
Appendix F

***R/V* Package Development**

Appendix F

***RIV* Package Development**

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Appendix F

RIV Package Development

F-1 Development of RIV Package Data for Reach 1 & 2

Multiple MODFLOW RIV packages were developed for a set of specific flow values spanning a range of potential flows that have recently occurred or that may occur under restoration scenarios in reaches 1 and 2. The RIV package, through specification of a river depth for specified river cells, provides a surface water boundary condition to the groundwater model. With this information, and in the context of the groundwater model environment, seepage losses or gains can then be simulated with the groundwater model, corresponding to the benchmark flows selected. For reaches 1 and 2, river depth and width conditions were developed for flows approximately corresponding to Friant releases of 200 cfs, 350 cfs, 500 cfs, 1,000 cfs, 2,000 cfs, 4,000 cfs and 8,000 cfs as described below.

River bottom elevation, flow rate, river width and water depth were derived from Mussetter Engineering, Inc.'s (MEI, 2005a) surface water model (HEC2) along river cross sections between Friant Dam and the Mendota Pool. Steady-state releases from Friant Dam and corresponding flows at cross sections downstream as used in this analysis are listed in Table F-1. The surface model results, in terms of river width and water depth (Tables F-3 through F-9), were used to develop a surface water boundary condition for the groundwater models. The water boundary for each flow scenario was digitized into a river polygon as shown in Figures E-5 through E-7.

For each benchmark flow, riparian model cells with 50% or greater coverage by the river polygon were incorporated into the RIV package. River bottom elevation, flow rate, and water depth were assigned to river cells by spatially joining riparian model cell centers to the closest river cross section and then assigning HEC2 model output data to each cell.

For flow scenarios where water does not flow to the downstream end of Reach 2 near Mendota Pool (200 cfs, 350 cfs and 500 cfs), dry river centerline cells (cells which intersected the MEI river main stationline) were included in the RIV package to provide opportunity for interaction for stream gains should aquifer levels rise above river bottom elevation. For dry cells, both river bottom and water surface elevation were set equal to the 1,000 cfs flow river bottom elevation, the closest representative and available data. Additionally, Mendota Pool, shown in the 500 cfs river boundary in Figure E-6, was included in all Reach 2 river packages. For the 200, 350 and 500 cfs flow scenarios, the Mendota Pool water elevation and extent was set equal to that represented in the 1,000cfs flow scenario.

For a benchmark flow of 4,000 cfs, the water boundary was set halfway between the 2,000 and 8,000 cfs flow boundaries. As for the other flow scenarios, riparian model

cells with 50% or greater coverage by the 4,000 cfs river polygon were incorporated into the RIV package.

F-2 Development of RIV Package data Reach 4

River package data was compiled for three sub-reaches of Reach 4: Sack Dam to Sand Slough (4A); Sand Slough to Mariposa Bypass (4B-Upper); and Mariposa Bypass to Bear Creek (4B-Lower). Flow conditions used to develop the river extent and water depth are shown on Table F-2. The benchmark flows used for this reach provide reasonable approximate boundary conditions, but are not intended to reflect sequential reach losses or gains. Information relative to the hydraulic conditions under various flow levels were provided by MEI (2005b and via subsequent communication) based on various runs of a current-conditions HEC2 model and hydraulic properties analysis under proposed conditions.

Under dry conditions (current condition), RIV package cells were limited to those intersecting the river main stationline. For low flow conditions (200 cfs), a low flow water boundary was specified as the bank to bank river area, and was digitized from aerial photos by SSPA. For high flow conditions (4,000 cfs), the river was assumed to be flooded from levee to levee, between existing or proposed levee structures. Delineation of proposed levee structures from Sand Slough to Mariposa Bypass was provided by MEI. Existing levees were digitized from aerial photos by SSPA. For low and high water conditions, riparian model cells with 50% or greater coverage by the river polygon were incorporated into the RIV package. Assignment of river bottom elevation, flow volume and water depth to the riparian model river cells varied by sub-reach and is described below.

Sack Dam to Sand Slough – Reach 4A

River bottom and water surface elevations were derived from the current-conditions MEI HEC2 surface water model results along river cross sections. Low flow river data was based on the HEC2 model output for a 200 cfs flow at Sack Dam (Table F-10). High flow conditions for the existing levee to levee area were modeled as a 3,550 cfs flow at Sack Dam (Table F-11). River bottom and water surface elevations were assigned to river cells by spatially joining riparian model cell centers to the closest river cross section and associating HEC2 model output data with each riparian river cell.

Sand Slough to Mariposa Bypass – Reach 4B (Upper)

Average river bottom and river thalweg elevations were obtained from the current-conditions MEI HEC2 surface water model along river cross sections. River bottom elevations were assigned to river cells by spatially joining riparian model cell centers to the closest river cross section and associating data with each riparian river cell. River thalweg was used as river bottom elevation for the low flow condition; average river bottom elevation was used for the high flow condition. Water surface elevations were derived from the proposed conditions surface water hydraulic properties analysis conducted by MEI (Table F-12). Under low and high flow conditions,

estimated water depths of 3.12' and 11.5', corresponding to flows of 200 cfs and 3875 cfs respectively, were applied to the reach.

Mariposa Bypass to Bear Creek – Reach 4B (Lower)

Average river bottom and river thalweg elevations were obtained from the current-conditions MEI HEC2 surface water model along river cross sections. River bottom elevations were assigned to river cells by spatially joining riparian model cell centers to the closest river cross section and associating data with each riparian river cell. River thalweg was used as river bottom elevation for the low flow condition; average river bottom elevation was used for the high flow condition. Water surface elevations for the low flow (200 cfs) condition were derived from the proposed conditions surface water hydraulic properties analysis conducted by MEI. Under low flow conditions, an estimated water depth of 3.12', corresponding to flows of 200 cfs, was applied to the reach. High flow conditions were modeled as a 3620 cfs flow at Mariposa Bypass (Table F-13); for this flow, hypothetical levees were added to the subreach within the MEI HEC2 model.. Water surface elevations were assigned to river cells by spatially joining riparian model cell centers to the closest river cross section, associating HEC2 model output data with each riparian river cell.

F-3 RIV Package Conductance Terms

For each river cell, riverbed conductance was calculated as:

$$\text{Conductance} = (K_v * L * W) * \text{Percent Coverage} / M$$

Where

- K_v is the vertical hydraulic conductivity of the streambed,
- L is the length of reach of stream (set equal to the cell length, 300 ft),
- W is the width of the stream (set equal to the cell width, 50 ft),
- Percent Coverage is the percentage of the cell covered by the river polygon, and
- M is the streambed thickness (set at 1 ft)

For cells designated as river cells under no-flow conditions, the percent coverage term was replaced by the length of river stationline falling within the cell, divided by the diagonal length of the cell. Dry river cells were excluded from the river package if the length of river stationline within the cell was less than 10% of the diagonal length of the cell.

Table F-1
Steady-State Discharges used in the SJR Hydraulic Model between Friant and Mendota
(MEI, 2005a and 2005b)

Friant Release	Subreach					
	1	2	3	4	5	6
	Discharge (cfs)					
200	177	131	86	50	0	0
350	327	273	222	180	78	0
500	477	415	357	310	155	0
1000	977	931	886	850	759	650
2000	1977	1931	1886	1850	1740	1450
4000*	3977	3931	3886	3850	3717	3639
8000	7977	7917	7857	7810	7652	1470

* The 4000 cfs run was based on proposed project rules (expanded capacity in the San Joaquin River below the Chowchilla bypass).

<u>Subreach</u>	<u>Reach Description</u>
1	Friant Dam to Highway 41 Bridge
2	Highway 41 Bridge to Highway 99 Bridge at Herndon
3	Highway 99 Bridge at Herndon to RM 232.8
4	RM 232.8 to upstream end of left bank levee
5	Upstream end of left bank levee to Chowchilla Bypass
6	Chowchilla Bypass to Mendota Dam

Figure F-2
Steady-State Discharges used in the SJR Hydraulic Model between Sack Dam and Bear Creek

Subreach		
4A	4B1	4B2
Top of Reach Discharge (cfs)		
0	0	0
200	200 (3.12')	200 (3.12')
3550	3875 (11.5')	3620

* Note: Flows represent selected values for setting a boundary condition river width/depth for evaluation of restoration scenarios of a similar flow magnitude. Subreach flows do not represent a specific flow sequence from one subreach to the next. In this application, subreach differences are not equivalent to reach gains/losses.

<u>Subreach</u>	<u>Reach Description</u>
4A	Sack Dam to Sand Slough
4B1	Sand Slough to Mariposa Bypass
4B2	Mariposa Bypass to Bear Creek

Table F-3
Surface Water Model Output: 200 cfs release (Page 1 of 11)

Main Channel 200cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
596	329920	289.2	177	300.57	296.1	109
595	329666	288.4	177	300.57	292.56	63
594	329412	284.05	177	300.57	290.3	77.6
593	329113	281.19	177	300.57	289.47	79.1
592	328819	283.15	177	300.57	290.78	99.3
591	328318	292.35	149	300.57	295.66	139.1
590	328163	295.3	149	300.56	297.26	105.6
589	327909	295.94	105	300.56	297.44	84.1
588	327748	296.7	133	300.55	298.13	113.7
587	327252	296.14	133	300.54	297.82	112.9
586	326880	295.1	177	300.52	297.58	95.7
585	326874	295.04	177	300.52	297.58	91.4
584	326840	294.4	177	300.52	297.61	104.2
583	326835	294.35	177	300.52	297.64	112.6
582	326648	295.1	177	300.51	297.71	151
581	326495	296.76	177	300.5	298.96	207.2
580	326342	298.38	177	299.98	299.15	41.1
579	326097	295.47	177	297.5	296.07	60
578	325800	295.28	177	296.16	295.59	73.3
577	325350	292.85	177	295.58	293.51	104.2
576	324850	292.79	177	295.49	293.6	102.6
575	324348	293.78	177	295.29	294.11	109.2
574	323902	292.92	177	294.88	293.46	76.4
573	323500	292.45	177	294.53	293.34	108.6
572	323050	292.24	177	293.88	292.98	95.8
571	322548	291.1	177	293.59	291.79	93.6
570	322353	289.78	177	293.56	290.94	74.2
569	322060	286	177	293.56	288.9	120.3
568	321758	287.8	177	293.55	288.83	116.3
567	321259	290.61	177	293.53	291.91	130.1
566	320613	290.2	177	293.41	291.71	131.9
565	319811	291.43	177	292.7	292.24	97.1
564	319159	289.5	177	291.64	290.48	154.7
563	318312	285.33	177	291.63	287.41	171.2
562	317421	289.68	177	291.37	290.91	101.7
561	317052	286.65	177	289.89	288.34	108.7
560	316701	284.52	177	289.88	286.47	114
559	316248	284.26	177	289.87	286.06	109.2
558	315799	285.41	177	289.86	286.98	122.6
557	315349	288.27	177	289.54	289.1	101.9
556	314744	282.97	177	287.55	284.89	156
555	314400	282.67	177	287.54	284.77	141.9
554	313800	281.64	177	287.53	282.76	142.1
553	313297	282.8	177	287.53	284.1	125.1
552	312948	281.29	177	287.52	283.53	131.9
551	312498	281.16	177	287.52	284.04	243
550	312045	283.03	177	287.52	285.38	263.6
549	311859	284	177	287.51	285.69	263.1
548	311517	285.8	177	287.44	286.28	100.7
547	311269	284.54	177	287.37	285.78	143.6
546	310965	284.81	177	287.34	285.92	264
545	310365	281.84	177	287.32	284.84	224.5
544	310118	281.63	177	287.32	282.89	172.4
543	309480	283.96	177	287.31	285.41	155.2
542	309088	286.33	177	286.99	286.63	140.7
541	308789	280.07	177	285.52	282.51	80.7
540	308489	283.58	177	285.22	284.48	65
539	308094	281.36	177	285.28	282.18	80.9
538	307697	279.61	177	285.26	282.5	109.2
537	307245	281.04	177	285.24	282.74	126.1

**Table F-3
Surface Water Model Output: 200 cfs release (Page 2 of 11)**

Main Channel 200cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
536	306746	281.37	177	285.21	282.9	146.6
535	306345	274.9	177	285.21	279.79	166.1
534	305699	280.77	177	285.21	282.14	163.5
533	305496	280.4	177	285.2	282.53	121.7
532	305248	279.4	177	285.19	282.2	150.3
531	304299	278.5	177	285.19	280.84	154.6
530	303355	282.1	177	285.17	282.56	163.7
529	303156	282.7	177	285.15	283.51	119
528	303005	283.04	177	285.04	283.75	77.8
527	302998	283.1	177	285.01	283.78	72
526	302977	283.22	177	284.93	283.92	73.5
525	302972	283.22	177	284.92	283.76	73.4
524	302816	282.54	177	283.98	283.54	105.5
523	302671	280.7	177	283.4	282.19	69.4
522	302380	279.8	177	283.36	281.32	125.5
521	302129	279.4	177	283.34	281.43	148.6
520	301584	279.9	177	283.27	281.85	189.8
519	301187	276.12	177	283.27	279.51	198
518	300041	277.16	172	283.27	279.65	227
517	299293	280.1	172	283.26	281.07	149.4
516	298979	279.75	172	283.2	281.63	90.3
515.9	298968	281.5	172	282.67	281.86	41
515.8	298958	279.7	172	282.23	280.51	39.7
515	298725	279.96	172	280.98	280.44	75.1
514	298470	277.9	172	280.22	278.66	90.1
513	298224	277.5	172	280.01	279.12	121.3
512	297722	277.3	172	279.03	277.97	79.7
511	297402	273.2	177	279.02	275.82	85.3
510	297007	270.5	177	279.02	274.55	167.3
509	296558	271.66	177	279.02	274.64	211.5
508	296175	274.83	177	279.01	276.9	151.8
507	295842	274.36	177	278.97	276.71	82.1
506	295442	274.6	177	278.95	276.08	120.4
505	294946	277.03	177	278.88	278	168.9
504	294498	276.3	177	277.37	276.68	53.6
503	294100	273.9	177	276.48	274.91	102.2
502	293606	274.35	177	276.3	274.78	110.6
501	293300	272.3	177	276.29	273.88	228
500.9	293275	272.03	177	276.29	273.74	204.1
500.8	293250	272.83	172	276.29	273.79	112.5
500.5	293128	275.06	172	276	275.54	95.6
500	292944	272.14	172	274.35	273.13	60.8
499	292855	271.99	172	273.46	272.52	32.6
498	292448	270.34	172	272.5	270.96	58.4
497	292046	266.62	172	272.49	268.73	73
496	291797	268.8	172	272.48	269.75	101.1
495	291451	268.32	172	272.46	269.26	116.2
494	290749	269.17	172	272.43	270.52	149.4
493	290192	268.4	172	272.4	269.79	125.5
492	289746	266.85	172	272.39	269.29	178.4
491	289200	268.96	172	272.38	270.08	130
490	288854	268.75	172	272.33	269.83	67
489	288546	267.5	172	272.31	269.34	83.6
488	288380	271.11	172	272.02	271.55	94.8
487	288144	267.2	172	270.78	268.22	65.4
486	287840	263.2	172	270.77	266.36	76.4
485	287548	265.8	172	270.76	267.6	74.9
484	287042	266.36	172	270.75	267.28	110.5
483	286530	265.9	172	270.74	267.27	113
482	285999	267	172	270.71	269.21	201.3

Table F-3
Surface Water Model Output: 200 cfs release (Page 3 of 11)

Main Channel 200cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
481	285695	266.68	172	270.64	268.44	100.9
480	285304	268.4	172	269.86	269.02	38.7
479	285034	262.37	172	267.86	264.52	208.8
478	284669	264.7	172	267.86	265.68	178.7
477	284519	265.8	172	267.83	266.75	149.5
476	284290	265.3	172	267.46	266.04	42.6
475	284109	261.82	172	267.52	263.29	65.1
474.6	283990	260.66	172	267.52	264.42	203.4
474.5	283779	264.42	172	267.51	264.84	155.1
474	283718	263.62	172	267.51	265.01	178.7
473	283672	264.5	172	267.21	265.86	32.7
472	283347	262.19	172	263.85	263.07	44.3
471	283249	260.34	172	263.3	261.71	82.2
470	282901	258.14	172	263.3	260.51	186.5
469	282452	256.2	172	263.29	258.74	88.8
468	282096	260.3	177	263.26	261.01	81.2
467	281600	259	177	263.22	260.12	76.4
466	281204	259.9	177	263.17	260.99	119
465	281002	258.2	177	263.17	259.55	162.8
464	280801	258.2	177	263.17	259.34	178.8
463	280549	257	177	263.17	259	141
462	280056	258.5	177	263.16	259.98	120.3
461.5	279897	261.6	177	262.98	262.03	58.6
461	279752	260.04	177	262.71	261.26	63.7
460	279355	259.7	177	261.15	260.7	97.3
459	279253	257.81	177	260.65	258.81	39.5
458	279058	257.94	177	260.5	259.08	91.3
457	278657	255.9	177	260.5	257.28	138.3
456	278111	258.19	177	260.47	258.88	130.1
455	277462	257.1	177	260.42	258.15	162
454	276767	254.73	177	260.4	257.43	167.2
453	276524	256.99	19	260.4	258.32	71.7
452	276329	254.9	19	260.4	256.66	50
451	276053	252.4	19	260.4	255.44	81.1
450	275705	257.79	19	260.4	258.47	72.8
449	275400	258.2	19	260.4	258.84	78.9
448	275102	258.27	19	260.39	258.97	60.4
447	274631	256.2	177	260.11	258.35	45.8
446	274423	251.8	177	260.16	254.55	130.5
445	273869	255.8	177	260.15	257.59	118.7
444	273425	255.75	177	260.13	256.74	118
443	273081	257.4	177	260.11	258.23	119.5
442	272928	258	177	260.06	258.92	142.8
441	272582	255.06	177	260.01	256.79	84.1
440	272039	256.69	177	259.98	257.48	136.4
439	271342	257.29	177	259.92	258.22	134.3
438	270939	257.51	177	259.85	258.41	157.6
437	270595	255.07	177	259.85	256.88	236.2
436	269990	255.73	177	259.84	256.91	158.2
435	269593	254.75	177	259.84	256.11	155.1
434	269246	254.1	177	259.83	256.31	146.3
433	268877	258.28	177	259.81	258.68	193.3
432	268553	255.83	177	259.73	257.23	72.1
431	268305	254.31	177	259.69	256.93	59.6
430	268054	256.56	177	259.59	258.37	100.7
429	267648	256.22	177	259.57	257.07	142.4
428	267116	256.2	177	259.52	257.98	155.1
427	266900	255.5	177	259.49	257.97	193.6
426.5	266764	255	177	259.49	257.22	193.4
426	266560	257.2	177	259.47	258.08	189.1

Table F-3
Surface Water Model Output: 200 cfs release (Page 4 of 11)

Main Channel 200cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
425	266555	257.4	177	259.47	258.33	263.1
424	266524	258.53	177	259.41	258.87	202
423	266519	258.7	177	259.21	258.89	169
422.75	266450	255.7	131	257.05	256.54	169.2
422.5	266445	255.7	131	257.02	256.53	163.1
422	266283	254.59	131	256.1	255.72	163.6
421.75	266278	254.46	131	255.9	255.59	129.2
421	265903	248	131	253.42	249.76	91.3
420	265605	250.87	54	253.41	251.67	88.5
419	265274	251.64	54	253.38	252.09	46.9
418	265024	252.53	54	253.14	252.61	56.9
417	264503	247.96	131	250.67	248.73	149.8
416	263857	249.41	131	252.63	250.45	142.5
415	263157	249.3	131	252.5	250.24	30.3
414	262848	250.7	131	251.63	251.32	111.2
413	262344	246.35	131	249.74	248.25	178.9
412	261844	242.91	131	249.74	244.18	111
411	261498	244.9	131	249.73	247.32	133.8
410	261243	243.33	98	249.73	247.05	244.5
409	260951	245	98	249.73	247.33	100.5
408	260784	244.05	98	249.73	246.08	124.2
407	260462	242.48	98	249.73	245.14	99.7
406	260150	242.59	98	249.73	245.47	154.1
405	259931	241.05	131	249.73	244.17	179.6
404	259596	245.9	131	249.72	246.59	149.2
403	258984	239.6	131	249.72	246.07	407.2
402	258238	244.7	131	249.72	245.84	222.8
401	257888	236.86	131	249.72	240.55	443.6
400	257682	238.15	131	249.72	241.16	386.5
399	257058	241.1	131	249.72	245.13	245.2
398	256890	242.4	131	249.72	245.21	176
397	256885	242.39	131	249.72	245.04	169.7
396	256867	242.3	131	249.72	244.78	153.6
395	256862	241.9	131	249.72	244.77	164
394	256750	245.5	131	249.72	246.95	151.2
393	256549	244.4	131	249.72	246.87	275.7
392	256228	237.4	105	249.72	241.79	464.8
391	255716	237	105	249.72	240.52	686.5
390	255485	242.4	105	249.72	245.69	164.6
389	254601	239.3	105	249.72	243.98	333.1
388	254139	244.1	131	249.71	247.71	450
387	253977	247.86	131	249.44	248.15	27.9
384	253898	247.17	131	249.31	247.2	26.7
383	253782	244.3	131	246.98	245.64	109.7
382	253695	245.76	131	246.47	246.13	86.3
381	253384	238.07	131	246.51	241.99	207.5
380	252888	237.46	131	246.51	239.91	193.9
379	252548	238.8	131	246.51	241.56	109.5
378	252267	239.19	83	246.51	241.64	83.5
376	251943	242.77	83	246.5	243.78	39.8
375	251799	242.15	83	246.49	243.7	57
374	251420	234.82	131	246.5	237.35	495.9
373	251189	243.58	131	246.42	245.24	52.2
372	250939	242.3	131	246.41	243.63	66.8
371	250742	241.8	131	246.4	243.23	64.6
370	250507	239.22	131	246.4	240.78	150
369	250198	236.86	131	246.4	240.74	89.7
368	249901	235.6	131	246.4	238.58	124.4
367	249603	236.1	131	246.4	238.71	120.3
366	249414	244.8	131	246.4	244.92	178

Table F-3
Surface Water Model Output: 200 cfs release (Page 5 of 11)

Main Channel 200cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
365	249195	240.3	131	244.65	242.9	60.6
364	248927	239.38	131	244.64	242.27	99
363	248421	239.1	131	244.63	241.3	121.2
362	247824	238.4	131	244.62	240.12	135.7
361	247273	240.1	131	244.62	241.71	100.1
360	246628	240.3	131	244.6	241.45	119.1
359	246322	242.32	131	244.57	243.34	91.2
358	245928	241.5	74	244.18	242.99	27.8
357	245536	241.05	74	241.93	241.44	37.4
356	245238	238.42	74	241.87	239.71	70.3
355	244883	238.65	74	241.86	239.61	98.7
354	244514	238.7	131	241.79	240.24	62
353	244258	235.05	131	241.8	237.68	77.3
352	243561	238.35	131	241.78	239.29	107.1
351	243113	238.2	131	241.77	239.13	128.3
350	242668	235.95	131	241.76	237.98	140.6
349	242370	239.09	131	241.75	239.96	93.4
348	241878	236.73	131	241.74	238.8	147.1
347	241475	237.6	119	241.73	238.68	105.9
346	241329	239.6	119	241.71	240.26	87.3
345	241114	240.35	131	241.55	240.67	91.2
344	240731	239.29	131	239.77	239.31	73.4
343	240315	233.83	131	238.59	235.72	77.2
342	239969	236.6	131	238.24	237.71	59.8
341	239711	227.6	131	237.49	232.22	63.1
340	239442	231.45	131	237.46	233.87	27.7
339	239213	235.63	131	236.86	236.04	30.7
338	238880	232.79	131	235.74	233.72	45.2
337	238685	232.97	131	235.69	233.95	84.4
336	238437	234.05	131	235.55	234.77	109.3
335	238262	232.28	131	234.52	234.12	84.6
334	237879	231.36	131	233.73	232.06	125.2
333	237628	227.97	131	233.72	230.02	85.5
332	237280	230.66	131	233.69	231.58	60.7
331	236975	231.01	131	233.62	231.77	67.8
330	236828	230.6	131	233.61	231.59	145.6
329	236633	230.2	131	233.61	231.48	160.6
328	236090	225.9	131	233.6	229.37	139.6
327	235591	226.57	131	233.6	228.58	110.8
326	235047	226.5	131	233.6	229.3	131.2
325	234560	225.76	131	233.6	228.76	136.4
324	234302	224.44	131	233.6	228.34	199.3
323	234151	227.75	131	233.6	230.75	207.3
322	233956	228.1	131	233.59	230.5	83.1
321	233658	228.21	131	233.58	230.98	151.5
320	233151	223.4	131	233.58	226.52	111.7
319	232653	222.8	131	233.58	226.79	108.3
318	231994	227.06	131	233.58	228.8	141.7
317	231549	230.84	131	233.57	231.51	121.4
316	231203	228.1	131	233.57	229.99	136.1
315	230793	230	118	233.56	231.58	122.2
314	230547	229.1	118	233.55	231.08	99.8
313	230245	230.7	118	233.51	231.62	60.3
312	229990	229.5	118	231.58	230.39	74.9
311	229745	228.2	118	230.93	229.38	66.8
310	229402	228.87	118	230.51	229.76	63.5
309	229058	225.3	118	230.51	227.61	66.7
308	228862	227.4	118	230.48	228.39	49.7
307	228661	228.28	118	230.4	228.8	59.5
306	228417	227.9	131	230.19	228.88	66.7

Table F-3
Surface Water Model Output: 200 cfs release (Page 6 of 11)

Main Channel 200cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
305	228081	227.5	131	229.39	228.18	42.9
304	227791	225.5	131	229.44	226.19	98.1
303	227429	227.1	131	229.35	227.56	35.4
302	227142	226.4	131	229.34	227.03	90.3
301.2	226829	226.62	131	229.26	227.9	71.1
301.1	226810	227.85	131	229.18	228.29	64
301	226790	226.9	131	229.16	227.92	59.3
300	226446	226.1	131	228.25	226.79	108.3
299	225943	223.31	131	228.24	225.4	130.4
298	225544	226.35	131	228.2	226.99	96.5
297	225346	226.14	131	227.94	226.66	44.1
296	224852	225.3	131	227.07	226.22	100.8
295	224599	216.98	131	227.09	221.94	197.3
294	224349	224.6	131	227.06	225.7	78.2
293	224096	224.42	131	226.72	225.86	83.4
292	223808	220.94	131	226.75	223.71	156.9
291	223543	222.28	131	226.74	224.91	129.8
290	223285	218.9	131	226.74	222.75	110.6
289	223117	220.13	131	226.73	222.9	92.9
288	222706	215.77	131	226.74	220.29	217.3
287	222311	211.23	131	226.74	215	177.1
286	221888	223	131	226.74	224.47	173.8
285	221698	216.22	131	226.74	220.62	147.2
284	221298	219.57	131	226.74	223.56	182.6
283	220998	223.98	131	226.66	225.29	46.3
282	220794	214.8	131	226.7	219.27	262.8
281	220553	224.1	131	226.69	225.76	158.7
280	220373	225.07	131	226.18	225.73	74.4
279	220234	219.46	131	224.77	221.1	136.8
278	220033	218.3	131	224.77	220.44	142
277	219797	222.02	131	224.77	223.09	106.3
276	219599	222.91	131	224.74	223.5	69.9
275	219350	221.24	131	224.63	222.58	45.5
274	219100	223.01	131	224.02	223.45	53.8
273	218852	220.76	131	223.76	221.57	51.3
272	218554	222	131	223.5	222.39	51.3
271	218261	220.4	131	221.71	221.22	70.9
270	217684	215.5	131	221.79	217.42	59.6
269	217401	217.59	131	221.78	218.35	60.7
268	217109	218.29	131	221.74	219.62	56.6
267	216754	213.79	131	221.74	216.26	97.1
266	216455	215.72	131	221.74	217.65	82.6
265	216058	211.4	131	221.74	216.07	291.7
264	215834	216.76	131	221.74	219.27	135.4
263	215568	218.4	131	221.73	220.13	181.4
262	215313	218.58	131	221.7	219.53	81.6
261	215111	219.47	131	221.66	220.06	78.7
260	214881	219.5	131	221.54	220.19	72.8
259	214875	219.5	131	221.51	220.28	60.8
258	214861	219.47	131	221.49	220.28	61.9
257	214855	219.44	131	221.49	220.14	72.5
256	214612	218.8	131	220.68	220.1	52.2
255	214012	213.06	131	220.5	215.73	126
254	213608	217.9	131	220.49	218.52	78.2
253	213411	216.38	131	220.45	218.26	64.3
252	213059	214.9	131	220.42	217.36	64.2
251	212711	216.8	131	220.4	218.4	95.7
250	212419	218.47	131	219.99	219.45	56.8
249	212217	217.01	131	219.11	217.67	39.2
248	211919	215.4	131	219.12	216.55	89.9

Table F-3
Surface Water Model Output: 200 cfs release (Page 7 of 11)

Main Channel 200cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
247	211568	215.74	131	219.08	217.2	85.9
246	211265	215.04	131	219.06	216.12	67.1
245	210767	215.81	131	219.01	216.87	78.4
244	210366	215.35	131	218.98	216.51	84.9
243	209914	215.63	131	218.93	217.08	93
242	209568	215.56	131	218.86	216.65	55.6
241	208975	215.66	131	218.79	217.09	131.3
240	208646	215.7	105	218.76	216.72	94.1
239	208058	215.7	105	218.72	216.82	101.3
238	207766	215.2	131	218.71	217.49	385.7
237	206998	216.3	131	218.66	217.01	107.7
236	206644	212.4	131	218.66	213.93	131.3
235	206090	213.27	131	218.65	215.89	128.9
234	205389	211.1	131	218.65	213.77	140.5
233	204791	209.67	131	218.65	212.6	128.6
232	204361	214.83	131	218.62	216.36	53.8
231	204358	214.8	131	218.62	216.34	54.9
230	204342	214.5	131	218.62	216.19	55.9
229	204338	214.49	131	218.62	216.22	54.6
228	204275	213.76	86	218.62	215.77	55
227	204270	213.5	86	218.62	215.55	50.1
226	204174	212.38	86	218.62	214.87	40
225	204169	212.32	86	218.61	214.81	39.6
224	204026	209.24	86	218.62	214.06	127.4
223	203806	217.2	86	218.28	217.68	32.5
222	203466	212.5	86	218.27	215.59	88.3
221	203265	213.73	86	218.27	214.45	89.8
220	202914	210.7	86	218.27	212.51	85.3
219	202616	211.93	86	218.27	213.78	83.2
218	202221	215.54	86	218.25	216.55	59.5
217	201932	215.72	86	218.19	216.37	49.8
216	201639	213.86	86	218.18	215.24	80.1
215	201191	213.71	86	218.18	215.08	115.3
214	200608	212.4	86	218.18	214.03	113.2
213	200164	209.95	86	218.18	212.72	112.4
212	199865	215.61	86	218.12	216.39	28
211	199573	215.7	86	217	216.13	18.5
209	199076	212.6	86	216.14	213.76	70.2
208	198682	210.82	86	216.14	212.01	100.7
207	198239	211.2	86	216.14	212.67	151
206	198090	208.52	86	216.14	211.89	55.4
205	197842	209.1	86	216.14	211.06	88.4
204	197447	212.88	86	216.13	213.66	133.3
203	197097	212.5	86	216.12	213.89	73
202	196784	213.7	86	216.07	214.31	42.2
201	196483	212.7	86	216	213.91	46.3
200	196186	212.4	86	215.96	213.5	44.5
199	195789	211.49	86	215.95	212.45	60.3
198	195263	213.49	86	215.9	214.29	37.6
197	194976	211.48	86	215.9	213.19	87.1
196	194732	211	86	215.89	213.13	45.5
195	194341	214.72	86	215.67	215.04	49.3
194	193991	213	86	214.96	213.7	54.8
193	193718	209.02	86	214.97	212.64	128
192	193166	208	86	214.97	209.22	126.2
191	192670	203.63	86	214.97	206.86	105.1
190	192365	203.37	86	214.97	207.77	275.3
189	191966	206.19	86	214.97	208.04	168.7
188	191772	208.97	86	214.96	211.36	41.4
187	191766	208.9	86	214.96	211.02	35.6

Table F-3
Surface Water Model Output: 200 cfs release (Page 8 of 11)

Main Channel 200cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
186	191749	208.85	86	214.96	209.58	36.2
185	191743	208.5	86	214.96	209.32	39.8
184	191516	205	86	214.96	206.86	163.2
183	191329	207.01	86	214.96	208.98	152.5
182	190639	207.5	86	214.96	209.35	96.7
181	190050	207.14	86	214.96	209.28	144.8
180	189458	213.98	86	214.92	214.25	82.1
179	189351	212.8	86	214.27	213.69	42.3
178	188980	209.6	86	214.28	211.64	44.1
177	188823	213	86	214.22	213.54	86.8
176	188423	210.2	86	211.95	211.02	16.9
175	188095	206.1	86	212.03	208.84	103.6
174	187966	210.25	86	211.7	211.11	33.7
173	187412	204.7	86	211.87	206.34	184.3
172	187166	207.43	86	211.85	209.32	40
171	186873	208.9	86	211.81	210.06	63.8
170	186469	209.7	86	211.67	210.02	33.9
169	186219	205	86	211.69	206.36	68.6
168	185779	204.05	86	211.69	206.4	159.3
167	185227	204.53	86	211.69	205.74	118.5
166	184933	210.05	86	211.55	210.55	30.1
165	184732	206.76	86	211.64	207.93	143.6
164	184333	206.54	86	211.63	207.34	85.8
163	183583	206.9	86	211.63	208.71	115
162	183086	206.38	86	211.63	208.3	141.6
161	182636	206.77	86	211.62	207.79	100.9
160	182330	208.55	86	211.61	210.25	94.7
159	182065	208.95	86	211.49	210.17	37.9
158	181710	207.15	86	211.5	208.39	73.1
157	181263	209.57	86	211.47	210.2	103.8
156	180815	210.31	86	211.26	210.47	71.4
155	180415	208.79	86	209.89	209.18	42.4
154	180019	206.58	86	208.97	207.79	44.4
153	179725	205.39	86	208.91	206.85	58.4
152	179125	203.49	86	208.9	206.05	91.9
151	178325	206.8	86	208.86	207.8	114.3
150	177825	207.2	86	208.4	207.67	45.4
149	177177	201.9	86	208.47	203.93	86.4
148	176628	206.34	86	208.45	207.2	97
147	176227	206.27	86	208.24	206.99	50.7
146	175731	206.27	86	207.78	206.58	45.6
145	175236	206.19	86	207.6	206.5	81.8
144	174838	202.59	86	207.59	204.23	102.3
143	174263	206.44	86	207.28	206.73	36.8
142	173972	204.7	86	207.05	205.61	51.7
141	173483	204.4	86	206.87	205.56	73.1
140	173082	205.02	86	206.7	205.48	63.9
139	172637	201.05	86	206.71	203.72	136.4
138	172088	202.73	86	206.7	204.14	168.7
137	171938	203.3	86	206.7	204.45	89.2
136	171380	204.9	86	206.65	205.46	103.3
135	170887	205.12	86	206.05	205.61	50.1
134	170391	201.48	86	205.55	203.1	57.9
133	169987	200.42	86	205.55	201.21	96.7
132	169539	203	86	205.54	203.71	66.8
131	169067	202.96	86	205.44	203.62	43.3
130	168394	202.44	86	205.34	203.33	66
129	167841	203.52	86	205.21	204.12	64.8
128	167342	202.63	86	204.87	203.77	68.3
127	166917	203.07	86	204.43	203.34	44.8

Table F-3
Surface Water Model Output: 200 cfs release (Page 9 of 11)

Main Channel 200cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
126	166639	202.43	86	204.07	203.32	96.1
125	166189	199.42	86	204.06	200.71	65.1
124	165821	199.96	86	204.05	201.32	91.4
123	165180	201.05	86	204.03	202.19	115.8
122	164682	201.11	86	204	201.74	61.3
121	164377	202.68	86	203.89	203.06	57.9
120	164088	201.49	86	203.52	202.18	42.8
119	163696	200.5	86	202.8	201.86	35.2
118	163396	199.2	86	202.7	200.8	50
117	162997	201.2	86	202.33	201.41	30.1
116	162604	200.1	86	202.26	200.77	88.6
115	162361	200.9	86	201.82	201.22	32.2
114	162061	198.77	86	201.39	199.46	49.2
113	161813	197.63	86	201.39	198.43	84.3
112	161337	196.52	86	201.38	198.51	112.4
111	161191	197.7	86	201.38	199.15	77.5
110	160941	197.8	86	201.37	198.49	76.6
109	160637	198.7	86	201.36	199.52	95.6
108	160292	198.02	86	201.34	199.28	106.3
107	159743	195.54	86	201.34	196.81	140.8
106	159348	197.03	86	201.34	198.18	129
105	159205	195.76	86	201.34	197.33	78.9
104	158951	193.9	86	201.34	195.58	73.9
103	158603	197.14	86	201.34	197.87	94.1
102	158255	197.85	86	201.33	198.98	65
101	158004	197.43	86	201.32	198.55	79.2
100	157708	198.09	86	201.31	199.19	88.9
99	157307	194.75	86	201.3	197.48	70.5
98	156960	199.28	86	201.28	199.8	63.5
97	156708	198.43	86	201.24	199.81	95.6
96	156557	199.26	86	201.11	200.2	43.1
95	156307	198.28	86	199.22	198.6	30.3
94	156189	196.25	86	199.1	197.16	37.9
93	156066	192.04	86	199.11	195.38	117.4
92	156058	191.63	86	199.11	195.22	117.2
91	156018	189.8	86	199.11	194.1	125.4
90	156013	189.6	86	199.11	193.98	131.2
89	155842	195.68	86	199.11	196.86	164.4
88	155692	197.21	86	199.08	197.79	58.1
87	155391	197.27	86	198.83	197.91	63.8
86	155088	196.09	86	198.77	197.1	80.5
85	154950	196.73	86	198.68	197.28	33
84	154657	196.5	86	198.24	197.47	73.6
83	154313	195.07	86	198.23	196.15	100.8
82	154015	191.2	86	198.23	193.38	101.4
81	153765	193.2	86	198.23	196.36	205.1
80	153657	196.37	86	198.21	197.18	86.7
79	153414	196.48	86	197.82	197.34	77.9
78	153064	188.78	86	197.87	193.94	353.7
77	152762	193.36	86	197.87	195.25	424.4
76	152412	191.1	86	197.87	195.05	265
75	152260	190.62	86	197.87	192.45	163.4
74	151914	189.16	86	197.87	193.79	264.6
73	151278	183.6	86	197.87	188.13	278.6
72.5	151155	186.95	86	197.87	190.26	163.6
72	150835	180.5	86	197.87	187.13	248
71	150533	175.5	86	197.87	183.15	333.3
70	150256	176.87	86	197.87	184.74	471.3
69	149957	182.45	86	197.87	186.08	199
68	149505	196.2	86	197.85	196.72	70.9

Table F-3
Surface Water Model Output: 200 cfs release (Page 10 of 11)

Main Channel 200cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
67	149257	196.38	86	197.68	196.7	73.2
66	148961	195.87	86	197.25	196.46	60.2
65	148666	193.68	86	195.27	194.33	39.2
64	148363	191	86	195.31	192.47	93.2
63	148068	191.03	86	195.3	192.56	110.8
62	147617	186.44	86	195.3	189.57	106.6
61	147227	187.1	86	195.3	189.16	118.7
60	146680	190.77	86	195.3	191.84	123.4
59	146331	189.3	50	195.4	192.36	58.7
58	145981	192.8	50	195.4	193.52	77.6
57	145534	192.11	50	195.4	192.85	163
56	145135	189.72	50	195.4	190.72	163.3
55	144731	191.4	50	195.4	193.24	181.4
54	144335	193.45	50	195.4	194.35	75.1
53	143984	190.63	50	195.4	192.75	60.9
52	143683	192.09	50	195.4	193.48	75.9
51	143290	193.54	50	195.3	194.67	86.1
50	142936	193.5	50	195.1	193.9	58.4
49	142588	192.99	50	195	193.81	63.5
48	142340	192.42	50	194.9	193.22	41.4
47	142089	192.5	50	194.8	193.53	65.5
46	141837	193.7	50	194.6	194.17	63.8
45	141536	191.56	50	194.4	192.95	54.3
44	141285	192.9	50	194.3	193.35	45
43	141092	192.61	50	194.1	193.31	59.2
42	140749	192	50	193.6	192.52	43.8
41	140441	191	50	193.4	191.79	40.4
40	140158	190.73	50	193.3	192.54	55.2
39	139750	190.65	50	192.6	191.35	34.2
38	139447	190.85	50	191.7	191.29	36.3
37	138996	188.41	50	191.8	189.33	60.1
36	138544	185.61	50	191.8	186.84	82.5
35	138193	188.36	50	191.8	190.43	119.1
34	138036	188.6	50	191.7	189.9	52.2
33	137829	190.3	50	191.7	190.56	64.9
32	137578	189.99	50	191.6	190.29	58.9
31	137228	185.8	50	191.6	188.92	61.3
30	136928	186.2	50	191.6	187.74	82.5
29	136584	189.47	50	191.6	190.04	50.6
28	136288	189.8	50	191.4	190.57	36.9
27	136044	188.83	50	191.2	189.66	47.2
26	135719	190.31	50	190.7	190.37	34.5
25	135418	187.07	50	190.7	188.14	69
24	135149	187.84	50	190.7	189.1	80.4
23	134683	187.9	50	190.7	189.13	75.9
22	134181	187.23	50	190.7	187.99	76
21	133632	186.81	50	190.7	188.2	136.1
20	133132	187.26	50	190.7	188.34	122
19	132682	184.79	50	190.7	186.63	122.5
18	132385	188.3	50	190.7	189.34	132.7
17	132086	190.13	50	190.5	190.31	68.2
16	131741	187.09	50	190.4	188.18	82.5
15	131359	189.35	50	190.2	189.78	51.7
14	130944	185.68	50	190.1	187.08	73.3
13	130585	188.17	50	190.1	189.18	84.3
12	130263	188.92	50	189.7	189.26	96.3
11	130129	187.2	50	188.8	188.26	36.9
10	129978	183.54	50	187.8	185.88	57.2
9	129640	184.9	50	187.7	185.76	79.3
8	129236	184.4	50	187.7	185.87	50.2

Table F-3
Surface Water Model Output: 200 cfs release (Page 11 of 11)

Main Channel 200cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
7	128831	183.34	50	187.7	185.67	57.5
6	128486	186	50	187.6	186.7	81.8
5	128084	186.2	50	187.2	186.61	37.8
4	127787	183.75	50	187.3	184.69	80.9
3	127443	184.17	50	187.3	185.8	105
2	127094	185.7	50	187.2	186.46	63.1
1	126743	183.49	50	187.2	184.27	71.1
A221	126279	185.7	50	187.2	186.48	48.3
A220	125889	184.28	50	186.3	185.59	38.1
A219	125088	182.14	50	186.3	183.68	108.3
A218	124298	184.49	50	186.3	185.29	139.7
A217	123676	185.1	50	185.8	185.39	28.3
A216	122984	180.55	50	184.1	182.54	127.8
A215	122059	179.44	50	184.1	180.54	119.8
A214	121057	178.43	50	184.1	181.19	125.2
A213	120291	184.06	50	184	-99	0
A212	119696	180.59	50	184	181.97	74.8
A211	118764	178.9	50	184	181.51	104.7
A210.5	118416	177.33	50	184	179.2	106.3
A210	117893	182.37	50	184	183.02	73.3
A209	117286	180.54	50	183.9	182.71	105.1
A208	116395	179.8	50	183.9	181.49	195.8
A207	116012	182.03	50	183.9	182.9	151.7
A206	115517	182.9	50	183.8	183.26	255.2
A205	114963	180.71	50	182.3	181.51	25.2
A204	114482	180.12	50	182.3	181	94.1
A203.5	113819	181.15	50	182.2	181.4	112.1
A203	113479	181	50	181.8	181.51	49.6
A202	113154	176.85	50	181.8	178.97	123.6
A201	112433	179.84	50	181.8	180.73	159.4
A200	111913	180.1	50	181.8	180.7	117.3
A199	111445	180.2	50	181.7	181.01	67.9
A198	110945	177.72	50	181.7	179.24	94.8
A197.5	110558	180.08	50	181.7	180.79	190.2
A197	110187	179.69	50	181.7	180.72	248.8
A196	109779	179.07	50	181.7	179.98	142.5
A195	109179	178.39	50	181.7	180.03	133
A194	108693	180.1	50	181.6	180.61	96.5
A193	108336	180.6	50	181.5	181.2	179
A192	107336	178.93	50	181.5	180.2	367.8
a191	106945	181.26	1	--	--	--
a190	106441	180.03	1	--	--	--
a189	105856	176.23	1	--	--	--
A188	105518	175.8	50	179.9	178.05	198.8
A187	105181	178.6	50	179.9	179.4	115.2

Table F-4
Surface Water Model Output: 350 cfs release (Page 1 of 14)

Main Channel 350cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
A97	59770	157.07	78	160.73	158.23	127.8
A98	60612	159.47	78	160.74	159.73	85.8
A99	61382	160.46	78	161.42	161.10	241.5
A100	62202	159.2	78	161.55	160.03	135.5
A101	62496	159.5	78	161.57	159.85	97.2
A102	62778	159.41	78	161.59	160.01	81.2
A103	63051	160	78	161.63	160.69	93.7
A103.5	63350	161	78	161.86	161.41	165.4
A104	63837	161	78	162.1	161.50	215
A105	64583	160.13	78	162.21	161.15	147.8
A106	65226	159.59	78	162.27	160.94	145.5
A107	65415	160.53	78	162.29	161.31	221
A108	66181	159.12	78	162.32	160.41	133.9
A109	66821	159.6	78	162.33	160.53	116
A110	67143	160.7	78	162.35	161.15	124.2
A111	67799	160.72	78	162.43	161.35	148.4
A112	68244	159.45	78	162.49	160.71	70.6
A112.5	68712	162.36	78	163.34	162.81	34.8
A113	69201	162.61	78	164.64	163.66	84.2
A114	69531	162.8	78	164.69	163.53	226.7
A115	70021	162.71	78	164.71	163.51	204.5
A115.5	70402	163.13	78	164.74	163.65	141.4
A116	70750	163.09	78	164.8	163.63	87.1
A116.5	70994	162.3	78	164.83	163.31	136.4
A117	71213	162.8	78	164.84	163.82	135.3
A118	71832	162.37	78	164.89	163.60	221.2
A119	72099	160.02	78	164.89	160.89	102.1
A120	72856	160.36	78	164.89	163.16	96.8
A121	73600	163.32	78	164.99	164.47	261.3
A122	73813	164.12	78	165.16	164.66	142.7
A123	74100	161.59	78	165.2	162.86	94.3
A124	74787	161.9	78	165.23	163.65	58.5
A125	75113	163.18	78	165.34	164.23	56.8
A126	75649	167.17	78	167.42	167.31	335.6
A127	75888	165.56	78	167.66	167.04	289.1
A128	76216	163.65	78	167.67	164.75	82
A129	76518	163.86	78	167.68	165.21	104.8
A130	76876	165.17	78	167.67	166.37	43.5
A131	77391	169.07	78	169.18	169.08	282.4
A131.5	77594	168.81	78	169.6	169.26	466.8
A132	77861	168.56	78	169.66	169.08	416.1
A133	78206	167.1	78	169.69	169.07	373
A134	78673	168.99	78	169.74	169.30	512.6
A135	79157	167.7	78	169.8	168.94	266.3
A136	79448	165.93	78	169.81	168.20	265.2
A137	79986	160.25	78	169.81	166.20	213.8
A138	80648	169.2	78	169.81	169.56	111.4
A139	80928	167.49	78	169.97	168.65	239.3
A139	80928	167.49	78	169.97	168.65	240.1
A140	81423	167.91	15	169.98	169.21	114.3
A141	82152	169.1	15	170.02	169.45	43.4
A142	82530	169.2	15	170.31	169.75	20.7
A142.5	82807	171.4	15	171.98	171.69	17.1
A143	82999	171.74	15	172.25	172.00	256.6
A144	83536	170.1	15	172.26	170.86	97.8
A145	84239	168.14	78	172.27	170.83	266.1
A145	84239	168.14	78	172.27	170.83	266.1
A146	84661	166.5	78	172.27	169.46	146.6
A147	84936	164.76	78	172.27	168.42	117
A148	85279	165.17	78	172.28	169.67	274.1

Table F-4
Surface Water Model Output: 350 cfs release (Page 2 of 14)

Main Channel 350cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
A149	85570	164.79	78	172.28	167.99	157.3
A150	85935	170.52	65	172.24	171.43	45.9
A151	86428	172.23	65	172.93	172.47	187.9
A152	86770	172.64	78	173.24	172.78	225.4
A152.5	87158	170.89	78	173.31	172.25	204.1
A153	87667	168.6	78	173.32	170.28	186
A153	87667	168.6	78	173.32	170.28	186
A154	88500	167.11	78	173.32	169.09	65
A155	88864	171.11	78	173.33	172.50	165
A156	89103	170.55	78	173.34	172.04	282.6
A157	89541	166.6	78	173.34	168.62	170.6
A158	90046	165.27	78	173.34	168.27	62.1
A159	90343	169.65	78	173.35	172.24	164.1
A160	90592	173.1	78	174.08	173.69	101.9
A161	90999	173.78	78	174.56	174.08	389.4
A162	91343	174.5	78	174.82	174.70	333.2
A163	91799	174.9	78	175.64	175.27	432.3
A164	92021	174.29	78	175.78	175.24	167.6
A165	92397	173.29	78	175.84	174.96	325.1
A165.5	92682	175.96	30	176.31	176.11	294
A166	93067	172.95	30	176.32	174.52	182
A167	93997	173.86	30	176.32	175.40	112.4
A168	94613	171.4	78	176.32	173.33	320.4
A168	94613	171.4	78	176.32	173.33	320
A169	94987	168.3	78	176.32	170.64	133.5
A170	95633	173.3	11	176.32	174.78	82.6
A171	96236	176.74	11	177.45	177.20	31.5
A172	96645	175.3	11	177.49	176.58	270.3
A173	97555	175.1	11	177.49	175.93	130.3
A174	98044	175.39	11	177.49	176.58	103.9
A175	98648	173.49	78	177.5	176.04	286
A175	98648	173.49	78	177.5	176.04	286
A176	99508	171.17	78	177.51	173.96	111
A177	99706	173.2	78	177.51	175.38	219.1
A178	100849	174.48	78	177.52	175.72	119.3
A179	101488	174.59	78	177.53	175.69	172.5
A180	102209	169.56	78	177.54	172.83	85.3
A181	102972	174.02	78	177.54	175.00	81.3
A182	103149	173	78	177.55	175.11	60.1
A183	104013	178.03	78	179.17	178.69	44.9
A184	104252	178.9	78	180.11	179.42	103.1
A185	104634	179.2	78	180.27	179.61	234
A186	104856	179.42	78	180.31	179.70	313.4
A186	104856	179.42	78	180.31	179.70	313.4
A187	105181	178.6	180	180.48	179.61	156.5
A188	105518	175.8	180	180.53	178.56	258.7
A189**	105856	176.23	3**	180.65	178.66	77.5
A190**	106441	180.03	3**	180.85	178.83	7.9
A191**	106945	181.26	3**	181.02	178.98	259.2
A192**	107336	178.93	180**	181.15	179.10	371.5
A192**	107336	178.93	180**	181.15	179.10	376.8
A193**	108336	180.6	180**	181.50	179.39	284.1
A194**	108693	180.1	180**	181.62	179.50	165.7
A195**	109179	178.39	180**	181.79	179.64	247.8
A196**	109779	179.07	180**	181.99	179.82	175.1
A197**	110187	179.69	180**	182.13	179.94	260.6
A197.5**	110558	180.08	180**	182.26	180.05	225.8
A198**	110945	177.72	180**	182.39	180.16	165
A199**	111445	180.2	180**	182.57	180.31	302.6

Table F-4
Surface Water Model Output: 350 cfs release (Page 3 of 14)

