800.0	24266290.0	128959200.0
Length Wtd. (ft)	24.84	Wetted Per. (ft)	3719.94	401.67	4423.73
Min Ch El (ft)	579.45	Shear (lb/sq ft)	0.07	0.09	0.06
Alpha	1.02	Stream Power (lb/ft s)	0.06	0.08	0.04
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	29989.03	7655.30	50090.51
C & E Loss (ft)		Cum SA (acres)	219.90	39.64	342.24

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION

RIVER: PALUXY
REACH: PALUXY RIVER RS: 9254.76*

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INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  732.52  170.34  736.16  230.73  724.42  317.25  710.13   346.1  709.56
  461.46   690.5  634.51  646.51  794.94  619.44 1038.29   611.9 1384.38  602.37
 1419.53  601.49 1499.75  601.68 1615.11  601.82 1701.64   601.4 1760.22   601.4
 2271.25     610 2422.67     610 2682.24   610.7 2884.13  610.28 3114.86     610
 3179.75     610 3293.31   601.4    3634   601.4    3691  579.42    3848  579.42
  4030.5   601.4 4333.18  611.15 4419.66  620.08 4722.34  629.84 5241.23  631.81
 5414.19  641.07 5760.11  650.99 6106.03  660.91 6278.99     665 6495.19  658.09
 6581.67  658.42 6797.87  663.54 6884.35  663.87 7143.79  660.56 7316.75  648.32
 7446.48  648.81 7489.72   659.3 7532.96  657.74 7835.64  658.89 8181.56  720.41
    8441   721.4

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    3634     .15  4030.5     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          3634  4030.5             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.35    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                0.150      0.150      0.150
  W.S. Elev (ft)            775.34    Reach Len. (ft)           24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)       544200.80   75051.49   540291.90
  E.G. Slope (ft/ft)      0.000008    Area (sq ft)            544200.80   75051.49   540291.90
  Q Total (cfs)           858719.10    Flow (cfs)             422945.30   68257.55   367516.30
  Top Width (ft)           8441.00    Top Width (ft)          3634.00     396.50     4410.50
  Vel Total (ft/s)            0.74    Avg. Vel. (ft/s)          0.78       0.91       0.68
  Max Chl Dpth (ft)         195.92    Hydr. Depth (ft)         149.75     189.29     122.50
  Conv. Total (cfs)       305574700.0    Conv. (cfs)          150504800.0   24289410.0   130780400.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)        3689.17     401.91     4473.14
  Min Ch El (ft)            579.42    Shear (lb/sq ft)          0.07       0.09       0.06
  Alpha                       1.02    Stream Power (lb/ft s)    0.06       0.08       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    29677.41    7612.51   49784.38
  C & E Loss (ft)                     Cum SA (acres)            217.82      39.42     339.74

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 9229.92*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  732.34  168.89  736.43  228.76  724.71  314.55  710.24  343.14  709.32
  457.52  690.04   629.1  646.82  788.16  619.48 1029.43  611.92 1372.57  602.28
 1407.42  601.38 1486.95  601.56 1601.33  601.69 1687.12   601.3  1745.2   601.3
 2251.88     610    2402     610 2659.36  610.65 2859.52  610.26 3088.29     610
 3152.63     610 3265.22   601.3    3603   601.3  3659.5  579.39    3816  579.39
 3999.75   601.3 4305.81  611.07 4393.26  620.08 4699.32  629.85    5224  631.68
 5398.89  640.99 5748.67  650.92 6098.46  660.84 6273.35  664.93 6491.96  657.87
 6579.41  658.17 6798.02  663.29 6885.47  663.59 7147.81  660.16  7322.7  647.72
 7453.87  648.18 7497.59  658.78 7541.32  657.19 7847.38  658.26 8197.16  720.38
  8459.5   721.3

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    3603     .15 3999.75     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          3603 3999.75             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.35    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                0.150      0.150      0.150
  W.S. Elev (ft)            775.34    Reach Len. (ft)           24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)       539670.70   75112.41   547214.80
  E.G. Slope (ft/ft)      0.000008    Area (sq ft)            539670.70   75112.41   547214.80
  Q Total (cfs)           858716.60    Flow (cfs)             418603.40   68188.13   371925.10
  Top Width (ft)           8459.50    Top Width (ft)          3603.00     396.75     4459.75
  Vel Total (ft/s)            0.74    Avg. Vel. (ft/s)          0.78       0.91       0.68
  Max Chl Dpth (ft)         195.95    Hydr. Depth (ft)         149.78     189.32     122.70
  Conv. Total (cfs)       306176400.0    Conv. (cfs)          149253500.0   24312550.0   132610300.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)        3658.40     402.15     4522.56
  Min Ch El (ft)            579.39    Shear (lb/sq ft)          0.07       0.09       0.06
  Alpha                       1.02    Stream Power (lb/ft s)    0.06       0.08       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    29368.37    7569.70   49474.30
  C & E Loss (ft)                     Cum SA (acres)            215.76      39.19     337.21

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 9205.08*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  732.16  167.44  736.71  226.79  724.99  311.84  710.36  340.19  709.09
  453.59  689.58  623.68  647.12  781.38  619.52 1020.57  611.94 1360.76  602.19
 1395.31  601.27 1474.16  601.44 1587.56  601.56  1672.6   601.2 1730.19   601.2
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                                                                    TXU_Rev1.rep
  2232.5      610 2381.33      610 2636.48   610.6 2834.92  610.24 3061.71      610
  3125.5      610 3237.13    601.2     3572   601.2     3628  579.36     3784  579.36
    3969    601.2 4278.44  610.99 4366.85  620.07 4676.29  629.86 5206.77  631.55
 5383.59   640.92 5737.24  650.85 6090.88  660.78 6267.71  664.86 6488.74  657.65
 6577.15   657.93 6798.18  663.04 6886.59  663.32 7151.82  659.76 7328.65  647.13
 7461.26   647.55 7505.47  658.25 7549.68  656.64 7859.12  657.62 8212.76  720.35
    8478    721.2

Manning's n Values          num=        3
     Sta   n Val      Sta   n Val      Sta   n Val
       0     .15     3572     .15     3969     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          3572    3969             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.35    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.34    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)        535138.10   75173.38   554152.40
  E.G. Slope (ft/ft)      0.000008    Area (sq ft)             535138.10   75173.38   554152.40
  Q Total (cfs)           858714.10    Flow (cfs)              414267.50   68117.88   376328.70
  Top Width (ft)           8478.00    Top Width (ft)           3572.00     397.00     4509.00
  Vel Total (ft/s)            0.74    Avg. Vel. (ft/s)            0.77       0.91       0.68
  Max Chl Dpth (ft)         195.98    Hydr. Depth (ft)          149.81     189.35     122.90
  Conv. Total (cfs)       306783000.0    Conv. (cfs)            148000600.0   24335700.0   134446700.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)         3627.65     402.39     4571.98
  Min Ch El (ft)            579.36    Shear (lb/sq ft)            0.07       0.09       0.06
  Alpha                       1.02    Stream Power (lb/ft s)      0.06       0.08       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    29061.92    7526.85   49160.28
  C & E Loss (ft)                     Cum SA (acres)            213.71      38.97     334.65

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 9180.24*

INPUT
Description:
Station Elevation Data      num=       46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  731.98  165.98  736.98  224.83  725.27  309.13  710.48  337.24  708.85
  449.65  689.12  618.27  647.43  774.59  619.56 1011.71  611.96 1348.95   602.1
  1383.2  601.17 1461.37  601.32 1573.78  601.43 1658.09   601.1 1715.17   601.1
 2213.13     610 2360.67     610  2613.6  610.55 2810.32  610.22 3035.14     610
 3098.38     610 3209.03   601.1    3541   601.1  3596.5  579.33    3752  579.33
 3938.25   601.1 4251.07  610.91 4340.45  620.06 4653.27  629.87 5189.53  631.42
 5368.29  640.84  5725.8  650.78 6083.31  660.71 6262.06  664.79 6485.51  657.43
 6574.88  657.69 6798.33  662.78 6887.71  663.04 7155.84  659.37 7334.59  646.54
 7468.66  646.92 7513.35  657.73 7558.04  656.08 7870.86  656.99 8228.37  720.32
  8496.5   721.1

Manning's n Values          num=        3
     Sta   n Val      Sta   n Val      Sta   n Val
       0     .15     3541     .15  3938.25     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          3541 3938.25             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.35    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.34    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)        530603.60   75234.41   561114.80
  E.G. Slope (ft/ft)      0.000008    Area (sq ft)             530603.60   75234.41   561114.80
  Q Total (cfs)           858711.60    Flow (cfs)              409933.30   68045.91   380732.40
  Top Width (ft)           8496.50    Top Width (ft)           3541.00     397.25     4558.25
  Vel Total (ft/s)            0.74    Avg. Vel. (ft/s)            0.77       0.90       0.68
  Max Chl Dpth (ft)         196.01    Hydr. Depth (ft)          149.85     189.39     123.10
  Conv. Total (cfs)       307399000.0    Conv. (cfs)            146746700.0   24358870.0   136293400.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)         3596.90     402.63     4621.39
  Min Ch El (ft)            579.33    Shear (lb/sq ft)            0.07       0.09       0.06
  Alpha                       1.02    Stream Power (lb/ft s)      0.06       0.08       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    28758.05    7483.96   48842.29
  C & E Loss (ft)                     Cum SA (acres)            211.68      38.74     332.07

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 9155.4*

INPUT
Description:
Station Elevation Data      num=       46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   731.8  164.53  737.26  222.86  725.56  306.43   710.6  334.29  708.61
  445.71  688.66  612.86  647.74  767.81   619.6 1002.86  611.99 1337.14  602.01
 1371.09  601.06 1448.57   601.2    1560   601.3 1643.57     601 1700.16     601
 2193.75     610    2340     610 2590.71   610.5 2785.71   610.2 3008.57     610
 3071.25     610 3180.94     601    3510     601    3565   579.3    3720   579.3
  3907.5     601  4223.7  610.82 4314.04  620.06 4630.25  629.88  5172.3  631.29
 5352.99  640.76 5714.36  650.71 6075.74  660.65 6256.42  664.72 6482.28  657.21
 6572.62  657.44 6798.48  662.53 6888.82  662.76 7159.85  658.97 7340.54  645.94
 7476.05  646.29 7521.23  657.21  7566.4  655.53  7882.6  656.35 8243.97  720.29
    8515     721
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                                                                    TXU_Rev1.rep
Manning's n Values          num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    3510     .15  3907.5     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          3510  3907.5            24.84   24.84   24.84            .1        .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.35    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.34    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)        526063.00   75295.54   568099.40
  E.G. Slope (ft/ft)      0.000008    Area (sq ft)             526063.00   75295.54   568099.40
  Q Total (cfs)           858709.10    Flow (cfs)              405599.50   67972.95   385136.70
  Top Width (ft)           8515.00    Top Width (ft)            3510.00     397.50    4607.50
  Vel Total (ft/s)            0.73    Avg. Vel. (ft/s)             0.77       0.90       0.68
  Max Chl Dpth (ft)         196.04    Hydr. Depth (ft)           149.88     189.42     123.30
  Conv. Total (cfs)       308021200.0    Conv. (cfs)            145489600.0   24382070.0   138149500.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)          3566.17     402.88    4670.81
  Min Ch El (ft)            579.30    Shear (lb/sq ft)             0.07       0.09       0.06
  Alpha                       1.02    Stream Power (lb/ft s)       0.06       0.08       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)     28456.77    7441.04   48520.32
  C & E Loss (ft)                     Cum SA (acres)             209.67      38.51     329.45

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 9130.56*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  731.62  163.08  737.53  220.89  725.84  303.72  710.72  331.33  708.37
  441.78   688.2  607.44  648.05  761.03  619.64     994  612.01 1325.33  601.92
 1358.98  600.95 1435.78  601.08 1546.22  601.17 1629.06   600.9 1685.14   600.9
 2174.38     610 2319.33     610 2567.83  610.45 2761.11  610.18    2982     610
 3044.12     610 3152.84   600.9    3479   600.9  3533.5  579.27    3688  579.27
 3876.75   600.9 4196.33  610.74 4287.64  620.05 4607.22  629.89 5155.07  631.16
 5337.69  640.69 5702.93  650.64 6068.16  660.58 6250.78  664.65 6479.05  656.99
 6570.36   657.2 6798.63  662.28 6889.94  662.49 7163.87  658.57 7346.49  645.35
 7483.45  645.66  7529.1  656.69 7574.76  654.98 7894.34  655.72 8259.57  720.26
  8533.5   720.9

Manning's n Values          num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    3479     .15 3876.75     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          3479 3876.75            24.84   24.84   24.84            .1        .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.35    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.34    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)        521525.00   75356.68   575094.70
  E.G. Slope (ft/ft)      0.000008    Area (sq ft)             521525.00   75356.68   575094.70
  Q Total (cfs)           858706.60    Flow (cfs)              401278.10   67898.98   389529.50
  Top Width (ft)           8533.50    Top Width (ft)            3479.00     397.75    4656.75
  Vel Total (ft/s)            0.73    Avg. Vel. (ft/s)             0.77       0.90       0.68
  Max Chl Dpth (ft)         196.07    Hydr. Depth (ft)           149.91     189.46     123.50
  Conv. Total (cfs)       308649100.0    Conv. (cfs)            144233400.0   24405260.0   140010500.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)          3535.45     403.12    4720.23
  Min Ch El (ft)            579.27    Shear (lb/sq ft)             0.07       0.09       0.06
  Alpha                       1.02    Stream Power (lb/ft s)       0.05       0.08       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)     28158.08    7398.09   48194.37
  C & E Loss (ft)                     Cum SA (acres)             207.68      38.29     326.81

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 9105.72*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  731.44  161.62   737.8  218.92  726.13  301.02  710.83  328.38  708.14
  437.84  687.74  602.03  648.36  754.25  619.68  985.14  612.03 1313.52  601.84
 1346.88  600.85 1422.98  600.96 1532.44  601.04 1614.54   600.8 1670.12   600.8
    2155     610 2298.67     610 2544.95   610.4 2736.51  610.16 2955.43     610
    3017     610 3124.75   600.8    3448   600.8    3502  579.24    3656  579.24
    3846   600.8 4168.96  610.66 4261.24  620.05  4584.2  629.91 5137.84  631.04
 5322.39  640.61 5691.49  650.56 6060.59  660.52 6245.14  664.57 6475.82  656.76
  6568.1  656.95 6798.78  662.02 6891.06  662.21 7167.88  658.18 7352.43  644.75
 7490.84  645.04 7536.98  656.17 7583.12  654.42 7906.08  655.08 8275.18  720.24
    8552   720.8

Manning's n Values          num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    3448     .15    3846     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          3448    3846            24.84   24.84   24.84            .1        .3

CROSS SECTION OUTPUT  Profile #Max WS
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  E.G. Elev (ft)            775.35    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.34    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)        516982.00   75417.94  582113.10
  E.G. Slope (ft/ft)      0.000008    Area (sq ft)             516982.00   75417.94  582113.10
  Q Total (cfs)           858704.10    Flow (cfs)              396957.70   67823.86  393922.50
  Top Width (ft)           8552.00    Top Width (ft)            3448.00     398.00    4706.00
  Vel Total (ft/s)            0.73    Avg. Vel. (ft/s)             0.77       0.90       0.68
  Max Chl Dpth (ft)         196.10    Hydr. Depth (ft)           149.94     189.49     123.70
  Conv. Total (cfs)       309284200.0    Conv. (cfs)            142974500.0   24428500.0   141881300.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)          3504.75     403.36    4769.65
  Min Ch El (ft)            579.24    Shear (lb/sq ft)             0.07       0.09       0.06
  Alpha                       1.02    Stream Power (lb/ft s)       0.05       0.08       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)     27861.97    7355.10   47864.42
  C & E Loss (ft)                     Cum SA (acres)             205.70      38.06     324.14

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 9080.88*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  731.26  160.17  738.08  216.95  726.41  298.31  710.95  325.43   707.9
   433.9  687.28  596.62  648.66  747.47  619.72  976.29  612.05 1301.71  601.75
 1334.77  600.74 1410.19  600.84 1518.67  600.91 1600.02   600.7 1655.11   600.7
 2135.62     610    2278     610 2522.07  610.35  2711.9  610.14 2928.86     610
 2989.87     610 3096.66   600.7    3417   600.7  3470.5  579.21    3624  579.21
 3815.25   600.7 4141.59  610.58 4234.83  620.04 4561.17  629.92 5120.61  630.91
 5307.09  640.54 5680.05  650.49 6053.01  660.45  6239.5   664.5  6472.6  656.54
 6565.84  656.71 6798.94  661.77 6892.18  661.94  7171.9  657.78 7358.38  644.16
 7498.24  644.41 7544.86  655.65 7591.48  653.87 7917.82  654.45 8290.78  720.21
  8570.5   720.7

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    3417     .15 3815.25     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          3417 3815.25             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.35    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.34    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)        512440.80   75479.25  589147.80
  E.G. Slope (ft/ft)      0.000008    Area (sq ft)             512440.80   75479.25  589147.80
  Q Total (cfs)           858701.50    Flow (cfs)              392646.70   67747.41  398307.40
  Top Width (ft)           8570.50    Top Width (ft)            3417.00     398.25    4755.25
  Vel Total (ft/s)            0.73    Avg. Vel. (ft/s)             0.77       0.90       0.68
  Max Chl Dpth (ft)         196.13    Hydr. Depth (ft)           149.97     189.53     123.89
  Conv. Total (cfs)       309926900.0    Conv. (cfs)            141716000.0   24451740.0   143759200.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)          3474.06     403.61    4819.07
  Min Ch El (ft)            579.21    Shear (lb/sq ft)             0.07       0.09       0.06
  Alpha                       1.02    Stream Power (lb/ft s)       0.05       0.08       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)     27568.46    7312.08   47530.47
  C & E Loss (ft)                     Cum SA (acres)             203.75      37.83     321.44

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 9056.04*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  731.08  158.72  738.35  214.98  726.69   295.6  711.07  322.48  707.66
  429.97  686.83  591.21  648.97  740.69  619.76  967.43  612.08  1289.9  601.66
 1322.66  600.64  1397.4  600.72 1504.89  600.78 1585.51   600.6 1640.09   600.6
 2116.25     610 2257.33     610 2499.19   610.3  2687.3  610.12 2902.29     610
 2962.75     610 3068.56   600.6    3386   600.6    3439  579.18    3592  579.18
  3784.5   600.6 4114.22  610.49 4208.43  620.04 4538.15  629.93 5103.38  630.78
 5291.79  640.46 5668.62  650.42 6045.44  660.39 6233.85  664.43 6469.37  656.32
 6563.57  656.46 6799.09  661.52 6893.29  661.66 7175.91  657.38 7364.32  643.56
 7505.63  643.78 7552.74  655.13 7599.84  653.32 7929.56  653.81 8306.38  720.18
    8589   720.6

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    3386     .15  3784.5     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          3386  3784.5             24.84   24.84   24.84             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.35    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.34    Reach Len. (ft)             24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)        507892.20   75540.62  596210.60
  E.G. Slope (ft/ft)      0.000008    Area (sq ft)             507892.20   75540.62  596210.60
  Q Total (cfs)           858698.90    Flow (cfs)              388333.00   67669.55  402696.30
  Top Width (ft)           8589.00    Top Width (ft)            3386.00     398.50    4804.50
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                                                                    TXU_Rev1.rep
  Vel Total (ft/s)            0.73    Avg. Vel. (ft/s)            0.76       0.90       0.68
  Max Chl Dpth (ft)         196.16    Hydr. Depth (ft)          150.00     189.56     124.09
  Conv. Total (cfs)       310577700.0    Conv. (cfs)            140453900.0   24475000.0   145648900.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)         3443.37     403.85    4868.49
  Min Ch El (ft)            579.18    Shear (lb/sq ft)            0.07       0.09       0.06
  Alpha                       1.02    Stream Power (lb/ft s)      0.05       0.08       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    27277.54    7269.02   47192.50
  C & E Loss (ft)                     Cum SA (acres)            201.81      37.61     318.72

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 9031.2*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   730.9  157.27  738.63  213.02  726.98   292.9  711.19  319.52  707.42
  426.03  686.37  585.79  649.28  733.91   619.8  958.57   612.1  1278.1  601.57
 1310.55  600.53  1384.6   600.6 1491.11  600.65 1570.99   600.5 1625.08   600.5
 2096.87     610 2236.67     610 2476.31  610.25  2662.7   610.1 2875.71     610
 2935.62     610 3040.47   600.5    3355   600.5  3407.5  579.15    3560  579.15
 3753.75   600.5 4086.85  610.41 4182.02  620.03 4515.12  629.94 5086.15  630.65
  5276.5  640.38 5657.18  650.35 6037.87  660.32 6228.21  664.36 6466.14   656.1
 6561.31  656.22 6799.24  661.26 6894.41  661.38 7179.93  656.99 7370.27  642.97
 7513.03  643.15 7560.61  654.61  7608.2  652.76  7941.3  653.18 8321.99  720.15
  8607.5   720.5

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    3355     .15 3753.75     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          3355 3753.75             24.84   24.84   24.84            .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.35    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.34    Reach Len. (ft)            24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)       503345.20   75602.07   603290.90
  E.G. Slope (ft/ft)      0.000008    Area (sq ft)            503345.20   75602.07   603290.90
  Q Total (cfs)           858696.40    Flow (cfs)             384028.50   67590.35   407077.50
  Top Width (ft)           8607.50    Top Width (ft)           3355.00     398.75    4853.75
  Vel Total (ft/s)            0.73    Avg. Vel. (ft/s)            0.76       0.89       0.67
  Max Chl Dpth (ft)         196.19    Hydr. Depth (ft)          150.03     189.60     124.29
  Conv. Total (cfs)       311236500.0    Conv. (cfs)            139192000.0   24498280.0   147546200.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)         3412.71     404.10    4917.91
  Min Ch El (ft)            579.15    Shear (lb/sq ft)            0.07       0.09       0.06
  Alpha                       1.02    Stream Power (lb/ft s)      0.05       0.08       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    26989.21    7225.92   46850.49
  C & E Loss (ft)                     Cum SA (acres)            199.89      37.38     315.96

