

- Each box was modeled independently and the invert of the box to the south was adjusted until the head waters on both boxes matched.
 - Cross section 120 adjusted the Q100 conveyed through the respective box system
 - Cross sections 121-140 remain the same
- The 100-year head water elevation at the culverts
 - DOT mode, per plans = 2424.04
 - Revised model with breakout to the south = 2423.98
- **Encroachment**
 - WSELs compared pre and post conditions
 - There is less than a 0.10-foot change in the upstream water surface elevations due to the encroachment
-
- **Peak discharges**
 - Under La Cholla Blvd
 - Design Existing DOT Q_{100} = 2359 cfs
 - Proposed Q_{100} = 2332.28 cfs
 - Proposed Q_{10} = 905.70 cfs
 - Proposed Q_2 = 410.85 cfs
 - Conveyed to the south under Overton Rd
 - Proposed Q_{100} = 571.73 cfs
 - Proposed Q_{10} = 255.90 cfs
 - Proposed Q_2 = 24.75 cfs

PRELIMINARY EAST CHANNEL FLOW

Procedures, Methods and Assumptions

- **Breakout flow**
 - Q_{100} = 571.73 cfs
 - Channel routing prepared by Hydraflow Express, 2007, by inteliSOLVE Version 1.0.0.1
- **East Channel Ratings**
 - Section C-C
 - BW = 46'
 - Slope = 0.5%
 - Side Slope = 1:1
 - Manning's n-value = 0.030
 - Depth of flow = 2.15 ft
 - Min Depth of Channel = 2.60 ft
 - Velocity = 5.52%

- Section D-D
 - BW= 21'
 - Slope= 0.5%
 - Side Slope= 1:1
 - Manning's n-value = 0.030
 - Depth of flow= 3.43 ft
 - Min Depth of Channel= 4.25 ft
 - Velocity= 6.82%
- Intermediate Section at Outlet to Box Culverts
 - BW= 25'
 - Slope= 0.5%
 - Side Slope= 1:1
 - Manning's n-value = 0.022
 - Depth of flow= 2.57 ft
 - Min Depth of Channel= 3.20 ft
 - Velocity= 8.07%
 -
- Intermediate Section at Transition in Channel
 - BW= 25'
 - Slope= 0.5%
 - Side Slope= 1:1
 - Manning's n-value = 0.030
 - Depth of flow= 2.28 ft
 - Min Depth of Channel= 3.40 ft
 - Velocity= 6.27%

PRELIMINARY ROUTING AND FLOW DISTRIBUTION

Procedures, Methods and Assumptions

- **Breakout flow**
 - Flow routed and distributed via two basins
 - Routing prepared by Hydraflow Hydrographs, 2007, by intelISOLVE Version 9.01
- **Hydrology**
 - Breakout flow determined by adding box culverts as shown above
 - To be conveyed and routed around the proposed development
 - Hydrographs
 - Hydrograph for routing, based on HEC-HMS 100-year hydrograph
 - Hydrograph set at 1-minute interval
 - Hydrographs for lesser storms of 2-year and 10-year were prorated based on ratios for suburban watershed as noted above
- **Basins Location**
 - North of Overton Road and south of developed lots
 - $Q_{100 \text{ in}} = 571.73 \text{ cfs}$
 - East Basin Configuration
 - Bottom Elevation 2381.00
 - Top Elevation 2386.00
 - Total available storage 170,244 cu-ft
 - Outlet Structures
 1. 2 - 3' x 12' Arch culverts under entry road to west basin
 - Length = 100 ft
 - Inlet Invert = 2381.00
 - Outlet Invert = 2380.00

- West Basin Configuration
 - Bottom Elevation 2380.00
 - Top Elevation 2385.00
 - Total available storage 99,717 cu-ft
 - Inlet Structure
 - 2. See east basin structure under entry road
 - Outlet Structures
 - 3. 2 - 3' x 12' Arch culverts under Overton Road to The Bluff's channel running north/south on west side of community
 - Length = 150 ft
 - Inlet Invert = 2380.00
 - Outlet Invert = 2374.00
- Routed Results Under Overton Road
 - 2-year
 - 4. Peak in = 24.75 cfs
 - 5. Peak out = 21.57 cfs
 - 6. Max WSEL
 - East Basin = 2381.43
 - West Basin = 2380.41
 - 10-year
 - 7. Peak in = 255.90 cfs
 - 8. Peak out = 239.44 cfs
 - 9. Max WSEL
 - East Basin = 2383.07
 - West Basin = 2382.05
 - 100-year
 - 10. Peak in = 571.73 cfs
 - 11. Peak out = 507.54 cfs
 - 12. Max WSEL
 - East Basin = 2384.74
 - West Basin = 2383.64

CONCLUSIONS (PRELIMINARY ASSESSEMENT)

- **Encroachment**
 - WSELs compared pre and post conditions
 - There is less than a 0.10-foot change in the upstream water surface elevations due to the encroachment
- **Floodplain Model**
 - The addition of 2-10'x5' RCBC
 - Breakout flow to Overton Rd is 571.73 cfs
 - La Cholla Blvd flow is 2332.28 cfs
 - Less than DOT Design
 - Balanced Headwater is less than DOT design
- **East Channel Ratings**
 - Depth of flow in channel ranges from 2.15' to 3.43'
 - Velocity in channel ranges from 5.52 to 5.82 fps
- **Routing**
 - East Basin
 - No water over Overton Road for all storm events
 - Use 2 - 3' x 12' Arch Culverts
 - West Basin
 - All water to go under Overton Road
 - Use 2 - 3' x 12' Arch Culverts
- **Offsite Considerations**
 - With all water under Overton Road this design improved the flooding and sediment issue in the Overton Rd
 - The Bluffs channel
 - Has less water than existing design
 - Improved drainage at existing Box culvert crossing
 - The collector channel parallel to Overton is no longer used



PRELIMINARY REGIONAL DISTRIBUTION OF FLOW VIA CULVERTS ANALYSIS

Sections 140-121 – HEC RAS

Plan: Default Scenario La Cholla Wash VDO RS: 140 Profile: Q100

E.G. Elev (ft)	2461.39	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.46	Wt. n-Val.	0.060	0.060	
W.S. Elev (ft)	2460.93	Reach Len. (ft)	88.39	88.39	88.39
Crit W.S. (ft)	2460.64	Flow Area (sq ft)	33.62	509.47	
E.G. Slope (ft/ft)	0.022945	Area (sq ft)	33.62	509.47	
Q Total (cfs)	2904.00	Flow (cfs)	84.87	2819.13	
Top Width (ft)	349.55	Top Width (ft)	65.63	283.92	
Vel Total (ft/s)	5.35	Avg. Vel. (ft/s)	2.52	5.53	
Max Chl Dpth (ft)	2.84	Hydr. Depth (ft)	0.51	1.79	
Conv. Total (cfs)	19171.3	Conv. (cfs)	560.3	18611.0	
Length Wtd. (ft)	88.39	Wetted Per. (ft)	65.66	284.39	
Min Ch El (ft)	2458.09	Shear (lb/sq ft)	0.73	2.57	
Alpha	1.05	Stream Power (lb/ft s)	1.85	14.20	
Frctn Loss (ft)	1.98	Cum Volume (acre-ft)	1.37	16.23	1.67
C & E Loss (ft)	0.00	Cum SA (acres)	2.33	9.74	2.23

Plan: Default Scenario La Cholla Wash VDO RS: 140 Profile: Q10

E.G. Elev (ft)	2460.41	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.24	Wt. n-Val.	0.060	0.060	
W.S. Elev (ft)	2460.17	Reach Len. (ft)	88.39	88.39	88.39
Crit W.S. (ft)	2459.90	Flow Area (sq ft)	1.16	294.50	
E.G. Slope (ft/ft)	0.023414	Area (sq ft)	1.16	294.50	
Q Total (cfs)	1161.60	Flow (cfs)	0.93	1160.67	
Top Width (ft)	289.33	Top Width (ft)	12.08	277.25	
Vel Total (ft/s)	3.93	Avg. Vel. (ft/s)	0.80	3.94	
Max Chl Dpth (ft)	2.07	Hydr. Depth (ft)	0.10	1.06	
Conv. Total (cfs)	7591.4	Conv. (cfs)	6.1	7585.3	
Length Wtd. (ft)	88.39	Wetted Per. (ft)	12.08	277.67	
Min Ch El (ft)	2458.09	Shear (lb/sq ft)	0.14	1.55	
Alpha	1.01	Stream Power (lb/ft s)	0.11	6.11	
Frctn Loss (ft)	1.99	Cum Volume (acre-ft)	0.34	9.20	0.52
C & E Loss (ft)	0.01	Cum SA (acres)	0.89	8.91	1.24

Plan: Default Scenario La Cholla Wash VDO RS: 140 Profile: Q2

E.G. Elev (ft)	2459.77	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.12	Wt. n-Val.		0.060	
W.S. Elev (ft)	2459.65	Reach Len. (ft)	88.39	88.39	88.39
Crit W.S. (ft)	2459.43	Flow Area (sq ft)		155.95	
E.G. Slope (ft/ft)	0.023285	Area (sq ft)		155.95	
Q Total (cfs)	435.60	Flow (cfs)		435.60	
Top Width (ft)	245.11	Top Width (ft)		245.11	
Vel Total (ft/s)	2.79	Avg. Vel. (ft/s)		2.79	
Max Chl Dpth (ft)	1.56	Hydr. Depth (ft)		0.64	
Conv. Total (cfs)	2854.7	Conv. (cfs)		2854.7	
Length Wtd. (ft)	88.39	Wetted Per. (ft)		245.43	
Min Ch El (ft)	2458.09	Shear (lb/sq ft)		0.92	
Alpha	1.00	Stream Power (lb/ft s)		2.58	
Frctn Loss (ft)	2.03	Cum Volume (acre-ft)	0.06	4.76	0.15
C & E Loss (ft)	0.00	Cum SA (acres)	0.15	7.25	0.33

Plan: Default Scenario La Cholla Wash VDO RS: 139 Profile: Q100

E.G. Elev (ft)	2459.41	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.45	Wt. n-Val.	0.060	0.060	
W.S. Elev (ft)	2458.96	Reach Len. (ft)	95.30	95.30	95.30
Crit W.S. (ft)		Flow Area (sq ft)	15.80	531.48	
E.G. Slope (ft/ft)	0.021828	Area (sq ft)	15.80	531.48	
Q Total (cfs)	2904.00	Flow (cfs)	23.96	2880.04	
Top Width (ft)	363.03	Top Width (ft)	68.95	294.08	
Vel Total (ft/s)	5.31	Avg. Vel. (ft/s)	1.52	5.42	
Max Chl Dpth (ft)	2.81	Hydr. Depth (ft)	0.23	1.81	
Conv. Total (cfs)	19655.6	Conv. (cfs)	162.2	19493.5	
Length Wtd. (ft)	95.30	Wetted Per. (ft)	68.98	294.88	
Min Ch El (ft)	2456.15	Shear (lb/sq ft)	0.31	2.46	
Alpha	1.03	Stream Power (lb/ft s)	0.47	13.31	
Frctn Loss (ft)	2.11	Cum Volume (acre-ft)	1.32	15.17	1.67
C & E Loss (ft)	0.00	Cum SA (acres)	2.19	9.15	2.23

Plan: Default Scenario La Cholla Wash VDO RS: 139 Profile: Q10

E.G. Elev (ft)	2458.41	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.22	Wt. n-Val.		0.060	
W.S. Elev (ft)	2458.19	Reach Len. (ft)	95.30	95.30	95.30
Crit W.S. (ft)		Flow Area (sq ft)		306.33	
E.G. Slope (ft/ft)	0.021704	Area (sq ft)		306.33	
Q Total (cfs)	1161.60	Flow (cfs)		1161.60	
Top Width (ft)	288.41	Top Width (ft)		288.41	
Vel Total (ft/s)	3.79	Avg. Vel. (ft/s)		3.79	
Max Chl Dpth (ft)	2.04	Hydr. Depth (ft)		1.06	
Conv. Total (cfs)	7884.8	Conv. (cfs)		7884.8	
Length Wtd. (ft)	95.30	Wetted Per. (ft)		289.10	
Min Ch El (ft)	2456.15	Shear (lb/sq ft)		1.44	
Alpha	1.00	Stream Power (lb/ft s)		5.44	
Frctn Loss (ft)	2.15	Cum Volume (acre-ft)	0.34	8.59	0.52
C & E Loss (ft)	0.00	Cum SA (acres)	0.87	8.33	1.24

Plan: Default Scenario La Cholla Wash VDO RS: 139 Profile: Q2

E.G. Elev (ft)	2457.74	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.13	Wt. n-Val.		0.060	
W.S. Elev (ft)	2457.61	Reach Len. (ft)	95.30	95.30	95.30
Crit W.S. (ft)		Flow Area (sq ft)		152.94	
E.G. Slope (ft/ft)	0.022631	Area (sq ft)		152.94	
Q Total (cfs)	435.60	Flow (cfs)		435.60	
Top Width (ft)	228.36	Top Width (ft)		228.36	
Vel Total (ft/s)	2.85	Avg. Vel. (ft/s)		2.85	
Max Chl Dpth (ft)	1.46	Hydr. Depth (ft)		0.67	
Conv. Total (cfs)	2895.6	Conv. (cfs)		2895.6	
Length Wtd. (ft)	95.30	Wetted Per. (ft)		228.79	
Min Ch El (ft)	2456.15	Shear (lb/sq ft)		0.94	
Alpha	1.00	Stream Power (lb/ft s)		2.69	
Frctn Loss (ft)	2.21	Cum Volume (acre-ft)	0.06	4.44	0.15
C & E Loss (ft)	0.00	Cum SA (acres)	0.15	6.77	0.33

Plan: Default Scenario La Cholla Wash VDO RS: 138 Profile: Q100

E.G. Elev (ft)	2457.31	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.47	Wt. n-Val.		0.060	
W.S. Elev (ft)	2456.84	Reach Len. (ft)	97.53	97.53	97.53
Crit W.S. (ft)		Flow Area (sq ft)		528.59	
E.G. Slope (ft/ft)	0.022360	Area (sq ft)		528.59	
Q Total (cfs)	2904.00	Flow (cfs)		2904.00	
Top Width (ft)	291.94	Top Width (ft)		291.94	
Vel Total (ft/s)	5.49	Avg. Vel. (ft/s)		5.49	
Max Chl Dpth (ft)	2.86	Hydr. Depth (ft)		1.81	
Conv. Total (cfs)	19420.6	Conv. (cfs)		19420.6	
Length Wtd. (ft)	97.53	Wetted Per. (ft)		292.53	
Min Ch El (ft)	2453.98	Shear (lb/sq ft)		2.52	
Alpha	1.00	Stream Power (lb/ft s)		13.86	
Frctn Loss (ft)	1.84	Cum Volume (acre-ft)	1.31	14.01	1.67
C & E Loss (ft)	0.03	Cum SA (acres)	2.11	8.51	2.23

Plan: Default Scenario La Cholla Wash VDO RS: 138 Profile: Q10

E.G. Elev (ft)	2456.26	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.24	Wt. n-Val.		0.060	
W.S. Elev (ft)	2456.01	Reach Len. (ft)	97.53	97.53	97.53
Crit W.S. (ft)		Flow Area (sq ft)		292.82	
E.G. Slope (ft/ft)	0.023541	Area (sq ft)		292.82	
Q Total (cfs)	1161.60	Flow (cfs)		1161.60	
Top Width (ft)	274.07	Top Width (ft)		274.07	
Vel Total (ft/s)	3.97	Avg. Vel. (ft/s)		3.97	
Max Chl Dpth (ft)	2.03	Hydr. Depth (ft)		1.07	
Conv. Total (cfs)	7570.9	Conv. (cfs)		7570.9	
Length Wtd. (ft)	97.53	Wetted Per. (ft)		274.50	
Min Ch El (ft)	2453.98	Shear (lb/sq ft)		1.57	
Alpha	1.00	Stream Power (lb/ft s)		6.22	
Frctn Loss (ft)	1.84	Cum Volume (acre-ft)	0.34	7.93	0.52
C & E Loss (ft)	0.02	Cum SA (acres)	0.87	7.72	1.24

Plan: Default Scenario La Cholla Wash VDO RS: 138 Profile: Q2

E.G. Elev (ft)	2455.52	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.15	Wt. n-Val.		0.060	
W.S. Elev (ft)	2455.37	Reach Len. (ft)	97.53	97.53	97.53
Crit W.S. (ft)		Flow Area (sq ft)		139.94	
E.G. Slope (ft/ft)	0.023845	Area (sq ft)		139.94	
Q Total (cfs)	435.60	Flow (cfs)		435.60	
Top Width (ft)	190.27	Top Width (ft)		190.27	
Vel Total (ft/s)	3.11	Avg. Vel. (ft/s)		3.11	
Max Chl Dpth (ft)	1.39	Hydr. Depth (ft)		0.74	
Conv. Total (cfs)	2820.9	Conv. (cfs)		2820.9	
Length Wtd. (ft)	97.53	Wetted Per. (ft)		190.58	
Min Ch El (ft)	2453.98	Shear (lb/sq ft)		1.09	
Alpha	1.00	Stream Power (lb/ft s)		3.40	
Frctn Loss (ft)	1.81	Cum Volume (acre-ft)	0.06	4.12	0.15
C & E Loss (ft)	0.02	Cum SA (acres)	0.15	6.31	0.33

Plan: Default Scenario La Cholla Wash VDO RS: 137 Profile: Q100

E.G. Elev (ft)	2455.45	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.37	Wt. n-Val.	0.060	0.060	
W.S. Elev (ft)	2455.07	Reach Len. (ft)	98.27	98.27	98.27
Crit W.S. (ft)		Flow Area (sq ft)	6.57	591.01	
E.G. Slope (ft/ft)	0.016142	Area (sq ft)	6.57	591.01	
Q Total (cfs)	2904.00	Flow (cfs)	7.49	2896.51	
Top Width (ft)	334.43	Top Width (ft)	31.26	303.17	
Vel Total (ft/s)	4.86	Avg. Vel. (ft/s)	1.14	4.90	
Max Chl Dpth (ft)	3.28	Hydr. Depth (ft)	0.21	1.95	
Conv. Total (cfs)	22856.9	Conv. (cfs)	58.9	22798.0	
Length Wtd. (ft)	98.27	Wetted Per. (ft)	31.30	304.02	
Min Ch El (ft)	2451.79	Shear (lb/sq ft)	0.21	1.96	
Alpha	1.01	Stream Power (lb/ft s)	0.24	9.60	
Frctn Loss (ft)	1.95	Cum Volume (acre-ft)	1.30	12.76	1.67
C & E Loss (ft)	0.01	Cum SA (acres)	2.08	7.85	2.23

Plan: Default Scenario La Cholla Wash VDO RS: 137 Profile: Q10

E.G. Elev (ft)	2454.40	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.19	Wt. n-Val.		0.060	
W.S. Elev (ft)	2454.22	Reach Len. (ft)	98.27	98.27	98.27
Crit W.S. (ft)		Flow Area (sq ft)		335.40	
E.G. Slope (ft/ft)	0.015429	Area (sq ft)		335.40	
Q Total (cfs)	1161.60	Flow (cfs)		1161.60	
Top Width (ft)	280.36	Top Width (ft)		280.36	
Vel Total (ft/s)	3.46	Avg. Vel. (ft/s)		3.46	
Max Chl Dpth (ft)	2.43	Hydr. Depth (ft)		1.20	
Conv. Total (cfs)	9351.6	Conv. (cfs)		9351.6	
Length Wtd. (ft)	98.27	Wetted Per. (ft)		280.77	
Min Ch El (ft)	2451.79	Shear (lb/sq ft)		1.15	
Alpha	1.00	Stream Power (lb/ft s)		3.99	
Frctn Loss (ft)	1.95	Cum Volume (acre-ft)	0.34	7.23	0.52
C & E Loss (ft)	0.01	Cum SA (acres)	0.87	7.10	1.24