Main Channel 350cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
A200**	111913	180.1	180**	182.73	180.45	227.8
A201**	112433	179.84	180**	182.91	180.60	336.9
A202**	113154	176.85	180**	183.15	180.82	147.8
A203**	113479	181	180**	183.27	180.91	167.2
A203.5**	113819	181.15	180**	183.38	181.01	151
A204	114482	180.12	180	183.61	181.21	105.5
A205	114963	180.71	180	183.66	182.30	49.7
A206	115517	182.9	180	184.38	183.66	306.1
A207	116012	182.03	180	184.53	183.08	174.1
A208	116395	179.8	180	184.55	181.77	216.7
A209	117286	180.54	180	184.58	183.20	153.1
A210	117893	182.37	180	184.82	183.62	127.4
A210.5	118416	177.33	180	184.85	179.58	114.4
A211	118764	178.9	180	184.86	181.66	121.1
A212	119696	180.59	180	184.9	182.30	86
A213	120291	184.06	180	185.07	184.53	151.1
A214	121057	178.43	180	185.14	181.39	132.6
A215	122059	179.44	180	185.15	180.61	122.1
A216	122984	180.55	180	185.17	182.65	134.3
A217	123676	185.1	180	186.61	186.18	101.2
A218	124298	184.49	180	187.18	185.44	155.8
A219	125088	182.14	180	187.22	183.87	115.4
A220	125889	184.28	180	187.24	186.04	65.4
A221	126279	185.7	180	188.1	187.21	118
1	126743	183.49	180	188.2	184.27	71.1
2	127094	185.7	180	188.2	186.66	73.5
3	127443	184.17	180	188.3	185.87	108.8
4	127787	183.75	180	188.3	185.07	95
5	128084	186.2	180	188.3	187.15	68.5
6	128486	186	180	188.7	186.99	100.1
7	128831	183.34	180	188.8	186.52	84.3
8	129236	184.4	180	188.9	186.22	58.7
9	129640	184.9	180	189	185.96	86.3
10	129978	183.54	180	189.1	187.05	125.9
11	130129	187.2	180	189.3	188.74	101.8
12	130263	188.92	180	190.2	189.37	96.3
13	130585	188.17	180	190.7	189.30	84.3
14	130944	185.68	180	190.8	187.52	73.3
15	131359	189.35	180	190.8	190.00	61
16	131741	187.09	180	191	188.31	87.1
17	132086	190.13	180	191.1	190.62	108.4
18	132385	188.3	180	191.3	189.39	132.7
19	132682	184.79	180	191.3	186.71	122.5
20	133132	187.26	180	191.3	188.41	125.7
21	133632	186.81	180	191.4	188.28	139.8
22	134181	187.23	180	191.4	188.25	83.1
23	134683	187.9	180	191.5	189.38	87
24	135149	187.84	180	191.6	189.23	85.5
25	135418	187.07	180	191.6	188.44	76.4
26	135719	190.31	180	191.6	190.57	45.1
27	136044	188.83	180	192.4	190.04	56.6
28	136288	189.8	180	192.6	190.90	57.9
29	136584	189.47	180	192.9	190.37	59.6
29	136584	189.47	180	192.9	190.37	59.6
30	136928	186.2	180	192.9	188.50	99.6
31	137228	185.8	180	192.9	189.37	70.9
32	137578	189.99	180	193	190.48	65.1
33	137829	190.3	180	193.1	190.78	73.3
34	138036	188.6	180	193.1	190.67	76.4

Table F-4
Surface Water Model Output: 350 cfs release (Page 4 of 14)

Main Channel 350cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
35	138193	188.36	180	193.2	190.80	147.7
36	138544	185.61	180	193.2	187.24	89
37	138996	188.41	180	193.2	189.71	68.4
38	139447	190.85	180	193.3	192.02	102.7
39	139750	190.65	180	193.7	191.94	54.1
40	140158	190.73	180	194.4	192.79	69.7
41	140441	191	180	194.7	192.13	47.5
42	140749	192	180	194.9	192.88	62.1
43	141092	192.61	180	195.3	193.71	93.1
44	141285	192.9	180	195.5	193.80	63.5
45	141536	191.56	180	195.7	193.42	69.2
46	141837	193.7	180	195.9	194.26	69.4
47	142089	192.5	180	196.1	193.76	75.7
48	142340	192.42	180	196.2	193.58	48.8
49	142588	192.99	180	196.3	193.94	68.3
50	142936	193.5	180	196.5	194.17	67.9
51	143290	193.54	180	196.6	194.77	93.5
52	143683	192.09	180	196.7	193.69	82.8
53	143984	190.63	180	196.7	192.96	65.2
54	144335	193.45	180	196.8	194.45	79.5
55	144731	191.4	180	196.8	193.36	189.2
55	144731	191.4	180	196.8	193.36	189.2
56	145135	189.72	180	196.8	190.90	169
57	145534	192.11	180	196.8	193.11	184.9
58	145981	192.8	180	196.8	193.83	88.7
59	146331	189.3	180	196.8	193.47	82.7
60	146680	190.77	222	196.81	192.03	129.3
61	147227	187.1	222	196.81	189.66	127.9
62	147617	186.44	222	196.82	190.15	117.1
63	148068	191.03	222	196.82	193.32	142.5
64	148363	191	222	196.82	192.96	107.9
65	148666	193.68	222	196.8	194.78	53.3
66	148961	195.87	222	197.51	196.51	63.4
67	149257	196.38	222	198.32	196.82	80.2
68	149505	196.2	222	198.56	196.89	80.3
69	149957	182.45	222	198.61	186.23	201.4
70	150256	176.87	222	198.61	184.95	478.6
71	150533	175.5	222	198.61	183.32	337
72	150835	180.5	222	198.61	187.39	253.9
72.5	151155	186.95	222	198.61	190.26	163.6
73	151278	183.6	222	198.61	188.22	281
74	151914	189.16	222	198.61	193.84	267.4
74	151914	189.16	222	198.61	193.84	267.4
75	152260	190.62	222	198.61	191.51	120.3
76	152412	191.1	222	198.61	191.93	47.1
77	152762	193.36	222	198.61	194.26	194.7
78	153064	188.78	222	198.61	192.34	220.2
79	153414	196.48	222	198	197.39	84.9
80	153657	196.37	222	198.82	197.38	101.1
81	153765	193.2	222	198.86	196.45	214.3
82	154015	191.2	222	198.87	193.60	105.8
83	154313	195.07	222	198.87	196.23	104.4
84	154657	196.5	222	198.92	197.57	81.4
85	154950	196.73	222	199.4	197.46	36.9
86	155088	196.09	222	199.62	197.35	93
87	155391	197.27	222	199.72	198.24	86.6
88	155692	197.21	222	199.96	198.02	67.1
89	155842	195.68	222	200.02	197.14	183.6
90	156013	189.6	222	200.02	194.21	136.9

Table F-4
Surface Water Model Output: 350 cfs release (Page 5 of 14)

Main Channel 350cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
91	156018	189.8	222	200.02	194.34	131
92	156058	191.63	222	200.02	195.56	127.6
93	156066	192.04	222	200.02	195.84	132.3
94	156189	196.25	222	200	197.65	48.3
95	156307	198.28	222	200.01	198.88	41.8
96	156557	199.26	222	201.79	200.82	87.1
97	156708	198.43	222	201.99	199.99	106.3
98	156960	199.28	222	202.06	200.01	79.9
99	157307	194.75	222	202.12	197.91	78.5
100	157708	198.09	222	202.14	199.38	96.2
100	157708	198.09	222	202.14	199.38	96.2
101	158004	197.43	222	202.17	198.82	86.5
102	158255	197.85	222	202.18	199.20	80.8
103	158603	197.14	222	202.22	198.05	98.5
104	158951	193.9	222	202.22	195.87	77.5
105	159205	195.76	222	202.23	197.57	83.3
106	159348	197.03	222	202.23	198.35	135.3
107	159743	195.54	222	202.24	197.02	147.1
108	160292	198.02	222	202.24	199.57	120
109	160637	198.7	222	202.27	199.68	102.5
110	160941	197.8	222	202.29	198.71	82
111	161191	197.7	222	202.31	199.35	83.9
112	161337	196.52	222	202.33	198.74	120.7
113	161813	197.63	222	202.34	198.55	87.4
114	162061	198.77	222	202.34	199.64	53.3
115	162361	200.9	222	202.36	201.29	35.3
116	162604	200.1	222	203.1	200.87	93.2
117	162997	201.2	222	203.19	201.70	38.3
118	163396	199.2	222	203.75	201.06	55.7
119	163696	200.5	222	203.89	202.16	44.2
120	164088	201.49	222	204.52	202.46	50.4
121	164377	202.68	222	204.85	203.20	64
122	164682	201.11	222	205.01	201.94	65.9
123	165180	201.05	222	205.07	202.31	121.6
124	165821	199.96	222	205.1	201.64	101.2
125	166189	199.42	222	205.12	201.07	71.7
126	166639	202.43	222	205.16	203.43	107
127	166917	203.07	222	205.3	203.56	52.2
128	167342	202.63	222	205.76	203.92	75.6
129	167841	203.52	222	206.1	204.39	80.4
130	168394	202.44	222	206.3	203.53	71.9
131	169067	202.96	222	206.48	204.20	57.3
132	169539	203	222	206.65	204.06	78.2
133	169987	200.42	222	206.68	201.38	100.3
133	169987	200.42	222	206.68	201.38	100.3
134	170391	201.48	222	206.68	203.33	62.6
135	170887	205.12	222	206.75	205.72	59.4
136	171380	204.9	222	207.37	205.52	107.2
137	171938	203.3	222	207.46	204.53	102.7
138	172088	202.73	222	207.48	204.18	171.1
139	172637	201.05	222	207.49	203.83	140.8
140	173082	205.02	222	207.48	205.59	68.8
141	173483	204.4	222	207.71	205.67	78.3
142	173972	204.7	222	207.95	205.71	54.8
143	174263	206.44	222	208.25	207.03	51.7
144	174838	202.59	222	208.5	204.56	111.9
145	175236	206.19	222	208.52	206.69	81.8
146	175731	206.27	222	208.76	206.76	51.2
147	176227	206.27	222	209.22	207.17	57.6

Table F-4
Surface Water Model Output: 350 cfs release (Page 6 of 14)

Main Channel 350cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
148	176628	206.34	222	209.45	207.35	99.5
149	177177	201.9	222	209.49	204.15	90.3
150	177825	207.2	222	209.47	208.11	80
151	178325	206.8	222	209.77	207.98	131.6
152	179125	203.49	222	209.84	206.22	96.7
153	179725	205.39	222	209.88	207.04	63.2
154	180019	206.58	222	209.97	207.98	50
155	180415	208.79	222	210.67	209.27	46.1
156	180815	210.31	222	211.85	210.53	75.6
157	181263	209.57	222	212.18	210.31	111.3
158	181710	207.15	222	212.24	208.50	75.5
159	182065	208.95	222	212.23	210.65	53
160	182330	208.55	222	212.46	210.40	103.6
161	182636	206.77	222	212.49	207.92	104.1
162	183086	206.38	222	212.5	208.39	145.3
163	183583	206.9	222	212.5	208.85	120.1
164	184333	206.54	222	212.52	207.45	87.9
165	184732	206.76	222	212.53	208.06	148.1
166	184933	210.05	222	212.38	210.90	40.1
167	185227	204.53	222	212.62	205.88	121.3
168	185779	204.05	222	212.63	206.60	164.9
169	186219	205	222	212.63	206.60	71.6
170	186469	209.7	222	212.57	210.26	38.4
171	186873	208.9	222	212.84	210.37	74.1
172	187166	207.43	222	212.91	209.49	42.4
173	187412	204.7	222	212.95	206.42	186.8
173	187412	204.7	222	212.95	206.42	186.8
174	187966	210.25	222	212.86	211.60	59.8
175	188095	206.1	222	213.01	209.12	112.1
176	188423	210.2	222	212.97	212.06	47.4
177	188823	213	222	214.84	213.58	90.3
178	188980	209.6	222	214.95	211.99	49.9
179	189351	212.8	222	215.15	213.90	53.3
180	189458	213.98	222	215.55	214.32	88.2
181	190050	207.14	222	215.63	209.35	146.6
182	190639	207.5	222	215.63	209.45	98.2
183	191329	207.01	222	215.64	209.03	153.9
184	191516	205	222	215.64	206.99	165.7
185	191743	208.5	222	215.63	209.40	40.4
186	191749	208.85	222	215.63	209.66	36.7
187	191766	208.9	222	215.63	211.35	38.6
188	191772	208.97	222	215.63	211.66	44.7
189	191966	206.19	222	215.66	208.13	170.8
190	192365	203.37	222	215.66	207.86	278.5
191	192670	203.63	222	215.66	207.02	107
192	193166	208	222	215.66	209.33	128.7
193	193718	209.02	222	215.67	213.48	185
194	193991	213	222	215.65	213.97	76.8
195	194341	214.72	222	216.48	215.25	61.7
196	194732	211	222	216.81	213.64	55.6
197	194976	211.48	222	216.86	213.66	102.1
198	195263	213.49	222	216.87	214.68	37.6
199	195789	211.49	222	216.99	212.69	60.3
200	196186	212.4	222	217.01	213.93	54
201	196483	212.7	222	217.09	214.17	52.1
202	196784	213.7	222	217.2	214.53	46.6
203	197097	212.5	222	217.3	214.31	85.6
204	197447	212.88	222	217.32	213.92	133.3
205	197842	209.1	222	217.33	211.37	93.6

Table F-4
Surface Water Model Output: 350 cfs release (Page 7 of 14)

Main Channel 350cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
206	198090	208.52	222	217.33	212.17	58.9
207	198239	211.2	222	217.34	212.82	156.7
208	198682	210.82	222	217.34	212.20	104.8
209	199076	212.6	222	217.34	214.10	79.2
211	199573	215.7	222	217.8	216.49	25.9
212	199865	215.61	222	219.24	216.63	31.8
213	200164	209.95	222	219.36	213.02	119.4
214	200608	212.4	222	219.36	214.26	118.6
215	201191	213.71	222	219.37	215.43	127.4
216	201639	213.86	222	219.38	215.58	88.9
217	201932	215.72	222	219.38	216.74	59
218	202221	215.54	222	219.47	216.82	68.1
219	202616	211.93	222	219.51	214.20	90.7
220	202914	210.7	222	219.51	212.79	89.2
221	203265	213.73	222	219.51	214.68	94.7
222	203466	212.5	222	219.52	215.93	98.2
223	203806	217.2	222	219.44	218.00	45.3
223	203806	217.2	222	219.44	218.00	45.3
224	204026	209.24	222	219.64	214.32	134.4
225	204169	212.32	222	219.63	215.06	42.1
226	204174	212.38	222	219.63	215.10	42.3
227	204270	213.5	222	219.65	216.52	67.5
228	204275	213.76	222	219.65	216.46	69.6
229	204338	214.49	273	219.66	216.47	59.7
230	204342	214.5	273	219.66	216.48	62.1
231	204358	214.8	273	219.66	216.61	60.8
232	204361	214.83	273	219.66	216.58	58.4
233	204791	209.67	273	219.71	212.68	130.2
234	205389	211.1	273	219.71	213.95	145.2
235	206090	213.27	273	219.72	216.18	140.6
236	206644	212.4	273	219.73	214.10	131.3
237	206998	216.3	273	219.73	217.32	107.7
238	207766	215.2	273	219.78	217.73	459.3
239	208058	215.7	172	219.78	217.13	116
240	208646	215.7	172	219.81	217.06	108.4
241	208975	215.66	273	219.83	217.33	148.7
241	208975	215.66	273	219.83	217.33	148.7
242	209568	215.56	273	219.9	217.01	64.8
243	209914	215.63	273	219.99	217.19	97.2
244	210366	215.35	273	220.04	216.77	93.1
245	210767	215.81	273	220.09	217.08	85.3
246	211265	215.04	273	220.15	216.44	73.8
247	211568	215.74	273	220.19	217.60	102.6
248	211919	215.4	273	220.24	217.30	116.6
249	212217	217.01	273	220.23	217.87	43.6
250	212419	218.47	273	220.72	219.91	111.7
251	212711	216.8	273	221.02	218.64	107.1
252	213059	214.9	273	221.08	217.63	69.9
253	213411	216.38	273	221.14	218.54	72.2
254	213608	217.9	273	221.21	218.63	81.9
255	214012	213.06	273	221.25	215.87	129.6
256	214612	218.8	273	221.04	220.26	68.6
257	214855	219.44	273	222.09	220.25	77.3
258	214861	219.47	273	222.09	220.38	66.4
259	214875	219.5	273	222.11	220.40	66.3
260	214881	219.5	273	222.16	220.30	77.9
261	215111	219.47	273	222.33	220.16	82.7
262	215313	218.58	273	222.41	219.71	87.8
263	215568	218.4	273	222.45	220.29	198.1

Table F-4
Surface Water Model Output: 350 cfs release (Page 8 of 14)

Main Channel 350cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
264	215834	216.76	273	222.47	219.98	180
265	216058	211.4	273	222.48	216.50	314.1
266	216455	215.72	273	222.47	217.77	84.8
267	216754	213.79	273	222.48	216.52	101.6
268	217109	218.29	273	222.46	219.78	60.6
269	217401	217.59	273	222.55	218.51	63.4
270	217684	215.5	273	222.58	217.66	62.7
271	218261	220.4	273	222.61	221.38	85.9
271	218261	220.4	273	222.61	221.38	85.9
272	218554	222	273	223.72	222.42	52.3
273	218852	220.76	273	224.34	221.75	55.1
274	219100	223.01	273	224.56	223.58	65.4
275	219350	221.24	273	225.3	222.94	53.6
276	219599	222.91	273	225.51	223.79	69.9
277	219797	222.02	273	225.56	223.33	106.3
278	220033	218.3	273	225.57	220.72	150.8
279	220234	219.46	273	225.58	221.21	140.4
280	220373	225.07	273	226.5	225.90	103.9
281	220553	224.1	273	227.16	226.07	211.8
282	220794	214.8	273	227.19	219.42	262.8
283	220998	223.98	273	227.07	225.41	50.1
284	221298	219.57	273	227.27	223.68	182.6
285	221698	216.22	273	227.27	220.78	147.2
286	221888	223	273	227.27	224.57	173.8
287	222311	211.23	273	227.27	215.00	177.1
288	222706	215.77	273	227.27	220.39	243.3
289	223117	220.13	273	227.26	223.18	100
290	223285	218.9	273	227.27	223.25	167.2
291	223543	222.28	273	227.28	225.04	138
292	223808	220.94	273	227.3	223.80	161.1
293	224096	224.42	273	227.27	225.93	88.7
293	224096	224.42	273	227.27	225.93	88.7
294	224349	224.6	273	227.64	225.78	82.2
295	224599	216.98	273	227.72	221.94	197.3
296	224852	225.3	273	227.69	226.29	107.8
297	225346	226.14	273	228.48	226.75	47.1
298	225544	226.35	273	228.86	227.04	99.9
299	225943	223.31	273	228.92	225.40	130.4
300	226446	226.1	273	228.95	226.83	111
301	226790	226.9	273	229.05	227.88	57.5
301.1	226810	227.85	273	229.19	228.29	64.1
301.2	226829	226.62	273	229.55	228.02	77.8
302	227142	226.4	273	229.76	227.12	93.8
303	227429	227.1	273	229.77	227.64	36.9
304	227791	225.5	273	230.03	226.25	99.6
305	228081	227.5	273	229.95	228.36	49
306	228417	227.9	273	231	229.37	66.7
307	228661	228.28	181	231.22	228.98	65.3
308	228862	227.4	181	231.28	228.69	56.5
309	229058	225.3	181	231.31	227.93	73.9
310	229402	228.87	181	231.34	230.18	95
311	229745	228.2	181	231.58	229.85	88.4
312	229990	229.5	181	231.72	230.43	77.3
313	230245	230.7	181	233.51	231.62	60.3
314	230547	229.1	181	233.6	231.09	102.1
315	230793	230	181	233.63	231.60	122.2
316	231203	228.1	273	233.65	230.05	136.1
316	231203	228.1	273	233.65	230.05	136.1
317	231549	230.84	273	233.67	231.51	121.8

Table F-4
Surface Water Model Output: 350 cfs release (Page 9 of 14)

Main Channel 350cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
318	231994	227.06	273	233.69	228.82	142.1
319	232653	222.8	273	233.7	226.82	108.6
320	233151	223.4	273	233.7	226.55	112.2
321	233658	228.21	273	233.71	231.06	155.8
322	233956	228.1	273	233.73	231.28	103.5
323	234151	227.75	273	233.75	230.76	208
324	234302	224.44	273	233.76	228.37	200.4
325	234560	225.76	273	233.76	228.79	137.1
326	235047	226.5	273	233.76	229.34	132.6
327	235591	226.57	273	233.77	228.61	111.6
327	235591	226.57	273	233.77	228.61	111.6
328	236090	225.9	273	233.78	229.42	140.9
329	236633	230.2	273	233.79	231.49	162.3
330	236828	230.6	273	233.82	231.61	146.5
331	236975	231.01	273	233.83	231.81	69.2
332	237280	230.66	273	234.05	231.67	63.3
333	237628	227.97	273	234.14	230.14	88.1
334	237879	231.36	273	234.16	232.13	129.6
335	238262	232.28	273	234.79	234.17	97.8
336	238437	234.05	273	235.94	234.81	114.3
337	238685	232.97	273	236.18	234.12	92
338	238880	232.79	273	236.27	233.95	50
339	239213	235.63	263	237.38	236.21	36.5
340	239442	231.45	263	238.31	234.59	35.3
341	239711	227.6	273	238.39	232.66	68.4
341	239711	227.6	273	238.39	232.66	68.4
342	239969	236.6	273	238.58	237.92	85.5
343	240315	233.83	273	239.11	235.81	79.4
344	240731	239.29	273	240.07	239.33	76
345	241114	240.35	273	242.05	240.82	105.4
346	241329	239.6	242	242.28	240.44	96.9
347	241475	237.6	242	242.32	238.82	110.4
348	241878	236.73	273	242.34	239.05	159.6
348	241878	236.73	273	242.34	239.05	159.6
349	242370	239.09	273	242.37	241.26	247.9
350	242668	235.95	273	242.4	238.01	142.5
351	243113	238.2	273	242.41	239.20	131.6
352	243561	238.35	273	242.43	239.44	113.1
353	244258	235.05	273	242.47	237.68	77.4
353	244258	235.05	273	242.47	237.68	77.4
354	244514	238.7	273	242.47	241.00	113.4
355	244883	238.65	140	242.57	239.77	105.4
356	245238	238.42	140	242.58	239.93	113.6
357	245536	241.05	140	242.56	241.55	44.4
358	245928	241.5	140	244.46	243.11	47.1
359	246322	242.32	273	245.09	243.43	97.6
359	246322	242.32	273	245.09	243.43	97.6
360	246628	240.3	273	245.16	241.60	124.7
361	247273	240.1	273	245.2	242.19	117.6
362	247824	238.4	273	245.22	240.22	138.4
363	248421	239.1	273	245.22	241.37	123.6
364	248927	239.38	273	245.25	242.40	129.7
365	249195	240.3	273	245.3	244.33	238.1
366	249414	244.8	273	245.55	244.85	167.5
367	249603	236.1	273	245.64	238.51	117
368	249901	235.6	273	245.64	238.43	121.9
369	250198	236.86	273	245.64	240.34	83.4
370	250507	239.22	273	245.65	240.66	146.4
371	250742	241.8	273	245.63	242.88	57.3

Table F-4
Surface Water Model Output: 350 cfs release (Page 10 of 14)

Main Channel 350cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
372	250939	242.3	273	245.73	243.56	64.8
373	251189	243.58	273	246.17	245.11	46.7
374	251420	234.82	273	246.7	237.38	497.1
375	251799	242.15	63	246.7	243.75	58
376	251943	242.77	63	246.7	243.85	40.8
378	252267	239.19	63	246.7	242.09	91.8
379	252548	238.8	273	246.7	241.63	111
379	252548	238.8	273	246.7	241.63	111
380	252888	237.46	273	246.7	239.97	195.7
381	253384	238.07	273	246.71	242.04	215.9
382	253695	245.76	273	246.82	246.18	99.5
383	253782	244.3	273	247.57	245.94	109.7
384	253898	247.17	273	248.67	247.20	26.7
387	253977	247.86	273	250.01	248.15	27.9
388	254139	244.1	273	250.57	247.80	468.2
389	254601	239.3	242	250.57	244.16	343.4
390	255485	242.4	242	250.57	245.92	173.8
391	255716	237	242	250.58	240.63	694.2
392	256228	237.4	242	250.58	242.03	478.1
393	256549	244.4	273	250.58	247.06	293.2
393	256549	244.4	273	250.58	247.06	293.2
394	256750	245.5	273	250.58	247.13	159.8
395	256862	241.9	273	250.58	245.14	176.3
396	256867	242.3	273	250.58	245.24	167.8
397	256885	242.39	273	250.59	245.33	179.7
398	256890	242.4	273	250.59	245.54	188.6
399	257058	241.1	273	250.59	245.22	249.6
400	257682	238.15	273	250.59	241.22	389.2
401	257888	236.86	273	250.59	240.70	450.5
402	258238	244.7	273	250.59	245.94	228.1
403	258984	239.6	273	250.59	246.12	411.9
404	259596	245.9	267	250.59	246.71	191
405	259931	241.05	267	250.59	244.47	189.1
406	260150	242.59	59	250.6	245.60	158.3
407	260462	242.48	59	250.6	245.45	106.3
408	260784	244.05	59	250.6	246.47	137.2
409	260951	245	59	250.6	247.60	111.2
410	261243	243.33	59	250.6	247.30	266
411	261498	244.9	267	250.59	247.54	145.2
412	261844	242.91	267	250.6	244.41	115.4
413	262344	246.35	267	250.61	248.42	198.6
414	262848	250.7	267	251.91	251.37	126.8
415	263157	249.3	267	253.3	251.12	42.7
416	263857	249.41	273	253.55	250.95	171.1
416	263857	249.41	273	253.55	250.95	171.1
417	264503	247.96	273	251.18	248.75	151.6
418	265024	252.53	112	253.06	252.61	56.2
419	265274	251.64	112	253.8	252.18	50
420	265605	250.87	112	253.88	251.89	99.1
421	265903	248	273	253.89	249.93	95.6
421.75	266278	254.46	273	256.11	255.70	182.3
421.75	266278	254.46	273	256.11	255.70	182.3
422	266283	254.59	273	256.32	255.80	198.2
422.5	266445	255.7	273	257.33	256.73	232.1
422.75	266450	255.7	273	257.36	256.70	223.7
423	266519	258.7	327	259.38	258.91	179.9
424	266524	258.53	327	259.64	258.93	221.3
425	266555	257.4	327	259.73	258.34	263.1
426	266560	257.2	327	259.73	258.08	189.1

Table F-4
Surface Water Model Output: 350 cfs release (Page 11 of 14)

Main Channel 350cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
426.5	266764	255	309	259.77	257.36	204.5
427	266900	255.5	309	259.78	258.08	207
428	267116	256.2	309	259.83	258.09	183.2
429	267648	256.22	309	259.92	257.17	148.2
430	268054	256.56	309	259.98	258.75	138.5
431	268305	254.31	309	260.14	257.11	63.3
432	268553	255.83	309	260.23	257.37	75.9
433	268877	258.28	327	260.34	258.73	199.4
433	268877	258.28	327	260.34	258.73	199.4
434	269246	254.1	327	260.38	256.37	148.9
435	269593	254.75	327	260.39	256.34	164.3
436	269990	255.73	327	260.4	257.08	167.3
437	270595	255.07	327	260.41	257.03	248.3
438	270939	257.51	327	260.42	258.59	175.7
439	271342	257.29	327	260.51	258.36	144
440	272039	256.69	327	260.61	257.60	142.4
441	272582	255.06	327	260.65	257.00	94.6
442	272928	258	327	260.73	259.09	160.1
443	273081	257.4	327	260.78	258.34	125.6
444	273425	255.75	327	260.82	256.84	118
445	273869	255.8	327	260.85	257.70	123.4
446	274423	251.8	327	260.87	254.64	133.7
447	274631	256.2	262	260.82	258.72	55.3
448	275102	258.27	32	261.06	259.11	65.3
449	275400	258.2	97	261.07	259.01	86.7
450	275705	257.79	97	261.08	258.64	78.5
451	276053	252.4	97	261.09	255.70	85.3
452	276329	254.9	97	261.09	256.89	52.9
453	276524	256.99	97	261.09	258.64	78.4
454	276767	254.73	327	261.11	257.69	181.4
454	276767	254.73	327	261.11	257.69	181.4
455	277462	257.1	327	261.14	258.29	170.8
456	278111	258.19	327	261.2	258.93	133.5
457	278657	255.9	327	261.25	257.46	145.3
458	279058	257.94	327	261.26	259.50	117.1
459	279253	257.81	327	261.43	259.92	79.9
460	279355	259.7	327	261.76	260.76	106.5
461	279752	260.04	327	263.08	261.37	69.6
461.5	279897	261.6	327	263.53	262.50	95.3
462	280056	258.5	327	263.74	260.06	123.2
463	280549	257	327	263.76	259.06	142.9
464	280801	258.2	327	263.76	259.40	181.3
465	281002	258.2	327	263.76	259.57	162.8
466	281204	259.9	327	263.76	261.21	125.4
467	281600	259	327	263.84	260.25	79.5
468	282096	260.3	327	263.93	261.16	86
469	282452	256.2	315	263.98	258.93	92.5
470	282901	258.14	315	263.99	260.57	189.8
471	283249	260.34	315	264	262.44	134.3
472	283347	262.19	315	264.28	263.32	59
473	283672	264.5	315	267.99	267.19	135
474	283718	263.62	315	268.16	265.34	202.4
474.5	283779	264.42	315	268.16	264.99	155.1
474.6	283990	260.66	315	268.18	264.72	223.1
475	284109	261.82	315	268.18	263.73	71.9
476	284290	265.3	315	268.1	266.48	57.2
477	284519	265.8	315	268.49	266.91	170.5
478	284669	264.7	315	268.52	265.76	184.7
479	285034	262.37	315	268.54	264.56	211

Table F-4
Surface Water Model Output: 350 cfs release (Page 12 of 14)

Main Channel 350cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
480	285304	268.4	315	270.35	269.25	47.9
481	285695	266.68	315	271.35	268.83	100.9
482	285999	267	315	271.42	269.36	201.3
483	286530	265.9	315	271.46	267.32	114.3
484	287042	266.36	315	271.48	267.39	113.5
485	287548	265.8	315	271.5	267.88	81.4
486	287840	263.2	315	271.53	266.51	79.1
487	288144	267.2	315	271.54	268.52	72.8
488	288380	271.11	315	272.26	271.61	104
489	288546	267.5	315	272.69	269.50	88.4
490	288854	268.75	315	272.75	269.98	70.8
491	289200	268.96	315	272.84	270.14	133.6
492	289746	266.85	315	272.88	269.36	182.3
493	290192	268.4	315	272.89	269.94	132.5
494	290749	269.17	315	272.95	270.61	156.7
495	291451	268.32	315	273.01	269.34	119
496	291797	268.8	315	273.03	269.84	104.2
497	292046	266.62	315	273.05	268.92	76.5
498	292448	270.34	315	273.08	271.03	60.5
499	292855	271.99	315	274.15	273.07	56.1
500	292944	272.14	315	274.94	273.58	87.6
500.5	293128	275.06	315	276.24	275.58	102
500.8	293250	272.83	315	276.66	273.88	120.3
500.9	293275	272.03	327	276.67	273.81	211.3
500.9	293275	272.03	327	276.67	274.24	211.3
501	293300	272.3	327	276.66	273.96	235.1
502	293606	274.35	327	276.67	274.85	115.3
503	294100	273.9	327	276.96	274.96	105.9
504	294498	276.3	327	277.74	276.78	60.6
505	294946	277.03	327	279.32	278.12	188.9
506	295442	274.6	327	279.44	276.19	124.6
507	295842	274.36	327	279.48	276.90	88.5
508	296175	274.83	327	279.55	277.08	163.8
509	296558	271.66	327	279.57	274.73	215.7
509	296558	271.66	327	279.57	274.73	215.7
510	297007	270.5	327	279.57	274.81	177.1
511	297402	273.2	327	279.57	275.95	88.4
512	297722	277.3	315	279.61	278.11	88.4
513	298224	277.5	315	280.47	279.24	136.7
514	298470	277.9	315	280.71	278.77	95.9
515	298725	279.96	315	281.29	280.62	99.6
515.8	298958	279.7	315	282.79	280.73	62.1
515.9	298968	281.5	315	283.1	281.97	45.8
516	298979	279.75	315	283.81	281.63	90.3
517	299293	280.1	315	283.9	281.24	160.5
518	300041	277.16	315	283.92	279.70	230.3
519	301187	276.12	327	283.94	279.63	204.2
519	301187	276.12	327	283.94	279.63	204.2
520	301584	279.9	327	283.95	281.94	198.9
521	302129	279.4	327	284.02	281.76	174.9
522	302380	279.8	327	284.06	282.15	192.1
523	302671	280.7	327	284.12	282.37	79.1
524	302816	282.54	327	284.48	283.62	119.1
525	302972	283.22	327	285.21	283.77	74.1
526	302977	283.22	327	285.22	283.92	73.7
527	302998	283.1	327	285.36	283.78	72.4
528	303005	283.04	327	285.41	283.76	78.2
529	303156	282.7	327	285.61	283.51	119
530	303355	282.1	327	285.65	282.56	163.7

Table F-4
Surface Water Model Output: 350 cfs release (Page 13 of 14)

Main Channel 350cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
531	304299	278.5	327	285.68	280.97	158.9
532	305248	279.4	327	285.69	282.44	162.4
533	305496	280.4	327	285.71	282.76	132.1
534	305699	280.77	327	285.72	282.20	166.9
535	306345	274.9	327	285.73	279.89	169
536	306746	281.37	327	285.74	282.97	150.6
537	307245	281.04	327	285.78	282.88	132.9
538	307697	279.61	327	285.82	282.72	118
539	308094	281.36	327	285.86	282.36	85.2
540	308489	283.58	327	285.9	284.62	73.9
541	308789	280.07	327	286.19	282.74	86.7
542	309088	286.33	327	287.18	286.67	157.1
543	309480	283.96	327	287.67	285.45	158.5
544	310118	281.63	327	287.7	282.94	174.4
544	310118	281.63	327	287.7	282.94	174.4
545	310365	281.84	327	287.7	284.84	224.5
546	310965	284.81	327	287.74	285.94	268.6
547	311269	284.54	327	287.78	285.83	148.6
548	311517	285.8	327	287.88	286.31	103
549	311859	284	327	288	285.78	276.5
550	312045	283.03	327	288.01	285.45	271.5
551	312498	281.16	327	288.02	284.35	265.4
552	312948	281.29	327	288.02	283.85	143
553	313297	282.8	327	288.03	284.21	129
554	313800	281.64	327	288.05	282.93	146.7
555	314400	282.67	327	288.06	284.91	148.8
556	314744	282.97	327	288.08	285.03	163.9
557	315349	288.27	327	289.77	289.11	109.8
558	315799	285.41	327	290.27	287.01	124.1
559	316248	284.26	327	290.3	286.08	109.8
560	316701	284.52	327	290.32	286.51	115.3
561	317052	286.65	327	290.34	288.38	110.8
562	317421	289.68	327	291.59	291.05	136.5
563	318312	285.33	327	291.97	287.52	175.7
564	319159	289.5	327	291.98	290.57	166.5
565	319811	291.43	327	293.07	292.55	183.9
566	320613	290.2	327	293.97	292.14	167.3
567	321259	290.61	327	294.15	292.05	140
568	321758	287.8	327	294.18	288.90	117.8
569	322060	286	327	294.19	289.21	128.1
570	322353	289.78	327	294.19	291.01	76.3
571	322548	291.1	327	294.24	292.04	106.1
572	323050	292.24	327	294.57	293.35	131.5
573	323500	292.45	327	295.13	293.59	131.1
574	323902	292.92	327	295.48	293.52	79.5
575	324348	293.78	327	295.89	294.15	112
576	324850	292.79	327	296.13	293.65	104.6
577	325350	292.85	327	296.24	293.53	105.2
578	325800	295.28	327	296.44	295.60	74.4
579	326097	295.47	327	298.06	296.25	66.9
580	326342	298.38	327	300.43	299.31	48.4
581	326495	296.76	327	301.12	299.21	245.6
581	326495	296.76	327	301.12	299.21	245.6
582	326648	295.1	327	301.14	297.84	157.3
583	326835	294.35	327	301.15	298.01	127.2
584	326840	294.4	327	301.15	297.99	118.1
585	326874	295.04	327	301.15	297.97	103.9
586	326880	295.1	327	301.15	298.03	110.9
587	327252	296.14	227	301.19	297.95	118.1

Table F-4
Surface Water Model Output: 350 cfs release (Page 14 of 14)

Main Channel 350cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
588	327748	296.7	227	301.21	298.26	119.2
589	327909	295.94	179	301.22	297.58	87.8
590	328163	295.3	279	301.23	297.48	112.3
591	328318	292.35	279	301.23	295.88	145.3
592	328819	283.15	327	301.24	291.19	103.5
593	329113	281.19	327	301.24	289.69	80.7
594	329412	284.05	327	301.24	290.57	79.6
595	329666	288.4	327	301.24	292.84	65.1
596	329920	289.2	327	301.24	296.32	114.2

**Water Surface Elevation and River Bottom elevation were interpolated between cross-sections A188 and A204

**Table F-5
Surface Water Model Output: 500 cfs release (Page 1 of 14)**

Main Channel 500cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
596	329920	289.2	477	301.77	296.47	117.6
595	329666	288.4	477	301.77	293.05	66.8
594	329412	284.05	477	301.77	290.79	81.3
593	329113	281.19	477	301.76	289.86	81.9
592	328819	283.15	477	301.76	291.5	106.8
591	328318	292.35	401	301.76	296.07	150.3
590	328163	295.3	401	301.75	297.66	117.6
589	327909	295.94	257	301.74	297.71	90.6
588	327748	296.7	333	301.72	298.37	123.5
587	327252	296.14	333	301.69	298.03	120.7
586	326880	295.1	477	301.64	298.24	118.5
585	326874	295.04	477	301.64	298.22	111.9
584	326840	294.4	477	301.63	298.1	122.1
583	326835	294.35	477	301.63	298.11	131.2
582	326648	295.1	477	301.62	298.27	178.7
581	326495	296.76	477	301.6	299.32	263.6
581	326495	296.76	477	301.6	299.32	263.6
580	326342	298.38	477	300.78	299.46	54.8
579	326097	295.47	477	298.45	296.45	74.3
578	325800	295.28	477	296.81	295.62	75.6
577	325350	292.85	477	296.76	293.55	105.9
576	324850	292.79	477	296.61	293.7	106.8
575	324348	293.78	477	296.36	294.19	114.3
574	323902	292.92	477	295.9	293.58	81.5
573	323500	292.45	477	295.53	293.7	139.9
572	323050	292.24	477	295.05	293.37	134
571	322548	291.1	477	294.66	292.46	128.2
570	322353	289.78	477	294.57	291.16	79.9
569	322060	286	477	294.58	289.45	134.2
568	321758	287.8	477	294.57	288.94	118.7
567	321259	290.61	477	294.51	292.1	143
566	320613	290.2	477	294.29	292.17	169.8
565	319811	291.43	477	293.39	292.63	210
564	319159	289.5	477	292.27	290.64	174.1
563	318312	285.33	477	292.23	287.6	179.2
562	317421	289.68	477	291.76	291.11	150.9
561	317052	286.65	477	290.73	288.41	112.4
560	316701	284.52	477	290.69	286.55	116.5
559	316248	284.26	477	290.66	286.11	110.6
558	315799	285.41	477	290.62	287.05	125.3
557	315349	288.27	477	289.97	289.12	115.6
556	314744	282.97	477	288.52	285.11	168.2
555	314400	282.67	477	288.49	285	152.9
554	313800	281.64	477	288.47	283.07	151
553	313297	282.8	477	288.45	284.34	133.1
552	312948	281.29	477	288.43	284.14	153.1
551	312498	281.16	477	288.42	284.42	270.7
550	312045	283.03	477	288.41	285.49	275.4
549	311859	284	477	288.4	285.82	281
548	311517	285.8	477	288.24	286.34	104.9
547	311269	284.54	477	288.12	285.89	152.9
546	310965	284.81	477	288.07	285.97	272.4
545	310365	281.84	477	288.03	284.84	224.5
544	310118	281.63	477	288.02	282.99	176.1
544	310118	281.63	477	288.02	282.99	176.1
543	309480	283.96	477	287.97	285.49	161.3
542	309088	286.33	477	287.33	286.71	167.2
541	308789	280.07	477	286.76	282.96	92.1
540	308489	283.58	477	286.45	284.75	81
539	308094	281.36	477	286.37	282.53	89.3

Table F-5
Surface Water Model Output: 500 cfs release (Page 2 of 14)

Main Channel 500cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
538	307697	279.61	477	286.31	282.93	125.6
537	307245	281.04	477	286.25	283.01	138.8
536	306746	281.37	477	286.19	283.04	154.1
535	306345	274.9	477	286.19	280	172.1
534	305699	280.77	477	286.17	282.27	169.8
533	305496	280.4	477	286.15	283.13	149.3
532	305248	279.4	477	286.13	282.65	172.9
531	304299	278.5	477	286.1	281.08	162.7
530	303355	282.1	477	286.06	282.56	163.7
529	303156	282.7	477	286.01	283.51	119
528	303005	283.04	477	285.75	283.77	78.6
527	302998	283.1	477	285.67	283.79	72.8
526	302977	283.22	477	285.49	283.92	73.8
525	302972	283.22	477	285.49	283.78	74.7
524	302816	282.54	477	284.89	283.72	130.6
523	302671	280.7	477	284.55	282.47	83.3
522	302380	279.8	477	284.49	282.25	202.2
521	302129	279.4	477	284.44	281.96	190.4
520	301584	279.9	477	284.35	281.99	204.3
519	301187	276.12	477	284.34	279.72	207.9
519	301187	276.12	477	284.34	279.72	207.9
518	300041	277.16	424	284.33	279.74	232.4
517	299293	280.1	424	284.3	281.36	167.3
516	298979	279.75	424	284.19	281.63	90.3
515.9	298968	281.5	424	283.37	282.05	48.9
515.8	298958	279.7	424	283.09	280.83	62.1
515	298725	279.96	424	281.47	280.71	113.7
514	298470	277.9	424	281.03	278.85	99.6
513	298224	277.5	424	280.79	279.27	139.4
512	297722	277.3	424	280.09	278.24	95.6
511	297402	273.2	477	280.02	276.05	91
510	297007	270.5	477	280.03	275.03	185.1
509	296558	271.66	477	280.02	274.8	218.7
509	296558	271.66	477	280.02	274.8	218.7
508	296175	274.83	477	280	277.23	173.7
507	295842	274.36	477	279.89	277.05	93.8
506	295442	274.6	477	279.83	276.28	128.3
505	294946	277.03	477	279.68	278.23	205.1
504	294498	276.3	477	278.03	276.87	66.2
503	294100	273.9	477	277.33	275.01	105.9
502	293606	274.35	477	276.97	274.91	118.9
501	293300	272.3	477	276.96	274.06	249.5
500.9	293275	272.03	477	276.98	274.09	235.9
500.9	293275	272.03	477	276.98	274.47	235.9
500.8	293250	272.83	456	276.95	273.95	126.9
500.5	293128	275.06	456	276.43	275.61	106.8
500	292944	272.14	456	275.26	273.68	93.7
499	292855	271.99	456	274.68	273.58	95.8
498	292448	270.34	456	273.56	271.09	62.2
497	292046	266.62	456	273.51	269.08	79.5
496	291797	268.8	456	273.48	269.91	106.6
495	291451	268.32	456	273.45	269.43	121.7
494	290749	269.17	456	273.37	270.65	158.8
493	290192	268.4	456	273.29	270.07	138
492	289746	266.85	456	273.27	269.43	185.5
491	289200	268.96	456	273.22	270.2	136.4
490	288854	268.75	456	273.07	270.1	73.9
489	288546	267.5	456	272.98	269.57	90.2
488	288380	271.11	456	272.47	271.71	120

Table F-5
Surface Water Model Output: 500 cfs release (Page 3 of 14)

Main Channel 500cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
487	288144	267.2	456	272.01	268.71	77.5
486	287840	263.2	456	272	266.51	79.1
485	287548	265.8	456	271.95	268.1	86.2
484	287042	266.36	456	271.92	267.45	115.3
483	286530	265.9	456	271.89	267.32	114.3
482	285999	267	456	271.85	269.36	201.3
481	285695	266.68	452	271.75	269.04	100.9
480	285304	268.4	452	270.78	270.06	120.5
479	285034	262.37	456	268.98	264.59	212.4
478	284669	264.7	456	268.96	265.82	188.6
477	284519	265.8	456	268.92	266.98	177
476	284290	265.3	456	268.46	266.75	67.2
475	284109	261.82	456	268.54	264.01	76.7
474.6	283990	260.66	456	268.55	264.87	232.9
474.5	283779	264.42	456	268.52	265.08	155.1
474	283718	263.62	456	268.52	265.52	215.5
473	283672	264.5	456	268.37	267.64	226.8
472	283347	262.19	456	264.6	263.54	72.8
471	283249	260.34	456	264.52	262.5	139.3
470	282901	258.14	456	264.51	260.61	192.2
469	282452	256.2	456	264.49	259.14	96.2
468	282096	260.3	477	264.41	261.28	89.6
467	281600	259	477	264.29	260.35	81.8
466	281204	259.9	477	264.17	261.38	125.4
465	281002	258.2	477	264.19	259.58	162.8
464	280801	258.2	477	264.18	259.64	192.2
463	280549	257	477	264.17	259.11	144.3
462	280056	258.5	477	264.14	260.12	125.2
461.5	279897	261.6	477	263.92	262.65	109.8
461	279752	260.04	477	263.39	261.46	79.7
460	279355	259.7	477	262.27	260.85	114.5
459	279253	257.81	477	262.04	260.16	91.8
458	279058	257.94	477	261.9	259.96	150.6
457	278657	255.9	477	261.88	257.81	159.4
456	278111	258.19	477	261.8	259.77	192.2
455	277462	257.1	477	261.72	258.43	178.9
454	276767	254.73	477	261.69	257.89	192.1
454	276767	254.73	477	261.69	257.89	192.1
453	276524	256.99	159	261.66	258.9	78.4
452	276329	254.9	159	261.66	257.08	71.3
451	276053	252.4	159	261.66	255.92	88.8
450	275705	257.79	159	261.65	258.79	83.1
449	275400	258.2	159	261.62	259.26	97.2
448	275102	258.27	54	261.61	259.3	71.7
447	274631	256.2	372	261.34	259.04	64
446	274423	251.8	477	261.4	254.77	149.6
445	273869	255.8	477	261.37	257.8	127
444	273425	255.75	477	261.34	256.95	118
443	273081	257.4	477	261.28	258.44	154.1
442	272928	258	477	261.23	259.15	191.8
441	272582	255.06	477	261.13	257.17	94.6
440	272039	256.69	477	261.07	257.7	146.8
439	271342	257.29	477	260.94	258.47	151
438	270939	257.51	477	260.83	258.77	192.9
437	270595	255.07	477	260.82	257.18	258.9
436	269990	255.73	477	260.79	257.56	194.2
435	269593	254.75	477	260.78	256.7	179.5
434	269246	254.1	477	260.76	256.56	156
433	268877	258.28	477	260.71	258.79	207.5

Table F-5
Surface Water Model Output: 500 cfs release (Page 4 of 14)

Main Channel 500cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
433	268877	258.28	477	260.71	258.79	207.5
432	268553	255.83	417	260.57	257.52	79.8
431	268305	254.31	417	260.45	257.25	66.2
430	268054	256.56	417	260.27	258.77	141
429	267648	256.22	417	260.19	257.26	152.6
428	267116	256.2	417	260.08	258.19	196.2
427	266900	255.5	417	260.01	258.15	215.5
426.5	266764	255	417	260	257.5	216.4
426	266560	257.2	477	259.95	258.08	189.1
425	266555	257.4	477	259.94	258.35	263.1
424	266524	258.53	477	259.82	258.95	264.9
423	266519	258.7	477	259.52	258.94	189
422.75	266450	255.7	415	257.58	256.84	270.7
422.5	266445	255.7	415	257.55	256.82	264.6
422	266283	254.59	415	256.47	255.85	215.2
421.75	266278	254.46	415	256.23	255.74	196.2
421.75	266278	254.46	415	256.23	255.74	196.2
421	265903	248	415	254.22	250.06	98.6
420	265605	250.87	162	254.2	252.03	106.2
419	265274	251.64	162	254.09	252.29	53
418	265024	252.53	162	253.21	252.62	57.5
417	264503	247.96	415	251.73	248.78	153.4
416	263857	249.41	415	254.1	251.14	184.7
416	263857	249.41	415	254.1	251.14	184.7
415	263157	249.3	380	253.79	251.57	52.9
414	262848	250.7	380	252.02	251.4	132.5
413	262344	246.35	380	251.41	248.49	204.2
412	261844	242.91	380	251.4	244.63	119.4
411	261498	244.9	380	251.39	247.68	151.6
410	261243	243.33	226	251.39	247.56	285.9
409	260951	245	226	251.39	247.87	121
408	260784	244.05	226	251.38	246.82	149
407	260462	242.48	226	251.38	245.74	112.2
406	260150	242.59	226	251.38	245.72	162.1
405	259931	241.05	380	251.38	244.76	197.7
404	259596	245.9	380	251.37	246.83	202.4
403	258984	239.6	415	251.37	246.17	416.2
402	258238	244.7	415	251.37	246.03	232.3
401	257888	236.86	415	251.37	240.84	456.8
400	257682	238.15	415	251.37	241.28	391.7
399	257058	241.1	415	251.37	245.3	253.3
398	256890	242.4	415	251.37	245.66	192.9
397	256885	242.39	415	251.37	245.46	183.9
396	256867	242.3	415	251.37	245.66	180.9
395	256862	241.9	415	251.37	245.51	188
394	256750	245.5	415	251.36	247.31	167.7
393	256549	244.4	415	251.36	247.15	300.4
393	256549	244.4	415	251.36	247.15	300.4
392	256228	237.4	358	251.36	242.2	489.2
391	255716	237	358	251.36	240.74	701.4
390	255485	242.4	358	251.36	246.16	182.2
389	254601	239.3	358	251.36	244.34	352.8
388	254139	244.1	415	251.36	247.96	492.4
387	253977	247.86	415	250.63	248.15	27.9
384	253898	247.17	415	249.08	247.2	26.7
383	253782	244.3	415	247.99	246.15	109.7
382	253695	245.76	415	247.09	246.22	109.4
381	253384	238.07	415	247.19	242.17	215.9
380	252888	237.46	415	247.19	240.12	200.1

Table F-5
Surface Water Model Output: 500 cfs release (Page 5 of 14)

Main Channel 500cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
379	252548	238.8	415	247.18	241.81	114.9
379	252548	238.8	415	247.18	241.81	114.9
378	252267	239.19	42	247.18	242.99	112.4
376	251943	242.77	42	247.18	244.02	43.3
375	251799	242.15	42	247.18	243.87	60.3
374	251420	234.82	415	247.18	237.46	499.9
373	251189	243.58	415	246.57	245.31	55.3
372	250939	242.3	415	246.17	243.61	66.1
371	250742	241.8	415	246.02	243.06	60.9
370	250507	239.22	415	246.06	240.73	148.3
369	250198	236.86	415	246.04	240.58	87.1
368	249901	235.6	415	246.04	238.51	123.2
367	249603	236.1	415	246.04	238.62	118.7
366	249414	244.8	415	245.95	244.88	172.5
365	249195	240.3	415	245.8	244.38	249.6
364	248927	239.38	415	245.74	242.45	129.7
363	248421	239.1	415	245.71	241.44	125.6
362	247824	238.4	415	245.69	240.3	140.6
361	247273	240.1	415	245.66	242.53	131.7
360	246628	240.3	415	245.61	241.72	128.8
359	246322	242.32	415	245.5	243.53	114.9
359	246322	242.32	415	245.5	243.53	114.9
358	245928	241.5	208	244.7	243.21	65.2
357	245536	241.05	208	243.14	241.82	54.8
356	245238	238.42	208	243.13	240.4	140.3
355	244883	238.65	208	243.11	239.92	110.6
354	244514	238.7	415	242.99	241.09	119.3
353	244258	235.05	415	242.98	237.68	77.4
353	244258	235.05	415	242.98	237.68	77.4
352	243561	238.35	415	242.92	239.57	117.6
351	243113	238.2	415	242.88	239.26	134.1
350	242668	235.95	415	242.87	238.03	144
349	242370	239.09	415	242.84	241.34	264.8
348	241878	236.73	415	242.79	239.45	192
348	241878	236.73	415	242.79	239.45	192
347	241475	237.6	358	242.76	238.93	113.7
346	241329	239.6	358	242.71	240.75	114
345	241114	240.35	415	242.44	241.23	147.6
344	240731	239.29	415	240.31	239.35	78
343	240315	233.83	415	239.5	235.88	81.1
342	239969	236.6	415	238.95	237.95	88.8
341	239711	227.6	415	239.13	233.02	75.8
341	239711	227.6	415	239.13	233.02	75.8
340	239442	231.45	405	238.99	235.2	53.4
339	239213	235.63	405	237.8	236.36	41
338	238880	232.79	415	236.68	234.3	58
337	238685	232.97	415	236.56	234.25	97.7
336	238437	234.05	415	236.23	234.85	118
335	238262	232.28	415	235.02	234.19	100.1
334	237879	231.36	415	234.64	232.46	152
333	237628	227.97	415	234.6	230.24	90.5
332	237280	230.66	415	234.46	231.81	66.8
331	236975	231.01	415	234.13	231.87	71
330	236828	230.6	415	234.12	231.63	147.9
329	236633	230.2	415	234.08	231.51	164.9
328	236090	225.9	415	234.06	229.48	143
327	235591	226.57	415	234.04	228.66	112.7
327	235591	226.57	415	234.04	228.66	112.7
326	235047	226.5	415	234.03	229.42	134.8