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 9006.35*

INPUT
Description:
Station Elevation Data     num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  730.72  155.81   738.9  211.05  727.26  290.19   711.3  316.57  707.18
   422.1  685.91  580.38  649.59  727.12  619.84  949.71  612.12 1266.29  601.48
 1298.44  600.42 1371.81  600.48 1477.33  600.52 1556.48   600.4 1610.06   600.4
  2077.5     610    2216     610 2453.43   610.2 2638.09  610.08 2849.14     610
  2908.5     610 3012.37   600.4    3324   600.4    3376  579.12    3528  579.12
    3723   600.4 4059.48  610.33 4155.62  620.02  4492.1  629.95 5068.92  630.52
  5261.2  640.31 5645.75  650.28 6030.29  660.26 6222.57  664.29 6462.91  655.88
 6559.05  655.98 6799.39  661.01 6895.53  661.11 7183.94  656.59 7376.22  642.38
 7520.42  642.52 7568.49  654.08 7616.56  652.21 7953.04  652.54 8337.59  720.12
    8626   720.4

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    3324     .15    3723     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          3324    3723             24.84   24.84   24.84            .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.35    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.34    Reach Len. (ft)            24.84      24.84      24.84
  Crit W.S. (ft)                      Flow Area (sq ft)       498798.30   75663.59   610385.80
  E.G. Slope (ft/ft)      0.000008    Area (sq ft)            498798.30   75663.59   610385.80
  Q Total (cfs)           858693.90    Flow (cfs)             379733.90   67510.20   411449.80
  Top Width (ft)           8626.00    Top Width (ft)           3324.00     399.00    4903.00
  Vel Total (ft/s)            0.72    Avg. Vel. (ft/s)            0.76       0.89       0.67
  Max Chl Dpth (ft)         196.22    Hydr. Depth (ft)          150.06     189.63     124.49
  Conv. Total (cfs)       311901500.0    Conv. (cfs)            137929900.0   24521580.0   149450000.0
  Length Wtd. (ft)           24.84    Wetted Per. (ft)         3382.05     404.34    4967.33
  Min Ch El (ft)            579.12    Shear (lb/sq ft)            0.07       0.09       0.06
  Alpha                       1.02    Stream Power (lb/ft s)      0.05       0.08       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    26703.47    7182.79   46504.44
  C & E Loss (ft)                     Cum SA (acres)            197.98      37.15     313.18
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Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION

RIVER: PALUXY
REACH: PALUXY RIVER RS: 8981.52*

INPUT
Description:
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	730.54	154.36	739.18	209.08	727.55	287.48	711.42	313.62	706.95
418.16	685.45	574.97	649.9	720.34	619.88	940.86	612.14	1254.48	601.39
1286.33	600.32	1359.02	600.36	1463.56	600.39	1541.96	600.3	1595.05	600.3
2058.12	610	2195.33	610	2430.55	610.15	2613.49	610.06	2822.57	610
2881.37	610	2984.28	600.3	3293	600.3	3344.5	579.09	3496	579.09
3692.25	600.3	4032.11	610.25	4129.21	620.02	4469.07	629.96	5051.69	630.39
5245.9	640.23	5634.31	650.21	6022.72	660.19	6216.93	664.22	6459.68	655.66
6556.79	655.73	6799.54	660.76	6896.65	660.83	7187.96	656.19	7382.16	641.78
7527.82	641.89	7576.37	653.56	7624.92	651.66	7964.78	651.91	8353.19	720.09
8644.5	720.3								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.15	3293	.15	3692.25	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
3293	3692.25	24.84	24.84	24.84	.1	.3

CROSS SECTION OUTPUT Profile #Max WS

E.G. Elev (ft)	775.35	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.01	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	775.34	Reach Len. (ft)	24.84	24.84	24.84
Crit W.S. (ft)		Flow Area (sq ft)	494246.10	75725.19	617505.10
E.G. Slope (ft/ft)	0.000008	Area (sq ft)	494246.10	75725.19	617505.10
Q Total (cfs)	858691.30	Flow (cfs)	375440.70	67428.83	415821.80
Top Width (ft)	8644.50	Top Width (ft)	3293.00	399.25	4952.25
Vel Total (ft/s)	0.72	Avg. Vel. (ft/s)	0.76	0.89	0.67
Max Chl Dpth (ft)	196.25	Hydr. Depth (ft)	150.09	189.67	124.69
Conv. Total (cfs)	312574100.0	Conv. (cfs)	136665000.0	24544910.0	151364200.0
Length Wtd. (ft)	24.84	Wetted Per. (ft)	3351.42	404.59	5016.75
Min Ch El (ft)	579.09	Shear (lb/sq ft)	0.07	0.09	0.06
Alpha	1.02	Stream Power (lb/ft s)	0.05	0.08	0.04
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	26420.33	7139.63	46154.34
C & E Loss (ft)		Cum SA (acres)	196.09	36.92	310.37

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION

RIVER: PALUXY
REACH: PALUXY RIVER RS: 8956.68*

INPUT
Description:
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	730.36	152.91	739.45	207.11	727.83	284.78	711.54	310.67	706.71
414.22	684.99	569.56	650.21	713.56	619.92	932	612.16	1242.67	601.3
1274.22	600.21	1346.22	600.24	1449.78	600.26	1527.44	600.2	1580.03	600.2
2038.75	610	2174.67	610	2407.67	610.1	2588.89	610.04	2796	610
2854.25	610	2956.19	600.2	3262	600.2	3313	579.06	3464	579.06
3661.5	600.2	4004.74	610.16	4102.81	620.01	4446.05	629.98	5034.46	630.26
5230.6	640.15	5622.87	650.14	6015.15	660.13	6211.28	664.14	6456.46	655.44
6554.52	655.49	6799.7	660.51	6897.76	660.55	7191.97	655.79	7388.11	641.19
7535.21	641.26	7584.25	653.04	7633.28	651.11	7976.52	651.27	8368.79	720.06
8663	720.2								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.15	3262	.15	3661.5	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
3262	3661.5	24.84	24.84	24.84	.1	.3

CROSS SECTION OUTPUT Profile #Max WS

E.G. Elev (ft)	775.35	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.01	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	775.34	Reach Len. (ft)	24.84	24.84	24.84
Crit W.S. (ft)		Flow Area (sq ft)	489694.50	75786.81	624642.80
E.G. Slope (ft/ft)	0.000008	Area (sq ft)	489694.50	75786.81	624642.80
Q Total (cfs)	858688.80	Flow (cfs)	371156.40	67346.09	420186.30
Top Width (ft)	8663.00	Top Width (ft)	3262.00	399.50	5001.50
Vel Total (ft/s)	0.72	Avg. Vel. (ft/s)	0.76	0.89	0.67
Max Chl Dpth (ft)	196.28	Hydr. Depth (ft)	150.12	189.70	124.89
Conv. Total (cfs)	313254500.0	Conv. (cfs)	135400000.0	24568230.0	153286400.0
Length Wtd. (ft)	24.84	Wetted Per. (ft)	3320.79	404.84	5066.17
Min Ch El (ft)	579.06	Shear (lb/sq ft)	0.07	0.09	0.06
Alpha	1.02	Stream Power (lb/ft s)	0.05	0.08	0.04
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	26139.79	7096.43	45800.17
C & E Loss (ft)		Cum SA (acres)	194.23	36.69	307.53

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION

RIVER: PALUXY

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REACH: PALUXY RIVER RS: 8931.84*

INPUT
Description:
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	730.18	151.45	739.73	205.14	728.11	282.07	711.66	307.71	706.47
410.29	684.53	564.14	650.51	706.78	619.96	923.14	612.19	1230.86	601.21
1262.11	600.11	1333.43	600.12	1436	600.13	1512.93	600.1	1565.02	600.1
2019.37	610	2154	610	2384.79	610.05	2564.29	610.02	2769.43	610
2827.12	610	2928.09	600.1	3231	600.1	3281.5	579.03	3432	579.03
3630.75	600.1	3977.37	610.08	4076.4	620.01	4423.02	629.99	5017.23	630.13
5215.3	640.08	5611.44	650.07	6007.57	660.06	6205.64	664.07	6453.23	655.22
6552.26	655.24	6799.85	660.25	6898.88	660.28	7195.99	655.4	7394.05	640.59
7542.61	640.63	7592.12	652.52	7641.64	650.55	7988.26	650.64	8384.4	720.03
8681.5	720.1								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.15	3231	.15	3630.75	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
3231	3630.75	24.84	24.84	24.84	.1	.3

CROSS SECTION OUTPUT Profile #Max WS

E.G. Elev (ft)	775.35	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.01	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	775.34	Reach Len. (ft)	24.84	24.84	24.84
Crit W.S. (ft)		Flow Area (sq ft)	485138.90	75848.52	631797.50
E.G. Slope (ft/ft)	0.000007	Area (sq ft)	485138.90	75848.52	631797.50
Q Total (cfs)	858686.20	Flow (cfs)	366878.30	67262.67	424545.30
Top Width (ft)	8681.50	Top Width (ft)	3231.00	399.75	5050.75
Vel Total (ft/s)	0.72	Avg. Vel. (ft/s)	0.76	0.89	0.67
Max Chl Dpth (ft)	196.31	Hydr. Depth (ft)	150.15	189.74	125.09
Conv. Total (cfs)	313940100.0	Conv. (cfs)	134132600.0	24591580.0	155215900.0
Length Wtd. (ft)	24.84	Wetted Per. (ft)	3290.18	405.08	5115.60
Min Ch El (ft)	579.03	Shear (lb/sq ft)	0.07	0.09	0.06
Alpha	1.02	Stream Power (lb/ft s)	0.05	0.08	0.04
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	25861.84	7053.19	45441.93
C & E Loss (ft)		Cum SA (acres)	192.37	36.47	304.67

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION

RIVER: PALUXY
REACH: PALUXY RIVER RS: 8907

INPUT
Description:
Station Elevation Data num= 32

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	730	150	740	700	620	1250	600	1550	600
2000	610	2800	610	2900	600	3200	600	3250	579
3400	579	3600	600	3950	610	4050	620	4400	630
5000	630	5200	640	5600	650	6000	660	6200	664
6450	655	6550	655	6800	660	6900	660	7200	655
7400	640	7550	640	7600	652	7650	650	8000	650
8400	720	8700	720						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.15	3200	.15	3600	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
3200	3600	45.86	45.86	45.86	.1	.3

CROSS SECTION OUTPUT Profile #Max WS

E.G. Elev (ft)	775.35	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.01	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	775.34	Reach Len. (ft)	45.86	45.86	45.86
Crit W.S. (ft)		Flow Area (sq ft)	480582.70	75910.33	638975.50
E.G. Slope (ft/ft)	0.000007	Area (sq ft)	480582.70	75910.33	638975.50
Q Total (cfs)	858683.70	Flow (cfs)	362606.30	67177.70	428899.70
Top Width (ft)	8700.00	Top Width (ft)	3200.00	400.00	5100.00
Vel Total (ft/s)	0.72	Avg. Vel. (ft/s)	0.75	0.88	0.67
Max Chl Dpth (ft)	196.34	Hydr. Depth (ft)	150.18	189.78	125.29
Conv. Total (cfs)	314635100.0	Conv. (cfs)	132864600.0	24614960.0	157155600.0
Length Wtd. (ft)	45.86	Wetted Per. (ft)	3259.58	405.33	5165.02
Min Ch El (ft)	579.00	Shear (lb/sq ft)	0.07	0.09	0.06
Alpha	1.02	Stream Power (lb/ft s)	0.05	0.08	0.04
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	25586.49	7009.92	45079.60
C & E Loss (ft)		Cum SA (acres)	190.54	36.24	301.77

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION

RIVER: PALUXY
REACH: PALUXY RIVER RS: 8861.14*

INPUT
Description:
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	729.05	147.54	738.45	599.55	642.61	674.49	626.3	688.54	623.33
749.43	621.19	1229.54	601.67	1274.04	601.43	1524.63	601.11	1723.7	605.14
1967.26	610.07	2098.41	609.9	2248.3	609.52	2548.07	609.52	2697.96	609.05
2754.17	609.05	2772.9	607.23	2847.85	600.45	2852.53	600	3147.62	600
3200	578.81	3350	578.81	3545.24	600	3895.56	609.52	3995.66	619.05

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 4183.33  624.15 4345.98  628.66 4946.55  628.98 5066.85  634.77 5146.73  638.68
 5508.61   647.8 5547.11  648.74  5852.2  656.16 5947.48  658.31 6147.67  661.87
 6195.79  660.16 6293.96   656.8  6397.9  653.37 6441.21  653.43 6497.99   653.4
 6637.55  655.99 6748.23   658.1 6833.88   658.1 6848.32  658.14 6981.14  656.47
  7148.6  653.81 7226.56  648.25 7348.79  639.79 7498.93  640.12 7548.97  651.66
 7599.02  649.86 7619.23   649.9  7717.4   649.9 7766.48  649.57 7864.65  649.57
 7949.35   650.1 8349.72  719.28 8404.58  719.62    8650  719.62    8650  719.71

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 3147.62     .15 3545.24     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       3147.62 3545.24            45.86   45.86   45.86             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.35    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.34    Reach Len. (ft)             45.86      45.86      45.86
  Crit W.S. (ft)                      Flow Area (sq ft)       470646.10   75519.72   644739.80
  E.G. Slope (ft/ft)      0.000007    Area (sq ft)            470646.10   75519.72   644739.80
  Q Total (cfs)           858679.00    Flow (cfs)             355115.00   67082.73   436481.30
  Top Width (ft)           8650.00    Top Width (ft)          3147.62     397.62     5104.76
  Vel Total (ft/s)            0.72    Avg. Vel. (ft/s)           0.75       0.89       0.68
  Max Chl Dpth (ft)         196.53    Hydr. Depth (ft)         149.52     189.93     126.30
  Conv. Total (cfs)       313641400.0    Conv. (cfs)          129709500.0   24502670.0   159429300.0
  Length Wtd. (ft)           45.86    Wetted Per. (ft)        3207.26     402.89     5169.69
  Min Ch El (ft)            578.81    Shear (lb/sq ft)           0.07       0.09       0.06
  Alpha                       1.02    Stream Power (lb/ft s)     0.05       0.08       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    25085.76    6930.21   44403.85
  C & E Loss (ft)                     Cum SA (acres)            187.20      35.82     296.40

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 8815.28*

INPUT
Description:
Station Elevation Data     num=      60
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   728.1  145.09  736.91  589.57  645.48  663.27  629.49  677.08  626.67
  736.96  624.63 1209.08  603.34 1252.83  602.86 1499.26  602.22 1695.01  605.78
 1934.52  610.14 2063.49  609.81 2210.88  609.05 2505.67  609.05 2653.06   608.1
 2708.33   608.1 2726.76  606.37 2800.45  600.43 2805.06     600 3095.24     600
    3150  578.62    3300  578.62 3490.48     600 3841.13  609.05 3941.32   618.1
 4129.17  622.94 4291.97  627.32 4893.09  627.97 5013.51  633.53 5093.46  637.37
 5455.68  646.56 5494.21  647.47 5799.59   654.7 5894.96  656.62 6095.33  659.74
  6143.5  658.05 6241.76  654.86  6345.8  651.75 6389.15  651.86 6445.98   651.8
 6585.67  654.19 6696.45  656.19 6782.19  656.19 6796.64  656.28 6929.58  655.14
  7097.2  652.62 7175.23  647.33 7297.57  639.58 7447.85  640.24 7497.95  651.31
 7548.04  649.72 7568.27  649.81 7666.53  649.81 7715.66  649.14 7813.92  649.14
 7898.69   650.2 8299.44  718.55 8354.35  719.24    8600  719.24    8600  719.43

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 3095.24     .15 3490.48     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       3095.24 3490.48            45.86   45.86   45.86             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.34    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.34    Reach Len. (ft)             45.86      45.86      45.86
  Crit W.S. (ft)                      Flow Area (sq ft)       460768.80   75128.66   650513.10
  E.G. Slope (ft/ft)      0.000008    Area (sq ft)            460768.80   75128.66   650513.10
  Q Total (cfs)           858674.30    Flow (cfs)             347608.50   66975.96   444089.80
  Top Width (ft)           8600.00    Top Width (ft)          3095.24     395.24     5109.52
  Vel Total (ft/s)            0.72    Avg. Vel. (ft/s)           0.75       0.89       0.68
  Max Chl Dpth (ft)         196.72    Hydr. Depth (ft)         148.86     190.08     127.31
  Conv. Total (cfs)       312691000.0    Conv. (cfs)          126583600.0   24389670.0   161717800.0
  Length Wtd. (ft)           45.86    Wetted Per. (ft)        3154.99     400.46     5174.39
  Min Ch El (ft)            578.62    Shear (lb/sq ft)           0.07       0.09       0.06
  Alpha                       1.02    Stream Power (lb/ft s)     0.05       0.08       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    24595.47    6850.91   43722.03
  C & E Loss (ft)                     Cum SA (acres)            183.91      35.40     291.03

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 8769.42*

INPUT
Description:
Station Elevation Data     num=      60
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  727.14  142.63  735.36  579.59  648.35  652.04  632.67  665.62     630
  724.49  628.07 1188.62  605.01 1231.63  604.29 1473.88  603.33 1666.33  606.43
 1901.79  610.21 2028.57  609.71 2173.47  608.57 2463.27  608.57 2608.16  607.14
  2662.5  607.14 2680.61  605.51 2753.06  600.41 2757.59     600 3042.86     600
    3100  578.43    3250  578.43 3435.71     600 3786.69  608.57 3886.97  617.14
    4075  621.73 4237.96  625.98 4839.64  626.95 4960.17  632.29  5040.2  636.05
 5402.75  645.32 5441.32  646.21 5746.98  653.25 5842.44  654.93    6043  657.61
 6091.21  655.95 6189.56  652.92  6293.7  650.12 6337.09  650.29 6393.98   650.2
 6533.79  652.39 6644.68  654.29 6730.49  654.29 6744.96  654.43 6878.02  653.82
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                                                                    TXU_Rev1.rep
  7045.8  651.43  7123.9  646.42 7246.36  639.37 7396.78  640.36 7446.92  650.97
 7497.06  649.58 7517.31  649.71 7615.66  649.71 7664.83  648.71 7763.19  648.71
 7848.04  650.31 8249.16  717.83 8304.12  718.86    8550  718.86    8550  719.14

Manning's n Values          num=        3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 3042.86     .15 3435.71     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       3042.86 3435.71            45.86   45.86   45.86             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.34    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.34    Reach Len. (ft)             45.86      45.86      45.86
  Crit W.S. (ft)                      Flow Area (sq ft)        450970.90   74735.29   656295.60
  E.G. Slope (ft/ft)      0.000008    Area (sq ft)             450970.90   74735.29   656295.60
  Q Total (cfs)           858669.70    Flow (cfs)              340105.80   66854.10   451709.80
  Top Width (ft)           8550.00    Top Width (ft)           3042.86     392.85     5114.29
  Vel Total (ft/s)            0.73    Avg. Vel. (ft/s)            0.75       0.89        0.69
  Max Chl Dpth (ft)         196.91    Hydr. Depth (ft)          148.21     190.24      128.33
  Conv. Total (cfs)       311791800.0    Conv. (cfs)           123495900.0   24275410.0   164020500.0
  Length Wtd. (ft)           45.86    Wetted Per. (ft)         3102.76     398.03     5179.14
  Min Ch El (ft)            578.43    Shear (lb/sq ft)            0.07       0.09        0.06
  Alpha                       1.02    Stream Power (lb/ft s)      0.05       0.08        0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    24115.53    6772.02    43034.13
  C & E Loss (ft)                     Cum SA (acres)            180.68      34.99      285.64

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 8723.57*

INPUT
Description:
Station Elevation Data      num=       60
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  726.19  140.18  733.82  569.61  651.22  640.82  635.86  654.17  633.33
  712.02  631.51 1168.15  606.68 1210.43  605.71 1448.51  604.44 1637.64  607.07
 1869.05  610.29 1993.65  609.62 2136.05   608.1 2420.86   608.1 2563.27  606.19
 2616.67  606.19 2634.47  604.65 2705.67  600.39 2710.12     600 2990.48     600
    3050  578.24    3200  578.24 3380.95     600 3732.26   608.1 3832.63  616.19
 4020.83  620.53 4183.94  624.64 4786.18  625.93 4906.82  631.06 4986.93  634.73
 5349.82  644.08 5388.42  644.94 5694.37  651.79 5789.92  653.24 5990.66  655.48
 6038.92  653.84 6137.36  650.98  6241.6  648.49 6285.03  648.71 6341.97   648.6
 6481.91  650.59  6592.9  652.38  6678.8  652.38 6693.28  652.57 6826.47   652.5
  6994.4  650.24 7072.57  645.51 7195.14  639.16 7345.71  640.47 7395.89  650.62
 7446.08  649.44 7466.35  649.62 7564.79  649.62 7614.01  648.29 7712.45  648.29
 7797.39  650.41 8198.88   717.1 8253.89  718.48    8500  718.48    8500  718.86

Manning's n Values          num=        3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 2990.48     .15 3380.95     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       2990.48 3380.95            45.86   45.86   45.86             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.34    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.34    Reach Len. (ft)             45.86      45.86      45.86
  Crit W.S. (ft)                      Flow Area (sq ft)        441232.20   74343.38   662090.10
  E.G. Slope (ft/ft)      0.000008    Area (sq ft)             441232.20   74343.38   662090.10
  Q Total (cfs)           858665.10    Flow (cfs)              332592.10   66721.79   459351.20
  Top Width (ft)           8500.00    Top Width (ft)           2990.48     390.47     5119.05
  Vel Total (ft/s)            0.73    Avg. Vel. (ft/s)            0.75       0.90        0.69
  Max Chl Dpth (ft)         197.10    Hydr. Depth (ft)          147.55     190.39      129.34
  Conv. Total (cfs)       310937800.0    Conv. (cfs)           120437500.0   24161140.0   166339200.0
  Length Wtd. (ft)           45.86    Wetted Per. (ft)         3050.57     395.63     5183.90
  Min Ch El (ft)            578.24    Shear (lb/sq ft)            0.07       0.09        0.06
  Alpha                       1.02    Stream Power (lb/ft s)      0.05       0.08        0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    23645.87    6693.55    42340.13
  C & E Loss (ft)                     Cum SA (acres)            177.51      34.57      280.26