Plan: Default Scenario La Cholla Wash VDO RS: 137 Profile: Q2

E.G. Elev (ft)	2453.70	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.10	Wt. n-Val.		0.060	
W.S. Elev (ft)	2453.60	Reach Len. (ft)	98.27	98.27	98.27
Crit W.S. (ft)		Flow Area (sq ft)		173.55	
E.G. Slope (ft/ft)	0.014893	Area (sq ft)		173.55	
Q Total (cfs)	435.60	Flow (cfs)		435.60	
Top Width (ft)	228.99	Top Width (ft)		228.99	
Vel Total (ft/s)	2.51	Avg. Vel. (ft/s)		2.51	
Max Chl Dpth (ft)	1.81	Hydr. Depth (ft)		0.76	
Conv. Total (cfs)	3569.4	Conv. (cfs)		3569.4	
Length Wtd. (ft)	98.27	Wetted Per. (ft)		229.31	
Min Ch El (ft)	2451.79	Shear (lb/sq ft)		0.70	
Alpha	1.00	Stream Power (lb/ft s)		1.77	
Frctn Loss (ft)	1.96	Cum Volume (acre-ft)	0.06	3.77	0.15
C & E Loss (ft)	0.01	Cum SA (acres)	0.15	5.84	0.33

Plan: Default Scenario La Cholla Wash VDO RS: 136 Profile: Q100

E.G. Elev (ft)	2453.49	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.45	Wt. n-Val.	0.060	0.060	
W.S. Elev (ft)	2453.04	Reach Len. (ft)	87.52	87.52	87.52
Crit W.S. (ft)		Flow Area (sq ft)	9.02	536.14	
E.G. Slope (ft/ft)	0.024922	Area (sq ft)	9.02	536.14	
Q Total (cfs)	2904.00	Flow (cfs)	16.39	2887.61	
Top Width (ft)	364.21	Top Width (ft)	33.19	331.02	
Vel Total (ft/s)	5.33	Avg. Vel. (ft/s)	1.82	5.39	
Max Chl Dpth (ft)	3.27	Hydr. Depth (ft)	0.27	1.62	
Conv. Total (cfs)	18395.3	Conv. (cfs)	103.8	18291.5	
Length Wtd. (ft)	87.52	Wetted Per. (ft)	33.21	331.58	
Min Ch El (ft)	2449.77	Shear (lb/sq ft)	0.42	2.52	
Alpha	1.02	Stream Power (lb/ft s)	0.77	13.55	
Frctn Loss (ft)	1.93	Cum Volume (acre-ft)	1.28	11.49	1.67
C & E Loss (ft)	0.02	Cum SA (acres)	2.01	7.13	2.23

Plan: Default Scenario La Cholla Wash VDO RS: 136 Profile: Q10

E.G. Elev (ft)	2452.45	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.28	Wt. n-Val.		0.060	
W.S. Elev (ft)	2452.17	Reach Len. (ft)	87.52	87.52	87.52
Crit W.S. (ft)		Flow Area (sq ft)		273.48	
E.G. Slope (ft/ft)	0.026591	Area (sq ft)		273.48	
Q Total (cfs)	1161.60	Flow (cfs)		1161.60	
Top Width (ft)	253.20	Top Width (ft)		253.20	
Vel Total (ft/s)	4.25	Avg. Vel. (ft/s)		4.25	
Max Chl Dpth (ft)	2.40	Hydr. Depth (ft)		1.08	
Conv. Total (cfs)	7123.5	Conv. (cfs)		7123.5	
Length Wtd. (ft)	87.52	Wetted Per. (ft)		253.55	
Min Ch El (ft)	2449.77	Shear (lb/sq ft)		1.79	
Alpha	1.00	Stream Power (lb/ft s)		7.61	
Frctn Loss (ft)	1.80	Cum Volume (acre-ft)	0.34	6.54	0.52
C & E Loss (ft)	0.03	Cum SA (acres)	0.87	6.50	1.24

Plan: Default Scenario La Cholla Wash VDO RS: 136 Profile: Q2

E.G. Elev (ft)	2451.73	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.16	Wt. n-Val.		0.060	
W.S. Elev (ft)	2451.58	Reach Len. (ft)	87.52	87.52	87.52
Crit W.S. (ft)		Flow Area (sq ft)		137.34	
E.G. Slope (ft/ft)	0.027978	Area (sq ft)		137.34	
Q Total (cfs)	435.60	Flow (cfs)		435.60	
Top Width (ft)	204.75	Top Width (ft)		204.75	
Vel Total (ft/s)	3.17	Avg. Vel. (ft/s)		3.17	
Max Chl Dpth (ft)	1.81	Hydr. Depth (ft)		0.67	
Conv. Total (cfs)	2604.2	Conv. (cfs)		2604.2	
Length Wtd. (ft)	87.52	Wetted Per. (ft)		204.98	
Min Ch El (ft)	2449.77	Shear (lb/sq ft)		1.17	
Alpha	1.00	Stream Power (lb/ft s)		3.71	
Frctn Loss (ft)	1.76	Cum Volume (acre-ft)	0.06	3.42	0.15
C & E Loss (ft)	0.02	Cum SA (acres)	0.15	5.35	0.33

Plan: Default Scenario La Cholla Wash VDO RS: 135 Profile: Q100

E.G. Elev (ft)	2451.55	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.39	Wt. n-Val.	0.060	0.060	
W.S. Elev (ft)	2451.16	Reach Len. (ft)	70.92	70.92	70.92
Crit W.S. (ft)		Flow Area (sq ft)	66.38	526.88	
E.G. Slope (ft/ft)	0.019579	Area (sq ft)	66.38	526.88	
Q Total (cfs)	2904.00	Flow (cfs)	188.75	2715.25	
Top Width (ft)	379.51	Top Width (ft)	89.25	290.26	
Vel Total (ft/s)	4.89	Avg. Vel. (ft/s)	2.84	5.15	
Max Chl Dpth (ft)	3.01	Hydr. Depth (ft)	0.74	1.82	
Conv. Total (cfs)	20754.1	Conv. (cfs)	1349.0	19405.2	
Length Wtd. (ft)	70.92	Wetted Per. (ft)	89.31	290.52	
Min Ch El (ft)	2448.14	Shear (lb/sq ft)	0.91	2.22	
Alpha	1.06	Stream Power (lb/ft s)	2.58	11.42	
Frctn Loss (ft)	1.97	Cum Volume (acre-ft)	1.21	10.42	1.67
C & E Loss (ft)	0.02	Cum SA (acres)	1.88	6.51	2.23

Plan: Default Scenario La Cholla Wash VDO RS: 135 Profile: Q10

E.G. Elev (ft)	2450.62	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.20	Wt. n-Val.	0.060	0.060	
W.S. Elev (ft)	2450.42	Reach Len. (ft)	70.92	70.92	70.92
Crit W.S. (ft)		Flow Area (sq ft)	9.75	321.55	
E.G. Slope (ft/ft)	0.016428	Area (sq ft)	9.75	321.55	
Q Total (cfs)	1161.60	Flow (cfs)	12.71	1148.89	
Top Width (ft)	313.21	Top Width (ft)	44.17	269.04	
Vel Total (ft/s)	3.51	Avg. Vel. (ft/s)	1.30	3.57	
Max Chl Dpth (ft)	2.28	Hydr. Depth (ft)	0.22	1.20	
Conv. Total (cfs)	9062.7	Conv. (cfs)	99.2	8963.5	
Length Wtd. (ft)	70.92	Wetted Per. (ft)	44.20	269.27	
Min Ch El (ft)	2448.14	Shear (lb/sq ft)	0.23	1.22	
Alpha	1.03	Stream Power (lb/ft s)	0.30	4.38	
Frctn Loss (ft)	1.96	Cum Volume (acre-ft)	0.33	5.95	0.52
C & E Loss (ft)	0.02	Cum SA (acres)	0.83	5.97	1.24

Plan: Default Scenario La Cholla Wash VDO RS: 135 Profile: Q2

E.G. Elev (ft)	2449.96	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.09	Wt. n-Val.		0.060	
W.S. Elev (ft)	2449.87	Reach Len. (ft)	70.92	70.92	70.92
Crit W.S. (ft)		Flow Area (sq ft)		176.77	
E.G. Slope (ft/ft)	0.015161	Area (sq ft)		176.77	
Q Total (cfs)	435.60	Flow (cfs)		435.60	
Top Width (ft)	243.15	Top Width (ft)		243.15	
Vel Total (ft/s)	2.46	Avg. Vel. (ft/s)		2.46	
Max Chl Dpth (ft)	1.73	Hydr. Depth (ft)		0.73	
Conv. Total (cfs)	3537.8	Conv. (cfs)		3537.8	
Length Wtd. (ft)	70.92	Wetted Per. (ft)		243.32	
Min Ch El (ft)	2448.14	Shear (lb/sq ft)		0.69	
Alpha	1.00	Stream Power (lb/ft s)		1.69	
Frctn Loss (ft)	1.88	Cum Volume (acre-ft)	0.06	3.11	0.15
C & E Loss (ft)	0.01	Cum SA (acres)	0.15	4.90	0.33

Plan: Default Scenario La Cholla Wash VDO RS: 134 Profile: Q100

E.G. Elev (ft)	2449.56	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.61	Wt. n-Val.	0.060	0.060	0.060
W.S. Elev (ft)	2448.95	Reach Len. (ft)	56.20	56.20	56.20
Crit W.S. (ft)	2448.95	Flow Area (sq ft)	33.42	369.35	72.99
E.G. Slope (ft/ft)	0.042386	Area (sq ft)	33.42	369.35	72.99
Q Total (cfs)	2904.00	Flow (cfs)	101.90	2373.17	428.93
Top Width (ft)	392.13	Top Width (ft)	72.22	260.98	58.93
Vel Total (ft/s)	6.10	Avg. Vel. (ft/s)	3.05	6.43	5.88
Max Chl Dpth (ft)	2.04	Hydr. Depth (ft)	0.46	1.42	1.24
Conv. Total (cfs)	14105.4	Conv. (cfs)	495.0	11527.0	2083.4
Length Wtd. (ft)	56.20	Wetted Per. (ft)	72.29	261.09	58.99
Min Ch El (ft)	2446.91	Shear (lb/sq ft)	1.22	3.74	3.27
Alpha	1.05	Stream Power (lb/ft s)	3.73	24.05	19.24
Frcn Loss (ft)	1.76	Cum Volume (acre-ft)	1.12	9.69	1.61
C & E Loss (ft)	0.06	Cum SA (acres)	1.75	6.06	2.18

Plan: Default Scenario La Cholla Wash VDO RS: 134 Profile: Q10

E.G. Elev (ft)	2448.65	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.39	Wt. n-Val.	0.060	0.060	0.060
W.S. Elev (ft)	2448.27	Reach Len. (ft)	56.20	56.20	56.20
Crit W.S. (ft)	2448.27	Flow Area (sq ft)	5.13	193.49	36.92
E.G. Slope (ft/ft)	0.055658	Area (sq ft)	5.13	193.49	36.92
Q Total (cfs)	1161.60	Flow (cfs)	10.08	963.52	188.01
Top Width (ft)	317.48	Top Width (ft)	26.33	245.80	45.34
Vel Total (ft/s)	4.93	Avg. Vel. (ft/s)	1.96	4.98	5.09
Max Chl Dpth (ft)	1.35	Hydr. Depth (ft)	0.19	0.79	0.81
Conv. Total (cfs)	4923.7	Conv. (cfs)	42.7	4084.1	796.9
Length Wtd. (ft)	56.20	Wetted Per. (ft)	26.37	245.91	45.39
Min Ch El (ft)	2446.91	Shear (lb/sq ft)	0.68	2.73	2.83
Alpha	1.02	Stream Power (lb/ft s)	1.33	13.61	14.39
Frcn Loss (ft)	1.90	Cum Volume (acre-ft)	0.32	5.53	0.49
C & E Loss (ft)	0.05	Cum SA (acres)	0.77	5.55	1.21

Plan: Default Scenario La Cholla Wash VDO RS: 134 Profile: Q2

E.G. Elev (ft)	2448.06	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.22	Wt. n-Val.		0.060	0.060
W.S. Elev (ft)	2447.84	Reach Len. (ft)	56.20	56.20	56.20
Crit W.S. (ft)	2447.81	Flow Area (sq ft)		95.57	19.16
E.G. Slope (ft/ft)	0.057494	Area (sq ft)		95.57	19.16
Q Total (cfs)	435.60	Flow (cfs)		363.38	72.22
Top Width (ft)	224.29	Top Width (ft)		186.43	37.86
Vel Total (ft/s)	3.80	Avg. Vel. (ft/s)		3.80	3.77
Max Chl Dpth (ft)	0.93	Hydr. Depth (ft)		0.51	0.51
Conv. Total (cfs)	1816.7	Conv. (cfs)		1515.5	301.2
Length Wtd. (ft)	56.20	Wetted Per. (ft)		186.52	37.89
Min Ch El (ft)	2446.91	Shear (lb/sq ft)		1.84	1.82
Alpha	1.00	Stream Power (lb/ft s)		6.99	6.84
Frcn Loss (ft)	1.98	Cum Volume (acre-ft)	0.06	2.89	0.13
C & E Loss (ft)	0.03	Cum SA (acres)	0.15	4.55	0.30

Plan: Default Scenario La Cholla Wash VDO RS: 133 Profile: Q100

E.G. Elev (ft)	2447.47	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.42	Wt. n-Val.	0.060	0.060	0.060
W.S. Elev (ft)	2447.05	Reach Len. (ft)	31.62	31.62	31.62
Crit W.S. (ft)	2446.81	Flow Area (sq ft)	37.02	453.51	79.90
E.G. Slope (ft/ft)	0.024005	Area (sq ft)	37.02	453.51	79.90
Q Total (cfs)	2904.00	Flow (cfs)	110.18	2463.56	330.26
Top Width (ft)	408.53	Top Width (ft)	68.22	268.92	71.39
Vel Total (ft/s)	5.09	Avg. Vel. (ft/s)	2.98	5.43	4.13
Max Chl Dpth (ft)	2.67	Hydr. Depth (ft)	0.54	1.69	1.12
Conv. Total (cfs)	18743.2	Conv. (cfs)	711.1	15900.5	2131.6
Length Wtd. (ft)	31.62	Wetted Per. (ft)	68.27	269.23	71.46
Min Ch El (ft)	2444.38	Shear (lb/sq ft)	0.81	2.52	1.68
Alpha	1.05	Stream Power (lb/ft s)	2.42	13.71	6.93
FrcIn Loss (ft)	0.92	Cum Volume (acre-ft)	1.08	9.16	1.51
C & E Loss (ft)	0.01	Cum SA (acres)	1.66	5.72	2.10

Plan: Default Scenario La Cholla Wash VDO RS: 133 Profile: Q10

E.G. Elev (ft)	2446.61	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.22	Wt. n-Val.	0.060	0.060	0.060
W.S. Elev (ft)	2446.39	Reach Len. (ft)	31.62	31.62	31.62
Crit W.S. (ft)	2446.16	Flow Area (sq ft)	5.18	276.11	35.64
E.G. Slope (ft/ft)	0.022754	Area (sq ft)	5.18	276.11	35.64
Q Total (cfs)	1161.60	Flow (cfs)	5.30	1064.98	91.32
Top Width (ft)	361.69	Top Width (ft)	36.13	262.89	62.68
Vel Total (ft/s)	3.67	Avg. Vel. (ft/s)	1.02	3.86	2.56
Max Chl Dpth (ft)	2.01	Hydr. Depth (ft)	0.14	1.05	0.57
Conv. Total (cfs)	7700.6	Conv. (cfs)	35.1	7060.1	605.4
Length Wtd. (ft)	31.62	Wetted Per. (ft)	36.15	263.19	62.72
Min Ch El (ft)	2444.38	Shear (lb/sq ft)	0.20	1.49	0.81
Alpha	1.05	Stream Power (lb/ft s)	0.21	5.75	2.07
FrcIn Loss (ft)	0.94	Cum Volume (acre-ft)	0.31	5.22	0.44
C & E Loss (ft)	0.01	Cum SA (acres)	0.73	5.23	1.14

Plan: Default Scenario La Cholla Wash VDO RS: 133 Profile: Q2

E.G. Elev (ft)	2446.04	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.11	Wt. n-Val.		0.060	0.060
W.S. Elev (ft)	2445.93	Reach Len. (ft)	31.62	31.62	31.62
Crit W.S. (ft)		Flow Area (sq ft)		156.27	8.24
E.G. Slope (ft/ft)	0.023825	Area (sq ft)		156.27	8.24
Q Total (cfs)	435.60	Flow (cfs)		425.93	9.67
Top Width (ft)	309.43	Top Width (ft)		259.29	50.14
Vel Total (ft/s)	2.65	Avg. Vel. (ft/s)		2.73	1.17
Max Chl Dpth (ft)	1.55	Hydr. Depth (ft)		0.60	0.16
Conv. Total (cfs)	2822.1	Conv. (cfs)		2759.4	62.7
Length Wtd. (ft)	31.62	Wetted Per. (ft)		259.56	50.17
Min Ch El (ft)	2444.38	Shear (lb/sq ft)		0.90	0.24
Alpha	1.04	Stream Power (lb/ft s)		2.44	0.29
FrcIn Loss (ft)	1.00	Cum Volume (acre-ft)	0.06	2.72	0.11
C & E Loss (ft)	0.01	Cum SA (acres)	0.15	4.27	0.24

Plan: Default Scenario La Cholla Wash VDO RS: 132 Profile: Q100

E.G. Elev (ft)	2446.54	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.55	Wt. n-Val.	0.060	0.060	0.060
W.S. Elev (ft)	2445.99	Reach Len. (ft)	38.52	38.52	38.52
Crit W.S. (ft)	2445.94	Flow Area (sq ft)	15.69	424.20	67.95
E.G. Slope (ft/ft)	0.036249	Area (sq ft)	15.69	424.20	67.95
Q Total (cfs)	2904.00	Flow (cfs)	43.56	2600.89	259.76
Top Width (ft)	419.96	Top Width (ft)	41.51	285.58	92.87
Vel Total (ft/s)	5.72	Avg. Vel. (ft/s)	2.78	6.13	3.82
Max Chl Dpth (ft)	2.81	Hydr. Depth (ft)	0.38	1.49	0.73
Conv. Total (cfs)	15252.7	Conv. (cfs)	228.8	13659.6	1364.3
Length Wtd. (ft)	38.52	Wetted Per. (ft)	41.53	286.11	93.08
Min Ch El (ft)	2443.18	Shear (lb/sq ft)	0.86	3.36	1.65
Alpha	1.07	Stream Power (lb/ft s)	2.37	20.57	6.32
Frctn Loss (ft)	1.00	Cum Volume (acre-ft)	1.06	8.84	1.46
C & E Loss (ft)	0.05	Cum SA (acres)	1.62	5.51	2.04