Table F-5
Surface Water Model Output: 500 cfs release (Page 6 of 14)

Main Channel 500cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
325	234560	225.76	415	234.02	228.83	138.3
324	234302	224.44	415	234.02	228.42	202.1
323	234151	227.75	415	234.01	230.77	209.3
322	233956	228.1	415	233.96	231.87	143.6
321	233658	228.21	415	233.91	231.13	160.4
320	233151	223.4	415	233.91	226.61	113
319	232653	222.8	415	233.9	226.86	109.2
318	231994	227.06	415	233.89	228.84	142.6
317	231549	230.84	415	233.83	231.53	122.5
316	231203	228.1	415	233.8	230.16	136.1
316	231203	228.1	415	233.8	230.16	136.1
315	230793	230	271	233.76	231.61	122.2
314	230547	229.1	271	233.71	231.13	106.6
313	230245	230.7	271	233.51	231.62	60.3
312	229990	229.5	271	232.28	230.49	80.3
311	229745	228.2	271	232.17	229.98	94.5
310	229402	228.87	271	232.01	230.38	110.1
309	229058	225.3	271	231.96	228.14	78.2
308	228862	227.4	271	231.91	228.88	60.6
307	228661	228.28	271	231.85	229.14	69.8
306	228417	227.9	415	231.63	230.08	66.7
305	228081	227.5	415	230.56	228.63	56.9
304	227791	225.5	415	230.64	226.32	101.3
303	227429	227.1	415	230.29	228.76	66.2
302	227142	226.4	415	230.25	227.26	98.7
301.2	226829	226.62	415	229.99	228.18	85.8
301.1	226810	227.85	415	229.7	228.43	73
301	226790	226.9	415	229.61	228.1	67.5
300	226446	226.1	415	229.5	226.88	113.2
299	225943	223.31	415	229.47	225.4	130.4
298	225544	226.35	415	229.38	227.09	102.6
297	225346	226.14	415	228.91	226.91	51.1
296	224852	225.3	415	228.15	226.33	110.8
295	224599	216.98	415	228.19	221.94	197.3
294	224349	224.6	415	228.08	225.86	82.2
293	224096	224.42	415	227.67	225.99	92.6
293	224096	224.42	415	227.67	225.99	92.6
292	223808	220.94	415	227.7	223.87	164.1
291	223543	222.28	415	227.67	225.13	143.7
290	223285	218.9	415	227.65	223.59	167.2
289	223117	220.13	415	227.64	223.39	104.9
288	222706	215.77	415	227.64	220.47	243.3
287	222311	211.23	415	227.64	215	177.1
286	221888	223	415	227.64	224.65	173.8
285	221698	216.22	415	227.64	220.89	147.2
284	221298	219.57	415	227.64	223.74	182.6
283	220998	223.98	415	227.29	225.48	56.2
282	220794	214.8	415	227.5	219.52	262.8
281	220553	224.1	415	227.47	226.2	246.9
280	220373	225.07	415	226.72	226.02	123.8
279	220234	219.46	415	226.18	221.32	144.3
278	220033	218.3	415	226.18	220.83	158.4
277	219797	222.02	415	226.16	224.11	106.3
276	219599	222.91	415	226.09	223.92	69.9
275	219350	221.24	415	225.81	223.06	56.1
274	219100	223.01	415	225.16	223.67	70.2
273	218852	220.76	415	224.86	221.91	58.6
272	218554	222	415	224.01	222.45	53.7
271	218261	220.4	415	223.25	221.55	96.3

Table F-5
Surface Water Model Output: 500 cfs release (Page 7 of 14)

Main Channel 500cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
271	218261	220.4	415	223.25	221.55	96.3
270	217684	215.5	415	223.16	217.85	65.1
269	217401	217.59	415	223.12	218.65	65.5
268	217109	218.29	415	222.98	220.68	137.4
267	216754	213.79	415	223.01	216.72	120.3
266	216455	215.72	415	222.99	217.87	86.5
265	216058	211.4	415	223	216.69	324.7
264	215834	216.76	415	222.99	220.31	204.4
263	215568	218.4	415	222.96	220.37	204.6
262	215313	218.58	415	222.9	219.81	91.3
261	215111	219.47	415	222.8	220.24	85.7
260	214881	219.5	415	222.59	220.39	81.4
259	214875	219.5	415	222.51	220.5	69.9
258	214861	219.47	415	222.48	220.46	69.3
257	214855	219.44	415	222.49	220.33	80.5
256	214612	218.8	415	221.81	220.33	73.2
255	214012	213.06	415	221.93	216.01	132.8
254	213608	217.9	415	221.88	218.74	85.4
253	213411	216.38	415	221.8	218.72	76.9
252	213059	214.9	415	221.71	217.9	75.3
251	212711	216.8	415	221.65	218.82	114.7
250	212419	218.47	415	221.42	219.94	114.8
249	212217	217.01	415	221.08	218.07	46.9
248	211919	215.4	415	221.09	217.6	128.7
247	211568	215.74	415	221.04	217.86	112.5
246	211265	215.04	415	221	216.71	79
245	210767	215.81	415	220.93	217.29	90.7
244	210366	215.35	415	220.88	217.01	99.6
243	209914	215.63	415	220.82	217.36	102.7
242	209568	215.56	415	220.72	217.19	72.7
241	208975	215.66	415	220.66	217.38	151.6
241	208975	215.66	415	220.66	217.38	151.6
240	208646	215.7	255	220.64	217.3	117.3
239	208058	215.7	255	220.61	217.4	127.4
238	207766	215.2	415	220.61	217.84	478.9
237	206998	216.3	415	220.57	217.5	107.7
236	206644	212.4	415	220.56	214.24	131.3
235	206090	213.27	415	220.55	216.41	149.8
234	205389	211.1	415	220.54	214.11	149
233	204791	209.67	415	220.54	212.75	131.4
232	204361	214.83	415	220.46	216.78	61.9
231	204358	214.8	415	220.46	216.85	65.3
230	204342	214.5	415	220.46	216.74	66.9
229	204338	214.49	415	220.46	216.75	64.7
228	204275	213.76	357	220.45	216.78	76.6
227	204270	213.5	357	220.45	216.91	76.3
226	204174	212.38	357	220.42	215.3	44.1
225	204169	212.32	357	220.42	215.27	44
224	204026	209.24	357	220.43	214.54	139.8
223	203806	217.2	357	220.22	218.17	50.2
223	203806	217.2	357	220.22	218.17	50.2
222	203466	212.5	357	220.28	216.13	103.5
221	203265	213.73	357	220.28	214.85	97.8
220	202914	210.7	357	220.28	212.97	91.5
219	202616	211.93	357	220.27	214.48	95.3
218	202221	215.54	357	220.21	216.96	71.4
217	201932	215.72	357	220.1	216.86	61.6
216	201639	213.86	357	220.09	215.71	91.6
215	201191	213.71	357	220.08	215.58	132.3

**Table F-5
Surface Water Model Output: 500 cfs release (Page 8 of 14)**

Main Channel 500cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
214	200608	212.4	357	220.07	214.4	121.9
213	200164	209.95	357	220.07	213.13	120.4
212	199865	215.61	357	219.91	216.63	31.8
211	199573	215.7	357	218.38	216.8	38.3
209	199076	212.6	357	218.16	214.36	85.1
208	198682	210.82	357	218.15	212.34	107.6
207	198239	211.2	357	218.15	212.94	160.8
206	198090	208.52	357	218.13	212.38	61.4
205	197842	209.1	357	218.13	211.63	97.7
204	197447	212.88	357	218.12	214.19	133.3
203	197097	212.5	357	218.09	214.68	96
202	196784	213.7	357	217.94	215.03	66
201	196483	212.7	357	217.82	214.2	52.1
200	196186	212.4	357	217.73	214.06	54
199	195789	211.49	357	217.7	212.77	60.3
198	195263	213.49	357	217.51	214.93	37.6
197	194976	211.48	357	217.51	213.68	102.8
196	194732	211	357	217.44	213.7	55.6
195	194341	214.72	357	217.05	215.49	73.2
194	193991	213	357	216.24	214.4	76.8
193	193718	209.02	357	216.26	213.55	190.7
192	193166	208	357	216.25	209.44	130.8
191	192670	203.63	357	216.25	207.15	108.7
190	192365	203.37	357	216.25	207.91	281.4
189	191966	206.19	357	216.25	208.21	172.5
188	191772	208.97	357	216.19	211.91	47.5
187	191766	208.9	357	216.18	211.63	41.1
186	191749	208.85	357	216.18	209.9	38.2
185	191743	208.5	357	216.19	209.47	40.8
184	191516	205	357	216.2	207.1	167.7
183	191329	207.01	357	216.2	209.08	155
182	190639	207.5	357	216.19	209.54	99.7
181	190050	207.14	357	216.19	209.42	148.1
180	189458	213.98	357	216.09	214.55	104.6
179	189351	212.8	357	215.7	214.05	59.2
178	188980	209.6	357	215.36	212.2	53.5
177	188823	213	357	215.18	213.61	92.3
176	188423	210.2	357	213.66	212.23	55.9
175	188095	206.1	357	213.83	209.38	119.4
174	187966	210.25	357	213.7	211.97	76.6
173	187412	204.7	357	213.77	206.49	188.8
173	187412	204.7	357	213.77	206.49	188.8
172	187166	207.43	357	213.7	209.64	44.1
171	186873	208.9	357	213.63	210.65	81.9
170	186469	209.7	357	213.26	211.6	72.4
169	186219	205	357	213.32	206.79	73.8
168	185779	204.05	357	213.33	206.76	169.2
167	185227	204.53	357	213.32	206.01	123.4
166	184933	210.05	357	213.04	211.2	48
165	184732	206.76	357	213.2	208.16	151.4
164	184333	206.54	357	213.19	207.54	89.5
163	183583	206.9	357	213.16	208.96	123.5
162	183086	206.38	357	213.15	208.48	148.3
161	182636	206.77	357	213.14	208.03	106.4
160	182330	208.55	357	213.1	210.58	112.4
159	182065	208.95	357	212.83	210.89	60.6
158	181710	207.15	357	212.82	208.65	78.4
157	181263	209.57	357	212.73	210.4	116.3
156	180815	210.31	357	212.37	210.62	80.1

Table F-5
Surface Water Model Output: 500 cfs release (Page 9 of 14)

Main Channel 500cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
155	180415	208.79	357	211.37	209.38	49.4
154	180019	206.58	357	210.73	208.38	59.3
153	179725	205.39	357	210.63	207.22	66.8
152	179125	203.49	357	210.57	206.36	100.4
151	178325	206.8	357	210.48	208.05	135.8
150	177825	207.2	357	210.24	208.22	85.3
149	177177	201.9	357	210.24	204.3	92.8
148	176628	206.34	357	210.19	207.47	99.5
147	176227	206.27	357	209.95	207.26	59.7
146	175731	206.27	357	209.5	206.85	53.4
145	175236	206.19	357	209.25	207.38	81.8
144	174838	202.59	357	209.22	204.71	116.2
143	174263	206.44	357	208.98	207.52	78
142	173972	204.7	357	208.66	205.86	58.1
141	173483	204.4	357	208.43	205.76	81.6
140	173082	205.02	357	208.2	205.74	73.7
139	172637	201.05	357	208.21	203.96	145.4
138	172088	202.73	357	208.2	204.26	174.8
137	171938	203.3	357	208.17	204.64	102.7
136	171380	204.9	357	208.07	205.58	118.4
135	170887	205.12	357	207.62	205.86	65.5
134	170391	201.48	357	207.49	203.61	67.6
133	169987	200.42	357	207.49	201.53	103
133	169987	200.42	357	207.49	201.53	103
132	169539	203	357	207.45	204.34	86.1
131	169067	202.96	357	207.25	204.55	66
130	168394	202.44	357	207.03	203.75	77.2
129	167841	203.52	357	206.81	204.5	85.1
128	167342	202.63	357	206.52	204.11	82.9
127	166917	203.07	357	206.09	204.42	109.7
126	166639	202.43	357	205.97	203.7	122
125	166189	199.42	357	205.91	201.51	79.5
124	165821	199.96	357	205.89	201.92	109
123	165180	201.05	357	205.85	202.45	127.2
122	164682	201.11	357	205.77	202.19	70.8
121	164377	202.68	357	205.59	203.4	71
120	164088	201.49	357	205.28	202.79	58.1
119	163696	200.5	357	204.67	202.42	50.3
118	163396	199.2	357	204.51	201.49	65
117	162997	201.2	357	203.87	201.92	43.7
116	162604	200.1	357	203.77	201.23	108.9
115	162361	200.9	357	203.07	201.44	39.3
114	162061	198.77	357	202.97	199.79	56.1
113	161813	197.63	357	202.97	198.64	89.5
112	161337	196.52	357	202.95	198.9	125.6
111	161191	197.7	357	202.92	199.52	88.5
110	160941	197.8	357	202.9	198.83	84.7
109	160637	198.7	357	202.86	199.8	107.1
108	160292	198.02	357	202.82	199.77	129.5
107	159743	195.54	357	202.82	197.23	152.7
106	159348	197.03	357	202.81	198.42	137.6
105	159205	195.76	357	202.8	197.72	86
104	158951	193.9	357	202.79	196.14	80.8
103	158603	197.14	357	202.78	198.2	102
102	158255	197.85	357	202.72	199.33	80.8
101	158004	197.43	357	202.69	199.09	97.5
100	157708	198.09	357	202.65	199.43	97.9
100	157708	198.09	357	202.65	199.43	97.9
99	157307	194.75	357	202.61	198.24	84.7

Table F-5
Surface Water Model Output: 500 cfs release (Page 10 of 14)

Main Channel 500cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
98	156960	199.28	357	202.5	200.11	79.9
97	156708	198.43	357	202.4	200.12	114.6
96	156557	199.26	357	202.15	201.04	107.8
95	156307	198.28	357	200.8	199.21	53.5
94	156189	196.25	357	200.63	198.85	84.3
93	156066	192.04	357	200.66	196.06	139.2
92	156058	191.63	357	200.66	195.81	134.4
91	156018	189.8	357	200.66	194.55	135.9
90	156013	189.6	357	200.66	194.37	140.5
89	155842	195.68	357	200.65	197.36	197
88	155692	197.21	357	200.57	198.15	71.3
87	155391	197.27	357	200.34	198.29	89.4
86	155088	196.09	357	200.24	197.45	96.6
85	154950	196.73	357	199.95	198.08	51.1
84	154657	196.5	357	199.39	197.63	84.7
83	154313	195.07	357	199.32	196.3	107
82	154015	191.2	357	199.32	193.82	110.2
81	153765	193.2	357	199.31	196.53	221
80	153657	196.37	357	199.24	197.61	117.5
79	153414	196.48	357	198.22	197.44	90.9
78	153064	188.78	357	199.13	192.55	236
77	152762	193.36	357	199.13	194.43	243.7
76	152412	191.1	357	199.13	191.97	48.5
75	152260	190.62	357	199.13	191.6	128.2
74	151914	189.16	357	199.13	193.87	269.4
73	151278	183.6	357	199.13	188.28	282.7
72.5	151155	186.95	357	199.13	190.26	163.6
72	150835	180.5	357	199.13	187.58	258.1
71	150533	175.5	357	199.13	183.44	339.6
70	150256	176.87	357	199.13	185.08	483.3
69	149957	182.45	357	199.13	186.34	203.2
68	149505	196.2	357	199.06	196.9	81.1
67	149257	196.38	357	198.81	196.83	80.9
66	148961	195.87	357	198.14	196.66	71.5
65	148666	193.68	357	197.82	194.98	57.8
64	148363	191	357	197.84	193.11	111.7
63	148068	191.03	357	197.83	193.56	151.4
62	147617	186.44	357	197.82	190.77	128.3
61	147227	187.1	357	197.82	189.96	133.1
60	146680	190.77	357	197.82	192.52	142.5
59	146331	189.3	310	197.8	193.8	90.1
58	145981	192.8	310	197.8	194.08	95.1
57	145534	192.11	310	197.8	193.23	184.9
56	145135	189.72	310	197.7	191.05	173.4
55	144731	191.4	310	197.7	193.43	192.6
55	144731	191.4	310	197.7	193.43	192.6
54	144335	193.45	310	197.7	194.56	82.7
53	143984	190.63	310	197.6	193.16	68.6
52	143683	192.09	310	197.6	193.87	87.4
51	143290	193.54	310	197.5	194.89	98.6
50	142936	193.5	310	197.3	194.38	74.2
49	142588	192.99	310	197.2	194.07	78.5
48	142340	192.42	310	197	193.87	54.2
47	142089	192.5	310	196.9	193.95	82.4
46	141837	193.7	310	196.7	194.36	73.3
45	141536	191.56	310	196.5	193.75	78.8
44	141285	192.9	310	196.3	194.01	70.6
43	141092	192.61	310	196.1	193.95	103.3
42	140749	192	310	195.8	193.15	62.1

Table F-5
Surface Water Model Output: 500 cfs release (Page 11 of 14)

Main Channel 500cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
41	140441	191	310	195.6	192.42	53.7
40	140158	190.73	310	195.3	193.77	126.2
39	139750	190.65	310	194.5	192.13	59
38	139447	190.85	310	194.2	192.2	114.3
37	138996	188.41	310	194.1	190.01	74
36	138544	185.61	310	194.1	187.6	94.2
35	138193	188.36	310	194.1	191.04	160.9
34	138036	188.6	310	194	191.63	111.8
33	137829	190.3	310	193.9	191.21	88.5
32	137578	189.99	310	193.8	190.57	67.3
31	137228	185.8	310	193.8	189.62	75.2
30	136928	186.2	310	193.7	188.78	105.4
29	136584	189.47	310	193.7	190.56	63.6
29	136584	189.47	310	193.7	190.56	63.6
28	136288	189.8	310	193.4	191.11	57.9
27	136044	188.83	310	193.1	190.19	60.2
26	135719	190.31	310	192.3	190.99	64.1
25	135418	187.07	310	192.3	188.69	82.1
24	135149	187.84	310	192.2	189.33	89.5
23	134683	187.9	310	192.1	189.56	94.1
22	134181	187.23	310	192	188.5	89.7
21	133632	186.81	310	192	188.35	142.9
20	133132	187.26	310	191.9	188.5	129
19	132682	184.79	310	191.9	186.79	122.5
18	132385	188.3	310	191.9	189.45	132.7
17	132086	190.13	310	191.7	190.85	108.4
16	131741	187.09	310	191.6	188.39	89.3
15	131359	189.35	310	191.3	190.08	61
14	130944	185.68	310	191.2	187.69	73.3
13	130585	188.17	310	191	189.34	84.3
12	130263	188.92	310	190.4	189.38	96.3
11	130129	187.2	310	189.8	189.15	109.2
10	129978	183.54	310	189.8	187.39	125.9
9	129640	184.9	310	189.8	186.28	94.5
8	129236	184.4	310	189.7	186.39	61.7
7	128831	183.34	310	189.4	186.62	91.4
6	128486	186	310	189.3	187.07	110.9
5	128084	186.2	310	188.9	187.2	70.8
4	127787	183.75	310	188.9	185.18	95
3	127443	184.17	310	188.9	185.95	111.9
2	127094	185.7	310	188.7	186.72	75.8
1	126743	183.49	310	188.7	184.27	71.1
A221	126279	185.7	310	188.56	187.34	133.7
A220	125889	184.28	310	187.73	186.25	76.3
A219	125088	182.14	310	187.68	183.97	119.1
A218	124298	184.49	310	187.6	185.54	169.8
A217	123676	185.1	310	186.86	186.22	110.8
A216	122984	180.55	310	185.82	182.71	137.5
A215	122059	179.44	310	185.8	180.68	123.7
A214	121057	178.43	310	185.78	181.59	139.5
A213	120291	184.06	310	185.68	184.69	164.7
A212	119696	180.59	310	185.46	182.43	89.9
A211	118764	178.9	310	185.38	181.78	134.8
A210.5	118416	177.33	310	185.37	179.73	117.6
A210	117893	182.37	310	185.33	184.13	194.3
A209	117286	180.54	310	185	183.29	162.4
A208	116395	179.8	310	184.94	181.99	233.9
A207	116012	182.03	310	184.91	183.22	190.5
A206	115517	182.9	310	184.74	183.69	320.1

Table F-5
Surface Water Model Output: 500 cfs release (Page 12 of 14)

Main Channel 500cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
A205	114963	180.71	310	184.05	183.36	176.3
A204	114482	180.12	310	183.78	181.48	118.6
A203.5	113819	181.15	310	183.59	181.81	152.5
A203	113479	181	310	183.37	182.19	160.3
A202	113154	176.85	310	183.37	179.53	147.8
A201	112433	179.84	310	183.34	181.64	336
A200	111913	180.1	310	183.27	181.44	219.9
A199	111445	180.2	310	183.09	182.13	264.6
A198	110945	177.72	310	182.96	180.36	143.2
A197.5	110558	180.08	310	182.92	181	225.8
A197	110187	179.69	310	182.89	180.79	260.6
A196	109779	179.07	310	182.85	180.23	158.4
A195	109179	178.39	310	182.79	180.95	230.5
A194	108693	180.1	310	182.63	181.18	142.9
A193	108336	180.6	310	182.34	181.38	258.3
A192	107336	178.93	310	182.25	180.21	371.5
A192	107336	178.93	310	182.25	180.22	372.2
A191	106945	181.26	87	182.23	181.63	239.3
A190	106441	180.03	87	181.41	181.18	133.3
A189	105856	176.23	87	180.88	178.96	102.8
A188	105518	175.8	310	180.86	178.61	266
A187	105181	178.6	310	180.77	179.63	159.4
A186	104856	179.42	155	180.61	179.72	319.3
A186	104856	179.42	155	180.61	179.72	319.3
A185	104634	179.2	155	180.57	179.61	234
A184	104252	178.9	155	180.41	179.45	122
A183	104013	178.03	155	179.42	179.12	181.7
A182	103149	173	155	177.93	175.38	66.8
A181	102972	174.02	155	177.91	175.24	89.3
A180	102209	169.56	155	177.9	172.91	86.7
A179	101488	174.59	155	177.89	175.97	198.3
A178	100849	174.48	155	177.85	175.81	125.1
A177	99706	173.2	155	177.82	175.52	246.4
A176	99508	171.17	155	177.81	174.05	113.8
A175	98648	173.49	155	177.8	176.04	286
A175	98648	173.49	155	177.8	176.04	286
A174	98044	175.39	44	177.78	176.65	111
A173	97555	175.1	44	177.77	175.96	132.8
A172	96645	175.3	44	177.76	176.59	274.3
A171	96236	176.74	44	177.64	177.43	79.9
A170	95633	173.3	44	176.44	174.81	84.2
A169	94987	168.3	155	176.44	170.67	134.3
A168	94613	171.4	155	176.44	173.37	323.8
A168	94613	171.4	155	176.44	173.36	323.8
A167	93997	173.86	99	176.42	175.43	116.3
A166	93067	172.95	99	176.38	174.54	184.3
A165.5	92682	175.96	99	176.27	176.11	291
A165	92397	173.29	155	176.1	175.22	437.8
A164	92021	174.29	155	175.98	175.32	191.1
A163	91799	174.9	155	175.76	175.27	434
A162	91343	174.5	155	175.03	174.75	463
A161	90999	173.78	155	174.79	174.09	393.5
A160	90592	173.1	155	174.25	173.83	131.1
A159	90343	169.65	155	173.67	172.44	195.7
A158	90046	165.27	155	173.66	168.36	63.1
A157	89541	166.6	155	173.66	168.75	175.7
A156	89103	170.55	155	173.66	172.12	299.9
A155	88864	171.11	155	173.63	172.63	203.1
A154	88500	167.11	155	173.61	170.14	87.2

Table F-5
Surface Water Model Output: 500 cfs release (Page 13 of 14)

Main Channel 500cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
A153	87667	168.6	155	173.6	170.31	187.8
A153	87667	168.6	155	173.6	170.31	187.8
A152.5	87158	170.89	155	173.58	172.32	218.9
A152	86770	172.64	155	173.47	172.79	228.7
A151	86428	172.23	120	173.2	172.51	201.3
A150	85935	170.52	120	172.45	171.54	52.4
A149	85570	164.79	155	172.52	168.03	158.6
A148	85279	165.17	155	172.52	169.69	275.6
A147	84936	164.76	155	172.51	168.48	118.9
A146	84661	166.5	155	172.51	169.53	150
A145	84239	168.14	155	172.5	170.83	266.1
A145	84239	168.14	155	172.5	170.83	266.1
A144	83536	170.1	47	172.48	170.86	97.8
A143	82999	171.74	47	172.45	172.06	314.2
A142.5	82807	171.4	47	172.25	172.12	255.6
A142	82530	169.2	47	170.92	170.07	32
A141	82152	169.1	47	170.39	169.7	63.4
A140	81423	167.91	47	170.25	169.23	116.2
A139	80928	167.49	155	170.22	168.71	248.7
A139	80928	167.49	155	170.22	168.7	248.6
A138	80648	169.2	155	169.95	169.57	115.7
A137	79986	160.25	155	170.06	166.86	259.7
A136	79448	165.93	155	170.05	168.22	269.1
A135	79157	167.7	155	170.04	168.95	268.9
A134	78673	168.99	155	169.95	169.31	513.8
A133	78206	167.1	155	169.87	169.08	373
A132	77861	168.56	155	169.82	169.08	416.1
A131.5	77594	168.81	155	169.71	169.27	480.3
A131	77391	169.07	155	169.4	169.09	282.4
A130	76876	165.17	155	167.89	166.6	51.7
A129	76518	163.86	155	167.9	165.25	106.4
A128	76216	163.65	155	167.89	164.83	84.1
A127	75888	165.56	155	167.85	167.05	294.1
A126	75649	167.17	155	167.5	167.31	346.7
A125	75113	163.18	155	165.87	164.49	70.1
A124	74787	161.9	155	165.69	163.71	60.4
A123	74100	161.59	155	165.64	162.86	94.3
A122	73813	164.12	155	165.59	164.89	222.5
A121	73600	163.32	155	165.53	164.47	261.3
A120	72856	160.36	155	165.44	163.16	96.8
A119	72099	160.02	155	165.43	160.89	102.1
A118	71832	162.37	155	165.43	163.6	221.2
A117	71213	162.8	155	165.38	163.87	140.6
A116.5	70994	162.3	155	165.36	163.39	142.1
A116	70750	163.09	155	165.31	163.66	88.8
A115.5	70402	163.13	155	165.25	163.67	143.7
A115	70021	162.71	155	165.21	163.64	223.9
A114	69531	162.8	155	165.19	163.75	271.3
A113	69201	162.61	155	165.12	163.85	187.1
A112.5	68712	162.36	155	163.68	162.97	45.3
A112	68244	159.45	155	162.99	160.71	70.6
A111	67799	160.72	155	162.91	161.42	155.1
A110	67143	160.7	155	162.81	161.15	124.2
A109	66821	159.6	155	162.78	160.53	116
A108	66181	159.12	155	162.74	160.5	140.1
A107	65415	160.53	155	162.7	161.31	221
A106	65226	159.59	155	162.67	161	149.5
A105	64583	160.13	155	162.58	161.15	147.8
A104	63837	161	155	162.43	161.51	215

Table F-5
Surface Water Model Output: 500 cfs release (Page 14 of 14)

Main Channel 500cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
A103.5	63350	161	155	162.22	161.48	204.9
A103	63051	160	155	162.06	160.69	93.7
A102	62778	159.41	155	162	160.12	92
A101	62496	159.5	155	161.95	160.14	114.4
A100	62202	159.2	155	161.92	160.04	135.5
A99	61382	160.46	155	161.75	161.1	241.5
A98	60612	159.47	155	160.8	159.75	87.3
A97	59770	157.07	155	160.73	158.23	127.8

Table F-6
Surface Water Model Output: 1,000 cfs release (Page 1 of 15)

Main Channel 1,000cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
596	329920	289.2	977	303.01	297.09	132.3
595	329666	288.4	977	302.99	293.65	71.4
594	329412	284.05	977	302.99	291.52	86.7
593	329113	281.19	977	302.98	290.71	87.8
592	328819	283.15	977	302.98	292.59	118.4
591	328318	292.35	789	302.97	296.82	170.3
590	328163	295.3	789	302.95	298.45	140.9
589	327909	295.94	445	302.93	298.26	102.6
588	327748	296.7	633	302.91	298.6	131
587	327252	296.14	633	302.86	298.17	125
586	326880	295.1	977	302.76	298.69	133.7
585	326874	295.04	977	302.75	298.69	126.9
584	326840	294.4	977	302.75	298.39	131.3
583	326835	294.35	977	302.75	298.38	140.6
582	326648	295.1	977	302.73	299.17	235.6
581	326495	296.76	977	302.7	299.8	263.6
580	326342	298.38	977	301.66	299.86	80.4
579	326097	295.47	977	299.35	296.78	86.2
578	325800	295.28	977	298.2	295.77	81.8
577	325350	292.85	977	298.05	293.67	109.1
576	324850	292.79	977	297.84	294.11	120
575	324348	293.78	977	297.52	294.32	120
574	323902	292.92	977	296.95	293.75	86.7
573	323500	292.45	977	296.59	293.87	151.5
572	323050	292.24	977	296.16	293.43	137.7
571	322548	291.1	977	295.75	293.13	171.4
570	322353	289.78	977	295.55	292.21	109.1
569	322060	286	977	295.56	289.78	142.8
568	321758	287.8	977	295.54	289.06	121
567	321259	290.61	977	295.42	292.24	150.4
566	320613	290.2	977	295.08	292.26	175.9
565	319811	291.43	977	294.08	292.65	215
564	319159	289.5	977	293.05	290.7	179.2
563	318312	285.33	977	292.96	287.99	193.7
562	317421	289.68	977	292.35	291.27	182.5
561	317052	286.65	977	291.79	288.67	122.9
560	316701	284.52	977	291.72	286.84	124
559	316248	284.26	977	291.64	286.41	117.3
558	315799	285.41	977	291.55	287.34	134.9
557	315349	288.27	977	290.51	289.16	126
556	314744	282.97	977	289.72	285.37	182
555	314400	282.67	977	289.67	285.29	164.6
554	313800	281.64	977	289.64	283.46	161.3
553	313297	282.8	977	289.58	284.89	150.4
552	312948	281.29	977	289.55	284.91	181.8
551	312498	281.16	977	289.53	284.66	285.4
550	312045	283.03	977	289.51	285.64	287.8
549	311859	284	977	289.49	286.19	316.5
548	311517	285.8	977	289.25	286.46	110.1
547	311269	284.54	977	289.12	286.1	165.2
546	310965	284.81	977	289.06	286.07	283.4
545	310365	281.84	977	288.99	284.84	224.5
544	310118	281.63	977	288.98	283.14	181.1
543	309480	283.96	977	288.88	285.67	171.3
542	309088	286.33	977	288.41	286.75	173.7
541	308789	280.07	977	288.29	283.74	111
540	308489	283.58	977	287.98	285.9	140.7
539	308094	281.36	977	287.74	284.77	188.6
538	307697	279.61	977	287.63	283.35	141
537	307245	281.04	977	287.54	283.41	154.8

Table F-6
Surface Water Model Output: 1,000 cfs release (Page 2 of 15)

Main Channel 1,000cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
536	306746	281.37	977	287.46	283.26	163.7
535	306345	274.9	977	287.45	280.44	184.1
534	305699	280.77	977	287.41	283.46	237.5
533	305496	280.4	977	287.37	284.68	266.9
532	305248	279.4	977	287.33	283.05	192.1
531	304299	278.5	977	287.27	281.42	173.3
530	303355	282.1	977	287.2	282.56	163.7
529	303156	282.7	977	287.12	283.51	119
528	303005	283.04	977	286.72	283.8	79.8
527	302998	283.1	977	286.59	283.83	73.9
526	302977	283.22	977	286.36	283.94	74.4
525	302972	283.22	977	286.37	283.84	76.8
524	302816	282.54	977	286.06	284.06	162.6
523	302671	280.7	977	285.71	283.16	136.8
522	302380	279.8	977	285.67	282.56	226.9
521	302129	279.4	977	285.62	282.53	233.3
520	301584	279.9	977	285.5	282.2	219.8
519	301187	276.12	977	285.48	280	220
518	300041	277.16	810	285.45	279.87	238.2
517	299293	280.1	810	285.4	281.72	186.3
516	298979	279.75	810	285.24	281.63	90.3
515.9	298968	281.5	810	284.11	282.29	57.2
515.8	298958	279.7	810	283.59	281.01	62.1
515	298725	279.96	810	282.36	280.93	137.6
514	298470	277.9	810	282	279.12	110.9
513	298224	277.5	810	281.8	279.41	149.9
512	297722	277.3	810	281.26	278.61	113.2
511	297402	273.2	977	281.11	277.22	125.4
510	297007	270.5	977	281.11	275.45	200.5
509	296558	271.66	977	281.1	274.87	221.3
508	296175	274.83	977	281.05	277.58	194.6
507	295842	274.36	977	280.84	277.43	105.8
506	295442	274.6	977	280.73	276.28	128.3
505	294946	277.03	977	280.52	278.25	207.6
504	294498	276.3	977	278.81	277.04	74.9
503	294100	273.9	977	278.27	275.03	105.9
502	293606	274.35	977	277.74	275.02	124.8
501	293300	272.3	977	277.73	274.23	257.4
500.9	293275	272.03	977	277.78	274.41	256.7
500.8	293250	272.83	922	277.72	274.2	127.9
500.5	293128	275.06	922	276.98	275.71	125.5
500	292944	272.14	922	276.12	273.98	128
499	292855	271.99	922	275.8	273.98	131.6
498	292448	270.34	922	274.78	271.27	66
497	292046	266.62	922	274.69	269.39	84.8
496	291797	268.8	922	274.63	270.15	113.9
495	291451	268.32	922	274.58	269.68	128.9
494	290749	269.17	922	274.45	270.87	172.9
493	290192	268.4	922	274.32	270.43	152.7
492	289746	266.85	922	274.28	269.61	193.8
491	289200	268.96	922	274.18	270.4	144.6
490	288854	268.75	922	273.88	270.21	76.6
489	288546	267.5	922	273.71	269.57	90.2
488	288380	271.11	922	273.24	271.75	126.6
487	288144	267.2	922	273	269.13	87
486	287840	263.2	922	272.96	266.51	79.1
485	287548	265.8	922	272.86	268.53	95.8
484	287042	266.36	922	272.78	267.6	118.8
483	286530	265.9	922	272.71	267.32	114.3

Table F-6
Surface Water Model Output: 1,000 cfs release (Page 3 of 15)

Main Channel 1,000cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
482	285999	267	922	272.64	269.36	201.3
481	285695	266.68	855	272.48	269.22	100.9
480	285304	268.4	855	271.25	270.26	156.8
479	285034	262.37	922	269.91	264.65	215.5
478	284669	264.7	922	269.87	265.97	196.9
477	284519	265.8	922	269.8	267.14	190.7
476	284290	265.3	922	268.8	266.95	75.4
475	284109	261.82	922	268.98	264.44	84.1
474.6	283990	260.66	922	269.02	265.04	244.5
474.5	283779	264.42	922	268.93	265.19	155.1
474	283718	263.62	922	268.93	265.65	224.3
473	283672	264.5	922	268.52	267.66	233
472	283347	262.19	922	265.85	264.4	160.3
471	283249	260.34	922	265.87	262.72	150.9
470	282901	258.14	922	265.86	260.76	198.5
469	282452	256.2	922	265.81	259.68	105.8
468	282096	260.3	977	265.67	261.67	100.1
467	281600	259	977	265.46	260.65	87.5
466	281204	259.9	977	265.28	261.84	125.4
465	281002	258.2	977	265.3	259.63	162.8
464	280801	258.2	977	265.29	259.93	205.3
463	280549	257	977	265.27	259.26	148.3
462	280056	258.5	977	265.2	260.3	130.4
461.5	279897	261.6	977	264.93	262.86	124.4
461	279752	260.04	977	264.36	261.79	96.4
460	279355	259.7	977	263.6	261.24	139.8
459	279253	257.81	977	263.47	261.09	143.1
458	279058	257.94	977	263.37	260.67	209
457	278657	255.9	977	263.33	257.89	161.7
456	278111	258.19	977	263.25	259.98	208.6
455	277462	257.1	977	263.16	258.84	207.3
454	276767	254.73	977	263.11	258.6	227.8
453	276524	256.99	392	263.08	260.41	78.4
452	276329	254.9	392	263.05	257.84	71.3
451	276053	252.4	392	263.05	256.49	97.4
450	275705	257.79	392	263.03	259.21	95.8
449	275400	258.2	392	262.99	259.7	113.4
448	275102	258.27	148	262.98	259.85	87.6
447	274631	256.2	733	262.65	259.97	117.9
446	274423	251.8	977	262.72	255.08	149.6
445	273869	255.8	977	262.66	258.07	135.8
444	273425	255.75	977	262.6	257.33	118
443	273081	257.4	977	262.53	258.8	154.1
442	272928	258	977	262.48	259.3	191.8
441	272582	255.06	977	262.33	257.78	94.6
440	272039	256.69	977	262.23	258.18	166.9
439	271342	257.29	977	262.03	258.7	164
438	270939	257.51	977	261.9	259.06	219.9
437	270595	255.07	977	261.89	257.58	285.9
436	269990	255.73	977	261.83	258.27	239.6
435	269593	254.75	977	261.79	257.57	221.6
434	269246	254.1	977	261.75	257.14	177.6
433	268877	258.28	977	261.66	259.04	231.1
432	268553	255.83	746	261.46	258.01	92.9
431	268305	254.31	746	261.24	257.63	74
430	268054	256.56	746	261.04	258.86	147.8
429	267648	256.22	746	260.9	258.15	203.1
428	267116	256.2	746	260.69	258.43	215
427	266900	255.5	746	260.61	258.35	236.5

Table F-6
Surface Water Model Output: 1,000 cfs release (Page 4 of 15)

Main Channel 1,000cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
426.5	266764	255	746	260.59	257.74	238.4
426	266560	257.2	977	260.48	258.08	189.1
425	266555	257.4	977	260.48	258.38	263.1
424	266524	258.53	977	260.3	258.95	264.9
423	266519	258.7	977	259.89	259.02	212.4
422.75	266450	255.7	931	258.05	256.95	305.7
422.5	266445	255.7	931	258.02	256.9	291.8
422	266283	254.59	931	256.9	255.99	260.8
421.75	266278	254.46	931	256.62	255.87	241.7
421	265903	248	931	255.19	250.46	108
420	265605	250.87	369	255.15	252.34	120
419	265274	251.64	369	254.94	252.65	63.5
418	265024	252.53	369	253.69	252.68	61.7
417	264503	247.96	931	253.83	248.97	160.8
416	263857	249.41	931	255.02	251.55	210.1
415	263157	249.3	821	254.04	251.78	58.1
414	262848	250.7	821	253.7	251.86	211.9
413	262344	246.35	821	253.68	248.76	220
412	261844	242.91	821	253.67	245.35	131.3
411	261498	244.9	821	253.66	248.19	169.3
410	261243	243.33	238	253.66	248.31	337.6
409	260951	245	238	253.66	248.89	154.5
408	260784	244.05	238	253.66	247.71	177
407	260462	242.48	238	253.66	249.35	218.4
406	260150	242.59	238	253.66	246.59	183.9
405	259931	241.05	821	253.65	245.67	223.9
404	259596	245.9	821	253.64	247.29	295.8
403	258984	239.6	931	253.64	246.36	428.9
402	258238	244.7	931	253.64	246.4	246.1
401	257888	236.86	931	253.64	241.25	473.5
400	257682	238.15	931	253.64	241.51	399.8
399	257058	241.1	931	253.63	245.59	263.8
398	256890	242.4	931	253.63	246.05	204.7
397	256885	242.39	931	253.63	245.87	195.5
396	256867	242.3	931	253.63	246.16	195.3
395	256862	241.9	931	253.63	246.02	203.2
394	256750	245.5	931	253.62	248.25	203.2
393	256549	244.4	931	253.62	247.5	321.3
392	256228	237.4	765	253.62	242.53	504.2
391	255716	237	765	253.62	241.07	721.8
390	255485	242.4	765	253.62	246.9	206.2
389	254601	239.3	765	253.62	244.92	379.8
388	254139	244.1	931	253.61	248.12	511.1
387	253977	247.86	931	252.32	248.15	27.9
384	253898	247.17	931	250.5	247.2	26.7
383	253782	244.3	931	249	246.65	109.7
382	253695	245.76	931	248.24	246.52	183.2
381	253384	238.07	931	248.48	242.55	215.9
380	252888	237.46	931	248.48	240.55	211.7
379	252548	238.8	931	248.45	242.31	125.4
378	252267	239.19	73	248.46	244.33	161.2
376	251943	242.77	54	248.45	245	58.4
375	251799	242.15	54	248.45	244.3	67.7
374	251420	234.82	912	248.45	237.89	515.4
373	251189	243.58	912	247.93	245.99	84.8
372	250939	242.3	912	247.49	243.95	73.7
371	250742	241.8	912	247.23	243.62	72.4
370	250507	239.22	931	247.33	240.96	154.4
369	250198	236.86	931	247.28	241.79	108

Table F-6
Surface Water Model Output: 1,000 cfs release (Page 5 of 15)

Main Channel 1,000cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
368	249901	235.6	931	247.28	238.76	127.1
367	249603	236.1	931	247.27	238.96	124
366	249414	244.8	931	247.18	245.01	187.4
365	249195	240.3	931	247.11	244.73	295.2
364	248927	239.38	931	247.03	242.62	129.7
363	248421	239.1	931	246.96	241.67	145.3
362	247824	238.4	931	246.93	240.53	146.2
361	247273	240.1	931	246.85	243.37	169.7
360	246628	240.3	931	246.72	242.32	148.1
359	246322	242.32	931	246.51	243.74	114.9
358	245928	241.5	478	245.65	244.07	65.2
357	245536	241.05	478	244.61	243.21	154.3
356	245238	238.42	478	244.54	241.44	207.8
355	244883	238.65	478	244.5	240.75	138.6
354	244514	238.7	931	244.33	241.69	184.8
353	244258	235.05	931	244.28	237.68	77.4
352	243561	238.35	931	244.15	239.92	129.1
351	243113	238.2	931	244.07	239.73	151.8
350	242668	235.95	931	244.04	238.1	144.4
349	242370	239.09	931	244	241.47	282.7
348	241878	236.73	931	243.92	239.83	208.6
347	241475	237.6	715	243.87	239.23	132.8
346	241329	239.6	715	243.8	241.03	130.7
345	241114	240.35	931	243.52	241.72	202
344	240731	239.29	931	241.01	239.45	83.9
343	240315	233.83	931	240.63	236.18	99.8
342	239969	236.6	931	239.45	238.01	93
341	239711	227.6	931	239.68	233.29	82.2
340	239442	231.45	497	239.53	236.55	102
339	239213	235.63	497	239.1	237.5	103
338	238880	232.79	931	237.79	236.15	146.7
337	238685	232.97	931	237.49	234.43	104.7
336	238437	234.05	931	236.99	234.99	127.6
335	238262	232.28	931	236.25	234.35	112.3
334	237879	231.36	931	236.15	232.64	162.8
333	237628	227.97	931	236.09	230.63	97.8
332	237280	230.66	931	235.82	232.29	78.1
331	236975	231.01	931	235.36	232.15	78.8
330	236828	230.6	931	235.39	232.07	171.2
329	236633	230.2	931	235.33	231.62	182.2
328	236090	225.9	931	235.27	229.79	152.2
327	235591	226.57	931	235.23	228.87	116.8
326	235047	226.5	931	235.19	229.76	144.4
325	234560	225.76	931	235.16	229.56	159
324	234302	224.44	931	235.16	228.65	209.8
323	234151	227.75	931	235.14	230.87	214.7
322	233956	228.1	931	235.06	232.28	171.6
321	233658	228.21	931	234.98	231.38	173
320	233151	223.4	931	234.95	226.88	117.1
319	232653	222.8	931	234.93	227.07	112.4
318	231994	227.06	931	234.9	228.95	145.7
317	231549	230.84	931	234.76	231.61	127.1
316	231203	228.1	931	234.69	230.39	136.1
315	230793	230	609	234.59	231.65	122.2
314	230547	229.1	609	234.48	231.39	112.5
313	230245	230.7	609	233.92	231.75	76.6
312	229990	229.5	609	233.72	230.71	88.2
311	229745	228.2	609	233.64	229.98	94.5
310	229402	228.87	609	233.52	230.76	131.4

Table F-6
Surface Water Model Output: 1,000 cfs release (Page 6 of 15)

Main Channel 1,000cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
309	229058	225.3	609	233.44	229.28	101.5
308	228862	227.4	609	233.34	229.18	65.8
307	228661	228.28	609	233.26	229.57	79.7
306	228417	227.9	931	232.97	230.16	66.7
305	228081	227.5	931	232.03	229.26	75.3
304	227791	225.5	931	232.11	226.62	107.8
303	227429	227.1	931	231.77	229.42	105.3
302	227142	226.4	931	231.65	227.49	105.4
301.2	226829	226.62	931	231.32	228.44	95.6
301.1	226810	227.85	931	231.12	228.79	88.9
301	226790	226.9	931	231.07	228.61	88
300	226446	226.1	931	230.95	227.05	119.1
299	225943	223.31	931	230.9	225.4	130.4
298	225544	226.35	931	230.75	227.27	112.6
297	225346	226.14	931	230.11	227.66	72.9
296	224852	225.3	931	229.44	226.49	118.3
295	224599	216.98	931	229.5	221.94	197.3
294	224349	224.6	931	229.29	226.06	82.2
293	224096	224.42	931	228.93	226.08	101.3
292	223808	220.94	931	228.97	224.11	185.2
291	223543	222.28	931	228.9	225.86	210.7
290	223285	218.9	931	228.87	224.1	167.2
289	223117	220.13	931	228.83	225.02	183.4
288	222706	215.77	931	228.84	220.73	243.3
287	222311	211.23	931	228.84	215	177.1
286	221888	223	931	228.84	226.05	173.8
285	221698	216.22	931	228.84	221.2	147.2
284	221298	219.57	931	228.83	224.13	182.6
283	220998	223.98	931	227.67	225.65	78
282	220794	214.8	931	228.24	219.75	262.8
281	220553	224.1	931	228.18	226.26	268.7
280	220373	225.07	931	227.68	226.43	246.6
279	220234	219.46	931	227.78	223.26	237.7
278	220033	218.3	931	227.78	221.12	184.1
277	219797	222.02	931	227.74	224.43	106.3
276	219599	222.91	931	227.62	224.18	69.9
275	219350	221.24	931	227.18	223.32	62.3
274	219100	223.01	931	226.63	223.87	83.8
273	218852	220.76	931	226.29	222.09	62
272	218554	222	931	225.38	223	71.1
271	218261	220.4	931	225.16	222.16	127
270	217684	215.5	845	225	218.59	74.4
269	217401	217.59	845	224.93	219.47	77.1
268	217109	218.29	931	224.8	222.14	157.1
267	216754	213.79	931	224.8	217.39	120.3
266	216455	215.72	931	224.76	218.34	93.9
265	216058	211.4	931	224.78	216.78	328.4
264	215834	216.76	931	224.76	221.23	271.8
263	215568	218.4	931	224.74	220.62	222.4
262	215313	218.58	931	224.64	220.08	97.8
261	215111	219.47	931	224.52	221.12	111.1
260	214881	219.5	931	224.32	220.83	97
259	214875	219.5	931	224.23	220.99	84.4
258	214861	219.47	931	224.2	220.73	80.5
257	214855	219.44	931	224.22	220.71	91.8
256	214612	218.8	931	223.89	220.92	93.6
255	214012	213.06	931	223.95	216.98	154.1
254	213608	217.9	931	223.86	219.64	109
253	213411	216.38	931	223.76	219.36	91.5

Table F-6
Surface Water Model Output: 1,000 cfs release (Page 7 of 15)

Main Channel 1,000cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
252	213059	214.9	931	223.65	218.44	87.6
251	212711	216.8	931	223.59	219.07	124.1
250	212419	218.47	931	223.46	220.01	119
249	212217	217.01	931	223.14	218.61	54.8
248	211919	215.4	931	223.21	218.02	143.1
247	211568	215.74	931	223.16	218.31	127.3
246	211265	215.04	931	223.09	217.18	87.3
245	210767	215.81	931	223.01	217.68	99.7
244	210366	215.35	931	222.95	217.46	110.5
243	209914	215.63	931	222.88	217.72	112.3
242	209568	215.56	931	222.76	217.42	72.7
241	208975	215.66	931	222.71	217.53	157.2
240	208646	215.7	490	222.69	217.89	138.7
239	208058	215.7	490	222.67	217.95	149.4
238	207766	215.2	931	222.67	217.95	495.2
237	206998	216.3	931	222.63	218.05	107.7
236	206644	212.4	931	222.62	214.61	131.3
235	206090	213.27	931	222.59	216.95	167
234	205389	211.1	931	222.58	214.63	161.1
233	204791	209.67	931	222.57	213.41	141.4
232	204361	214.83	931	222.42	217.53	73.6
231	204358	214.8	931	222.42	217.52	76.5
230	204342	214.5	931	222.42	217.44	78.7
229	204338	214.49	931	222.41	217.57	78.4
228	204275	213.76	886	222.41	219.32	165.7
227	204270	213.5	886	222.4	219.25	158.6
226	204174	212.38	886	222.27	216.41	53.4
225	204169	212.32	886	222.26	216.29	52.4
224	204026	209.24	886	222.31	214.79	145.5
223	203806	217.2	886	221.96	218.6	58.8
222	203466	212.5	879	222.04	216.6	122.4
221	203265	213.73	879	222.03	214.9	98.7
220	202914	210.7	879	222.02	213.04	92.4
219	202616	211.93	879	222	214.58	97
218	202221	215.54	879	221.87	216.96	71.4
217	201932	215.72	879	221.68	216.87	61.7
216	201639	213.86	879	221.67	215.83	94
215	201191	213.71	879	221.65	215.62	133.3
214	200608	212.4	879	221.62	214.4	121.9
213	200164	209.95	879	221.61	213.13	120.4
212	199865	215.61	879	221.36	216.63	31.8
211	199573	215.7	879	219.76	217.11	38.3
209	199076	212.6	879	220.08	214.51	88.6
208	198682	210.82	886	220.08	212.39	108.4
207	198239	211.2	886	220.07	212.94	160.8
206	198090	208.52	886	220.01	212.52	62.6
205	197842	209.1	886	220.02	211.69	98.4
204	197447	212.88	886	220	214.19	133.3
203	197097	212.5	886	219.93	214.78	98.9
202	196784	213.7	886	219.72	215.68	69.1
201	196483	212.7	886	219.6	214.2	52.1
200	196186	212.4	886	219.48	214.06	54
199	195789	211.49	886	219.41	212.77	60.3
198	195263	213.49	886	219.07	215.2	37.6
197	194976	211.48	886	219.07	213.68	102.8
196	194732	211	886	218.93	213.7	55.6
195	194341	214.72	886	218.42	215.58	77.4
194	193991	213	886	218.01	214.7	76.8
193	193718	209.02	886	218.03	213.62	194.9

Table F-6
Surface Water Model Output: 1,000 cfs release (Page 8 of 15)