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 8677.71*

INPUT
Description:
Station Elevation Data      num=       60
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  725.24  137.72  732.27  559.64  654.09  629.59  639.04  642.71  636.67
  699.55  634.95 1147.69  608.35 1189.23  607.14 1423.14  605.55 1608.96  607.71
 1836.31  610.36 1958.73  609.52 2098.64  607.62 2378.46  607.62 2518.37  605.24
 2570.83  605.24 2588.32  603.79 2658.28  600.36 2662.65     600  2938.1     600
    3000  578.05    3150  578.05 3326.19     600 3677.82  607.62 3778.29  615.24
 3966.67  619.32 4129.93   623.3 4732.73  624.91 4853.48  629.82 4933.66  633.42
 5296.89  642.84 5335.53  643.68 5641.76  650.33  5737.4  651.55 5938.33  653.35
 5986.63  651.73 6085.17  649.04  6189.5  646.86 6232.97  647.14 6289.96  647.01
 6430.04  648.79 6541.13  650.48 6627.11  650.48  6641.6  650.71 6774.91  651.17
    6943  649.05 7021.25   644.6 7143.93  638.95 7294.63  640.59 7344.86  650.28
  7395.1   649.3 7415.38  649.52 7513.92  649.52 7563.19  647.86 7661.72  647.86
 7746.73  650.51  8148.6  716.38 8203.66   718.1    8450   718.1    8450  718.57
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                                                                    TXU_Rev1.rep
Manning's n Values          num=        3
     Sta   n Val      Sta   n Val      Sta   n Val
       0     .15  2938.1     .15 3326.19     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        2938.1 3326.19            45.86   45.86   45.86             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.34    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.33    Reach Len. (ft)            45.86      45.86      45.86
  Crit W.S. (ft)                      Flow Area (sq ft)       431571.40   73950.92   667892.00
  E.G. Slope (ft/ft)      0.000008    Area (sq ft)            431571.40   73950.92   667892.00
  Q Total (cfs)           858660.60    Flow (cfs)             325087.90   66576.09   466996.50
  Top Width (ft)           8450.00    Top Width (ft)           2938.10     388.09    5123.81
  Vel Total (ft/s)            0.73    Avg. Vel. (ft/s)            0.75       0.90       0.70
  Max Chl Dpth (ft)         197.28    Hydr. Depth (ft)          146.89     190.55     130.35
  Conv. Total (cfs)       310134300.0    Conv. (cfs)           117416500.0   24046210.0   168671600.0
  Length Wtd. (ft)           45.86    Wetted Per. (ft)         2998.43     393.23    5188.70
  Min Ch El (ft)            578.05    Shear (lb/sq ft)            0.07       0.09       0.06
  Alpha                       1.02    Stream Power (lb/ft s)      0.05       0.08       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    23186.43    6615.48   41640.02
  C & E Loss (ft)                     Cum SA (acres)            174.39      34.16     274.87

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 8631.85*

INPUT
Description:
Station Elevation Data      num=       60
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  724.29  135.27  730.73  549.66  656.96  618.37  642.23  631.25     640
  687.07  638.39 1127.23  610.03 1168.03  608.57 1397.77  606.66 1580.27  608.36
 1803.57  610.43 1923.81  609.43 2061.22  607.14 2336.05  607.14 2473.47  604.29
    2525  604.29 2542.18  602.93 2610.88  600.34 2615.18     600 2885.71     600
    2950  577.86    3100  577.86 3271.43     600 3623.39  607.14 3723.95  614.29
  3912.5  618.11 4075.91  621.95 4679.27   623.9 4800.14  628.58 4880.39   632.1
 5243.96   641.6 5282.63  642.41 5589.15  648.87 5684.87  649.86 5885.99  651.22
 5934.34  649.62 6032.97   647.1  6137.4  645.24 6180.91  645.57 6237.96  645.41
 6378.16  646.99 6489.36  648.57 6575.41  648.57 6589.92  648.85 6723.35  649.85
  6891.6  647.86 6969.92  643.68 7092.72  638.74 7243.56  640.71 7293.84  649.94
 7344.12  649.16 7364.42  649.43 7463.05  649.43 7512.36  647.43 7610.99  647.43
 7696.08  650.61 8098.32  715.65 8153.43  717.71    8400  717.71    8400  718.29

Manning's n Values          num=        3
     Sta   n Val      Sta   n Val      Sta   n Val
       0     .15 2885.71     .15 3271.43     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        2885.71 3271.43           45.86   45.86   45.86             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.34    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.33    Reach Len. (ft)            45.86      45.86      45.86
  Crit W.S. (ft)                      Flow Area (sq ft)       421969.40   73559.98   673713.70
  E.G. Slope (ft/ft)      0.000008    Area (sq ft)            421969.40   73559.98   673713.70
  Q Total (cfs)           858656.10    Flow (cfs)             317575.60   66419.63   474660.90
  Top Width (ft)           8400.00    Top Width (ft)           2885.71     385.72    5128.57
  Vel Total (ft/s)            0.73    Avg. Vel. (ft/s)            0.75       0.90       0.70
  Max Chl Dpth (ft)         197.47    Hydr. Depth (ft)          146.23     190.71     131.36
  Conv. Total (cfs)       309378400.0    Conv. (cfs)           114424200.0   23931350.0   171022900.0
  Length Wtd. (ft)           45.86    Wetted Per. (ft)         2946.33     390.85    5193.54
  Min Ch El (ft)            577.86    Shear (lb/sq ft)            0.07       0.09       0.06
  Alpha                       1.01    Stream Power (lb/ft s)      0.05       0.08       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    22737.12    6537.83   40933.80
  C & E Loss (ft)                     Cum SA (acres)            171.32      33.76     269.47

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 8586.*

INPUT
Description:
Station Elevation Data      num=       60
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  723.33  132.81  729.18  539.68  659.83  607.14  645.41  619.79  643.33
   674.6  641.83 1106.77   611.7 1146.83     610  1372.4  607.77 1551.59     609
 1770.83   610.5 1888.89  609.33 2023.81  606.67 2293.65  606.67 2428.57  603.33
 2479.17  603.33 2496.03  602.06 2563.49  600.32 2567.71     600 2833.33     600
    2900  577.67    3050  577.67 3216.67     600 3568.95  606.67 3669.61  613.33
 3858.33   616.9  4021.9  620.61 4625.82  622.88 4746.79  627.34 4827.12  630.78
 5191.03  640.36 5229.74  641.15 5536.54  647.41 5632.35  648.17 5833.66  649.09
 5882.05  647.51 5980.77  645.16 6085.29  643.61 6128.85     644 6185.95  643.81
 6326.28  645.19 6437.58  646.67 6523.72  646.67 6538.24  646.99 6671.79  648.53
  6840.2  646.67 6918.59  642.77  7041.5  638.53 7192.48  640.83 7242.81  649.59
 7293.14  649.02 7313.46  649.33 7412.18  649.33 7461.54     647 7560.26     647
 7645.42  650.71 8048.04  714.93 8103.21  717.33    8350  717.33    8350     718

Manning's n Values          num=        3
     Sta   n Val      Sta   n Val      Sta   n Val
       0     .15 2833.33     .15 3216.67     .15
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                                                                    TXU_Rev1.rep
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       2833.33 3216.67             45.86   45.86   45.86            .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.34    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.33    Reach Len. (ft)            45.86      45.86      45.86
  Crit W.S. (ft)                      Flow Area (sq ft)       412445.30   73166.64   679536.30
  E.G. Slope (ft/ft)      0.000008    Area (sq ft)            412445.30   73166.64   679536.30
  Q Total (cfs)           858651.70    Flow (cfs)             310081.40   66248.91   482321.30
  Top Width (ft)           8350.00    Top Width (ft)          2833.33     383.34    5133.33
  Vel Total (ft/s)            0.74    Avg. Vel. (ft/s)           0.75       0.91       0.71
  Max Chl Dpth (ft)         197.66    Hydr. Depth (ft)         145.57     190.87     132.38
  Conv. Total (cfs)       308669000.0    Conv. (cfs)          111468400.0   23815230.0   173385400.0
  Length Wtd. (ft)           45.86    Wetted Per. (ft)        2894.31     388.47    5198.39
  Min Ch El (ft)            577.67    Shear (lb/sq ft)           0.07       0.09       0.06
  Alpha                       1.01    Stream Power (lb/ft s)     0.05       0.08       0.04
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    22297.89    6460.60   40221.45
  C & E Loss (ft)                     Cum SA (acres)            168.31      33.35     264.07

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 8540.14*

INPUT
Description:
Station Elevation Data     num=      60
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  722.38  130.36  727.63  529.71   662.7  595.92   648.6  608.33  646.67
  662.13  645.27 1086.31  613.37 1125.62  611.43 1347.02  608.88  1522.9  609.64
  1738.1  610.57 1853.97  609.24 1986.39  606.19 2251.25  606.19 2383.67  602.38
 2433.33  602.38 2449.89   601.2  2516.1  600.29 2520.24     600 2780.95     600
    2850  577.48    3000  577.48  3161.9     600 3514.52  606.19 3615.27  612.38
 3804.17   615.7 3967.88  619.27 4572.36  621.86 4693.45   626.1 4773.86  629.47
  5138.1  639.12 5176.84  639.89 5483.93  645.96 5579.83  646.48 5781.33  646.96
 5829.76   645.4 5928.57  643.22 6033.19  641.98 6076.79  642.43 6133.94  642.21
  6274.4  643.39 6385.81  644.76 6472.02  644.76 6486.55  645.14 6620.24   647.2
  6788.8  645.48 6867.26  641.86 6990.29  638.32 7141.41  640.95 7191.78  649.25
 7242.16  648.89  7262.5  649.24 7361.31  649.24 7410.71  646.57 7509.52  646.57
 7594.77  650.81 7997.76   714.2 8052.98  716.95    8300  716.95    8300  717.71

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 2780.95     .15  3161.9     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       2780.95  3161.9             45.86   45.86   45.86            .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.34    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.33    Reach Len. (ft)            45.86      45.86      45.86
  Crit W.S. (ft)                      Flow Area (sq ft)       402989.40   72771.02   685367.80
  E.G. Slope (ft/ft)      0.000008    Area (sq ft)            402989.40   72771.02   685367.80
  Q Total (cfs)           858647.30    Flow (cfs)             302599.30   66064.34   489983.70
  Top Width (ft)           8300.00    Top Width (ft)          2780.95     380.95    5138.10
  Vel Total (ft/s)            0.74    Avg. Vel. (ft/s)           0.75       0.91       0.71
  Max Chl Dpth (ft)         197.85    Hydr. Depth (ft)         144.91     191.03     133.39
  Conv. Total (cfs)       308005200.0    Conv. (cfs)          108545300.0   23697920.0   175761900.0
  Length Wtd. (ft)           45.86    Wetted Per. (ft)        2842.32     386.09    5203.29
  Min Ch El (ft)            577.48    Shear (lb/sq ft)           0.07       0.09       0.06
  Alpha                       1.01    Stream Power (lb/ft s)     0.05       0.08       0.05
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    21868.64    6383.78   39502.96
  C & E Loss (ft)                     Cum SA (acres)            165.35      32.95     258.66

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 8494.28*

INPUT
Description:
Station Elevation Data     num=      60
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  721.43   127.9  726.09  519.73  665.57  584.69  651.78  596.88     650
  649.66  648.71 1065.85  615.04 1104.42  612.86 1321.65  609.99 1494.22  610.28
 1705.36  610.64 1819.05  609.14 1948.98  605.71 2208.84  605.71 2338.78  601.43
  2387.5  601.43 2403.74  600.34 2468.71  600.27 2472.77     600 2728.57     600
    2800  577.29    2950  577.29 3107.14     600 3460.08  605.71 3560.92  611.43
    3750  614.49 3913.87  617.93 4518.91  620.85 4640.11  624.86 4720.59  628.15
 5085.17  637.88 5123.95  638.62 5431.32   644.5 5527.31  644.79 5728.99  644.83
 5777.47   643.3 5876.37  641.28 5981.09  640.35 6024.73  640.86 6081.93  640.61
 6222.53  641.59 6334.03  642.86 6420.33  642.86 6434.87  643.28 6568.68  645.88
  6737.4  644.29 6815.93  640.95 6939.08  638.12 7090.34  641.07 7140.76  648.91
 7191.18  648.75 7211.54  649.14 7310.44  649.14 7359.89  646.14 7458.79  646.14
 7544.12  650.92 7947.48  713.48 8002.75  716.57    8250  716.57    8250  717.43

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 2728.57     .15 3107.14     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       2728.57 3107.14             45.86   45.86   45.86            .1       .3

CROSS SECTION OUTPUT  Profile #Max WS
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TXU_Rev1.rep

E.G. Elev (ft)	775.34	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.01	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	775.33	Reach Len. (ft)	45.86	45.86	45.86
Crit W.S. (ft)		Flow Area (sq ft)	393602.50	72376.83	691204.60
E.G. Slope (ft/ft)	0.000008	Area (sq ft)	393602.50	72376.83	691204.60
Q Total (cfs)	858642.90	Flow (cfs)	295131.70	65869.30	497641.80
Top Width (ft)	8250.00	Top Width (ft)	2728.57	378.57	5142.86
Vel Total (ft/s)	0.74	Avg. Vel. (ft/s)	0.75	0.91	0.72
Max Chl Dpth (ft)	198.04	Hydr. Depth (ft)	144.25	191.18	134.40
Conv. Total (cfs)	307386900.0	Conv. (cfs)	105654700.0	23580660.0	178151600.0
Length Wtd. (ft)	45.86	Wetted Per. (ft)	2790.41	383.73	5208.20
Min Ch El (ft)	577.29	Shear (lb/sq ft)	0.07	0.09	0.06
Alpha	1.01	Stream Power (lb/ft s)	0.05	0.08	0.05
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	21449.31	6307.37	38778.34
C & E Loss (ft)		Cum SA (acres)	162.45	32.55	253.25

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION

RIVER: PALUXY
REACH: PALUXY RIVER RS: 8448.42*

INPUT
Description:
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	720.48	125.45	724.54	509.75	668.44	573.47	654.97	585.42	653.33
637.19	652.15	1045.39	616.71	1083.22	614.29	1296.28	611.1	1465.53	610.93
1672.62	610.71	1784.13	609.05	1911.56	605.24	2166.44	605.24	2293.88	600.48
2341.67	600.48	2357.6	599.48	2421.32	600.25	2425.3	600	2676.19	600
2750	577.1	2900	577.1	3052.38	600	3405.65	605.24	3506.58	610.48
3695.83	613.28	3859.85	616.59	4465.45	619.83	4586.77	623.62	4667.32	626.83
5032.23	636.64	5071.06	637.36	5378.71	643.04	5474.79	643.1	5676.66	642.7
5725.18	641.19	5824.18	639.34	5928.99	638.73	5972.66	639.29	6029.93	639.01
6170.65	639.79	6282.26	640.95	6368.64	640.95	6383.19	641.42	6517.12	644.56
6685.99	643.1	6764.61	640.04	6887.86	637.91	7039.26	641.18	7089.73	648.56
7140.2	648.61	7160.58	649.05	7259.57	649.05	7309.07	645.71	7408.06	645.71
7493.46	651.02	7897.2	712.76	7952.52	716.19	8200	716.19	8200	717.14

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.15	2676.19	.15	3052.38	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2676.19	3052.38	45.86	45.86	45.86	.1	.3

CROSS SECTION OUTPUT Profile #Max WS

E.G. Elev (ft)	775.34	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.01	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	775.33	Reach Len. (ft)	45.86	45.86	45.86
Crit W.S. (ft)		Flow Area (sq ft)	384279.30	71982.18	697054.90
E.G. Slope (ft/ft)	0.000008	Area (sq ft)	384279.30	71982.18	697054.90
Q Total (cfs)	858638.70	Flow (cfs)	287675.70	65662.07	505300.90
Top Width (ft)	8200.00	Top Width (ft)	2676.19	376.19	5147.62
Vel Total (ft/s)	0.74	Avg. Vel. (ft/s)	0.75	0.91	0.72
Max Chl Dpth (ft)	198.23	Hydr. Depth (ft)	143.59	191.35	135.41
Conv. Total (cfs)	306814300.0	Conv. (cfs)	102794100.0	23462800.0	180557400.0
Length Wtd. (ft)	45.86	Wetted Per. (ft)	2738.55	381.37	5213.15
Min Ch El (ft)	577.10	Shear (lb/sq ft)	0.07	0.09	0.07
Alpha	1.01	Stream Power (lb/ft s)	0.05	0.08	0.05
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	21039.84	6231.38	38047.55
C & E Loss (ft)		Cum SA (acres)	159.61	32.15	247.83

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION

RIVER: PALUXY
REACH: PALUXY RIVER RS: 8402.57*

INPUT
Description:
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	719.52	122.99	723	499.77	671.3	562.24	658.15	573.96	656.67
624.72	655.59	1024.93	618.38	1062.02	615.71	1270.91	612.21	1436.85	611.57
1639.88	610.79	1749.21	608.95	1874.15	604.76	2124.04	604.76	2248.98	599.52
2295.83	599.52	2311.45	598.62	2373.92	600.23	2377.83	600	2623.81	600
2700	576.9	2850	576.9	2997.62	600	3351.21	604.76	3452.24	609.52
3641.67	612.07	3805.84	615.25	4412	618.81	4533.42	622.39	4614.05	625.52
4979.3	635.4	5018.16	636.09	5326.1	641.58	5422.27	641.41	5624.32	640.57
5672.89	639.08	5771.98	637.4	5876.89	637.1	5920.6	637.71	5977.92	637.41
6118.77	637.99	6230.49	639.05	6316.94	639.05	6331.51	639.56	6465.57	643.23
6634.59	641.9	6713.28	639.12	6836.65	637.7	6988.19	641.3	7038.7	648.22
7089.22	648.47	7109.62	648.95	7208.7	648.95	7258.24	645.29	7357.33	645.29
7442.81	651.12	7846.92	712.03	7902.29	715.81	8150	715.81	8150	716.86

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.15	2623.81	.15	2997.62	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2623.81	2997.62	45.86	45.86	45.86	.1	.3