Plan: Default Scenario La Cholla Wash VDO RS: 132 Profile: Q10

E.G. Elev (ft)	2445.65	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.31	Wt. n-Val.		0.060	0.060
W.S. Elev (ft)	2445.34	Reach Len. (ft)	38.52	38.52	38.52
Crit W.S. (ft)	2445.26	Flow Area (sq ft)		239.33	23.26
E.G. Slope (ft/ft)	0.040952	Area (sq ft)		239.33	23.26
Q Total (cfs)	1161.60	Flow (cfs)		1083.41	78.19
Top Width (ft)	320.46	Top Width (ft)		278.27	42.19
Vel Total (ft/s)	4.42	Avg. Vel. (ft/s)		4.53	3.36
Max Chl Dpth (ft)	2.16	Hydr. Depth (ft)		0.86	0.55
Conv. Total (cfs)	5740.1	Conv. (cfs)		5353.7	386.4
Length Wtd. (ft)	38.52	Wetted Per. (ft)		278.79	42.35
Min Ch El (ft)	2443.18	Shear (lb/sq ft)		2.19	1.40
Alpha	1.02	Stream Power (lb/ft s)		9.94	4.72
Frctn Loss (ft)	1.03	Cum Volume (acre-ft)	0.31	5.04	0.42
C & E Loss (ft)	0.03	Cum SA (acres)	0.72	5.03	1.10

Plan: Default Scenario La Cholla Wash VDO RS: 132 Profile: Q2

E.G. Elev (ft)	2445.03	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.20	Wt. n-Val.		0.060	0.060
W.S. Elev (ft)	2444.83	Reach Len. (ft)	38.52	38.52	38.52
Crit W.S. (ft)	2444.76	Flow Area (sq ft)		117.96	4.80
E.G. Slope (ft/ft)	0.044222	Area (sq ft)		117.96	4.80
Q Total (cfs)	435.60	Flow (cfs)		427.72	7.88
Top Width (ft)	229.78	Top Width (ft)		202.66	27.12
Vel Total (ft/s)	3.55	Avg. Vel. (ft/s)		3.63	1.64
Max Chl Dpth (ft)	1.65	Hydr. Depth (ft)		0.58	0.18
Conv. Total (cfs)	2071.4	Conv. (cfs)		2033.9	37.5
Length Wtd. (ft)	38.52	Wetted Per. (ft)		203.04	27.19
Min Ch El (ft)	2443.18	Shear (lb/sq ft)		1.60	0.49
Alpha	1.03	Stream Power (lb/ft s)		5.82	0.80
Frctn Loss (ft)	1.04	Cum Volume (acre-ft)	0.06	2.62	0.11
C & E Loss (ft)	0.03	Cum SA (acres)	0.15	4.10	0.21

Plan: Default Scenario La Cholla Wash VDO RS: 131 Profile: Q100

E.G. Elev (ft)	2445.49	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.37	Wt. n-Val.	0.060	0.060	0.060
W.S. Elev (ft)	2445.12	Reach Len. (ft)	45.89	45.89	45.89
Crit W.S. (ft)		Flow Area (sq ft)	28.52	494.43	111.53
E.G. Slope (ft/ft)	0.019504	Area (sq ft)	28.52	494.43	111.53
Q Total (cfs)	2904.00	Flow (cfs)	55.00	2531.54	317.46
Top Width (ft)	501.66	Top Width (ft)	78.43	274.04	149.20
Vel Total (ft/s)	4.58	Avg. Vel. (ft/s)	1.93	5.12	2.85
Max Chl Dpth (ft)	2.83	Hydr. Depth (ft)	0.36	1.80	0.75
Conv. Total (cfs)	20793.7	Conv. (cfs)	393.8	18126.8	2273.2
Length Wtd. (ft)	45.89	Wetted Per. (ft)	78.44	274.50	149.37
Min Ch El (ft)	2442.29	Shear (lb/sq ft)	0.44	2.19	0.91
Alpha	1.14	Stream Power (lb/ft s)	0.85	11.23	2.59
Frctn Loss (ft)	1.00	Cum Volume (acre-ft)	1.04	8.44	1.38
C & E Loss (ft)	0.00	Cum SA (acres)	1.57	5.27	1.93

Plan: Default Scenario La Cholla Wash VDO RS: 131 Profile: Q10

E.G. Elev (ft)	2444.59	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.21	Wt. n-Val.		0.060	0.060
W.S. Elev (ft)	2444.38	Reach Len. (ft)	45.89	45.89	45.89
Crit W.S. (ft)		Flow Area (sq ft)		294.95	27.24
E.G. Slope (ft/ft)	0.018775	Area (sq ft)		294.95	27.24
Q Total (cfs)	1161.60	Flow (cfs)		1107.77	53.83
Top Width (ft)	319.82	Top Width (ft)		252.86	66.96
Vel Total (ft/s)	3.61	Avg. Vel. (ft/s)		3.76	1.98
Max Chl Dpth (ft)	2.09	Hydr. Depth (ft)		1.17	0.41
Conv. Total (cfs)	8477.6	Conv. (cfs)		8084.7	392.9
Length Wtd. (ft)	45.89	Wetted Per. (ft)		253.31	67.05
Min Ch El (ft)	2442.29	Shear (lb/sq ft)		1.36	0.48
Alpha	1.05	Stream Power (lb/ft s)		5.13	0.94
Frctn Loss (ft)	1.02	Cum Volume (acre-ft)	0.31	4.80	0.40
C & E Loss (ft)	0.00	Cum SA (acres)	0.72	4.79	1.05

Plan: Default Scenario La Cholla Wash VDO RS: 131 Profile: Q2

E.G. Elev (ft)	2443.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.11	Wt. n-Val.		0.060	0.060
W.S. Elev (ft)	2443.85	Reach Len. (ft)	45.89	45.89	45.89
Crit W.S. (ft)		Flow Area (sq ft)		163.69	4.45
E.G. Slope (ft/ft)	0.018213	Area (sq ft)		163.69	4.45
Q Total (cfs)	435.60	Flow (cfs)		429.39	6.21
Top Width (ft)	251.54	Top Width (ft)		235.05	16.50
Vel Total (ft/s)	2.59	Avg. Vel. (ft/s)		2.62	1.39
Max Chl Dpth (ft)	1.56	Hydr. Depth (ft)		0.70	0.27
Conv. Total (cfs)	3227.7	Conv. (cfs)		3181.7	46.0
Length Wtd. (ft)	45.89	Wetted Per. (ft)		235.41	16.53
Min Ch El (ft)	2442.29	Shear (lb/sq ft)		0.79	0.31
Alpha	1.01	Stream Power (lb/ft s)		2.07	0.43
Frctn Loss (ft)	1.02	Cum Volume (acre-ft)	0.06	2.50	0.11
C & E Loss (ft)	0.00	Cum SA (acres)	0.15	3.90	0.19

Plan: Default Scenario La Cholla Wash VDO RS: 130 Profile: Q100

E.G. Elev (ft)	2444.47	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.41	Wt. n-Val.	0.060	0.060	0.060
W.S. Elev (ft)	2444.06	Reach Len. (ft)	84.86	84.86	84.86
Crit W.S. (ft)		Flow Area (sq ft)	7.67	488.04	96.11
E.G. Slope (ft/ft)	0.024755	Area (sq ft)	7.67	488.04	96.11
Q Total (cfs)	2904.00	Flow (cfs)	10.06	2613.10	280.85
Top Width (ft)	499.32	Top Width (ft)	49.21	302.48	147.63
Vel Total (ft/s)	4.91	Avg. Vel. (ft/s)	1.31	5.35	2.92
Max Chl Dpth (ft)	2.89	Hydr. Depth (ft)	0.16	1.61	0.65
Conv. Total (cfs)	18457.2	Conv. (cfs)	63.9	16608.3	1785.0
Length Wtd. (ft)	84.86	Wetted Per. (ft)	49.24	302.99	147.99
Min Ch El (ft)	2441.17	Shear (lb/sq ft)	0.24	2.49	1.00
Alpha	1.11	Stream Power (lb/ft s)	0.32	13.33	2.93
Frctn Loss (ft)	1.99	Cum Volume (acre-ft)	1.02	7.92	1.27
C & E Loss (ft)	0.00	Cum SA (acres)	1.50	4.96	1.77

Plan: Default Scenario La Cholla Wash VDO RS: 130 Profile: Q10

E.G. Elev (ft)	2443.57	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.24	Wt. n-Val.		0.060	0.060
W.S. Elev (ft)	2443.33	Reach Len. (ft)	84.86	84.86	84.86
Crit W.S. (ft)		Flow Area (sq ft)		274.14	25.65
E.G. Slope (ft/ft)	0.026842	Area (sq ft)		274.14	25.65
Q Total (cfs)	1161.60	Flow (cfs)		1103.31	58.29
Top Width (ft)	340.92	Top Width (ft)		277.05	63.87
Vel Total (ft/s)	3.87	Avg. Vel. (ft/s)		4.02	2.27
Max Chl Dpth (ft)	2.16	Hydr. Depth (ft)		0.99	0.40
Conv. Total (cfs)	7090.0	Conv. (cfs)		6734.3	355.8
Length Wtd. (ft)	84.86	Wetted Per. (ft)		277.50	64.05
Min Ch El (ft)	2441.17	Shear (lb/sq ft)		1.66	0.67
Alpha	1.04	Stream Power (lb/ft s)		6.66	1.52
Frctn Loss (ft)	2.00	Cum Volume (acre-ft)	0.31	4.50	0.37
C & E Loss (ft)	0.00	Cum SA (acres)	0.72	4.51	0.98

Plan: Default Scenario La Cholla Wash VDO RS: 130 Profile: Q2

E.G. Elev (ft)	2442.94	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.14	Wt. n-Val.		0.060	0.060
W.S. Elev (ft)	2442.80	Reach Len. (ft)	84.86	84.86	84.86
Crit W.S. (ft)		Flow Area (sq ft)		142.02	4.47
E.G. Slope (ft/ft)	0.027551	Area (sq ft)		142.02	4.47
Q Total (cfs)	435.60	Flow (cfs)		427.64	7.96
Top Width (ft)	241.75	Top Width (ft)		226.15	15.60
Vel Total (ft/s)	2.97	Avg. Vel. (ft/s)		3.01	1.78
Max Chl Dpth (ft)	1.63	Hydr. Depth (ft)		0.63	0.29
Conv. Total (cfs)	2624.3	Conv. (cfs)		2576.4	47.9
Length Wtd. (ft)	84.86	Wetted Per. (ft)		226.53	15.68
Min Ch El (ft)	2441.17	Shear (lb/sq ft)		1.08	0.49
Alpha	1.01	Stream Power (lb/ft s)		3.25	0.87
Frctn Loss (ft)	2.05	Cum Volume (acre-ft)	0.06	2.34	0.10
C & E Loss (ft)	0.00	Cum SA (acres)	0.15	3.66	0.18

Plan: Default Scenario La Cholla Wash VDO RS: 129 Profile: Q100

E.G. Elev (ft)	2442.49	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.43	Wt. n-Val.	0.060	0.060	0.060
W.S. Elev (ft)	2442.06	Reach Len. (ft)	80.63	80.63	80.63
Crit W.S. (ft)	2441.80	Flow Area (sq ft)	12.48	491.20	96.98
E.G. Slope (ft/ft)	0.022279	Area (sq ft)	12.48	491.20	96.98
Q Total (cfs)	2904.00	Flow (cfs)	17.88	2664.98	221.14
Top Width (ft)	537.60	Top Width (ft)	61.78	275.89	199.93
Vel Total (ft/s)	4.83	Avg. Vel. (ft/s)	1.43	5.43	2.28
Max Chl Dpth (ft)	2.97	Hydr. Depth (ft)	0.20	1.78	0.49
Conv. Total (cfs)	19455.7	Conv. (cfs)	119.8	17854.4	1481.5
Length Wtd. (ft)	80.63	Wetted Per. (ft)	61.79	276.25	200.44
Min Ch El (ft)	2439.09	Shear (lb/sq ft)	0.28	2.47	0.67
Alpha	1.17	Stream Power (lb/ft s)	0.40	13.42	1.53
Frctn Loss (ft)	1.89	Cum Volume (acre-ft)	1.00	6.97	1.08
C & E Loss (ft)	0.01	Cum SA (acres)	1.39	4.40	1.43

Plan: Default Scenario La Cholla Wash VDO RS: 129 Profile: Q10

E.G. Elev (ft)	2441.57	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.23	Wt. n-Val.		0.060	0.060
W.S. Elev (ft)	2441.34	Reach Len. (ft)	80.63	80.63	80.63
Crit W.S. (ft)		Flow Area (sq ft)		294.00	12.96
E.G. Slope (ft/ft)	0.020814	Area (sq ft)		294.00	12.96
Q Total (cfs)	1161.60	Flow (cfs)		1139.57	22.03
Top Width (ft)	305.46	Top Width (ft)		259.85	45.61
Vel Total (ft/s)	3.78	Avg. Vel. (ft/s)		3.88	1.70
Max Chl Dpth (ft)	2.25	Hydr. Depth (ft)		1.13	0.28
Conv. Total (cfs)	8051.6	Conv. (cfs)		7898.9	152.7
Length Wtd. (ft)	80.63	Wetted Per. (ft)		260.20	45.68
Min Ch El (ft)	2439.09	Shear (lb/sq ft)		1.47	0.37
Alpha	1.03	Stream Power (lb/ft s)		5.69	0.63
Frctn Loss (ft)	1.80	Cum Volume (acre-ft)	0.31	3.95	0.34
C & E Loss (ft)	0.00	Cum SA (acres)	0.72	3.99	0.87

Plan: Default Scenario La Cholla Wash VDO RS: 129 Profile: Q2

E.G. Elev (ft)	2440.89	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.12	Wt. n-Val.		0.060	0.060
W.S. Elev (ft)	2440.77	Reach Len. (ft)	80.63	80.63	80.63
Crit W.S. (ft)		Flow Area (sq ft)		154.35	0.96
E.G. Slope (ft/ft)	0.021341	Area (sq ft)		154.35	0.96
Q Total (cfs)	435.60	Flow (cfs)		434.66	0.94
Top Width (ft)	231.33	Top Width (ft)		224.47	6.86
Vel Total (ft/s)	2.80	Avg. Vel. (ft/s)		2.82	0.98
Max Chl Dpth (ft)	1.68	Hydr. Depth (ft)		0.69	0.14
Conv. Total (cfs)	2981.8	Conv. (cfs)		2975.4	6.4
Length Wtd. (ft)	80.63	Wetted Per. (ft)		224.75	6.88
Min Ch El (ft)	2439.09	Shear (lb/sq ft)		0.91	0.19
Alpha	1.01	Stream Power (lb/ft s)		2.58	0.18
Frctn Loss (ft)	1.76	Cum Volume (acre-ft)	0.06	2.05	0.10
C & E Loss (ft)	0.00	Cum SA (acres)	0.15	3.22	0.15

Plan: Default Scenario La Cholla Wash VDO RS: 128 Profile: Q100

E.G. Elev (ft)	2440.59	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.39	Wt. n-Val.	0.060	0.060	0.060
W.S. Elev (ft)	2440.20	Reach Len. (ft)	75.81	75.81	75.81
Crit W.S. (ft)	2440.04	Flow Area (sq ft)	23.08	435.75	162.29
E.G. Slope (ft/ft)	0.024625	Area (sq ft)	23.08	435.75	162.29
Q Total (cfs)	2904.00	Flow (cfs)	50.07	2351.83	502.10
Top Width (ft)	569.76	Top Width (ft)	76.59	265.81	227.36
Vel Total (ft/s)	4.68	Avg. Vel. (ft/s)	2.17	5.40	3.09
Max Chl Dpth (ft)	3.06	Hydr. Depth (ft)	0.30	1.64	0.71
Conv. Total (cfs)	18506.0	Conv. (cfs)	319.1	14987.2	3199.6
Length Wtd. (ft)	75.81	Wetted Per. (ft)	76.60	266.25	228.49
Min Ch El (ft)	2437.14	Shear (lb/sq ft)	0.46	2.52	1.09
Alpha	1.16	Stream Power (lb/ft s)	1.00	13.58	3.38
Frcn Loss (ft)	2.04	Cum Volume (acre-ft)	0.97	6.11	0.84
C & E Loss (ft)	0.01	Cum SA (acres)	1.26	3.90	1.04

Plan: Default Scenario La Cholla Wash VDO RS: 128 Profile: Q10

E.G. Elev (ft)	2439.77	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.24	Wt. n-Val.	0.060	0.060	0.060
W.S. Elev (ft)	2439.54	Reach Len. (ft)	75.81	75.81	75.81
Crit W.S. (ft)		Flow Area (sq ft)	0.20	260.97	42.76
E.G. Slope (ft/ft)	0.024113	Area (sq ft)	0.20	260.97	42.76
Q Total (cfs)	1161.60	Flow (cfs)	0.06	1047.27	114.27
Top Width (ft)	376.14	Top Width (ft)	9.15	244.38	122.61
Vel Total (ft/s)	3.82	Avg. Vel. (ft/s)	0.30	4.01	2.67
Max Chl Dpth (ft)	2.40	Hydr. Depth (ft)	0.02	1.07	0.35
Conv. Total (cfs)	7480.6	Conv. (cfs)	0.4	6744.3	735.9
Length Wtd. (ft)	75.81	Wetted Per. (ft)	9.15	244.81	123.02
Min Ch El (ft)	2437.14	Shear (lb/sq ft)	0.03	1.60	0.52
Alpha	1.04	Stream Power (lb/ft s)	0.01	6.44	1.40
Frcn Loss (ft)	1.91	Cum Volume (acre-ft)	0.31	3.43	0.28
C & E Loss (ft)	0.01	Cum SA (acres)	0.71	3.53	0.72

Plan: Default Scenario La Cholla Wash VDO RS: 128 Profile: Q2

E.G. Elev (ft)	2439.14	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.12	Wt. n-Val.		0.060	0.060
W.S. Elev (ft)	2439.02	Reach Len. (ft)	75.81	75.81	75.81
Crit W.S. (ft)		Flow Area (sq ft)		143.21	15.02
E.G. Slope (ft/ft)	0.022208	Area (sq ft)		143.21	15.02
Q Total (cfs)	435.60	Flow (cfs)		398.73	36.87
Top Width (ft)	245.74	Top Width (ft)		218.22	27.52
Vel Total (ft/s)	2.75	Avg. Vel. (ft/s)		2.78	2.46
Max Chl Dpth (ft)	1.88	Hydr. Depth (ft)		0.66	0.55
Conv. Total (cfs)	2923.0	Conv. (cfs)		2675.6	247.4
Length Wtd. (ft)	75.81	Wetted Per. (ft)		218.57	27.68
Min Ch El (ft)	2437.14	Shear (lb/sq ft)		0.91	0.75
Alpha	1.00	Stream Power (lb/ft s)		2.53	1.85
Frcn Loss (ft)	1.80	Cum Volume (acre-ft)	0.06	1.77	0.08
C & E Loss (ft)	0.00	Cum SA (acres)	0.15	2.81	0.12

Plan: Default Scenario La Cholla Wash VDO RS: 127 Profile: Q100

E.G. Elev (ft)	2438.55	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.37	Wt. n-Val.	0.060	0.060	0.060
W.S. Elev (ft)	2438.19	Reach Len. (ft)	69.35	69.35	69.35
Crit W.S. (ft)	2438.08	Flow Area (sq ft)	39.11	391.51	196.33
E.G. Slope (ft/ft)	0.029410	Area (sq ft)	39.11	391.51	196.33
Q Total (cfs)	2904.00	Flow (cfs)	102.17	2061.02	740.81
Top Width (ft)	606.90	Top Width (ft)	90.01	283.43	233.46
Vel Total (ft/s)	4.63	Avg. Vel. (ft/s)	2.61	5.26	3.77
Max Chl Dpth (ft)	2.97	Hydr. Depth (ft)	0.43	1.38	0.84
Conv. Total (cfs)	16933.6	Conv. (cfs)	595.8	12018.1	4319.8
Length Wtd. (ft)	69.35	Wetted Per. (ft)	90.03	283.71	234.44
Min Ch El (ft)	2435.60	Shear (lb/sq ft)	0.80	2.53	1.54
Alpha	1.10	Stream Power (lb/ft s)	2.08	13.34	5.80
Frctn Loss (ft)	2.02	Cum Volume (acre-ft)	0.91	5.39	0.53
C & E Loss (ft)	0.02	Cum SA (acres)	1.12	3.42	0.64