Main Channel 1,000cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
192	193166	208	886	218.01	209.53	132.4
191	192670	203.63	886	218.01	207.26	110
190	192365	203.37	886	218.01	207.96	281.7
189	191966	206.19	886	218	208.3	174.5
188	191772	208.97	886	217.81	212.37	52.6
187	191766	208.9	886	217.76	211.91	43.6
186	191749	208.85	886	217.78	210.19	39.9
185	191743	208.5	886	217.79	209.92	43.4
184	191516	205	886	217.83	207.37	172.8
183	191329	207.01	886	217.83	209.13	156
182	190639	207.5	886	217.8	209.59	100.3
181	190050	207.14	886	217.79	209.43	148.5
180	189458	213.98	886	217.65	214.65	110.5
179	189351	212.8	886	217.27	214.18	63.7
178	188980	209.6	886	216.75	213.05	69.9
177	188823	213	886	216.56	213.65	94.5
176	188423	210.2	886	215.66	212.67	67.7
175	188095	206.1	886	215.79	209.82	130.4
174	187966	210.25	886	215.67	213.06	130.7
173	187412	204.7	886	215.73	206.51	189.3
172	187166	207.43	854	215.58	211.63	72.3
171	186873	208.9	854	215.47	211.59	110.2
170	186469	209.7	854	215.16	212.01	92.6
169	186219	205	854	215.18	208.31	94.1
168	185779	204.05	854	215.19	206.92	173.2
167	185227	204.53	854	215.18	206.76	137.2
166	184933	210.05	886	215.03	212.52	113.2
165	184732	206.76	886	215.09	209.12	182.8
164	184333	206.54	886	215.06	209.01	116.5
163	183583	206.9	886	215	209.34	133.5
162	183086	206.38	886	214.98	208.58	151.2
161	182636	206.77	886	214.94	208.15	108.8
160	182330	208.55	886	214.88	211.17	139.2
159	182065	208.95	886	214.54	211.42	86.3
158	181710	207.15	886	214.49	208.91	83.2
157	181263	209.57	886	214.37	210.62	125.5
156	180815	210.31	886	214	210.77	86.3
155	180415	208.79	886	213.2	209.49	51.8
154	180019	206.58	886	212.77	208.56	63.2
153	179725	205.39	886	212.66	207.57	73.1
152	179125	203.49	886	212.58	206.67	107.1
151	178325	206.8	886	212.48	208.21	143.5
150	177825	207.2	886	212.26	208.45	93.5
149	177177	201.9	886	212.23	204.53	96.2
148	176628	206.34	886	212.13	208	99.5
147	176227	206.27	886	211.82	207.5	64.3
146	175731	206.27	886	211.34	206.98	55.9
145	175236	206.19	886	211.17	207.46	81.8
144	174838	202.59	886	211.13	204.88	120.2
143	174263	206.44	886	210.94	208.39	129.8
142	173972	204.7	886	210.65	206.43	69.3
141	173483	204.4	886	210.43	205.96	87.3
140	173082	205.02	886	210.22	206.16	84.5
139	172637	201.05	886	210.23	204.17	152.3
138	172088	202.73	886	210.21	204.41	180.8
137	171938	203.3	886	210.17	204.96	102.7
136	171380	204.9	886	210.05	205.81	118.4
135	170887	205.12	886	209.68	206.03	71.1
134	170391	201.48	886	209.51	203.9	72.4

Table F-6
Surface Water Model Output: 1,000 cfs release (Page 9 of 15)

Main Channel 1,000cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
133	169987	200.42	886	209.51	201.81	107.4
132	169539	203	883	209.43	205.35	115.6
131	169067	202.96	883	209.17	205.61	96.1
130	168394	202.44	883	208.87	204.46	94.2
129	167841	203.52	883	208.6	204.87	96.4
128	167342	202.63	883	208.33	204.33	90
127	166917	203.07	883	208.1	204.88	114
126	166639	202.43	883	208.03	204.05	140.3
125	166189	199.42	883	207.94	202.18	92
124	165821	199.96	883	207.91	202.66	128.4
123	165180	201.05	883	207.84	202.82	139.7
122	164682	201.11	883	207.7	203.07	87.7
121	164377	202.68	883	207.52	204.36	109.4
120	164088	201.49	883	207.19	203.8	83.7
119	163696	200.5	883	206.58	202.74	57.1
118	163396	199.2	886	206.42	202.11	78.8
117	162997	201.2	886	205.66	202.03	46
116	162604	200.1	886	205.66	201.74	129.7
115	162361	200.9	886	204.87	201.86	47.2
114	162061	198.77	886	204.7	200.27	64
113	161813	197.63	886	204.7	199.33	103.1
112	161337	196.52	886	204.66	199.16	133.7
111	161191	197.7	886	204.6	200.11	103.2
110	160941	197.8	886	204.55	199.13	90.3
109	160637	198.7	886	204.48	200.07	115.8
108	160292	198.02	886	204.43	200.03	138.7
107	159743	195.54	886	204.41	197.59	162.2
106	159348	197.03	886	204.39	198.5	140
105	159205	195.76	886	204.36	198.07	92
104	158951	193.9	886	204.34	196.46	84.6
103	158603	197.14	886	204.31	198.67	116.6
102	158255	197.85	886	204.17	199.73	80.8
101	158004	197.43	886	204.12	199.35	102.2
100	157708	198.09	886	204.03	199.62	107
99	157307	194.75	886	203.94	198.68	93.1
98	156960	199.28	886	203.69	200.28	79.9
97	156708	198.43	886	203.52	200.95	186.2
96	156557	199.26	886	203.19	201.74	197.7
95	156307	198.28	886	202.51	200.78	178.9
94	156189	196.25	886	202.38	199.71	138.9
93	156066	192.04	886	202.4	196.41	149.2
92	156058	191.63	886	202.4	196.3	150
91	156018	189.8	886	202.4	195.18	152
90	156013	189.6	886	202.4	194.98	154
89	155842	195.68	886	202.39	198.01	236.2
88	155692	197.21	886	202.23	198.25	74.2
87	155391	197.27	886	202.04	198.39	93.1
86	155088	196.09	886	201.93	197.84	108.2
85	154950	196.73	886	201.56	199.28	94.6
84	154657	196.5	886	201.19	197.99	97.7
83	154313	195.07	886	201.12	196.46	112.2
82	154015	191.2	886	201.1	194.74	129
81	153765	193.2	886	201.09	197.71	334
80	153657	196.37	886	201.03	199.04	258.9
79	153414	196.48	886	200.89	198.69	246.9
78	153064	188.78	886	200.87	195.29	471.9
77	152762	193.36	886	200.86	196.1	537.8
76	152412	191.1	886	200.86	196.21	350.1
75	152260	190.62	886	200.85	193.08	179.6

Table F-6
Surface Water Model Output: 1,000 cfs release (Page 10 of 15)

Main Channel 1,000cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
74	151914	189.16	886	200.85	194.02	275.8
73	151278	183.6	886	200.85	188.51	293.8
72.5	151155	186.95	886	200.85	190.26	163.6
72	150835	180.5	886	200.85	187.99	267.9
71	150533	175.5	886	200.85	183.85	352.1
70	150256	176.87	886	200.85	185.48	496.5
69	149957	182.45	886	200.85	186.46	205.1
68	149505	196.2	886	200.72	196.9	81.1
67	149257	196.38	886	200.5	196.83	80.9
66	148961	195.87	886	200.15	196.76	76.2
65	148666	193.68	886	199.93	195.14	60.9
64	148363	191	886	199.96	193.22	114.3
63	148068	191.03	886	199.95	193.71	156.6
62	147617	186.44	886	199.94	191.3	138
61	147227	187.1	886	199.94	190.28	138.4
60	146680	190.77	886	199.93	192.81	150.4
59	146331	189.3	850	199.8	193.95	93.1
58	145981	192.8	850	199.8	194.24	99
57	145534	192.11	850	199.8	193.3	184.9
56	145135	189.72	850	199.8	191.16	175.7
55	144731	191.4	850	199.7	193.48	194.4
54	144335	193.45	772	199.7	194.64	84.5
53	143984	190.63	772	199.6	193.36	71.1
52	143683	192.09	772	199.5	193.97	89.4
51	143290	193.54	772	199.4	195.04	103.4
50	142936	193.5	772	199.2	194.61	78.9
49	142588	192.99	772	199	194.37	78.5
48	142340	192.42	772	198.8	193.98	55.8
47	142089	192.5	781	198.6	194.06	82.4
46	141837	193.7	781	198.4	194.48	76.5
45	141536	191.56	781	198.2	193.88	82
44	141285	192.9	781	197.9	194.11	73.1
43	141092	192.61	781	197.8	194.15	103.3
42	140749	192	850	197.6	193.15	62.1
41	140441	191	850	197.4	192.51	53.7
40	140158	190.73	850	197.2	194.33	172.4
39	139750	190.65	850	196.6	192.22	61
38	139447	190.85	850	196.4	192.29	118.8
37	138996	188.41	850	196.3	190.15	76.2
36	138544	185.61	850	196.2	187.73	95.9
35	138193	188.36	850	196.2	191.32	174.7
34	138036	188.6	850	196.1	192.19	137.6
33	137829	190.3	850	196	191.53	97.9
32	137578	189.99	850	195.9	190.65	68.6
31	137228	185.8	850	195.7	189.77	77.8
30	136928	186.2	850	195.7	188.96	108.7
29	136584	189.47	850	195.6	190.68	65.8
28	136288	189.8	837	195.2	191.32	57.9
27	136044	188.83	837	195	190.38	63.5
26	135719	190.31	837	194.2	191.09	67.8
25	135418	187.07	837	194.1	189.09	90.9
24	135149	187.84	837	194	189.5	93.5
23	134683	187.9	837	193.8	189.56	94.1
22	134181	187.23	850	193.6	188.81	97
21	133632	186.81	850	193.5	188.45	146.3
20	133132	187.26	850	193.4	188.65	134.1
19	132682	184.79	850	193.4	186.87	122.5
18	132385	188.3	850	193.3	189.55	132.7
17	132086	190.13	850	193.1	190.97	108.4

Table F-6
Surface Water Model Output: 1,000 cfs release (Page 11 of 15)

Main Channel 1,000cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
16	131741	187.09	850	192.9	188.47	91.4
15	131359	189.35	850	192.6	190.21	61
14	130944	185.68	850	192.4	187.69	73.3
13	130585	188.17	850	192.1	189.4	84.3
12	130263	188.92	850	191.9	189.38	96.3
11	130129	187.2	850	191.8	189.28	109.2
10	129978	183.54	850	191.8	187.43	125.9
9	129640	184.9	850	191.7	186.78	107.4
8	129236	184.4	850	191.4	186.52	64
7	128831	183.34	850	191.1	186.74	91.4
6	128486	186	850	190.9	187.23	110.9
5	128084	186.2	850	190.5	187.21	71.1
4	127787	183.75	850	190.4	185.19	95
3	127443	184.17	850	190.4	185.98	113
2	127094	185.7	850	190.1	186.72	75.8
1	126743	183.49	850	190	184.27	71.1
A221	126279	185.7	850	189.84	187.54	151.8
A220	125889	184.28	850	189.16	187.03	147.6
A219	125088	182.14	850	188.94	184.26	130.2
A218	124298	184.49	850	188.76	185.86	196.2
A217	123676	185.1	850	187.46	186.34	127
A216	122984	180.55	850	187.5	183.06	150.4
A215	122059	179.44	850	187.44	180.97	130.1
A214	121057	178.43	850	187.38	181.94	172.1
A213	120291	184.06	850	187.24	184.97	164.7
A212	119696	180.59	850	186.91	182.75	131.6
A211	118764	178.9	850	186.72	182.14	155.5
A210.5	118416	177.33	850	186.7	180.08	126.2
A210	117893	182.37	850	186.62	185.09	411.5
A209	117286	180.54	850	186.26	184.61	374.1
A208	116395	179.8	850	186.1	182.87	310.6
A207	116012	182.03	850	186	183.64	235.8
A206	115517	182.9	850	185.83	183.78	337.6
A205	114963	180.71	850	185.51	184.14	365
A204	114482	180.12	850	185.2	182.57	194.1
A203.5	113819	181.15	850	184.91	182.26	187.5
A203	113479	181	850	184.7	182.87	251.7
A202	113154	176.85	850	184.66	179.6	147.8
A201	112433	179.84	850	184.61	181.7	345.2
A200	111913	180.1	850	184.52	181.73	227.8
A199	111445	180.2	850	184.37	182.62	392.4
A198	110945	177.72	850	184.19	180.87	173.2
A197.5	110558	180.08	850	184.12	181	225.8
A197	110187	179.69	850	184.07	180.79	260.6
A196	109779	179.07	850	183.99	180.79	194.6
A195	109179	178.39	850	183.85	181.24	262.7
A194	108693	180.1	850	183.55	181.51	173.1
A193	108336	180.6	850	183.21	181.5	281.4
A192	107336	178.93	850	183.03	180.21	371.5
A191	106945	181.26	388	182.96	181.69	253.8
A190	106441	180.03	388	182.34	181.29	161.4
A189	105856	176.23	388	182	179.81	148
A188	105518	175.8	850	181.95	179.36	356.4
A187	105181	178.6	850	181.77	180.57	337.8
A186	104856	179.42	759	181.56	179.76	341.1
A185	104634	179.2	759	181.48	179.61	234
A184	104252	178.9	759	181.14	179.57	122
A183	104013	178.03	759	180.51	179.18	185.1
A182	103149	173	759	179.66	176.21	91.8

Table F-6
Surface Water Model Output: 1,000 cfs release (Page 12 of 15)

Main Channel 1,000cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
A181	102972	174.02	759	179.63	176.09	120
A180	102209	169.56	759	179.5	174.76	123.9
A179	101488	174.59	759	179.42	176.18	220.2
A178	100849	174.48	759	179.26	176.09	140.2
A177	99706	173.2	759	179.11	175.65	246.4
A176	99508	171.17	759	179.08	174.05	113.8
A175	98648	173.49	759	178.99	176.04	286
A174	98044	175.39	380	178.87	176.98	138.2
A173	97555	175.1	380	178.72	176.31	155.4
A172	96645	175.3	380	178.6	176.66	285.7
A171	96236	176.74	380	178.28	177.77	239.4
A170	95633	173.3	380	177.61	174.96	90.5
A169	94987	168.3	759	177.6	170.98	141.1
A168	94613	171.4	759	177.59	173.57	342.8
A167	93997	173.86	462	177.52	176.19	216.2
A166	93067	172.95	462	177.26	174.89	217.1
A165.5	92682	175.96	462	177.13	176.14	317.5
A165	92397	173.29	759	177.04	175.37	505
A164	92021	174.29	759	176.73	175.6	262.3
A163	91799	174.9	759	176.39	175.29	496.6
A162	91343	174.5	759	175.98	174.76	469.7
A161	90999	173.78	759	175.81	174.34	482
A160	90592	173.1	759	175.23	174.06	137.2
A159	90343	169.65	759	175.18	172.65	219.9
A158	90046	165.27	759	175.09	168.75	67.6
A157	89541	166.6	759	175.09	169.02	186.6
A156	89103	170.55	759	175.07	172.74	418.9
A155	88864	171.11	759	175.01	173.3	305.4
A154	88500	167.11	759	174.88	170.36	90.9
A153	87667	168.6	759	174.81	170.46	195.3
A152.5	87158	170.89	721	174.74	172.62	261.3
A152	86770	172.64	721	174.5	172.85	242.4
A151	86428	172.23	474	174.27	172.75	250.2
A150	85935	170.52	474	173.63	172.11	99.3
A149	85570	164.79	759	173.7	168.35	170.5
A148	85279	165.17	759	173.69	169.69	275.6
A147	84936	164.76	759	173.65	168.74	127.7
A146	84661	166.5	759	173.61	169.71	158.4
A145	84239	168.14	759	173.57	170.83	266.1
A144	83536	170.1	449	173.47	170.86	97.8
A143	82999	171.74	449	173.32	172.15	357.5
A142.5	82807	171.4	449	173.18	172.24	392.1
A142	82530	169.2	449	172.58	171.77	208.9
A141	82152	169.1	449	171.99	170.68	232.8
A140	81423	167.91	449	171.58	169.73	173.9
A139	80928	167.49	759	171.46	169.17	331
A138	80648	169.2	759	171.1	169.99	194.8
A137	79986	160.25	759	171.14	166.93	263.5
A136	79448	165.93	759	171.1	168.54	269.1
A135	79157	167.7	759	171.02	168.95	268.9
A134	78673	168.99	759	170.88	169.32	518.8
A133	78206	167.1	759	170.74	169.08	373
A132	77861	168.56	759	170.6	169.08	416.1
A131.5	77594	168.81	759	170.44	169.29	493.6
A131	77391	169.07	759	170.24	169.13	282.4
A130	76876	165.17	759	169.35	167.97	223.2
A129	76518	163.86	759	169.06	167.47	362.3
A128	76216	163.65	759	168.86	164.88	85.8
A127	75888	165.56	759	168.71	167.14	318.9

Table F-6
Surface Water Model Output: 1,000 cfs release (Page 13 of 15)

Main Channel 1,000cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
A126	75649	167.17	759	168.44	167.4	403.1
A125	75113	163.18	759	167.97	165.97	238.8
A124	74787	161.9	759	167.58	165	98.7
A123	74100	161.59	759	167.42	162.86	94.3
A122	73813	164.12	759	167.36	165.06	222.5
A121	73600	163.32	759	167.33	164.47	261.3
A120	72856	160.36	759	167.17	163.16	96.8
A119	72099	160.02	759	167.1	160.89	102.1
A118	71832	162.37	759	167.08	163.6	221.2
A117	71213	162.8	759	166.97	165.2	351.2
A116.5	70994	162.3	759	166.89	164.72	255.2
A116	70750	163.09	759	166.73	163.73	92
A115.5	70402	163.13	759	166.53	163.75	149.3
A115	70021	162.71	759	166.44	163.77	241.6
A114	69531	162.8	759	166.35	163.75	271.3
A113	69201	162.61	759	166.22	164.77	199.3
A112.5	68712	162.36	759	165.48	164.41	342.2
A112	68244	159.45	759	165.02	160.71	70.6
A111	67799	160.72	759	164.9	161.42	155.1
A110	67143	160.7	759	164.75	161.15	124.2
A109	66821	159.6	759	164.68	160.53	116
A108	66181	159.12	759	164.57	160.85	159.1
A107	65415	160.53	759	164.46	161.31	221
A106	65226	159.59	759	164.43	161.07	149.5
A105	64583	160.13	759	164.29	161.15	147.8
A104	63837	161	759	164.12	161.51	215
A103.5	63350	161	759	164	161.79	249.8
A103	63051	160	759	163.94	160.69	93.7
A102	62778	159.41	759	163.88	160.12	92
A101	62496	159.5	759	163.8	160.42	131.8
A100	62202	159.2	759	163.73	160.04	135.5
A99	61382	160.46	759	163.54	161.1	241.5
A98	60612	159.47	759	163.32	160.08	114.1
A97	59770	157.07	759	163.21	158.46	139.1
A96.6	59434	158.7	650	163.12	158.7	84.5
A96.5	59433	158.7	650	163.12	158.7	80
A96.4	59374	158.7	650	163.11	158.7	80
A96.3	59373	158.7	650	162.9	160.7	80
A96.2	59371	158.7	650	162.9	160.7	80
A96.1	59370	158.7	650	162.98	158.7	80
A96	59357	158.7	650	162.98	158.7	84.5
A95.1	59355	160.7	650	162.76	160.7	84.5
A95	59354	158.7	650	162.84	158.7	84.5
A94	59122	158.51	650	162.82	159.41	191
A93	58131	156.8	650	162.7	158.49	124
A92	57203	155.7	650	162.57	157.67	93.6
A91.5	56904	157.91	650	162.53	158.56	108
A91	56645	158.58	650	162.49	159.12	105.2
A90	55840	158.18	650	162.33	159.17	151.3
A89	55513	158.44	650	162.26	159.99	286.4
A88	54891	158.9	650	162.18	159.41	303.5
A87	54454	157.5	650	162.11	159.57	237.3
A86	54264	157.94	650	162.04	159.53	182.7
A85	53437	157.2	650	161.81	159.55	253.6
A84	53227	156.13	650	161.75	159.44	222.7
A83	53002	157.45	650	161.63	159.57	179.3
A82	52546	157.96	650	161.36	159.44	222.4
A81.5	52218	158.18	650	161.21	159.23	209.7
A81	51890	158	650	161.06	159.39	280.4

Table F-6
Surface Water Model Output: 1,000 cfs release (Page 14 of 15)

Main Channel 1,000cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
A80.5	51725	158.24	650	160.99	159.1	269.4
A80	51265	158.27	650	160.72	159.22	273.7
A79	50478	156.39	650	160.3	157.03	119.7
A78	49585	155.46	650	160.04	156.58	117.4
A77	48601	156.6	650	159.74	157.26	181.5
A76	47880	154.56	650	159.47	156.69	153.3
A75	47590	156.98	650	159.32	157.75	260.3
A74	47218	155.3	650	159.2	156.06	117.2
A73	46806	155.8	650	159.09	156.27	160.5
A72	46036	155.65	650	158.92	156.65	285
A71	45670	141.13	650	158.93	148.4	393.9
A70	44792	153.53	650	158.9	154.74	119
A69	43940	152.01	650	158.8	154.02	113
A68	43191	153.9	650	158.71	155.16	170.2
A67	42388	154.4	650	158.57	155.5	149.2
A66.5	41991	151.5	650	158.47	154.89	125.2
A66	41729	151.83	650	158.44	153.62	115.8
A65	41170	154.58	650	158.34	155.22	109.2
A64.5	40870	153.67	650	158.26	154.91	111
A64	40656	152.7	650	158.21	154.94	138.2
A63	39956	153.67	650	158.01	155.94	248.5
A62	39357	154.44	650	157.8	155.22	157
A61	38776	153.6	650	157.59	155.34	209.1
A60	38496	153.64	650	157.48	155.5	215.9
A59.5	38189	154.21	650	157.38	154.82	88.3
A59	37926	152.77	650	157.28	155.02	169.3
A56	37358	152.6	650	157.1	154.73	262.9
A55	37095	153.52	650	156.96	154.56	159.8
A53	36876	152.37	650	156.9	154.28	235.9
A52	36586	152.18	650	156.82	154.4	206
A51	36037	150.13	650	156.67	153.82	182.9
A50	35498	147.5	650	156.51	152.96	149.7
A49	35063	150.4	650	156.35	153.37	166.3
A48	34458	150.99	650	156.1	153.04	111.1
A47.5	34155	151.93	650	156.02	152.68	123
A47	34009	152	650	156	152.72	180
A46	33388	150.63	650	155.9	152.69	171.3
A45	33043	147.9	650	155.79	152.32	109.2
A44	32442	149.87	650	155.35	151.98	63.4
A43.5	32069	148.5	650	155.27	150	56.2
A43	31811	144.1	650	155.21	149.4	49.7
A42	31309	146.9	650	155.15	148.29	64.7
A41	30677	145.68	650	155.05	147.96	58.5
A40	30095	148.3	650	154.86	149.37	58.7
A39	29482	147.7	650	154.71	150.11	89.4
A38	29019	146.76	650	154.56	148.93	52.5
A37	28607	143.55	650	154.53	148.46	105.5
A36	28345	147.01	650	154.49	148.07	66.9
A35	27968	146.34	650	154.46	148.56	94
A34	27805	143.82	650	154.44	148.56	89.1
A33	27442	146.43	650	154.41	148.75	95.7
A32	27162	147.1	650	154.39	149.91	137.2
A31	26952	144.08	650	154.34	148.24	68.5
A30	26636	147.81	650	154.29	149.79	99
A29	26190	148.8	650	154.23	150.2	139.4
A28	25902	145.75	650	154.19	148.58	87.1
A27	25432	146.51	650	154.12	150.12	130.1
A26	24624	148.41	650	153.98	149.86	118.1
A25	23909	147.46	650	153.86	149.82	125.3

Table F-6
Surface Water Model Output: 1,000 cfs release (Page 15 of 15)

Main Channel 1,000cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
A24	23156	147.17	650	153.75	149.59	127.5
A23	22682	148.04	650	153.7	148.88	123.3
A22	21507	144.5	650	153.55	149.34	119.7
A21	20883	147.18	650	153.48	148.94	124.8
A20	19874	149.24	650	153.37	149.85	172.9
A19	18311	147.68	650	153.19	150.21	242.4
A18	17115	148	650	153.07	149.33	176.9
A17	15912	143.4	650	153	147.41	135.4
A16.5	15165	146.25	650	152.97	149.13	247.6
A16	14622	144	650	152.96	147.22	186.1
A15	13586	143.81	650	152.93	147.41	185
A14.5	12869	146.46	650	152.91	148.75	259.9
A14	12428	146.2	650	152.9	148.47	254.9
A13.5	11673	145.5	650	152.88	148.41	231.6
A13	11130	144.7	650	152.87	147.52	194
A12.5	10303	145.08	650	152.84	148.9	296.3
A12	9645	143.5	650	152.83	146.45	165.7
A11	8449	144.65	650	152.8	148.14	268.4
A10	7630	146.3	650	152.79	147.52	274.3
A9.5	6824	143.83	650	152.78	147.73	324.2
A9	6326	144	650	152.78	146.72	272.5
A8	5008	146.28	650	152.76	147.87	331
A7	3857	146.52	650	152.75	147.51	247.6
A6	2634	147.42	650	152.73	149.77	506.4
A5	1887	143.2	650	152.71	150.43	846.8
A4	1445	136.1	650	152.7	143.48	183.9
A3	1026	136.91	650	152.7	143.73	169.5
A2	745	140.9	650	152.7	147.21	391.2

Table F-7
Surface Water Model Output: 2,000 cfs release (Page 1 of 15)

Main Channel 2,000cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
596	329920	289.2	1977	304.64	297.44	140.8
595	329666	288.4	1977	304.56	294.76	80.1
594	329412	284.05	1977	304.57	292.97	98.3
593	329113	281.19	1977	304.55	292.44	101.2
592	328819	283.15	1977	304.54	294.19	138.4
591	328318	292.35	1495	304.52	297.96	206.8
590	328163	295.3	1495	304.48	300.33	222.8
589	327909	295.94	801	304.45	299.22	126.3
588	327748	296.7	1283	304.41	298.93	140.2
587	327252	296.14	1283	304.33	298.43	131.2
586	326880	295.1	1977	304.15	299.78	174.1
585	326874	295.04	1977	304.13	299.92	173.8
584	326840	294.4	1977	304.12	299.64	176.8
583	326835	294.35	1977	304.12	299.27	170.6
582	326648	295.1	1977	304.09	299.23	239.2
581	326495	296.76	1977	304.06	299.8	263.6
580	326342	298.38	1977	302.72	300.09	80.4
579	326097	295.47	1977	300.96	297.58	113.3
578	325800	295.28	1977	300.04	296.34	98.4
577	325350	292.85	1977	299.84	294.03	117.1
576	324850	292.79	1977	299.57	294.89	144.7
575	324348	293.78	1977	299.16	294.48	125.3
574	323902	292.92	1977	298.44	294.05	93.9
573	323500	292.45	1977	298.12	294.06	160.2
572	323050	292.24	1977	297.69	293.68	147.8
571	322548	291.1	1977	297.33	293.61	201
570	322353	289.78	1977	297.05	292.63	120.9
569	322060	286	1977	297.06	291.41	200.9
568	321758	287.8	1977	296.98	291.34	177.8
567	321259	290.61	1977	296.72	292.58	165.2
566	320613	290.2	1977	296.26	292.5	189
565	319811	291.43	1977	295.28	292.73	223.5
564	319159	289.5	1977	294.57	290.99	199.6
563	318312	285.33	1977	294.4	288.46	212.6
562	317421	289.68	1977	293.86	291.58	218.5
561	317052	286.65	1977	293.33	289.24	144
560	316701	284.52	1977	293.2	287.49	140.2
559	316248	284.26	1977	293.04	287.19	134.8
558	315799	285.41	1977	292.85	287.8	149.2
557	315349	288.27	1977	291.35	289.41	154.2
556	314744	282.97	1977	291.57	285.8	222.2
555	314400	282.67	1977	291.5	285.84	183.6
554	313800	281.64	1977	291.44	283.81	173.2
553	313297	282.8	1977	291.35	285.55	173.1
552	312948	281.29	1977	291.3	285.95	224
551	312498	281.16	1977	291.28	285.13	310.6
550	312045	283.03	1977	291.24	286.05	321.5
549	311859	284	1977	291.22	286.21	318
548	311517	285.8	1977	290.93	286.66	119.2
547	311269	284.54	1977	290.84	286.28	174.6
546	310965	284.81	1977	290.81	286.2	293.8
545	310365	281.84	1977	290.73	284.84	224.5
544	310118	281.63	1977	290.71	283.36	187.5
543	309480	283.96	1977	290.56	285.79	177.5
542	309088	286.33	1977	290.24	286.93	206
541	308789	280.07	1977	290.07	284.91	144.6
540	308489	283.58	1977	289.78	286.6	184
539	308094	281.36	1977	289.61	285.44	232.8
538	307697	279.61	1977	289.48	283.35	141
537	307245	281.04	1977	289.37	284.05	178

Table F-7
Surface Water Model Output: 2,000 cfs release (Page 2 of 15)

Main Channel 2,000cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
536	306746	281.37	1977	289.25	283.65	177.3
535	306345	274.9	1977	289.24	281.11	201.1
534	305699	280.77	1977	289.18	283.47	237.5
533	305496	280.4	1977	289.14	284.93	287.1
532	305248	279.4	1977	289.09	283.45	230.3
531	304299	278.5	1977	288.98	281.97	188.7
530	303355	282.1	1977	288.87	282.56	163.7
529	303156	282.7	1977	288.78	283.51	119
528	303005	283.04	1977	288.09	283.87	81.4
527	302998	283.1	1977	287.85	283.9	75.4
526	302977	283.22	1977	287.47	283.96	75
525	302972	283.22	1977	287.5	283.94	79.4
524	302816	282.54	1977	287.39	284.24	176
523	302671	280.7	1977	287.13	284	159.1
522	302380	279.8	1977	287.05	283.54	308.8
521	302129	279.4	1977	286.97	283.05	275.2
520	301584	279.9	1977	286.8	282.6	247.9
519	301187	276.12	1977	286.76	280.28	230.7
518	300041	277.16	1576	286.71	280.03	244.7
517	299293	280.1	1576	286.61	281.86	193.4
516	298979	279.75	1576	286.35	281.63	90.3
515.9	298968	281.5	1576	285.32	282.62	106.4
515.8	298958	279.7	1576	284.38	281.31	62.1
515	298725	279.96	1576	283.81	281.72	215
514	298470	277.9	1576	283.46	279.6	127.7
513	298224	277.5	1576	283.29	279.89	177.9
512	297722	277.3	1576	282.81	278.95	126.9
511	297402	273.2	1977	282.62	278.14	161.9
510	297007	270.5	1977	282.61	275.86	218.7
509	296558	271.66	1977	282.59	274.87	221.3
508	296175	274.83	1977	282.51	277.98	267.4
507	295842	274.36	1977	282.14	277.76	115.8
506	295442	274.6	1977	281.98	276.28	128.3
505	294946	277.03	1977	281.7	278.25	207.6
504	294498	276.3	1977	280.09	277.04	74.9
503	294100	273.9	1977	279.52	275.03	105.9
502	293606	274.35	1977	278.82	275.02	124.8
501	293300	272.3	1977	278.84	274.23	257.4
500.9	293275	272.03	1977	278.94	274.41	256.7
500.8	293250	272.83	1838	278.82	274.2	127.9
500.5	293128	275.06	1838	278.11	275.82	125.5
500	292944	272.14	1838	277.66	274.66	144.8
499	292855	271.99	1838	277.5	274.23	147.3
498	292448	270.34	1838	276.57	271.9	77.6
497	292046	266.62	1838	276.42	270.09	96.3
496	291797	268.8	1838	276.35	270.18	113.9
495	291451	268.32	1838	276.28	269.74	130.3
494	290749	269.17	1838	276.12	270.93	172.9
493	290192	268.4	1838	275.95	271.76	210.2
492	289746	266.85	1838	275.89	269.63	194.5
491	289200	268.96	1838	275.73	270.66	154
490	288854	268.75	1838	275.25	270.21	76.6
489	288546	267.5	1838	275.02	269.57	90.2
488	288380	271.11	1838	274.73	271.75	126.6
487	288144	267.2	1838	274.39	269.61	97.6
486	287840	263.2	1838	274.29	266.51	79.1
485	287548	265.8	1838	274.1	269.12	108.8
484	287042	266.36	1838	273.93	267.82	123.5
483	286530	265.9	1838	273.77	267.32	114.3

Table F-7
Surface Water Model Output: 2,000 cfs release (Page 3 of 15)

Main Channel 2,000cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
482	285999	267	1838	273.65	269.36	201.3
481	285695	266.68	1593	273.41	269.33	100.9
480	285304	268.4	1593	271.79	270.29	160.8
479	285034	262.37	1838	271.22	264.82	221.9
478	284669	264.7	1838	271.15	266.11	203.6
477	284519	265.8	1838	271.06	267.4	214.9
476	284290	265.3	1838	270.38	269.17	308.7
475	284109	261.82	1838	269.79	266.67	150.5
474.6	283990	260.66	1838	269.87	265.88	303.3
474.5	283779	264.42	1838	269.65	265.39	155.1
474	283718	263.62	1838	269.65	265.85	240.2
473	283672	264.5	1838	268.95	267.82	272.5
472	283347	262.19	1838	267.81	265.18	236.1
471	283249	260.34	1838	267.78	263.87	206
470	282901	258.14	1838	267.76	261.64	242.2
469	282452	256.2	1838	267.66	260.48	119.2
468	282096	260.3	1977	267.43	263.17	143.4
467	281600	259	1977	267.04	260.66	87.6
466	281204	259.9	1977	266.86	262.15	125.4
465	281002	258.2	1977	266.88	259.64	162.8
464	280801	258.2	1977	266.86	259.99	205.3
463	280549	257	1977	266.82	259.51	153.9
462	280056	258.5	1977	266.69	260.36	131.8
461.5	279897	261.6	1977	266.39	263.44	160.3
461	279752	260.04	1977	265.83	262.22	96.4
460	279355	259.7	1977	265.35	261.41	149.1
459	279253	257.81	1977	265.29	261.09	143.1
458	279058	257.94	1977	265.25	261.46	280.8
457	278657	255.9	1977	265.19	257.89	161.7
456	278111	258.19	1977	265.09	260.3	231.8
455	277462	257.1	1977	264.99	259.11	211.4
454	276767	254.73	1977	264.92	259.14	262.8
453	276524	256.99	891	264.87	260.52	78.4
452	276329	254.9	891	264.83	258.38	71.3
451	276053	252.4	891	264.83	257.24	115.1
450	275705	257.79	891	264.77	259.35	97.7
449	275400	258.2	891	264.73	260.26	131.8
448	275102	258.27	372	264.71	260.61	108.1
447	274631	256.2	1458	264.39	261.14	144.9
446	274423	251.8	1977	264.43	255.31	149.6
445	273869	255.8	1977	264.31	258.24	140.4
444	273425	255.75	1977	264.24	257.44	118
443	273081	257.4	1977	264.14	259.02	154.1
442	272928	258	1977	264.11	259.54	191.8
441	272582	255.06	1977	263.93	258.03	94.6
440	272039	256.69	1977	263.77	258.83	201.3
439	271342	257.29	1977	263.48	259.02	185
438	270939	257.51	1977	263.34	259.24	231.3
437	270595	255.07	1977	263.32	257.96	310.4
436	269990	255.73	1977	263.22	258.78	279.5
435	269593	254.75	1977	263.15	258.39	275.2
434	269246	254.1	1977	263.07	258.11	217.7
433	268877	258.28	1977	262.93	259.25	248.2
432	268553	255.83	1315	262.67	260.31	204.7
431	268305	254.31	1315	262.23	258.1	83.6
430	268054	256.56	1315	262.02	259	155.8
429	267648	256.22	1315	261.81	259.61	383.7
428	267116	256.2	1315	261.52	258.62	215
427	266900	255.5	1315	261.43	258.36	238.1

Table F-7
Surface Water Model Output: 2,000 cfs release (Page 4 of 15)

Main Channel 2,000cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
426.5	266764	255	1315	261.4	257.75	238.4
426	266560	257.2	1977	261.2	258.08	189.1
425	266555	257.4	1977	261.2	258.43	263.1
424	266524	258.53	1977	260.95	258.97	264.9
423	266519	258.7	1977	260.44	259.08	240
422.75	266450	255.7	1931	258.62	257.03	327.4
422.5	266445	255.7	1931	258.56	256.99	312.6
422	266283	254.59	1931	257.84	256.23	319.9
421.75	266278	254.46	1931	257.83	256.2	332.9
421	265903	248	1931	257.62	251.34	127.4
420	265605	250.87	969	257.59	253.4	163.6
419	265274	251.64	969	257.41	254.01	111.5
418	265024	252.53	969	257.18	253.68	120.2
417	264503	247.96	1931	257.18	249.56	176.9
416	263857	249.41	1931	257.45	252.03	235
415	263157	249.3	1503	257.11	254.06	149.1
414	262848	250.7	1503	257.13	252.12	232.8
413	262344	246.35	1503	257.12	248.79	220.4
412	261844	242.91	1503	257.1	246.75	152.6
411	261498	244.9	1503	257.09	248.99	190.7
410	261243	243.33	420	257.1	248.88	387.2
409	260951	245	420	257.1	251.58	252.1
408	260784	244.05	420	257.1	250.23	266
407	260462	242.48	420	257.1	250.36	269.3
406	260150	242.59	420	257.1	249.34	265.8
405	259931	241.05	1503	257.09	248.78	382.1
404	259596	245.9	1503	257.08	250.68	295.8
403	258984	239.6	1931	257.08	246.79	450.2
402	258238	244.7	1931	257.07	247.32	274.3
401	257888	236.86	1931	257.07	241.77	491.6
400	257682	238.15	1931	257.07	242.06	416.3
399	257058	241.1	1931	257.07	246.13	279.3
398	256890	242.4	1931	257.06	246.69	220
397	256885	242.39	1931	257.06	246.57	211.1
396	256867	242.3	1931	257.06	246.93	213.3
395	256862	241.9	1931	257.06	246.81	222.1
394	256750	245.5	1931	257.05	250.25	288.3
393	256549	244.4	1931	257.05	248.79	382.3
392	256228	237.4	1565	257.06	242.53	504.2
391	255716	237	1565	257.06	241.39	739.3
390	255485	242.4	1565	257.05	247.82	233.3
389	254601	239.3	1565	257.05	245.93	422.1
388	254139	244.1	1931	257.04	248.34	527.3
387	253977	247.86	1931	254.97	248.15	27.9
384	253898	247.17	1931	252.66	247.2	26.7
383	253782	244.3	1931	250.46	247.38	109.7
382	253695	245.76	1931	250.18	247.21	183.2
381	253384	238.07	1931	250.24	242.69	215.9
380	252888	237.46	1931	250.23	241.17	227.6
379	252548	238.8	1931	250.16	243.01	159.6
378	252267	239.19	379	250.18	244.87	180.8
376	251943	242.77	238	250.17	246.13	79.1
375	251799	242.15	238	250.17	244.94	77.6
374	251420	234.82	1790	250.17	240.44	620.8
373	251189	243.58	1790	249.74	246.78	147.2
372	250939	242.3	1790	249.23	244.76	89.3
371	250742	241.8	1790	248.9	244.67	93.6
370	250507	239.22	1931	249.04	241.39	164.1
369	250198	236.86	1931	248.93	243.08	137.2

Table F-7
Surface Water Model Output: 2,000 cfs release (Page 5 of 15)

Main Channel 2,000cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
368	249901	235.6	1931	248.94	239.13	132.4
367	249603	236.1	1931	248.91	239.45	131
366	249414	244.8	1931	248.81	245.35	210.8
365	249195	240.3	1931	248.77	244.79	301.4
364	248927	239.38	1931	248.65	243.01	129.7
363	248421	239.1	1931	248.52	242.31	177.2
362	247824	238.4	1931	248.45	240.83	153.1
361	247273	240.1	1931	248.31	244.1	232.4
360	246628	240.3	1931	248.06	243.72	203.1
359	246322	242.32	1931	247.68	243.8	114.9
358	245928	241.5	1153	246.69	244.24	65.2
357	245536	241.05	1153	246.25	243.79	216.5
356	245238	238.42	1153	246.15	242.71	207.8
355	244883	238.65	1153	246.07	241.72	176.6
354	244514	238.7	1931	245.86	242.21	184.8
353	244258	235.05	1931	245.72	237.68	77.4
352	243561	238.35	1931	245.48	240.21	137.7
351	243113	238.2	1931	245.34	239.78	151.8
350	242668	235.95	1931	245.27	238.13	144.4
349	242370	239.09	1931	245.21	241.55	296.6
348	241878	236.73	1931	245.09	239.99	208.6
347	241475	237.6	1365	245	239.53	160.8
346	241329	239.6	1365	244.9	241.03	130.7
345	241114	240.35	1931	244.59	241.74	202
344	240731	239.29	1931	242.41	239.81	99.3
343	240315	233.83	1931	242.09	236.71	99.8
342	239969	236.6	1931	240.58	238.15	125.2
341	239711	227.6	1931	240.76	233.67	82.2
340	239442	231.45	928	240.58	238.46	135.7
339	239213	235.63	928	240.08	237.53	103
338	238880	232.79	1931	239.39	236.69	193.6
337	238685	232.97	1931	239.04	234.91	118.2
336	238437	234.05	1931	238.64	235.41	150.1
335	238262	232.28	1931	238.33	234.57	124
334	237879	231.36	1931	238.25	232.91	173.2
333	237628	227.97	1931	238.14	231.19	107.1
332	237280	230.66	1931	237.74	232.6	84.7
331	236975	231.01	1931	237.3	233.48	117.2
330	236828	230.6	1931	237.37	232.84	213.1
329	236633	230.2	1931	237.3	232.6	184.4
328	236090	225.9	1931	237.21	230.39	167.6
327	235591	226.57	1931	237.12	228.87	116.8
326	235047	226.5	1911	237.05	230.29	157.7
325	234560	225.76	1911	236.99	229.99	186.5
324	234302	224.44	1931	236.99	228.82	215
323	234151	227.75	1931	236.97	231.02	225.1
322	233956	228.1	1931	236.86	232.61	188.4
321	233658	228.21	1931	236.78	231.65	185.3
320	233151	223.4	1931	236.73	227.01	118.9
319	232653	222.8	1931	236.68	227.31	116.9
318	231994	227.06	1931	236.61	229.18	150.8
317	231549	230.84	1931	236.4	231.63	127.1
316	231203	228.1	1931	236.32	230.45	136.1
315	230793	230	1198	236.21	231.66	122.2
314	230547	229.1	1198	236.11	231.55	112.5
313	230245	230.7	1198	235.77	232.21	76.6
312	229990	229.5	1198	235.61	230.98	95.1
311	229745	228.2	1198	235.54	229.98	94.5
310	229402	228.87	1198	235.46	231.12	146

Table F-7
Surface Water Model Output: 2,000 cfs release (Page 6 of 15)

Main Channel 2,000cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
309	229058	225.3	1198	235.37	229.84	113.9
308	228862	227.4	1198	235.22	229.64	72.5
307	228661	228.28	1198	235.15	230.16	92.5
306	228417	227.9	1931	234.78	230.16	66.7
305	228081	227.5	1931	233.92	230.2	103.2
304	227791	225.5	1931	233.97	227.13	117.1
303	227429	227.1	1931	233.55	229.42	105.3
302	227142	226.4	1931	233.43	227.49	105.4
301.2	226829	226.62	1931	233.02	228.77	109
301.1	226810	227.85	1931	232.84	229.09	103
301	226790	226.9	1931	232.8	228.8	94.4
300	226446	226.1	1931	232.68	227.2	123.2
299	225943	223.31	1931	232.62	225.4	130.4
298	225544	226.35	1931	232.39	227.39	112.6
297	225346	226.14	1931	231.57	227.69	72.9
296	224852	225.3	1931	231.02	226.65	123.9
295	224599	216.98	1931	231.12	221.94	197.3
294	224349	224.6	1931	230.75	226.2	82.2
293	224096	224.42	1931	230.42	226.23	101.3
292	223808	220.94	1931	230.46	224.42	185.2
291	223543	222.28	1931	230.36	226.24	217.6
290	223285	218.9	1931	230.31	224.45	167.2
289	223117	220.13	1931	230.23	225.72	199.7
288	222706	215.77	1931	230.26	221.07	243.3
287	222311	211.23	1931	230.25	215	177.1
286	221888	223	1931	230.25	227.22	173.8
285	221698	216.22	1931	230.25	221.44	147.2
284	221298	219.57	1931	230.22	224.46	182.6
283	220998	223.98	1931	229.66	227.55	180.2
282	220794	214.8	1931	229.95	220.33	262.8
281	220553	224.1	1931	229.88	226.5	268.7
280	220373	225.07	1931	229.77	227.08	292.3
279	220234	219.46	1931	229.77	224.39	274.2
278	220033	218.3	1931	229.75	221.95	193.8
277	219797	222.02	1931	229.69	224.9	106.3
276	219599	222.91	1931	229.52	224.62	69.9
275	219350	221.24	1931	228.98	223.42	62.3
274	219100	223.01	1931	228.58	224.14	83.8
273	218852	220.76	1931	228.15	222.09	62
272	218554	222	1931	227.5	223.05	71.1
271	218261	220.4	1931	227.49	222.16	127
270	217684	215.5	1315	227.36	221.03	114.1
269	217401	217.59	1315	227.29	220.05	85.6
268	217109	218.29	1931	227.21	222.28	157.1
267	216754	213.79	1931	227.19	217.69	120.3
266	216455	215.72	1931	227.1	218.59	97.4
265	216058	211.4	1931	227.15	216.79	328.4
264	215834	216.76	1931	227.13	221.95	325.4
263	215568	218.4	1931	227.1	220.68	223.6
262	215313	218.58	1931	226.95	220.08	97.8
261	215111	219.47	1931	226.85	221.12	111.1
260	214881	219.5	1931	226.7	221.57	118.7
259	214875	219.5	1931	226.63	221.86	118.9
258	214861	219.47	1931	226.58	221.74	114.8
257	214855	219.44	1931	226.61	221.64	119.2
256	214612	218.8	1931	226.39	221.69	117.7
255	214012	213.06	1931	226.41	219.14	210.3
254	213608	217.9	1931	226.27	219.94	116.7
253	213411	216.38	1931	226.16	219.98	103.7

Table F-7
Surface Water Model Output: 2,000 cfs release (Page 7 of 15)

Main Channel 2,000cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
252	213059	214.9	1931	226.02	218.83	91.4
251	212711	216.8	1931	225.96	219.07	124.1
250	212419	218.47	1931	225.84	220.01	119
249	212217	217.01	1931	225.48	218.66	54.8
248	211919	215.4	1931	225.59	218.02	143.1
247	211568	215.74	1931	225.54	218.31	127.3
246	211265	215.04	1931	225.43	217.18	87.3
245	210767	215.81	1931	225.31	217.68	99.7
244	210366	215.35	1931	225.24	217.46	110.5
243	209914	215.63	1931	225.16	217.72	112.3
242	209568	215.56	1931	225.05	217.42	72.7
241	208975	215.66	1931	224.99	217.53	157.2
240	208646	215.7	965	224.99	218	139.4
239	208058	215.7	965	224.96	218.01	149.4
238	207766	215.2	1931	224.96	217.95	495.2
237	206998	216.3	1931	224.89	219.14	107.7
236	206644	212.4	1931	224.88	214.71	131.3
235	206090	213.27	1931	224.84	217.65	186.1
234	205389	211.1	1931	224.81	214.93	165.9
233	204791	209.67	1931	224.79	214.23	153.6
232	204361	214.83	1931	224.59	221.69	221.1
231	204358	214.8	1931	224.52	218.3	92.3
230	204342	214.5	1931	224.52	217.93	85.8
229	204338	214.49	1931	224.54	222.2	316.9
228	204275	213.76	1886	224.54	221.1	314.4
227	204270	213.5	1886	224.53	221.07	306.1
226	204174	212.38	1886	224.21	221.81	199.8
225	204169	212.32	1886	224.12	217.81	67.1
224	204026	209.24	1886	224.24	214.79	145.5
223	203806	217.2	1886	223.54	219.05	66.3
222	203466	212.5	1535	223.74	218.44	157.5
221	203265	213.73	1535	223.71	214.9	98.7
220	202914	210.7	1535	223.69	213.04	92.4
219	202616	211.93	1535	223.66	214.58	97
218	202221	215.54	1535	223.48	216.96	71.4
217	201932	215.72	1535	223.23	216.87	61.7
216	201639	213.86	1535	223.24	215.83	94
215	201191	213.71	1535	223.21	215.62	133.3
214	200608	212.4	1535	223.17	214.4	121.9
213	200164	209.95	1535	223.15	213.13	120.4
212	199865	215.61	1535	222.89	216.63	31.8
211	199573	215.7	1535	222.4	217.11	38.3
209	199076	212.6	1535	222.38	214.51	88.6
208	198682	210.82	1886	222.35	212.39	108.4
207	198239	211.2	1886	222.34	212.94	160.8
206	198090	208.52	1886	222.19	212.52	62.6
205	197842	209.1	1886	222.23	211.69	98.4
204	197447	212.88	1886	222.2	214.19	133.3
203	197097	212.5	1886	222.11	214.78	98.9
202	196784	213.7	1886	221.87	215.68	69.1
201	196483	212.7	1886	221.78	214.2	52.1
200	196186	212.4	1886	221.64	214.06	54
199	195789	211.49	1886	221.55	212.77	60.3
198	195263	213.49	1886	221.15	215.2	37.6
197	194976	211.48	1886	221.15	213.68	102.8
196	194732	211	1886	220.98	213.7	55.6
195	194341	214.72	1886	220.52	215.58	77.4
194	193991	213	1886	220.38	214.7	76.8
193	193718	209.02	1886	220.38	213.62	194.9

Table F-7
Surface Water Model Output: 2,000 cfs release (Page 8 of 15)

Main Channel 2,000cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
192	193166	208	1886	220.36	209.53	132.4
191	192670	203.63	1886	220.34	207.26	110
190	192365	203.37	1886	220.35	207.96	281.7
189	191966	206.19	1886	220.34	208.3	174.5
188	191772	208.97	1886	219.91	212.37	52.6
187	191766	208.9	1886	219.74	211.91	43.6
186	191749	208.85	1886	219.76	210.19	39.9
185	191743	208.5	1886	219.8	209.92	43.4
184	191516	205	1886	219.93	207.38	172.8
183	191329	207.01	1886	219.92	209.13	156
182	190639	207.5	1886	219.85	209.59	100.3
181	190050	207.14	1886	219.84	209.43	148.5
180	189458	213.98	1886	219.62	214.65	110.5
179	189351	212.8	1886	219.16	214.18	63.7
178	188980	209.6	1886	218.7	213.05	69.9
177	188823	213	1886	218.57	213.65	94.5
176	188423	210.2	1886	217.88	212.67	67.7
175	188095	206.1	1886	218.02	209.82	130.4
174	187966	210.25	1886	217.9	213.06	130.7
173	187412	204.7	1886	217.96	206.51	189.3
172	187166	207.43	1581	217.8	211.63	72.3
171	186873	208.9	1581	217.73	211.63	110.2
170	186469	209.7	1581	217.54	212.01	92.6
169	186219	205	1581	217.55	208.31	94.1
168	185779	204.05	1581	217.56	206.92	173.2
167	185227	204.53	1581	217.54	206.76	137.2
166	184933	210.05	1886	217.41	212.52	113.2
165	184732	206.76	1886	217.45	209.12	182.8
164	184333	206.54	1886	217.39	209.01	116.5
163	183583	206.9	1886	217.31	209.41	135.1
162	183086	206.38	1886	217.28	208.58	151.2
161	182636	206.77	1886	217.22	208.15	108.8
160	182330	208.55	1886	217.15	211.98	169.7
159	182065	208.95	1886	216.93	213.23	151.1
158	181710	207.15	1886	216.77	208.91	83.2
157	181263	209.57	1886	216.66	210.62	125.5
156	180815	210.31	1886	216.28	210.77	86.3
155	180415	208.79	1886	215.44	209.49	51.8
154	180019	206.58	1886	215.11	208.56	63.2
153	179725	205.39	1886	215	207.57	73.1
152	179125	203.49	1886	214.91	206.67	107.1
151	178325	206.8	1886	214.77	208.21	143.5
150	177825	207.2	1886	214.52	208.45	93.5
149	177177	201.9	1886	214.46	204.53	96.2
148	176628	206.34	1886	214.31	208	99.5
147	176227	206.27	1886	213.99	207.5	64.3
146	175731	206.27	1886	213.5	206.98	55.9
145	175236	206.19	1886	213.37	207.46	81.8
144	174838	202.59	1886	213.31	204.88	120.2
143	174263	206.44	1886	213.13	208.46	129.8
142	173972	204.7	1886	212.84	206.43	69.3
141	173483	204.4	1886	212.59	205.96	87.3
140	173082	205.02	1886	212.35	206.16	84.5
139	172637	201.05	1886	212.38	204.17	152.3
138	172088	202.73	1886	212.35	204.41	180.8
137	171938	203.3	1886	212.28	204.96	102.7
136	171380	204.9	1886	212.13	205.81	118.4
135	170887	205.12	1886	211.7	206.03	71.1
134	170391	201.48	1886	211.43	203.9	72.4