CROSS SECTION OUTPUT Profile #Max WS

E.G. Elev (ft)	775.34	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.01	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	775.33	Reach Len. (ft)	45.86	45.86	45.86

```
  Crit W.S. (ft)                          Flow Area (sq ft)       375033.60   71589.72   702922.00
  E.G. Slope (ft/ft)        0.000008      Area (sq ft)            375033.60   71589.72   702922.00
  Q Total (cfs)             858634.40      Flow (cfs)             280242.20   65444.31   512947.80
  Top Width (ft)             8150.00      Top Width (ft)           2623.81     373.81     5152.38
  Vel Total (ft/s)              0.75      Avg. Vel. (ft/s)            0.75       0.91        0.73
  Max Chl Dpth (ft)           198.43      Hydr. Depth (ft)          142.93     191.51      136.43
  Conv. Total (cfs)         306296000.0      Conv. (cfs)           99969280.0   23345590.0   182981100.0
  Length Wtd. (ft)             45.86      Wetted Per. (ft)         2686.78     379.03     5218.12
  Min Ch El (ft)              576.90      Shear (lb/sq ft)            0.07       0.09        0.07
  Alpha                         1.01      Stream Power (lb/ft s)      0.05       0.08        0.05
  Frctn Loss (ft)               0.00      Cum Volume (acre-ft)    20640.13    6155.80    37310.61
  C & E Loss (ft)                         Cum SA (acres)            156.82      31.76      242.41

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 8356.71*

INPUT
Description:
Station Elevation Data     num=      60
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  718.57  120.54  721.45   489.8  674.17  551.02  661.34   562.5     660
  612.24  659.04 1004.46  620.05 1040.82  617.14 1245.54  613.32 1408.16  612.21
 1607.14  610.86 1714.29  608.86 1836.73  604.29 2081.63  604.29 2204.08  598.57
    2250  598.57 2265.31  597.76 2326.53   600.2 2330.36     600 2571.43     600
    2650  576.71    2800  576.71 2942.86     600 3296.78  604.29  3397.9  608.57
  3587.5  610.87 3751.82  613.91 4358.54  617.79 4480.08  621.15 4560.78   624.2
 4926.37  634.16 4965.27  634.83 5273.49  640.12 5369.75  639.72 5571.99  638.43
  5620.6  636.97 5719.78  635.46 5824.79  635.47 5868.54  636.14 5925.91  635.81
  6066.9   636.2 6178.71  637.14 6265.25  637.14 6279.83   637.7 6414.01  641.91
 6583.19  640.71 6661.95  638.21 6785.43  637.49 6937.11  641.42 6987.67  647.87
 7038.24  648.33 7058.65  648.86 7157.83  648.86 7207.42  644.86 7306.59  644.86
 7392.16  651.22 7796.64  711.31 7852.06  715.43    8100  715.43    8100  716.57

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 2571.43     .15 2942.86     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       2571.43 2942.86            45.86   45.86   45.86             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)              775.34      Element                   Left OB    Channel   Right OB
  Vel Head (ft)                 0.01      Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)              775.33      Reach Len. (ft)            45.86      45.86      45.86
  Crit W.S. (ft)                          Flow Area (sq ft)       365848.80   71194.20   708790.60
  E.G. Slope (ft/ft)        0.000008      Area (sq ft)            365848.80   71194.20   708790.60
  Q Total (cfs)             858630.20      Flow (cfs)             272830.60   65212.60   520587.00
  Top Width (ft)             8100.00      Top Width (ft)           2571.43     371.43     5157.14
  Vel Total (ft/s)              0.75      Avg. Vel. (ft/s)            0.75       0.92        0.73
  Max Chl Dpth (ft)           198.62      Hydr. Depth (ft)          142.27     191.68      137.44
  Conv. Total (cfs)         305815500.0      Conv. (cfs)           97173160.0   23226550.0   185415700.0
  Length Wtd. (ft)             45.86      Wetted Per. (ft)         2635.06     376.70     5223.13
  Min Ch El (ft)              576.71      Shear (lb/sq ft)            0.07       0.09        0.07
  Alpha                         1.01      Stream Power (lb/ft s)      0.05       0.09        0.05
  Frctn Loss (ft)               0.00      Cum Volume (acre-ft)    20250.13    6080.64    36567.48
  C & E Loss (ft)                         Cum SA (acres)            154.08      31.37      236.98

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 8310.85*

INPUT
Description:
Station Elevation Data     num=      60
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  717.62  118.08  719.91  479.82  677.04   539.8  664.52  551.04  663.33
  599.77  662.48     984  621.72 1019.61  618.57 1220.16  614.43 1379.48  612.86
  1574.4  610.93 1679.37  608.76 1799.32  603.81 2039.23  603.81 2159.18  597.62
 2204.17  597.62 2219.16  596.89 2279.14  600.18 2282.89     600 2519.05     600
    2600  576.52    2750  576.52  2888.1     600 3242.34  603.81 3343.56  607.62
 3533.33  609.66 3697.81  612.57 4305.09  616.78 4426.74  619.91 4507.52  622.88
 4873.44  632.92 4912.37  633.56 5220.88  638.66 5317.23  638.03 5519.65   636.3
 5568.31  634.86 5667.58  633.52 5772.69  633.84 5816.48  634.57  5873.9  634.21
 6015.02   634.4 6126.94  635.24 6213.55  635.24 6228.15  635.85 6362.45  640.59
 6531.79  639.52 6610.62   637.3 6734.22  637.28 6886.04  641.54 6936.65  647.53
 6987.25  648.19 7007.69  648.76 7106.96  648.76 7156.59  644.43 7255.86  644.43
  7341.5  651.32 7746.36  710.58 7801.83  715.05    8050  715.05    8050  716.29

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 2519.05     .15  2888.1     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       2519.05  2888.1            45.86   45.86   45.86             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)              775.34      Element                   Left OB    Channel   Right OB
  Vel Head (ft)                 0.01      Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)              775.33      Reach Len. (ft)            45.86      45.86      45.86
  Crit W.S. (ft)                          Flow Area (sq ft)       356736.00   70798.11   714670.60
  E.G. Slope (ft/ft)        0.000008      Area (sq ft)            356736.00   70798.11   714670.60
  Q Total (cfs)             858626.00      Flow (cfs)             265447.10   64968.13   528210.80
  Top Width (ft)             8050.00      Top Width (ft)           2519.05     369.05     5161.90
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                                                                    TXU_Rev1.rep
  Vel Total (ft/s)            0.75    Avg. Vel. (ft/s)            0.74       0.92       0.74
  Max Chl Dpth (ft)         198.81    Hydr. Depth (ft)          141.62     191.84     138.45
  Conv. Total (cfs)       305382600.0    Conv. (cfs)            94410030.0   23106840.0   187865700.0
  Length Wtd. (ft)           45.86    Wetted Per. (ft)         2583.43     374.37    5228.17
  Min Ch El (ft)            576.52    Shear (lb/sq ft)            0.07       0.09       0.07
  Alpha                       1.01    Stream Power (lb/ft s)      0.05       0.09       0.05
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    19869.77    6005.90   35818.17
  C & E Loss (ft)                     Cum SA (acres)            151.40      30.98     231.55

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 8265.*

INPUT
Description:
Station Elevation Data     num=      60
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  716.67  115.62  718.36  469.84  679.91  528.57  667.71  539.58  666.67
   587.3  665.92  963.54  623.39  998.41     620 1194.79  615.54 1350.79   613.5
 1541.67     611 1644.44  608.67  1761.9  603.33 1996.83  603.33 2114.29  596.67
 2158.33  596.67 2173.02  596.03 2231.75  600.16 2235.42     600 2466.67     600
    2550  576.33    2700  576.33 2833.33     600 3187.91  603.33 3289.22  606.67
 3479.17  608.45 3643.79  611.23 4251.63  615.76  4373.4  618.67 4454.25  621.57
 4820.51  631.68 4859.48   632.3 5168.27  637.21 5264.71  636.34 5467.32  634.17
 5516.03  632.76 5615.38  631.58 5720.59  632.22 5764.42     633  5821.9  632.61
 5963.14   632.6 6075.16  633.33 6161.86  633.33 6176.47  633.99  6310.9  639.26
 6480.39  638.33 6559.29  636.39 6683.01  637.07 6834.97  641.66 6885.62  647.19
 6936.27  648.05 6956.73  648.67 7056.09  648.67 7105.77     644 7205.13     644
 7290.85  651.42 7696.08  709.86  7751.6  714.67    8000  714.67    8000     716

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 2466.67     .15 2833.33     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       2466.67 2833.33            45.86   45.86   45.86             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.34    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.33    Reach Len. (ft)            45.86      45.86      45.86
  Crit W.S. (ft)                      Flow Area (sq ft)       347694.70   70399.84   720559.80
  E.G. Slope (ft/ft)      0.000008    Area (sq ft)            347694.70   70399.84   720559.80
  Q Total (cfs)           858621.90    Flow (cfs)             258096.40   64709.96   535815.50
  Top Width (ft)           8000.00    Top Width (ft)           2466.67     366.66    5166.67
  Vel Total (ft/s)            0.75    Avg. Vel. (ft/s)            0.74       0.92       0.74
  Max Chl Dpth (ft)         199.00    Hydr. Depth (ft)          140.96     192.00     139.46
  Conv. Total (cfs)       304995400.0    Conv. (cfs)            91679710.0   22985950.0   190329700.0
  Length Wtd. (ft)           45.86    Wetted Per. (ft)         2531.87     372.04    5233.25
  Min Ch El (ft)            576.33    Shear (lb/sq ft)            0.07       0.09       0.07
  Alpha                       1.01    Stream Power (lb/ft s)      0.05       0.09       0.05
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    19498.95    5931.57   35062.67
  C & E Loss (ft)                     Cum SA (acres)            148.78      30.59     226.11

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 8219.14*

INPUT
Description:
Station Elevation Data     num=      60
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  715.71  113.17  716.81  459.86  682.78  517.35  670.89  528.12     670
  574.83  669.36  943.08  625.06  977.21  621.43 1169.42  616.65 1322.11  614.14
 1508.93  611.07 1609.52  608.57 1724.49  602.86 1954.42  602.86 2069.39  595.71
  2112.5  595.71 2126.87  595.17 2184.35  600.14 2187.95     600 2414.29     600
    2500  576.14    2650  576.14 2778.57     600 3133.47  602.86 3234.87  605.71
    3425  607.24 3589.78  609.89 4198.18  614.74 4320.06  617.43 4400.98  620.25
 4767.58  630.44 4806.58  631.03 5115.66  635.75 5212.18  634.65 5414.99  632.04
 5463.74  630.65 5563.19  629.64 5668.49  630.59 5712.36  631.43 5769.89  631.02
 5911.26   630.8 6023.39  631.43 6110.17  631.43 6124.79  632.13 6259.34  637.94
 6428.99  637.14 6507.97  635.47 6631.79  636.86 6783.89  641.78 6834.59  646.84
 6885.29  647.91 6905.77  648.57 7005.22  648.57 7054.95  643.57  7154.4  643.57
  7240.2  651.53  7645.8  709.13 7701.37  714.29    7950  714.29    7950  715.71

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 2414.29     .15 2778.57     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       2414.29 2778.57            45.86   45.86   45.86             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.33    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.33    Reach Len. (ft)            45.86      45.86      45.86
  Crit W.S. (ft)                      Flow Area (sq ft)       338721.70   70002.89   726461.40
  E.G. Slope (ft/ft)      0.000008    Area (sq ft)            338721.70   70002.89   726461.40
  Q Total (cfs)           858617.80    Flow (cfs)             250775.50   64441.01   543401.40
  Top Width (ft)           7950.00    Top Width (ft)           2414.29     364.28    5171.43
  Vel Total (ft/s)            0.76    Avg. Vel. (ft/s)            0.74       0.92       0.75
  Max Chl Dpth (ft)         199.19    Hydr. Depth (ft)          140.30     192.17     140.48
  Conv. Total (cfs)       304654900.0    Conv. (cfs)            88980190.0   22864970.0   192809800.0
  Length Wtd. (ft)           45.86    Wetted Per. (ft)         2480.41     369.73    5238.34
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                                                                TXU_Rev1.rep
  Min Ch El (ft)            576.14    Shear (lb/sq ft)            0.07       0.09       0.07
  Alpha                       1.01    Stream Power (lb/ft s)      0.05       0.09       0.05
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    19137.62    5857.66   34300.96
  C & E Loss (ft)                     Cum SA (acres)            146.21      30.20     220.67

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 8173.28*

INPUT
Description:
Station Elevation Data     num=      60
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  714.76  110.71  715.27  449.89  685.65  506.12  674.08  516.67  673.33
  562.36   672.8  922.62  626.73  956.01  622.86 1144.05  617.76 1293.42  614.79
 1476.19  611.14  1574.6  608.48 1687.07  602.38 1912.02  602.38 2024.49  594.76
 2066.67  594.76 2080.73  594.31 2136.96  600.11 2140.48     600  2361.9     600
    2450  575.95    2600  575.95 2723.81     600 3079.04  602.38 3180.53  604.76
 3370.83  606.04 3535.76  608.55 4144.72  613.72 4266.71  616.19 4347.71  618.93
 4714.65   629.2 4753.69  629.77 5063.05  634.29 5159.66  632.96 5362.65  629.91
 5411.45  628.54 5510.99   627.7 5616.39  628.96  5660.3  629.86 5717.88  629.42
 5859.39     629 5971.62  629.52 6058.47  629.52 6073.11  630.27 6207.78  636.62
 6377.59  635.95 6456.64  634.56 6580.58  636.65 6732.82  641.89 6783.57   646.5
 6834.31  647.77 6854.81  648.48 6954.35  648.48 7004.12  643.14 7103.66  643.14
 7189.54  651.63 7595.52  708.41 7651.15   713.9    7900   713.9    7900  715.43

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15  2361.9     .15 2723.81     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        2361.9 2723.81            45.86   45.86   45.86             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.33    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.32    Reach Len. (ft)            45.86      45.86      45.86
  Crit W.S. (ft)                      Flow Area (sq ft)       329812.90   69607.47  732373.90
  E.G. Slope (ft/ft)      0.000008    Area (sq ft)            329812.90   69607.47  732373.90
  Q Total (cfs)           858613.80    Flow (cfs)             243486.20   64162.06  550965.60
  Top Width (ft)           7900.00    Top Width (ft)           2361.90     361.91    5176.19
  Vel Total (ft/s)            0.76    Avg. Vel. (ft/s)           0.74       0.92       0.75
  Max Chl Dpth (ft)         199.37    Hydr. Depth (ft)         139.64     192.33     141.49
  Conv. Total (cfs)       304358800.0    Conv. (cfs)          86310240.0  22743970.0  195304600.0
  Length Wtd. (ft)           45.86    Wetted Per. (ft)        2429.02     367.45    5243.48
  Min Ch El (ft)            575.95    Shear (lb/sq ft)           0.07       0.09       0.07
  Alpha                       1.01    Stream Power (lb/ft s)     0.05       0.09       0.05
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    18785.71    5784.17   33533.03
  C & E Loss (ft)                     Cum SA (acres)            143.70      29.82     215.22

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 8127.42*

INPUT
Description:
Station Elevation Data     num=      60
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  713.81  108.26  713.72  439.91  688.52   494.9  677.26  505.21  676.67
  549.89  676.24  902.16  628.41  934.81  624.29 1118.68  618.87 1264.74  615.43
 1443.45  611.21 1539.68  608.38 1649.66   601.9 1869.61   601.9 1979.59  593.81
 2020.83  593.81 2034.58  593.45 2089.57  600.09 2093.01     600 2309.52     600
    2400  575.76    2550  575.76 2669.05     600  3024.6   601.9 3126.19  603.81
 3316.67  604.83 3481.75   607.2 4091.27  612.71 4213.37  614.95 4294.44  617.62
 4661.72  627.96 4700.79  628.51 5010.44  632.83 5107.14  631.27 5310.32  627.78
 5359.16  626.43 5458.79  625.76 5564.29  627.33 5608.24  628.29 5665.87  627.82
 5807.51   627.2 5919.84  627.62 6006.78  627.62 6021.43  628.41 6156.23  635.29
 6326.19  634.76 6405.31  633.65 6529.37  636.44 6681.75  642.01 6732.54  646.15
 6783.33  647.63 6803.85  648.38 6903.48  648.38  6953.3  642.71 7052.93  642.71
 7138.89  651.73 7545.24  707.68 7600.92  713.52    7850  713.52    7850  715.14

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 2309.52     .15 2669.05     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        2309.52 2669.05           45.86   45.86   45.86             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.33    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.32    Reach Len. (ft)            45.86      45.86      45.86
  Crit W.S. (ft)                      Flow Area (sq ft)       320976.40   69209.45  738293.40
  E.G. Slope (ft/ft)      0.000008    Area (sq ft)            320976.40   69209.45  738293.40
  Q Total (cfs)           858609.80    Flow (cfs)             236239.10   63869.12  558501.60
  Top Width (ft)           7850.00    Top Width (ft)           2309.52     359.53    5180.95
  Vel Total (ft/s)            0.76    Avg. Vel. (ft/s)           0.74       0.92       0.76
  Max Chl Dpth (ft)         199.56    Hydr. Depth (ft)         138.98     192.50     142.50
  Conv. Total (cfs)       304106900.0    Conv. (cfs)          83672410.0  22621500.0  197813000.0
  Length Wtd. (ft)           45.86    Wetted Per. (ft)        2377.75     365.16    5248.63
  Min Ch El (ft)            575.76    Shear (lb/sq ft)           0.07       0.09       0.07
  Alpha                       1.01    Stream Power (lb/ft s)     0.05       0.09       0.05
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    18443.13    5711.10   32758.87
  C & E Loss (ft)                     Cum SA (acres)            141.24      29.44     209.77
                                                                  Page 62
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Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION

RIVER: PALUXY
REACH: PALUXY RIVER RS: 8081.57*

INPUT
Description:
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	712.86	105.8	712.18	429.93	691.39	483.67	680.45	493.75	680
537.42	679.68	881.7	630.08	913.61	625.71	1093.3	619.98	1236.05	616.07
1410.71	611.29	1504.76	608.29	1612.24	601.43	1827.21	601.43	1934.69	592.86
1975	592.86	1988.44	592.59	2042.18	600.07	2045.54	600	2257.14	600
2350	575.57	2500	575.57	2614.29	600	2970.17	601.43	3071.85	602.86
3262.5	603.62	3427.73	605.86	4037.82	611.69	4160.03	613.72	4241.18	616.3
4608.79	626.72	4647.9	627.24	4957.83	631.37	5054.62	629.58	5257.98	625.65
5306.87	624.32	5406.59	623.82	5512.19	625.71	5556.18	626.71	5613.87	626.22
5755.63	625.4	5868.07	625.71	5955.08	625.71	5969.75	626.55	6104.67	633.97
6274.79	633.57	6353.98	632.74	6478.15	636.23	6630.67	642.13	6681.51	645.81
6732.35	647.49	6752.88	648.29	6852.61	648.29	6902.47	642.29	7002.2	642.29
7088.24	651.83	7494.96	706.96	7550.69	713.14	7800	713.14	7800	714.86

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.15	2257.14	.15	2614.29	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2257.14	2614.29	45.86	45.86	45.86	.1	.3

CROSS SECTION OUTPUT Profile #Max WS

E.G. Elev (ft)	775.33	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.01	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	775.32	Reach Len. (ft)	45.86	45.86	45.86
Crit W.S. (ft)		Flow Area (sq ft)	312206.00	68811.30	744220.70
E.G. Slope (ft/ft)	0.000008	Area (sq ft)	312206.00	68811.30	744220.70
Q Total (cfs)	858605.90	Flow (cfs)	229031.20	63565.11	566009.60
Top Width (ft)	7800.00	Top Width (ft)	2257.14	357.15	5185.71
Vel Total (ft/s)	0.76	Avg. Vel. (ft/s)	0.73	0.92	0.76
Max Chl Dpth (ft)	199.75	Hydr. Depth (ft)	138.32	192.67	143.51
Conv. Total (cfs)	303897500.0	Conv. (cfs)	81063960.0	22498420.0	200335100.0
Length Wtd. (ft)	45.86	Wetted Per. (ft)	2326.58	362.89	5253.81
Min Ch El (ft)	575.57	Shear (lb/sq ft)	0.07	0.09	0.07
Alpha	1.01	Stream Power (lb/ft s)	0.05	0.09	0.05
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	18109.82	5638.44	31978.47
C & E Loss (ft)		Cum SA (acres)	138.83	29.06	204.32

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION

RIVER: PALUXY
REACH: PALUXY RIVER RS: 8035.71*

INPUT
Description:
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	711.9	103.35	710.63	419.95	694.26	472.45	683.63	482.29	683.33
524.94	683.12	861.24	631.75	892.4	627.14	1067.93	621.09	1207.37	616.71
1377.98	611.36	1469.84	608.19	1574.83	600.95	1784.81	600.95	1889.8	591.9
1929.17	591.9	1942.29	591.72	1994.78	600.05	1998.07	600	2204.76	600
2300	575.38	2450	575.38	2559.52	600	2915.73	600.95	3017.51	601.9
3208.33	602.41	3373.72	604.52	3984.36	610.67	4106.69	612.48	4187.91	614.98
4555.86	625.48	4595	625.98	4905.22	629.92	5002.1	627.88	5205.65	623.52
5254.58	622.22	5354.4	621.88	5460.08	624.08	5504.12	625.14	5561.86	624.62
5703.75	623.6	5816.29	623.81	5903.39	623.81	5918.07	624.7	6053.11	632.65
6223.39	632.38	6302.66	631.82	6426.94	636.02	6579.6	642.25	6630.49	645.47
6681.37	647.35	6701.92	648.19	6801.74	648.19	6851.65	641.86	6951.47	641.86
7037.58	651.93	7444.68	706.24	7500.46	712.76	7750	712.76	7750	714.57

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.15	2204.76	.15	2559.52	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2204.76	2559.52	45.86	45.86	45.86	.1	.3

CROSS SECTION OUTPUT Profile #Max WS

E.G. Elev (ft)	775.33	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.01	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	775.32	Reach Len. (ft)	45.86	45.86	45.86
Crit W.S. (ft)		Flow Area (sq ft)	303512.80	68410.69	750161.70
E.G. Slope (ft/ft)	0.000008	Area (sq ft)	303512.80	68410.69	750161.70
Q Total (cfs)	858602.10	Flow (cfs)	221873.60	63246.45	573482.10
Top Width (ft)	7750.00	Top Width (ft)	2204.76	354.76	5190.48
Vel Total (ft/s)	0.77	Avg. Vel. (ft/s)	0.73	0.92	0.76
Max Chl Dpth (ft)	199.94	Hydr. Depth (ft)	137.66	192.84	144.53
Conv. Total (cfs)	303736200.0	Conv. (cfs)	78489260.0	22373850.0	202873100.0
Length Wtd. (ft)	45.86	Wetted Per. (ft)	2275.53	360.62	5259.04
Min Ch El (ft)	575.38	Shear (lb/sq ft)	0.07	0.09	0.07
Alpha	1.01	Stream Power (lb/ft s)	0.05	0.09	0.05
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	17785.71	5566.21	31191.83
C & E Loss (ft)		Cum SA (acres)	136.48	28.69	198.85

Warning: The cross-section end points had to be extended vertically for the computed water surface.

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CROSS SECTION

RIVER: PALUXY
REACH: PALUXY RIVER RS: 7989.85*

INPUT
Description:
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	710.95	100.89	709.08	409.98	697.13	461.22	686.82	470.83	686.67