Plan: Default Scenario La Cholla Wash VDO RS: 127 Profile: Q10

E.G. Elev (ft)	2437.85	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.20	Wt. n-Val.	0.060	0.060	0.060
W.S. Elev (ft)	2437.65	Reach Len. (ft)	69.35	69.35	69.35
Crit W.S. (ft)	2437.48	Flow Area (sq ft)	0.99	241.15	83.64
E.G. Slope (ft/ft)	0.026400	Area (sq ft)	0.99	241.15	83.64
Q Total (cfs)	1161.60	Flow (cfs)	0.48	870.70	290.42
Top Width (ft)	475.29	Top Width (ft)	28.78	283.43	163.08
Vel Total (ft/s)	3.57	Avg. Vel. (ft/s)	0.49	3.61	3.47
Max Chl Dpth (ft)	2.44	Hydr. Depth (ft)	0.03	0.85	0.51
Conv. Total (cfs)	7149.1	Conv. (cfs)	3.0	5358.7	1787.4
Length Wtd. (ft)	69.35	Wetted Per. (ft)	28.78	283.71	163.51
Min Ch El (ft)	2435.60	Shear (lb/sq ft)	0.06	1.40	0.84
Alpha	1.01	Stream Power (lb/ft s)	0.03	5.06	2.93
Frctn Loss (ft)	2.02	Cum Volume (acre-ft)	0.31	3.00	0.17
C & E Loss (ft)	0.00	Cum SA (acres)	0.68	3.07	0.47

Plan: Default Scenario La Cholla Wash VDO RS: 127 Profile: Q2

E.G. Elev (ft)	2437.32	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.16	Wt. n-Val.		0.060	0.060
W.S. Elev (ft)	2437.17	Reach Len. (ft)	69.35	69.35	69.35
Crit W.S. (ft)	2436.97	Flow Area (sq ft)		111.78	39.72
E.G. Slope (ft/ft)	0.025589	Area (sq ft)		111.78	39.72
Q Total (cfs)	435.60	Flow (cfs)		271.62	163.98
Top Width (ft)	275.92	Top Width (ft)		232.47	43.45
Vel Total (ft/s)	2.88	Avg. Vel. (ft/s)		2.43	4.13
Max Chl Dpth (ft)	1.96	Hydr. Depth (ft)		0.48	0.91
Conv. Total (cfs)	2723.1	Conv. (cfs)		1698.0	1025.1
Length Wtd. (ft)	69.35	Wetted Per. (ft)		232.70	43.66
Min Ch El (ft)	2435.60	Shear (lb/sq ft)		0.77	1.45
Alpha	1.22	Stream Power (lb/ft s)		1.86	6.00
Frctn Loss (ft)	2.10	Cum Volume (acre-ft)	0.06	1.55	0.03
C & E Loss (ft)	0.01	Cum SA (acres)	0.15	2.42	0.06

Plan: Default Scenario La Cholla Wash VDO RS: 126 Profile: Q100

E.G. Elev (ft)	2436.51	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.31	Wt. n-Val.	0.060	0.060	0.060
W.S. Elev (ft)	2436.19	Reach Len. (ft)	74.61	74.61	74.61
Crit W.S. (ft)		Flow Area (sq ft)	205.81	370.74	81.20
E.G. Slope (ft/ft)	0.028977	Area (sq ft)	205.81	370.74	81.20
Q Total (cfs)	2904.00	Flow (cfs)	772.96	1797.66	333.38
Top Width (ft)	628.56	Top Width (ft)	244.63	300.00	83.93
Vel Total (ft/s)	4.42	Avg. Vel. (ft/s)	3.76	4.85	4.11
Max Chl Dpth (ft)	2.70	Hydr. Depth (ft)	0.84	1.24	0.97
Conv. Total (cfs)	17059.8	Conv. (cfs)	4540.8	10560.5	1958.5
Length Wtd. (ft)	74.61	Wetted Per. (ft)	244.76	300.56	84.48
Min Ch El (ft)	2433.49	Shear (lb/sq ft)	1.52	2.23	1.74
Alpha	1.04	Stream Power (lb/ft s)	5.71	10.82	7.14
Frctn Loss (ft)	1.66	Cum Volume (acre-ft)	0.72	4.78	0.31
C & E Loss (ft)	0.01	Cum SA (acres)	0.85	2.96	0.38

Plan: Default Scenario La Cholla Wash VDO RS: 126 Profile: Q10

E.G. Elev (ft)	2435.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.25	Wt. n-Val.	0.060	0.060	0.060
W.S. Elev (ft)	2435.58	Reach Len. (ft)	74.61	74.61	74.61
Crit W.S. (ft)		Flow Area (sq ft)	72.76	203.04	30.25
E.G. Slope (ft/ft)	0.032263	Area (sq ft)	72.76	203.04	30.25
Q Total (cfs)	1161.60	Flow (cfs)	221.78	870.75	69.07
Top Width (ft)	447.41	Top Width (ft)	151.18	214.03	82.20
Vel Total (ft/s)	3.80	Avg. Vel. (ft/s)	3.05	4.29	2.28
Max Chl Dpth (ft)	2.09	Hydr. Depth (ft)	0.48	0.95	0.37
Conv. Total (cfs)	6467.0	Conv. (cfs)	1234.7	4847.7	384.5
Length Wtd. (ft)	74.61	Wetted Per. (ft)	151.26	214.49	82.27
Min Ch El (ft)	2433.49	Shear (lb/sq ft)	0.97	1.91	0.74
Alpha	1.10	Stream Power (lb/ft s)	2.95	8.18	1.69
Frctn Loss (ft)	1.72	Cum Volume (acre-ft)	0.25	2.64	0.08
C & E Loss (ft)	0.03	Cum SA (acres)	0.53	2.67	0.27

Plan: Default Scenario La Cholla Wash VDO RS: 126 Profile: Q2

E.G. Elev (ft)	2435.21	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.23	Wt. n-Val.	0.060	0.060	0.060
W.S. Elev (ft)	2434.98	Reach Len. (ft)	74.61	74.61	74.61
Crit W.S. (ft)	2434.83	Flow Area (sq ft)	13.14	102.65	0.31
E.G. Slope (ft/ft)	0.036362	Area (sq ft)	13.14	102.65	0.31
Q Total (cfs)	435.60	Flow (cfs)	28.82	406.63	0.15
Top Width (ft)	183.75	Top Width (ft)	41.48	133.30	8.97
Vel Total (ft/s)	3.75	Avg. Vel. (ft/s)	2.19	3.96	0.50
Max Chl Dpth (ft)	1.49	Hydr. Depth (ft)	0.32	0.77	0.03
Conv. Total (cfs)	2284.4	Conv. (cfs)	151.1	2132.4	0.8
Length Wtd. (ft)	74.61	Wetted Per. (ft)	41.51	133.62	8.97
Min Ch El (ft)	2433.49	Shear (lb/sq ft)	0.72	1.74	0.08
Alpha	1.06	Stream Power (lb/ft s)	1.58	6.91	0.04
Frctn Loss (ft)	1.75	Cum Volume (acre-ft)	0.05	1.38	0.00
C & E Loss (ft)	0.03	Cum SA (acres)	0.12	2.13	0.02

Plan: Default Scenario La Cholla Wash VDO RS: 125 Profile: Q100

E.G. Elev (ft)	2434.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.29	Wt. n-Val.	0.060	0.060	0.060
W.S. Elev (ft)	2434.55	Reach Len. (ft)	72.14	72.14	72.14
Crit W.S. (ft)	2434.23	Flow Area (sq ft)	152.04	499.48	59.07
E.G. Slope (ft/ft)	0.017653	Area (sq ft)	152.04	499.48	59.07
Q Total (cfs)	2904.00	Flow (cfs)	434.63	2305.79	163.58
Top Width (ft)	563.01	Top Width (ft)	187.61	300.00	75.40
Vel Total (ft/s)	4.09	Avg. Vel. (ft/s)	2.86	4.62	2.77
Max Chl Dpth (ft)	3.06	Hydr. Depth (ft)	0.81	1.66	0.78
Conv. Total (cfs)	21856.8	Conv. (cfs)	3271.2	17354.4	1231.2
Length Wtd. (ft)	72.14	Wetted Per. (ft)	187.75	300.57	76.49
Min Ch El (ft)	2431.49	Shear (lb/sq ft)	0.89	1.83	0.85
Alpha	1.11	Stream Power (lb/ft s)	2.55	8.45	2.36
Frcn Loss (ft)	1.95	Cum Volume (acre-ft)	0.41	4.04	0.19
C & E Loss (ft)	0.03	Cum SA (acres)	0.48	2.44	0.25

Plan: Default Scenario La Cholla Wash VDO RS: 125 Profile: Q10

E.G. Elev (ft)	2434.09	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.16	Wt. n-Val.	0.060	0.060	0.060
W.S. Elev (ft)	2433.93	Reach Len. (ft)	72.14	72.14	72.14
Crit W.S. (ft)	2433.64	Flow Area (sq ft)	53.81	313.59	12.80
E.G. Slope (ft/ft)	0.017244	Area (sq ft)	53.81	313.59	12.80
Q Total (cfs)	1161.60	Flow (cfs)	97.94	1049.06	14.59
Top Width (ft)	493.96	Top Width (ft)	128.40	300.00	65.56
Vel Total (ft/s)	3.06	Avg. Vel. (ft/s)	1.82	3.35	1.14
Max Chl Dpth (ft)	2.44	Hydr. Depth (ft)	0.42	1.05	0.20
Conv. Total (cfs)	8845.8	Conv. (cfs)	745.9	7988.8	111.1
Length Wtd. (ft)	72.14	Wetted Per. (ft)	128.49	300.57	66.02
Min Ch El (ft)	2431.49	Shear (lb/sq ft)	0.45	1.12	0.21
Alpha	1.11	Stream Power (lb/ft s)	0.82	3.76	0.24
Frcn Loss (ft)	2.10	Cum Volume (acre-ft)	0.14	2.20	0.05
C & E Loss (ft)	0.03	Cum SA (acres)	0.29	2.23	0.15

Plan: Default Scenario La Cholla Wash VDO RS: 125 Profile: Q2

E.G. Elev (ft)	2433.43	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.12	Wt. n-Val.	0.060	0.060	
W.S. Elev (ft)	2433.31	Reach Len. (ft)	72.14	72.14	72.14
Crit W.S. (ft)		Flow Area (sq ft)	6.29	154.75	
E.G. Slope (ft/ft)	0.016308	Area (sq ft)	6.29	154.75	
Q Total (cfs)	435.60	Flow (cfs)	9.45	426.15	
Top Width (ft)	209.14	Top Width (ft)	19.14	190.00	
Vel Total (ft/s)	2.70	Avg. Vel. (ft/s)	1.50	2.75	
Max Chl Dpth (ft)	1.82	Hydr. Depth (ft)	0.33	0.81	
Conv. Total (cfs)	3411.1	Conv. (cfs)	74.0	3337.0	
Length Wtd. (ft)	72.14	Wetted Per. (ft)	19.18	190.45	
Min Ch El (ft)	2431.49	Shear (lb/sq ft)	0.33	0.83	
Alpha	1.02	Stream Power (lb/ft s)	0.50	2.28	
Frcn Loss (ft)	2.09	Cum Volume (acre-ft)	0.04	1.16	0.00
C & E Loss (ft)	0.01	Cum SA (acres)	0.07	1.85	0.01

Plan: Default Scenario La Cholla Wash VDO RS: 124 Profile: Q100

E.G. Elev (ft)	2432.85	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.59	Wt. n-Val.	0.060	0.060	0.060
W.S. Elev (ft)	2432.26	Reach Len. (ft)	68.23	68.23	68.23
Crit W.S. (ft)	2432.26	Flow Area (sq ft)	77.60	387.76	16.80
E.G. Slope (ft/ft)	0.046786	Area (sq ft)	77.60	387.76	16.80
Q Total (cfs)	2904.00	Flow (cfs)	398.76	2461.40	43.84
Top Width (ft)	435.24	Top Width (ft)	82.49	300.00	52.75
Vel Total (ft/s)	6.02	Avg. Vel. (ft/s)	5.14	6.35	2.61
Max Chl Dpth (ft)	2.72	Hydr. Depth (ft)	0.94	1.29	0.32
Conv. Total (cfs)	13425.8	Conv. (cfs)	1843.6	11379.5	202.7
Length Wtd. (ft)	68.23	Wetted Per. (ft)	82.60	300.60	53.07
Min Ch El (ft)	2429.54	Shear (lb/sq ft)	2.74	3.77	0.92
Alpha	1.04	Stream Power (lb/ft s)	14.10	23.92	2.41
Frctn Loss (ft)	1.48	Cum Volume (acre-ft)	0.22	3.30	0.13
C & E Loss (ft)	0.10	Cum SA (acres)	0.26	1.95	0.14

Plan: Default Scenario La Cholla Wash VDO RS: 124 Profile: Q10

E.G. Elev (ft)	2431.96	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.42	Wt. n-Val.	0.060	0.060	
W.S. Elev (ft)	2431.54	Reach Len. (ft)	68.23	68.23	68.23
Crit W.S. (ft)	2431.54	Flow Area (sq ft)	37.83	186.37	
E.G. Slope (ft/ft)	0.059391	Area (sq ft)	37.83	186.37	
Q Total (cfs)	1161.60	Flow (cfs)	212.80	948.80	
Top Width (ft)	281.98	Top Width (ft)	41.97	240.01	
Vel Total (ft/s)	5.18	Avg. Vel. (ft/s)	5.62	5.09	
Max Chl Dpth (ft)	2.00	Hydr. Depth (ft)	0.90	0.78	
Conv. Total (cfs)	4766.5	Conv. (cfs)	873.2	3893.3	
Length Wtd. (ft)	68.23	Wetted Per. (ft)	42.05	240.57	
Min Ch El (ft)	2429.54	Shear (lb/sq ft)	3.34	2.87	
Alpha	1.00	Stream Power (lb/ft s)	18.76	14.62	
Frctn Loss (ft)	1.59	Cum Volume (acre-ft)	0.07	1.79	0.04
C & E Loss (ft)	0.08	Cum SA (acres)	0.15	1.78	0.09

Plan: Default Scenario La Cholla Wash VDO RS: 124 Profile: Q2

E.G. Elev (ft)	2431.33	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.26	Wt. n-Val.	0.060	0.060	
W.S. Elev (ft)	2431.07	Reach Len. (ft)	68.23	68.23	68.23
Crit W.S. (ft)	2431.07	Flow Area (sq ft)	19.56	86.55	
E.G. Slope (ft/ft)	0.065269	Area (sq ft)	19.56	86.55	
Q Total (cfs)	435.60	Flow (cfs)	87.53	348.07	
Top Width (ft)	203.19	Top Width (ft)	32.83	170.35	
Vel Total (ft/s)	4.11	Avg. Vel. (ft/s)	4.47	4.02	
Max Chl Dpth (ft)	1.53	Hydr. Depth (ft)	0.60	0.51	
Conv. Total (cfs)	1705.0	Conv. (cfs)	342.6	1362.4	
Length Wtd. (ft)	68.23	Wetted Per. (ft)	32.89	170.79	
Min Ch El (ft)	2429.54	Shear (lb/sq ft)	2.42	2.06	
Alpha	1.01	Stream Power (lb/ft s)	10.84	8.30	
Frctn Loss (ft)	1.68	Cum Volume (acre-ft)	0.02	0.96	0.00
C & E Loss (ft)	0.05	Cum SA (acres)	0.03	1.55	0.01

Plan: Default Scenario La Cholla Wash VDO RS: 123 Profile: Q100

E.G. Elev (ft)	2431.05	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.27	Wt. n-Val.	0.060	0.060	0.060
W.S. Elev (ft)	2430.78	Reach Len. (ft)	85.35	85.35	85.35
Crit W.S. (ft)	2430.25	Flow Area (sq ft)	80.73	586.88	51.04
E.G. Slope (ft/ft)	0.012485	Area (sq ft)	80.73	586.88	51.04
Q Total (cfs)	2904.00	Flow (cfs)	211.39	2537.49	155.12
Top Width (ft)	430.87	Top Width (ft)	87.64	300.00	43.23
Vel Total (ft/s)	4.04	Avg. Vel. (ft/s)	2.62	4.32	3.04
Max Chl Dpth (ft)	3.31	Hydr. Depth (ft)	0.92	1.96	1.18
Conv. Total (cfs)	25989.9	Conv. (cfs)	1891.9	22709.7	1388.3
Length Wtd. (ft)	85.35	Wetted Per. (ft)	87.71	300.48	44.35
Min Ch El (ft)	2427.47	Shear (lb/sq ft)	0.72	1.52	0.90
Alpha	1.06	Stream Power (lb/ft s)	1.88	6.58	2.73
Frctn Loss (ft)	1.81	Cum Volume (acre-ft)	0.10	2.54	0.07
C & E Loss (ft)	0.04	Cum SA (acres)	0.13	1.48	0.07

Plan: Default Scenario La Cholla Wash VDO RS: 123 Profile: Q10

E.G. Elev (ft)	2430.16	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.14	Wt. n-Val.	0.060	0.060	0.060
W.S. Elev (ft)	2430.02	Reach Len. (ft)	85.35	85.35	85.35
Crit W.S. (ft)	2429.58	Flow Area (sq ft)	21.46	357.77	18.03
E.G. Slope (ft/ft)	0.012360	Area (sq ft)	21.46	357.77	18.03
Q Total (cfs)	1161.60	Flow (cfs)	27.43	1106.61	27.56
Top Width (ft)	411.02	Top Width (ft)	67.79	300.00	43.23
Vel Total (ft/s)	2.92	Avg. Vel. (ft/s)	1.28	3.09	1.53
Max Chl Dpth (ft)	2.55	Hydr. Depth (ft)	0.32	1.19	0.42
Conv. Total (cfs)	10448.3	Conv. (cfs)	246.7	9953.7	247.9
Length Wtd. (ft)	85.35	Wetted Per. (ft)	67.83	300.48	43.59
Min Ch El (ft)	2427.47	Shear (lb/sq ft)	0.24	0.92	0.32
Alpha	1.08	Stream Power (lb/ft s)	0.31	2.84	0.49
Frctn Loss (ft)	1.94	Cum Volume (acre-ft)	0.02	1.36	0.02
C & E Loss (ft)	0.03	Cum SA (acres)	0.07	1.36	0.06

Plan: Default Scenario La Cholla Wash VDO RS: 123 Profile: Q2

E.G. Elev (ft)	2429.52	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.08	Wt. n-Val.		0.060	0.060
W.S. Elev (ft)	2429.44	Reach Len. (ft)	85.35	85.35	85.35
Crit W.S. (ft)	2428.96	Flow Area (sq ft)		191.20	0.30
E.G. Slope (ft/ft)	0.012834	Area (sq ft)		191.20	0.30
Q Total (cfs)	435.60	Flow (cfs)		435.49	0.11
Top Width (ft)	267.53	Top Width (ft)		260.94	6.59
Vel Total (ft/s)	2.27	Avg. Vel. (ft/s)		2.28	0.36
Max Chl Dpth (ft)	1.97	Hydr. Depth (ft)		0.73	0.05
Conv. Total (cfs)	3845.1	Conv. (cfs)		3844.2	0.9
Length Wtd. (ft)	85.35	Wetted Per. (ft)		261.39	6.59
Min Ch El (ft)	2427.47	Shear (lb/sq ft)		0.59	0.04
Alpha	1.00	Stream Power (lb/ft s)		1.33	0.01
Frctn Loss (ft)	2.06	Cum Volume (acre-ft)		0.74	0.00
C & E Loss (ft)	0.02	Cum SA (acres)		1.22	0.01