Table F-7
Surface Water Model Output: 2,000 cfs release (Page 9 of 15)

Main Channel 2,000cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
133	169987	200.42	1886	211.45	201.81	107.4
132	169539	203	1721	211.34	205.35	115.6
131	169067	202.96	1721	211.07	205.61	96.1
130	168394	202.44	1721	210.78	204.46	94.2
129	167841	203.52	1721	210.52	204.87	96.4
128	167342	202.63	1721	210.3	204.33	90
127	166917	203.07	1721	210.12	204.88	114
126	166639	202.43	1721	210.07	204.05	140.3
125	166189	199.42	1721	209.96	202.18	92
124	165821	199.96	1721	209.92	202.66	128.4
123	165180	201.05	1721	209.84	202.82	139.7
122	164682	201.11	1695	209.65	203.07	87.7
121	164377	202.68	1695	209.51	204.36	109.4
120	164088	201.49	1695	209.24	203.83	83.7
119	163696	200.5	1695	208.68	202.74	57.1
118	163396	199.2	1860	208.58	202.11	78.8
117	162997	201.2	1860	207.81	202.03	46
116	162604	200.1	1860	207.88	201.85	131.3
115	162361	200.9	1860	206.8	202.08	50.6
114	162061	198.77	1860	206.65	200.27	64
113	161813	197.63	1886	206.71	199.33	103.1
112	161337	196.52	1886	206.65	199.19	133.7
111	161191	197.7	1886	206.54	200.11	103.2
110	160941	197.8	1886	206.45	199.14	90.3
109	160637	198.7	1886	206.36	200.07	115.8
108	160292	198.02	1886	206.3	200.13	141.8
107	159743	195.54	1886	206.27	197.6	162.2
106	159348	197.03	1886	206.22	198.5	140
105	159205	195.76	1886	206.14	198.1	92
104	158951	193.9	1886	206.1	196.46	84.6
103	158603	197.14	1886	206.04	199.03	118.8
102	158255	197.85	1886	205.81	199.93	80.8
101	158004	197.43	1886	205.72	199.48	102.2
100	157708	198.09	1886	205.58	199.76	107
99	157307	194.75	1886	205.41	198.68	93.1
98	156960	199.28	1886	204.92	200.28	79.9
97	156708	198.43	1886	204.76	201.38	186.2
96	156557	199.26	1886	204.5	202.05	220.5
95	156307	198.28	1886	204.17	200.78	178.9
94	156189	196.25	1886	204.07	199.71	138.9
93	156066	192.04	1886	204.1	196.41	149.2
92	156058	191.63	1886	204.1	196.32	151.8
91	156018	189.8	1886	204.1	195.18	153.8
90	156013	189.6	1886	204.1	194.98	154
89	155842	195.68	1886	204.09	198.05	236.2
88	155692	197.21	1886	203.76	198.25	74.2
87	155391	197.27	1886	203.51	198.39	93.1
86	155088	196.09	1886	203.32	198.25	118.4
85	154950	196.73	1886	202.85	200.65	177.8
84	154657	196.5	1886	201.93	198.07	100
83	154313	195.07	1886	201.71	196.46	112.2
82	154015	191.2	1886	201.67	195.04	136.1
81	153765	193.2	1886	201.64	198.11	369.7
80	153657	196.37	1886	201.47	199.52	334.6
79	153414	196.48	1886	199.86	198.54	226.3
78	153064	188.78	1886	197.82	193.92	352.1
77	152762	193.36	1886	197.37	195.18	413.2
76	152412	191.1	1886	196.01	194.43	187.9
75	152260	190.62	1886	195.99	192.07	150

Table F-7
Surface Water Model Output: 2,000 cfs release (Page 10 of 15)

Main Channel 2,000cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
74	151914	189.16	1886	202.96	194.18	281.8
73	151278	183.6	1886	202.96	188.75	293.8
72.5	151155	186.95	1886	202.95	190.26	163.6
72	150835	180.5	1886	202.95	188.03	267.9
71	150533	175.5	1886	202.96	184.04	352.1
70	150256	176.87	1886	202.96	185.48	496.5
69	149957	182.45	1886	202.95	186.46	205.1
68	149505	196.2	1886	202.7	196.9	81.1
67	149257	196.38	1886	202.48	196.83	80.9
66	148961	195.87	1886	202.11	196.76	76.2
65	148666	193.68	1886	201.85	195.14	60.9
64	148363	191	1886	201.92	193.22	114.3
63	148068	191.03	1886	201.91	193.71	156.6
62	147617	186.44	1886	201.89	191.3	138
61	147227	187.1	1886	201.88	190.28	138.4
60	146680	190.77	1886	201.86	192.81	150.4
59	146331	189.3	1850	201.7	193.95	93.1
58	145981	192.8	1850	201.6	194.24	99
57	145534	192.11	1850	201.6	193.3	184.9
56	145135	189.72	1850	201.6	191.16	175.7
55	144731	191.4	1850	201.6	193.48	194.4
54	144335	193.45	1413	201.4	194.64	84.5
53	143984	190.63	1413	201.3	193.36	71.1
52	143683	192.09	1413	201.2	193.97	89.4
51	143290	193.54	1413	201.1	195.04	103.4
50	142936	193.5	1413	200.9	194.61	78.9
49	142588	192.99	1413	200.7	194.37	78.5
48	142340	192.42	1413	200.6	193.98	55.8
47	142089	192.5	1578	200.4	194.06	82.4
46	141837	193.7	1578	200.2	194.48	76.5
45	141536	191.56	1578	200	193.88	82
44	141285	192.9	1578	199.7	194.11	73.1
43	141092	192.61	1578	199.7	194.15	103.3
42	140749	192	1835	199.6	193.15	62.1
41	140441	191	1835	199.3	192.51	53.7
40	140158	190.73	1835	199.2	194.33	172.4
39	139750	190.65	1835	198.8	192.22	61
38	139447	190.85	1835	198.7	192.29	118.8
37	138996	188.41	1835	198.4	190.15	76.2
36	138544	185.61	1835	198.4	187.73	95.9
35	138193	188.36	1835	198.3	191.32	174.7
34	138036	188.6	1835	198.2	192.19	137.6
33	137829	190.3	1835	198	191.53	97.9
32	137578	189.99	1835	197.9	190.65	68.6
31	137228	185.8	1835	197.7	189.77	77.8
30	136928	186.2	1850	197.6	188.96	108.7
29	136584	189.47	1850	197.4	190.68	65.8
28	136288	189.8	1601	197.1	191.32	57.9
27	136044	188.83	1601	196.8	190.38	63.5
26	135719	190.31	1601	196.2	191.09	67.8
25	135418	187.07	1601	196.1	189.09	90.9
24	135149	187.84	1601	196	189.5	93.5
23	134683	187.9	1601	195.7	189.56	94.1
22	134181	187.23	1850	195.5	188.81	97
21	133632	186.81	1850	195.3	188.45	146.3
20	133132	187.26	1850	195.2	188.66	134.1
19	132682	184.79	1850	195.2	186.87	122.5
18	132385	188.3	1850	195.1	189.55	132.7
17	132086	190.13	1850	194.9	190.97	108.4

Table F-7
Surface Water Model Output: 2,000 cfs release (Page 11 of 15)

Main Channel 2,000cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
16	131741	187.09	1850	194.6	188.47	91.4
15	131359	189.35	1850	194.4	190.21	61
14	130944	185.68	1850	194.2	187.69	73.3
13	130585	188.17	1850	193.9	189.4	84.3
12	130263	188.92	1850	193.8	189.38	96.3
11	130129	187.2	1850	193.8	189.28	109.2
10	129978	183.54	1850	193.7	187.43	125.9
9	129640	184.9	1850	193.6	186.78	107.4
8	129236	184.4	1850	193.3	186.52	64
7	128831	183.34	1850	193	186.74	91.4
6	128486	186	1850	192.8	187.23	110.9
5	128084	186.2	1850	192.2	187.21	71.1
4	127787	183.75	1850	192.2	185.19	95
3	127443	184.17	1850	192.1	185.98	113
2	127094	185.7	1850	191.9	186.72	75.8
1	126743	183.49	1850	191.6	184.27	71.1
A221	126279	185.7	1850	191.42	187.81	203.3
A220	125889	184.28	1850	190.94	188.51	281.7
A219	125088	182.14	1850	190.52	184.39	130.5
A218	124298	184.49	1850	190.25	186.04	196.2
A217	123676	185.1	1850	189.54	186.95	207.1
A216	122984	180.55	1850	189.28	183.62	168.1
A215	122059	179.44	1850	189.15	181.32	136.7
A214	121057	178.43	1850	189.02	182.37	218.9
A213	120291	184.06	1850	188.84	185.34	164.7
A212	119696	180.59	1850	188.43	183.15	139.7
A211	118764	178.9	1850	188.08	182.56	155.5
A210.5	118416	177.33	1850	188.03	180.31	129
A210	117893	182.37	1850	187.93	185.37	473.4
A209	117286	180.54	1850	187.7	184.83	421.8
A208	116395	179.8	1850	187.51	183.5	370.3
A207	116012	182.03	1850	187.38	184.14	281.4
A206	115517	182.9	1850	187.22	183.95	360
A205	114963	180.71	1850	187.03	184.69	520.7
A204	114482	180.12	1850	186.79	182.74	252.7
A203.5	113819	181.15	1850	186.41	184.19	405.2
A203	113479	181	1850	186.18	183.31	350.5
A202	113154	176.85	1850	186.12	179.6	147.8
A201	112433	179.84	1850	186.05	181.81	355.7
A200	111913	180.1	1850	185.92	181.76	227.8
A199	111445	180.2	1850	185.8	183	466
A198	110945	177.72	1850	185.58	181.04	184.5
A197.5	110558	180.08	1850	185.49	181	225.8
A197	110187	179.69	1850	185.42	180.79	260.6
A196	109779	179.07	1850	185.29	180.99	204.2
A195	109179	178.39	1850	185.08	181.68	305.4
A194	108693	180.1	1850	184.63	181.99	212.4
A193	108336	180.6	1850	184.28	181.7	310
A192	107336	178.93	1850	184	180.21	371.5
A191	106945	181.26	957	183.89	181.75	265.9
A190	106441	180.03	957	183.41	181.29	161.4
A189	105856	176.23	957	182.96	180.04	164.6
A188	105518	175.8	1850	182.87	179.36	356.4
A187	105181	178.6	1850	182.65	180.58	337.8
A186	104856	179.42	1740	182.46	179.8	341.1
A185	104634	179.2	1740	182.37	179.61	234
A184	104252	178.9	1740	182.11	179.63	122
A183	104013	178.03	1740	181.86	179.21	185.1
A182	103149	173	1740	181.32	176.21	91.8

Table F-7
Surface Water Model Output: 2,000 cfs release (Page 12 of 15)

Main Channel 2,000cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
A181	102972	174.02	1740	181.29	176.09	120
A180	102209	169.56	1740	181.05	177.21	222.9
A179	101488	174.59	1740	180.9	176.18	220.2
A178	100849	174.48	1740	180.65	176.09	140.2
A177	99706	173.2	1740	180.44	175.65	246.4
A176	99508	171.17	1740	180.37	174.05	113.8
A175	98648	173.49	1740	180.23	176.04	286
A174	98044	175.39	908	180.05	178.06	238.9
A173	97555	175.1	908	179.77	176.81	189.4
A172	96645	175.3	908	179.56	176.74	296.1
A171	96236	176.74	908	179.38	177.98	348.8
A170	95633	173.3	908	178.75	175.06	93.5
A169	94987	168.3	1740	178.68	171.29	147.6
A168	94613	171.4	1740	178.67	173.57	342.8
A167	93997	173.86	1008	178.56	176.47	291.7
A166	93067	172.95	1008	178.12	175.72	298.1
A165.5	92682	175.96	1008	177.96	176.14	317.5
A165	92397	173.29	1740	177.87	175.38	505
A164	92021	174.29	1740	177.51	175.64	270.7
A163	91799	174.9	1740	177.28	175.49	548.7
A162	91343	174.5	1740	176.98	174.79	496.4
A161	90999	173.78	1740	176.85	174.55	551.1
A160	90592	173.1	1740	176.54	174.11	137.2
A159	90343	169.65	1740	176.48	172.65	219.9
A158	90046	165.27	1740	176.25	168.75	67.6
A157	89541	166.6	1740	176.27	169.17	188.5
A156	89103	170.55	1740	176.23	172.76	418.9
A155	88864	171.11	1740	176.17	173.3	305.4
A154	88500	167.11	1740	176.01	170.36	90.9
A153	87667	168.6	1740	175.84	170.56	206
A152.5	87158	170.89	1422	175.71	172.89	294.2
A152	86770	172.64	1422	175.43	173.49	334.8
A151	86428	172.23	924	175.23	172.94	280.2
A150	85935	170.52	924	174.74	172.31	116
A149	85570	164.79	1740	174.73	168.93	187.9
A148	85279	165.17	1740	174.71	169.69	275.6
A147	84936	164.76	1740	174.6	168.78	127.7
A146	84661	166.5	1740	174.5	169.89	165.1
A145	84239	168.14	1740	174.42	170.83	266.1
A144	83536	170.1	1045	174.25	170.86	97.8
A143	82999	171.74	1045	174.02	172.21	370.9
A142.5	82807	171.4	1045	173.89	172.4	444.7
A142	82530	169.2	1045	173.44	172.14	309.5
A141	82152	169.1	1045	173.04	170.73	241.1
A140	81423	167.91	1045	172.72	169.8	173.9
A139	80928	167.49	1740	172.57	169.48	394.5
A138	80648	169.2	1740	172.22	170.21	238.2
A137	79986	160.25	1740	172.17	166.93	263.5
A136	79448	165.93	1740	172.08	168.57	269.1
A135	79157	167.7	1740	171.97	168.95	268.9
A134	78673	168.99	1740	171.81	169.34	523.9
A133	78206	167.1	1740	171.63	169.08	373
A132	77861	168.56	1740	171.47	169.08	416.1
A131.5	77594	168.81	1740	171.31	169.34	509.8
A131	77391	169.07	1740	171.16	169.13	282.4
A130	76876	165.17	1740	170.6	168.92	449.6
A129	76518	163.86	1740	170.41	167.47	362.3
A128	76216	163.65	1740	170.01	164.9	85.8
A127	75888	165.56	1740	169.89	167.19	327

Table F-7
Surface Water Model Output: 2,000 cfs release (Page 13 of 15)

Main Channel 2,000cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
A126	75649	167.17	1740	169.77	167.42	413.3
A125	75113	163.18	1740	169.53	165.97	238.8
A124	74787	161.9	1740	169.15	165.59	124.7
A123	74100	161.59	1740	168.87	162.86	94.3
A122	73813	164.12	1740	168.82	165.06	222.5
A121	73600	163.32	1740	168.79	164.47	261.3
A120	72856	160.36	1740	168.58	163.16	96.8
A119	72099	160.02	1740	168.41	160.89	102.1
A118	71832	162.37	1740	168.38	163.6	221.2
A117	71213	162.8	1740	168.23	165.2	351.2
A116.5	70994	162.3	1740	168.16	164.73	255.2
A116	70750	163.09	1740	168.01	163.74	92
A115.5	70402	163.13	1740	167.74	163.75	149.3
A115	70021	162.71	1740	167.62	163.77	241.6
A114	69531	162.8	1740	167.49	163.75	271.3
A113	69201	162.61	1740	167.35	164.77	199.3
A112.5	68712	162.36	1740	167.07	164.63	375.3
A112	68244	159.45	1740	166.86	160.71	70.6
A111	67799	160.72	1740	166.71	161.42	155.1
A110	67143	160.7	1740	166.57	161.15	124.2
A109	66821	159.6	1740	166.49	160.53	116
A108	66181	159.12	1740	166.33	160.85	159.1
A107	65415	160.53	1740	166.2	161.31	221
A106	65226	159.59	1740	166.17	161.07	149.5
A105	64583	160.13	1740	166.03	161.15	147.8
A104	63837	161	1740	165.88	161.51	215
A103.5	63350	161	1740	165.79	161.79	249.8
A103	63051	160	1740	165.75	160.69	93.7
A102	62778	159.41	1740	165.7	160.12	92
A101	62496	159.5	1740	165.58	160.42	131.8
A100	62202	159.2	1740	165.51	160.04	135.5
A99	61382	160.46	1740	165.32	161.1	241.5
A98	60612	159.47	1740	165.2	160.08	114.1
A97	59770	157.07	1740	165.05	158.46	139.1
A96.6	59434	158.7	1450	164.88	158.7	84.5
A96.5	59433	158.7	1450	164.86	158.7	80
A96.4	59374	158.7	1450	164.85	158.7	80
A96.3	59373	158.7	1450	164.59	160.7	80
A96.2	59371	158.7	1450	164.59	160.7	80
A96.1	59370	158.7	1450	164.68	158.7	80
A96	59357	158.7	1450	164.69	158.7	84.5
A95.1	59355	160.7	1450	164.43	160.7	84.5
A95	59354	158.7	1450	164.52	158.7	84.5
A94	59122	158.51	1450	164.52	159.41	191
A93	58131	156.8	1450	164.32	158.49	124
A92	57203	155.7	1450	164.09	157.67	93.6
A91.5	56904	157.91	1450	164.04	158.56	108
A91	56645	158.58	1450	164	159.12	105.2
A90	55840	158.18	1450	163.8	159.17	151.3
A89	55513	158.44	1450	163.73	160.38	291.4
A88	54891	158.9	1450	163.65	159.41	303.5
A87	54454	157.5	1450	163.57	159.57	237.3
A86	54264	157.94	1450	163.47	159.57	185.6
A85	53437	157.2	1450	163.22	159.55	253.6
A84	53227	156.13	1450	163.15	159.44	222.7
A83	53002	157.45	1450	163.03	159.57	179.3
A82	52546	157.96	1450	162.82	159.44	222.4
A81.5	52218	158.18	1450	162.72	159.23	209.7
A81	51890	158	1450	162.62	159.39	280.4

Table F-7
Surface Water Model Output: 2,000 cfs release (Page 14 of 15)

Main Channel 2,000cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
A80.5	51725	158.24	1450	162.59	159.1	269.4
A80	51265	158.27	1450	162.45	159.22	273.7
A79	50478	156.39	1450	162.11	157.03	119.7
A78	49585	155.46	1450	161.79	156.58	117.4
A77	48601	156.6	1450	161.5	157.26	181.5
A76	47880	154.56	1450	161.25	156.74	153.3
A75	47590	156.98	1450	161.16	157.88	276.3
A74	47218	155.3	1450	161.08	156.06	117.2
A73	46806	155.8	1450	160.97	156.27	160.5
A72	46036	155.65	1450	160.85	156.65	285
A71	45670	141.13	1450	160.87	148.4	393.9
A70	44792	153.53	1450	160.81	154.74	119
A69	43940	152.01	1450	160.65	154.02	113
A68	43191	153.9	1450	160.52	155.16	170.2
A67	42388	154.4	1450	160.38	155.5	149.2
A66.5	41991	151.5	1450	160.24	155.71	153.9
A66	41729	151.83	1450	160.17	153.62	115.8
A65	41170	154.58	1450	160.06	155.22	109.2
A64.5	40870	153.67	1450	159.98	154.91	111
A64	40656	152.7	1450	159.92	154.94	138.2
A63	39956	153.67	1450	159.73	155.94	248.5
A62	39357	154.44	1450	159.58	155.22	157
A61	38776	153.6	1450	159.43	155.35	209.1
A60	38496	153.64	1450	159.37	155.5	215.9
A59.5	38189	154.21	1450	159.33	154.82	88.3
A59	37926	152.77	1450	159.3	155.02	169.3
A56	37358	152.6	1450	159.19	154.73	262.9
A55	37095	153.52	1450	159.1	154.56	159.8
A53	36876	152.37	1450	159.06	154.28	235.9
A52	36586	152.18	1450	159	154.83	244.5
A51	36037	150.13	1450	158.86	153.82	182.9
A50	35498	147.5	1450	158.73	154.57	238.6
A49	35063	150.4	1450	158.62	153.37	166.3
A48	34458	150.99	1450	158.46	153.04	111.1
A47.5	34155	151.93	1450	158.41	152.68	123
A47	34009	152	1450	158.39	152.72	180
A46	33388	150.63	1450	158.31	152.69	171.3
A45	33043	147.9	1450	158.2	152.32	109.2
A44	32442	149.87	1450	157.92	151.98	63.4
A43.5	32069	148.5	1450	157.85	150	56.2
A43	31811	144.1	1450	157.8	149.4	49.7
A42	31309	146.9	1450	157.7	148.29	64.7
A41	30677	145.68	1450	157.5	147.96	58.5
A40	30095	148.3	1450	157.21	149.37	58.7
A39	29482	147.7	1450	156.98	150.2	89.4
A38	29019	146.76	1450	156.79	148.93	52.5
A37	28607	143.55	1450	156.73	148.46	105.5
A36	28345	147.01	1450	156.64	148.07	66.9
A35	27968	146.34	1450	156.59	148.56	94
A34	27805	143.82	1450	156.55	148.56	89.1
A33	27442	146.43	1450	156.49	149.26	103.9
A32	27162	147.1	1450	156.46	149.94	137.2
A31	26952	144.08	1450	156.36	148.29	68.5
A30	26636	147.81	1450	156.26	150	102.9
A29	26190	148.8	1450	156.17	150.53	150.2
A28	25902	145.75	1450	156.08	149.18	95.8
A27	25432	146.51	1450	156	150.53	130.1
A26	24624	148.41	1450	155.79	149.86	118.1
A25	23909	147.46	1450	155.6	150.38	141.5

Table F-7
Surface Water Model Output: 2,000 cfs release (Page 15 of 15)

Main Channel 2,000cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
A24	23156	147.17	1450	155.4	149.59	127.5
A23	22682	148.04	1450	155.3	148.88	123.3
A22	21507	144.5	1450	155	149.34	119.7
A21	20883	147.18	1450	154.85	148.94	124.8
A20	19874	149.24	1450	154.62	150	179.6
A19	18311	147.68	1450	154.3	150.6	273.6
A18	17115	148	1450	154.03	149.46	182.9
A17	15912	143.4	1450	153.83	147.41	135.4
A16.5	15165	146.25	1450	153.75	149.13	247.6
A16	14622	144	1450	153.7	147.22	186.1
A15	13586	143.81	1450	153.62	147.41	185
A14.5	12869	146.46	1450	153.55	148.75	259.9
A14	12428	146.2	1450	153.51	148.47	254.9
A13.5	11673	145.5	1450	153.44	148.41	231.6
A13	11130	144.7	1450	153.38	147.52	194
A12.5	10303	145.08	1450	153.31	148.9	296.3
A12	9645	143.5	1450	153.25	146.45	165.7
A11	8449	144.65	1450	153.16	148.21	268.4
A10	7630	146.3	1450	153.11	147.52	274.3
A9.5	6824	143.83	1450	153.08	147.73	324.2
A9	6326	144	1450	153.06	146.88	272.5
A8	5008	146.28	1450	153	148	335.9
A7	3857	146.52	1450	152.93	147.51	247.6
A6	2634	147.42	1450	152.82	149.78	509
A5	1887	143.2	1450	152.75	150.44	849.5
A4	1445	136.1	1450	152.71	144.45	189
A3	1026	136.91	1450	152.7	143.73	169.5
A2	745	140.9	1450	152.7	147.21	391.2

Table F-8
Surface Water Model Output: 4,000 cfs release (Page 1 of 15)

Main Channel 4,000cfs (Project Conditions)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
596	329920	289.2	3977	306.78	297.59	140.8
595	329666	288.4	3977	306.55	295.9	89.5
594	329412	284.05	3977	306.57	294.87	159.1
593	329113	281.19	3977	306.52	294.31	154.3
592	328819	283.15	3977	306.5	295.27	156.5
591	328318	292.35	3014	306.47	297.96	206.8
590	328163	295.3	3014	306.42	300.33	222.8
589	327909	295.94	1332	306.4	299.98	146.1
588	327748	296.7	2295	306.33	299.43	151.9
587	327252	296.14	2295	306.22	299.23	148
586	326880	295.1	3977	305.89	300.85	218.8
585	326874	295.04	3977	305.87	300.75	207.8
584	326840	294.4	3977	305.84	300.38	205.7
583	326835	294.35	3977	305.84	300.34	209.2
582	326648	295.1	3977	305.81	299.23	239.2
581	326495	296.76	3977	305.78	299.8	263.6
580	326342	298.38	3699	303.96	300.09	80.4
579	326097	295.47	3699	303.02	297.58	113.3
578	325800	295.28	3699	302.34	297.2	120.3
577	325350	292.85	3699	302.1	294.59	127.9
576	324850	292.79	3699	301.82	295.03	148.9
575	324348	293.78	3699	301.4	294.55	127.1
574	323902	292.92	3699	300.6	294.6	104.4
573	323500	292.45	3977	300.37	294.25	167.1
572	323050	292.24	3977	299.94	294.22	165.4
571	322548	291.1	3977	299.64	294.16	227.2
570	322353	289.78	3977	299.26	293.59	146.3
569	322060	286	3977	299.29	291.65	200.9
568	321758	287.8	3977	299.19	292.08	199.1
567	321259	290.61	3977	298.83	294.67	267.5
566	320613	290.2	3977	298.2	293.45	234.6
565	319811	291.43	3977	297.38	292.96	238
564	319159	289.5	3977	296.87	291.3	213.1
563	318312	285.33	3977	296.67	288.94	227.2
562	317421	289.68	3977	296.19	292.7	324.4
561	317052	286.65	3977	295.72	289.98	178.9
560	316701	284.52	3977	295.54	288.5	164.4
559	316248	284.26	3977	295.28	288.87	176.1
558	315799	285.41	3977	295	288.48	169.6
557	315349	288.27	3977	294.23	289.98	154.2
556	314744	282.97	3977	294.18	286.46	223.8
555	314400	282.67	3977	294.09	286.31	198.8
554	313800	281.64	3977	294	283.96	173.2
553	313297	282.8	3977	293.88	285.55	173.1
552	312948	281.29	3977	293.82	287.34	284.2
551	312498	281.16	3977	293.8	285.13	310.6
550	312045	283.03	3977	293.75	286.1	321.5
549	311859	284	3977	293.73	286.21	318
548	311517	285.8	3977	293.41	286.75	119.2
547	311269	284.54	3977	293.36	286.28	174.6
546	310965	284.81	3977	293.36	286.2	293.8
545	310365	281.84	3977	293.27	284.84	224.5
544	310118	281.63	3977	293.23	283.36	187.5
543	309480	283.96	3977	293.05	285.79	177.5
542	309088	286.33	3977	292.8	287.19	208.8
541	308789	280.07	3977	292.63	284.91	144.6
540	308489	283.58	3977	292.46	288.21	282.5
539	308094	281.36	3977	292.33	285.51	232.8
538	307697	279.61	3977	292.2	283.35	141
537	307245	281.04	3977	292.1	284.08	178

Table F-8
Surface Water Model Output: 4,000 cfs release (Page 2 of 15)

Main Channel 4,000cfs (Project Conditions)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
536	306746	281.37	3977	291.97	284.06	189.2
535	306345	274.9	3977	291.95	282.56	239
534	305699	280.77	3977	291.87	283.47	237.5
533	305496	280.4	3977	291.84	285.08	297.1
532	305248	279.4	3977	291.79	284.09	230.3
531	304299	278.5	3977	291.64	282.91	212.5
530	303355	282.1	3977	291.49	282.56	163.7
529	303156	282.7	3977	291.4	283.51	119
528	303005	283.04	3977	290.25	284.04	84
527	302998	283.1	3977	289.8	284.04	77.7
526	302977	283.22	3977	288.61	284	75.7
525	302972	283.22	3977	288.73	284.09	82.3
524	302816	282.54	3977	289.02	284.24	176
523	302671	280.7	3977	288.78	284	159.1
522	302380	279.8	3977	288.72	283.67	341.4
521	302129	279.4	3977	288.62	283.17	299.2
520	301584	279.9	3977	288.37	282.77	254.1
519	301187	276.12	3977	288.3	280.92	251.8
518	300041	277.16	3107	288.18	280.26	252.3
517	299293	280.1	3107	288	281.86	193.4
516	298979	279.75	3107	287.53	281.63	90.3
515.9	298968	281.5	3107	286.48	283.18	106.4
515.8	298958	279.7	3107	285.77	281.64	62.1
515	298725	279.96	3107	285.69	282.14	254.8
514	298470	277.9	3107	285.31	279.71	131.3
513	298224	277.5	3107	285.19	280.09	187.6
512	297722	277.3	3107	284.74	278.95	126.9
511	297402	273.2	3977	284.56	278.14	161.9
510	297007	270.5	3977	284.54	276.01	218.7
509	296558	271.66	3977	284.5	274.87	221.3
508	296175	274.83	3727	284.39	279.01	267.4
507	295842	274.36	3727	283.84	277.77	115.8
506	295442	274.6	3727	283.64	276.28	128.3
505	294946	277.03	3727	283.33	278.25	207.6
504	294498	276.3	3727	281.81	277.04	74.9
503	294100	273.9	3727	281.24	275.03	105.9
502	293606	274.35	3727	280.55	275.02	124.8
501	293300	272.3	3977	280.6	274.23	257.4
500.9	293275	272.03	3977	280.78	274.41	256.7
500.8	293250	272.83	3556	280.57	274.2	127.9
500.5	293128	275.06	3556	279.98	275.82	125.5
500	292944	272.14	3556	279.82	274.66	144.8
499	292855	271.99	3556	279.74	274.39	147.3
498	292448	270.34	3556	278.76	271.9	77.6
497	292046	266.62	3556	278.63	270.09	96.3
496	291797	268.8	3556	278.55	270.18	113.9
495	291451	268.32	3556	278.46	269.74	130.3
494	290749	269.17	3556	278.27	270.93	172.9
493	290192	268.4	3556	278.09	271.83	213.8
492	289746	266.85	3556	278.02	269.63	194.5
491	289200	268.96	3556	277.8	270.66	154
490	288854	268.75	3556	277.11	270.21	76.6
489	288546	267.5	3556	276.82	269.57	90.2
488	288380	271.11	3556	276.67	271.75	126.6
487	288144	267.2	3556	276.21	269.61	97.6
486	287840	263.2	3556	276.02	266.51	79.1
485	287548	265.8	3556	275.75	271.02	163.2
484	287042	266.36	3556	275.37	268.13	129.5
483	286530	265.9	3556	275.04	267.32	114.3
482	285999	267	3556	274.86	269.36	201.3

Table F-8
Surface Water Model Output: 4,000 cfs release (Page 3 of 15)

Main Channel 4,000cfs (Project Conditions)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
481	285695	266.68	2745	274.52	269.49	100.9
480	285304	268.4	2745	272.37	270.32	165
479	285034	262.37	3556	272.54	264.82	221.9
478	284669	264.7	3556	272.39	266.11	203.6
477	284519	265.8	3556	272.23	267.69	222.1
476	284290	265.3	3556	271.74	269.18	308.7
475	284109	261.82	3556	271.22	268.54	330.7
474.6	283990	260.66	3556	271.28	266.54	381.3
474.5	283779	264.42	3556	270.78	265.73	155.1
474	283718	263.62	3556	270.8	266.36	289.9
473	283672	264.5	3556	270.56	268.57	425.4
472	283347	262.19	3556	270.27	265.56	272.5
471	283249	260.34	3556	270.24	263.88	206
470	282901	258.14	3556	270.23	261.82	242.2
469	282452	256.2	3556	270.05	261.02	128.1
468	282096	260.3	3977	269.77	263.48	153.5
467	281600	259	3977	269.2	260.66	87.6
466	281204	259.9	3977	269.09	262.15	125.4
465	281002	258.2	3977	269.1	259.64	162.8
464	280801	258.2	3977	269.08	259.99	205.3
463	280549	257	3977	268.98	259.56	155.1
462	280056	258.5	3977	268.75	260.36	131.8
461.5	279897	261.6	3977	268.44	263.44	160.3
461	279752	260.04	3977	267.95	262.22	96.4
460	279355	259.7	3977	267.61	261.41	149.1
459	279253	257.81	3977	267.58	261.09	143.1
458	279058	257.94	3977	267.58	261.48	280.8
457	278657	255.9	3977	267.48	257.89	161.7
456	278111	258.19	3977	267.36	261.23	272.6
455	277462	257.1	3977	267.22	259.11	211.4
454	276767	254.73	3977	267.13	259.35	262.8
453	276524	256.99	1855	267.1	260.52	78.4
452	276329	254.9	1855	267.02	258.38	71.3
451	276053	252.4	1855	267.01	257.73	115.1
450	275705	257.79	1855	266.92	259.35	97.7
449	275400	258.2	1855	266.87	260.39	135.1
448	275102	258.27	795	266.86	261.33	126.1
447	274631	256.2	2917	266.52	261.14	144.9
446	274423	251.8	3977	266.54	255.6	149.6
445	273869	255.8	3977	266.34	258.24	140.4
444	273425	255.75	3977	266.24	257.44	118
443	273081	257.4	3977	266.13	259.02	154.1
442	272928	258	3977	266.1	259.68	191.8
441	272582	255.06	3977	265.88	258.03	94.6
440	272039	256.69	3977	265.65	259.04	201.3
439	271342	257.29	3977	265.27	259.21	185
438	270939	257.51	3977	265.1	259.27	233.1
437	270595	255.07	3977	265.08	257.96	310.4
436	269990	255.73	3977	264.94	258.87	279.5
435	269593	254.75	3977	264.84	258.54	275.2
434	269246	254.1	3977	264.7	258.11	217.7
433	268877	258.28	3977	264.51	259.25	248.2
432	268553	255.83	2438	264.31	260.5	225.9
431	268305	254.31	2438	263.75	259.92	132
430	268054	256.56	2438	263.53	259.23	166.4
429	267648	256.22	2438	263.44	260.11	472.3
428	267116	256.2	2438	263.26	258.66	215
427	266900	255.5	2438	263.19	258.36	238.1
426.5	266764	255	2438	263.16	257.75	238.4
426	266560	257.2	3977	262.93	258.08	189.1

Table F-8
Surface Water Model Output: 4,000 cfs release (Page 4 of 15)

Main Channel 4,000cfs (Project Conditions)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
425	266555	257.4	3977	262.94	258.61	263.1
424	266524	258.53	3977	262.8	259.1	264.9
423	266519	258.7	3977	262.75	259.17	240
422.75	266450	255.7	3931	262.81	257.3	360.3
422.5	266445	255.7	3931	262.81	257.29	360.6
422	266283	254.59	3931	262.78	256.41	353.7
421.75	266278	254.46	3931	262.78	256.39	356.2
421	265903	248	3344	262.71	251.34	127.4
420	265605	250.87	1870	262.72	254.28	200.9
419	265274	251.64	1870	262.66	254.01	111.5
418	265024	252.53	1870	262.65	254.51	120.2
417	264503	247.96	3344	262.63	250.39	195.3
416	263857	249.41	3931	262.69	252.68	258.8
415	263157	249.3	2678	262.61	255.19	197
414	262848	250.7	2678	262.62	252.12	232.8
413	262344	246.35	2678	262.61	248.79	220.4
412	261844	242.91	2678	262.6	248.3	175
411	261498	244.9	2678	262.59	250.5	223.1
410	261243	243.33	1695	262.6	249.24	387.2
409	260951	245	1695	262.6	253.26	350.5
408	260784	244.05	1695	262.6	252.02	343.4
407	260462	242.48	1695	262.59	250.78	281.7
406	260150	242.59	1695	262.59	249.34	265.8
405	259931	241.05	2678	262.59	250.14	382.1
404	259596	245.9	2678	262.59	250.68	295.8
403	258984	239.6	3931	262.58	248.28	515.2
402	258238	244.7	3931	262.57	248.64	308.6
401	257888	236.86	3931	262.58	242.92	529.9
400	257682	238.15	3931	262.57	243.02	440.2
399	257058	241.1	3931	262.56	247.05	300.3
398	256890	242.4	3931	262.55	248.35	262.5
397	256885	242.39	3931	262.55	248.08	272
396	256867	242.3	3931	262.55	248.46	255
395	256862	241.9	3931	262.55	248.34	256.3
394	256750	245.5	3931	262.55	251.4	331.1
393	256549	244.4	3931	262.55	250.33	503.2
392	256228	237.4	3165	262.55	242.53	504.2
391	255716	237	3165	262.55	241.39	739.3
390	255485	242.4	3165	262.54	247.82	233.3
389	254601	239.3	3165	262.54	246.07	425.8
388	254139	244.1	3931	262.54	249.64	595.6
387	253977	247.86	3931	259.36	248.15	27.9
384	253898	247.17	3931	255.96	247.2	26.7
383	253782	244.3	3931	252.78	248.71	109.7
382	253695	245.76	3931	252.67	248.15	183.2
381	253384	238.07	3931	252.68	242.83	215.9
380	252888	237.46	3931	252.65	242.07	285.6
379	252548	238.8	3931	252.51	244.03	211.4
378	252267	239.19	1148	252.55	245.71	221.4
376	251943	242.77	537	252.54	248.23	135.4
375	251799	242.15	537	252.53	247.22	132.5
374	251420	234.82	3320	252.54	242.68	651.9
373	251189	243.58	3320	252.16	247.25	147.2
372	250939	242.3	3320	251.77	247.9	194.7
371	250742	241.8	3320	251.33	247.77	203.6
370	250507	239.22	3931	251.41	242.41	206.5
369	250198	236.86	3931	251.22	243.95	156.6
368	249901	235.6	3931	251.22	239.81	141
367	249603	236.1	3931	251.16	240.79	149.2
366	249414	244.8	3931	251.05	246.25	263.6

Table F-8
Surface Water Model Output: 4,000 cfs release (Page 5 of 15)

Main Channel 4,000cfs (Project Conditions)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
365	249195	240.3	3931	251.03	244.86	306.1
364	248927	239.38	3931	250.87	243.5	129.7
363	248421	239.1	3931	250.65	243.61	189.9
362	247824	238.4	3931	250.52	240.85	153.1
361	247273	240.1	3931	250.34	245.46	284.9
360	246628	240.3	3931	249.96	244.94	273.3
359	246322	242.32	3931	249.43	243.8	114.9
358	245928	241.5	2565	248.55	244.24	65.2
357	245536	241.05	2565	248.41	244.06	237.3
356	245238	238.42	2565	248.33	242.88	207.8
355	244883	238.65	2565	248.23	242.06	195.1
354	244514	238.7	3931	248.02	242.21	184.8
353	244258	235.05	3931	247.75	237.68	77.4
352	243561	238.35	3903	247.37	240.21	137.7
351	243113	238.2	3903	247.17	239.78	151.8
350	242668	235.95	3903	247.05	238.13	144.4
349	242370	239.09	3903	246.99	241.65	296.6
348	241878	236.73	3931	246.81	240	208.6
347	241475	237.6	2515	246.68	239.91	160.8
346	241329	239.6	2515	246.57	241.03	130.7
345	241114	240.35	3931	246.28	241.74	202
344	240731	239.29	3931	244.52	241.15	204.9
343	240315	233.83	3931	243.94	236.85	99.8
342	239969	236.6	3931	242.62	238.7	125.2
341	239711	227.6	3931	242.47	233.84	82.2
340	239442	231.45	1690	242.44	238.47	135.7
339	239213	235.63	1690	242.2	237.53	103
338	238880	232.79	3931	241.85	237.01	216.2
337	238685	232.97	3931	241.53	235.87	149.9
336	238437	234.05	3931	241.3	235.72	163.8
335	238262	232.28	3931	241.07	234.6	124
334	237879	231.36	3931	241.02	233.37	185.8
333	237628	227.97	3931	240.82	232.03	119.2
332	237280	230.66	3931	240.18	232.6	84.7
331	236975	231.01	3931	240.1	235.04	187.8
330	236828	230.6	3931	240.1	233.27	229.8
329	236633	230.2	3931	240.04	232.63	184.4
328	236090	225.9	3931	239.92	231.31	189.3
327	235591	226.57	3931	239.76	228.87	116.8
326	235047	226.5	3703	239.68	230.29	157.7
325	234560	225.76	3703	239.62	230.69	189.4
324	234302	224.44	3931	239.61	228.82	215
323	234151	227.75	3931	239.58	231.2	227
322	233956	228.1	3931	239.45	232.74	193.9
321	233658	228.21	3931	239.37	231.65	185.3
320	233151	223.4	3931	239.27	227.01	118.9
319	232653	222.8	3931	239.17	227.42	116.9
318	231994	227.06	3931	239.06	229.33	153.6
317	231549	230.84	3931	238.77	231.63	127.1
316	231203	228.1	3931	238.7	230.45	136.1
315	230793	230	2347	238.61	231.66	122.2
314	230547	229.1	2347	238.53	231.55	112.5
313	230245	230.7	2347	238.36	232.21	76.6
312	229990	229.5	2347	238.19	230.98	95.1
311	229745	228.2	2347	238.12	229.98	94.5
310	229402	228.87	2347	238.07	231.26	150.4
309	229058	225.3	2347	237.97	230.68	130
308	228862	227.4	2347	237.74	229.66	72.6
307	228661	228.28	2347	237.69	230.22	92.8
306	228417	227.9	3931	237.19	230.16	66.7

Table F-8
Surface Water Model Output: 4,000 cfs release (Page 6 of 15)

Main Channel 4,000cfs (Project Conditions)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
305	228081	227.5	3931	236.52	231.06	123.4
304	227791	225.5	3931	236.53	227.25	119.1
303	227429	227.1	3931	236.04	229.42	105.3
302	227142	226.4	3931	235.9	227.49	105.4
301.2	226829	226.62	3931	235.45	228.92	109
301.1	226810	227.85	3931	235.28	229.26	103
301	226790	226.9	3931	235.22	228.8	94.4
300	226446	226.1	3931	235.14	227.2	123.2
299	225943	223.31	3931	235.06	225.4	130.4
298	225544	226.35	3931	234.77	227.39	112.6
297	225346	226.14	3931	233.9	227.69	72.9
296	224852	225.3	3931	233.56	226.65	123.9
295	224599	216.98	3931	233.7	221.94	197.3
294	224349	224.6	3931	233.22	226.31	82.2
293	224096	224.42	3931	233.02	226.26	101.3
292	223808	220.94	3931	233.06	224.47	185.2
291	223543	222.28	3931	232.98	226.43	217.6
290	223285	218.9	3931	232.92	224.55	167.2
289	223117	220.13	3931	232.85	226.06	199.7
288	222706	215.77	3931	232.87	221.55	243.3
287	222311	211.23	3931	232.87	215	177.1
286	221888	223	3931	232.87	227.42	173.8
285	221698	216.22	3931	232.86	221.44	147.2
284	221298	219.57	3931	232.8	225.17	182.6
283	220998	223.98	3931	232.47	227.68	180.2
282	220794	214.8	3931	232.62	220.38	262.8
281	220553	224.1	3931	232.55	226.51	268.7
280	220373	225.07	3931	232.51	227.08	292.3
279	220234	219.46	3931	232.5	224.39	274.2
278	220033	218.3	3931	232.47	222.5	193.8
277	219797	222.02	3931	232.37	224.9	106.3
276	219599	222.91	3931	232.16	224.65	69.9
275	219350	221.24	3931	231.69	223.42	62.3
274	219100	223.01	3931	231.49	224.14	83.8
273	218852	220.76	3931	231.04	222.09	62
272	218554	222	3931	230.62	223.05	71.1
271	218261	220.4	3931	230.7	222.16	127
270	217684	215.5	2365	230.61	222.08	126.3
269	217401	217.59	2365	230.53	220.14	85.6
268	217109	218.29	3931	230.48	222.28	157.1
267	216754	213.79	3931	230.44	217.69	120.3
266	216455	215.72	3931	230.3	218.59	97.4
265	216058	211.4	3931	230.39	216.79	328.4
264	215834	216.76	3931	230.36	221.95	325.4
263	215568	218.4	3931	230.32	220.68	223.6
262	215313	218.58	3931	230.09	220.08	97.8
261	215111	219.47	3931	230	221.12	111.1
260	214881	219.5	3931	229.89	221.57	118.7
259	214875	219.5	3931	229.8	221.86	122.1
258	214861	219.47	3931	229.76	221.74	114.8
257	214855	219.44	3931	229.8	221.64	119.2
256	214612	218.8	3931	229.67	221.78	117.7
255	214012	213.06	3931	229.69	219.14	210.3
254	213608	217.9	3931	229.5	219.94	116.7
253	213411	216.38	3931	229.37	219.98	103.7
252	213059	214.9	3931	229.18	218.83	91.4
251	212711	216.8	3931	229.14	219.07	124.1
250	212419	218.47	3931	229.01	220.01	119
249	212217	217.01	3931	228.54	218.66	54.8
248	211919	215.4	3931	228.73	218.02	143.1

Table F-8
Surface Water Model Output: 4,000 cfs release (Page 7 of 15)

Main Channel 4,000cfs (Project Conditions)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
247	211568	215.74	3931	228.68	218.31	127.3
246	211265	215.04	3931	228.49	217.18	87.3
245	210767	215.81	3931	228.35	217.68	99.7
244	210366	215.35	3931	228.29	217.46	110.5
243	209914	215.63	3931	228.21	217.72	112.3
242	209568	215.56	3931	228.11	217.42	72.7
241	208975	215.66	3931	228.04	217.53	157.2
240	208646	215.7	1890	228.05	218	139.4
239	208058	215.7	1890	228.02	218.01	149.4
238	207766	215.2	3931	228.03	217.95	495.2
237	206998	216.3	3931	227.93	220.04	107.7
236	206644	212.4	3931	227.9	214.71	131.3
235	206090	213.27	3931	227.84	218.14	198.5
234	205389	211.1	3931	227.79	214.93	165.9
233	204791	209.67	3931	227.75	214.83	162.3
232	204361	214.83	3931	227.65	223.09	365.4
231	204358	214.8	3931	227.39	218.66	92.3
230	204342	214.5	3931	227.38	217.93	85.8
229	204338	214.49	3931	227.48	222.4	324.3
228	204275	213.76	3886	227.48	221.1	314.4
227	204270	213.5	3886	227.47	221.07	306.1
226	204174	212.38	3886	227.32	223.06	302.1
225	204169	212.32	3886	226.74	219.94	95.5
224	204026	209.24	3886	226.97	214.79	145.5
223	203806	217.2	3886	226.04	219.06	66.3
222	203466	212.5	2431	226.47	218.49	157.5
221	203265	213.73	2431	226.43	214.9	98.7
220	202914	210.7	2431	226.41	213.04	92.4
219	202616	211.93	2431	226.38	214.58	97
218	202221	215.54	2431	226.24	216.96	71.4
217	201932	215.72	2431	226.08	216.87	61.7
216	201639	213.86	2431	226.09	215.83	94
215	201191	213.71	2431	226.07	215.62	133.3
214	200608	212.4	2431	226.03	214.4	121.9
213	200164	209.95	2431	226.01	213.13	120.4
212	199865	215.61	2431	225.86	216.63	31.8
211	199573	215.7	2431	225.68	217.11	38.3
209	199076	212.6	2431	225.63	214.51	88.6
208	198682	210.82	3886	225.55	212.39	108.4
207	198239	211.2	3886	225.55	212.94	160.8
206	198090	208.52	3886	225.19	212.52	62.6
205	197842	209.1	3886	225.29	211.69	98.4
204	197447	212.88	3886	225.28	214.19	133.3
203	197097	212.5	3886	225.17	214.78	98.9
202	196784	213.7	3886	224.97	215.68	69.1
201	196483	212.7	3886	224.91	214.2	52.1
200	196186	212.4	3886	224.77	214.06	54
199	195789	211.49	3886	224.67	212.77	60.3
198	195263	213.49	3886	224.34	215.2	37.6
197	194976	211.48	3886	224.32	213.68	102.8
196	194732	211	3886	224.22	213.7	55.6
195	194341	214.72	3886	223.76	215.58	77.4
194	193991	213	3886	223.77	214.7	76.8
193	193718	209.02	3886	223.76	213.62	194.9
192	193166	208	3886	223.72	209.53	132.4
191	192670	203.63	3886	223.68	207.26	110
190	192365	203.37	3886	223.71	207.96	281.7
189	191966	206.19	3886	223.68	208.3	174.5
188	191772	208.97	3886	222.85	212.37	52.6
187	191766	208.9	3886	222.38	211.91	43.6

Table F-8
Surface Water Model Output: 4,000 cfs release (Page 8 of 15)

Main Channel 4,000cfs (Project Conditions)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
186	191749	208.85	3886	222.39	210.19	39.9
185	191743	208.5	3886	222.53	209.92	43.4
184	191516	205	3886	222.81	207.38	172.8
183	191329	207.01	3886	222.78	209.13	156
182	190639	207.5	3886	222.63	209.59	100.3
181	190050	207.14	3886	222.62	209.43	148.5
180	189458	213.98	3886	222.32	214.65	110.5
179	189351	212.8	3886	222.01	214.18	63.7
178	188980	209.6	3886	221.61	213.05	69.9
177	188823	213	3886	221.53	213.65	94.5
176	188423	210.2	3886	220.94	212.67	67.7
175	188095	206.1	3886	221.1	209.82	130.4
174	187966	210.25	3886	220.94	213.06	130.7
173	187412	204.7	3886	221.03	206.51	189.3
172	187166	207.43	2793	220.86	211.63	72.3
171	186873	208.9	2793	220.82	211.63	110.2
170	186469	209.7	2793	220.7	212.01	92.6
169	186219	205	2793	220.69	208.31	94.1
168	185779	204.05	2793	220.72	206.92	173.2
167	185227	204.53	2793	220.69	206.76	137.2
166	184933	210.05	3886	220.53	212.52	113.2
165	184732	206.76	3886	220.57	209.12	182.8
164	184333	206.54	3886	220.5	209.01	116.5
163	183583	206.9	3886	220.37	209.41	135.1
162	183086	206.38	3886	220.33	208.58	151.2
161	182636	206.77	3886	220.22	208.15	108.8
160	182330	208.55	3886	220.17	211.98	169.7
159	182065	208.95	3886	220.02	213.23	151.1
158	181710	207.15	3886	219.75	208.91	83.2
157	181263	209.57	3886	219.66	210.62	125.5
156	180815	210.31	3886	219.27	210.77	86.3
155	180415	208.79	3886	218.37	209.49	51.8
154	180019	206.58	3886	218.13	208.56	63.2
153	179725	205.39	3886	217.99	207.57	73.1
152	179125	203.49	3886	217.87	206.67	107.1
151	178325	206.8	3886	217.7	208.21	143.5
150	177825	207.2	3886	217.37	208.45	93.5
149	177177	201.9	3886	217.27	204.53	96.2
148	176628	206.34	3886	217.08	208	99.5
147	176227	206.27	3886	216.78	207.5	64.3
146	175731	206.27	3886	216.27	206.98	55.9
145	175236	206.19	3886	216.13	207.46	81.8
144	174838	202.59	3886	216.05	204.88	120.2
143	174263	206.44	3886	215.88	208.46	129.8
142	173972	204.7	3886	215.59	206.43	69.3
141	173483	204.4	3886	215.23	205.96	87.3
140	173082	205.02	3886	214.95	206.16	84.5
139	172637	201.05	3886	215	204.17	152.3
138	172088	202.73	3886	214.96	204.41	180.8
137	171938	203.3	3886	214.83	204.96	102.7
136	171380	204.9	3886	214.63	205.81	118.4
135	170887	205.12	3886	214.08	206.03	71.1
134	170391	201.48	3886	213.67	203.9	72.4
133	169987	200.42	3886	213.7	201.81	107.4
132	169539	203	3109	213.58	205.35	115.6
131	169067	202.96	3109	213.3	205.61	96.1
130	168394	202.44	3109	213	204.46	94.2
129	167841	203.52	3109	212.77	204.87	96.4
128	167342	202.63	3109	212.57	204.33	90
127	166917	203.07	3109	212.4	204.88	114

Table F-8
Surface Water Model Output: 4,000 cfs release (Page 9 of 15)