512.47	686.56	840.77	633.42	871.2	628.57	1042.56	622.2	1178.68	617.36
1345.24	611.43	1434.92	608.1	1537.42	600.48	1742.4	600.48	1844.9	590.95
1883.33	590.95	1896.15	590.86	1947.39	600.02	1950.6	600	2152.38	600
2250	575.19	2400	575.19	2504.76	600	2861.3	600.48	2963.17	600.95
3154.17	601.21	3319.7	603.18	3930.91	609.66	4053.34	611.24	4134.64	613.67
4502.93	624.24	4542.11	624.71	4852.61	628.46	4949.58	626.19	5153.31	621.39
5202.29	620.11	5302.2	619.94	5407.98	622.45	5452.06	623.57	5509.85	623.02
5651.88	621.8	5764.52	621.9	5851.69	621.9	5866.39	622.84	6001.56	631.32
6171.99	631.19	6251.33	630.91	6375.72	635.81	6528.53	642.37	6579.46	645.12
6630.39	647.21	6650.96	648.1	6750.87	648.1	6800.82	641.43	6900.73	641.43
6986.93	652.04	7394.4	705.51	7450.23	712.38	7700	712.38	7700	714.29

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.15	2152.38	.15	2504.76	.15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
2152.38 2504.76 45.86 45.86 45.86 .1 .3

CROSS SECTION OUTPUT Profile #Max WS

			Left OB	Channel	Right OB
E.G. Elev (ft)	775.33	Element			
Vel Head (ft)	0.01	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	775.32	Reach Len. (ft)	45.86	45.86	45.86
Crit W.S. (ft)		Flow Area (sq ft)	294880.90	68011.55	756104.10
E.G. Slope (ft/ft)	0.000008	Area (sq ft)	294880.90	68011.55	756104.10
Q Total (cfs)	858598.30	Flow (cfs)	214758.80	62918.90	580920.60
Top Width (ft)	7700.00	Top Width (ft)	2152.38	352.38	5195.24
Vel Total (ft/s)	0.77	Avg. Vel. (ft/s)	0.73	0.93	0.77
Max Chl Dpth (ft)	200.13	Hydr. Depth (ft)	137.00	193.01	145.54
Conv. Total (cfs)	303613000.0	Conv. (cfs)	75941860.0	22249050.0	205422100.0
Length Wtd. (ft)	45.86	Wetted Per. (ft)	2224.59	358.38	5264.28
Min Ch El (ft)	575.19	Shear (lb/sq ft)	0.07	0.09	0.07
Alpha	1.01	Stream Power (lb/ft s)	0.05	0.09	0.06
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	17470.71	5494.40	30398.93
C & E Loss (ft)		Cum SA (acres)	134.19	28.32	193.39

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION

RIVER: PALUXY
REACH: PALUXY RIVER RS: 7944

INPUT
Description:
Station Elevation Data num= 34

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	710	400	700	450	690	500	690	850	630
1150	618	1400	608	1500	600	1700	600	1800	590
1850	590	1900	600	2100	600	2200	575	2350	575
2450	600	3100	600	4000	610	4450	623	4800	627
5150	618	5250	618	5400	622	5600	620	5800	620
5950	630	6200	630	6600	648	6700	648	6750	641
6850	641	7400	712	7650	712	7650	714		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.15	2100	.15	2450	.15

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
2100 2450 57.54 57.54 57.54 .1 .3

CROSS SECTION OUTPUT Profile #Max WS

			Left OB	Channel	Right OB
E.G. Elev (ft)	775.33	Element			
Vel Head (ft)	0.01	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	775.32	Reach Len. (ft)	57.54	57.54	57.54
Crit W.S. (ft)		Flow Area (sq ft)	286321.80	67611.96	762063.50
E.G. Slope (ft/ft)	0.000008	Area (sq ft)	286321.80	67611.96	762063.50
Q Total (cfs)	858594.50	Flow (cfs)	207694.30	62578.50	588321.70
Top Width (ft)	7650.00	Top Width (ft)	2100.00	350.00	5200.00
Vel Total (ft/s)	0.77	Avg. Vel. (ft/s)	0.73	0.93	0.77
Max Chl Dpth (ft)	200.32	Hydr. Depth (ft)	136.34	193.18	146.55
Conv. Total (cfs)	303538000.0	Conv. (cfs)	73425960.0	22123320.0	207988800.0
Length Wtd. (ft)	57.54	Wetted Per. (ft)	2173.79	356.16	5269.56
Min Ch El (ft)	575.00	Shear (lb/sq ft)	0.07	0.09	0.07
Alpha	1.01	Stream Power (lb/ft s)	0.05	0.09	0.06
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	17164.77	5423.00	29599.77
C & E Loss (ft)		Cum SA (acres)	131.95	27.95	187.91

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION

RIVER: PALUXY
REACH: PALUXY RIVER RS: 7886.4*

INPUT
Description:
Station Elevation Data num= 51

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                                                                    TXU_Rev1.rep
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   710.4  234.18  703.95  395.87  700.01  409.81  697.37  439.08  691.18
  445.36  689.98  494.84  689.84  841.23  632.86  907.44  630.17  936.71  627.73
  1053.8  623.31 1138.13  619.65 1170.89  618.23 1287.98  613.81 1385.56  610.97
 1405.07  609.66 1484.52  603.23 1682.46  602.16 1781.43  592.28 1830.91  592.01
  1880.4  601.08 2078.33     600 2183.33  574.87    2330  574.87    2396     590
    2440     600 3071.25     600 3945.29  609.33 4382.31  621.47 4494.24   622.7
 4722.21  625.38 5062.12  617.24 5159.23  617.32  5304.9  621.16 5350.17  620.76
 5499.13  619.33 5693.37  619.33 5839.04  628.67 5863.73  628.67 6034.92     628
 6081.83     628 6377.29  640.78 6470.29  644.98  6567.4  645.17 6615.96  638.73
 6713.08  638.92 6719.66  639.75 7147.63  699.51 7247.21  711.87    7490  711.87
    7490  713.73

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 2078.33     .15    2440     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       2078.33    2440             57.54   57.54   57.54             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.33    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.32    Reach Len. (ft)            57.54      57.54      57.54
  Crit W.S. (ft)                      Flow Area (sq ft)       280420.80   69791.83   744738.80
  E.G. Slope (ft/ft)      0.000008    Area (sq ft)            280420.80   69791.83   744738.80
  Q Total (cfs)           858589.90    Flow (cfs)             205552.80   65747.71   587289.40
  Top Width (ft)           7490.00    Top Width (ft)           2078.33     361.67    5050.00
  Vel Total (ft/s)            0.78    Avg. Vel. (ft/s)            0.73       0.94       0.79
  Max Chl Dpth (ft)         200.45    Hydr. Depth (ft)          134.93     192.97     147.47
  Conv. Total (cfs)       298311000.0    Conv. (cfs)           71417880.0   22843580.0   204049500.0
  Length Wtd. (ft)           57.54    Wetted Per. (ft)         2151.15     367.47    5119.91
  Min Ch El (ft)            574.87    Shear (lb/sq ft)            0.07       0.10       0.08
  Alpha                       1.01    Stream Power (lb/ft s)      0.05       0.09       0.06
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    16790.45    5332.25   28604.57
  C & E Loss (ft)                     Cum SA (acres)            129.19      27.48     181.14

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 7828.8*

INPUT
Description:
Station Elevation Data     num=      51
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   710.8  231.74  703.81  391.75  700.02  405.54  697.56  434.51   691.1
  440.71  689.96  489.68  689.68  832.46  635.71  897.98  633.01  926.95  629.32
 1042.82  625.22 1126.27  621.31 1158.69  619.79 1274.55  615.68 1371.11  613.93
 1390.42   612.9 1469.05  606.47 1664.92  604.31 1762.86  594.57 1811.83  594.03
 1860.79  602.16 2056.67     600 2166.67  574.73    2310  574.73    2382     590
    2430     600  3042.5     600 3890.58  608.67 4314.62  619.93 4423.22  621.07
 4644.42  623.76 4974.23  616.48 5068.46  616.64 5209.81  620.33 5253.73     620
 5398.27  618.67 5586.73  618.67 5728.08  627.33 5752.03  627.33 5918.14     626
 5963.65     626 6250.34  637.87 6340.58  641.96 6434.81  642.34 6481.92  636.46
 6576.15  636.84 6582.54  637.63  6997.8  700.26 7094.42  711.73    7330  711.73
    7330  713.47

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 2056.67     .15    2430     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       2056.67    2430             57.54   57.54   57.54             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.33    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.32    Reach Len. (ft)            57.54      57.54      57.54
  Crit W.S. (ft)                      Flow Area (sq ft)       274583.00   71972.64   727132.90
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)            274583.00   71972.64   727132.90
  Q Total (cfs)           858585.50    Flow (cfs)             203494.10   69047.69   586043.80
  Top Width (ft)           7330.00    Top Width (ft)           2056.67     373.33    4900.00
  Vel Total (ft/s)            0.80    Avg. Vel. (ft/s)            0.74       0.96       0.81
  Max Chl Dpth (ft)         200.59    Hydr. Depth (ft)          133.51     192.79     148.39
  Conv. Total (cfs)       292992400.0    Conv. (cfs)           69442410.0   23562540.0   199987500.0
  Length Wtd. (ft)           57.54    Wetted Per. (ft)         2128.64     378.83    4970.34
  Min Ch El (ft)            574.73    Shear (lb/sq ft)            0.07       0.10       0.08
  Alpha                       1.01    Stream Power (lb/ft s)      0.05       0.10       0.06
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    16423.89    5238.62   27632.45
  C & E Loss (ft)                     Cum SA (acres)            126.46      26.99     174.57

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 7771.2*

INPUT
Description:
Station Elevation Data     num=      51
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   711.2   229.3  703.67  387.62  700.03  401.27  697.75  429.93  691.01
  436.07  689.95  484.52  689.52  823.69  638.57  888.52  635.86  917.18  630.91
 1031.83  627.13  1114.4  622.96 1146.48  621.34 1261.13  617.55 1356.67   616.9
 1375.77  616.14 1453.57   609.7 1647.38  606.47 1744.29  596.85 1792.74  596.04
 1841.19  603.23    2035     600    2150   574.6    2290   574.6    2368     590
                                                                    Page 65
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   2420     600 3013.75     600 3835.87     608 4246.92   618.4  4352.2  619.45
 4566.63  622.13 4886.35  615.73 4977.69  615.95 5114.71  619.49 5157.29  619.23
  5297.4     618  5480.1     618 5617.12     626 5640.34     626 5801.36     624
 5845.48     624 6123.39  634.95 6210.87  638.94 6302.21  639.51 6347.88  634.19
 6439.23  634.76 6445.42   635.5 6847.97  701.01 6941.63   711.6    7170   711.6
    7170   713.2

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    2035     .15    2420     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          2035    2420             57.54   57.54   57.54             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.33    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.32    Reach Len. (ft)             57.54      57.54      57.54
  Crit W.S. (ft)                      Flow Area (sq ft)        268805.20   74153.55   709258.30
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)             268805.20   74153.55   709258.30
  Q Total (cfs)           858581.10    Flow (cfs)              201514.70   72486.45   584580.10
  Top Width (ft)           7170.00    Top Width (ft)           2035.00     385.00     4750.00
  Vel Total (ft/s)            0.82    Avg. Vel. (ft/s)            0.75       0.98       0.82
  Max Chl Dpth (ft)         200.72    Hydr. Depth (ft)          132.09     192.61     149.32
  Conv. Total (cfs)       287586000.0    Conv. (cfs)            67498340.0   24279690.0   195808000.0
  Length Wtd. (ft)           57.54    Wetted Per. (ft)         2106.25     390.23     4820.83
  Min Ch El (ft)            574.60    Shear (lb/sq ft)            0.07       0.11       0.08
  Alpha                       1.01    Stream Power (lb/ft s)      0.05       0.10       0.07
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    16065.00    5142.11   26683.75
  C & E Loss (ft)                     Cum SA (acres)            123.76      26.49     168.20

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 7713.6*

INPUT
Description:
Station Elevation Data     num=      51
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   711.6  226.85  703.53  383.49  700.04     397  697.93  425.35  690.93
  431.43  689.93  479.37  689.37  814.92  641.42  879.06   638.7  907.42   632.5
 1020.85  629.03 1102.54  624.61 1134.27   622.9  1247.7  619.43 1342.22  619.87
 1361.13  619.38  1438.1  612.94 1629.84  608.62 1725.71  599.13 1773.65  598.06
 1821.59  604.31 2013.33     600 2133.33  574.47    2270  574.47    2354     590
    2410     600    2985     600 3781.15  607.33 4179.23  616.87 4281.19  617.83
 4488.85  620.51 4798.46  614.97 4886.92  615.27 5019.62  618.66 5060.85  618.46
 5196.54  617.33 5373.46  617.33 5506.15  624.67 5528.64  624.67 5684.58     622
 5727.31     622 5996.44  632.04 6081.15  635.92 6169.62  636.68 6213.85  631.93
 6302.31  632.68 6308.31  633.38 6698.14  701.76 6788.85  711.47    7010  711.47
    7010  712.93

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 2013.33     .15    2410     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       2013.33    2410             57.54   57.54   57.54             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.32    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.31    Reach Len. (ft)             57.54      57.54      57.54
  Crit W.S. (ft)                      Flow Area (sq ft)        263086.80   76334.95   691099.20
  E.G. Slope (ft/ft)      0.000009    Area (sq ft)             263086.80   76334.95   691099.20
  Q Total (cfs)           858576.80    Flow (cfs)              199621.30   76079.71   582875.90
  Top Width (ft)           7010.00    Top Width (ft)           2013.33     396.67     4600.00
  Vel Total (ft/s)            0.83    Avg. Vel. (ft/s)            0.76       1.00       0.84
  Max Chl Dpth (ft)         200.84    Hydr. Depth (ft)          130.67     192.44     150.24
  Conv. Total (cfs)       282083200.0    Conv. (cfs)            65585040.0   24995790.0   191502300.0
  Length Wtd. (ft)           57.54    Wetted Per. (ft)         2083.99     401.67     4671.39
  Min Ch El (ft)            574.47    Shear (lb/sq ft)            0.07       0.11       0.09
  Alpha                       1.02    Stream Power (lb/ft s)      0.06       0.11       0.07
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    15713.70    5042.72   25758.86
  C & E Loss (ft)                     Cum SA (acres)            121.09      25.98     162.02

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 7656.*

INPUT
Description:
Station Elevation Data     num=      51
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0     712  224.41  703.39  379.37  700.05  392.72  698.12  420.77  690.85
  426.79  689.91  474.21  689.21  806.15  644.28   869.6  641.55  897.65  634.09
 1009.86  630.94 1090.67  626.27 1122.07  624.45 1234.27   621.3 1327.78  622.83
 1346.48  622.62 1422.62  616.17  1612.3  610.78 1707.14  601.42 1754.56  600.07
 1801.98  605.39 1991.67     600 2116.67  574.33    2250  574.33    2340     590
    2400     600 2956.25     600 3726.44  606.67 4111.54  615.33 4210.17  616.21
 4411.06  618.89 4710.58  614.21 4796.15  614.59 4924.52  617.82 4964.41  617.69
 5095.67  616.67 5266.83  616.67 5395.19  623.33 5416.95  623.33  5567.8     620
 5609.13     620 5869.49  629.13 5951.44  632.91 6037.02  633.85 6079.81  629.66
 6165.38   630.6 6171.19  631.25 6548.31  702.51 6636.06  711.33    6850  711.33
    6850  712.67
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Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 1991.67     .15    2400     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       1991.67    2400            57.54   57.54   57.54             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.32    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.31    Reach Len. (ft)             57.54      57.54      57.54
  Crit W.S. (ft)                      Flow Area (sq ft)        257431.60   78517.24   672663.90
  E.G. Slope (ft/ft)      0.000010    Area (sq ft)             257431.60   78517.24   672663.90
  Q Total (cfs)           858572.70    Flow (cfs)              197817.60   79841.40   580913.70
  Top Width (ft)           6850.00    Top Width (ft)            1991.67     408.33     4450.00
  Vel Total (ft/s)            0.85    Avg. Vel. (ft/s)             0.77       1.02        0.86
  Max Chl Dpth (ft)         200.98    Hydr. Depth (ft)           129.25     192.29      151.16
  Conv. Total (cfs)       276488400.0    Conv. (cfs)            63703720.0   25711540.0   187073200.0
  Length Wtd. (ft)           57.54    Wetted Per. (ft)          2061.88     413.12     4522.04
  Min Ch El (ft)            574.33    Shear (lb/sq ft)             0.08       0.11        0.09
  Alpha                       1.02    Stream Power (lb/ft s)       0.06       0.12        0.08
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)     15369.92    4940.44    24858.14
  C & E Loss (ft)                     Cum SA (acres)             118.44      25.44      156.05

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 7598.4*

INPUT
Description:
Station Elevation Data     num=      51
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   712.4  221.97  703.25  375.24  700.06  388.45  698.31   416.2  690.76
  422.14  689.89  469.05  689.05  797.38  647.13  860.14  644.39  887.89  635.68
  998.87  632.85 1078.81  627.92 1109.86  626.01 1220.85  623.17 1313.33   625.8
 1331.83  625.85 1407.14   619.4 1594.76  612.94 1688.57   603.7 1735.48  602.08
 1782.38  606.47    1970     600    2100   574.2    2230   574.2    2326     590
    2390     600  2927.5     600 3671.73     606 4043.85   613.8 4139.15  614.59
 4333.27  617.27 4622.69  613.45 4705.38  613.91 4829.42  616.99 4867.97  616.92
 4994.81     616 5160.19     616 5284.23     622 5305.25     622 5451.02     618
 5490.96     618 5742.54  626.21 5821.73  629.89 5904.42  631.02 5945.77  627.39
 6028.46  628.52 6034.07  629.13 6398.47  703.26 6483.27   711.2    6690   711.2
    6690   712.4

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    1970     .15    2390     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           1970    2390            57.54   57.54   57.54             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.32    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.31    Reach Len. (ft)             57.54      57.54      57.54
  Crit W.S. (ft)                      Flow Area (sq ft)        251838.90   80699.67   653953.20
  E.G. Slope (ft/ft)      0.000010    Area (sq ft)             251838.90   80699.67   653953.20
  Q Total (cfs)           858568.60    Flow (cfs)              196108.10   83783.74   578676.70
  Top Width (ft)           6690.00    Top Width (ft)            1970.00     420.00     4300.00
  Vel Total (ft/s)            0.87    Avg. Vel. (ft/s)             0.78       1.04        0.88
  Max Chl Dpth (ft)         201.11    Hydr. Depth (ft)           127.84     192.14      152.08
  Conv. Total (cfs)       270800700.0    Conv. (cfs)            61854360.0   26426190.0   182520100.0
  Length Wtd. (ft)           57.54    Wetted Per. (ft)          2039.89     424.60     4372.77
  Min Ch El (ft)            574.20    Shear (lb/sq ft)             0.08       0.12        0.09
  Alpha                       1.02    Stream Power (lb/ft s)       0.06       0.12        0.08
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)     15033.56    4835.29    23981.95
  C & E Loss (ft)                     Cum SA (acres)             115.82      24.90      150.27

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 7540.8*

INPUT
Description:
Station Elevation Data     num=      51
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   712.8  219.53  703.11  371.11  700.07  384.18   698.5  411.62  690.68
   417.5  689.88  463.89  688.89  788.61  649.99  850.68  647.24  878.12  637.28
  987.89  634.75 1066.94  629.57 1097.65  627.56 1207.42  625.04 1298.89  628.77
 1317.18  629.09 1391.67  622.64 1577.22  615.09    1670  605.99 1716.39   604.1
 1762.78  607.55 1948.33     600 2083.33  574.07    2210  574.07    2312     590
    2380     600 2898.75     600 3617.02  605.33 3976.15  612.27 4068.14  612.97
 4255.48  615.64 4534.81   612.7 4614.62  613.23 4734.33  616.15 4771.53  616.15
 4893.94  615.33 5053.56  615.33 5173.27  620.67 5193.56  620.67 5334.24     616
 5372.79     616 5615.59   623.3 5692.02  626.87 5771.83  628.19 5811.73  625.12
 5891.54  626.44 5896.95     627 6248.64  704.01 6330.48  711.07    6530  711.07
    6530  712.13

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 1948.33     .15    2380     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
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                                                                TXU_Rev1.rep
      1948.33    2380            57.54   57.54   57.54              .1        .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.32    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.31    Reach Len. (ft)            57.54      57.54      57.54
  Crit W.S. (ft)                      Flow Area (sq ft)       246304.00   82882.57   634967.40
  E.G. Slope (ft/ft)      0.000010    Area (sq ft)            246304.00   82882.57   634967.40
  Q Total (cfs)           858564.80    Flow (cfs)             194492.30   87925.29   576147.30
  Top Width (ft)           6530.00    Top Width (ft)           1948.33     431.67     4150.00
  Vel Total (ft/s)            0.89    Avg. Vel. (ft/s)           0.79       1.06       0.91
  Max Chl Dpth (ft)         201.24    Hydr. Depth (ft)         126.42     192.00     153.00
  Conv. Total (cfs)       265017300.0    Conv. (cfs)          60034840.0   27140310.0   177842100.0
  Length Wtd. (ft)           57.54    Wetted Per. (ft)        2018.04     436.11     4223.60
  Min Ch El (ft)            574.07    Shear (lb/sq ft)           0.08       0.12       0.10
  Alpha                       1.02    Stream Power (lb/ft s)     0.06       0.13       0.09
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    14704.55    4727.24   23130.66
  C & E Loss (ft)                     Cum SA (acres)            113.24      24.33     144.69

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 7483.2*

INPUT
Description:
Station Elevation Data     num=      51
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   713.2  217.09  702.97  366.98  700.08  379.91  698.69  407.04  690.59
  412.86  689.86  458.73  688.73  779.84  652.84  841.22  650.08  868.36  638.87
   976.9  636.66 1055.08  631.23 1085.45  629.12 1193.99  626.91 1284.44  631.73
 1302.54  632.33 1376.19  625.87 1559.68  617.25 1651.43  608.27  1697.3  606.11
 1743.17  608.62 1926.67     600 2066.67  573.93    2190  573.93    2298     590
    2370     600    2870     600 3562.31  604.67 3908.46  610.73 3997.12  611.35
 4177.69  614.02 4446.92  611.94 4523.85  612.54 4639.23  615.32 4675.08  615.38
 4793.08  614.67 4946.92  614.67 5062.31  619.33 5081.86  619.33 5217.46     614
 5254.62     614 5488.64  620.39 5562.31  623.85 5639.23  625.36 5677.69  622.85
 5754.62  624.36 5759.83  624.88 6098.81  704.76 6177.69  710.93    6370  710.93
    6370  711.87