Plan: Default Scenario La Cholla Wash VDO RS: 122 Profile: Q100

E.G. Elev (ft)	2429.20	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.68	Wt. n-Val.	0.060	0.060	0.060
W.S. Elev (ft)	2428.52	Reach Len. (ft)	39.25	39.25	39.25
Crit W.S. (ft)	2428.52	Flow Area (sq ft)	13.59	416.58	16.19
E.G. Slope (ft/ft)	0.043858	Area (sq ft)	13.59	416.58	16.19
Q Total (cfs)	2904.00	Flow (cfs)	43.60	2781.36	79.04
Top Width (ft)	329.64	Top Width (ft)	27.82	284.65	17.17
Vel Total (ft/s)	6.51	Avg. Vel. (ft/s)	3.21	6.68	4.88
Max Chl Dpth (ft)	3.30	Hydr. Depth (ft)	0.49	1.46	0.94
Conv. Total (cfs)	13866.6	Conv. (cfs)	208.2	13281.0	377.4
Length Wtd. (ft)	39.25	Wetted Per. (ft)	27.92	285.21	17.72
Min Ch EI (ft)	2425.22	Shear (lb/sq ft)	1.33	4.00	2.50
Alpha	1.03	Stream Power (lb/ft s)	4.28	26.70	12.22
Frctn Loss (ft)	1.62	Cum Volume (acre-ft)	0.01	1.55	0.01
C & E Loss (ft)	0.14	Cum SA (acres)	0.01	0.90	0.01

Plan: Default Scenario La Cholla Wash VDO RS: 122 Profile: Q10

E.G. Elev (ft)	2428.18	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.48	Wt. n-Val.		0.060	0.060
W.S. Elev (ft)	2427.71	Reach Len. (ft)	39.25	39.25	39.25
Crit W.S. (ft)	2427.71	Flow Area (sq ft)		208.06	2.91
E.G. Slope (ft/ft)	0.054688	Area (sq ft)		208.06	2.91
Q Total (cfs)	1161.60	Flow (cfs)		1155.03	6.58
Top Width (ft)	233.22	Top Width (ft)		221.25	11.97
Vel Total (ft/s)	5.51	Avg. Vel. (ft/s)		5.55	2.26
Max Chl Dpth (ft)	2.48	Hydr. Depth (ft)		0.94	0.24
Conv. Total (cfs)	4967.2	Conv. (cfs)		4939.1	28.1
Length Wtd. (ft)	39.25	Wetted Per. (ft)		221.69	11.98
Min Ch EI (ft)	2425.22	Shear (lb/sq ft)		3.20	0.83
Alpha	1.01	Stream Power (lb/ft s)		17.79	1.87
Frctn Loss (ft)	2.11	Cum Volume (acre-ft)		0.81	0.00
C & E Loss (ft)	0.08	Cum SA (acres)		0.85	0.01

Plan: Default Scenario La Cholla Wash VDO RS: 122 Profile: Q2

E.G. Elev (ft)	2427.45	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.31	Wt. n-Val.		0.060	
W.S. Elev (ft)	2427.14	Reach Len. (ft)	39.25	39.25	39.25
Crit W.S. (ft)	2427.14	Flow Area (sq ft)		98.07	
E.G. Slope (ft/ft)	0.060687	Area (sq ft)		98.07	
Q Total (cfs)	435.60	Flow (cfs)		435.60	
Top Width (ft)	157.54	Top Width (ft)		157.54	
Vel Total (ft/s)	4.44	Avg. Vel. (ft/s)		4.44	
Max Chl Dpth (ft)	1.92	Hydr. Depth (ft)		0.62	
Conv. Total (cfs)	1768.2	Conv. (cfs)		1768.2	
Length Wtd. (ft)	39.25	Wetted Per. (ft)		157.88	
Min Ch EI (ft)	2425.22	Shear (lb/sq ft)		2.35	
Alpha	1.00	Stream Power (lb/ft s)		10.45	
Frctn Loss (ft)	2.42	Cum Volume (acre-ft)		0.46	
C & E Loss (ft)	0.03	Cum SA (acres)		0.81	

Plan: Default Scenario La Cholla Wash VDO RS: 121 Profile: Q100

E.G. Elev (ft)	2427.44	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.09	Wt. n-Val.		0.030	
W.S. Elev (ft)	2425.35	Reach Len. (ft)	101.63	101.63	101.63
Crit W.S. (ft)	2425.96	Flow Area (sq ft)		250.56	
E.G. Slope (ft/ft)	0.038530	Area (sq ft)		250.56	
Q Total (cfs)	2904.00	Flow (cfs)		2904.00	
Top Width (ft)	191.90	Top Width (ft)		191.90	
Vel Total (ft/s)	11.59	Avg. Vel. (ft/s)		11.59	
Max Chl Dpth (ft)	1.35	Hydr. Depth (ft)		1.31	
Conv. Total (cfs)	14794.4	Conv. (cfs)		14794.4	
Length Wtd. (ft)	101.63	Wetted Per. (ft)		192.52	
Min Ch El (ft)	2424.00	Shear (lb/sq ft)		3.13	
Alpha	1.00	Stream Power (lb/ft s)		36.28	
Frctn Loss (ft)	0.26	Cum Volume (acre-ft)		1.25	
C & E Loss (ft)	0.12	Cum SA (acres)		0.69	

Plan: Default Scenario La Cholla Wash VDO RS: 121 Profile: Q10

E.G. Elev (ft)	2425.99	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.28	Wt. n-Val.		0.030	
W.S. Elev (ft)	2424.71	Reach Len. (ft)	101.63	101.63	101.63
Crit W.S. (ft)	2425.08	Flow Area (sq ft)		127.95	
E.G. Slope (ft/ft)	0.055282	Area (sq ft)		127.95	
Q Total (cfs)	1161.60	Flow (cfs)		1161.60	
Top Width (ft)	185.69	Top Width (ft)		185.69	
Vel Total (ft/s)	9.08	Avg. Vel. (ft/s)		9.08	
Max Chl Dpth (ft)	0.71	Hydr. Depth (ft)		0.69	
Conv. Total (cfs)	4940.4	Conv. (cfs)		4940.4	
Length Wtd. (ft)	101.63	Wetted Per. (ft)		185.88	
Min Ch El (ft)	2424.00	Shear (lb/sq ft)		2.38	
Alpha	1.00	Stream Power (lb/ft s)		21.57	
Frctn Loss (ft)	0.32	Cum Volume (acre-ft)		0.66	
C & E Loss (ft)	0.06	Cum SA (acres)		0.67	

Plan: Default Scenario La Cholla Wash VDO RS: 121 Profile: Q2

E.G. Elev (ft)	2425.00	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.61	Wt. n-Val.		0.030	
W.S. Elev (ft)	2424.39	Reach Len. (ft)	101.63	101.63	101.63
Crit W.S. (ft)	2424.57	Flow Area (sq ft)		69.37	
E.G. Slope (ft/ft)	0.058112	Area (sq ft)		69.37	
Q Total (cfs)	435.60	Flow (cfs)		435.60	
Top Width (ft)	181.76	Top Width (ft)		181.76	
Vel Total (ft/s)	6.28	Avg. Vel. (ft/s)		6.28	
Max Chl Dpth (ft)	0.39	Hydr. Depth (ft)		0.38	
Conv. Total (cfs)	1807.0	Conv. (cfs)		1807.0	
Length Wtd. (ft)	101.63	Wetted Per. (ft)		181.86	
Min Ch El (ft)	2424.00	Shear (lb/sq ft)		1.38	
Alpha	1.00	Stream Power (lb/ft s)		8.69	
Frctn Loss (ft)	0.33	Cum Volume (acre-ft)		0.38	
C & E Loss (ft)	0.03	Cum SA (acres)		0.65	

Sections 120-117 – 6 Cell 10' x 5' RCBC Model

Plan: Default Scenario La Cholla Wash VDO RS: 120 Profile: Q100

E.G. Elev (ft)	2424.56	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.58	Wt. n-Val.		0.022	
W.S. Elev (ft)	2423.98	Reach Len. (ft)	125.74	125.74	125.74
Crit W.S. (ft)	2421.64	Flow Area (sq ft)		381.44	
E.G. Slope (ft/ft)	0.000971	Area (sq ft)		381.44	
Q Total (cfs)	2332.27	Flow (cfs)		2332.27	
Top Width (ft)	67.83	Top Width (ft)		67.83	
Vel Total (ft/s)	6.11	Avg. Vel. (ft/s)		6.11	
Max Chl Dpth (ft)	5.73	Hydr. Depth (ft)		5.62	
Conv. Total (cfs)	74857.2	Conv. (cfs)		74857.2	
Length Wtd. (ft)	125.74	Wetted Per. (ft)		77.01	
Min Ch El (ft)	2418.25	Shear (lb/sq ft)		0.30	
Alpha	1.00	Stream Power (lb/ft s)		1.84	
Frctn Loss (ft)		Cum Volume (acre-ft)		0.52	
C & E Loss (ft)		Cum SA (acres)		0.39	

Plan: Default Scenario La Cholla Wash VDO RS: 120 Profile: Q10

E.G. Elev (ft)	2421.61	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.32	Wt. n-Val.		0.022	
W.S. Elev (ft)	2421.29	Reach Len. (ft)	125.74	125.74	125.74
Crit W.S. (ft)	2420.06	Flow Area (sq ft)		200.70	
E.G. Slope (ft/ft)	0.001127	Area (sq ft)		200.70	
Q Total (cfs)	905.70	Flow (cfs)		905.70	
Top Width (ft)	66.62	Top Width (ft)		66.62	
Vel Total (ft/s)	4.51	Avg. Vel. (ft/s)		4.51	
Max Chl Dpth (ft)	3.04	Hydr. Depth (ft)		3.01	
Conv. Total (cfs)	26975.7	Conv. (cfs)		26975.7	
Length Wtd. (ft)	125.74	Wetted Per. (ft)		71.50	
Min Ch El (ft)	2418.25	Shear (lb/sq ft)		0.20	
Alpha	1.00	Stream Power (lb/ft s)		0.89	
Frctn Loss (ft)		Cum Volume (acre-ft)		0.27	
C & E Loss (ft)		Cum SA (acres)		0.37	

Plan: Default Scenario La Cholla Wash VDO RS: 120 Profile: Q2

E.G. Elev (ft)	2420.23	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.19	Wt. n-Val.		0.022	
W.S. Elev (ft)	2420.05	Reach Len. (ft)	125.74	125.74	125.74
Crit W.S. (ft)	2419.32	Flow Area (sq ft)		117.86	
E.G. Slope (ft/ft)	0.001303	Area (sq ft)		117.86	
Q Total (cfs)	410.85	Flow (cfs)		410.85	
Top Width (ft)	66.06	Top Width (ft)		66.06	
Vel Total (ft/s)	3.49	Avg. Vel. (ft/s)		3.49	
Max Chl Dpth (ft)	1.80	Hydr. Depth (ft)		1.78	
Conv. Total (cfs)	11382.3	Conv. (cfs)		11382.3	
Length Wtd. (ft)	125.74	Wetted Per. (ft)		68.93	
Min Ch El (ft)	2418.25	Shear (lb/sq ft)		0.14	
Alpha	1.00	Stream Power (lb/ft s)		0.48	
Frctn Loss (ft)		Cum Volume (acre-ft)		0.17	
C & E Loss (ft)		Cum SA (acres)		0.36	

Plan: Default Scenario La Cholla Wash VDO RS: 118 Profile: Q100

E.G. Elev (ft)	2421.80	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.00	Wt. n-Val.		0.022	
W.S. Elev (ft)	2419.80	Reach Len. (ft)	98.97	98.97	98.97
Crit W.S. (ft)	2420.10	Flow Area (sq ft)		205.74	
E.G. Slope (ft/ft)	0.006759	Area (sq ft)		205.74	
Q Total (cfs)	2332.27	Flow (cfs)		2332.27	
Top Width (ft)	68.15	Top Width (ft)		68.15	
Vel Total (ft/s)	11.34	Avg. Vel. (ft/s)		11.34	
Max Chl Dpth (ft)	3.19	Hydr. Depth (ft)		3.02	
Conv. Total (cfs)	28367.6	Conv. (cfs)		28367.6	
Length Wtd. (ft)	98.97	Wetted Per. (ft)		70.54	
Min Ch El (ft)	2416.61	Shear (lb/sq ft)		1.23	
Alpha	1.00	Stream Power (lb/ft s)		13.95	
Frctn Loss (ft)	1.52	Cum Volume (acre-ft)		0.41	
C & E Loss (ft)	0.17	Cum SA (acres)		0.19	

Plan: Default Scenario La Cholla Wash VDO RS: 118 Profile: Q10

E.G. Elev (ft)	2419.44	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.17	Wt. n-Val.		0.022	
W.S. Elev (ft)	2418.28	Reach Len. (ft)	98.97	98.97	98.97
Crit W.S. (ft)	2418.48	Flow Area (sq ft)		104.57	
E.G. Slope (ft/ft)	0.008882	Area (sq ft)		104.57	
Q Total (cfs)	905.70	Flow (cfs)		905.70	
Top Width (ft)	64.64	Top Width (ft)		64.64	
Vel Total (ft/s)	8.66	Avg. Vel. (ft/s)		8.66	
Max Chl Dpth (ft)	1.67	Hydr. Depth (ft)		1.62	
Conv. Total (cfs)	9609.9	Conv. (cfs)		9609.9	
Length Wtd. (ft)	98.97	Wetted Per. (ft)		65.89	
Min Ch El (ft)	2416.61	Shear (lb/sq ft)		0.88	
Alpha	1.00	Stream Power (lb/ft s)		7.62	
Frctn Loss (ft)	1.86	Cum Volume (acre-ft)		0.21	
C & E Loss (ft)	0.06	Cum SA (acres)		0.18	

Plan: Default Scenario La Cholla Wash VDO RS: 118 Profile: Q2

E.G. Elev (ft)	2418.30	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.69	Wt. n-Val.		0.022	
W.S. Elev (ft)	2417.60	Reach Len. (ft)	98.97	98.97	98.97
Crit W.S. (ft)	2417.72	Flow Area (sq ft)		61.60	
E.G. Slope (ft/ft)	0.010227	Area (sq ft)		61.60	
Q Total (cfs)	410.85	Flow (cfs)		410.85	
Top Width (ft)	63.09	Top Width (ft)		63.09	
Vel Total (ft/s)	6.67	Avg. Vel. (ft/s)		6.67	
Max Chl Dpth (ft)	0.99	Hydr. Depth (ft)		0.98	
Conv. Total (cfs)	4062.7	Conv. (cfs)		4062.7	
Length Wtd. (ft)	98.97	Wetted Per. (ft)		63.83	
Min Ch El (ft)	2416.61	Shear (lb/sq ft)		0.62	
Alpha	1.00	Stream Power (lb/ft s)		4.11	
Frctn Loss (ft)	1.97	Cum Volume (acre-ft)		0.13	
C & E Loss (ft)	0.02	Cum SA (acres)		0.18	

Plan: Default Scenario La Cholla Wash VDO RS: 117 Profile: Q100

E.G. Elev (ft)	2420.11	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.70	Wt. n-Val.		0.032	
W.S. Elev (ft)	2416.42	Reach Len. (ft)			
Crit W.S. (ft)	2417.48	Flow Area (sq ft)		151.21	
E.G. Slope (ft/ft)	0.062831	Area (sq ft)		151.21	
Q Total (cfs)	2332.27	Flow (cfs)		2332.27	
Top Width (ft)	98.44	Top Width (ft)		98.44	
Vel Total (ft/s)	15.42	Avg. Vel. (ft/s)		15.42	
Max Chl Dpth (ft)	1.59	Hydr. Depth (ft)		1.54	
Conv. Total (cfs)	9304.5	Conv. (cfs)		9304.5	
Length Wtd. (ft)		Wetted Per. (ft)		99.13	
Min Ch El (ft)	2414.82	Shear (lb/sq ft)		5.98	
Alpha	1.00	Stream Power (lb/ft s)		92.29	
Frcn Loss (ft)		Cum Volume (acre-ft)			
C & E Loss (ft)		Cum SA (acres)			

Plan: Default Scenario La Cholla Wash VDO RS: 117 Profile: Q10

E.G. Elev (ft)	2417.52	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.79	Wt. n-Val.		0.032	
W.S. Elev (ft)	2415.72	Reach Len. (ft)			
Crit W.S. (ft)	2416.25	Flow Area (sq ft)		84.31	
E.G. Slope (ft/ft)	0.063359	Area (sq ft)		84.31	
Q Total (cfs)	905.70	Flow (cfs)		905.70	
Top Width (ft)	95.29	Top Width (ft)		95.29	
Vel Total (ft/s)	10.74	Avg. Vel. (ft/s)		10.74	
Max Chl Dpth (ft)	0.90	Hydr. Depth (ft)		0.88	
Conv. Total (cfs)	3598.2	Conv. (cfs)		3598.2	
Length Wtd. (ft)		Wetted Per. (ft)		95.68	
Min Ch El (ft)	2414.82	Shear (lb/sq ft)		3.49	
Alpha	1.00	Stream Power (lb/ft s)		37.44	
Frcn Loss (ft)		Cum Volume (acre-ft)			
C & E Loss (ft)		Cum SA (acres)			

Plan: Default Scenario La Cholla Wash VDO RS: 117 Profile: Q2

E.G. Elev (ft)	2416.29	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.88	Wt. n-Val.		0.032	
W.S. Elev (ft)	2415.41	Reach Len. (ft)			
Crit W.S. (ft)	2415.67	Flow Area (sq ft)		54.45	
E.G. Slope (ft/ft)	0.054751	Area (sq ft)		54.45	
Q Total (cfs)	410.85	Flow (cfs)		410.85	
Top Width (ft)	93.85	Top Width (ft)		93.85	
Vel Total (ft/s)	7.54	Avg. Vel. (ft/s)		7.54	
Max Chl Dpth (ft)	0.59	Hydr. Depth (ft)		0.58	
Conv. Total (cfs)	1755.9	Conv. (cfs)		1755.9	
Length Wtd. (ft)		Wetted Per. (ft)		94.11	
Min Ch El (ft)	2414.82	Shear (lb/sq ft)		1.98	
Alpha	1.00	Stream Power (lb/ft s)		14.92	
Frcn Loss (ft)		Cum Volume (acre-ft)			
C & E Loss (ft)		Cum SA (acres)			

Sections 120-117 – 2 Cell 10' x 5' RCBC Model

Plan: Default Scenario La Cholla Wash VDO RS: 120 Profile: Q100

E.G. Elev (ft)	2424.39	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.42	Wt. n-Val.			0.060
W.S. Elev (ft)	2423.97	Reach Len. (ft)	125.74	125.74	125.74
Crit W.S. (ft)	2422.23	Flow Area (sq ft)			109.35
E.G. Slope (ft/ft)	0.009389	Area (sq ft)			109.35
Q Total (cfs)	571.73	Flow (cfs)			571.73
Top Width (ft)	26.34	Top Width (ft)			26.34
Vel Total (ft/s)	5.23	Avg. Vel. (ft/s)			5.23
Max Chl Dpth (ft)	4.22	Hydr. Depth (ft)			4.15
Conv. Total (cfs)	5900.4	Conv. (cfs)			5900.4
Length Wtd. (ft)	125.74	Wetted Per. (ft)			34.00
Min Ch El (ft)	2426.00	Shear (lb/sq ft)			1.89
Alpha	1.00	Stream Power (lb/ft s)			9.86
Frcin Loss (ft)		Cum Volume (acre-ft)		0.16	
C & E Loss (ft)		Cum SA (acres)		0.07	0.04