Main Channel 4,000cfs (Project Conditions)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
126	166639	202.43	3109	212.36	204.05	140.3
125	166189	199.42	3109	212.21	202.18	92
124	165821	199.96	3109	212.16	202.66	128.4
123	165180	201.05	3109	212.07	202.82	139.7
122	164682	201.11	2545	211.89	203.07	87.7
121	164377	202.68	2545	211.83	204.36	109.4
120	164088	201.49	2545	211.65	203.83	83.7
119	163696	200.5	2545	211.25	202.74	57.1
118	163396	199.2	3322	211.17	202.11	78.8
117	162997	201.2	3322	210.55	202.03	46
116	162604	200.1	3322	210.62	201.85	131.3
115	162361	200.9	3322	209.53	202.08	50.6
114	162061	198.77	3322	209.47	200.27	64
113	161813	197.63	3886	209.54	199.33	103.1
112	161337	196.52	3886	209.46	199.19	133.7
111	161191	197.7	3886	209.28	200.11	103.2
110	160941	197.8	3886	209.13	199.14	90.3
109	160637	198.7	3886	209.04	200.07	115.8
108	160292	198.02	3886	208.99	200.13	141.8
107	159743	195.54	3886	208.95	197.6	162.2
106	159348	197.03	3886	208.86	198.5	140
105	159205	195.76	3886	208.71	198.1	92
104	158951	193.9	3886	208.65	196.46	84.6
103	158603	197.14	3886	208.58	199.03	118.8
102	158255	197.85	3886	208.27	199.93	80.8
101	158004	197.43	3886	208.17	199.48	102.2
100	157708	198.09	3886	207.99	199.83	107
99	157307	194.75	3668	207.8	198.68	93.1
98	156960	199.28	3668	207.37	200.28	79.9
97	156708	198.43	3668	207.34	201.38	186.2
96	156557	199.26	3668	207.26	202.05	220.5
95	156307	198.28	3668	207.12	200.78	178.9
94	156189	196.25	3886	207.04	199.71	138.9
93	156066	192.04	3886	207.05	196.41	149.2
92	156058	191.63	3886	207.05	196.32	151.8
91	156018	189.8	3886	207.05	195.18	153.8
90	156013	189.6	3886	207.05	194.98	154
89	155842	195.68	3886	207.05	198.05	236.2
88	155692	197.21	3886	206.64	198.25	74.2
87	155391	197.27	3886	206.45	198.39	93.1
86	155088	196.09	3886	206.33	198.26	118.4
85	154950	196.73	3886	206.25	201	194.1
84	154657	196.5	3886	205.93	198.07	100
83	154313	195.07	3886	205.83	196.46	112.2
82	154015	191.2	3886	205.83	195.51	144.5
81	153765	193.2	3886	205.85	198.17	369.7
80	153657	196.37	3886	205.83	200.89	518.7
79	153414	196.48	3886	205.78	200.71	488.5
78	153064	188.78	3886	205.74	196.94	608.3
77	152762	193.36	3886	205.73	197.18	631.8
76	152412	191.1	3886	205.71	196.46	366.5
75	152260	190.62	3886	205.68	193.97	199.2
74	151914	189.16	3886	205.68	194.18	281.8
73	151278	183.6	3886	205.68	188.76	293.8
72.5	151155	186.95	3886	205.66	190.26	163.6
72	150835	180.5	3886	205.67	188.03	267.9
71	150533	175.5	3886	205.67	184.04	352.1
70	150256	176.87	3886	205.67	185.48	496.5
69	149957	182.45	3886	205.66	186.46	205.1
68	149505	196.2	3886	205.17	196.9	81.1

Table F-8
Surface Water Model Output: 4,000 cfs release (Page 10 of 15)

Main Channel 4,000cfs (Project Conditions)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
67	149257	196.38	3886	204.91	196.83	80.9
66	148961	195.87	3886	204.46	196.76	76.2
65	148666	193.68	3886	204.04	195.14	60.9
64	148363	191	3886	204.2	193.22	114.3
63	148068	191.03	3886	204.2	193.71	156.6
62	147617	186.44	3886	204.16	191.3	138
61	147227	187.1	3886	204.14	190.28	138.4
60	146680	190.77	3886	204.08	192.81	150.4
59	146331	189.3	3850	203.8	193.95	93.1
58	145981	192.8	3850	203.7	194.24	99
57	145534	192.11	3850	203.6	193.3	184.9
56	145135	189.72	3850	203.6	191.16	175.7
55	144731	191.4	3850	203.5	193.48	194.4
54	144335	193.45	2428	203.4	194.64	84.5
53	143984	190.63	2428	203.2	193.36	71.1
52	143683	192.09	2428	203	193.97	89.4
51	143290	193.54	2428	202.9	195.04	103.4
50	142936	193.5	2428	202.7	194.61	78.9
49	142588	192.99	2428	202.5	194.37	78.5
48	142340	192.42	2428	202.4	193.98	55.8
47	142089	192.5	2361	202.2	194.06	82.4
46	141837	193.7	2361	202.1	194.48	76.5
45	141536	191.56	2361	202	193.88	82
44	141285	192.9	2361	201.8	194.11	73.1
43	141092	192.61	2361	201.8	194.15	103.3
42	140749	192	3111	201.7	193.15	62.1
41	140441	191	3111	201.5	192.51	53.7
40	140158	190.73	3111	201.5	194.33	172.4
39	139750	190.65	3111	201.2	192.22	61
38	139447	190.85	3111	201.1	192.29	118.8
37	138996	188.41	3111	200.9	190.15	76.2
36	138544	185.61	3111	200.7	187.73	95.9
35	138193	188.36	3111	200.7	191.32	174.7
34	138036	188.6	3111	200.6	192.19	137.6
33	137829	190.3	3111	200.4	191.53	97.9
32	137578	189.99	3111	200.2	190.65	68.6
31	137228	185.8	3111	199.9	189.77	77.8
30	136928	186.2	3850	199.9	188.96	108.7
29	136584	189.47	3850	199.7	190.68	65.8
28	136288	189.8	2794	199.4	191.32	57.9
27	136044	188.83	2794	199.2	190.38	63.5
26	135719	190.31	2794	198.8	191.09	67.8
25	135418	187.07	2794	198.6	189.09	90.9
24	135149	187.84	2794	198.4	189.5	93.5
23	134683	187.9	2794	198.2	189.56	94.1
22	134181	187.23	3850	197.8	188.81	97
21	133632	186.81	3850	197.6	188.45	146.3
20	133132	187.26	3850	197.5	188.66	134.1
19	132682	184.79	3850	197.4	186.87	122.5
18	132385	188.3	3850	197.3	189.55	132.7
17	132086	190.13	3850	197.2	190.97	108.4
16	131741	187.09	3850	196.8	188.47	91.4
15	131359	189.35	3850	196.7	190.21	61
14	130944	185.68	3850	196.4	187.69	73.3
13	130585	188.17	3850	196.2	189.4	84.3
12	130263	188.92	3850	196.1	189.38	96.3
11	130129	187.2	3850	196	189.28	109.2
10	129978	183.54	3850	196	187.43	125.9
9	129640	184.9	3850	195.8	186.78	107.4
8	129236	184.4	3850	195.6	186.52	64

Table F-8
Surface Water Model Output: 4,000 cfs release (Page 11 of 15)

Main Channel 4,000cfs (Project Conditions)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
7	128831	183.34	3850	195.2	186.74	91.4
6	128486	186	3850	195	187.23	110.9
5	128084	186.2	3850	194.4	187.21	71.1
4	127787	183.75	3850	194.3	185.19	95
3	127443	184.17	3850	194.1	185.98	113
2	127094	185.7	3850	194	186.72	75.8
1	126743	183.49	3850	193.7	184.27	71.1
A221	126279	185.7	3850	193.43	188.64	203.3
A220	125889	184.28	3850	193.17	189.19	340.9
A219	125088	182.14	3850	192.64	184.39	130.5
A218	124298	184.49	3850	192.28	186.04	196.2
A217	123676	185.1	3850	191.88	187.31	207.1
A216	122984	180.55	3850	191.52	185.03	258.6
A215	122059	179.44	3850	191.24	181.82	153.1
A214	121057	178.43	3850	191.02	182.97	218.9
A213	120291	184.06	3850	190.78	185.85	164.7
A212	119696	180.59	3850	190.39	183.77	139.7
A211	118764	178.9	3850	189.93	183.22	155.5
A210.5	118416	177.33	3850	189.83	180.33	129
A210	117893	182.37	3850	189.73	185.38	473.4
A209	117286	180.54	3850	189.51	186	576.9
A208	116395	179.8	3850	189.27	183.72	387.6
A207	116012	182.03	3850	189.08	185.18	375.8
A206	115517	182.9	3850	188.89	184.24	421.8
A205	114963	180.71	3850	188.75	184.69	520.7
A204	114482	180.12	3850	188.55	182.98	252.7
A203.5	113819	181.15	3850	188.25	184.99	535.4
A203	113479	181	3850	188.09	183.74	350.5
A202	113154	176.85	3850	188	179.6	147.8
A201	112433	179.84	3850	187.89	181.99	380.2
A200	111913	180.1	3850	187.71	181.76	227.8
A199	111445	180.2	3850	187.61	183.04	472
A198	110945	177.72	3850	187.36	181.12	184.5
A197.5	110558	180.08	3850	187.25	181	225.8
A197	110187	179.69	3850	187.15	180.79	260.6
A196	109779	179.07	3850	186.95	180.99	204.2
A195	109179	178.39	3850	186.71	182.22	351.6
A194	108693	180.1	3850	186.17	183.81	443.7
A193	108336	180.6	3850	185.74	182.04	349.1
A192	107336	178.93	3850	185.36	180.21	371.5
A191	106945	181.26	2150	185.2	181.83	272.2
A190	106441	180.03	2150	184.9	181.29	161.4
A189	105856	176.23	2150	184.46	180.04	164.6
A188	105518	175.8	3850	184.37	179.36	356.4
A187	105181	178.6	3850	184.17	180.63	337.8
A186	104856	179.42	3717	184.04	179.82	341.1
A185	104634	179.2	3717	183.97	179.61	234
A184	104252	178.9	3717	183.8	179.63	122
A183	104013	178.03	3717	183.66	179.21	185.1
A182	103149	173	3717	183.24	176.21	91.8
A181	102972	174.02	3717	183.2	176.09	120
A180	102209	169.56	3717	182.86	179.07	366.1
A179	101488	174.59	3717	182.61	176.18	220.2
A178	100849	174.48	3717	182.34	176.09	140.2
A177	99706	173.2	3717	182.01	175.65	246.4
A176	99508	171.17	3717	181.9	174.05	113.8
A175	98648	173.49	3717	181.67	176.04	286
A174	98044	175.39	2000	181.48	178.11	245.9
A173	97555	175.1	2000	181.18	176.9	194.3
A172	96645	175.3	2000	180.89	177.01	319.1

Table F-8
Surface Water Model Output: 4,000 cfs release (Page 12 of 15)

Main Channel 4,000cfs (Project Conditions)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
A171	96236	176.74	2000	180.7	178.03	358.2
A170	95633	173.3	2000	180.16	175.06	93.5
A169	94987	168.3	3717	179.92	171.59	167.9
A168	94613	171.4	3717	179.91	173.57	342.8
A167	93997	173.86	2109	179.75	176.75	291.7
A166	93067	172.95	2109	179.28	175.97	332.8
A165.5	92682	175.96	2109	179.14	176.14	317.5
A165	92397	173.29	3717	179.05	175.38	505
A164	92021	174.29	3717	178.8	175.64	270.7
A163	91799	174.9	3717	178.69	175.61	548.7
A162	91343	174.5	3717	178.46	174.93	504.7
A161	90999	173.78	3717	178.38	174.56	551.1
A160	90592	173.1	3717	178.22	174.16	137.2
A159	90343	169.65	3717	178.17	172.65	219.9
A158	90046	165.27	3717	177.8	168.75	67.6
A157	89541	166.6	3717	177.8	169.17	188.5
A156	89103	170.55	3717	177.75	172.76	418.9
A155	88864	171.11	3717	177.68	173.3	305.4
A154	88500	167.11	3717	177.52	170.36	90.9
A153	87667	168.6	3717	177.23	170.61	206
A152.5	87158	170.89	2818	177.06	172.89	294.2
A152	86770	172.64	2818	176.83	173.99	415
A151	86428	172.23	1795	176.69	172.98	288.5
A150	85935	170.52	1795	176.29	172.43	116
A149	85570	164.79	3717	176.21	168.93	187.9
A148	85279	165.17	3717	176.17	169.69	275.6
A147	84936	164.76	3717	175.96	168.81	127.7
A146	84661	166.5	3717	175.75	169.92	166
A145	84239	168.14	3717	175.64	170.83	266.1
A144	83536	170.1	2209	175.38	170.86	97.8
A143	82999	171.74	2209	175.14	172.23	375.1
A142.5	82807	171.4	2209	175.04	172.4	444.7
A142	82530	169.2	2209	174.77	172.14	309.5
A141	82152	169.1	2209	174.49	170.82	248.5
A140	81423	167.91	2209	174.2	169.8	173.9
A139	80928	167.49	3717	174.06	169.77	394.5
A138	80648	169.2	3717	173.82	170.34	238.2
A137	79986	160.25	3717	173.68	166.93	263.5
A136	79448	165.93	3717	173.57	168.57	269.1
A135	79157	167.7	3717	173.43	168.95	268.9
A134	78673	168.99	3717	173.28	169.37	530
A133	78206	167.1	3717	173.08	169.08	373
A132	77861	168.56	3717	172.93	169.08	416.1
A131.5	77594	168.81	3717	172.81	169.47	535.3
A131	77391	169.07	3717	172.7	169.13	282.4
A130	76876	165.17	3717	172.42	168.92	449.6
A129	76518	163.86	3717	172.31	167.47	362.3
A128	76216	163.65	3717	171.89	164.9	85.8
A127	75888	165.56	3717	171.83	167.19	327
A126	75649	167.17	3717	171.8	167.42	413.3
A125	75113	163.18	3717	171.69	165.97	238.8
A124	74787	161.9	3717	171.46	165.59	124.7
A123	74100	161.59	3717	171.14	162.86	94.3
A122	73813	164.12	3717	171.13	165.06	222.5
A121	73600	163.32	3717	171.11	164.47	261.3
A120	72856	160.36	3717	170.96	163.16	96.8
A119	72099	160.02	3717	170.69	160.89	102.1
A118	71832	162.37	3717	170.69	163.6	221.2
A117	71213	162.8	3717	170.56	165.2	351.2
A116.5	70994	162.3	3717	170.5	164.73	255.2

Table F-8
Surface Water Model Output: 4,000 cfs release (Page 13 of 15)

Main Channel 4,000cfs (Project Conditions)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
A116	70750	163.09	3717	170.41	163.74	92
A115.5	70402	163.13	3717	170.23	163.75	149.3
A115	70021	162.71	3717	170.14	163.77	241.6
A114	69531	162.8	3717	170.05	163.75	271.3
A113	69201	162.61	3717	169.98	164.77	199.3
A112.5	68712	162.36	3717	169.9	164.64	375.3
A112	68244	159.45	3717	169.82	160.71	70.6
A111	67799	160.72	3717	169.72	161.42	155.1
A110	67143	160.7	3717	169.64	161.15	124.2
A109	66821	159.6	3717	169.58	160.53	116
A108	66181	159.12	3717	169.45	160.85	159.1
A107	65415	160.53	3717	169.35	161.31	221
A106	65226	159.59	3717	169.34	161.07	149.5
A105	64583	160.13	3717	169.26	161.15	147.8
A104	63837	161	3717	169.15	161.51	215
A103.5	63350	161	3717	169.1	161.79	249.8
A103	63051	160	3717	169.09	160.69	93.7
A102	62778	159.41	3717	169.05	160.12	92
A101	62496	159.5	3717	168.98	160.42	131.8
A100	62202	159.2	3717	168.9	160.04	135.5
A99	61382	160.46	3717	168.8	161.1	241.5
A98	60612	159.47	3717	168.76	160.08	114.1
A97	59770	157.07	3717	168.66	158.46	139.1
A96.6	59434	158.7	3639	168.25	158.7	84.5
A96.5	59433	158.7	3639	168.19	158.7	80
A96.4	59374	158.7	3639	168.18	158.7	80
A96.3	59373	158.7	3639	167.81	160.7	80
A96.2	59371	158.7	3639	167.81	160.7	80
A96.1	59370	158.7	3639	167.94	158.7	80
A96	59357	158.7	3639	167.96	158.7	84.5
A95.1	59355	160.7	3639	167.61	160.7	84.5
A95	59354	158.7	3639	167.73	158.7	84.5
A94	59122	158.51	3639	167.79	159.41	191
A93	58131	156.8	3639	167.53	158.49	124
A92	57203	155.7	3639	167.22	157.67	93.6
A91.5	56904	157.91	3639	167.17	158.56	108
A91	56645	158.58	3639	167.14	159.12	105.2
A90	55840	158.18	3639	166.99	159.17	151.3
A89	55513	158.44	3639	166.93	160.38	291.4
A88	54891	158.9	3639	166.87	159.41	303.5
A87	54454	157.5	3639	166.77	159.57	237.3
A86	54264	157.94	3639	166.66	159.57	185.6
A85	53437	157.2	3639	166.45	159.55	253.6
A84	53227	156.13	3639	166.4	159.44	222.7
A83	53002	157.45	3639	166.28	159.57	179.3
A82	52546	157.96	3639	166.15	159.44	222.4
A81.5	52218	158.18	3639	166.1	159.23	209.7
A81	51890	158	3639	166.05	159.39	280.4
A80.5	51725	158.24	3639	166.03	159.1	269.4
A80	51265	158.27	3639	165.94	159.22	273.7
A79	50478	156.39	3639	165.68	157.03	119.7
A78	49585	155.46	3639	165.35	156.58	117.4
A77	48601	156.6	3639	165.11	157.26	181.5
A76	47880	154.56	3639	164.91	156.74	153.3
A75	47590	156.98	3639	164.86	157.88	276.3
A74	47218	155.3	3639	164.8	156.06	117.2
A73	46806	155.8	3639	164.7	156.27	160.5
A72	46036	155.65	3639	164.62	156.65	285
A71	45670	141.13	3639	164.63	148.4	393.9
A70	44792	153.53	3639	164.51	154.74	119

Table F-8
Surface Water Model Output: 4,000 cfs release (Page 14 of 15)

Main Channel 4,000cfs (Project Conditions)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
A69	43940	152.01	3639	164.35	154.02	113
A68	43191	153.9	3639	164.17	155.16	170.2
A67	42388	154.4	3639	164.09	155.5	149.2
A66.5	41991	151.5	3639	163.96	155.71	153.9
A66	41729	151.83	3639	163.88	153.62	115.8
A65	41170	154.58	3639	163.77	155.22	109.2
A64.5	40870	153.67	3639	163.7	154.91	111
A64	40656	152.7	3639	163.64	154.94	138.2
A63	39956	153.67	3639	163.51	155.94	248.5
A62	39357	154.44	3639	163.41	155.22	157
A61	38776	153.6	3639	163.32	155.35	209.1
A60	38496	153.64	3639	163.29	155.5	215.9
A59.5	38189	154.21	3639	163.27	154.82	88.3
A59	37926	152.77	3639	163.26	155.02	169.3
A56	37358	152.6	3639	163.18	154.73	262.9
A55	37095	153.52	3639	163.12	154.56	159.8
A53	36876	152.37	3639	163.09	154.28	235.9
A52	36586	152.18	3639	163.02	154.83	244.5
A51	36037	150.13	3639	162.89	153.82	182.9
A50	35498	147.5	3639	162.78	154.57	238.6
A49	35063	150.4	3639	162.67	153.37	166.3
A48	34458	150.99	3639	162.54	153.04	111.1
A47.5	34155	151.93	3639	162.49	152.68	123
A47	34009	152	3639	162.46	152.72	180
A46	33388	150.63	3639	162.38	152.69	171.3
A45	33043	147.9	3639	162.29	152.32	109.2
A44	32442	149.87	3639	162.12	151.98	63.4
A43.5	32069	148.5	3639	162.05	150	56.2
A43	31811	144.1	3639	162.01	149.4	49.7
A42	31309	146.9	3639	161.84	148.29	64.7
A41	30677	145.68	3639	161.53	147.96	58.5
A40	30095	148.3	3639	161.16	149.37	58.7
A39	29482	147.7	3639	160.95	150.2	89.4
A38	29019	146.76	3639	160.79	148.93	52.5
A37	28607	143.55	3639	160.72	148.46	105.5
A36	28345	147.01	3639	160.65	148.07	66.9
A35	27968	146.34	3639	160.56	148.56	94
A34	27805	143.82	3639	160.5	148.56	89.1
A33	27442	146.43	3639	160.36	149.26	103.9
A32	27162	147.1	3639	160.32	149.94	137.2
A31	26952	144.08	3639	160.2	148.29	68.5
A30	26636	147.81	3639	160.03	150	102.9
A29	26190	148.8	3639	159.89	150.56	150.2
A28	25902	145.75	3639	159.7	149.79	103.6
A27	25432	146.51	3639	159.68	150.81	130.1
A26	24624	148.41	3639	159.45	149.86	118.1
A25	23909	147.46	3639	159.19	150.87	153.9
A24	23156	147.17	3639	158.96	149.59	127.5
A23	22682	148.04	3639	158.82	148.88	123.3
A22	21507	144.5	3639	158.38	149.34	119.7
A21	20883	147.18	3639	158.22	148.94	124.8
A20	19874	149.24	3639	157.94	150.14	184.5
A19	18311	147.68	3639	157.66	150.6	273.6
A18	17115	148	3639	157.37	150.1	203.7
A17	15912	143.4	3639	157.08	147.41	135.4
A16.5	15165	146.25	3639	157	149.13	247.6
A16	14622	144	3639	156.96	147.22	186.1
A15	13586	143.81	3639	156.93	147.41	185
A14.5	12869	146.46	3639	156.9	148.75	259.9
A14	12428	146.2	3639	156.88	148.47	254.9

Table F-8
Surface Water Model Output: 4,000 cfs release (Page 15 of 15)

Main Channel 4,000cfs (Project Conditions)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
A13.5	11673	145.5	3639	156.79	148.41	231.6
A13	11130	144.7	3639	156.8	147.52	194
A12.5	10303	145.08	3639	156.72	148.9	296.3
A12	9645	143.5	3639	156.72	146.45	165.7
A11	8449	144.65	3639	156.66	148.52	268.4
A10	7630	146.3	3639	156.63	147.52	274.3
A9.5	6824	143.83	3639	156.61	147.73	324.2
A9	6326	144	3639	156.58	146.88	272.5
A8	5008	146.28	3639	156.56	148	335.9
A7	3857	146.52	3639	156.5	147.51	247.6
A6	2634	147.42	3639	156.46	150.53	622.5
A5	1887	143.2	3639	156.44	151.15	1067.9
A4	1445	136.1	3639	156.43	151.26	729.8
A3	1026	136.91	3639	156.4	145.49	206.2
A2	745	140.9	3639	156.4	147.64	418.5

Table F-9
Surface Water Model Output: 8,000 cfs release (Page 1 of 15)

Main Channel 8,000 cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
596	329920	289.2	7977	309.53	297.59	140.8
595	329666	288.4	7977	308.95	297.02	99.2
594	329412	284.05	7977	309.02	297.9	159.1
593	329113	281.19	7977	308.89	296.23	154.3
592	328819	283.15	7977	308.84	296.23	165.9
591	328318	292.35	6089	308.8	297.96	206.8
590	328163	295.3	6089	308.71	300.33	222.8
589	327909	295.94	2095	308.74	299.98	146.1
588	327748	296.7	3983	308.63	301.08	193.5
587	327252	296.14	3983	308.47	300.47	174.7
586	326880	295.1	7977	307.86	301.41	242.4
585	326874	295.04	7977	307.79	301.14	222.5
584	326840	294.4	7977	307.75	300.68	215.8
583	326835	294.35	7977	307.76	300.91	230.7
582	326648	295.1	7977	307.74	299.23	239.2
581	326495	296.76	7977	307.69	299.8	263.6
580	326342	298.38	6376	305.46	300.09	80.4
579	326097	295.47	6376	305.62	297.58	113.3
578	325800	295.28	6376	305.17	297.2	120.3
577	325350	292.85	6376	304.98	294.59	127.9
576	324850	292.79	6376	304.74	295.03	148.9
575	324348	293.78	6376	304.33	294.55	127.1
574	323902	292.92	6376	303.57	295.46	120.4
573	323500	292.45	7977	303.36	294.25	167.1
572	323050	292.24	7977	302.89	294.43	171.1
571	322548	291.1	7977	302.66	294.93	255.4
570	322353	289.78	7977	302.11	294.7	174
569	322060	286	7977	302.19	291.65	200.9
568	321758	287.8	7977	302.05	294.75	295.3
567	321259	290.61	7977	301.67	295.9	344.8
566	320613	290.2	7977	301.1	294.4	279.3
565	319811	291.43	7977	300.44	293.79	277.6
564	319159	289.5	7977	299.98	292.3	250.3
563	318312	285.33	7977	299.72	289.28	236.9
562	317421	289.68	7977	299.33	292.72	324.4
561	317052	286.65	7977	298.93	290.35	178.9
560	316701	284.52	7977	298.7	289.73	192.2
559	316248	284.26	7977	298.4	290.3	219.4
558	315799	285.41	7977	298.07	288.54	169.6
557	315349	288.27	7977	297.58	290.06	154.2
556	314744	282.97	7977	297.48	286.74	223.8
555	314400	282.67	7977	297.35	286.31	198.8
554	313800	281.64	7977	297.22	283.96	173.2
553	313297	282.8	7977	297.06	285.55	173.1
552	312948	281.29	7977	297.02	288.09	316.6
551	312498	281.16	7977	296.99	285.13	310.6
550	312045	283.03	7977	296.93	286.1	321.5
549	311859	284	7977	296.91	286.21	318
548	311517	285.8	7977	296.48	286.75	119.2
547	311269	284.54	7977	296.47	286.28	174.6
546	310965	284.81	7977	296.48	286.2	293.8
545	310365	281.84	7977	296.36	284.84	224.5
544	310118	281.63	7977	296.29	283.36	187.5
543	309480	283.96	6988	296.14	285.79	177.5
542	309088	286.33	6988	295.99	287.55	208.8
541	308789	280.07	6988	295.76	284.91	144.6
540	308489	283.58	6988	295.7	288.28	285.6
539	308094	281.36	6988	295.62	285.51	232.8
538	307697	279.61	6988	295.49	283.35	141
537	307245	281.04	6988	295.4	284.08	178

Table F-9
Surface Water Model Output: 8,000 cfs release (Page 2 of 15)

Main Channel 8,000 cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
536	306746	281.37	6988	295.26	284.06	189.2
535	306345	274.9	6988	295.26	282.56	239
534	305699	280.77	6988	295.18	283.47	237.5
533	305496	280.4	6988	295.16	285.08	297.1
532	305248	279.4	6988	295.1	284.11	230.3
531	304299	278.5	6988	294.94	284.08	248.8
530	303355	282.1	6988	294.78	282.56	163.7
529	303156	282.7	6988	294.7	283.51	119
528	303005	283.04	6988	293.1	284.34	87.4
527	302998	283.1	6988	292.5	284.33	81
526	302977	283.22	6988	290.41	284.08	76.8
525	302972	283.22	6988	290.18	284.3	85.7
524	302816	282.54	6988	291.15	284.24	176
523	302671	280.7	6988	290.98	284	159.1
522	302380	279.8	6988	290.96	283.88	341.4
521	302129	279.4	6988	290.85	283.39	299.2
520	301584	279.9	7977	290.48	282.77	254.1
519	301187	276.12	7977	290.36	281.71	280.3
518	300041	277.16	6145	290.14	280.44	266.3
517	299293	280.1	6145	289.83	281.86	193.4
516	298979	279.75	6145	288.98	281.63	90.3
515.9	298968	281.5	6145	288.75	284.27	106.4
515.8	298958	279.7	6145	288.04	281.64	62.1
515	298725	279.96	6145	288.24	282.14	254.8
514	298470	277.9	6145	287.75	279.71	131.3
513	298224	277.5	6145	287.69	280.09	187.6
512	297722	277.3	6145	287.23	278.95	126.9
511	297402	273.2	7977	287.03	278.14	161.9
510	297007	270.5	7977	287	276.01	218.7
509	296558	271.66	7977	286.93	274.87	221.3
508	296175	274.83	6857	286.82	279.01	267.4
507	295842	274.36	6857	286.1	277.77	115.8
506	295442	274.6	6857	285.84	276.28	128.3
505	294946	277.03	6857	285.52	278.25	207.6
504	294498	276.3	6857	283.87	277.04	74.9
503	294100	273.9	6857	283.84	275.03	105.9
502	293606	274.35	6857	283.05	275.02	124.8
501	293300	272.3	7977	283.13	274.23	257.4
500.9	293275	272.03	7977	283.42	274.41	256.7
500.8	293250	272.83	6559	283.1	274.2	127.9
500.5	293128	275.06	6559	282.68	275.82	125.5
500	292944	272.14	6559	282.6	274.66	144.8
499	292855	271.99	6559	282.56	274.39	147.3
498	292448	270.34	6559	281.43	271.9	77.6
497	292046	266.62	6559	281.35	270.09	96.3
496	291797	268.8	6559	281.24	270.18	113.9
495	291451	268.32	6559	281.12	269.74	130.3
494	290749	269.17	6559	280.9	270.93	172.9
493	290192	268.4	6559	280.72	271.83	213.8
492	289746	266.85	6559	280.62	269.63	194.5
491	289200	268.96	6559	280.31	270.66	154
490	288854	268.75	6559	279.36	270.21	76.6
489	288546	267.5	6559	278.99	269.57	90.2
488	288380	271.11	6559	278.94	271.75	126.6
487	288144	267.2	6559	278.39	269.61	97.6
486	287840	263.2	6559	277.97	266.51	79.1
485	287548	265.8	6559	277.71	271.02	163.2
484	287042	266.36	6559	277.1	268.55	136.6
483	286530	265.9	6559	276.42	267.32	114.3

Table F-9
Surface Water Model Output: 8,000 cfs release (Page 3 of 15)

Main Channel 8,000 cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
482	285999	267	6559	276.2	269.36	201.3
481	285695	266.68	4515	275.79	269.7	100.9
480	285304	268.4	4515	274.65	270.56	177.6
479	285034	262.37	6559	274.86	264.82	221.9
478	284669	264.7	6559	274.65	266.11	203.6
477	284519	265.8	6559	274.48	267.69	222.1
476	284290	265.3	6559	274.29	269.18	308.7
475	284109	261.82	6559	274.17	268.72	330.7
474.6	283990	260.66	6559	274.21	267.97	457.3
474.5	283779	264.42	6559	273.7	265.99	155.1
474	283718	263.62	6559	273.75	267.65	410.9
473	283672	264.5	6559	273.74	268.85	468.9
472	283347	262.19	6559	273.62	265.56	272.5
471	283249	260.34	6559	273.58	263.88	206
470	282901	258.14	6559	273.58	261.82	242.2
469	282452	256.2	6559	273.33	261.02	128.1
468	282096	260.3	7977	273.04	263.48	153.5
467	281600	259	7977	272.44	260.66	87.6
466	281204	259.9	7977	272.39	262.15	125.4
465	281002	258.2	7977	272.38	259.64	162.8
464	280801	258.2	7977	272.35	259.99	205.3
463	280549	257	7977	272.18	259.56	155.1
462	280056	258.5	7977	271.79	260.36	131.8
461.5	279897	261.6	7977	271.54	263.44	160.3
461	279752	260.04	7977	271.02	262.22	96.4
460	279355	259.7	7977	270.79	261.41	149.1
459	279253	257.81	7977	270.79	261.09	143.1
458	279058	257.94	7977	270.84	261.48	280.8
457	278657	255.9	7977	270.65	257.89	161.7
456	278111	258.19	7977	270.55	261.23	272.6
455	277462	257.1	7977	270.37	259.11	211.4
454	276767	254.73	7977	270.3	259.35	262.8
453	276524	256.99	3882	270.29	260.52	78.4
452	276329	254.9	3882	270.17	258.38	71.3
451	276053	252.4	3882	270.15	257.73	115.1
450	275705	257.79	3882	270.03	259.35	97.7
449	275400	258.2	3882	269.96	260.39	135.1
448	275102	258.27	1688	269.98	261.33	126.1
447	274631	256.2	5783	269.59	261.14	144.9
446	274423	251.8	7977	269.58	255.6	149.6
445	273869	255.8	7977	269.33	258.24	140.4
444	273425	255.75	7977	269.23	257.44	118
443	273081	257.4	7977	269.11	259.02	154.1
442	272928	258	7977	269.09	259.68	191.8
441	272582	255.06	7977	268.88	258.03	94.6
440	272039	256.69	7977	268.58	259.04	201.3
439	271342	257.29	7977	268.23	259.21	185
438	270939	257.51	7977	268.09	259.27	233.1
437	270595	255.07	7977	268.08	257.96	310.4
436	269990	255.73	7977	267.92	258.87	279.5
435	269593	254.75	7977	267.81	258.54	275.2
434	269246	254.1	7977	267.63	258.11	217.7
433	268877	258.28	7977	267.45	259.25	248.2
432	268553	255.83	4788	267.34	260.5	234.9
431	268305	254.31	4788	267.06	261.44	208.3
430	268054	256.56	4788	266.92	259.25	182.5
429	267648	256.22	4788	266.97	260.11	495.1
428	267116	256.2	4788	266.89	258.66	215
427	266900	255.5	4788	266.83	258.36	238.1

Table F-9
Surface Water Model Output: 8,000 cfs release (Page 4 of 15)

Main Channel 8,000 cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
426.5	266764	255	4788	266.81	257.75	238.4
426	266560	257.2	7977	266.63	258.08	189.1
425	266555	257.4	7977	266.64	258.78	263.1
424	266524	258.53	7977	266.57	259.24	264.9
423	266519	258.7	7977	266.55	259.26	240
422.75	266450	255.7	7917	266.59	257.3	360.3
422.5	266445	255.7	7917	266.58	257.29	360.6
422	266283	254.59	7917	266.56	256.41	353.7
421.75	266278	254.46	7917	266.56	256.39	356.2
421	265903	248	5938	266.48	251.34	127.4
420	265605	250.87	3369	266.51	254.28	200.9
419	265274	251.64	3369	266.42	254.01	111.5
418	265024	252.53	3369	266.43	254.51	120.2
417	264503	247.96	5938	266.4	250.53	195.3
416	263857	249.41	7917	266.44	252.68	258.8
415	263157	249.3	5383	266.34	255.19	197
414	262848	250.7	5383	266.35	252.12	232.8
413	262344	246.35	5383	266.35	248.79	220.4
412	261844	242.91	5383	266.34	248.3	175
411	261498	244.9	5383	266.33	251.39	239
410	261243	243.33	2604	266.34	249.24	387.2
409	260951	245	2604	266.34	253.42	353.8
408	260784	244.05	2604	266.34	252.38	353.1
407	260462	242.48	2604	266.34	251.18	290.1
406	260150	242.59	2604	266.34	249.34	265.8
405	259931	241.05	5383	266.33	250.14	382.1
404	259596	245.9	5383	266.32	250.68	295.8
403	258984	239.6	7917	266.32	248.32	515.2
402	258238	244.7	7917	266.3	248.64	308.6
401	257888	236.86	7917	266.31	243.04	529.9
400	257682	238.15	7917	266.3	243.02	440.2
399	257058	241.1	7917	266.28	247.07	300.3
398	256890	242.4	7917	266.26	249.01	262.5
397	256885	242.39	7917	266.26	249.99	272
396	256867	242.3	7917	266.25	249.22	255
395	256862	241.9	7917	266.25	248.6	256.3
394	256750	245.5	7917	266.26	251.49	331.1
393	256549	244.4	7917	266.26	252.04	503.2
392	256228	237.4	6359	266.27	242.53	504.2
391	255716	237	6359	266.27	241.39	739.3
390	255485	242.4	6359	266.25	247.82	233.3
389	254601	239.3	6359	266.25	246.07	425.8
388	254139	244.1	7917	266.24	249.64	595.6
387	253977	247.86	7917	264.71	257.33	200.1
384	253898	247.17	7917	263.56	252.3	158.1
383	253782	244.3	7917	255.64	249.21	109.7
382	253695	245.76	7917	255.64	249.58	183.2
381	253384	238.07	7917	255.61	242.83	215.9
380	252888	237.46	7917	255.57	243.84	316.4
379	252548	238.8	7917	255.28	245.65	231.3
378	252267	239.19	2938	255.39	246.19	221.4
376	251943	242.77	1275	255.37	250.19	198.2
375	251799	242.15	1275	255.36	248.61	172.5
374	251420	234.82	6254	255.37	243.33	651.9
373	251189	243.58	6254	254.92	247.75	147.2
372	250939	242.3	6254	254.72	248.66	234.3
371	250742	241.8	6254	254.52	247.89	210
370	250507	239.22	7917	254.5	243.78	247.1
369	250198	236.86	7917	254.18	245.15	186

Table F-9
Surface Water Model Output: 8,000 cfs release (Page 5 of 15)

Main Channel 8,000 cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
368	249901	235.6	7917	254.14	241.51	162.8
367	249603	236.1	7917	254.04	242.19	171
366	249414	244.8	7917	253.97	246.35	268.7
365	249195	240.3	7917	253.96	244.87	306.1
364	248927	239.38	7917	253.68	243.5	129.7
363	248421	239.1	7917	253.4	244.04	189.9
362	247824	238.4	7917	253.18	240.85	153.1
361	247273	240.1	7917	253	245.52	284.9
360	246628	240.3	7917	252.63	245.22	279.9
359	246322	242.32	7917	251.98	243.8	114.9
358	245928	241.5	5284	251.27	244.24	65.2
357	245536	241.05	5284	251.28	244.06	237.3
356	245238	238.42	5284	251.22	242.88	207.8
355	244883	238.65	5284	251.08	242.25	195.1
354	244514	238.7	7917	250.85	242.21	184.8
353	244258	235.05	7917	250.39	237.68	77.4
352	243561	238.35	7562	249.83	240.21	137.7
351	243113	238.2	7562	249.59	239.78	151.8
350	242668	235.95	7562	249.4	238.13	144.4
349	242370	239.09	7562	249.37	241.65	296.6
348	241878	236.73	7917	249.11	240	208.6
347	241475	237.6	4759	248.94	240.81	160.8
346	241329	239.6	4759	248.8	241.03	130.7
345	241114	240.35	7917	248.49	241.74	202
344	240731	239.29	7917	247.35	242.24	204.9
343	240315	233.83	7917	246.69	236.85	99.8
342	239969	236.6	7917	246.02	238.88	125.2
341	239711	227.6	7917	245.76	233.84	82.2
340	239442	231.45	3159	245.92	238.47	135.7
339	239213	235.63	3159	245.73	237.53	103
338	238880	232.79	7917	245.49	237.01	216.2
337	238685	232.97	7917	245.2	235.87	149.9
336	238437	234.05	7917	245.08	235.72	163.8
335	238262	232.28	7917	244.86	234.6	124
334	237879	231.36	7917	244.84	233.86	196.6
333	237628	227.97	7917	244.53	232.52	125.7
332	237280	230.66	7917	243.79	232.6	84.7
331	236975	231.01	7917	244.09	235.32	187.8
330	236828	230.6	7917	244.01	233.29	230.7
329	236633	230.2	7917	243.96	232.63	184.4
328	236090	225.9	7917	243.82	231.32	189.3
327	235591	226.57	7917	243.56	228.87	116.8
326	235047	226.5	6759	243.52	230.29	157.7
325	234560	225.76	6759	243.47	230.88	189.4
324	234302	224.44	7917	243.45	228.82	215
323	234151	227.75	7917	243.4	231.2	227
322	233956	228.1	7917	243.25	232.74	193.9
321	233658	228.21	7917	243.17	231.65	185.3
320	233151	223.4	7917	242.97	227.01	118.9
319	232653	222.8	7917	242.79	227.42	116.9
318	231994	227.06	7917	242.65	229.33	153.6
317	231549	230.84	7917	242.31	231.63	127.1
316	231203	228.1	7917	242.26	230.45	136.1
315	230793	230	4316	242.24	231.66	122.2
314	230547	229.1	4316	242.21	231.55	112.5
313	230245	230.7	4316	242.11	232.21	76.6
312	229990	229.5	4316	241.9	230.98	95.1
311	229745	228.2	4316	241.87	229.98	94.5
310	229402	228.87	4316	241.84	231.26	150.4

Table F-9
Surface Water Model Output: 8,000 cfs release (Page 6 of 15)

Main Channel 8,000 cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
309	229058	225.3	4316	241.75	232.06	154
308	228862	227.4	4316	241.44	229.66	72.6
307	228661	228.28	4316	241.42	230.22	92.8
306	228417	227.9	7917	240.67	230.16	66.7
305	228081	227.5	7917	240.27	231.06	123.4
304	227791	225.5	7917	240.24	227.25	119.1
303	227429	227.1	7917	239.71	229.42	105.3
302	227142	226.4	7917	239.57	227.49	105.4
301.2	226829	226.62	7917	239.11	228.92	109
301.1	226810	227.85	7917	238.95	229.26	103
301	226790	226.9	7917	238.84	228.8	94.4
300	226446	226.1	7917	238.8	227.2	123.2
299	225943	223.31	7917	238.73	225.4	130.4
298	225544	226.35	7917	238.41	227.39	112.6
297	225346	226.14	7917	237.7	227.69	72.9
296	224852	225.3	7917	237.53	226.65	123.9
295	224599	216.98	7917	237.69	221.94	197.3
294	224349	224.6	7917	237.07	226.31	82.2
293	224096	224.42	7917	236.98	226.26	101.3
292	223808	220.94	6959	237.08	224.47	185.2
291	223543	222.28	6959	237.05	226.43	217.6
290	223285	218.9	6959	237	224.55	167.2
289	223117	220.13	6959	236.97	226.06	199.7
288	222706	215.77	6959	236.99	221.55	243.3
287	222311	211.23	6959	236.97	215	177.1
286	221888	223	7917	236.97	227.42	173.8
285	221698	216.22	7917	236.97	221.44	147.2
284	221298	219.57	7917	236.87	225.72	182.6
283	220998	223.98	7917	236.58	228.03	180.2
282	220794	214.8	7917	236.72	220.38	262.8
281	220553	224.1	7917	236.66	226.51	268.7
280	220373	225.07	7917	236.65	227.08	292.3
279	220234	219.46	7917	236.62	224.39	274.2
278	220033	218.3	7917	236.56	222.5	193.8
277	219797	222.02	7917	236.44	224.9	106.3
276	219599	222.91	7917	236.21	224.65	69.9
275	219350	221.24	7917	235.84	223.42	62.3
274	219100	223.01	7917	235.73	224.14	83.8
273	218852	220.76	7917	235.32	222.09	62
272	218554	222	7917	235.09	223.05	71.1
271	218261	220.4	7917	235.16	222.16	127
270	217684	215.5	4284	235.11	222.08	126.3
269	217401	217.59	4284	235	220.14	85.6
268	217109	218.29	7917	234.95	222.28	157.1
267	216754	213.79	7917	234.9	217.69	120.3
266	216455	215.72	7917	234.69	218.59	97.4
265	216058	211.4	7917	234.84	216.79	328.4
264	215834	216.76	7917	234.81	221.95	325.4
263	215568	218.4	7917	234.74	220.68	223.6
262	215313	218.58	7917	234.4	220.08	97.8
261	215111	219.47	7917	234.32	221.12	111.1
260	214881	219.5	7917	234.23	221.57	118.7
259	214875	219.5	7917	234.11	221.86	122.1
258	214861	219.47	7917	234.07	221.74	114.8
257	214855	219.44	7917	234.12	221.64	119.2
256	214612	218.8	7917	234.04	221.78	117.7
255	214012	213.06	7917	234.06	219.14	210.3
254	213608	217.9	7917	233.78	219.94	116.7
253	213411	216.38	7917	233.59	219.98	103.7

Table F-9
Surface Water Model Output: 8,000 cfs release (Page 7 of 15)

Main Channel 8,000 cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
252	213059	214.9	7917	233.3	218.83	91.4
251	212711	216.8	7917	233.3	219.07	124.1
250	212419	218.47	7917	233.16	220.01	119
249	212217	217.01	7917	232.44	218.66	54.8
248	211919	215.4	7917	232.77	218.02	143.1
247	211568	215.74	7917	232.73	218.31	127.3
246	211265	215.04	7917	232.45	217.18	87.3
245	210767	215.81	7917	232.31	217.68	99.7
244	210366	215.35	7917	232.27	217.46	110.5
243	209914	215.63	7917	232.2	217.72	112.3
242	209568	215.56	7917	232.09	217.42	72.7
241	208975	215.66	7917	232.01	217.53	157.2
240	208646	215.7	3959	232.02	218	139.4
239	208058	215.7	3959	231.98	218.01	149.4
238	207766	215.2	7917	232	217.95	495.2
237	206998	216.3	7917	231.85	220.04	107.7
236	206644	212.4	7917	231.82	214.71	131.3
235	206090	213.27	7917	231.73	218.14	198.5
234	205389	211.1	7917	231.64	214.93	165.9
233	204791	209.67	7917	231.58	214.83	162.3
232	204361	214.83	7917	231.52	223.09	365.4
231	204358	214.8	7917	231.05	218.66	92.3
230	204342	214.5	7917	231.04	217.93	85.8
229	204338	214.49	7917	231.22	222.4	324.3
228	204275	213.76	7857	231.22	221.1	314.4
227	204270	213.5	7857	231.21	221.07	306.1
226	204174	212.38	7857	231.09	223.16	302.1
225	204169	212.32	7857	230.91	222.97	295.3
224	204026	209.24	7857	230.94	214.79	145.5
223	203806	217.2	7857	230.03	219.06	66.3
222	203466	212.5	4029	230.52	218.49	157.5
221	203265	213.73	4029	230.47	214.9	98.7
220	202914	210.7	4029	230.45	213.04	92.4
219	202616	211.93	4029	230.43	214.58	97
218	202221	215.54	4029	230.34	216.96	71.4
217	201932	215.72	4029	230.22	216.87	61.7
216	201639	213.86	4029	230.22	215.83	94
215	201191	213.71	4029	230.21	215.62	133.3
214	200608	212.4	4029	230.17	214.4	121.9
213	200164	209.95	4029	230.16	213.13	120.4
212	199865	215.61	4029	230.06	216.63	31.8
211	199573	215.7	4029	229.99	217.11	38.3
209	199076	212.6	4029	229.92	214.51	88.6
208	198682	210.82	7857	229.74	212.39	108.4
207	198239	211.2	7857	229.75	212.94	160.8
206	198090	208.52	7857	229.12	212.52	62.6
205	197842	209.1	7857	229.32	211.69	98.4
204	197447	212.88	7857	229.32	214.19	133.3
203	197097	212.5	7857	229.2	214.78	98.9
202	196784	213.7	7857	229.01	215.68	69.1
201	196483	212.7	7857	228.99	214.2	52.1
200	196186	212.4	7857	228.88	214.06	54
199	195789	211.49	7857	228.76	212.77	60.3
198	195263	213.49	7857	228.56	215.2	37.6
197	194976	211.48	7857	228.51	213.68	102.8
196	194732	211	7857	228.44	213.7	55.6
195	194341	214.72	7857	228.1	215.58	77.4
194	193991	213	7857	228.11	214.7	76.8
193	193718	209.02	7857	228.1	213.62	194.9

Table F-9
Surface Water Model Output: 8,000 cfs release (Page 8 of 15)

Main Channel 8,000 cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
192	193166	208	7857	228.02	209.53	132.4
191	192670	203.63	7857	227.94	207.26	110
190	192365	203.37	7857	228	207.96	281.7
189	191966	206.19	7857	227.95	208.3	174.5
188	191772	208.97	7857	226.95	212.37	52.6
187	191766	208.9	7857	225.93	211.91	43.6
186	191749	208.85	7857	226.08	210.19	39.9
185	191743	208.5	7857	226.29	209.92	43.4
184	191516	205	7857	226.62	207.38	172.8
183	191329	207.01	7857	226.56	209.13	156
182	190639	207.5	7857	226.29	209.59	100.3
181	190050	207.14	7857	226.29	209.43	148.5
180	189458	213.98	7857	225.96	214.65	110.5
179	189351	212.8	7857	225.74	214.18	63.7
178	188980	209.6	7857	225.4	213.05	69.9
177	188823	213	7857	225.26	213.65	94.5
176	188423	210.2	7857	224.57	212.67	67.7
175	188095	206.1	7857	224.77	209.82	130.4
174	187966	210.25	7857	224.54	213.06	130.7
173	187412	204.7	7857	224.7	206.51	189.3
172	187166	207.43	5004	224.5	211.63	72.3
171	186873	208.9	5004	224.48	211.63	110.2
170	186469	209.7	5004	224.4	212.01	92.6
169	186219	205	5004	224.38	208.31	94.1
168	185779	204.05	5004	224.42	206.92	173.2
167	185227	204.53	5004	224.37	206.76	137.2
166	184933	210.05	7857	224.13	212.52	113.2
165	184732	206.76	7857	224.18	209.12	182.8
164	184333	206.54	7857	224.09	209.01	116.5
163	183583	206.9	7857	223.91	209.41	135.1
162	183086	206.38	7857	223.85	208.58	151.2
161	182636	206.77	7857	223.68	208.15	108.8
160	182330	208.55	7857	223.65	211.98	169.7
159	182065	208.95	7857	223.52	213.23	151.1
158	181710	207.15	7857	223.09	208.91	83.2
157	181263	209.57	7857	222.98	210.62	125.5
156	180815	210.31	7857	222.6	210.77	86.3
155	180415	208.79	7857	222.19	209.49	51.8
154	180019	206.58	7857	222	208.56	63.2
153	179725	205.39	7857	221.85	207.57	73.1
152	179125	203.49	7857	221.57	206.67	107.1
151	178325	206.8	7857	221.37	208.21	143.5
150	177825	207.2	7857	221.01	208.45	93.5
149	177177	201.9	7857	220.87	204.53	96.2
148	176628	206.34	7857	220.68	208	99.5
147	176227	206.27	7857	220.41	207.5	64.3
146	175731	206.27	7857	219.82	206.98	55.9
145	175236	206.19	7857	219.64	207.46	81.8
144	174838	202.59	7857	219.52	204.88	120.2
143	174263	206.44	7857	219.37	208.46	129.8
142	173972	204.7	7857	219.12	206.43	69.3
141	173483	204.4	7857	218.65	205.96	87.3
140	173082	205.02	7857	218.37	206.16	84.5
139	172637	201.05	7857	218.4	204.17	152.3
138	172088	202.73	7857	218.34	204.41	180.8
137	171938	203.3	7857	218.12	204.96	102.7
136	171380	204.9	7857	217.87	205.81	118.4
135	170887	205.12	7857	217.2	206.03	71.1
134	170391	201.48	7857	216.54	203.9	72.4

Table F-9
Surface Water Model Output: 8,000 cfs release (Page 9 of 15)

Main Channel 8,000 cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
133	169987	200.42	7857	216.56	201.81	107.4
132	169539	203	5611	216.49	205.35	115.6
131	169067	202.96	5611	216.19	205.61	96.1
130	168394	202.44	5611	215.87	204.46	94.2
129	167841	203.52	5611	215.65	204.87	96.4
128	167342	202.63	5611	215.45	204.33	90
127	166917	203.07	5611	215.28	204.88	114
126	166639	202.43	5611	215.25	204.05	140.3
125	166189	199.42	5611	215.03	202.18	92
124	165821	199.96	5611	214.98	202.66	128.4
123	165180	201.05	5611	214.86	202.82	139.7
122	164682	201.11	3205	214.8	203.07	87.7
121	164377	202.68	3205	214.77	204.36	109.4
120	164088	201.49	3205	214.69	203.83	83.7
119	163696	200.5	3205	214.45	202.74	57.1
118	163396	199.2	5451	214.35	202.11	78.8
117	162997	201.2	5451	213.83	202.03	46
116	162604	200.1	5451	213.9	201.85	131.3
115	162361	200.9	5451	212.7	202.08	50.6
114	162061	198.77	5451	212.75	200.27	64
113	161813	197.63	7857	212.75	199.33	103.1
112	161337	196.52	7857	212.64	199.19	133.7
111	161191	197.7	7857	212.31	200.11	103.2
110	160941	197.8	7857	212.07	199.14	90.3
109	160637	198.7	7857	211.98	200.07	115.8
108	160292	198.02	7857	211.96	200.13	141.8
107	159743	195.54	7857	211.88	197.6	162.2
106	159348	197.03	7857	211.72	198.5	140
105	159205	195.76	7857	211.41	198.1	92
104	158951	193.9	7857	211.29	196.46	84.6
103	158603	197.14	7857	211.2	199.03	118.8
102	158255	197.85	7857	210.68	199.93	80.8
101	158004	197.43	7857	210.53	199.48	102.2
100	157708	198.09	7857	210.3	199.83	107
99	157307	194.75	6642	210.08	198.68	93.1
98	156960	199.28	6642	209.56	200.28	79.9
97	156708	198.43	6642	209.57	201.38	186.2
96	156557	199.26	6642	209.51	202.05	220.5
95	156307	198.28	6642	209.3	200.78	178.9
94	156189	196.25	7857	209.09	199.71	138.9
93	156066	192.04	7857	209.09	196.41	149.2
92	156058	191.63	7857	209.09	196.32	151.8
91	156018	189.8	7857	209.1	195.18	153.8
90	156013	189.6	7857	209.1	194.98	154
89	155842	195.68	7857	209.1	198.05	236.2
88	155692	197.21	7857	208.07	198.25	74.2
87	155391	197.27	7857	207.59	198.39	93.1
86	155088	196.09	7857	207.25	198.26	118.4
85	154950	196.73	7857	207.05	201	194.1
84	154657	196.5	7857	205.31	198.07	100
83	154313	195.07	7857	204.45	196.46	112.2
82	154015	191.2	7857	204.34	195.51	144.5
81	153765	193.2	7857	204.42	198.17	369.7
80	153657	196.37	7857	204.16	200.47	508.6
79	153414	196.48	7857	202.72	199.74	352.3
78	153064	188.78	7857	201.23	195.38	479.7
77	152762	193.36	7857	200.73	195.89	516.3
76	152412	191.1	7857	199.83	195.44	294
75	152260	190.62	7857	199.2	192.67	169.4