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 1926.67     .15    2370     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      1926.67    2370            57.54   57.54   57.54              .1        .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.32    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.31    Reach Len. (ft)            57.54      57.54      57.54
  Crit W.S. (ft)                      Flow Area (sq ft)       240836.10   85066.39   615700.60
  E.G. Slope (ft/ft)      0.000011    Area (sq ft)            240836.10   85066.39   615700.60
  Q Total (cfs)           858561.10    Flow (cfs)             192985.20   92286.18   573289.80
  Top Width (ft)           6370.00    Top Width (ft)           1926.67     443.33     4000.00
  Vel Total (ft/s)            0.91    Avg. Vel. (ft/s)           0.80       1.08       0.93
  Max Chl Dpth (ft)         201.38    Hydr. Depth (ft)         125.00     191.88     153.93
  Conv. Total (cfs)       259137900.0    Conv. (cfs)          58248370.0   27854560.0   173035000.0
  Length Wtd. (ft)           57.54    Wetted Per. (ft)        1996.34     447.62     4074.54
  Min Ch El (ft)            573.93    Shear (lb/sq ft)           0.08       0.13       0.10
  Alpha                       1.02    Stream Power (lb/ft s)     0.07       0.14       0.10
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    14382.81    4616.32   22304.63
  C & E Loss (ft)                     Cum SA (acres)            110.68      23.76     139.30

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 7425.6*

INPUT
Description:
Station Elevation Data     num=      51
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   713.6  214.65  702.83  362.86   700.1  375.63  698.87  402.46  690.51
  408.21  689.84  453.57  688.57  771.07   655.7  831.76  652.93  858.59  640.46
  965.92  638.56 1043.21  632.88 1073.24  630.67 1180.56  628.78    1270   634.7
 1287.89  635.57 1360.71  629.11 1542.14   619.4 1632.86  610.55 1678.21  608.13
 1723.57   609.7    1905     600    2050   573.8    2170   573.8    2284     590
    2360     600 2841.25     600  3507.6     604 3840.77   609.2  3926.1  609.73
  4099.9   612.4 4359.04  611.18 4433.08  611.86 4544.13  614.48 4578.64  614.61
 4692.21     614 4840.29     614 4951.35     618 4970.17     618 5100.68     612
 5136.44     612 5361.69  617.48  5432.6  620.83 5506.63  622.53 5543.65  620.58
 5617.69  622.28 5622.71  622.75 5948.98  705.51  6024.9   710.8    6210   710.8
    6210   711.6

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    1905     .15    2360     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          1905    2360            57.54   57.54   57.54              .1        .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.32    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                 0.150      0.150      0.150
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                                                                    TXU_Rev1.rep
  W.S. Elev (ft)            775.30    Reach Len. (ft)            57.54      57.54      57.54
  Crit W.S. (ft)                      Flow Area (sq ft)       235424.70   87250.23   596160.10
  E.G. Slope (ft/ft)      0.000012    Area (sq ft)            235424.70   87250.23   596160.10
  Q Total (cfs)           858557.40    Flow (cfs)             191581.30   96884.23   570091.90
  Top Width (ft)           6210.00    Top Width (ft)          1905.00     455.00     3850.00
  Vel Total (ft/s)            0.93    Avg. Vel. (ft/s)           0.81       1.11       0.96
  Max Chl Dpth (ft)         201.50    Hydr. Depth (ft)         123.58     191.76     154.85
  Conv. Total (cfs)       253160400.0    Conv. (cfs)          56491030.0  28567980.0  168101400.0
  Length Wtd. (ft)           57.54    Wetted Per. (ft)        1974.77     459.15     3925.60
  Min Ch El (ft)            573.80    Shear (lb/sq ft)           0.09       0.14       0.11
  Alpha                       1.02    Stream Power (lb/ft s)     0.07       0.15       0.10
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)   14068.25    4502.51   21504.23
  C & E Loss (ft)                     Cum SA (acres)           108.15      23.16     134.12

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 7368.*

INPUT
Description:
Station Elevation Data     num=      51
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0     714  212.21  702.69  358.73  700.11  371.36  699.06  397.89  690.42
  403.57  689.82  448.41  688.41   762.3  658.55   822.3  655.77  848.83  642.05
  954.93  640.47 1031.35  634.53 1061.03  632.23 1167.14  630.65 1255.56  637.67
 1273.24  638.81 1345.24  632.34  1524.6  621.56 1614.29  612.84 1659.13  610.14
 1703.97  610.78 1883.33     600 2033.33  573.67    2150  573.67    2270     590
    2350     600  2812.5     600 3452.88  603.33 3773.08  607.67 3855.08  608.11
 4022.12  610.78 4271.15  610.42 4342.31  611.18 4449.04  613.65  4482.2  613.84
 4591.35  613.33 4733.65  613.33 4840.38  616.67 4858.47  616.67  4983.9     610
 5018.27     610 5234.75  614.56 5302.88  617.81 5374.04   619.7 5409.62  618.31
 5480.77  620.21 5485.59  620.63 5799.15  706.25 5872.12  710.67    6050  710.67
    6050  711.33

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 1883.33     .15    2350     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       1883.33    2350            57.54   57.54   57.54             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.32    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                0.150      0.150      0.150
  W.S. Elev (ft)            775.30    Reach Len. (ft)           57.54      57.54      57.54
  Crit W.S. (ft)                      Flow Area (sq ft)       230075.50   89434.52   576343.50
  E.G. Slope (ft/ft)      0.000012    Area (sq ft)            230075.50   89434.52   576343.50
  Q Total (cfs)           858553.90    Flow (cfs)             190293.20  101744.20   566516.50
  Top Width (ft)           6050.00    Top Width (ft)          1883.33     466.67     3700.00
  Vel Total (ft/s)            0.96    Avg. Vel. (ft/s)           0.83       1.14       0.98
  Max Chl Dpth (ft)         201.63    Hydr. Depth (ft)         122.16     191.64     155.77
  Conv. Total (cfs)       247084700.0    Conv. (cfs)          54764820.0  29281140.0  163038800.0
  Length Wtd. (ft)           57.54    Wetted Per. (ft)        1953.35     470.69     3776.79
  Min Ch El (ft)            573.67    Shear (lb/sq ft)           0.09       0.14       0.12
  Alpha                       1.03    Stream Power (lb/ft s)     0.07       0.16       0.11
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)   13760.81    4385.82   20729.83
  C & E Loss (ft)                     Cum SA (acres)           105.64      22.55     129.13

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 7310.4*

INPUT
Description:
Station Elevation Data     num=      51
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   714.4  209.77  702.56   354.6  700.12  367.09  699.25  393.31  690.34
  398.93   689.8  443.25  688.25  753.53  661.41  812.84  658.62  839.06  643.64
  943.94  642.38 1019.48  636.18 1048.83  633.78 1153.71  632.52 1241.11  640.63
 1258.59  642.05 1329.76  635.57 1507.06  623.72 1595.71  615.12 1640.04  612.16
 1684.37  611.86 1861.67     600 2016.67  573.53    2130  573.53    2256     590
    2340     600 2783.75     600 3398.17  602.67 3705.38  606.13 3784.07  606.48
 3944.33  609.15 4183.27  609.67 4251.54   610.5 4353.94  612.81 4385.76  613.08
 4490.48  612.67 4627.02  612.67 4729.42  615.33 4746.78  615.33 4867.12     608
  4900.1     608  5107.8  611.65 5173.17  614.79 5241.44  616.87 5275.58  616.05
 5343.85  618.13 5348.47   618.5 5649.32     707 5719.33  710.53    5890  710.53
    5890  711.07

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 1861.67     .15    2340     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       1861.67    2340            57.54   57.54   57.54             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.31    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.02    Wt. n-Val.                0.150      0.150      0.150
  W.S. Elev (ft)            775.30    Reach Len. (ft)           57.54      57.54      57.54
  Crit W.S. (ft)                      Flow Area (sq ft)       224786.60   91619.73   556247.80
  E.G. Slope (ft/ft)      0.000013    Area (sq ft)            224786.60   91619.73   556247.80
  Q Total (cfs)           858550.50    Flow (cfs)             189126.80  106895.60   562528.10
  Top Width (ft)           5890.00    Top Width (ft)          1861.67     478.33     3550.00
  Vel Total (ft/s)            0.98    Avg. Vel. (ft/s)           0.84       1.17       1.01
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                                                                    TXU_Rev1.rep
  Max Chl Dpth (ft)          201.77    Hydr. Depth (ft)          120.74      191.54      156.69
  Conv. Total (cfs)        240907300.0    Conv. (cfs)           53068560.0   29994670.0   157844100.0
  Length Wtd. (ft)            57.54    Wetted Per. (ft)         1932.08      482.24     3628.14
  Min Ch El (ft)             573.53    Shear (lb/sq ft)            0.09        0.15        0.12
  Alpha                        1.03    Stream Power (lb/ft s)      0.08        0.18        0.12
  Frctn Loss (ft)              0.00    Cum Volume (acre-ft)    13460.38     4266.23    19981.79
  C & E Loss (ft)                      Cum SA (acres)            103.17       21.93      124.34

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 7252.8*

INPUT
Description:
Station Elevation Data     num=      51
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   714.8  207.32  702.42  350.48  700.13  362.82  699.44  388.73  690.25
  394.29  689.79   438.1   688.1  744.76  664.26  803.38  661.46   829.3  645.23
  932.96  644.28 1007.62  637.84 1036.62  635.34 1140.28  634.39 1226.67   643.6
 1243.94  645.28 1314.29  638.81 1489.52  625.87 1577.14   617.4 1620.95  614.17
 1664.76  612.94    1840     600    2000   573.4    2110   573.4    2242     590
    2330     600    2755     600 3343.46     602 3637.69   604.6 3713.05  604.86
 3866.54  607.53 4095.38  608.91 4160.77  609.82 4258.85  611.98 4289.32  612.31
 4389.62     612 4520.38     612 4618.46     614 4635.08     614 4750.34     606
 4781.92     606 4980.85  608.74 5043.46  611.77 5108.85  614.04 5141.54  613.78
 5206.92  616.05 5211.36  616.38 5499.49  707.75 5566.54   710.4    5730   710.4
    5730   710.8

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    1840     .15    2330     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          1840    2330             57.54   57.54   57.54             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)             775.31    Element                   Left OB    Channel   Right OB
  Vel Head (ft)                0.02    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)             775.30    Reach Len. (ft)            57.54      57.54      57.54
  Crit W.S. (ft)                       Flow Area (sq ft)       219559.00   93804.83   535874.20
  E.G. Slope (ft/ft)       0.000013    Area (sq ft)            219559.00   93804.83   535874.20
  Q Total (cfs)            858547.30    Flow (cfs)             188093.80   112364.40   558089.10
  Top Width (ft)            5730.00    Top Width (ft)           1840.00     490.00     3400.00
  Vel Total (ft/s)             1.01    Avg. Vel. (ft/s)            0.86       1.20       1.04
  Max Chl Dpth (ft)          201.90    Hydr. Depth (ft)          119.33     191.44     157.61
  Conv. Total (cfs)        234627700.0    Conv. (cfs)           51403120.0   30707460.0   152517100.0
  Length Wtd. (ft)            57.54    Wetted Per. (ft)         1910.95     493.80     3479.65
  Min Ch El (ft)             573.40    Shear (lb/sq ft)            0.10       0.16       0.13
  Alpha                        1.03    Stream Power (lb/ft s)      0.08       0.19       0.13
  Frctn Loss (ft)              0.00    Cum Volume (acre-ft)    13166.91    4143.77    19260.48
  C & E Loss (ft)                      Cum SA (acres)            100.73      21.29      119.75

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 7195.2*

INPUT
Description:
Station Elevation Data     num=      51
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   715.2  204.88  702.28  346.35  700.14  358.54  699.62  384.15  690.17
  389.64  689.77  432.94  687.94  735.99  667.12  793.92  664.31  819.53  646.82
  921.97  646.19  995.75  639.49 1024.41  636.89 1126.85  636.26 1212.22  646.57
  1229.3  648.52 1298.81  642.04 1471.98  628.03 1558.57  619.69 1601.87  616.18
 1645.16  614.01 1818.33     600 1983.33  573.27    2090  573.27    2228     590
    2320     600 2726.25     600 3288.75  601.33    3570  603.07 3642.03  603.24
 3788.75  605.91  4007.5  608.15    4070  609.13 4163.75  611.14 4192.88  611.54
 4288.75  611.33 4413.75  611.33  4507.5  612.67 4523.39  612.67 4633.56     604
 4663.75     604  4853.9  605.83 4913.75  608.75 4976.25  611.21  5007.5  611.51
    5070  613.97 5074.24  614.25 5349.66   708.5 5413.75  710.27    5570  710.27
    5570  710.53

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 1818.33     .15    2320     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       1818.33    2320             57.54   57.54   57.54             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)             775.31    Element                   Left OB    Channel   Right OB
  Vel Head (ft)                0.02    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)             775.29    Reach Len. (ft)            57.54      57.54      57.54
  Crit W.S. (ft)                       Flow Area (sq ft)       214392.90   95990.38   515226.70
  E.G. Slope (ft/ft)       0.000014    Area (sq ft)            214392.90   95990.38   515226.70
  Q Total (cfs)            858544.30    Flow (cfs)             187201.90   118186.40   553155.90
  Top Width (ft)            5570.00    Top Width (ft)           1818.33     501.67     3250.00
  Vel Total (ft/s)             1.04    Avg. Vel. (ft/s)            0.87       1.23       1.07
  Max Chl Dpth (ft)          202.02    Hydr. Depth (ft)          117.91     191.34     158.53
  Conv. Total (cfs)        228246200.0    Conv. (cfs)           49768120.0   31420170.0   147057900.0
  Length Wtd. (ft)            57.54    Wetted Per. (ft)         1889.97     505.37     3331.34
  Min Ch El (ft)             573.27    Shear (lb/sq ft)            0.10       0.17       0.14
  Alpha                        1.03    Stream Power (lb/ft s)      0.09       0.21       0.15
  Frctn Loss (ft)              0.00    Cum Volume (acre-ft)    12880.30    4018.41    18566.26
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  C & E Loss (ft)                    Cum SA (acres)                 98.31      20.64      115.36

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 7137.6*

INPUT
Description:
Station Elevation Data     num=      51
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   715.6  202.44  702.14  342.22  700.15  354.27  699.81  379.58  690.08
     385  689.75  427.78  687.78  727.22  669.97  784.46  667.15  809.77  648.41
  910.99  648.09  983.89  641.14 1012.21  638.45 1113.43  638.13 1197.78  649.53
 1214.65  651.76 1283.33  645.28 1454.44  630.18    1540  621.97 1582.78   618.2
 1625.56  615.09 1796.67     600 1966.67  573.13    2070  573.13    2214     590
    2310     600  2697.5     600 3234.04  600.67 3502.31  601.53 3571.02  601.62
 3710.96  604.29 3919.62  607.39 3979.23  608.45 4068.65  610.31 4096.44  610.77
 4187.88  610.67 4307.12  610.67 4396.54  611.33  4411.7  611.33 4516.78     602
 4545.58     602 4726.95  602.91 4784.04  605.74 4843.65  608.38 4873.46  609.24
 4933.08  611.89 4937.12  612.12 5199.83  709.25 5260.96  710.13    5410  710.13
    5410  710.27

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 1796.67     .15    2310     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       1796.67    2310            57.54   57.54   57.54             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.31    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.02    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.29    Reach Len. (ft)             57.54      57.54      57.54
  Crit W.S. (ft)                      Flow Area (sq ft)       209291.30   98176.78   494299.20
  E.G. Slope (ft/ft)      0.000015    Area (sq ft)            209291.30   98176.78   494299.20
  Q Total (cfs)           858541.40    Flow (cfs)             186468.40  124404.00   547668.90
  Top Width (ft)           5410.00    Top Width (ft)          1796.67     513.33    3100.00
  Vel Total (ft/s)            1.07    Avg. Vel. (ft/s)           0.89       1.27       1.11
  Max Chl Dpth (ft)         202.16    Hydr. Depth (ft)         116.49     191.25     159.45
  Conv. Total (cfs)       221759700.0    Conv. (cfs)          48164460.0  32133340.0  141461900.0
  Length Wtd. (ft)           57.54    Wetted Per. (ft)        1869.15     516.94    3183.25
  Min Ch El (ft)            573.13    Shear (lb/sq ft)           0.10       0.18       0.15
  Alpha                       1.04    Stream Power (lb/ft s)     0.09       0.23       0.16
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)   12600.47    3890.17   17899.50
  C & E Loss (ft)                     Cum SA (acres)            95.92      19.97     111.17

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 7080

INPUT
Description:
Station Elevation Data     num=      23
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0     716     200     702     350     700     375     690     775     670
     800     650     900     650    1000     640    1100     640    1200     655
    1775     600    1950     573    2050     573    2200     590    2300     600
    3500     600    4000     610    4300     610    4400     600    4600     600
    4800     610    5050     710    5250     710

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15    1775     .15    2300     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          1775    2300            14.97   14.97   14.97             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.31    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.02    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.29    Reach Len. (ft)             14.97      14.97      14.97
  Crit W.S. (ft)                      Flow Area (sq ft)       204246.00  100362.90   473095.20
  E.G. Slope (ft/ft)      0.000016    Area (sq ft)            204246.00  100362.90   473095.20
  Q Total (cfs)           858538.60    Flow (cfs)             185897.50  131059.60   541581.50
  Top Width (ft)           5250.00    Top Width (ft)          1775.00     525.00    2950.00
  Vel Total (ft/s)            1.10    Avg. Vel. (ft/s)           0.91       1.31       1.14
  Max Chl Dpth (ft)         202.29    Hydr. Depth (ft)         115.07     191.17     160.37
  Conv. Total (cfs)       215164600.0    Conv. (cfs)          46589140.0  32845790.0  135729700.0
  Length Wtd. (ft)           14.97    Wetted Per. (ft)        1848.47     528.53    3035.39
  Min Ch El (ft)            573.00    Shear (lb/sq ft)           0.11       0.19       0.15
  Alpha                       1.04    Stream Power (lb/ft s)     0.10       0.25       0.18
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)   12327.34    3759.04   17260.57
  C & E Loss (ft)                     Cum SA (acres)            93.56      19.28     107.17

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 7065.01*

INPUT
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Description:
Station Elevation Data     num=      39
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  715.73   75.72  710.48  200.49  701.77  350.86  699.71  375.92  689.77
  378.59  689.64   643.6  676.52  757.17  670.75  757.17   670.6   776.9  669.62
  801.96  649.77  889.68  649.77  902.21  649.76  946.47  645.35 1002.45   639.8
 1022.18   639.8 1060.04  639.77  1102.7  639.76 1202.94   654.6 1249.34  650.19
 1779.36  599.92 1953.79 572.98 2053.98  572.98  2203.3  589.94 2302.84  599.92
  2924.2  600.02 3172.74 600.07 3499.22  600.07 3504.13  600.17 3835.53   606.7
 3918.37  608.34 3997.71 609.91 4296.81  609.86 4332.61  606.29  4396.5  599.99
  4595.9  600.16  4795.3 610.25 5044.54  709.71 5243.94  709.88

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 1779.36     .15 2302.84     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       1779.36 2302.84            14.97   14.97   14.97             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.31    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.02    Wt. n-Val.                0.150      0.150      0.150
  W.S. Elev (ft)            775.29    Reach Len. (ft)           14.97      14.97      14.97
  Crit W.S. (ft)                      Flow Area (sq ft)       205164.90   100102.50   471690.70
  E.G. Slope (ft/ft)      0.000016    Area (sq ft)            205164.90   100102.50   471690.70
  Q Total (cfs)           858537.90    Flow (cfs)             187169.10   130873.00   540495.80
  Top Width (ft)           5243.94    Top Width (ft)           1779.36     523.48     2941.10
  Vel Total (ft/s)            1.10    Avg. Vel. (ft/s)            0.91       1.31        1.15
  Max Chl Dpth (ft)         202.31    Hydr. Depth (ft)          115.30     191.23      160.38
  Conv. Total (cfs)       214953000.0    Conv. (cfs)            46861720.0   32766810.0   135324500.0
  Length Wtd. (ft)           14.97    Wetted Per. (ft)         1853.05     527.01     3026.46
  Min Ch El (ft)            572.98    Shear (lb/sq ft)            0.11       0.19        0.16
  Alpha                       1.04    Stream Power (lb/ft s)      0.10       0.25        0.18
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    12256.99    3724.60    17098.22
  C & E Loss (ft)                     Cum SA (acres)             92.95      19.10      106.16

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 7050.03*

INPUT
Description:
Station Elevation Data     num=      39
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  715.45    75.9  710.25  200.98  701.54  351.72  699.42  376.84  689.55
  379.51  689.41  645.17   676.4  759.03  670.51  759.03  670.21   778.8  669.24
  803.93  649.55  891.86  649.55  904.42  649.53  948.78  645.12 1004.91   639.6
 1024.69  639.59 1062.64  639.55  1105.4  639.51 1205.89   654.2 1252.39  649.81
 1783.71  599.83 1957.58 572.97 2057.95  572.97 2206.59  589.88 2305.68  599.83
 2925.16  600.05 3172.95 600.14 3498.44  600.14 3503.34  600.23 3833.73  606.64