Plan: Default Scenario La Cholla Wash VDO RS: 120 Profile: Q10

E.G. Elev (ft)	2421.94	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.73	Wt. n-Val.			0.060
W.S. Elev (ft)	2421.21	Reach Len. (ft)	125.74	125.74	125.74
Crit W.S. (ft)	2421.21	Flow Area (sq ft)			37.34
E.G. Slope (ft/ft)	0.053251	Area (sq ft)			37.34
Q Total (cfs)	255.90	Flow (cfs)			255.90
Top Width (ft)	25.79	Top Width (ft)			25.79
Vel Total (ft/s)	6.85	Avg. Vel. (ft/s)			6.85
Max Chl Dpth (ft)	1.46	Hydr. Depth (ft)			1.45
Conv. Total (cfs)	1108.9	Conv. (cfs)			1108.9
Length Wtd. (ft)	125.74	Wetted Per. (ft)			28.43
Min Ch El (ft)	2426.00	Shear (lb/sq ft)			4.37
Alpha	1.00	Stream Power (lb/ft s)			29.92
Frcin Loss (ft)		Cum Volume (acre-ft)		0.13	
C & E Loss (ft)		Cum SA (acres)		0.07	0.04

Plan: Default Scenario La Cholla Wash VDO RS: 120 Profile: Q2

E.G. Elev (ft)	2420.21	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.16	Wt. n-Val.			0.060
W.S. Elev (ft)	2420.05	Reach Len. (ft)	125.74	125.74	125.74
Crit W.S. (ft)	2420.05	Flow Area (sq ft)			7.75
E.G. Slope (ft/ft)	0.084077	Area (sq ft)			7.75
Q Total (cfs)	24.75	Flow (cfs)			24.75
Top Width (ft)	25.56	Top Width (ft)			25.56
Vel Total (ft/s)	3.19	Avg. Vel. (ft/s)			3.19
Max Chl Dpth (ft)	0.30	Hydr. Depth (ft)			0.30
Conv. Total (cfs)	85.4	Conv. (cfs)			85.4
Length Wtd. (ft)	125.74	Wetted Per. (ft)			26.11
Min Ch El (ft)	2426.00	Shear (lb/sq ft)			1.56
Alpha	1.00	Stream Power (lb/ft s)			4.98
Frcin Loss (ft)		Cum Volume (acre-ft)		0.03	
C & E Loss (ft)		Cum SA (acres)		0.06	0.04

Plan: Default Scenario La Cholla Wash VDO RS: 118 Profile: Q100

E.G. Elev (ft)	2420.03	Element	Left OB	Channel	Right OB
Vel Head (ft)	6.76	Wt. n-Val.		0.022	
W.S. Elev (ft)	2413.26	Reach Len. (ft)	98.97	98.97	98.97
Crit W.S. (ft)	2414.90	Flow Area (sq ft)		27.41	
E.G. Slope (ft/ft)	0.064383	Area (sq ft)		27.41	
Q Total (cfs)	571.73	Flow (cfs)		571.73	
Top Width (ft)	17.88	Top Width (ft)		17.88	
Vel Total (ft/s)	20.86	Avg. Vel. (ft/s)		20.86	
Max Chl Dpth (ft)	1.56	Hydr. Depth (ft)		1.53	
Conv. Total (cfs)	2253.2	Conv. (cfs)		2253.2	
Length Wtd. (ft)	98.97	Wetted Per. (ft)		20.41	
Min Ch El (ft)	2411.70	Shear (lb/sq ft)		5.40	
Alpha	1.00	Stream Power (lb/ft s)		112.59	
Frctn Loss (ft)		Cum Volume (acre-ft)		0.10	
C & E Loss (ft)		Cum SA (acres)		0.05	

Plan: Default Scenario La Cholla Wash VDO RS: 118 Profile: Q10

E.G. Elev (ft)	2414.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.40	Wt. n-Val.		0.022	
W.S. Elev (ft)	2414.53	Reach Len. (ft)	98.97	98.97	98.97
Crit W.S. (ft)		Flow Area (sq ft)		50.46	
E.G. Slope (ft/ft)	0.001980	Area (sq ft)		50.46	
Q Total (cfs)	255.90	Flow (cfs)		255.90	
Top Width (ft)	18.43	Top Width (ft)		18.43	
Vel Total (ft/s)	5.07	Avg. Vel. (ft/s)		5.07	
Max Chl Dpth (ft)	2.83	Hydr. Depth (ft)		2.74	
Conv. Total (cfs)	5750.3	Conv. (cfs)		5750.3	
Length Wtd. (ft)	98.97	Wetted Per. (ft)		23.03	
Min Ch El (ft)	2411.70	Shear (lb/sq ft)		0.27	
Alpha	1.00	Stream Power (lb/ft s)		1.37	
Frctn Loss (ft)	0.41	Cum Volume (acre-ft)		0.10	
C & E Loss (ft)	0.05	Cum SA (acres)		0.04	

Plan: Default Scenario La Cholla Wash VDO RS: 118 Profile: Q2

E.G. Elev (ft)	2412.48	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.		0.022	
W.S. Elev (ft)	2412.42	Reach Len. (ft)	98.97	98.97	98.97
Crit W.S. (ft)		Flow Area (sq ft)		12.40	
E.G. Slope (ft/ft)	0.001508	Area (sq ft)		12.40	
Q Total (cfs)	24.75	Flow (cfs)		24.75	
Top Width (ft)	17.50	Top Width (ft)		17.50	
Vel Total (ft/s)	2.00	Avg. Vel. (ft/s)		2.00	
Max Chl Dpth (ft)	0.71	Hydr. Depth (ft)		0.71	
Conv. Total (cfs)	637.4	Conv. (cfs)		637.4	
Length Wtd. (ft)	98.97	Wetted Per. (ft)		18.66	
Min Ch El (ft)	2411.70	Shear (lb/sq ft)		0.06	
Alpha	1.00	Stream Power (lb/ft s)		0.12	
Frctn Loss (ft)	0.38	Cum Volume (acre-ft)		0.02	
C & E Loss (ft)	0.02	Cum SA (acres)		0.03	

Plan: Default Scenario La Cholla Wash VDO RS: 118 Profile: Q100

E.G. Elev (ft)	2420.03	Element	Left OB	Channel	Right OB
Vel Head (ft)	6.76	Wt. n-Val.		0.022	
W.S. Elev (ft)	2413.26	Reach Len. (ft)	98.97	98.97	98.97
Crit W.S. (ft)	2414.90	Flow Area (sq ft)		27.41	
E.G. Slope (ft/ft)	0.064383	Area (sq ft)		27.41	
Q Total (cfs)	571.73	Flow (cfs)		571.73	
Top Width (ft)	17.88	Top Width (ft)		17.88	
Vel Total (ft/s)	20.86	Avg. Vel. (ft/s)		20.86	
Max Chl Dpth (ft)	1.56	Hydr. Depth (ft)		1.53	
Conv. Total (cfs)	2253.2	Conv. (cfs)		2253.2	
Length Wtd. (ft)	98.97	Wetted Per. (ft)		20.41	
Min Ch El (ft)	2411.70	Shear (lb/sq ft)		5.40	
Alpha	1.00	Stream Power (lb/ft s)		112.59	
Frctn Loss (ft)		Cum Volume (acre-ft)		0.10	
C & E Loss (ft)		Cum SA (acres)		0.05	

Plan: Default Scenario La Cholla Wash VDO RS: 118 Profile: Q10

E.G. Elev (ft)	2414.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.40	Wt. n-Val.		0.022	
W.S. Elev (ft)	2414.53	Reach Len. (ft)	98.97	98.97	98.97
Crit W.S. (ft)		Flow Area (sq ft)		50.46	
E.G. Slope (ft/ft)	0.001980	Area (sq ft)		50.46	
Q Total (cfs)	255.90	Flow (cfs)		255.90	
Top Width (ft)	18.43	Top Width (ft)		18.43	
Vel Total (ft/s)	5.07	Avg. Vel. (ft/s)		5.07	
Max Chl Dpth (ft)	2.83	Hydr. Depth (ft)		2.74	
Conv. Total (cfs)	5750.3	Conv. (cfs)		5750.3	
Length Wtd. (ft)	98.97	Wetted Per. (ft)		23.03	
Min Ch El (ft)	2411.70	Shear (lb/sq ft)		0.27	
Alpha	1.00	Stream Power (lb/ft s)		1.37	
Frctn Loss (ft)	0.41	Cum Volume (acre-ft)		0.10	
C & E Loss (ft)	0.05	Cum SA (acres)		0.04	

Plan: Default Scenario La Cholla Wash VDO RS: 118 Profile: Q2

E.G. Elev (ft)	2412.48	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.		0.022	
W.S. Elev (ft)	2412.42	Reach Len. (ft)	98.97	98.97	98.97
Crit W.S. (ft)		Flow Area (sq ft)		12.40	
E.G. Slope (ft/ft)	0.001508	Area (sq ft)		12.40	
Q Total (cfs)	24.75	Flow (cfs)		24.75	
Top Width (ft)	17.50	Top Width (ft)		17.50	
Vel Total (ft/s)	2.00	Avg. Vel. (ft/s)		2.00	
Max Chl Dpth (ft)	0.71	Hydr. Depth (ft)		0.71	
Conv. Total (cfs)	637.4	Conv. (cfs)		637.4	
Length Wtd. (ft)	98.97	Wetted Per. (ft)		18.66	
Min Ch El (ft)	2411.70	Shear (lb/sq ft)		0.06	
Alpha	1.00	Stream Power (lb/ft s)		0.12	
Frctn Loss (ft)	0.38	Cum Volume (acre-ft)		0.02	
C & E Loss (ft)	0.02	Cum SA (acres)		0.03	

Culvert Standard Output Tables

6-Cell 10' x 6' RCBC

Reach	River Sta	Profile	E.G. US. (ft)	W.S. US. (ft)	E.G. IC (ft)	E.G. OC (ft)	Min El Weir Flow (ft)	Q Culv Group (cfs)	Q Weir (cfs)	Delta WS (ft)	Culv Vel US (ft/s)	Culv Vel DS (ft/s)
VDO	119.02 Culvert #1	Q100	2424.56	2423.98	2424.03	2424.56	2426.30	2332.27		3.89	10.77	12.13
VDO	119.02 Culvert #1	Q10	2421.61	2421.29	2421.25	2421.61	2426.30	905.70		2.81	7.86	9.07
VDO	119.02 Culvert #1	Q2	2420.23	2420.05	2419.98	2420.23	2426.30	410.85		2.32	6.04	6.91

2-Cell 10' x 5' RCBC

Reach	River Sta	Profile	E.G. US. (ft)	W.S. US. (ft)	E.G. IC (ft)	E.G. OC (ft)	Min El Weir Flow (ft)	Q Culv Group (cfs)	Q Weir (cfs)	Delta WS (ft)	Culv Vel US (ft/s)	Culv Vel DS (ft/s)
VDO	119.02 Culvert #2	Q100	2424.39	2423.97	2423.83	2424.39	2426.01	571.73		8.04	9.72	18.29
VDO	119.02 Culvert #2	Q10	2421.94	2421.21	2421.82	2422.26	2426.01	255.90		6.68	7.44	4.35
VDO	119.02 Culvert #2	Q2	2420.21	2420.05			2426.01	24.75		7.64	5.46	1.69

Standard Table 1 6-Cell Model

HEC-RAS Plan: Default Scenario River: La Cholla Wash Reach: VDO

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/m)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
VDO	140	Q100	2904.00	2458.09	2460.93	2460.84	2461.39	0.022945	5.53	543.10	349.55	0.73
VDO	140	Q10	1161.60	2458.09	2460.17	2459.90	2460.41	0.023414	3.94	295.67	289.33	0.67
VDO	140	Q2	435.60	2458.09	2459.65	2459.43	2459.77	0.023285	2.79	155.95	245.11	0.62
VDO	139	Q100	2904.00	2456.15	2458.96		2459.41	0.021828	5.42	547.28	363.03	0.71
VDO	139	Q10	1161.60	2456.15	2458.19		2458.41	0.021704	3.79	306.33	288.41	0.65
VDO	139	Q2	435.60	2456.15	2457.61		2457.74	0.022631	2.85	152.94	228.36	0.61
VDO	138	Q100	2904.00	2453.98	2456.84		2457.31	0.022360	5.49	528.59	291.94	0.72
VDO	138	Q10	1161.60	2453.98	2456.01		2456.26	0.023541	3.97	292.82	274.07	0.68
VDO	138	Q2	435.60	2453.98	2455.37		2455.52	0.023845	3.11	139.94	190.27	0.64
VDO	137	Q100	2904.00	2451.79	2455.07		2455.45	0.016142	4.90	597.57	334.43	0.62
VDO	137	Q10	1161.60	2451.79	2454.22		2454.40	0.015429	3.46	335.40	280.36	0.56
VDO	137	Q2	435.60	2451.79	2453.60		2453.70	0.014893	2.51	173.55	228.99	0.51
VDO	136	Q100	2904.00	2449.77	2453.04		2453.49	0.024922	5.39	545.16	364.21	0.75
VDO	136	Q10	1161.60	2449.77	2452.17		2452.45	0.026591	4.25	273.48	253.20	0.72
VDO	136	Q2	435.60	2449.77	2451.58		2451.73	0.027978	3.17	137.34	204.75	0.68
VDO	135	Q100	2904.00	2448.14	2451.16		2451.55	0.019579	5.15	593.27	379.51	0.67
VDO	135	Q10	1161.60	2448.14	2450.42		2450.62	0.016428	3.57	331.31	313.21	0.58
VDO	135	Q2	435.60	2448.14	2449.87		2449.96	0.015161	2.46	176.77	243.15	0.51
VDO	134	Q100	2904.00	2446.91	2448.95	2448.95	2449.56	0.042386	6.43	475.77	392.13	0.95
VDO	134	Q10	1161.60	2446.91	2448.27	2448.27	2448.65	0.055658	4.98	235.55	317.48	0.99
VDO	134	Q2	435.60	2446.91	2447.84	2447.81	2448.06	0.057494	3.80	114.73	224.29	0.94
VDO	133	Q100	2904.00	2444.38	2447.05	2446.81	2447.47	0.024005	5.43	570.43	408.53	0.74
VDO	133	Q10	1161.60	2444.38	2446.39	2446.16	2446.61	0.022754	3.86	316.93	361.69	0.66
VDO	133	Q2	435.60	2444.38	2445.93		2446.04	0.023825	2.73	164.51	309.43	0.62
VDO	132	Q100	2904.00	2443.18	2445.99	2445.94	2446.54	0.036249	6.13	507.84	419.96	0.89
VDO	132	Q10	1161.60	2443.18	2445.34	2445.26	2445.65	0.040952	4.53	262.59	320.46	0.86
VDO	132	Q2	435.60	2443.18	2444.83	2444.76	2445.03	0.044222	3.63	122.76	229.78	0.84
VDO	131	Q100	2904.00	2442.29	2445.12		2445.49	0.019504	5.12	634.47	501.66	0.67
VDO	131	Q10	1161.60	2442.29	2444.38		2444.59	0.018775	3.76	322.20	319.82	0.61
VDO	131	Q2	435.60	2442.29	2443.85		2443.95	0.018213	2.62	168.14	251.54	0.55
VDO	130	Q100	2904.00	2441.17	2444.06		2444.47	0.024755	5.35	591.82	499.32	0.74
VDO	130	Q10	1161.60	2441.17	2443.33		2443.57	0.026842	4.02	299.79	340.92	0.71
VDO	130	Q2	435.60	2441.17	2442.80		2442.94	0.027551	3.01	146.49	241.75	0.67
VDO	129	Q100	2904.00	2439.09	2442.06	2441.80	2442.49	0.022279	5.43	600.67	537.60	0.72
VDO	129	Q10	1161.60	2439.09	2441.34		2441.57	0.020814	3.88	306.96	305.46	0.64
VDO	129	Q2	435.60	2439.09	2440.77		2440.89	0.021341	2.82	155.31	231.33	0.60
VDO	128	Q100	2904.00	2437.14	2440.20	2440.04	2440.59	0.024625	5.40	621.12	569.76	0.74
VDO	128	Q10	1161.60	2437.14	2439.54		2439.77	0.024113	4.01	303.92	376.14	0.68
VDO	128	Q2	435.60	2437.14	2439.02		2439.14	0.022208	2.78	158.23	245.74	0.61
VDO	127	Q100	2904.00	2435.60	2438.19	2438.08	2438.55	0.029410	5.26	626.94	606.90	0.79
VDO	127	Q10	1161.60	2435.60	2437.65	2437.48	2437.85	0.026400	3.61	325.78	475.29	0.69
VDO	127	Q2	435.60	2435.60	2437.17	2436.97	2437.32	0.025589	2.43	151.50	275.92	0.62
VDO	126	Q100	2904.00	2433.49	2436.19		2436.51	0.028977	4.85	657.75	628.56	0.77
VDO	126	Q10	1161.60	2433.49	2435.58		2435.83	0.032263	4.29	306.05	447.41	0.78
VDO	126	Q2	435.60	2433.49	2434.98	2434.83	2435.21	0.036362	3.96	116.10	183.75	0.80
VDO	125	Q100	2904.00	2431.49	2434.55	2434.23	2434.84	0.017653	4.62	710.58	563.01	0.63
VDO	125	Q10	1161.60	2431.49	2433.93	2433.64	2434.09	0.017244	3.35	380.19	493.98	0.58
VDO	125	Q2	435.60	2431.49	2433.31		2433.43	0.016308	2.75	161.04	209.14	0.54
VDO	124	Q100	2904.00	2429.54	2432.26	2432.26	2432.85	0.046786	6.35	482.16	435.24	0.98
VDO	124	Q10	1161.60	2429.54	2431.54	2431.54	2431.96	0.059391	5.09	224.20	281.98	1.02
VDO	124	Q2	435.60	2429.54	2431.07	2431.07	2431.33	0.065269	4.02	106.11	203.19	0.99
VDO	123	Q100	2904.00	2427.47	2430.78	2430.25	2431.05	0.012485	4.32	718.65	430.87	0.54
VDO	123	Q10	1161.60	2427.47	2430.02	2429.58	2430.16	0.012360	3.09	397.26	411.02	0.50
VDO	123	Q2	435.60	2427.47	2429.44	2428.96	2429.52	0.012834	2.28	191.50	267.53	0.47
VDO	122	Q100	2904.00	2425.22	2428.52	2428.52	2429.20	0.043858	6.68	446.35	329.64	0.97
VDO	122	Q10	1161.60	2425.22	2427.71	2427.71	2428.18	0.054688	5.55	210.97	233.22	1.01
VDO	122	Q2	435.60	2425.22	2427.14	2427.14	2427.45	0.050687	4.44	98.07	157.54	0.99

HEC-RAS Plan: Default Scenario River: La Cholla Wash Reach: VDO (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
VDO	121	Q100	2904.00	2424.00	2425.35	2425.96	2427.44	0.038530	11.59	250.56	191.90	1.79
VDO	121	Q10	1161.60	2424.00	2424.71	2425.08	2425.99	0.055282	9.08	127.95	185.69	1.93
VDO	121	Q2	435.60	2424.00	2424.39	2424.57	2425.00	0.058112	6.28	69.37	181.76	1.79
VDO	120	Q100	2332.27	2418.25	2423.98	2421.64	2424.56	0.000971	6.11	381.44	67.83	0.45
VDO	120	Q10	905.70	2418.25	2421.29	2420.06	2421.61	0.001127	4.51	200.70	66.62	0.46
VDO	120	Q2	410.85	2418.25	2420.05	2419.32	2420.23	0.001303	3.49	117.86	66.06	0.46
VDO	119.02		Culvert									
VDO	118	Q100	2332.27	2416.61	2419.80	2420.10	2421.80	0.006759	11.34	205.74	68.15	1.15
VDO	118	Q10	905.70	2416.61	2418.28	2418.48	2419.44	0.008882	8.66	104.57	64.64	1.20
VDO	118	Q2	410.85	2416.61	2417.60	2417.72	2418.30	0.010227	6.67	61.60	63.09	1.19
VDO	117	Q100	2332.27	2414.82	2416.42	2417.48	2420.11	0.062831	15.42	151.21	98.44	2.19
VDO	117	Q10	905.70	2414.82	2415.72	2416.25	2417.52	0.053359	10.74	84.31	95.29	2.01
VDO	117	Q2	410.85	2414.82	2415.41	2415.67	2416.29	0.054751	7.54	54.45	93.85	1.75