Table F-9
Surface Water Model Output: 8,000 cfs release (Page 10 of 15)

Main Channel 8,000 cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
74	151914	189.16	7857	208.69	194.18	281.8
73	151278	183.6	6593	208.7	188.76	293.8
72.5	151155	186.95	6593	208.67	190.26	163.6
72	150835	180.5	6593	208.68	188.03	267.9
71	150533	175.5	6593	208.68	184.04	352.1
70	150256	176.87	6593	208.68	185.48	496.5
69	149957	182.45	6593	208.65	186.46	205.1
68	149505	196.2	6593	207.92	196.9	81.1
67	149257	196.38	6593	207.67	196.83	80.9
66	148961	195.87	6593	207.21	196.76	76.2
65	148666	193.68	6593	206.63	195.14	60.9
64	148363	191	6593	206.91	193.22	114.3
63	148068	191.03	6693	206.94	193.71	156.6
62	147617	186.44	6693	206.86	191.3	138
61	147227	187.1	6693	206.82	190.28	138.4
60	146680	190.77	7857	206.69	192.81	150.4
59	146331	189.3	7810	206.6	193.95	93.1
58	145981	192.8	7810	206.3	194.24	99
57	145534	192.11	7810	206.2	193.3	184.9
56	145135	189.72	7810	206.1	191.16	175.7
55	144731	191.4	7810	206.1	193.48	194.4
54	144335	193.45	4091	205.8	194.64	84.5
53	143984	190.63	4091	205.7	193.36	71.1
52	143683	192.09	4091	205.4	193.97	89.4
51	143290	193.54	4091	205.3	195.04	103.4
50	142936	193.5	4091	205	194.61	78.9
49	142588	192.99	4091	204.9	194.37	78.5
48	142340	192.42	4091	204.8	193.98	55.8
47	142089	192.5	3316	204.7	194.06	82.4
46	141837	193.7	3316	204.6	194.48	76.5
45	141536	191.56	3316	204.6	193.88	82
44	141285	192.9	3316	204.4	194.11	73.1
43	141092	192.61	3316	204.5	194.15	103.3
42	140749	192	5257	204.4	193.15	62.1
41	140441	191	5257	204.3	192.51	53.7
40	140158	190.73	5257	204.3	194.33	172.4
39	139750	190.65	5257	204.1	192.22	61
38	139447	190.85	5257	203.9	192.29	118.8
37	138996	188.41	5257	203.8	190.15	76.2
36	138544	185.61	5257	203.6	187.73	95.9
35	138193	188.36	5257	203.5	191.32	174.7
34	138036	188.6	5257	203.4	192.19	137.6
33	137829	190.3	5257	203.2	191.53	97.9
32	137578	189.99	5257	203	190.65	68.6
31	137228	185.8	5257	202.5	189.77	77.8
30	136928	186.2	7810	202.5	188.96	108.7
29	136584	189.47	7810	202.3	190.68	65.8
28	136288	189.8	5081	202.1	191.32	57.9
27	136044	188.83	5081	202	190.38	63.5
26	135719	190.31	5081	201.7	191.09	67.8
25	135418	187.07	5081	201.4	189.09	90.9
24	135149	187.84	5081	201.2	189.5	93.5
23	134683	187.9	5081	200.9	189.56	94.1
22	134181	187.23	7810	200.6	188.81	97
21	133632	186.81	7810	200.2	188.45	146.3
20	133132	187.26	7810	200.1	188.66	134.1
19	132682	184.79	7810	200	186.87	122.5
18	132385	188.3	7810	199.9	189.55	132.7
17	132086	190.13	7810	199.8	190.97	108.4

Table F-9
Surface Water Model Output: 8,000 cfs release (Page 11 of 15)

Main Channel 8,000 cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
16	131741	187.09	7810	199.5	188.47	91.4
15	131359	189.35	7810	199.3	190.21	61
14	130944	185.68	7810	199.1	187.69	73.3
13	130585	188.17	7810	198.8	189.4	84.3
12	130263	188.92	7810	198.7	189.38	96.3
11	130129	187.2	7810	198.7	189.28	109.2
10	129978	183.54	7810	198.6	187.43	125.9
9	129640	184.9	7810	198.3	186.78	107.4
8	129236	184.4	7810	198.1	186.52	64
7	128831	183.34	7810	197.7	186.74	91.4
6	128486	186	7810	197.4	187.23	110.9
5	128084	186.2	7810	197.1	187.21	71.1
4	127787	183.75	7810	196.9	185.19	95
3	127443	184.17	7810	196.7	185.98	113
2	127094	185.7	7810	196.6	186.72	75.8
1	126743	183.49	7810	196.3	184.27	71.1
A221	126279	185.7	7810	196.08	188.64	203.3
A220	125889	184.28	7810	195.92	189.57	340.9
A219	125088	182.14	7810	195.33	184.39	130.5
A218	124298	184.49	7810	194.93	186.04	196.2
A217	123676	185.1	7810	194.61	187.45	207.1
A216	122984	180.55	7810	194.2	185.93	258.6
A215	122059	179.44	7810	193.76	182.38	153.1
A214	121057	178.43	7810	193.43	183.49	218.9
A213	120291	184.06	7810	193.11	185.85	164.7
A212	119696	180.59	7810	192.73	184.19	139.7
A211	118764	178.9	7810	192.26	183.42	155.5
A210.5	118416	177.33	7810	192.1	180.33	129
A210	117893	182.37	7810	191.99	185.38	473.4
A209	117286	180.54	7810	191.81	186	576.9
A208	116395	179.8	7810	191.52	183.84	395.8
A207	116012	182.03	7810	191.32	185.18	375.8
A206	115517	182.9	7810	191.14	185.46	536.2
A205	114963	180.71	7810	191.01	184.69	520.7
A204	114482	180.12	7810	190.83	183.4	252.7
A203.5	113819	181.15	7810	190.58	185.68	652
A203	113479	181	7810	190.46	183.76	350.5
A202	113154	176.85	7810	190.3	179.6	147.8
A201	112433	179.84	7810	190.15	182.19	380.2
A200	111913	180.1	7810	189.88	181.76	227.8
A199	111445	180.2	7810	189.77	183.04	472
A198	110945	177.72	7810	189.45	181.14	184.5
A197.5	110558	180.08	7810	189.32	181	225.8
A197	110187	179.69	7810	189.14	180.79	260.6
A196	109779	179.07	7810	188.85	180.99	204.2
A195	109179	178.39	7810	188.57	182.22	351.6
A194	108693	180.1	7810	188.11	184.18	514.4
A193	108336	180.6	7810	187.82	182.08	349.1
A192	107336	178.93	7810	187.38	180.48	402.1
A191	106945	181.26	4505	187.23	181.83	272.2
A190	106441	180.03	4505	187.06	181.29	161.4
A189	105856	176.23	4505	186.56	180.04	164.6
A188	105518	175.8	7810	186.48	179.36	356.4
A187	105181	178.6	7810	186.32	180.66	337.8
A186	104856	179.42	7652	186.21	179.82	341.1
A185	104634	179.2	7157	186.16	179.61	234
A184	104252	178.9	7157	186.02	179.63	122
A183	104013	178.03	7157	185.9	179.21	185.1
A182	103149	173	7157	185.58	176.21	91.8

Table F-9
Surface Water Model Output: 8,000 cfs release (Page 12 of 15)

Main Channel 8,000 cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
A181	102972	174.02	7157	185.55	176.09	120
A180	102209	169.56	7652	185.21	181.36	649.1
A179	101488	174.59	7652	184.85	176.18	220.2
A178	100849	174.48	7652	184.6	176.09	140.2
A177	99706	173.2	7652	184.15	175.65	246.4
A176	99508	171.17	7652	183.98	174.05	113.8
A175	98648	173.49	7652	183.66	176.04	286
A174	98044	175.39	4164	183.52	178.13	245.9
A173	97555	175.1	4164	183.16	176.98	197.5
A172	96645	175.3	4164	182.85	177.15	328.6
A171	96236	176.74	4164	182.69	178.22	378
A170	95633	173.3	4164	182.21	175.06	93.5
A169	94987	168.3	7652	181.74	171.78	167.9
A168	94613	171.4	7652	181.74	173.57	342.8
A167	93997	173.86	4376	181.58	176.78	291.7
A166	93067	172.95	4376	181.16	176.08	371.6
A165.5	92682	175.96	4376	181.05	176.14	317.5
A165	92397	173.29	7652	180.98	175.38	505
A164	92021	174.29	7652	180.82	175.64	270.7
A163	91799	174.9	7652	180.75	175.64	548.7
A162	91343	174.5	7652	180.6	174.94	504.7
A161	90999	173.78	7652	180.54	174.58	551.1
A160	90592	173.1	7652	180.4	174.25	137.2
A159	90343	169.65	7652	180.36	172.65	219.9
A158	90046	165.27	7652	179.96	168.75	67.6
A157	89541	166.6	7652	179.85	169.17	188.5
A156	89103	170.55	7652	179.8	172.76	418.9
A155	88864	171.11	7652	179.73	173.3	305.4
A154	88500	167.11	7652	179.55	170.36	90.9
A153	87667	168.6	7652	179.14	170.68	206
A152.5	87158	170.89	5564	178.92	172.89	294.2
A152	86770	172.64	5564	178.74	174.01	415
A151	86428	172.23	3501	178.63	172.98	288.5
A150	85935	170.52	3501	178.18	172.43	116
A149	85570	164.79	7652	178.01	168.93	187.9
A148	85279	165.17	7652	177.96	169.69	275.6
A147	84936	164.76	7652	177.64	168.81	127.7
A146	84661	166.5	7652	177.29	169.92	166
A145	84239	168.14	7652	177.11	170.83	266.1
A144	83536	170.1	4526	176.7	170.86	97.8
A143	82999	171.74	4526	176.36	172.23	375.1
A142.5	82807	171.4	4526	176.26	172.4	444.7
A142	82530	169.2	4526	175.87	172.14	309.5
A141	82152	169.1	4526	175.35	170.89	267.3
A140	81423	167.91	4526	174.57	169.8	173.9
A139	80928	167.49	7652	176.13	169.83	394.5
A138	80648	169.2	7652	175.95	170.35	238.2
A137	79986	160.25	7652	175.79	166.93	263.5
A136	79448	165.93	7652	175.67	168.57	269.1
A135	79157	167.7	7652	175.52	168.95	268.9
A134	78673	168.99	7652	175.36	169.37	530
A133	78206	167.1	7652	175.13	169.08	373
A132	77861	168.56	7652	174.98	169.08	416.1
A131.5	77594	168.81	7652	174.88	169.66	562.2
A131	77391	169.07	7652	174.77	169.13	282.4
A130	76876	165.17	7652	174.52	168.92	449.6
A129	76518	163.86	7652	174.42	167.47	362.3
A128	76216	163.65	7652	174.16	164.9	85.8
A127	75888	165.56	7652	174.05	167.19	327

Table F-9
Surface Water Model Output: 8,000 cfs release (Page 13 of 15)

Main Channel 8,000 cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
A126	75649	167.17	7652	174.05	167.42	413.3
A125	75113	163.18	7652	173.96	165.97	238.8
A124	74787	161.9	7652	173.81	165.59	124.7
A123	74100	161.59	7652	173.38	162.86	94.3
A122	73813	164.12	7652	173.38	165.06	222.5
A121	73600	163.32	7652	173.35	164.47	261.3
A120	72856	160.36	7652	173.16	163.16	96.8
A119	72099	160.02	7652	172.76	160.89	102.1
A118	71832	162.37	7652	172.74	163.6	221.2
A117	71213	162.8	7652	172.55	165.2	351.2
A116.5	70994	162.3	7652	172.47	164.73	255.2
A116	70750	163.09	7652	172.32	163.74	92
A115.5	70402	163.13	7652	172.04	163.75	149.3
A115	70021	162.71	7652	171.88	163.77	241.6
A114	69531	162.8	7652	171.7	163.75	271.3
A113	69201	162.61	7652	171.61	164.77	199.3
A112.5	68712	162.36	7652	171.48	164.64	375.3
A112	68244	159.45	7652	171.37	160.71	70.6
A111	67799	160.72	7652	171.18	161.42	155.1
A110	67143	160.7	7652	170.99	161.15	124.2
A109	66821	159.6	7652	170.86	160.53	116
A108	66181	159.12	7652	170.52	160.85	159.1
A107	65415	160.53	7652	170.26	161.31	221
A106	65226	159.59	7652	170.23	161.07	149.5
A105	64583	160.13	7652	169.96	161.15	147.8
A104	63837	161	7652	169.58	161.51	215
A103.5	63350	161	7652	169.42	161.79	249.8
A103	63051	160	7652	169.38	160.69	93.7
A102	62778	159.41	7652	169.24	160.12	92
A101	62496	159.5	7652	168.89	160.42	131.8
A100	62202	159.2	7652	168.51	160.04	135.5
A99	61382	160.46	7652	167.82	161.1	241.5
A98	60612	159.47	7652	167.47	160.08	114.1
A97	59770	157.07	7652	165.08	158.46	139.1
A96.6	59434	158.7	1470	164.86	158.7	84.5
A96.5	59433	158.7	1470	164.84	158.7	80
A96.4	59374	158.7	1470	164.83	158.7	80
A96.3	59373	158.7	1470	164.55	160.7	80
A96.2	59371	158.7	1470	164.55	160.7	80
A96.1	59370	158.7	1470	164.65	158.7	80
A96	59357	158.7	1470	164.65	158.7	84.5
A95.1	59355	160.7	1470	164.37	160.7	84.5
A95	59354	158.7	1470	164.48	158.7	84.5
A94	59122	158.51	1470	164.47	159.41	191
A93	58131	156.8	1470	164.27	158.49	124
A92	57203	155.7	1470	164.05	157.67	93.6
A91.5	56904	157.91	1470	163.99	158.56	108
A91	56645	158.58	1470	163.95	159.12	105.2
A90	55840	158.18	1470	163.76	159.17	151.3
A89	55513	158.44	1470	163.69	160.38	291.4
A88	54891	158.9	1470	163.61	159.41	303.5
A87	54454	157.5	1470	163.52	159.57	237.3
A86	54264	157.94	1470	163.43	159.57	185.6
A85	53437	157.2	1470	163.18	159.55	253.6
A84	53227	156.13	1470	163.12	159.44	222.7
A83	53002	157.45	1470	162.98	159.57	179.3
A82	52546	157.96	1470	162.76	159.44	222.4
A81.5	52218	158.18	1470	162.66	159.23	209.7
A81	51890	158	1470	162.55	159.39	280.4

Table F-9
Surface Water Model Output: 8,000 cfs release (Page 14 of 15)

Main Channel 8,000 cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
A80.5	51725	158.24	1470	162.51	159.1	269.4
A80	51265	158.27	1470	162.36	159.22	273.7
A79	50478	156.39	1470	162.01	157.03	119.7
A78	49585	155.46	1470	161.68	156.58	117.4
A77	48601	156.6	1470	161.37	157.26	181.5
A76	47880	154.56	1470	161.12	156.74	153.3
A75	47590	156.98	1470	161.02	157.88	276.3
A74	47218	155.3	1470	160.94	156.06	117.2
A73	46806	155.8	1470	160.82	156.27	160.5
A72	46036	155.65	1470	160.69	156.65	285
A71	45670	141.13	1470	160.71	148.4	393.9
A70	44792	153.53	1470	160.64	154.74	119
A69	43940	152.01	1470	160.49	154.02	113
A68	43191	153.9	1470	160.37	155.16	170.2
A67	42388	154.4	1470	160.22	155.5	149.2
A66.5	41991	151.5	1470	160.07	155.66	153.9
A66	41729	151.83	1470	160.02	153.62	115.8
A65	41170	154.58	1470	159.91	155.22	109.2
A64.5	40870	153.67	1470	159.82	154.91	111
A64	40656	152.7	1470	159.75	154.94	138.2
A63	39956	153.67	1470	159.56	155.94	248.5
A62	39357	154.44	1470	159.39	155.22	157
A61	38776	153.6	1470	159.22	155.35	209.1
A60	38496	153.64	1470	159.15	155.5	215.9
A59.5	38189	154.21	1470	159.11	154.82	88.3
A59	37926	152.77	1470	159.06	155.02	169.3
A56	37358	152.6	1470	158.94	154.73	262.9
A55	37095	153.52	1470	158.83	154.56	159.8
A53	36876	152.37	1470	158.79	154.28	235.9
A52	36586	152.18	1470	158.72	154.83	244.5
A51	36037	150.13	1470	158.58	153.82	182.9
A50	35498	147.5	1470	158.44	154.57	238.6
A49	35063	150.4	1470	158.31	153.37	166.3
A48	34458	150.99	1470	158.14	153.04	111.1
A47.5	34155	151.93	1470	158.08	152.68	123
A47	34009	152	1470	158.06	152.72	180
A46	33388	150.63	1470	157.98	152.69	171.3
A45	33043	147.9	1470	157.86	152.32	109.2
A44	32442	149.87	1470	157.56	151.98	63.4
A43.5	32069	148.5	1470	157.5	150	56.2
A43	31811	144.1	1470	157.43	149.4	49.7
A42	31309	146.9	1470	157.34	148.29	64.7
A41	30677	145.68	1470	157.18	147.96	58.5
A40	30095	148.3	1470	156.99	149.37	58.7
A39	29482	147.7	1470	156.84	150.2	89.4
A38	29019	146.76	1470	156.68	148.93	52.5
A37	28607	143.55	1470	156.67	148.46	105.5
A36	28345	147.01	1470	156.59	148.07	66.9
A35	27968	146.34	1470	156.55	148.56	94
A34	27805	143.82	1470	156.51	148.56	89.1
A33	27442	146.43	1470	156.46	149.26	103.9
A32	27162	147.1	1470	156.43	149.94	137.2
A31	26952	144.08	1470	156.34	148.29	68.5
A30	26636	147.81	1470	156.28	150	102.9
A29	26190	148.8	1470	156.21	150.54	150.2
A28	25902	145.75	1470	156.12	149.2	96
A27	25432	146.51	1470	156.05	150.54	130.1
A26	24624	148.41	1470	155.88	149.86	118.1
A25	23909	147.46	1470	155.72	150.42	142.6

Table F-9
Surface Water Model Output: 8,000 cfs release (Page 15 of 15)

Main Channel 8,000 cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
A24	23156	147.17	1470	155.57	149.59	127.5
A23	22682	148.04	1470	155.49	148.88	123.3
A22	21507	144.5	1470	155.27	149.34	119.7
A21	20883	147.18	1470	155.16	148.94	124.8
A20	19874	149.24	1470	154.99	150.05	181.5
A19	18311	147.68	1470	154.77	150.6	273.6
A18	17115	148	1470	154.58	149.55	186.4
A17	15912	143.4	1470	154.44	147.41	135.4
A16.5	15165	146.25	1470	154.38	149.13	247.6
A16	14622	144	1470	154.35	147.22	186.1
A15	13586	143.81	1470	154.29	147.41	185
A14.5	12869	146.46	1470	154.25	148.75	259.9
A14	12428	146.2	1470	154.23	148.47	254.9
A13.5	11673	145.5	1470	154.18	148.41	231.6
A13	11130	144.7	1470	154.14	147.52	194
A12.5	10303	145.08	1470	154.1	148.9	296.3
A12	9645	143.5	1470	154.08	146.45	165.7
A11	8449	144.65	1470	154.03	148.52	268.4
A10	7630	146.3	1470	154	147.52	274.3
A9.5	6824	143.83	1470	153.98	147.73	324.2
A9	6326	144	1470	153.97	146.88	272.5
A8	5008	146.28	1470	153.94	148	335.9
A7	3857	146.52	1470	153.9	147.51	247.6
A6	2634	147.42	1470	153.85	149.95	546
A5	1887	143.2	1470	153.83	150.63	1067.9
A4	1445	136.1	1470	153.81	150.94	729.8
A3	1026	136.91	1470	153.8	144.92	206.2
A2	745	140.9	1470	153.8	147.42	418.5

Table F-10
Surface Water Model Output: Mendota Dam 800 cfs release (Page 1 of 9)

Medota to Sand Slough Control Structure 800 cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
17	253571	92.97	560	96.25	93.65	127.1
16	254413	93	560	96.48	93.5	137.4
15	255383	93.23	560	96.74	93.8	121.9
14	256160	92.51	560	96.89	93.18	137.1
13	257135	93.13	560	96.97	93.6	125.1
12	258228	93.04	560	97.08	94.29	132.9
11	259300	94.1	560	97.43	95.21	134.8
10	260115	95.42	560	97.98	96.13	169.1
9	261119	97.46	560	99.14	98.66	241.6
8	262275	98.96	560	100.93	99.3	181.5
7	262969	99.9	560	101.42	100.44	316.8
6	263863	94.9	140	101.44	96.15	129.4
5	264457	92.24	140	101.44	94.67	129.4
4	264980	92.3	140	101.44	94.83	148.3
3.5	265323	92.16	140	101.44	95.45	162.6
3	265616	94.77	140	101.44	96.59	188.3
2.9	265617	94.77	140	101.44	96.78	188.5
2.1	265635	96	140	101.44	96.9	181
2	265636	96	140	101.44	96.9	187.5
1.6	265823	94.46	140	101.44	96.36	175.5
1.5	265960	94.29	140	101.44	95.85	197.5
1.4	266057	94.29	140	101.44	96.26	206.9
1.3	266058	94.29	140	101.44	96.31	207
1.2	266107	94.49	140	101.44	96.5	208.8
1.1	266108	94.49	140	101.44	98.42	209.1
1	266111	94.49	140	101.44	98.42	209.1
0.9	266112	94.49	140	101.44	96.46	209.1
0.8	266167	94.87	140	101.44	96.91	237.9
304	266616	95.07	200	101.44	98.41	354.1
305	266804	95.07	200	101.45	98.8	421.2
306	267180	95.11	200	101.45	98.95	436.7
307	267583	96.68	200	101.45	98.93	294.8
308	268017	96.68	200	101.45	98.37	220.3
309	268425	96.68	200	101.46	97.67	159.3
310	268810	97.7	200	101.46	98.96	256.4
311	269233	97.7	200	101.47	98.87	242.2
312	269672	95.9	200	101.48	98.36	295.6
313	270135	92.12	200	101.48	94.92	156.7
314	270492	91.1	200	101.48	95.94	145.1
315	270900	90.4	200	101.48	93.87	145.7
316	271332	91.6	200	101.48	93.99	139.9
317	271765	92.37	200	101.48	94.89	153.3
318	272183	88.02	200	101.48	92.02	156.9
319	272560	92.9	200	101.48	96.54	172.9
320	273000	90.96	200	101.48	94.67	116.5
321	273440	94.1	200	101.49	96.54	150
322	273830	93.19	200	101.49	95.65	160.8
323	274194	92.27	200	101.49	95.46	107.6
324	274553	93.97	200	101.49	95.88	296.3
325	274954	91.94	200	101.49	95.28	107.2
326	275365	92.33	200	101.49	96.19	123.9
327	275781	91.75	200	101.5	95.62	131.2
328	276251	91.81	200	101.5	95.93	122.8
329	276689	91.51	200	101.5	94.52	112.1
330	277090	92.16	200	101.5	94.89	115.3
331	277523	92.7	200	101.5	96.06	135.2
332	277919	90.91	200	101.5	93.59	121.5
333	278356	90.12	200	101.5	93.51	124.9
334	278900	89.49	200	101.51	93.7	186.5
335	279377	92.98	200	101.5	94.33	96.1

Table F-10
Surface Water Model Output: Mendota Dam 800 cfs release (Page 2 of 9)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
336	279781	92.63	200	101.51	95.2	102.5
337	280166	88.99	200	101.51	93.02	96
338	280575	93.43	200	101.51	97.23	148.9
339	281029	93.43	200	101.51	96.17	118.3
340	281493	91.87	200	101.52	94.96	83.7
341	281964	92.79	200	101.52	95.21	83.6
342	282366	93.32	200	101.52	96.55	98.2
343	282792	92.7	200	101.53	95.98	74.9
344	283228	92.6	200	101.53	96.41	111.6
345	283658	93.7	200	101.54	96.35	108.1
346	284105	93.19	200	101.54	95.42	91.1
347	284515	93.59	200	101.54	96.5	104.4
348	284982	96.1	200	101.55	99.04	130.6
349	285505	95.42	200	101.57	97.45	123.2
350	285936	94.34	200	101.57	97.33	106
351	286410	94.9	200	101.58	97.59	112.9
352	286884	95.4	200	101.59	98.09	172.3
353	287332	95.4	200	101.59	99.07	140.7
354	287771	93.6	200	101.6	96.48	134.4
355	288167	93.55	200	101.6	95.42	108.2
356	288624	94.7	200	101.61	96.91	130.9
357	289011	94.57	200	101.61	96.46	111
358	289428	94.18	200	101.61	97.17	98.1
359	289864	91.2	200	101.62	95.33	228.7
360	290299	96	200	101.62	98.04	86.9
361	290677	96.75	200	101.64	99.48	153.8
362	291119	97.91	200	101.7	99.7	123.7
363	291528	96.91	200	101.77	99.53	99.1
364	291930	94.95	200	101.8	97.31	130.1
365	292374	95.7	200	101.8	97.77	188.5
366	292773	94.77	200	101.8	96.7	153.3
367	293206	94.24	200	101.8	96.77	180.1
368	293559	94.38	200	101.81	96.31	179.6
369	293956	92.81	200	101.81	95.23	154.6
370	294382	94.12	200	101.81	95.99	175.7
371	294825	98.3	200	101.81	99.64	142.4
372	295323	98.5	200	101.84	99.9	234
373	295543	98.55	200	101.85	100.01	151.3
373.1	295544	98.55	200	101.85	100.02	147.2
373.9	295583	98.6	200	101.86	99.85	127.3
374	295584	98.6	200	101.86	99.89	133.2
375	295703	98.83	200	101.87	99.68	89.6
375.1	295704	98.83	200	101.87	99.69	87.5
375.9	295746	98.88	200	101.89	99.65	101.3
376	295747	98.88	200	101.89	99.67	103.4
377	296009	99.17	200	101.95	100.65	148.1
378	296447	96.1	200	102.02	98.58	72.3
379	296912	96.06	200	102.05	98.33	101.6
380	297383	100	200	102.07	100.61	113.2
381	297762	96.29	200	102.19	99.81	79.3
382	298222	99.92	200	102.32	100.97	107.9
383	298640	100.46	200	102.7	101.35	89.7
384	299070	97.5	200	102.78	99.01	96
385	299551	99.15	200	102.81	101.32	132.8
386	299960	98.98	200	102.93	100.68	74.8
387	300425	98.33	200	103.05	100.49	61.4
388	300884	100.46	200	103.17	101.1	104
389	301339	97.65	200	103.24	99.99	73.7
390	301803	100.41	200	103.3	101.47	109.7
391	302284	98.29	200	103.39	100.75	98.1
392	302695	98.94	200	103.44	101.17	78.2

Table F-10
Surface Water Model Output: Mendota Dam 800 cfs release (Page 3 of 9)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
393	303106	98.6	200	103.56	101.79	92.8
394	303526	99.2	200	103.65	100.9	98.7
395	303963	98.44	200	103.69	100.79	75.7
396	304419	96.5	200	103.71	98.73	95.6
397	304806	101.14	200	103.7	102.18	91.4
398	305219	100.81	200	103.86	101.47	106.9
399	305643	99.97	200	103.91	101.19	84.2
400	306095	96.9	200	103.94	99.56	72.7
401	306500	98.31	200	103.96	100.34	80.9
402	306962	103.18	200	104.08	103.49	77.1
403	307360	99.9	200	104.56	101.66	86.7
404	307793	103.66	200	104.8	104.3	95.8
405	308180	104.32	200	106.38	105.45	151.1
406	308560	104.58	200	106.78	105.73	146.9
407	308962	104.82	200	106.97	105.35	146
408	309364	97.19	200	107	102.28	91.5
409	309730	103.97	200	107	104.96	79.2
410	310182	101.8	200	107.1	103.8	55.2
411	310597	104.85	200	107.18	105.77	175
412	311019	103.72	200	107.26	105.28	132.5
413	311438	103.43	200	107.31	104.35	102.7
414	311849	103.41	200	107.35	105	77.8
415	312267	104.14	200	107.47	105.29	65.7
416	312726	106.3	200	107.8	106.48	84.7
417	313175	105.3	200	108.36	107.2	139.1
418	313627	102	200	108.41	103.77	90.2
419	314029	102.67	200	108.42	105.73	161.9
420	314421	101.03	200	108.43	104.77	123.3
421	314839	103.17	200	108.44	106.68	137.8
422	315266	106.7	200	108.54	107.39	151
423	315695	106.9	200	108.86	107.71	166.3
424	316184	105.95	200	109.07	107.73	170.5
425	316627	103.45	200	109.12	106	96.6
426	317071	102.24	200	109.13	104.51	91.1
427	317517	104.28	200	109.14	106.86	95.5
428	317969	99.39	200	109.16	102.75	127.2
429	318390	100.43	200	109.16	104.75	79.8
430	318841	106.56	200	109.15	108.12	77.6
431	319236	108.04	200	110.18	109.27	126.4
432	319650	105.5	200	110.31	107.88	126.4
433	320073	104.18	200	110.33	107.13	150.1
434	320559	105.42	200	110.34	107.21	95.1
435	320980	104.85	200	110.36	107.74	105.4
436	321410	107.78	200	110.41	109.66	121.2
437	321856	106.7	200	110.55	107.9	90.5
438	322249	107.1	200	110.61	109.12	155.7
439	322732	108.66	200	110.8	109.61	169.4
440	323182	107.89	200	110.95	109.21	151.4
441	323660	108.04	200	111.09	109.63	105.8
442	324054	108.69	200	111.29	110.04	153
443	324467	108.92	200	111.48	110.15	134.3
444	324900	108.71	200	111.56	109.34	148.5
445	325349	108.7	200	111.62	110.13	141.6
446	325806	109.55	200	111.78	110.45	166.7
447	326320	108.02	200	111.89	109.89	118.5
448	326804	107.17	200	111.93	109.58	174.2
449	327202	107.54	200	111.95	110.02	185.6
450	327663	107.6	200	111.99	109.94	103.9
451	328044	105.18	200	112.01	107.22	83.7
452	328441	105.3	200	112.02	108.21	109.8
453	328937	108.93	200	112.03	110.74	165.9

Table F-10
Surface Water Model Output: Mendota Dam 800 cfs release (Page 4 of 9)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
454	329389	107.22	200	112.09	109.94	114.5
455	329818	108.14	200	112.15	110.3	124.6
456	330272	106.92	200	112.21	109.57	128.7
457	330756	106.3	200	112.25	110.29	173.4
458	331213	110.35	200	112.02	110.85	27.6
459	331622	106.69	200	112.71	109.37	130.5
460	332055	102.37	200	112.72	107.45	89.2
461	332475	108.92	200	112.73	111.09	129.9
462	332893	110.72	200	112.98	111.57	61.8
463	333298	108.91	200	113.31	111.95	120.1
464	333766	107.26	200	113.38	109.65	67.8
465	334201	109.07	200	113.41	110.27	80.9
466	334733	108.51	200	113.45	109.74	72.4
467	335210	107.4	200	113.48	109.6	64.9
468	335671	109.07	200	113.53	110.59	67.3
469	336089	108.46	200	113.57	109.82	71.6
470	336440	105.88	200	113.59	108.13	92.8
471	336732	104.98	200	113.59	107.62	86.6
472	336824	110.39	200	113.55	112.4	85.5
473	337037	107.71	200	113.83	112.14	84.8
474	337369	111.98	200	114.11	112.22	47.5
475	337804	111.98	200	114.56	112.33	57.8
476	338054	106.42	200	114.61	111.41	109.7
477	338108	109.58	200	116.58	116.11	107.3
478	338202	114.29	200	116.87	115.29	151.2
479	338379	113.08	800	116.9	114.05	146.7
480	338792	111.88	800	117.09	114.07	153.7
481	339185	113.73	800	117.28	115.14	205.6
482	339641	113.02	800	117.55	115.48	260.5
483	340105	110.53	800	117.68	114.19	189.5
484	340547	112.2	800	117.77	115.09	227.9
485	341001	112.14	800	117.86	113.86	148.5
486	341546	108.3	800	117.95	114.34	176
487	341958	112.31	800	118.04	115.36	169.4
488	342435	110.43	800	118.18	113.87	141.7
489	342856	109.78	800	118.24	113.74	129.5
490	343281	113.92	800	118.31	115	162.5
491	343709	110.54	800	118.39	113.36	111.5
492	344098	112.08	800	118.47	115.76	227
493	344504	111.7	800	118.53	114.54	165.9
494	344974	112.8	800	118.59	115.52	143
495	345606	109.3	800	118.7	112.42	108.1
496	346099	111.08	800	118.75	114.58	117
497	346524	114.9	800	118.87	116.24	178.5
498	346956	113.8	800	119.1	116.71	182.6
499	347367	113.17	800	119.22	114.48	140.3
500	347882	113.6	800	119.29	116.05	146
501	348295	114.52	800	119.45	116.72	155
502	348817	114.3	800	119.66	116.42	166.1
503	349237	113.88	800	119.78	117.07	236.4
504	349679	114.43	800	119.88	116.66	165.2
505	350171	113.81	800	120.01	116.61	163.5
506	350619	113.92	800	120.1	116.81	217.2
507	351044	115.2	800	120.17	117.4	262.7
508	351485	115.18	800	120.25	117.12	190.4
509	351929	116.65	800	120.36	117.28	165.2
510	352353	115.97	800	120.49	117.11	149.6
511	352803	114.37	800	120.61	116.95	139.6
512	353223	117.2	800	120.74	118.21	187.7
513	353629	114.41	800	120.87	117.54	199.5
514	354028	115.5	800	120.93	117.07	115.6

Table F-10
Surface Water Model Output: Mendota Dam 800 cfs release (Page 5 of 9)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
515	354561	117.63	800	121.13	118.5	206.8
516	354992	115.79	800	121.26	117.73	155.8
517	355477	117.5	800	121.39	118.38	152.4
518	355891	115.33	800	121.52	117.72	157.2
519	356319	117.2	800	121.61	118.47	173.2
520	356729	116.75	800	121.75	119.09	190.1
521	357178	118.1	800	121.91	118.92	182.2
522	357594	118.26	800	122.02	118.57	170.8
523	358007	117.72	800	122.11	118.54	135.7
524	358433	118.1	800	122.23	118.74	134.7
525	358847	118.16	800	122.33	118.54	187.9
526	359241	116.78	800	122.38	118.42	143
527	359618	115.01	800	122.45	119.32	177.5
528	360068	117.44	800	122.52	118.21	157.7
529	360648	117.74	800	122.59	118.49	143
530	361067	116.5	800	122.66	117.97	138.2
531	361484	118.23	800	122.72	118.93	136.6
532	361930	117.61	800	122.85	119.43	159.6
533	362352	118.3	800	122.96	119.29	154.2
534	362764	117.6	800	123.04	119.25	157.3
535	363177	115.11	800	123.11	118.92	126.5
536	363588	118.84	800	123.2	119.85	158.6
537	364062	117.8	800	123.32	119.38	123.5
538	364455	116.95	800	123.43	119.52	149.9
539	364879	115.38	800	123.52	119.67	136.3
540	365368	118	800	123.64	119.95	137.1
541	365775	118.2	800	123.73	119.47	120
542	366131	117.99	800	123.81	120.25	160.1
543	366583	117.1	800	123.91	120.44	164.2
544	367030	119.96	800	124.02	121.06	176.1
545	367454	117.8	800	124.12	119.96	151
546	367870	116.49	800	124.18	119.3	106.7
547	368381	115.19	800	124.25	117.93	98.1
548	368836	119.57	800	124.3	120.67	126.6
549	369252	117.97	800	124.41	120.24	129.8
550	369713	117.02	800	124.48	119.46	159.5
551	370149	117.69	800	124.51	119.23	93.3
552	370604	117.7	800	124.58	119.06	103.5
553	371065	117.11	800	124.64	119.42	92.4
554	371519	120.53	800	124.75	121.25	113.4
555	371927	120.8	800	124.94	121.45	128.7
556	372389	120.05	800	125.09	121.14	120.2
557	372805	119.74	800	125.2	121.41	167.4
558	373142	120.94	800	125.27	122.12	157
559	373596	119.49	800	125.42	121.73	146.4
560	373888	119.68	800	125.48	121.02	132.8
561	374276	119.07	800	125.54	121.18	137.1
562	374711	121.68	800	125.62	122.46	149.4
563	375082	117.79	800	125.69	119.28	111.7
564	375481	118.62	800	125.72	121.34	103.3
565	375882	119.7	800	125.82	121.68	98.5
566	376270	121.87	800	125.96	122.6	195.3
567	376678	119.55	800	126.02	121.64	135.3
568	377057	117.73	800	126.08	120.54	84.4
569	377433	121.5	800	126.17	123	121.5
570	377784	119.9	800	126.29	121.71	170.6
571	378144	119.1	800	126.31	120.81	99.4
572	378520	117.63	800	126.36	120.58	90.8
573	378835	120.92	800	126.41	122.99	145.4
574	379249	122.1	800	126.52	122.94	162
575	379644	120.76	800	126.59	122.11	136.7

Table F-10
Surface Water Model Output: Mendota Dam 800 cfs release (Page 6 of 9)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
576	380036	120.52	800	126.66	123.15	155.2
577	380399	121.11	800	126.74	123.3	175.5
578	380778	118.8	800	126.79	120.5	104.4
579	381241	117.88	800	126.83	120.92	93.6
580	381750	120.24	800	126.9	123.1	163.6
581	382140	120.26	800	126.96	122.05	109.8
582	382569	118.05	800	127.02	121.37	149.2
583	382921	120.9	800	127.03	123.33	136.2
584	383303	120.02	800	127.1	121.58	131.8
585	383635	118.8	800	127.13	122.29	122.1
586	384024	121.3	800	127.19	123.76	154.6
587	384400	122.25	800	127.29	124.16	167.8
588	384789	122.27	800	127.42	124.98	196.1
589	385171	121.49	800	127.53	123.1	142
590	385593	117.69	800	127.57	122	130.2
591	386037	121.4	800	127.62	123.73	137.9
592	386439	122.17	800	127.73	124.81	146.2
593	386879	123.09	800	127.9	124.43	159.5
594	387216	123.63	800	127.98	124.69	147.7
595	387658	123.12	800	128.13	125.03	141
596	388094	121.4	800	128.31	125.07	123.3
597	388519	123.27	800	128.49	125.22	155.1
598	389018	121.64	800	128.6	124.43	135.1
599	389517	123.6	800	128.69	125.64	161.4
600	389938	123.4	800	128.81	124.92	162.5
601	390359	119.85	800	128.85	123.49	174.2
602	390748	120.92	800	128.86	124.55	103.5
603	391137	122.77	800	128.98	125.94	186.2
604	391544	119.57	800	129.05	123.87	128.8
605	391997	121.7	800	129.08	125.29	171.6
606	392471	125.92	800	129.18	126.75	216.8
607	392876	124.67	800	129.32	125.64	122.8
608	393393	119.93	800	129.45	124.14	106
609	393809	124.26	800	129.52	126.39	171.4
610	394182	122.7	800	129.63	125.8	116.5
611	394643	123.58	800	129.74	125.58	171.7
612	395129	124.56	800	129.81	126.92	168.4
613	395577	125.3	800	129.96	126.74	169
614	396010	121.87	800	130.03	123.62	88.6
615	396423	123.93	800	130.08	126.91	157.8
616	396807	125.61	800	130.17	126.91	211.4
617	397283	123.9	800	130.26	126.63	135.3
618	397742	126.12	800	130.41	127.61	166.6
619	398169	124.11	800	130.52	125.89	149.7
620	398577	124.37	800	130.56	125.77	156.2
621	399022	125.38	800	130.6	126.46	149.4
622	399385	122.7	800	130.66	126.17	131.9
623	399803	124.61	800	130.74	127.78	147.7
624	400207	124.5	800	130.86	126.5	132.9
625	400614	122.99	800	130.93	127.15	159.9
626	401011	125.22	800	130.99	127.71	165.5
627	401361	124.9	800	131.07	127.18	157.7
628	401752	123.47	800	131.13	126.31	145.6
629	402116	124.74	800	131.17	127.3	142.2
630	402462	122.53	800	131.22	126.57	172.9
631	402862	122	800	131.24	126.4	167.9
632	403227	126.68	800	131.27	128.9	175.9
633	403613	128.26	800	131.56	129.44	189.8
634	403976	126.44	800	131.75	128.07	132.6
635	404354	124.88	800	131.88	127.78	95.5
636	404773	125.79	800	132.04	127.64	110.9

Table F-10
Surface Water Model Output: Mendota Dam 800 cfs release (Page 7 of 9)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
637	405151	125.28	800	132.12	127.62	133.2
638	405570	125.57	800	132.19	126.76	133.5
639	406066	122.99	800	132.25	127.05	88.7
640	406320	125.57	800	132.33	128.44	140.4
641	406898	125.27	800	132.46	128.63	125.2
641.1	406899	125.27	800	132.43	128.36	78
641.9	406927	126.99	800	132.51	128.93	129.7
642	406928	126.78	800	132.54	128.7	182.1
643	407431	124.4	800	132.6	127.09	109.8
644	407837	126.63	800	132.65	128.79	132.2
645	408298	126.4	800	132.77	128.74	120.8
646	408704	129.48	800	132.93	130.55	172.5
647	409014	127.02	800	133.09	129.73	163.4
648	409463	125.56	800	133.18	128.79	149.9
649	409857	127.92	800	133.24	129.84	189.9
650	410267	124.54	800	133.3	128.27	89.9
651	410682	130.03	800	133.45	131.37	176
652	411043	129.5	800	133.68	130.77	143.9
653	411443	125.12	800	133.79	128.48	132.4
654	411805	124.47	800	133.82	129.24	134.9
655	412229	123.14	800	133.86	128.52	125.8
656	412533	127.7	800	133.88	130.35	118.5
657	412948	125.6	800	134	130.02	116
658	413298	128.2	800	134.08	129.88	156.3
659	413693	126.78	800	134.14	130.09	113.2
660	414098	127.24	800	134.29	131.25	144.1
661	414456	124.01	800	134.4	129.7	114.8
662	414860	128.93	800	134.47	130.75	149.9
663	415243	126.78	800	134.53	130.94	182
664	415641	127.44	800	134.58	130.87	165.5
665	416045	129.28	800	134.66	131.14	106
666	416497	127.6	800	134.81	129.82	143.2
667	416904	125.41	800	134.85	129.64	150.8
668	417296	126.9	800	134.88	130.48	148.8
669	417707	130.36	800	134.95	132.26	172.5
670	418085	128.5	800	135.08	130.99	124.8
671	418504	128.16	800	135.16	130.39	133.8
672	418965	120.6	800	135.2	126.65	81.7
673	419302	130.5	800	135.24	132.34	192.2
674	419732	125.95	800	135.32	130.53	149.8
675	420137	123.09	800	135.35	128.14	111.2
676	420456	128.97	800	135.36	131.15	121.3
677	420814	130.23	800	135.46	131.72	138.1
678	421215	123.88	800	135.53	129.87	124.2
679	421622	129.18	800	135.58	132.57	198
680	422035	128.1	800	135.66	131.33	111.2
681	422441	127.61	800	135.76	131.65	146.2
682	422875	131.3	800	135.84	132.36	153.6
683	423256	126.78	800	135.92	131.23	142.5
684	423697	130.95	800	135.98	133.38	201.7
685	424128	131.58	800	136.09	132.83	188.2
686	424541	129.95	800	136.15	131.66	160.3
687	425046	129.04	800	136.2	131.54	118.9
688	425491	125.67	800	136.27	130.72	109.4
689	425931	128.32	800	136.33	131.67	148.4
690	426343	131.6	800	136.39	132.97	170.8
691	426717	130.3	800	136.46	132.57	140.3
692	427107	129.36	800	136.54	132.7	125.1
693	427471	128.73	800	136.62	131.61	139.2
694	427837	130.2	800	136.65	134.21	132.6
695	428279	127.73	800	136.79	130.75	126.6

Table F-10
Surface Water Model Output: Mendota Dam 800 cfs release (Page 8 of 9)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
696	428748	132.2	800	136.82	134.01	121.8
697	429168	129.77	800	137.01	131.72	96.9
698	429573	131.3	800	137.1	133.84	118.7
699	429934	131.87	800	137.25	133.51	138
700	430353	132.15	800	137.36	133.89	154.4
701	430750	131.41	800	137.44	132.69	124.4
702	431196	127.35	800	137.5	132.15	115.4
703	431655	133.65	800	137.57	134.98	175.2
704	432221	133.15	800	137.76	134	154.3
705	432623	131.35	800	137.83	132.94	97.3
706	433041	130	800	137.93	134.02	109.1
707	433473	131.5	800	138.05	132.81	90
708	433900	130.92	800	138.14	132.94	100.8
709	434253	130.99	800	138.19	133.52	79.8
710	434604	126.8	800	138.3	132.93	97.8
711	435051	121.98	800	138.35	128.07	96.3
712	435444	127.29	800	138.35	132	94.6
713	435921	131.91	800	138.41	134.72	140.6
714	436320	133.03	800	138.52	134.65	121.2
715	436841	131.41	800	138.66	134.16	122.9
716	437338	129.08	800	138.77	134.12	119.1
717	437957	133.33	800	138.93	134.72	109.6
718	438384	131.69	800	139.04	134.22	121.4
719	438890	134.02	800	139.12	135.31	94.5
720	439271	133.69	800	139.26	135.12	185.9
721	439633	131.9	800	139.29	134.22	156.6
722	440025	130.8	800	139.32	132.84	119.5
723	440481	132.34	800	139.35	134.27	113.3
724	440942	131.19	800	139.4	132.92	101.2
725	441474	130	800	139.43	131.83	102
726	441879	130.31	800	139.45	133.7	99.9
727	442284	133.11	800	139.5	134.12	94.9
728	442716	130.75	800	139.56	133.51	128.7
729	443159	134.02	800	139.59	135.24	128
730	443614	128.42	800	139.64	132.02	131.3
731	444057	126.37	800	139.65	132.59	97.6
732	444471	128.25	800	139.68	133.27	136.2
733	444899	132.59	800	139.7	135.82	145.2
734	445394	135.22	800	139.82	136.83	163.2
735	445811	128.67	800	139.89	132.8	98.9
736	446149	134.33	800	139.92	136.07	134.3
737	446473	133.97	800	139.99	135.52	124.2
738	446865	132.44	800	140.05	134.81	74.8
739	447162	134.65	800	140.16	136.44	120
740	447462	137.2	800	140.3	137.79	125.8
741	447817	128.74	800	140.45	134.6	114.4
742	448203	134.11	800	140.49	135.7	124
743	448616	132.52	800	140.54	135.13	112.2
744	449046	135.28	800	140.59	136.75	126.1
745	449446	135.7	800	140.69	136.86	166.3
746	449835	133.6	800	140.74	135.6	167.7
747	450299	133.48	800	140.77	136.88	176.8
748	450718	130.4	800	140.8	134.06	130
749	451225	132.47	800	140.82	135.2	133.6
750	451658	132.83	800	140.85	135.35	148.3
751	452078	132.26	800	140.88	135.37	174.3
752	452391	134.86	331	140.9	135.94	78.9
753	452740	136.38	331	140.92	138.34	196.2
754	452995	137.17	331	140.95	137.69	114.3
755	453320	134.37	331	140.98	137.38	85
756	453501	135.8	331	141	136.9	76.9

Table F-10
Surface Water Model Output: Mendota Dam 800 cfs release (Page 9 of 9)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
757	453811	136.36	800	141.04	138.08	191.3
758	454099	135.74	800	141.12	138.83	159.8
759	454512	134.18	800	141.28	136.73	138.6
760	454881	132.91	800	141.32	136.47	106.6
761	455304	134.45	800	141.38	136.33	168.3
762	455657	132.35	800	141.4	135.34	135.5
763	456087	132.99	800	141.42	135.53	133.3
764	456328	129.3	800	141.44	135.92	413.2

Table F-11
Surface Water Model Output: Mendota Dam 4,000 cfs release (Page 1 of 9)

Medota to Sand Slough Control Structure 4,000 cfs

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
17	253571	92.97	8790	99.65	93.66	127.1
16	254413	93	8790	99.9	93.57	140.7
15	255383	93.23	8790	100.2	93.84	123
14	256160	92.51	8790	100.42	93.18	137.1
13	257135	93.13	8790	100.62	93.61	125.1
12	258228	93.04	8790	100.84	94.31	132.9
11	259300	94.1	8790	101.12	95.77	168
10	260115	95.42	8790	101.43	96.16	169.1
9	261119	97.46	8790	101.98	98.68	241.6
8	262275	98.96	8790	103.13	99.52	198.6
7	262969	99.9	8790	104.04	100.45	316.8
6	263863	94.9	2750	104.34	96.16	129.4
5	264457	92.24	2750	104.35	94.67	129.4
4	264980	92.3	2750	104.4	94.84	148.3
3.5	265323	92.16	2750	104.44	95.46	162.6
3	265616	94.77	2750	104.47	96.6	188.5
2.9	265617	94.77	2750	104.47	96.91	188.5
2.1	265635	96	2750	104.47	97.31	192.5
2	265636	96	2750	104.47	97.03	192.5
1.6	265823	94.46	2750	104.49	96.84	192
1.5	265960	94.29	2750	104.52	95.89	197.5
1.4	266057	94.29	2750	104.54	96.35	210.1
1.3	266058	94.29	2750	104.54	96.39	210.1
1.2	266107	94.49	2750	104.55	97.01	228.2
1.1	266108	94.49	2750	104.54	98.75	228.2
1	266111	94.49	2750	104.54	98.75	228.2
0.9	266112	94.49	2750	104.56	96.96	228.2
0.8	266167	94.87	2750	104.58	97.25	253.5
304	266616	95.07	3550	104.65	98.67	380.6
305	266804	95.07	3550	104.69	99.29	497.5
306	267180	95.11	3550	104.74	99.48	524.9
307	267583	96.68	3550	104.78	99.09	294.8
308	268017	96.68	3550	104.86	98.55	220.3
309	268425	96.68	3550	104.95	97.68	159.3
310	268810	97.7	3550	105.07	98.97	256.4
311	269233	97.7	3550	105.19	98.87	242.2
312	269672	95.9	3550	105.28	98.35	295.6
313	270135	92.12	3550	105.33	95.31	165.3
314	270492	91.1	3550	105.36	96.89	169.7
315	270900	90.4	3550	105.45	95.32	174.7
316	271332	91.6	3550	105.5	95.11	159.5
317	271765	92.37	3550	105.56	95.92	174.2
318	272183	88.02	3550	105.63	93.19	174.5
319	272560	92.9	3550	105.64	96.96	182.6
320	273000	90.96	3550	105.71	94.81	116.5
321	273440	94.1	3550	105.8	97.85	184.4
322	273830	93.19	3550	105.9	97.54	210.5
323	274194	92.27	3550	105.93	96.28	120.7
324	274553	93.97	3550	106.05	95.94	296.3
325	274954	91.94	3550	106	95.44	109.7
326	275365	92.33	3550	106.13	97.66	153.3
327	275781	91.75	3550	106.26	97.88	182.5
328	276251	91.81	3550	106.35	97.97	161.8
329	276689	91.51	3550	106.47	97.82	172.1
330	277090	92.16	3550	106.56	96.27	137.5
331	277523	92.7	3550	106.66	96.59	147.3
332	277919	90.91	3550	106.71	94.84	138.9
333	278356	90.12	3550	106.76	96.18	164.4
334	278900	89.49	3550	106.83	94.9	212.8
335	279377	92.98	3550	106.81	95.97	114.8