 3916.33  608.28 3995.42 609.82 4293.61  609.72 4329.31  606.17 4393.01  599.97
  4591.8  600.31 4790.59  610.5 5039.09  709.42 5237.88  709.76

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 1783.71     .15 2305.68     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       1783.71 2305.68            14.97   14.97   14.97             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.31    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.02    Wt. n-Val.                0.150      0.150      0.150
  W.S. Elev (ft)            775.29    Reach Len. (ft)           14.97      14.97      14.97
  Crit W.S. (ft)                      Flow Area (sq ft)       206084.30   99842.16   470291.90
  E.G. Slope (ft/ft)      0.000016    Area (sq ft)            206084.30   99842.16   470291.90
  Q Total (cfs)           858537.30    Flow (cfs)             188442.60   130683.80   539410.90
  Top Width (ft)           5237.88    Top Width (ft)           1783.71     521.97     2932.20
  Vel Total (ft/s)            1.11    Avg. Vel. (ft/s)            0.91       1.31        1.15
  Max Chl Dpth (ft)         202.32    Hydr. Depth (ft)          115.54     191.28      160.39
  Conv. Total (cfs)       214744500.0    Conv. (cfs)            47134830.0   32687710.0   134922000.0
  Length Wtd. (ft)           14.97    Wetted Per. (ft)         1857.61     525.49     3017.52
  Min Ch El (ft)            572.97    Shear (lb/sq ft)            0.11       0.19        0.16
  Alpha                       1.04    Stream Power (lb/ft s)      0.10       0.25        0.18
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    12186.32    3690.24    16936.36
  C & E Loss (ft)                     Cum SA (acres)             92.34      18.92      105.15

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 7035.04*

INPUT
Description:
Station Elevation Data     num=      39
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  715.18   76.09  710.01  201.47  701.31  352.58  699.13  377.76  689.32
  380.44  689.19  646.75  676.27  760.88  670.28  760.88  669.83  780.71  668.86
  805.89  649.32  894.03  649.32  906.63  649.29   951.1  644.89 1007.36   639.4
 1027.19  639.39 1065.23  639.32  1108.1  639.27 1208.83  653.81 1255.45  649.42
 1788.07  599.75 1961.36 572.95 2061.93  572.95 2209.89  589.81 2308.52  599.75
 2926.12  600.07 3173.16   600.2 3497.66   600.2 3502.54   600.3 3831.93  606.59
 3914.28  608.22 3993.13 609.73 4290.42  609.59 4326.01  606.06 4389.51  599.96
  4587.7  600.47 4785.89 610.76 5033.63  709.12 5231.82  709.64
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                                                                    TXU_Rev1.rep
Manning's n Values          num=       3
     Sta   n Val      Sta   n Val      Sta   n Val
       0     .15 1788.07     .15 2308.52     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       1788.07 2308.52            14.97   14.97   14.97            .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.30    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.02    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.28    Reach Len. (ft)             14.97      14.97      14.97
  Crit W.S. (ft)                      Flow Area (sq ft)       207007.70   99582.66   468889.40
  E.G. Slope (ft/ft)      0.000016    Area (sq ft)            207007.70   99582.66   468889.40
  Q Total (cfs)           858536.60    Flow (cfs)             189723.90   130496.40   538316.40
  Top Width (ft)           5231.82    Top Width (ft)           1788.07     520.45    2923.30
  Vel Total (ft/s)            1.11    Avg. Vel. (ft/s)            0.92       1.31       1.15
  Max Chl Dpth (ft)         202.33    Hydr. Depth (ft)          115.77     191.34     160.40
  Conv. Total (cfs)       214536500.0    Conv. (cfs)            47409390.0   32609240.0   134517900.0
  Length Wtd. (ft)           14.97    Wetted Per. (ft)         1862.20     523.97    3008.58
  Min Ch El (ft)            572.95    Shear (lb/sq ft)            0.11       0.19       0.16
  Alpha                       1.04    Stream Power (lb/ft s)      0.10       0.25       0.18
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    12115.34    3655.97   16774.98
  C & E Loss (ft)                     Cum SA (acres)             91.73      18.74     104.14

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 7020.06*

INPUT
Description:
Station Elevation Data      num=      39
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  714.91   76.27  709.78  201.96  701.08  353.44  698.84  378.68   689.1
  381.37  688.96  648.32  676.14  762.73  670.05  762.73  669.44  782.61  668.48
  807.85  649.09  896.21  649.09  908.83  649.06  953.42  644.66 1009.82   639.2
 1029.69  639.18 1067.83  639.09  1110.8  639.02 1211.78  653.41 1258.51  649.04
 1792.42  599.67 1965.15  572.94 2065.91  572.94 2213.18  589.75 2311.36  599.67
 2927.08  600.09 3173.37  600.27 3496.88  600.27 3501.75  600.37 3830.13  606.54
 3912.23  608.15 3990.84  609.64 4287.22  609.45 4322.71  605.94 4386.02  599.95
  4583.6  600.63 4781.19  611.01 5028.17  708.83 5225.76  709.52

Manning's n Values          num=       3
     Sta   n Val      Sta   n Val      Sta   n Val
       0     .15 1792.42     .15 2311.36     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       1792.42 2311.36            14.97   14.97   14.97            .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.30    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.02    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.28    Reach Len. (ft)             14.97      14.97      14.97
  Crit W.S. (ft)                      Flow Area (sq ft)       207930.90   99320.84   467485.70
  E.G. Slope (ft/ft)      0.000016    Area (sq ft)            207930.90   99320.84   467485.70
  Q Total (cfs)           858535.80    Flow (cfs)             191010.50   130303.60   537221.70
  Top Width (ft)           5225.76    Top Width (ft)           1792.42     518.94    2914.40
  Vel Total (ft/s)            1.11    Avg. Vel. (ft/s)            0.92       1.31       1.15
  Max Chl Dpth (ft)         202.34    Hydr. Depth (ft)          116.01     191.39     160.41
  Conv. Total (cfs)       214326300.0    Conv. (cfs)            47684200.0   32529210.0   134112900.0
  Length Wtd. (ft)           14.97    Wetted Per. (ft)         1866.78     522.45    2999.65
  Min Ch El (ft)            572.94    Shear (lb/sq ft)            0.11       0.19       0.16
  Alpha                       1.04    Stream Power (lb/ft s)      0.10       0.25       0.18
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    12044.04    3621.79   16614.08
  C & E Loss (ft)                     Cum SA (acres)             91.11      18.56     103.14

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 7005.07*

INPUT
Description:
Station Elevation Data      num=      39
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  714.64   76.46  709.55  202.45  700.85  354.29  698.55   379.6  688.87
  382.29  688.74   649.9  676.02  764.59  669.81  764.59  669.05  784.51  668.11
  809.82  648.86  898.39  648.86  911.04  648.82  955.73  644.43 1012.27     639
 1032.19  638.98 1070.42  638.86  1113.5  638.78 1214.72  653.01 1261.57  648.66
 1796.78  599.58 1968.94  572.92 2069.89  572.92 2216.48  589.69  2314.2  599.58
 2928.04  600.11 3173.58  600.34  3496.1  600.34 3500.96  600.44 3828.33  606.49
 3910.18  608.09 3988.56  609.56 4284.03  609.31  4319.4  605.82 4382.52  599.93
  4579.5  600.79 4776.49  611.26 5022.71  708.54  5219.7  709.39

Manning's n Values          num=       3
     Sta   n Val      Sta   n Val      Sta   n Val
       0     .15 1796.78     .15  2314.2     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       1796.78  2314.2            14.97   14.97   14.97            .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.30    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.02    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.28    Reach Len. (ft)             14.97      14.97      14.97
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                                                                    TXU_Rev1.rep
  Crit W.S. (ft)                          Flow Area (sq ft)        208856.50    99060.97   466084.30
  E.G. Slope (ft/ft)        0.000016      Area (sq ft)             208856.50    99060.97   466084.30
  Q Total (cfs)            858535.20       Flow (cfs)               192300.80   130114.50   536119.90
  Top Width (ft)             5219.70      Top Width (ft)            1796.78      517.42     2905.50
  Vel Total (ft/s)              1.11      Avg. Vel. (ft/s)             0.92        1.31        1.15
  Max Chl Dpth (ft)           202.36      Hydr. Depth (ft)           116.24      191.45      160.41
  Conv. Total (cfs)        214119400.0      Conv. (cfs)            47959990.0   32450660.0   133708800.0
  Length Wtd. (ft)             14.97      Wetted Per. (ft)          1871.36      520.93     2990.73
  Min Ch El (ft)              572.92      Shear (lb/sq ft)             0.11        0.19        0.16
  Alpha                         1.04      Stream Power (lb/ft s)       0.10        0.25        0.18
  Frctn Loss (ft)               0.00      Cum Volume (acre-ft)     11972.42     3587.71    16453.66
  C & E Loss (ft)                         Cum SA (acres)              90.49       18.38      102.14

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 6990.09*

INPUT
Description:
Station Elevation Data     num=      39
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  714.36   76.64  709.32  202.94  700.63  355.15  698.27  380.52  688.64
  383.22  688.51  651.47  675.89  766.44  669.58  766.44  668.67  786.41  667.73
  811.78  648.64  900.57  648.64  913.25  648.59  958.05  644.19 1014.72   638.8
  1034.7  638.77 1073.02  638.64  1116.2  638.53 1217.67  652.61 1264.63  648.27
 1801.14   599.5 1972.73  572.91 2073.86  572.91 2219.77  589.63 2317.05   599.5
    2929  600.14 3173.78  600.41 3495.32  600.41 3500.16   600.5 3826.54  606.44
 3908.13  608.03 3986.27  609.47 4280.84  609.17  4316.1  605.71 4379.03  599.92
  4575.4  600.94 4771.78  611.51 5017.26  708.25 5213.64  709.27

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 1801.14     .15 2317.05     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       1801.14 2317.05            14.97   14.97   14.97             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.30     Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.02     Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.28     Reach Len. (ft)            14.97      14.97      14.97
  Crit W.S. (ft)                       Flow Area (sq ft)        209785.20   98798.61   464676.00
  E.G. Slope (ft/ft)        0.000016   Area (sq ft)             209785.20   98798.61   464676.00
  Q Total (cfs)            858534.50    Flow (cfs)               193601.50  129919.70   535013.30
  Top Width (ft)             5213.64   Top Width (ft)            1801.14     515.91     2896.59
  Vel Total (ft/s)              1.11   Avg. Vel. (ft/s)             0.92       1.31        1.15
  Max Chl Dpth (ft)           202.37   Hydr. Depth (ft)           116.47     191.50      160.42
  Conv. Total (cfs)        213909300.0    Conv. (cfs)            48237050.0  32370330.0   133302000.0
  Length Wtd. (ft)             14.97   Wetted Per. (ft)          1875.95     519.41     2981.79
  Min Ch El (ft)              572.91   Shear (lb/sq ft)             0.11       0.19        0.16
  Alpha                         1.04   Stream Power (lb/ft s)       0.10       0.25        0.18
  Frctn Loss (ft)               0.00   Cum Volume (acre-ft)     11900.49    3553.71    16293.73
  C & E Loss (ft)                      Cum SA (acres)              89.88      18.21      101.14

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 6975.10*

INPUT
Description:
Station Elevation Data     num=      39
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  714.09   76.83  709.08  203.44   700.4  356.01  697.98  381.44  688.42
  384.15  688.28  653.05  675.77  768.29  669.34  768.29  668.28  788.31  667.35
  813.74  648.41  902.75  648.41  915.46  648.35  960.37  643.96 1017.18   638.6
  1037.2  638.57 1075.61  638.41  1118.9  638.29 1220.61  652.21 1267.69  647.89
 1805.49  599.42 1976.52  572.89 2077.84  572.89 2223.07  589.57 2319.89  599.42
 2929.96  600.16 3173.99  600.48 3494.54  600.48 3499.37  600.57 3824.74  606.39
 3906.08  607.96 3983.98  609.38 4277.64  609.03  4312.8  605.59 4375.53  599.91
 4571.31   601.1 4767.08  611.77  5011.8  707.96 5207.58  709.15

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 1805.49     .15 2319.89     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       1805.49 2319.89            14.97   14.97   14.97             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.30     Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.02     Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.28     Reach Len. (ft)            14.97      14.97      14.97
  Crit W.S. (ft)                       Flow Area (sq ft)        210713.00   98538.95   463269.50
  E.G. Slope (ft/ft)        0.000016   Area (sq ft)             210713.00   98538.95   463269.50
  Q Total (cfs)            858533.80    Flow (cfs)               194903.70  129728.80   533901.40
  Top Width (ft)             5207.58   Top Width (ft)            1805.49     514.40     2887.69
  Vel Total (ft/s)              1.11   Avg. Vel. (ft/s)             0.92       1.32        1.15
  Max Chl Dpth (ft)           202.39   Hydr. Depth (ft)           116.71     191.56      160.43
  Conv. Total (cfs)        213701500.0    Conv. (cfs)            48514340.0  32291380.0   132895800.0
  Length Wtd. (ft)             14.97   Wetted Per. (ft)          1880.53     517.90     2972.85
  Min Ch El (ft)              572.89   Shear (lb/sq ft)             0.11       0.19        0.16
  Alpha                         1.04   Stream Power (lb/ft s)       0.10       0.25        0.18
  Frctn Loss (ft)               0.00   Cum Volume (acre-ft)     11828.23    3519.80    16134.28
  C & E Loss (ft)                      Cum SA (acres)              89.26      18.03      100.15
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Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION

RIVER: PALUXY
REACH: PALUXY RIVER RS: 6960.12*

INPUT
Description:
Station Elevation Data num= 39

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	713.82	77.01	708.85	203.93	700.17	356.87	697.69	382.36	688.19
385.07	688.06	654.63	675.64	770.15	669.11	770.15	667.89	790.22	666.97
815.71	648.18	904.92	648.18	917.67	648.11	962.69	643.73	1019.63	638.4
1039.7	638.36	1078.21	638.18	1121.6	638.05	1223.56	651.82	1270.74	647.51
1809.85	599.33	1980.3	572.88	2081.82	572.88	2226.36	589.5	2322.73	599.33
2930.92	600.18	3174.2	600.55	3493.76	600.55	3498.57	600.64	3822.94	606.34
3904.03	607.9	3981.69	609.29	4274.45	608.9	4309.5	605.47	4372.03	599.89
4567.21	601.26	4762.38	612.02	5006.34	707.66	5201.52	709.03		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.15	1809.85	.15	2322.73	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1809.85	2322.73	14.97	14.97	14.97	.1	.3

CROSS SECTION OUTPUT Profile #Max WS

E.G. Elev (ft)	775.30	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.02	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	775.28	Reach Len. (ft)	14.97	14.97	14.97
Crit W.S. (ft)		Flow Area (sq ft)	211646.10	98277.24	461868.90
E.G. Slope (ft/ft)	0.000016	Area (sq ft)	211646.10	98277.24	461868.90
Q Total (cfs)	858533.10	Flow (cfs)	196211.70	129533.10	532788.30
Top Width (ft)	5201.52	Top Width (ft)	1809.85	512.88	2878.79
Vel Total (ft/s)	1.11	Avg. Vel. (ft/s)	0.93	1.32	1.15
Max Chl Dpth (ft)	202.40	Hydr. Depth (ft)	116.94	191.62	160.44
Conv. Total (cfs)	213497600.0	Conv. (cfs)	48793380.0	32211930.0	132492300.0
Length Wtd. (ft)	14.97	Wetted Per. (ft)	1885.13	516.37	2963.92
Min Ch El (ft)	572.88	Shear (lb/sq ft)	0.11	0.19	0.16
Alpha	1.04	Stream Power (lb/ft s)	0.11	0.25	0.18
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	11755.66	3485.98	15975.31
C & E Loss (ft)		Cum SA (acres)	88.63	17.85	99.16

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION

RIVER: PALUXY
REACH: PALUXY RIVER RS: 6945.13*

INPUT
Description:
Station Elevation Data num= 39

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	713.55	77.2	708.62	204.42	699.94	357.73	697.4	383.28	687.97
386	687.83	656.2	675.51	772	668.87	772	667.51	792.12	666.59
817.67	647.95	907.1	647.95	919.88	647.88	965	643.5	1022.09	638.19
1042.2	638.16	1080.8	637.95	1124.3	637.8	1226.5	651.42	1273.8	647.13
1814.2	599.25	1984.09	572.86	2085.8	572.86	2229.66	589.44	2325.57	599.25
2931.88	600.2	3174.41	600.61	3492.98	600.61	3497.78	600.71	3821.14	606.29
3901.98	607.84	3979.4	609.2	4271.25	608.76	4306.19	605.36	4368.54	599.88
4563.11	601.42	4757.68	612.27	5000.89	707.37	5195.45	708.91		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.15	1814.2	.15	2325.57	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1814.2	2325.57	14.97	14.97	14.97	.1	.3

CROSS SECTION OUTPUT Profile #Max WS

E.G. Elev (ft)	775.30	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.02	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	775.28	Reach Len. (ft)	14.97	14.97	14.97
Crit W.S. (ft)		Flow Area (sq ft)	212580.00	98017.31	460467.30
E.G. Slope (ft/ft)	0.000016	Area (sq ft)	212580.00	98017.31	460467.30
Q Total (cfs)	858532.40	Flow (cfs)	197525.30	129337.70	531669.40
Top Width (ft)	5195.45	Top Width (ft)	1814.20	511.37	2869.88
Vel Total (ft/s)	1.11	Avg. Vel. (ft/s)	0.93	1.32	1.15
Max Chl Dpth (ft)	202.42	Hydr. Depth (ft)	117.18	191.68	160.45
Conv. Total (cfs)	213294900.0	Conv. (cfs)	49073430.0	32132830.0	132088700.0
Length Wtd. (ft)	14.97	Wetted Per. (ft)	1889.70	514.86	2954.98
Min Ch El (ft)	572.86	Shear (lb/sq ft)	0.11	0.19	0.16
Alpha	1.04	Stream Power (lb/ft s)	0.11	0.25	0.18
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	11682.76	3452.25	15816.82
C & E Loss (ft)		Cum SA (acres)	88.01	17.68	98.17

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION

RIVER: PALUXY
REACH: PALUXY RIVER RS: 6930.15*

INPUT
Description:

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                                                                    TXU_Rev1.rep
Station Elevation Data     num=      39
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  713.27   77.39  708.39  204.91  699.71  358.59  697.11   384.2  687.74
  386.93   687.6  657.78  675.39  773.86  668.64  773.86  667.12  794.02  666.21
  819.63  647.73  909.28  647.73  922.09  647.64  967.32  643.27 1024.54  637.99
 1044.71  637.95  1083.4  637.73    1127  637.56 1229.45  651.02 1276.86  646.74
 1818.56  599.17 1987.88  572.85 2089.77  572.85 2232.95  589.38 2328.41  599.17
 2932.84  600.23 3174.62  600.68  3492.2  600.68 3496.98  600.77 3819.34  606.24
 3899.94  607.77 3977.11  609.11 4268.06  608.62 4302.89  605.24 4365.04  599.87
 4559.01  601.57 4752.97  612.52 4995.43  707.08 5189.39  708.79

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 1818.56     .15 2328.41     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       1818.56 2328.41            14.97   14.97   14.97             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.30    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.02    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.28    Reach Len. (ft)             14.97      14.97      14.97
  Crit W.S. (ft)                      Flow Area (sq ft)        213516.30   97752.48   459061.40
  E.G. Slope (ft/ft)      0.000016    Area (sq ft)             213516.30   97752.48   459061.40
  Q Total (cfs)           858531.80    Flow (cfs)              198847.40   129135.80   530548.70
  Top Width (ft)           5189.39    Top Width (ft)            1818.56     509.85    2860.98
  Vel Total (ft/s)            1.11    Avg. Vel. (ft/s)             0.93       1.32       1.16
  Max Chl Dpth (ft)         202.43    Hydr. Depth (ft)           117.41     191.73     160.46
  Conv. Total (cfs)       213088200.0    Conv. (cfs)            49354050.0   32051590.0   131682500.0
  Length Wtd. (ft)           14.97    Wetted Per. (ft)          1894.30     513.34    2946.05
  Min Ch El (ft)            572.85    Shear (lb/sq ft)             0.11       0.19       0.16
  Alpha                       1.04    Stream Power (lb/ft s)       0.11       0.25       0.18
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)     11609.54    3418.61   15658.82
  C & E Loss (ft)                     Cum SA (acres)              87.39      17.50      97.19

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 6915.16*

INPUT
Description:
Station Elevation Data     num=      39
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0    713   77.57  708.15   205.4  699.48  359.45  696.82  385.12  687.51
  387.85  687.38  659.35  675.26  775.71   668.4  775.71  666.74  795.92  665.83
   821.6   647.5  911.46   647.5   924.3  647.41  969.64  643.04    1027  637.79
 1047.21  637.75 1085.99   637.5 1129.69  637.31 1232.39  650.62 1279.92  646.36
 1822.92  599.08 1991.67  572.83 2093.75  572.83 2236.25  589.32 2331.25  599.08
  2933.8  600.25 3174.82  600.75 3491.42  600.75 3496.19  600.84 3817.55  606.18
 3897.89  607.71 3974.82  609.02 4264.87  608.48 4299.59  605.12 4361.55  599.85
 4554.91  601.73 4748.27  612.77 4989.97  706.79 5183.33  708.67

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 1822.92     .15 2331.25     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       1822.92 2331.25            14.97   14.97   14.97             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.30    Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.02    Wt. n-Val.                  0.150      0.150      0.150
  W.S. Elev (ft)            775.28    Reach Len. (ft)             14.97      14.97      14.97
  Crit W.S. (ft)                      Flow Area (sq ft)        214457.60   97491.59   457661.80
  E.G. Slope (ft/ft)      0.000016    Area (sq ft)             214457.60   97491.59   457661.80
  Q Total (cfs)           858531.10    Flow (cfs)              200174.90   128937.50   529418.80
  Top Width (ft)           5183.33    Top Width (ft)            1822.92     508.33    2852.08
  Vel Total (ft/s)            1.12    Avg. Vel. (ft/s)             0.93       1.32       1.16
  Max Chl Dpth (ft)         202.45    Hydr. Depth (ft)           117.65     191.79     160.47
  Conv. Total (cfs)       212889100.0    Conv. (cfs)            49637170.0   31972490.0   131279400.0
  Length Wtd. (ft)           14.97    Wetted Per. (ft)          1898.89     511.81    2937.13
  Min Ch El (ft)            572.83    Shear (lb/sq ft)             0.11       0.19       0.16