Standard Table 1 2-Cell Model

HEC-RAS Plan: Default Scenario River: La Cholla Wash Reach: VDO

Reach	River Sta	Profile	E.G. Elev (ft)	W.S. Elev (ft)	Vel Head (ft)	Frctn Loss (ft)	C & E Loss (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Top Width (ft)
VDO	140	Q100	2461.39	2460.93	0.46	1.98	0.00	84.87	2819.13		349.55
VDO	140	Q10	2460.41	2460.17	0.24	1.89	0.01	0.93	1160.67		289.33
VDO	140	Q2	2459.77	2459.65	0.12	2.03	0.00		435.60		245.11
VDO	139	Q100	2459.41	2458.96	0.45	2.11	0.00	23.96	2880.04		363.03
VDO	139	Q10	2458.41	2458.19	0.22	2.15	0.00		1161.60		288.41
VDO	139	Q2	2457.74	2457.61	0.13	2.21	0.00		435.60		228.36
VDO	138	Q100	2457.31	2456.84	0.47	1.84	0.03		2904.00		291.94
VDO	138	Q10	2456.26	2456.01	0.24	1.84	0.02		1161.60		274.07
VDO	138	Q2	2455.52	2455.37	0.15	1.81	0.02		435.60		190.27
VDO	137	Q100	2455.45	2455.07	0.37	1.95	0.01	7.49	2896.51		334.43
VDO	137	Q10	2454.40	2454.22	0.19	1.85	0.01		1161.60		280.36
VDO	137	Q2	2453.70	2453.60	0.10	1.86	0.01		435.60		228.89
VDO	136	Q100	2453.49	2453.04	0.45	1.93	0.02	16.39	2887.61		364.21
VDO	136	Q10	2452.45	2452.17	0.28	1.80	0.03		1161.60		253.20
VDO	136	Q2	2451.73	2451.58	0.16	1.76	0.02		435.60		204.75
VDO	135	Q100	2451.55	2451.16	0.39	1.97	0.02	188.75	2715.25		379.51
VDO	135	Q10	2450.62	2450.42	0.20	1.86	0.02	12.71	1148.89		313.21
VDO	135	Q2	2449.96	2449.87	0.09	1.88	0.01		435.60		243.15
VDO	134	Q100	2449.56	2448.95	0.61	1.76	0.06	101.90	2373.17	428.93	392.13
VDO	134	Q10	2448.65	2448.27	0.39	1.90	0.05	10.08	963.52	188.01	317.48
VDO	134	Q2	2448.06	2447.84	0.22	1.98	0.03		363.38	72.22	224.29
VDO	133	Q100	2447.47	2447.05	0.42	0.92	0.01	110.18	2463.56	330.26	408.53
VDO	133	Q10	2446.61	2446.39	0.22	0.94	0.01	5.30	1064.98	91.32	361.69
VDO	133	Q2	2446.04	2445.93	0.11	1.00	0.01		425.93	9.67	309.43
VDO	132	Q100	2446.54	2445.99	0.55	1.00	0.05	43.56	2600.69	259.76	419.56
VDO	132	Q10	2445.65	2445.34	0.31	1.03	0.03		1083.41	78.19	320.46
VDO	132	Q2	2445.03	2444.83	0.20	1.04	0.03		427.72	7.88	229.78
VDO	131	Q100	2445.49	2445.12	0.37	1.00	0.00	55.00	2531.54	317.46	501.66
VDO	131	Q10	2444.59	2444.38	0.21	1.02	0.00		1107.77	53.83	319.82
VDO	131	Q2	2443.95	2443.85	0.11	1.02	0.00		429.39	6.21	251.54
VDO	130	Q100	2444.47	2444.06	0.41	1.99	0.00	10.06	2613.10	280.85	499.32
VDO	130	Q10	2443.57	2443.33	0.24	2.00	0.00		1103.31	58.29	340.92
VDO	130	Q2	2442.94	2442.80	0.14	2.05	0.00		427.64	7.96	241.75
VDO	129	Q100	2442.49	2442.06	0.43	1.89	0.01	17.88	2664.98	221.14	537.60
VDO	129	Q10	2441.57	2441.34	0.23	1.80	0.00		1139.57	22.03	305.46
VDO	129	Q2	2440.89	2440.77	0.12	1.76	0.00		434.66	0.94	231.33
VDO	128	Q100	2440.59	2440.20	0.39	2.04	0.01	50.07	2351.83	502.10	569.76
VDO	128	Q10	2439.77	2439.54	0.24	1.91	0.01	0.06	1047.27	114.27	378.14
VDO	128	Q2	2439.14	2439.02	0.12	1.80	0.00		398.73	36.87	245.74
VDO	127	Q100	2438.55	2438.19	0.37	2.02	0.02	102.17	2061.02	740.81	606.90
VDO	127	Q10	2437.85	2437.66	0.20	2.02	0.00	0.48	870.70	290.42	475.29
VDO	127	Q2	2437.32	2437.17	0.16	2.10	0.01		271.62	163.98	275.92
VDO	126	Q100	2436.51	2436.19	0.31	1.65	0.01	772.96	1797.66	333.38	628.56
VDO	126	Q10	2435.83	2435.58	0.25	1.72	0.03	221.78	870.75	69.07	447.41
VDO	126	Q2	2435.21	2434.98	0.23	1.75	0.03	28.82	406.63	0.15	183.75
VDO	125	Q100	2434.84	2434.55	0.29	1.95	0.03	434.63	2305.79	183.58	563.01
VDO	125	Q10	2434.09	2433.93	0.16	2.10	0.03	97.94	1049.06	14.59	493.96
VDO	125	Q2	2433.43	2433.31	0.12	2.09	0.01	9.45	426.15		209.14
VDO	124	Q100	2432.85	2432.26	0.59	1.48	0.10	398.76	2461.40	43.84	435.24
VDO	124	Q10	2431.96	2431.54	0.42	1.59	0.08	212.80	948.80		281.98
VDO	124	Q2	2431.33	2431.07	0.26	1.68	0.05	87.53	348.07		203.19

HEC-RAS Plan: Default Scenario River: La Cholla Wash Reach: VDO (Continued)

Reach	River Sta	Profile	E.G. Elev (ft)	W.S. Elev (ft)	Vel Head (ft)	Frcn Loss (ft)	C & E Loss (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Top Width (ft)
VDO	123	Q100	2431.05	2430.78	0.27	1.81	0.04	211.39	2537.49	155.12	430.87
VDO	123	Q10	2430.16	2430.02	0.14	1.94	0.03	27.45	1106.57	27.58	411.02
VDO	123	Q2	2429.52	2429.44	0.08	2.05	0.02		435.49	0.11	267.72
VDO	122	Q100	2429.20	2428.52	0.68	1.62	0.14	43.58	2781.39	79.02	329.62
VDO	122	Q10	2428.18	2427.71	0.48	2.11	0.08		1155.02	6.58	233.25
VDO	122	Q2	2427.45	2427.14	0.31	2.42	0.03		435.60		157.54
VDO	121	Q100	2427.44	2425.35	2.09	1.07	0.16		2904.00		191.90
VDO	121	Q10	2425.99	2424.71	1.28	1.61	0.02		1181.60		185.69
VDO	121	Q2	2425.00	2424.39	0.61	1.74	0.04		435.60		181.76
VDO	120	Q100	2424.39	2423.97	0.42					571.73	26.34
VDO	120	Q10	2421.94	2421.21	0.73					255.90	25.79
VDO	120	Q2	2420.21	2420.05	0.16					24.75	25.56
VDO	119.02		Culvert								
VDO	118	Q100	2420.03	2413.26	6.76				571.73		17.88
VDO	118	Q10	2414.93	2414.53	0.40	0.41	0.05		255.90		18.43
VDO	118	Q2	2412.48	2412.42	0.06	0.38	0.02		24.75		17.50
VDO	117	Q100	2416.23	2414.90	1.33				571.73		23.51
VDO	117	Q10	2414.47	2413.56	0.91				255.90		18.83
VDO	117	Q2	2412.09	2411.82	0.27				24.75		12.76

Standard Table 2 6-Cell Model

HEC-RAS Plan: Default Scenario River: La Cholia Wash Reach: VDO

Reach	River Sta	Profile	E.G. Elev (ft)	W.S. Elev (ft)	Vel Head (ft)	Frcn Loss (ft)	C & E Loss (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Top Width (ft)
VDO	140	Q100	2461.39	2460.93	0.46	1.98	0.00	84.87	2819.13		349.55
VDO	140	Q10	2460.41	2460.17	0.24	1.89	0.01	0.93	1160.67		289.33
VDO	140	Q2	2459.77	2459.65	0.12	2.03	0.00		435.60		245.11
VDO	139	Q100	2459.41	2458.96	0.45	2.11	0.00	23.96	2880.04		363.03
VDO	139	Q10	2458.41	2458.19	0.22	2.15	0.00		1161.60		288.41
VDO	139	Q2	2457.74	2457.61	0.13	2.21	0.00		435.60		228.36
VDO	138	Q100	2457.31	2456.84	0.47	1.84	0.03		2904.00		291.94
VDO	138	Q10	2456.26	2456.01	0.24	1.84	0.02		1161.60		274.07
VDO	138	Q2	2455.52	2455.37	0.15	1.81	0.02		435.60		190.27
VDO	137	Q100	2455.45	2455.07	0.37	1.95	0.01	7.49	2896.51		334.43
VDO	137	Q10	2454.40	2454.22	0.19	1.95	0.01		1161.60		280.36
VDO	137	Q2	2453.70	2453.60	0.10	1.96	0.01		435.60		228.99
VDO	136	Q100	2453.49	2453.04	0.45	1.93	0.02	16.39	2887.61		364.21
VDO	136	Q10	2452.45	2452.17	0.28	1.80	0.03		1161.60		253.20
VDO	136	Q2	2451.73	2451.58	0.16	1.76	0.02		435.60		204.75
VDO	135	Q100	2451.55	2451.16	0.39	1.97	0.02	188.75	2715.25		379.51
VDO	135	Q10	2450.62	2450.42	0.20	1.96	0.02	12.71	1148.89		313.21
VDO	135	Q2	2449.96	2449.87	0.09	1.88	0.01		435.60		243.15
VDO	134	Q100	2449.56	2448.95	0.61	1.76	0.06	101.90	2373.17	428.93	392.13
VDO	134	Q10	2448.65	2448.27	0.39	1.90	0.05	10.08	963.52	188.01	317.48
VDO	134	Q2	2448.06	2447.84	0.22	1.98	0.03		363.38	72.22	224.29
VDO	133	Q100	2447.47	2447.05	0.42	0.92	0.01	110.18	2463.56	330.26	408.53
VDO	133	Q10	2446.61	2446.39	0.22	0.94	0.01	5.30	1064.98	91.32	361.69
VDO	133	Q2	2446.04	2445.93	0.11	1.00	0.01		425.93	9.67	309.43
VDO	132	Q100	2446.54	2445.99	0.55	1.00	0.05	43.56	2600.69	259.76	419.96
VDO	132	Q10	2445.65	2445.34	0.31	1.03	0.03		1083.41	78.19	320.46
VDO	132	Q2	2445.03	2444.63	0.20	1.04	0.03		427.72	7.88	229.78
VDO	131	Q100	2445.49	2445.12	0.37	1.00	0.00	55.00	2531.54	317.46	501.66
VDO	131	Q10	2444.59	2444.38	0.21	1.02	0.00		1107.77	53.83	318.82
VDO	131	Q2	2443.95	2443.85	0.11	1.02	0.00		429.39	6.21	251.54
VDO	130	Q100	2444.47	2444.06	0.41	1.99	0.00	10.06	2613.10	280.85	499.32
VDO	130	Q10	2443.57	2443.33	0.24	2.00	0.00		1103.31	58.29	340.92
VDO	130	Q2	2442.94	2442.80	0.14	2.05	0.00		427.64	7.96	241.75
VDO	129	Q100	2442.49	2442.06	0.43	1.89	0.01	17.88	2664.98	221.14	537.60
VDO	129	Q10	2441.57	2441.34	0.23	1.80	0.00		1139.57	22.03	305.46
VDO	129	Q2	2440.89	2440.77	0.12	1.76	0.00		434.66	0.94	231.33
VDO	128	Q100	2440.59	2440.20	0.39	2.04	0.01	50.07	2351.83	502.10	569.76
VDO	128	Q10	2439.77	2439.54	0.24	1.91	0.01	0.06	1047.27	114.27	376.14
VDO	128	Q2	2439.14	2439.02	0.12	1.80	0.00		398.73	36.87	245.74
VDO	127	Q100	2438.55	2438.19	0.37	2.02	0.02	102.17	2061.02	740.81	606.90
VDO	127	Q10	2437.85	2437.65	0.20	2.02	0.00	0.48	870.70	290.42	475.29
VDO	127	Q2	2437.32	2437.17	0.16	2.10	0.01		271.62	163.98	275.92
VDO	126	Q100	2436.51	2436.19	0.31	1.66	0.01	772.96	1797.66	333.38	628.56
VDO	126	Q10	2435.83	2435.58	0.25	1.72	0.03	221.78	870.75	69.07	447.41
VDO	126	Q2	2435.21	2434.98	0.23	1.75	0.03	28.82	406.63	0.15	183.75
VDO	125	Q100	2434.84	2434.55	0.29	1.95	0.03	434.63	2305.79	163.58	563.01
VDO	125	Q10	2434.09	2433.93	0.16	2.10	0.03	97.94	1049.06	14.59	493.98
VDO	125	Q2	2433.43	2433.31	0.12	2.09	0.01	9.45	426.15		209.14
VDO	124	Q100	2432.85	2432.26	0.59	1.48	0.10	398.76	2461.40	43.84	435.24
VDO	124	Q10	2431.96	2431.54	0.42	1.59	0.08	212.80	948.80		281.98
VDO	124	Q2	2431.33	2431.07	0.26	1.68	0.05	87.53	348.07		203.19

HEC-RAS Plan: Default Scenario River: La Cholla Wash Reach: VDO (Continued)

Reach	River Sta	Profile	E.G. Elev (ft)	W.S. Elev (ft)	Vel Head (ft)	Frcn Loss (ft)	C & E Loss (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Top Width (ft)
VDO	123	Q100	2431.05	2430.78	0.27	1.81	0.04	211.39	2537.49	155.12	430.87
VDO	123	Q10	2430.16	2430.02	0.14	1.94	0.03	27.43	1106.61	27.56	411.02
VDO	123	Q2	2429.52	2429.44	0.08	2.06	0.02		435.49	0.11	267.53
VDO	122	Q100	2429.20	2428.52	0.68	1.62	0.14	43.60	2781.36	79.04	329.64
VDO	122	Q10	2428.18	2427.71	0.48	2.11	0.08		1155.03	6.58	233.22
VDO	122	Q2	2427.45	2427.14	0.31	2.42	0.03		435.60		157.54
VDO	121	Q100	2427.44	2425.35	2.09	0.26	0.12		2904.00		191.90
VDO	121	Q10	2425.99	2424.71	1.28	0.32	0.06		1161.50		185.69
VDO	121	Q2	2425.00	2424.39	0.61	0.33	0.03		435.60		181.76
VDO	120	Q100	2424.56	2423.98	0.58				2332.27		67.83
VDO	120	Q10	2421.61	2421.29	0.32				905.70		66.62
VDO	120	Q2	2420.23	2420.05	0.19				410.85		66.06
VDO	119.02		Culvert								
VDO	118	Q100	2421.80	2419.80	2.00	1.52	0.17		2332.27		69.15
VDO	118	Q10	2419.44	2418.28	1.17	1.86	0.06		905.70		64.64
VDO	118	Q2	2418.30	2417.60	0.69	1.97	0.02		410.85		63.09
VDO	117	Q100	2420.11	2416.42	3.70				2332.27		98.44
VDO	117	Q10	2417.52	2415.72	1.79				905.70		95.29
VDO	117	Q2	2416.29	2415.41	0.88				410.85		93.85

Standard Table 2 2-Cell Model

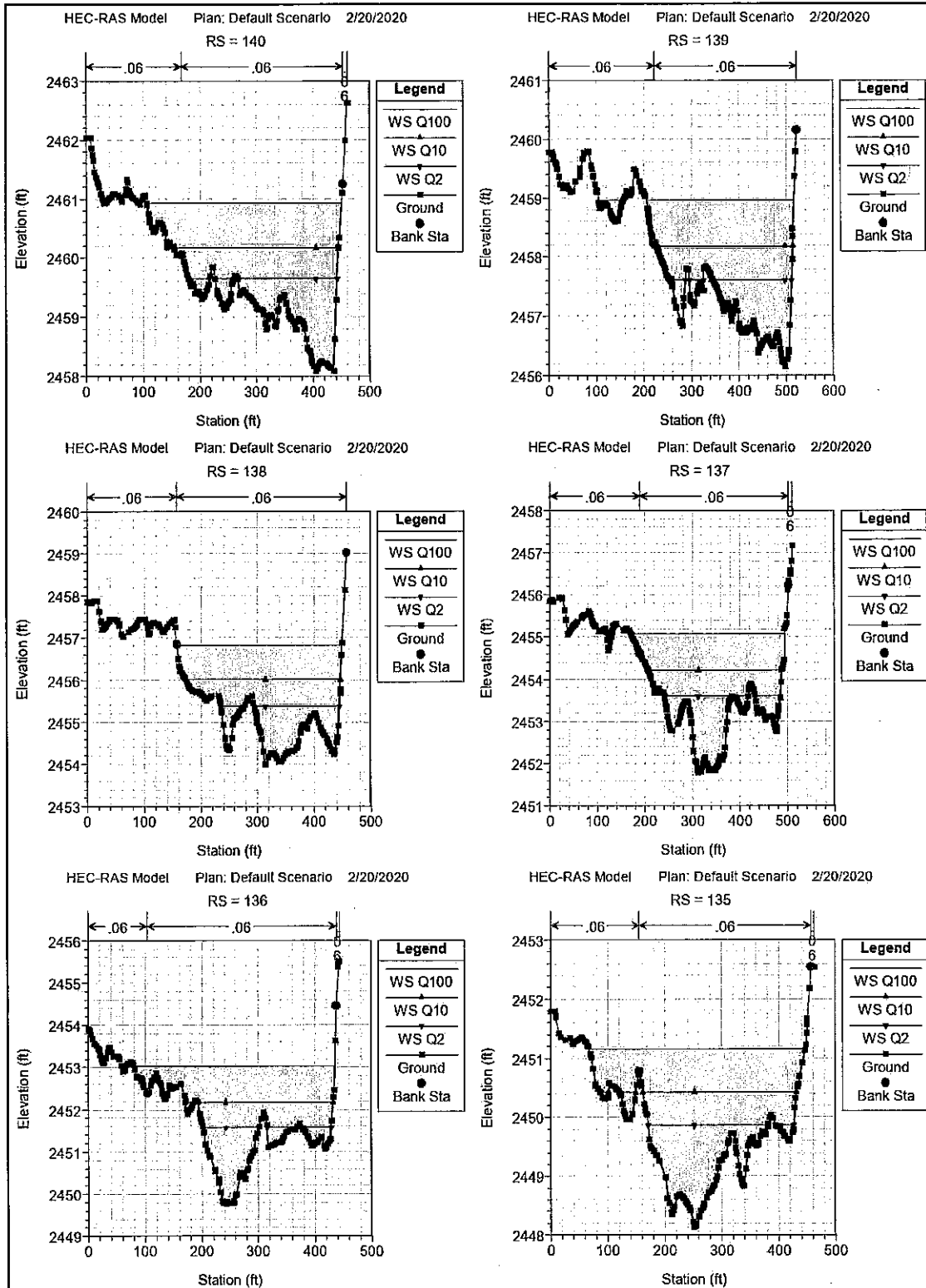
HEC-RAS Plan: Default Scenario River: La Cholla Wash Reach: VDO