Table F-11
Surface Water Model Output: Mendota Dam 4,000 cfs release (Page 2 of 9)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
336	279781	92.63	3550	106.9	98.09	150.8
337	280166	88.99	3550	106.99	97.5	146
338	280575	93.43	3550	107.08	97.36	148.9
339	281029	93.43	3550	107.15	97.28	135.9
340	281493	91.87	3550	107.23	96.49	98.8
341	281964	92.79	3550	107.39	99.03	134.4
342	282366	93.32	3550	107.58	99.99	161.6
343	282792	92.7	3550	107.75	99.97	126.8
344	283228	92.6	3550	108.02	99.67	172.2
345	283658	93.7	3550	108.11	97.7	132
346	284105	93.19	3550	108.2	97.42	114.9
347	284515	93.59	3550	108.3	97.03	106.7
348	284982	96.1	3550	108.4	100.2	164.5
349	285505	95.42	3550	108.5	98.46	146.5
350	285936	94.34	3550	108.56	98.17	118.8
351	286410	94.9	3550	108.69	99.45	154.7
352	286884	95.4	3550	108.81	98.2	172.3
353	287332	95.4	3550	108.85	100.64	157.5
354	287771	93.6	3550	108.9	97.95	164.7
355	288167	93.55	3550	108.93	97.24	132
356	288624	94.7	3550	109.01	99.38	181.9
357	289011	94.57	3550	109.05	98.05	135.1
358	289428	94.18	3550	109.14	99.76	145.4
359	289864	91.2	3550	109.24	97	273.7
360	290299	96	3550	109.19	101.18	154.6
361	290677	96.75	3550	109.37	100.76	214.5
362	291119	97.91	3550	109.45	100.61	166.6
363	291528	96.91	3550	109.56	101.89	191.1
364	291930	94.95	3550	109.65	99.49	173.8
365	292374	95.7	3550	109.73	98.48	211.2
366	292773	94.77	3550	109.76	99.34	213.5
367	293206	94.24	3550	109.8	98.83	234.3
368	293559	94.38	3550	109.82	98.83	242.6
369	293956	92.81	3550	109.84	98.47	219.4
370	294382	94.12	3550	109.87	98.94	248
371	294825	98.3	3550	109.89	102.37	313
372	295323	98.5	3550	109.94	101.13	336.6
373	295543	98.55	3550	109.95	102.36	331.4
373.1	295544	98.55	3550	109.95	102.36	319.3
373.9	295583	98.6	3550	109.95	102.74	323.7
374	295584	98.6	3550	109.96	102.76	335.7
375	295703	98.83	3550	109.95	103.36	249.4
375.1	295704	98.83	3550	109.95	103.4	245.3
375.9	295746	98.88	3550	109.96	103.24	236.5
376	295747	98.88	3550	109.97	103.22	240.5
377	296009	99.17	3550	110.03	102.25	210.3
378	296447	96.1	3550	110.12	100.84	142.6
379	296912	96.06	3550	110.21	99.89	133.7
380	297383	100	3550	110.35	101.63	154.4
381	297762	96.29	3550	110.47	100.21	79.3
382	298222	99.92	3550	110.56	101.76	140
383	298640	100.46	3550	110.73	102.99	194.6
384	299070	97.5	3550	110.82	99.57	106.8
385	299551	99.15	3550	110.95	102.11	164.9
386	299960	98.98	3550	111.03	101.92	99.5
387	300425	98.33	3550	111.12	103.45	153
388	300884	100.46	3550	111.13	102.22	141.5
389	301339	97.65	3550	111.21	101.97	105.5
390	301803	100.41	3550	111.36	103.46	176.8
391	302284	98.29	3550	111.55	102.68	173.3
392	302695	98.94	3550	111.64	102.9	130.5

Table F-11
Surface Water Model Output: Mendota Dam 4,000 cfs release (Page 3 of 9)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
393	303106	98.6	3550	111.76	103.02	144.2
394	303526	99.2	3550	111.89	102.37	127.8
395	303963	98.44	3550	112.02	103.98	174.1
396	304419	96.5	3550	112.11	100.15	113.1
397	304806	101.14	3550	112.21	104.47	196.1
398	305219	100.81	3550	112.36	103.51	158.8
399	305643	99.97	3550	112.52	102.4	112
400	306095	96.9	3550	112.68	100.88	89.2
401	306500	98.31	3550	112.8	101.97	110.4
402	306962	103.18	3550	112.93	105.43	169.8
403	307360	99.9	3550	113.12	102.81	114.8
404	307793	103.66	3550	113.29	105.21	184
405	308180	104.32	3550	113.4	106.37	234.9
406	308560	104.58	3550	113.5	106.81	295.5
407	308962	104.82	3550	113.56	106.51	201.7
408	309364	97.19	3550	113.67	102.58	97.3
409	309730	103.97	3550	113.8	106.35	106.5
410	310182	101.8	3550	113.88	104.07	59.4
411	310597	104.85	3550	113.95	106.52	218.7
412	311019	103.72	3550	114.02	106.18	162.6
413	311438	103.43	3550	114.14	106.14	173.3
414	311849	103.41	3550	114.26	106.81	142.6
415	312267	104.14	3550	114.45	107.87	169
416	312726	106.3	3550	114.58	107.72	162.1
417	313175	105.3	3550	114.71	107.66	167.9
418	313627	102	3550	114.84	105.07	110.1
419	314029	102.67	3550	115	106.43	196.4
420	314421	101.03	3550	115.04	105.05	123.3
421	314839	103.17	3550	115.08	107.04	150.7
422	315266	106.7	3550	115.19	108.92	241.3
423	315695	106.9	3550	115.34	108.93	261.2
424	316184	105.95	3550	115.47	108.41	179.5
425	316627	103.45	3550	115.52	106.04	96.6
426	317071	102.24	3550	115.59	106.11	117.8
427	317517	104.28	3550	115.65	108.28	95.5
428	317969	99.39	3550	115.73	103.32	137.2
429	318390	100.43	3550	115.79	106.3	107
430	318841	106.56	3550	115.9	110.25	223.9
431	319236	108.04	3550	115.96	110.04	204.6
432	319650	105.5	3550	116.03	108.84	183.8
433	320073	104.18	3550	116.1	107.76	165
434	320559	105.42	3550	116.18	108.67	122.8
435	320980	104.85	3550	116.36	108.61	116.4
436	321410	107.78	3550	116.49	110.84	183
437	321856	106.7	3550	116.54	107.99	90.5
438	322249	107.1	3550	116.65	110.2	217.6
439	322732	108.66	3550	116.82	109.96	204.9
440	323182	107.89	3550	116.95	109.8	176.7
441	323660	108.04	3550	117.14	110.17	132.5
442	324054	108.69	3550	117.28	110.81	207.6
443	324467	108.92	3550	117.38	111.04	222.6
444	324900	108.71	3550	117.47	109.61	161.4
445	325349	108.7	3550	117.58	110.54	157.8
446	325806	109.55	3550	117.74	110.76	186.8
447	326320	108.02	3550	117.86	110.26	127.8
448	326804	107.17	3550	117.99	110.44	202.9
449	327202	107.54	3550	118.08	110.3	207
450	327663	107.6	3550	118.17	111.25	103.9
451	328044	105.18	3550	118.24	107.27	83.7
452	328441	105.3	3550	118.35	108.38	109.8
453	328937	108.93	3550	118.43	111.5	165.9

Table F-11
Surface Water Model Output: Mendota Dam 4,000 cfs release (Page 4 of 9)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
454	329389	107.22	3550	118.49	111	133.7
455	329818	108.14	3550	118.6	110.88	140.5
456	330272	106.92	3550	118.69	110.57	160.9
457	330756	106.3	3550	118.86	111.49	224.2
458	331213	110.35	3550	118.94	113.36	301.7
459	331622	106.69	3550	119	110.35	156.3
460	332055	102.37	3550	119.13	109.42	112.7
461	332475	108.92	3550	119.24	111.36	145.9
462	332893	110.72	3550	119.41	113.66	108.3
463	333298	108.91	3550	119.56	112.65	123.3
464	333766	107.26	3550	119.63	109.67	67.8
465	334201	109.07	3550	119.77	111.82	106.2
466	334733	108.51	3550	120.03	110.14	79.7
467	335210	107.4	3550	120.31	114.11	152.2
468	335671	109.07	3550	120.56	111.18	78.6
469	336089	108.46	3550	120.75	111.06	89
470	336440	105.88	3550	120.89	109.29	110.7
471	336732	104.98	3550	120.95	109.6	115.8
472	336824	110.39	3550	120.96	113.84	153.3
473	337037	107.71	3550	121.09	112.46	92.1
474	337369	111.98	3550	121.21	112.89	59.5
475	337804	111.98	3087	121.38	113.47	79.9
476	338054	106.42	3087	121.51	112.2	130.5
477	338108	109.58	3087	121.21	116.4	120
478	338202	114.29	3087	121.58	115.68	169.9
479	338379	113.08	3537	121.66	114.5	162.1
480	338792	111.88	3537	121.86	114.79	181.7
481	339185	113.73	4000	122.03	115.45	224.6
482	339641	113.02	4000	122.2	116.06	296.5
483	340105	110.53	4000	122.31	114.59	208.5
484	340547	112.2	4000	122.44	115.26	240.6
485	341001	112.14	4000	122.51	114.46	167.8
486	341546	108.3	4000	122.73	115.97	262
487	341958	112.31	4000	122.84	115.87	184.7
488	342435	110.43	4000	123.03	114.29	141.7
489	342856	109.78	4000	123.16	114.25	140.1
490	343281	113.92	4000	123.3	116.48	222
491	343709	110.54	4000	123.41	113.37	111.5
492	344098	112.08	4000	123.61	116.93	302.5
493	344504	111.7	4000	123.68	114.98	165.9
494	344974	112.8	4000	123.78	115.94	143
495	345606	109.3	4000	123.93	116.31	187.6
496	346099	111.08	4000	124.02	115.01	127.5
497	346524	114.9	4000	124.16	117.97	246.3
498	346956	113.8	4000	124.3	117.8	235.3
499	347367	113.17	4000	124.44	115.65	164.5
500	347882	113.6	4000	124.6	117.46	183
501	348295	114.52	4000	124.72	117.47	171.8
502	348817	114.3	4000	124.94	117.19	206.6
503	349237	113.88	4000	125.11	117.43	244.8
504	349679	114.43	4000	125.22	118.25	216.3
505	350171	113.81	4000	125.39	118.63	230.6
506	350619	113.92	4000	125.53	117.5	257.1
507	351044	115.2	4000	125.63	117.85	302.9
508	351485	115.18	4000	125.69	117.64	220.6
509	351929	116.65	4000	125.76	117.6	178
510	352353	115.97	4000	125.86	118.07	174.5
511	352803	114.37	4000	125.97	117.64	156.5
512	353223	117.2	4000	126.08	118.65	218.4
513	353629	114.41	4000	126.19	118.34	233.8
514	354028	115.5	4000	126.23	118.45	142

Table F-11
Surface Water Model Output: Mendota Dam 4,000 cfs release (Page 5 of 9)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
515	354561	117.63	4000	126.45	118.98	232.4
516	354992	115.79	4000	126.56	119.34	202.3
517	355477	117.5	4000	126.69	119.38	184.4
518	355891	115.33	4000	126.8	119.77	229.4
519	356319	117.2	4000	126.94	118.53	176.5
520	356729	116.75	4000	127.06	119.72	219
521	357178	118.1	4000	127.19	119.39	182.2
522	357594	118.26	4000	127.3	118.85	182
523	358007	117.72	4000	127.4	120.2	179.9
524	358433	118.1	4000	127.53	120.2	165.6
525	358847	118.16	4000	127.66	119.39	216.3
526	359241	116.78	4000	127.73	119.67	172.3
527	359618	115.01	4000	127.83	120.48	187.8
528	360068	117.44	4000	127.89	119.89	201.3
529	360648	117.74	4000	128.02	118.78	151.1
530	361067	116.5	4000	128.12	119.88	182.3
531	361484	118.23	4000	128.25	119.77	155.6
532	361930	117.61	4000	128.41	120.41	190
533	362352	118.3	4000	128.52	120.44	181.1
534	362764	117.6	4000	128.63	120.11	179.9
535	363177	115.11	4000	128.7	120.07	152.2
536	363588	118.84	4000	128.81	120.69	188.7
537	364062	117.8	4000	128.94	120.33	143.6
538	364455	116.95	4000	129.08	119.86	161.1
539	364879	115.38	4000	129.21	120.49	163.6
540	365368	118	4000	129.33	120.36	149.7
541	365775	118.2	4000	129.4	121.26	155.6
542	366131	117.99	4000	129.58	122.16	237.2
543	366583	117.1	4000	129.68	121.89	223.7
544	367030	119.96	4000	129.77	122.02	208.5
545	367454	117.8	4000	129.85	121.24	183
546	367870	116.49	4000	129.94	121.76	153.3
547	368381	115.19	4000	130.08	119.32	114.3
548	368836	119.57	4000	130.22	122.43	169.5
549	369252	117.97	4000	130.38	121.16	149.5
550	369713	117.02	4000	130.5	121.59	212.1
551	370149	117.69	4000	130.57	121.03	123.5
552	370604	117.7	4000	130.66	121.55	138.2
553	371065	117.11	4000	130.73	121.17	117.2
554	371519	120.53	4000	130.87	121.88	125.8
555	371927	120.8	4000	130.98	122.22	146.4
556	372389	120.05	4000	131.1	122.45	147.5
557	372805	119.74	4000	131.24	123.93	256.7
558	373142	120.94	4000	131.33	124.7	275.9
559	373596	119.49	4000	131.46	122.79	173.2
560	373888	119.68	4000	131.52	122.9	173.6
561	374276	119.07	4000	131.61	122.81	171.3
562	374711	121.68	4000	131.72	123.49	175.1
563	375082	117.79	4000	131.83	120.27	125.5
564	375481	118.62	4000	131.9	122.78	126.7
565	375882	119.7	4000	132.06	124.76	161.9
566	376270	121.87	4000	132.23	124.05	248
567	376678	119.55	4000	132.29	123.54	175.8
568	377057	117.73	4000	132.36	122.61	109.6
569	377433	121.5	4000	132.48	125.33	180.8
570	377784	119.9	4000	132.59	123.53	222.9
571	378144	119.1	4000	132.61	122.22	120.7
572	378520	117.63	4000	132.7	122.57	117.2
573	378835	120.92	4000	132.81	123.5	162
574	379249	122.1	4000	132.9	124.03	190.4
575	379644	120.76	4000	132.97	123.57	166.8

Table F-11
Surface Water Model Output: Mendota Dam 4,000 cfs release (Page 6 of 9)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
576	380036	120.52	4000	133.06	124.3	185.7
577	380399	121.11	4000	133.16	124.23	204
578	380778	118.8	4000	133.2	123	138.2
579	381241	117.88	4000	133.32	122.55	114.3
580	381750	120.24	4000	133.48	126.11	297.1
581	382140	120.26	4000	133.52	124.77	154
582	382569	118.05	4000	133.67	123.97	200.9
583	382921	120.9	4000	133.71	124.08	162.1
584	383303	120.02	4000	133.76	122.6	149.9
585	383635	118.8	4000	133.82	124.31	159.9
586	384024	121.3	4000	133.89	124.19	171
587	384400	122.25	4000	133.96	124.59	190.3
588	384789	122.27	4000	134.04	125.27	215.1
589	385171	121.49	4000	134.08	124.76	179
590	385593	117.69	4000	134.16	123.01	145.4
591	386037	121.4	4000	134.26	124.38	158.3
592	386439	122.17	4000	134.32	125.53	179.1
593	386879	123.09	4000	134.37	124.9	176.3
594	387216	123.63	4000	134.42	126.68	208.2
595	387658	123.12	4000	134.49	125.63	161.2
596	388094	121.4	4000	134.53	126.98	169.8
597	388519	123.27	4000	134.59	126.23	181.6
598	389018	121.64	4000	134.67	125.11	135.1
599	389517	123.6	4000	134.77	126.68	193
600	389938	123.4	4000	134.87	127.77	276.6
601	390359	119.85	4000	134.94	125.77	236.7
602	390748	120.92	4000	134.98	126.09	138.3
603	391137	122.77	4000	135.09	125.94	186.2
604	391544	119.57	4000	135.14	124.1	128.8
605	391997	121.7	4000	135.19	126.05	171.6
606	392471	125.92	4000	135.27	128.33	286.7
607	392876	124.67	4000	135.34	127.14	161.8
608	393393	119.93	4000	135.41	126.27	144.6
609	393809	124.26	4000	135.48	128.69	272.6
610	394182	122.7	4000	135.52	126.16	125.9
611	394643	123.58	4000	135.6	128.24	264.4
612	395129	124.56	4000	135.69	128.23	221.6
613	395577	125.3	4000	135.77	127.28	187
614	396010	121.87	4000	135.86	123.62	88.6
615	396423	123.93	4000	135.93	127.01	157.8
616	396807	125.61	4000	135.98	126.92	211.4
617	397283	123.9	4000	136.06	128.31	215.8
618	397742	126.12	4000	136.16	127.62	166.6
619	398169	124.11	4000	136.23	126.92	179.5
620	398577	124.37	4000	136.31	126.28	170.8
621	399022	125.38	4000	136.37	127.48	176.2
622	399385	122.7	4000	136.44	127.16	153.3
623	399803	124.61	4000	136.55	129.68	222.3
624	400207	124.5	4000	136.68	128.24	167.2
625	400614	122.99	4000	136.77	127.35	159.9
626	401011	125.22	4000	136.84	129.66	250.8
627	401361	124.9	4000	136.91	129.15	213.5
628	401752	123.47	4000	137	128.96	227
629	402116	124.74	4000	137.07	130.13	246.4
630	402462	122.53	4000	137.17	127.36	172.9
631	402862	122	4000	137.25	126.61	175
632	403227	126.68	4000	137.3	129.72	213.7
633	403613	128.26	4000	137.35	130.23	225.2
634	403976	126.44	4000	137.4	129.68	178.4
635	404354	124.88	4000	137.46	129.78	132.2
636	404773	125.79	4000	137.58	128.65	129.6

Table F-11
Surface Water Model Output: Mendota Dam 4,000 cfs release (Page 7 of 9)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
637	405151	125.28	4000	137.65	128.38	151.6
638	405570	125.57	4000	137.78	128.42	165
639	406066	122.99	4000	137.86	127.44	93.8
640	406320	125.57	3411	137.88	128.92	155.6
641	406898	125.27	3411	137.93	128.93	132.9
641.1	406899	125.27	3411	137.9	132.05	132.9
641.9	406927	126.99	3411	137.98	131.4	177.9
642	406928	126.78	3411	138.03	128.75	182.1
643	407431	124.4	3411	138.08	129.55	151.9
644	407837	126.63	3411	138.15	130.36	170
645	408298	126.4	3411	138.24	129.95	146.5
646	408704	129.48	3411	138.34	132.16	267.6
647	409014	127.02	4000	138.4	131.23	211.1
648	409463	125.56	4000	138.54	129.78	171.1
649	409857	127.92	4000	138.62	129.97	189.9
650	410267	124.54	4000	138.66	128.3	89.9
651	410682	130.03	4000	138.75	131.46	176
652	411043	129.5	4000	138.76	131.04	156
653	411443	125.12	4000	138.87	129.04	143.7
654	411805	124.47	4000	138.98	129.24	134.9
655	412229	123.14	4000	139.01	128.84	125.8
656	412533	127.7	4000	139.04	130.79	118.5
657	412948	125.6	4000	139.15	130.5	116
658	413298	128.2	4000	139.26	130.45	170.4
659	413693	126.78	4000	139.38	130.13	113.2
660	414098	127.24	4000	139.52	132.52	159.8
661	414456	124.01	4000	139.61	130.06	114.8
662	414860	128.93	4000	139.7	130.73	149.9
663	415243	126.78	4000	139.79	131.43	182
664	415641	127.44	4000	139.87	131.28	165.5
665	416045	129.28	4000	139.98	131.19	106
666	416497	127.6	4000	140.08	130.11	151.2
667	416904	125.41	4000	140.18	130.29	169.1
668	417296	126.9	4000	140.23	131.44	180.9
669	417707	130.36	4000	140.32	133.62	239.8
670	418085	128.5	4000	140.41	132.78	172.2
671	418504	128.16	4000	140.55	131.1	148.4
672	418965	120.6	4000	140.68	126.7	81.7
673	419302	130.5	4000	140.8	132.58	206
674	419732	125.95	4000	140.92	130.59	149.8
675	420137	123.09	4000	141.02	128.14	111.2
676	420456	128.97	4000	141.07	131.2	122.8
677	420814	130.23	4000	141.17	132.22	153.3
678	421215	123.88	4000	141.3	130.03	124.2
679	421622	129.18	4000	141.44	133.03	198
680	422035	128.1	4000	141.51	132.55	132.8
681	422441	127.61	4000	141.64	132.82	183.5
682	422875	131.3	4000	141.74	133.56	188.9
683	423256	126.78	4000	141.87	131.58	142.5
684	423697	130.95	4000	141.97	134.33	201.7
685	424128	131.58	4000	142.06	132.97	196
686	424541	129.95	4000	142.12	132.63	187.1
687	425046	129.04	4000	142.22	132.18	131.5
688	425491	125.67	4000	142.31	132.41	137.3
689	425931	128.32	4000	142.4	133.62	195.2
690	426343	131.6	4000	142.48	134.33	208.7
691	426717	130.3	4000	142.55	134.22	178.3
692	427107	129.36	4000	142.62	135.21	193
693	427471	128.73	4000	142.7	132.96	170.4
694	427837	130.2	4000	142.81	134.62	132.6
695	428279	127.73	4000	142.89	131.48	139.5

Table F-11
Surface Water Model Output: Mendota Dam 4,000 cfs release (Page 8 of 9)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
696	428748	132.2	4000	142.96	134.21	126.3
697	429168	129.77	4000	143.06	132.84	113.8
698	429573	131.3	4000	143.14	133.91	118.7
699	429934	131.87	4000	143.25	133.66	138
700	430353	132.15	4000	143.4	133.88	154.4
701	430750	131.41	4000	143.5	132.7	124.4
702	431196	127.35	4000	143.63	132.15	115.4
703	431655	133.65	4000	143.71	135.29	192.2
704	432221	133.15	4000	143.82	134.62	173.5
705	432623	131.35	4000	143.92	133.39	105.6
706	433041	130	4000	144.09	135.27	132.7
707	433473	131.5	4000	144.15	134.86	117.6
708	433900	130.92	4000	144.23	134.06	119.6
709	434253	130.99	4000	144.29	133.52	79.8
710	434604	126.8	4000	144.41	133.87	114
711	435051	121.98	4000	144.53	128.08	96.3
712	435444	127.29	4000	144.56	132.89	107.4
713	435921	131.91	4000	144.71	135.65	170.4
714	436320	133.03	4000	144.82	136.31	155.8
715	436841	131.41	4000	144.99	134.15	122.9
716	437338	129.08	4000	145.15	134.13	119.1
717	437957	133.33	4000	145.39	135.57	127.2
718	438384	131.69	4000	145.55	135.2	142
719	438890	134.02	4000	145.66	136.74	116.8
720	439271	133.69	4000	145.86	135.13	186.7
721	439633	131.9	4000	145.9	134.36	160.8
722	440025	130.8	4000	145.96	132.85	119.5
723	440481	132.34	4000	146.02	134.25	113.3
724	440942	131.19	4000	146.13	132.91	101.2
725	441474	130	4000	146.23	131.86	102
726	441879	130.31	4000	146.28	133.72	99.9
727	442284	133.11	4000	146.3	134.11	94.9
728	442716	130.75	4000	146.38	134.1	140.3
729	443159	134.02	4000	146.44	136.73	157.3
730	443614	128.42	4000	146.54	133.2	149.7
731	444057	126.37	4000	146.56	133.95	110.3
732	444471	128.25	4000	146.64	134.57	157.4
733	444899	132.59	4000	146.69	136.31	159.4
734	445394	135.22	4000	146.78	138.04	220.3
735	445811	128.67	4000	146.86	135.13	125.9
736	446149	134.33	4000	146.93	137.39	162.8
737	446473	133.97	4000	146.95	137.54	163.1
738	446865	132.44	4000	146.96	137.04	98.3
739	447162	134.65	4000	147.06	137.6	146.3
740	447462	137.2	4000	147.12	138.46	145.5
741	447817	128.74	4000	147.17	134.74	114.4
742	448203	134.11	4000	147.22	137.81	164.7
743	448616	132.52	4000	147.29	136.59	136.8
744	449046	135.28	4000	147.32	138.34	167.1
745	449446	135.7	4000	147.43	138.3	210.8
746	449835	133.6	4000	147.5	136.99	207.9
747	450299	133.48	4000	147.55	137.15	184.4
748	450718	130.4	4000	147.6	134.11	130
749	451225	132.47	4000	147.65	135.69	144.9
750	451658	132.83	4000	147.71	135.35	148.3
751	452078	132.26	4000	147.77	135.71	182.6
752	452391	134.86	1575	147.82	135.94	78.9
753	452740	136.38	1575	147.85	138.34	196.2
754	452995	137.17	1575	147.86	137.67	114.3
755	453320	134.37	1575	147.88	137.49	85
756	453501	135.8	1575	147.89	136.9	76.9

Table F-11
Surface Water Model Output: Mendota Dam 4,000 cfs release (Page 9 of 9)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
757	453811	136.36	4000	147.92	138.15	191.3
758	454099	135.74	4000	147.94	138.86	159.8
759	454512	134.18	4000	147.96	137.1	149.2
760	454881	132.91	4000	147.96	136.76	106.6
761	455304	134.45	4000	148.11	137.68	207.4
762	455657	132.35	4000	148.14	136.83	161.2
763	456087	132.99	4000	148.2	137.96	178.9
764	456328	129.3	4000	148.27	136.81	456.6

Table F-12
MEI Hydraulic Properties Analysis, Reach 4B (Upper)

	Q	d	ws W	A	V
low flow channel	50	1.37	63.10	83.35	0.60
	100	2.06	65.19	128.13	0.78
	200	3.12	68.36	198.59	1.01
	300	3.97	70.90	257.64	1.16
	400	4.70	73.11	310.56	1.29
	500	5.36	75.08	359.46	1.39
	625	6.11	77.33	416.57	1.50
	750	6.80	79.39	470.35	1.59
	over flow channel	800	7.19	1036.97	408.16
900		7.56	1038.81	789.65	0.19
1200		8.27	1042.36	1528.78	0.29
1500		8.80	1045.00	2079.34	0.36
1750		9.17	1046.88	2473.01	0.40
2000		9.51	1048.58	2829.27	0.44
2250		9.83	1050.15	3158.37	0.47
2500		10.12	1051.61	3466.50	0.50
2750		10.40	1053.00	3757.79	0.53
3000		10.66	1054.31	4035.13	0.56
3250		10.91	1055.57	4300.65	0.58
3500		11.15	1056.78	4556.00	0.60
3750		11.39	1057.95	4802.45	0.62
4000		11.61	1059.07	5041.03	0.64
4250		11.83	1060.17	5272.57	0.66
4500		12.04	1061.23	5497.78	0.68

Table F-13
Surface Water Model Output: Mendota Dam 4,500 cfs estimate release (Page 1 of 8)

Sand Slough Control Structure to Bear Creek

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
235M	94121	58.59	3620	74.5	62.9	75.3
236M	94665	62.99	3620	74.68	64.73	111.3
237M	95113	63.71	3620	74.8	65.7	66.1
238M	95512	62.2	3620	74.85	65.74	87.5
239M	95937	56.7	3620	74.94	60.44	86.1
240M	96336	62	3620	75.05	64.24	92.2
241M	96708	62.49	3620	75.22	64.35	60.2
242M	97153	61.6	3620	75.38	66.8	137.4
243M	97588	63.7	3620	75.54	65.15	64.1
244M	98031	60.87	3620	75.69	64.57	112.7
245M	98418	61.5	3620	75.79	64.38	115.4
246M	98819	61.36	3620	75.9	63.99	94.8
247M	99235	63.1	3620	76.06	64.69	98.6
248M	99643	58.66	3620	76.14	63.92	126.7
249M	100086	60.42	3620	76.23	64.18	99.7
250M	100477	59.1	3620	76.27	63.27	96
251M	100879	62.17	3620	76.32	66.23	104.9
252M	101300	59.95	3620	76.38	63.92	109.1
253M	101719	63.49	3620	76.43	66.14	122
254M	102173	62.03	3620	76.47	65.99	144.5
255M	102515	61.05	3620	76.52	66.44	152.8
256M	102904	61.26	3620	76.6	66.45	164
257M	103328	63.62	3620	76.7	67.31	77.2
258M	103753	62.07	3620	76.77	65.05	83.6
259M	104215	63.56	3620	76.87	65.93	79.3
260M	104597	61.52	3620	77	65.65	130.8
261M	104956	62.86	3620	77.05	65.55	74.2
262M	105344	63.05	3620	77.14	67.39	132.1
263M	105686	65.07	3620	77.23	67.41	65.8
264M	106079	64.48	3620	77.35	67.06	76.5
265M	106477	62.67	3620	77.44	65.35	87
266M	106872	65.02	3620	77.59	67.92	85
267M	107242	64.96	3620	77.69	67.88	77.1
268M	107658	65.25	3620	77.77	67.9	92.8
269M	108026	65.81	3620	77.81	66.63	32.7
270M	108353	66.15	3620	77.87	67.59	48.9
271M	108739	63.47	3620	77.93	65.24	79.6
272M	109209	66.8	3620	78.1	67.78	44.5
273M	109615	65.49	3620	78.23	67.96	82.7
274M	110035	66.99	3620	78.34	68.08	50.6
275M	110429	66.23	3620	78.43	68.17	67.6
276M	110767	66.64	3620	78.49	69.13	67.2
277M	111201	66.95	3620	78.61	68.88	99.9
278M	111576	67.3	3620	78.69	68.79	83.9
279M	112000	67.71	3620	78.77	70.33	103.5
280M	112429	66.15	3620	78.85	69.45	86.7
281M	112879	67.57	3620	78.95	70.32	73.3
282M	113273	66.89	3620	79.03	69.57	68.5
283M	113681	67.6	3620	79.11	70.2	71.8
284M	114113	67.88	3620	79.17	69.75	65
285M	114536	67.68	3620	79.2	69.85	63.7
286M	114985	68.16	3620	79.33	70.61	68.7
287M	115377	68.47	3620	79.41	70.44	89.4
288M	115792	69.18	3620	79.49	71.29	115
289M	116163	67.81	3620	79.54	69.63	70.7
290M	116552	68.02	3620	79.65	70.05	55
291M	116931	65.47	3620	79.73	69.08	145.2
292M	117359	67.25	3620	79.8	69.61	79.4
293M	117793	68.49	3620	79.87	70.69	102.6
294M	118152	62.99	3620	79.91	67.37	136.2

Table F-13
Surface Water Model Output: Mendota Dam 4,500 cfs estimate release (Page 2 of 8)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
295M	118558	65.46	3620	79.95	68.02	87.1
296M	118949	69.4	3620	80.01	70.23	63.7
297M	119348	69.86	3620	80.08	71.56	97.4
298M	119776	70.3	3620	80.12	71.34	55.4
299M	120170	65.48	3620	80.23	67.47	48.1
300M	120569	66	3620	80.31	68.47	188.6
301M	121040	66.3	3620	80.34	70.25	131
302M	121523	68.3	3620	80.39	70.55	113.9
303M	121931	70.25	3620	80.46	71.56	83.2
304M	122327	70.3	3620	80.57	73.85	105.9
305M	122761	69.94	3620	80.8	72.05	70.4
306M	123131	67.22	3620	80.9	70.55	137.2
307M	123590	67.33	3620	81	70.12	82.6
308M	124060	71.18	3620	81.21	72.9	63.2
309M	124452	69.83	3620	81.33	73	98
310M	124885	70.03	3620	81.5	72.97	68.1
311M	125200	64.1	3620	81.55	67.96	107.5
312M	125634	66.77	3620	81.58	69.19	137.7
313M	126092	65.86	3620	81.62	69.06	161.5
314M	126478	67.09	3620	81.66	69.35	116.1
315M	126917	69.3	3620	81.72	71.66	86.5
316M	127337	71.14	3620	81.78	72.25	66.1
317M	127726	71.2	3620	81.83	72.16	54.3
318M	128080	69	3620	81.89	71.4	73.6
319M	128561	67.76	3620	81.94	70.73	168.8
320M	129004	67.4	3620	81.98	69.87	216.7
321M	129465	71.6	3620	82.01	73.44	170
322M	129844	67.5	3620	82.04	70.55	156.3
323M	130332	65.56	3620	82.08	68.99	162.5
324M	130735	66.87	3620	82.12	70.61	158.5
325M	131141	70.54	3620	82.15	72.57	152.6
326M	131482	68.8	3620	82.22	72.46	64.6
327M	131971	70.72	3620	82.45	72.69	58.5
328M	132445	67.4	3620	82.5	71.2	174.6
329M	132915	72.3	3620	82.57	73.45	92.3
330M	133308	69.91	3620	82.62	71.94	50.7
331M	133687	69.7	3620	82.67	73.3	41.3
332M	134030	72.16	3620	82.75	74.45	91.1
333M	134477	72.88	3620	82.84	73.58	35.4
334M	134926	71.17	3620	82.91	73.12	40.1
335M	135298	68.65	3620	82.95	71.93	175.6
336M	135625	67.64	3620	82.97	71.11	154.4
337M	136107	66.18	3620	83	71.87	183.4
338M	136520	70.38	3620	83.06	72.69	54.7
339M	137020	66.64	3620	83.11	71.41	66.7
340M	137520	68.18	3620	83.13	72.14	84
341M	137996	69.23	3620	83.23	72.87	59.6
342M	138404	70.66	3620	83.28	74.55	102.2
343M	138814	73	3620	83.36	74.88	52.6
0	139198	68.6	3620	83.41	69.89	74.5
1	139643	65.63	3620	83.44	70.02	149.9
2	140173	71.38	3620	83.5	73.73	103.4
3	140678	72.45	3620	83.54	74.73	103.5
4	141154	73.8	3620	83.61	75.71	156.6
5	141603	72.61	3620	83.64	74.64	164.4
6	142102	70.6	3620	83.67	72.53	99.8
7	142534	68.6	3620	83.7	72.82	86.7
8	142696	71.09	2731	83.71	74	82.9
9	143269	74.53	2731	83.74	75.17	54.8
10	143738	71.68	2731	83.76	74.16	115.3
11	144173	69.41	2731	83.79	71.53	103.1

Table F-13
Surface Water Model Output: Mendota Dam 4,500 cfs estimate release (Page 3 of 8)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
12	144623	69.27	2731	83.84	72.52	108.4
13	144746	72.14	201	83.87	74.52	88.2
14	145084	75.1	201	83.87	76.87	147.3
15	145401	73.3	201	83.87	76.01	125.5
16	145807	74.07	201	83.87	76.21	81.1
17	146368	73.56	201	83.88	76.14	99.6
18	146930	64.2	201	83.88	71.83	133.4
19	147451	74.58	201	83.88	76.89	107.9
20	147818	74.2	201	83.88	77.21	118.5
21	147977	73.7	2731	83.84	77.21	118.6
22	148383	74.28	2731	84.06	77.61	123.3
23	148798	73.07	2731	84.26	76.72	115.4
24	149198	75.3	3620	84.39	77.86	175.9
25	149792	69.77	3620	84.55	73.81	105.5
26	150255	71.34	3620	84.72	75.49	101.7
27	150643	73.65	3620	84.83	76.96	147
28	151174	74.78	3620	85.06	77.64	104.7
29	151722	75.9	3620	85.18	77	50
30	152193	68.9	3620	85.22	72.7	124.1
31	152634	68.32	3620	85.29	73.33	120.6
32	153098	75.18	3620	85.37	78.02	118.7
33	153606	74.89	3620	85.48	76.89	86.6
34	154212	73.6	3620	85.56	76.21	235.9
35	154611	69.9	3620	85.58	73.8	92.2
36	155003	71.21	3620	85.65	75.95	138.7
37	155160	75.22	**use normal depth calc		78.03	
38	155512	75.49	**use normal depth calc		77.6	
39	155909	75.81	**use normal depth calc		78.83	
40	156282	75.84	**use normal depth calc		79.15	
41	156622	75.88	**use normal depth calc		77.89	
42	157108	76.45	**use normal depth calc		78	
43	157550	77.02	**use normal depth calc		78.56	
44	157962	76.2	**use normal depth calc		78.48	
45	158356	75.38	**use normal depth calc		78.78	
46	158750	76.31	**use normal depth calc		79.26	
47	159159	77.2	**use normal depth calc		79.33	
48	159564	77.39	**use normal depth calc		78.25	
49	160001	77.34	**use normal depth calc		78.16	
50	160475	77.97	**use normal depth calc		78.55	
51	160967	78.59	**use normal depth calc		79.15	
52	161355	78.16	**use normal depth calc		78.88	
53	161769	77.7	**use normal depth calc		78.78	
54	162263	77.99	**use normal depth calc		79.32	
55	162653	78.26	**use normal depth calc		80.25	
56	163119	78.6	**use normal depth calc		79.73	
57	163617	78.9	**use normal depth calc		80.32	
58	164032	78.1	**use normal depth calc		79.94	
59	164566	77.3	**use normal depth calc		79.59	
60	164964	78.06	**use normal depth calc		80.08	
61	165304	78.83	**use normal depth calc		79.56	
62	165660	78.8	**use normal depth calc		81.37	
63	166092	78.62	**use normal depth calc		79.77	
64	166516	79	**use normal depth calc		80.95	
65	166958	79.39	**use normal depth calc		81	
66	167414	79.07	**use normal depth calc		80.81	
67	167950	78.55	**use normal depth calc		80.53	
68	168395	78.65	**use normal depth calc		80.3	
69	168960	78.85	**use normal depth calc		80.01	
70	169459	78.73	**use normal depth calc		79.98	
71	169904	78.62	**use normal depth calc		80.86	
72	170347	78.72	**use normal depth calc		80.56	

Table F-13
Surface Water Model Output: Mendota Dam 4,500 cfs estimate release (Page 4 of 8)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
73	170827	78.83	**use normal depth calc		81.42	
74	171247	78.7	**use normal depth calc		80.59	
75	171745	78.68	**use normal depth calc		80.52	
76	172165	79.07	**use normal depth calc		81.36	
77	172608	79.46	**use normal depth calc		82.67	
78	173064	79.11	**use normal depth calc		80.83	
79	173441	78.77	**use normal depth calc		80.9	
80	173943	79.13	**use normal depth calc		81.89	
81	174283	79.48	**use normal depth calc		81	
82	174796	79.83	**use normal depth calc		82.18	
83	175325	80.19	**use normal depth calc		82.27	
84	175889	80.5	**use normal depth calc		82.72	
85	176363	80.6	**use normal depth calc		82.83	
86	176711	80.12	**use normal depth calc		82.74	
87	177187	79.65	**use normal depth calc		82.97	
88	177651	79.17	**use normal depth calc		81.89	
89	178160	79.6	**use normal depth calc		82.33	
90	178706	80.03	**use normal depth calc		82.32	
91	179094	80.46	**use normal depth calc		83.39	
92	179461	80.89	**use normal depth calc		82.51	
93	179893	80.71	**use normal depth calc		83.05	
94	180311	80.53	**use normal depth calc		84.69	
95	180767	80.35	**use normal depth calc		82.08	
96	181194	80.2	**use normal depth calc		83.33	
97	181643	79.85	**use normal depth calc		82.58	
98	182037	79.5	**use normal depth calc		82.55	
99	182498	80.82	**use normal depth calc		83.68	
100	182923	82.1	**use normal depth calc		83.25	
101	183410	81.77	**use normal depth calc		83.13	
102	183836	81.6	**use normal depth calc		83.44	
103	184292	80.79	**use normal depth calc		81.97	
104	184788	81.45	**use normal depth calc		83.7	
105	185224	81.78	**use normal depth calc		83.94	
106	185679	81.95	**use normal depth calc		84.24	
107	186153	81.12	**use normal depth calc		83.41	
108	186335	82.14	**use normal depth calc		83.81	
109	186629	82.22	**use normal depth calc		84.33	
110	186964	81.93	**use normal depth calc		85.53	
110.4	186987	81.93	**use normal depth calc		88.08	
110.6	187009	82.6	**use normal depth calc		88.03	
111	187030	82.6	**use normal depth calc		85.01	
112	187251	82.8	**use normal depth calc		84.97	
113	187684	83.11	**use normal depth calc		84.84	
114	188110	82.84	**use normal depth calc		84.84	
115	188587	82.57	**use normal depth calc		83.89	
116	189063	82.3	**use normal depth calc		83.67	
117	189594	83.45	**use normal depth calc		84.04	
118	189991	82.2	**use normal depth calc		84.47	
119	190432	82.4	**use normal depth calc		84.97	
120	190898	82.3	**use normal depth calc		84.49	
121	191336	82.23	**use normal depth calc		84.92	
122	191813	82.53	**use normal depth calc		84.54	
123	192304	82.84	**use normal depth calc		83.72	
124	192875	83.06	**use normal depth calc		85.3	
125	193301	83.29	**use normal depth calc		85.79	
126	193622	83	**use normal depth calc		85.19	
127	194102	82.61	**use normal depth calc		83.99	
128	194577	82.81	**use normal depth calc		83.72	
129	194970	83.02	**use normal depth calc		83.98	
130	195398	82.96	**use normal depth calc		83.91	
131	195894	82.9	**use normal depth calc		84.87	

Table F-13
Surface Water Model Output: Mendota Dam 4,500 cfs estimate release (Page 5 of 8)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
132	196330	83.6	**use normal depth calc		85.96	
133	196762	84.23	**use normal depth calc		84.95	
134	197320	83.92	**use normal depth calc		86.29	
135	197775	83.61	**use normal depth calc		85.33	
136	198196	83.92	**use normal depth calc		86.05	
137	198622	84.23	**use normal depth calc		85.6	
138	199079	84.6	**use normal depth calc		86.24	
139	199625	85.1	**use normal depth calc		86.96	
140	200029	84.42	**use normal depth calc		85.94	
141	200483	83.76	**use normal depth calc		85.7	
142	200919	83.9	**use normal depth calc		86.08	
142.5	201177	83.97	**use normal depth calc		85.19	
143	201325	84.01	**use normal depth calc		85.06	
144	201371	84.34	**use normal depth calc		87.42	
144.5	201451	84.42	**use normal depth calc		86.64	
145	201524	84.48	**use normal depth calc		86.74	
146	201927	84.88	**use normal depth calc		85.93	
147	202338	85.24	**use normal depth calc		86.34	
148	202786	85.67	**use normal depth calc		87.11	
149	203327	85.48	**use normal depth calc		86.68	
150	203853	85.3	**use normal depth calc		86.5	
151	204289	85.96	**use normal depth calc		87.28	
152	204743	86.26	**use normal depth calc		88.89	
153	205203	86.56	**use normal depth calc		87.3	
154	205617	86.86	**use normal depth calc		87.97	
155	206042	86.86	**use normal depth calc		88.75	
156	206193	86.18	**use normal depth calc		88.18	
156.1	206194	86.19	**use normal depth calc		88.24	
156.9	206227	86.66	**use normal depth calc		88.79	
157	206228	86.66	**use normal depth calc		88.36	
158	206412	86.09	**use normal depth calc		87.41	
159	206676	86.1	**use normal depth calc		88.61	
160	207080	86.26	**use normal depth calc		87.68	
161	207495	86.4	**use normal depth calc		87.74	
162	208041	86.1	**use normal depth calc		87.55	
163	208521	85.7	**use normal depth calc		88.35	
164	208969	84.6	**use normal depth calc		85.71	
165	209459	83.46	**use normal depth calc		84.32	
166	209860	84.17	**use normal depth calc		85.23	
167	210367	84.88	**use normal depth calc		86.7	
168	210810	84.65	**use normal depth calc		88.04	
169	211264	84.48	**use normal depth calc		85.42	
170	211703	83.8	**use normal depth calc		84.65	
171	212221	84.99	**use normal depth calc		87.45	
172	212745	85.9	**use normal depth calc		87.91	
173	213203	85.93	**use normal depth calc		87.97	
174	213620	85.77	**use normal depth calc		87.41	
175	214083	85.61	**use normal depth calc		88.04	
176	214540	86.4	**use normal depth calc		88.41	
177	215018	87.2	**use normal depth calc		88.14	
178	215454	86.45	**use normal depth calc		87.75	
179	215882	85.71	**use normal depth calc		87.41	
180	216322	85.56	**use normal depth calc		87.27	
181	216734	85.41	**use normal depth calc		88.03	
182	217195	85.46	**use normal depth calc		87.86	
183	217582	85.5	**use normal depth calc		89.41	
184	217979	86.08	**use normal depth calc		88.73	
185	218415	86.6	**use normal depth calc		88.88	
186	218911	87.06	**use normal depth calc		90.43	
187	219497	87.5	**use normal depth calc		88.59	
188	219936	87.83	**use normal depth calc		89.87	

Table F-13
Surface Water Model Output: Mendota Dam 4,500 cfs estimate release (Page 6 of 8)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
189	220357	88.18	**use normal depth calc		89.98	
190	220816	88.18	**use normal depth calc		89.92	
191	221276	88.38	**use normal depth calc		90.65	
192	221702	88.48	**use normal depth calc		91.3	
193	222155	88.57	**use normal depth calc		89.93	
194	222583	88.68	**use normal depth calc		90.81	
195	222995	88.8	**use normal depth calc		91.17	
196	223478	88.9	**use normal depth calc		90.95	
197	223927	88.96	**use normal depth calc		90.88	
198	224368	89.27	**use normal depth calc		90.56	
199	224772	89.6	**use normal depth calc		91.89	
200	225187	89.56	**use normal depth calc		90.39	
201	225607	89.73	**use normal depth calc		92.09	
202	226016	89.42	**use normal depth calc		90.43	
203	226372	89.11	**use normal depth calc		90.97	
204	226764	89.31	**use normal depth calc		90.52	
205	227209	89.5	**use normal depth calc		91.41	
206	227644	89.76	**use normal depth calc		90.83	
207	228202	90.03	**use normal depth calc		91.41	
208	228640	89.98	**use normal depth calc		91.75	
209	229087	89.9	**use normal depth calc		91.83	
210	229498	89.94	**use normal depth calc		90.99	
211	229911	89.06	**use normal depth calc		91.68	
212	230362	90.06	**use normal depth calc		91.35	
213	230788	90.16	**use normal depth calc		91.77	
214	231191	90.16	**use normal depth calc		91.36	
215	231604	90.16	**use normal depth calc		91.81	
216	232036	90	**use normal depth calc		91.78	
217	232555	89.85	**use normal depth calc		92	
218	232960	89.59	**use normal depth calc		91.59	
219	233392	89.33	**use normal depth calc		91.82	
220	233855	89.55	**use normal depth calc		91.17	
221	234262	89.78	**use normal depth calc		92.08	
222	234730	89.71	**use normal depth calc		91.98	
223	235162	89.64	**use normal depth calc		91.93	
224	235525	89.56	**use normal depth calc		91.82	
225	235783	89.47	**use normal depth calc		94.44	
226	235806	89.6	**use normal depth calc		94.8	
227	235901	88.24	**use normal depth calc		90.11	
228	236303	89.81	**use normal depth calc		91.35	
229	236684	90.06	**use normal depth calc		92.57	
230	237124	90.31	**use normal depth calc		93.98	
231	237493	89.95	**use normal depth calc		91.81	
232	237912	89.59	**use normal depth calc		91.62	
233	238329	89.59	**use normal depth calc		91.83	
234	238846	89.6	**use normal depth calc		92.08	
235	239274	89.96	**use normal depth calc		92.73	
236	239674	90.3	**use normal depth calc		93.25	
237	240128	90.63	**use normal depth calc		93.11	
238	240567	90.93	**use normal depth calc		93.83	
239	240980	91.22	**use normal depth calc		93.38	
240	241388	91.5	**use normal depth calc		94.08	
241	241806	91.42	**use normal depth calc		94.93	
242	242277	91.3	**use normal depth calc		92.82	
243	242667	91.26	**use normal depth calc		93.45	
244	243062	91.18	**use normal depth calc		93.24	
245	243464	92.08	**use normal depth calc		94.14	
246	243972	92.98	**use normal depth calc		94.93	
247	244424	92.64	**use normal depth calc		94.22	
248	244879	92.31	**use normal depth calc		94.43	
249	245296	91.54	**use normal depth calc		95.15	

Table F-13
Surface Water Model Output: Mendota Dam 4,500 cfs estimate release (Page 7 of 8)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
250	245707	90.8	**use normal depth calc		91.99	
251	246143	90.5	**use normal depth calc		91.9	
252	246709	90.16	**use normal depth calc		92.31	
253	247041	90.85	**use normal depth calc		91.85	
254	247457	91.54	**use normal depth calc		92.99	
255	247905	91.89	**use normal depth calc		93.82	
256	248358	92.25	**use normal depth calc		93.87	
257	248955	91.74	**use normal depth calc		92.52	
258	249205	91.23	**use normal depth calc		92.04	
259	249646	91.49	**use normal depth calc		92.17	
260	249994	91.74	**use normal depth calc		92.51	
261	250330	92.03	**use normal depth calc		93.93	
262	250740	92.33	**use normal depth calc		94.19	
263	251163	92.5	**use normal depth calc		93.95	
264	251592	92.62	**use normal depth calc		93.65	
265	252048	91.39	**use normal depth calc		92.72	
266	252485	90.16	**use normal depth calc		93.36	
267	252944	89.38	**use normal depth calc		90.52	
268	253426	88.99	**use normal depth calc		89.96	
269	253801	89.33	**use normal depth calc		90.73	
270	254223	89.7	**use normal depth calc		91.23	
271	254624	90.49	**use normal depth calc		91.86	
272	255048	91.31	**use normal depth calc		92.48	
273	255464	90.49	**use normal depth calc		92.62	
274	255933	89.67	**use normal depth calc		92.07	
275	256334	90.88	**use normal depth calc		93.82	
276	256722	92.1	**use normal depth calc		93.79	
277	257101	91.75	**use normal depth calc		92.36	
278	257495	91.61	**use normal depth calc		92.64	
279	257897	91.5	**use normal depth calc		92.57	
280	258354	91.6	**use normal depth calc		92.98	
281	258793	91.13	**use normal depth calc		93.28	
282	259237	90.44	**use normal depth calc		93.68	
283	259637	90.8	**use normal depth calc		93.07	
284	260060	91.12	**use normal depth calc		95.29	
284.6	260430	91.43	**use normal depth calc		95.15	
284.7	260434	96.46	**use normal depth calc		97.25	
284.8	260438	96.46	**use normal depth calc		97.26	
284.9	260442	91.43	**use normal depth calc		95.16	
285	260464	91.46	**use normal depth calc		95.13	
286	260914	91.66	**use normal depth calc		95.23	
287	261334	91.87	**use normal depth calc		95.07	
288	261751	92.25	**use normal depth calc		94.74	
289	262152	92.63	**use normal depth calc		95.55	
290	262562	91.55	**use normal depth calc		94.81	
291	262969	90.26	**use normal depth calc		93.71	
292	263392	91.2	**use normal depth calc		93.07	
293	263808	92.08	**use normal depth calc		94.27	
294	263975	91.96	**use normal depth calc		92.6	
295	264239	91.84	**use normal depth calc		95.16	
295.1	264240	91.84	**use normal depth calc		95.2	
295.9	264264	92.3	**use normal depth calc		95.74	
296	264265	92.25	**use normal depth calc		95.68	
297	264454	91.92	**use normal depth calc		93.87	
298	264866	91.92	**use normal depth calc		94.48	
299	265287	91.98	**use normal depth calc		94.53	
300	265698	92.23	**use normal depth calc		95.7	
301	266095	92.2	**use normal depth calc		96.28	
301.7	266275	92.1	**use normal depth calc		94.89	
301.8	266276	96.13	**use normal depth calc		98.37	
301.9	266279	96.13	**use normal depth calc		98.36	

Table F-13
Surface Water Model Output: Mendota Dam 4,500 cfs estimate release (Page 8 of 8)

XS ID (Map)	XS ID (HEC-2 model)	Thalweg Elev (ft, NGVD29)	Discharge (cfs)	Water-surface Elev (ft)	Avg. Bed Elev (ft)	Channel Topwidth (ft)
302	266280	91.86	**use normal depth calc		94.68	
302.6	266309	93.5	**use normal depth calc		93.68	
302.8	266364	93.83	**use normal depth calc		93.99	
303	266402	95.07	**use normal depth calc		99.26	