  Alpha                       1.04    Stream Power (lb/ft s)       0.11       0.26       0.18
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)     11536.00    3385.06   15501.29
  C & E Loss (ft)                     Cum SA (acres)              86.76      17.33      96.20

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 6900.18*

INPUT
Description:
Station Elevation Data     num=      39
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  712.73   77.76  707.92  205.89  699.25  360.31  696.53  386.04  687.29
  388.78  687.15  660.93  675.14  777.56  668.17  777.56  666.35  797.82  665.45
  823.56  647.27  913.64  647.27   926.5  647.17  971.95   642.8 1029.45  637.59
 1049.71  637.55 1088.59  637.27 1132.39  637.07 1235.34  650.22 1282.98  645.98
 1827.27     599 1995.45  572.82 2097.73  572.82 2239.55  589.25 2334.09     599
 2934.76  600.27 3175.03  600.82 3490.64  600.82 3495.39  600.91 3815.75  606.13
 3895.84  607.64 3972.53  608.93 4261.67  608.34 4296.29  605.01 4358.05  599.84
 4550.81  601.89 4743.57  613.03 4984.51   706.5 5177.27  708.55

Manning's n Values         num=       3
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                                                                    TXU_Rev1.rep
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 1827.27     .15 2334.09     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       1827.27 2334.09            14.97   14.97   14.97             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.30    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.02    Wt. n-Val.                0.150      0.150      0.150
  W.S. Elev (ft)            775.28    Reach Len. (ft)           14.97      14.97      14.97
  Crit W.S. (ft)                      Flow Area (sq ft)       215394.70   97229.88   456253.80
  E.G. Slope (ft/ft)      0.000016    Area (sq ft)            215394.70   97229.88   456253.80
  Q Total (cfs)           858530.40    Flow (cfs)             201504.70   128739.10   528286.60
  Top Width (ft)           5177.27    Top Width (ft)           1827.27     506.82    2843.18
  Vel Total (ft/s)            1.12    Avg. Vel. (ft/s)            0.94       1.32       1.16
  Max Chl Dpth (ft)         202.46    Hydr. Depth (ft)          117.88     191.84     160.47
  Conv. Total (cfs)       212683600.0    Conv. (cfs)           49918730.0   31892530.0   130872400.0
  Length Wtd. (ft)           14.97    Wetted Per. (ft)         1903.48     510.30    2928.20
  Min Ch El (ft)            572.82    Shear (lb/sq ft)            0.12       0.19       0.16
  Alpha                       1.04    Stream Power (lb/ft s)      0.11       0.26       0.18
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    11462.14    3351.60   15344.25
  C & E Loss (ft)                     Cum SA (acres)             86.13      17.15      95.23

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 6885.19*

INPUT
Description:
Station Elevation Data     num=      39
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  712.45   77.94  707.69  206.38  699.02  361.17  696.24  386.96  687.06
  389.71  686.93   662.5  675.01  779.42  667.93  779.42  665.96  799.73  665.08
  825.52  647.05  915.81  647.05  928.71  646.94  974.27  642.57  1031.9  637.39
 1052.21  637.34 1091.18  637.05 1135.09  636.82 1238.28  649.82 1286.04  645.59
 1831.63  598.92 1999.24   572.8  2101.7   572.8 2242.84  589.19 2336.93  598.92
 2935.72   600.3 3175.24  600.89 3489.86  600.89  3494.6  600.98 3813.95  606.08
 3893.79  607.58 3970.25  608.85 4258.48  608.21 4292.98  604.89 4354.56  599.82
 4546.71  602.04 4738.86  613.28 4979.06   706.2 5171.21  708.42

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 1831.63     .15 2336.93     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       1831.63 2336.93            14.97   14.97   14.97             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.30    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.02    Wt. n-Val.                0.150      0.150      0.150
  W.S. Elev (ft)            775.28    Reach Len. (ft)           14.97      14.97      14.97
  Crit W.S. (ft)                      Flow Area (sq ft)       216338.40   96967.12   454846.30
  E.G. Slope (ft/ft)      0.000016    Area (sq ft)            216338.40   96967.12   454846.30
  Q Total (cfs)           858529.80    Flow (cfs)             202844.90   128538.10   527146.80
  Top Width (ft)           5171.21    Top Width (ft)           1831.63     505.30    2834.28
  Vel Total (ft/s)            1.12    Avg. Vel. (ft/s)            0.94       1.33       1.16
  Max Chl Dpth (ft)         202.48    Hydr. Depth (ft)          118.11     191.90     160.48
  Conv. Total (cfs)       212480300.0    Conv. (cfs)           50202740.0   31812310.0   130465200.0
  Length Wtd. (ft)           14.97    Wetted Per. (ft)         1908.09     508.77    2919.28
  Min Ch El (ft)            572.80    Shear (lb/sq ft)            0.12       0.19       0.16
  Alpha                       1.04    Stream Power (lb/ft s)      0.11       0.26       0.18
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    11387.96    3318.23   15187.70
  C & E Loss (ft)                     Cum SA (acres)             85.51      16.98      94.25

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 6870.21*

INPUT
Description:
Station Elevation Data     num=      39
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  712.18   78.13  707.46  206.87  698.79  362.03  695.95  387.88  686.84
  390.64   686.7  664.08  674.88  781.27   667.7  781.27  665.58  801.63   664.7
  827.49  646.82  917.99  646.82  930.92   646.7  976.59  642.34 1034.36  637.19
 1054.71  637.14 1093.78  636.82 1137.79  636.58 1241.23  649.43  1289.1  645.21
 1835.98  598.83 2003.03  572.79 2105.68  572.79 2246.14  589.13 2339.77  598.83
 2936.68  600.32 3175.45  600.95 3489.08  600.95  3493.8  601.04 3812.15  606.03
 3891.74  607.52 3967.96  608.76 4255.28  608.07 4289.68  604.77 4351.06  599.81
 4542.61   602.2 4734.16  613.53  4973.6  705.91 5165.15   708.3

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 1835.98     .15 2339.77     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       1835.98 2339.77            14.97   14.97   14.97             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.30    Element                  Left OB    Channel   Right OB
  Vel Head (ft)               0.02    Wt. n-Val.                0.150      0.150      0.150
  W.S. Elev (ft)            775.28    Reach Len. (ft)           14.97      14.97      14.97
  Crit W.S. (ft)                      Flow Area (sq ft)       217282.70   96705.06   453448.80
                                                                   Page 77
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                                                                    TXU_Rev1.rep
  E.G. Slope (ft/ft)        0.000016    Area (sq ft)            217282.70   96705.06   453448.80
  Q Total (cfs)             858529.10    Flow (cfs)             204185.30   128333.80   526010.00
  Top Width (ft)             5165.15    Top Width (ft)          1835.98     503.79    2825.38
  Vel Total (ft/s)              1.12    Avg. Vel. (ft/s)           0.94       1.33       1.16
  Max Chl Dpth (ft)           202.49    Hydr. Depth (ft)         118.35     191.96     160.49
  Conv. Total (cfs)        212283000.0    Conv. (cfs)            50487590.0   31732280.0   130063100.0
  Length Wtd. (ft)             14.97    Wetted Per. (ft)        1912.68     507.26    2910.35
  Min Ch El (ft)              572.79    Shear (lb/sq ft)           0.12       0.19       0.16
  Alpha                         1.04    Stream Power (lb/ft s)     0.11       0.26       0.18
  Frctn Loss (ft)               0.00    Cum Volume (acre-ft)    11313.45    3284.95   15031.63
  C & E Loss (ft)                       Cum SA (acres)            84.88      16.80      93.28

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 6855.22*

INPUT
Description:
Station Elevation Data     num=      39
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  711.91   78.31  707.22  207.36  698.56  362.88  695.66   388.8  686.61
  391.56  686.47  665.66  674.76  783.12  667.46  783.12  665.19  803.53  664.32
  829.45  646.59  920.17  646.59  933.13  646.47   978.9  642.11 1036.81  636.99
 1057.22  636.93 1096.37  636.59 1140.49  636.33 1244.17  649.03 1292.15  644.83
 1840.34  598.75 2006.82  572.77 2109.66  572.77 2249.43  589.07 2342.61  598.75
 2937.64  600.34 3175.66  601.02  3488.3  601.02 3493.01  601.11 3810.36  605.98
 3889.69  607.45 3965.67  608.67 4252.09  607.93 4286.38  604.66 4347.56   599.8
 4538.51  602.36 4729.46  613.78 4968.14  705.62 5159.09  708.18

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 1840.34     .15 2342.61     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       1840.34 2342.61            14.97   14.97   14.97             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)              775.30    Element                   Left OB    Channel   Right OB
  Vel Head (ft)                 0.02    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)              775.28    Reach Len. (ft)            14.97      14.97      14.97
  Crit W.S. (ft)                        Flow Area (sq ft)       218230.00   96442.13   452043.00
  E.G. Slope (ft/ft)        0.000016    Area (sq ft)            218230.00   96442.13   452043.00
  Q Total (cfs)             858528.40    Flow (cfs)             205535.80   128129.90   524862.70
  Top Width (ft)             5159.09    Top Width (ft)          1840.34     502.27    2816.48
  Vel Total (ft/s)              1.12    Avg. Vel. (ft/s)           0.94       1.33       1.16
  Max Chl Dpth (ft)           202.51    Hydr. Depth (ft)         118.58     192.01     160.50
  Conv. Total (cfs)        212082400.0    Conv. (cfs)            50773560.0   31651960.0   129656900.0
  Length Wtd. (ft)             14.97    Wetted Per. (ft)        1917.28     505.73    2901.43
  Min Ch El (ft)              572.77    Shear (lb/sq ft)           0.12       0.20       0.16
  Alpha                         1.04    Stream Power (lb/ft s)     0.11       0.26       0.19
  Frctn Loss (ft)               0.00    Cum Volume (acre-ft)    11238.61    3251.76   14876.03
  C & E Loss (ft)                       Cum SA (acres)            84.24      16.63      92.31

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 6840.24*

INPUT
Description:
Station Elevation Data     num=      39
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  711.64    78.5  706.99  207.85  698.33  363.74  695.37  389.72  686.39
  392.49  686.25  667.23  674.63  784.98  667.23  784.98   664.8  805.43  663.94
  831.41  646.36  922.35  646.36  935.34  646.23  981.22  641.88 1039.27  636.79
 1059.72  636.73 1098.97  636.36 1143.19  636.09 1247.12  648.63 1295.21  644.44
  1844.7  598.67 2010.61  572.76 2113.64  572.76 2252.73  589.01 2345.45  598.67
  2938.6  600.36 3175.86  601.09 3487.52  601.09 3492.21  601.18 3808.56  605.93
 3887.64  607.39 3963.38  608.58  4248.9  607.79 4283.08  604.54 4344.07  599.78
 4534.41  602.52 4724.76  614.04 4962.69  705.33 5153.03  708.06

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15  1844.7     .15 2345.45     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        1844.7 2345.45            14.97   14.97   14.97             .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)              775.30    Element                   Left OB    Channel   Right OB
  Vel Head (ft)                 0.02    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)              775.28    Reach Len. (ft)            14.97      14.97      14.97
  Crit W.S. (ft)                        Flow Area (sq ft)       219179.60   96176.48   450635.80
  E.G. Slope (ft/ft)        0.000016    Area (sq ft)            219179.60   96176.48   450635.80
  Q Total (cfs)             858527.80    Flow (cfs)             206893.90   127920.70   523713.30
  Top Width (ft)             5153.03    Top Width (ft)          1844.70     500.75    2807.58
  Vel Total (ft/s)              1.12    Avg. Vel. (ft/s)           0.94       1.33       1.16
  Max Chl Dpth (ft)           202.52    Hydr. Depth (ft)         118.82     192.06     160.51
  Conv. Total (cfs)        211880900.0    Conv. (cfs)            51060510.0   31570280.0   129250200.0
  Length Wtd. (ft)             14.97    Wetted Per. (ft)        1921.89     504.21    2892.50
  Min Ch El (ft)              572.76    Shear (lb/sq ft)           0.12       0.20       0.16
  Alpha                         1.04    Stream Power (lb/ft s)     0.11       0.26       0.19
  Frctn Loss (ft)               0.00    Cum Volume (acre-ft)    11163.45    3218.67   14720.92
  C & E Loss (ft)                       Cum SA (acres)            83.61      16.46      91.34
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TXU_Rev1.rep

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION

RIVER: PALUXY
REACH: PALUXY RIVER RS: 6825.25*

INPUT
Description:
Station Elevation Data num= 39

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	711.36	78.68	706.76	208.34	698.11	364.6	695.08	390.65	686.16
393.42	686.02	668.81	674.5	786.83	666.99	786.83	664.42	807.33	663.56
833.38	646.14	924.53	646.14	937.55	645.99	983.54	641.65	1041.72	636.59
1062.22	636.52	1101.56	636.14	1145.89	635.85	1250.06	648.23	1298.27	644.06
1849.05	598.58	2014.39	572.74	2117.61	572.74	2256.02	588.94	2348.3	598.58
2939.56	600.39	3176.07	601.16	3486.74	601.16	3491.42	601.24	3806.76	605.88
3885.6	607.33	3961.09	608.49	4245.7	607.65	4279.77	604.42	4340.57	599.77
4530.31	602.67	4720.05	614.29	4957.23	705.04	5146.97	707.94		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.15	1849.05	.15	2348.3	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1849.05	2348.3	14.97	14.97	14.97	.1	.3

CROSS SECTION OUTPUT Profile #Max WS

E.G. Elev (ft)	775.30	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.02	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	775.28	Reach Len. (ft)	14.97	14.97	14.97
Crit W.S. (ft)		Flow Area (sq ft)	220129.40	95919.39	449229.30
E.G. Slope (ft/ft)	0.000016	Area (sq ft)	220129.40	95919.39	449229.30
Q Total (cfs)	858527.10	Flow (cfs)	208252.20	127723.70	522551.30
Top Width (ft)	5146.97	Top Width (ft)	1849.05	499.25	2798.67
Vel Total (ft/s)	1.12	Avg. Vel. (ft/s)	0.95	1.33	1.16
Max Chl Dpth (ft)	202.54	Hydr. Depth (ft)	119.05	192.13	160.52
Conv. Total (cfs)	211684500.0	Conv. (cfs)	51348120.0	31492440.0	128843900.0
Length Wtd. (ft)	14.97	Wetted Per. (ft)	1926.48	502.70	2883.57
Min Ch El (ft)	572.74	Shear (lb/sq ft)	0.12	0.20	0.16
Alpha	1.04	Stream Power (lb/ft s)	0.11	0.26	0.19
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	11087.96	3185.66	14566.30
C & E Loss (ft)		Cum SA (acres)	82.98	16.29	90.38

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION

RIVER: PALUXY
REACH: PALUXY RIVER RS: 6810.27*

INPUT
Description:
Station Elevation Data num= 39

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	711.09	78.87	706.52	208.83	697.88	365.46	694.8	391.57	685.93
394.34	685.79	670.38	674.38	788.68	666.76	788.68	664.03	809.23	663.18
835.34	645.91	926.7	645.91	939.76	645.76	985.86	641.41	1044.17	636.39
1064.72	636.32	1104.16	635.91	1148.59	635.6	1253.01	647.83	1301.33	643.68
1853.41	598.5	2018.18	572.73	2121.59	572.73	2259.32	588.88	2351.14	598.5
2940.52	600.41	3176.28	601.23	3485.96	601.23	3490.62	601.31	3804.96	605.83
3883.55	607.26	3958.8	608.4	4242.51	607.52	4276.47	604.31	4337.08	599.76
4526.21	602.83	4715.35	614.54	4951.77	704.75	5140.91	707.82		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.15	1853.41	.15	2351.14	.15

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1853.41	2351.14	14.97	14.97	14.97	.1	.3

CROSS SECTION OUTPUT Profile #Max WS

E.G. Elev (ft)	775.30	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.02	Wt. n-Val.	0.150	0.150	0.150
W.S. Elev (ft)	775.28	Reach Len. (ft)	14.97	14.97	14.97
Crit W.S. (ft)		Flow Area (sq ft)	221081.20	95653.48	447821.30
E.G. Slope (ft/ft)	0.000016	Area (sq ft)	221081.20	95653.48	447821.30
Q Total (cfs)	858526.40	Flow (cfs)	209619.30	127512.90	521394.20
Top Width (ft)	5140.91	Top Width (ft)	1853.41	497.73	2789.77
Vel Total (ft/s)	1.12	Avg. Vel. (ft/s)	0.95	1.33	1.16
Max Chl Dpth (ft)	202.55	Hydr. Depth (ft)	119.28	192.18	160.52
Conv. Total (cfs)	211483300.0	Conv. (cfs)	51636140.0	31410630.0	128436600.0
Length Wtd. (ft)	14.97	Wetted Per. (ft)	1931.10	501.18	2874.65
Min Ch El (ft)	572.73	Shear (lb/sq ft)	0.12	0.20	0.16
Alpha	1.04	Stream Power (lb/ft s)	0.11	0.26	0.19
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	11012.15	3152.74	14412.16
C & E Loss (ft)		Cum SA (acres)	82.34	16.12	89.42

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION

RIVER: PALUXY
REACH: PALUXY RIVER RS: 6795.28*

INPUT
Description:
Station Elevation Data num= 39

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                                                                    TXU_Rev1.rep
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  710.82   79.05  706.29  209.33  697.65  366.32  694.51  392.49  685.71
  395.27  685.57  671.96  674.25  790.54  666.52  790.54  663.65  811.14   662.8
   837.3  645.68  928.88  645.68  941.97  645.52  988.17  641.18 1046.63  636.19
 1067.23  636.11 1106.75  635.68 1151.29  635.36 1255.95  647.44 1304.39  643.29
 1857.77  598.42 2021.97  572.71 2125.57  572.71 2262.61  588.82 2353.98  598.42
 2941.49  600.43 3176.49   601.3 3485.18   601.3 3489.83  601.38 3803.16  605.78
  3881.5   607.2 3956.51  608.31 4239.31  607.38 4273.17  604.19 4333.58  599.74
 4522.11  602.99 4710.65  614.79 4946.31  704.45 5134.85   707.7

Manning's n Values          num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 1857.77     .15 2353.98     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       1857.77 2353.98            14.97   14.97   14.97              .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.30    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.02    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.28    Reach Len. (ft)            14.97      14.97      14.97
  Crit W.S. (ft)                      Flow Area (sq ft)       222036.90   95389.83   446417.60
  E.G. Slope (ft/ft)      0.000017    Area (sq ft)            222036.90   95389.83   446417.60
  Q Total (cfs)           858525.80    Flow (cfs)             210992.20   127303.00   520230.60
  Top Width (ft)           5134.85    Top Width (ft)           1857.77     496.21    2780.87
  Vel Total (ft/s)            1.12    Avg. Vel. (ft/s)            0.95       1.33       1.17
  Max Chl Dpth (ft)         202.57    Hydr. Depth (ft)          119.52     192.24     160.53
  Conv. Total (cfs)       211287600.0    Conv. (cfs)            51926260.0   31329920.0   128031400.0
  Length Wtd. (ft)           14.97    Wetted Per. (ft)         1935.70     499.66    2865.72
  Min Ch El (ft)            572.71    Shear (lb/sq ft)            0.12       0.20       0.16
  Alpha                       1.04    Stream Power (lb/ft s)      0.11       0.26       0.19
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    10936.01    3119.91   14258.50
  C & E Loss (ft)                     Cum SA (acres)             81.70      15.95      88.46

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 6780.30*

INPUT
Description:
Station Elevation Data     num=      39
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  710.55   79.24  706.06  209.82  697.42  367.18  694.22  393.41  685.48
   396.2  685.34  673.53  674.13  792.39  666.29  792.39  663.26  813.04  662.42
  839.27  645.45  931.06  645.45  944.17  645.29  990.49  640.95 1049.08  635.99
 1069.73  635.91 1109.35  635.45 1153.99  635.11  1258.9  647.04 1307.45  642.91
 1862.12  598.33 2025.76   572.7 2129.55   572.7 2265.91  588.76 2356.82  598.33
 2942.45  600.45  3176.7  601.36  3484.4  601.36 3489.03  601.45 3801.37  605.72
 3879.45  607.13 3954.22  608.22 4236.12  607.24 4269.87  604.07 4330.08  599.73
 4518.01  603.15 4705.94  615.04 4940.86  704.16 5128.79  707.58

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .15 1862.12     .15 2356.82     .15

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       1862.12 2356.82            14.97   14.97   14.97              .1       .3

CROSS SECTION OUTPUT  Profile #Max WS

  E.G. Elev (ft)            775.30    Element                   Left OB    Channel   Right OB
  Vel Head (ft)               0.02    Wt. n-Val.                 0.150      0.150      0.150
  W.S. Elev (ft)            775.27    Reach Len. (ft)            14.97      14.97      14.97
  Crit W.S. (ft)                      Flow Area (sq ft)       222992.80   95126.71   445019.80
  E.G. Slope (ft/ft)      0.000017    Area (sq ft)            222992.80   95126.71   445019.80
  Q Total (cfs)           858525.10    Flow (cfs)             212365.10   127091.30   519068.70
  Top Width (ft)           5128.79    Top Width (ft)           1862.12     494.70    2771.97
  Vel Total (ft/s)            1.12    Avg. Vel. (ft/s)            0.95       1.34       1.17
  Max Chl Dpth (ft)         202.57    Hydr. Depth (ft)          119.75     192.29     160.54
  Conv. Total (cfs)       211094800.0    Conv. (cfs)            52216490.0   31249320.0   127629000.0
  Length Wtd. (ft)           14.97    Wetted Per. (ft)         1940.31     498.14    2856.80
  Min Ch El (ft)            572.70    Shear (lb/sq ft)            0.12       0.20       0.16
  Alpha                       1.04    Stream Power (lb/ft s)      0.11       0.26       0.19
  Frctn Loss (ft)             0.00    Cum Volume (acre-ft)    10859.54    3087.18   14105.32
  C & E Loss (ft)                     Cum SA (acres)             81.06      15.78      87.51

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION


RIVER: PALUXY
REACH: PALUXY RIVER        RS: 6765.31*

INPUT
Description:
Station Elevation Data     num=      39
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  710.27   79.42  705.83  210.31  697.19  368.04  693.93  394.33  685.26
  397.12  685.12  675.11     674  794.25  666.05  794.25  662.87  814.94  662.05
  841.23  645.23  933.24  645.23  946.38  645.05  992.81  640.72 1051.54  635.79
 1072.23   635.7 1111.94  635.23 1156.69  634.87 1261.84  646.64 1310.51  642.53
 1866.48  598.25 2029.55  572.68 2133.52  572.68  2269.2   588.7 2359.66  598.25
 2943.41  600.48  3176.9  601.43 3483.62  601.43 3488.24  601.51 3799.57  605.67
  3877.4  607.07 3951.94  608.13 4232.93   607.1 4266.57  603.96 4326.59  599.72
 4513.92   603.3 4701.24   615.3  4935.4  703.87 5122.73  707.45

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