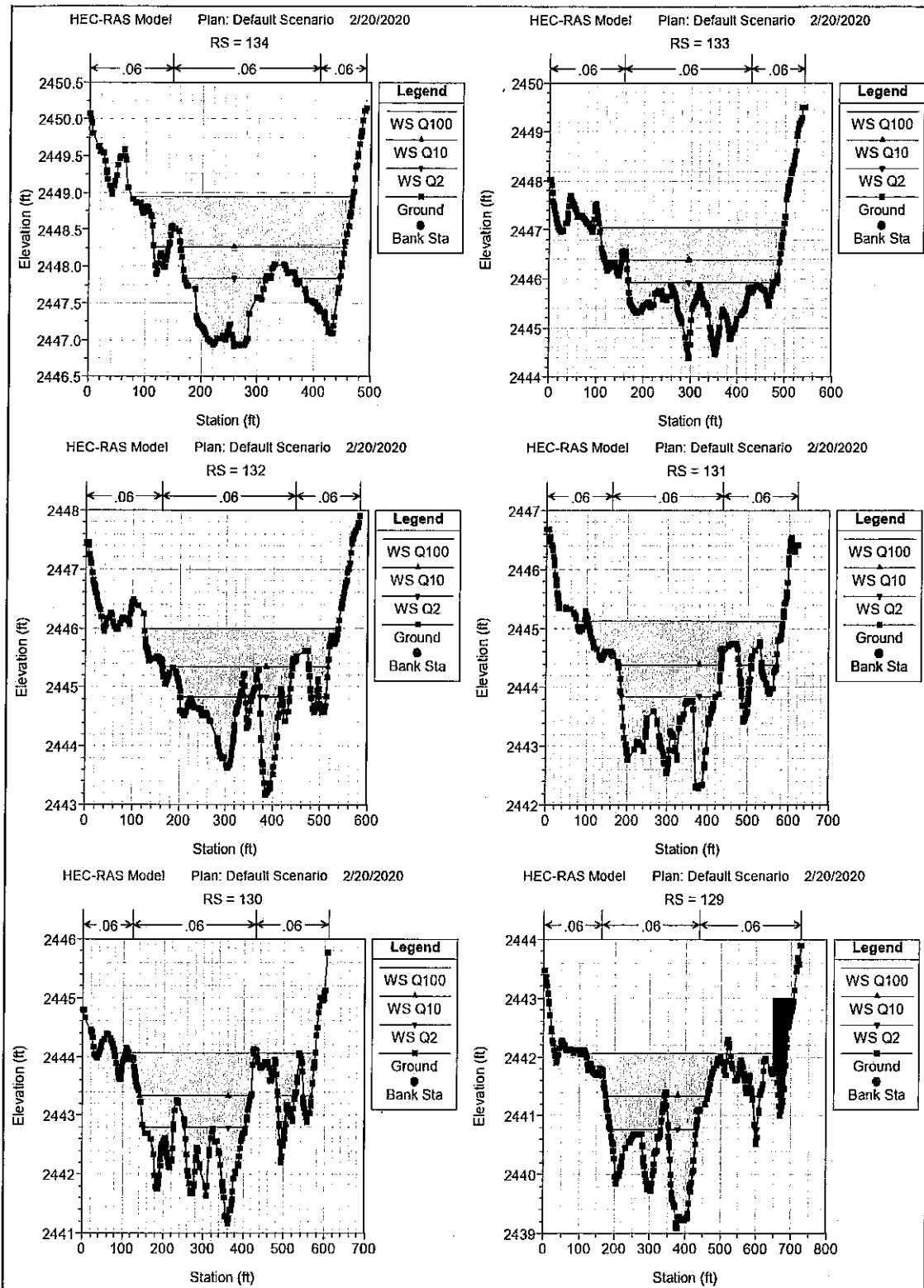
Reach	River Sta	Profile	E.G. Elev (ft)	W.S. Elev (ft)	Vel Head (ft)	Frctn Loss (ft)	C & E Loss (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Top Width (ft)
VDO	140	Q100	2461.39	2460.93	0.46	1.98	0.00	84.87	2819.13		349.55
VDO	140	Q10	2460.41	2460.17	0.24	1.99	0.01	0.93	1160.67		289.33
VDO	140	Q2	2459.77	2459.65	0.12	2.03	0.00		435.60		245.11
VDO	139	Q100	2459.41	2458.96	0.45	2.11	0.00	23.96	2880.04		363.03
VDO	139	Q10	2458.41	2458.19	0.22	2.15	0.00		1161.60		288.41
VDO	139	Q2	2457.74	2457.61	0.13	2.21	0.00		435.60		228.36
VDO	138	Q100	2457.31	2456.84	0.47	1.84	0.03		2904.00		291.94
VDO	138	Q10	2456.26	2456.01	0.24	1.84	0.02		1161.60		274.07
VDO	138	Q2	2455.52	2455.37	0.15	1.81	0.02		435.60		190.27
VDO	137	Q100	2455.45	2455.07	0.37	1.95	0.01	7.49	2896.51		334.43
VDO	137	Q10	2454.40	2454.22	0.19	1.95	0.01		1161.60		280.36
VDO	137	Q2	2453.70	2453.60	0.10	1.96	0.01		435.60		228.99
VDO	136	Q100	2453.49	2453.04	0.45	1.93	0.02	16.39	2887.61		364.21
VDO	136	Q10	2452.45	2452.17	0.28	1.80	0.03		1161.60		253.20
VDO	136	Q2	2451.73	2451.58	0.16	1.76	0.02		435.60		204.75
VDO	135	Q100	2451.55	2451.16	0.39	1.97	0.02	188.75	2715.25		379.51
VDO	135	Q10	2450.62	2450.42	0.20	1.96	0.02	12.71	1148.89		313.21
VDO	135	Q2	2449.96	2449.87	0.09	1.88	0.01		435.60		243.15
VDO	134	Q100	2449.56	2448.95	0.61	1.76	0.06	101.90	2373.17	428.93	392.13
VDO	134	Q10	2448.65	2448.27	0.39	1.90	0.05	10.08	963.52	188.01	317.48
VDO	134	Q2	2448.06	2447.84	0.22	1.98	0.03		363.38	72.22	224.29
VDO	133	Q100	2447.47	2447.05	0.42	0.92	0.01	110.18	2463.56	330.26	408.53
VDO	133	Q10	2446.61	2446.39	0.22	0.94	0.01	5.30	1064.98	91.32	361.69
VDO	133	Q2	2446.04	2445.93	0.11	1.00	0.01		425.93	9.67	309.43
VDO	132	Q100	2446.54	2445.99	0.55	1.00	0.05	43.56	2600.69	259.76	419.96
VDO	132	Q10	2445.65	2445.34	0.31	1.03	0.03		1083.41	78.19	320.46
VDO	132	Q2	2445.03	2444.83	0.20	1.04	0.03		427.72	7.88	229.78
VDO	131	Q100	2445.49	2445.12	0.37	1.00	0.00	55.00	2531.54	317.46	501.66
VDO	131	Q10	2444.59	2444.38	0.21	1.02	0.00		1107.77	53.83	319.82
VDO	131	Q2	2443.95	2443.85	0.11	1.02	0.00		429.39	6.21	251.54
VDO	130	Q100	2444.47	2444.06	0.41	1.99	0.00	10.06	2613.10	280.85	499.32
VDO	130	Q10	2443.57	2443.33	0.24	2.00	0.00		1103.31	58.29	340.92
VDO	130	Q2	2442.94	2442.80	0.14	2.05	0.00		427.64	7.96	241.75
VDO	129	Q100	2442.49	2442.06	0.43	1.89	0.01	17.88	2664.98	221.14	537.60
VDO	129	Q10	2441.57	2441.34	0.23	1.80	0.00		1139.57	22.03	305.46
VDO	129	Q2	2440.89	2440.77	0.12	1.76	0.00		434.66	0.94	231.33
VDO	128	Q100	2440.59	2440.20	0.39	2.04	0.01	50.07	2351.83	502.10	569.76
VDO	128	Q10	2439.77	2439.54	0.24	1.91	0.01	0.06	1047.27	114.27	376.14
VDO	128	Q2	2439.14	2439.02	0.12	1.80	0.00		398.73	36.87	245.74
VDO	127	Q100	2438.55	2438.19	0.37	2.02	0.02	102.17	2061.02	740.81	606.90
VDO	127	Q10	2437.85	2437.65	0.20	2.02	0.00	0.48	870.70	290.42	475.29
VDO	127	Q2	2437.32	2437.17	0.16	2.10	0.01		271.62	163.98	275.92
VDO	126	Q100	2436.51	2436.19	0.31	1.66	0.01	772.96	1797.66	333.38	628.56
VDO	126	Q10	2435.83	2435.68	0.25	1.72	0.03	221.78	870.75	69.07	447.41
VDO	126	Q2	2435.21	2434.96	0.23	1.75	0.03	28.82	406.63	0.15	183.75
VDO	125	Q100	2434.84	2434.55	0.29	1.95	0.03	434.63	2305.79	163.58	563.01
VDO	125	Q10	2434.09	2433.93	0.16	2.10	0.03	97.94	1049.06	14.59	493.96
VDO	125	Q2	2433.43	2433.31	0.12	2.09	0.01	9.45	426.15		209.14
VDO	124	Q100	2432.85	2432.26	0.59	1.48	0.10	398.76	2461.40	43.84	435.24
VDO	124	Q10	2431.96	2431.54	0.42	1.59	0.08	212.80	948.80		281.98
VDO	124	Q2	2431.33	2431.07	0.26	1.68	0.05	87.53	348.07		203.19

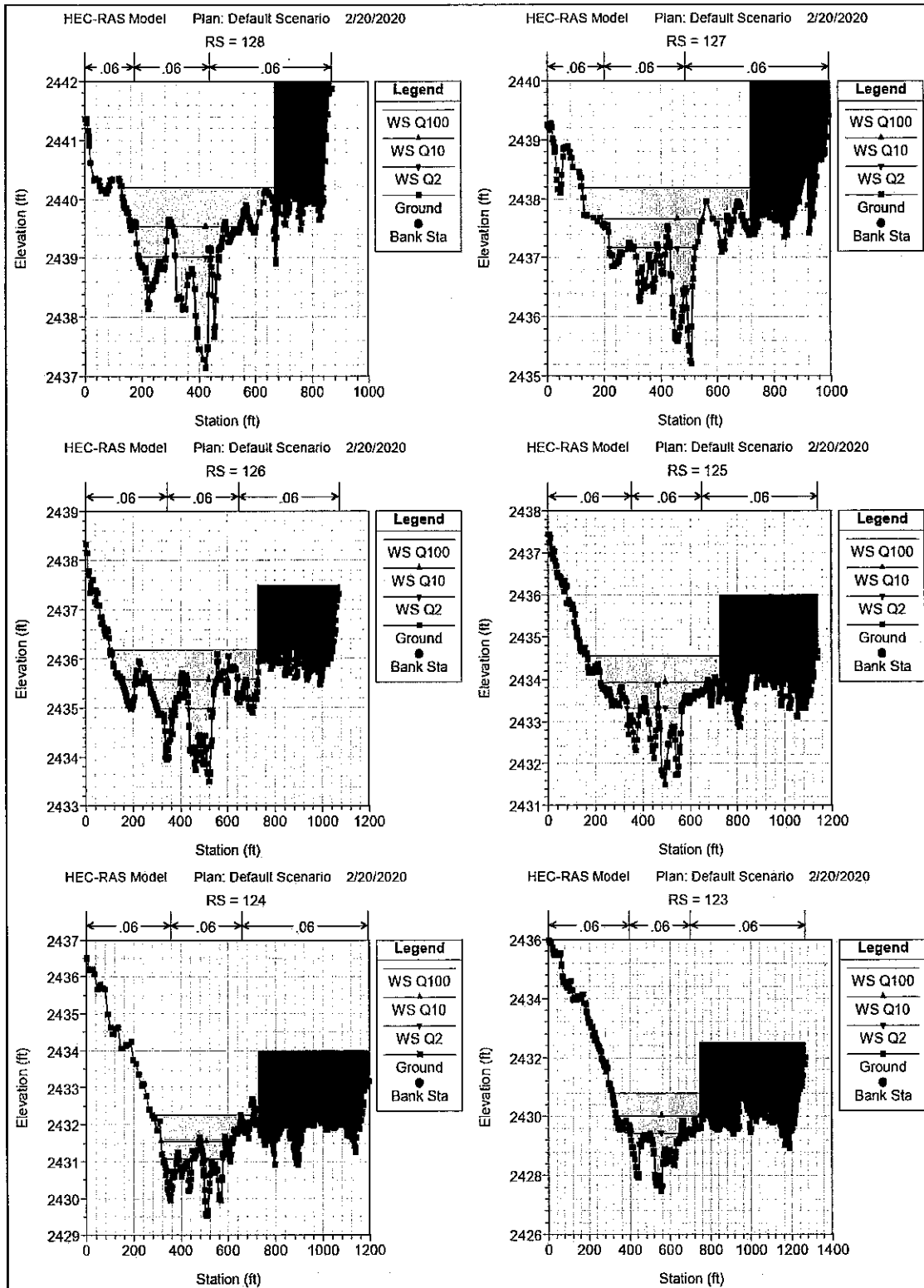
HEC-RAS Plan: Default Scenario River: La Cholla Wash Reach: VDO (Continued)

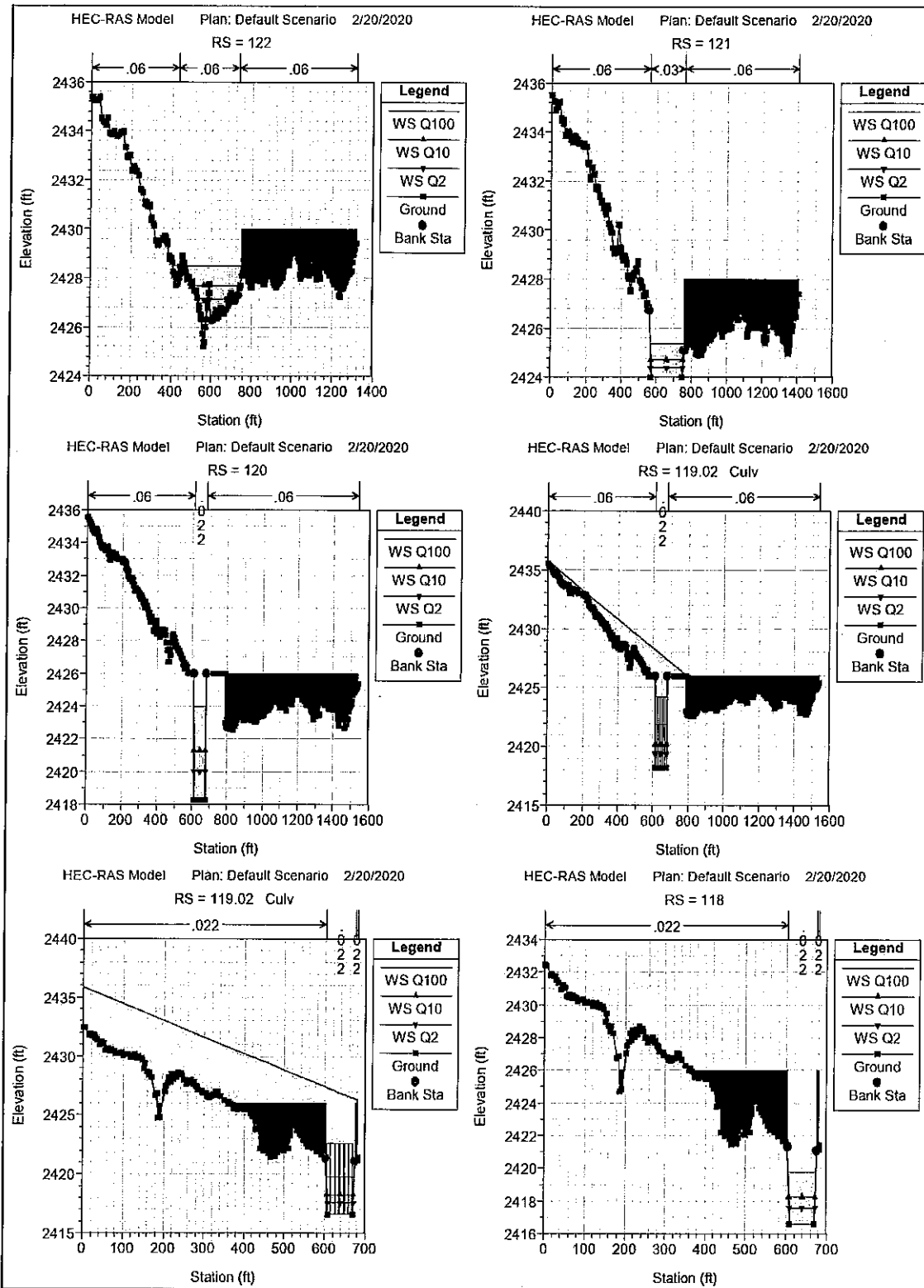
Reach	River Sta	Profile	E.G. Elev (ft)	W.S. Elev (ft)	Vel Head (ft)	Frcn Loss (ft)	C & E Loss (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Top Width (ft)
VDO	123	Q100	2431.05	2430.78	0.27	1.81	0.04	211.39	2537.49	155.12	430.87
VDO	123	Q10	2430.16	2430.02	0.14	1.94	0.03	27.45	1106.57	27.58	411.02
VDO	123	Q2	2429.52	2429.44	0.08	2.05	0.02		435.49	0.11	267.72
VDO	122	Q100	2429.20	2428.52	0.68	1.62	0.14	43.58	2781.39	79.02	329.62
VDO	122	Q10	2428.18	2427.71	0.48	2.11	0.08		1155.02	6.58	233.25
VDO	122	Q2	2427.45	2427.14	0.31	2.42	0.03		435.60		157.54
VDO	121	Q100	2427.44	2425.35	2.09	1.07	0.16		2504.00		191.90
VDO	121	Q10	2425.99	2424.71	1.28	1.61	0.02		1161.60		185.69
VDO	121	Q2	2425.00	2424.39	0.61	1.74	0.04		435.60		181.76
VDO	120	Q100	2424.39	2423.97	0.42					571.73	26.34
VDO	120	Q10	2421.94	2421.21	0.73					255.90	25.79
VDO	120	Q2	2420.21	2420.05	0.16					24.75	25.56
VDO	119.02		Culvert								
VDO	118	Q100	2420.03	2413.26	6.76				571.73		17.88
VDO	118	Q10	2414.93	2414.53	0.40	0.41	0.05		255.90		18.43
VDO	118	Q2	2412.48	2412.42	0.06	0.38	0.02		24.75		17.60
VDO	117	Q100	2415.23	2414.90	1.33				571.73		23.51
VDO	117	Q10	2414.47	2413.56	0.91				255.90		18.83
VDO	117	Q2	2412.09	2411.82	0.27				24.75		12.76

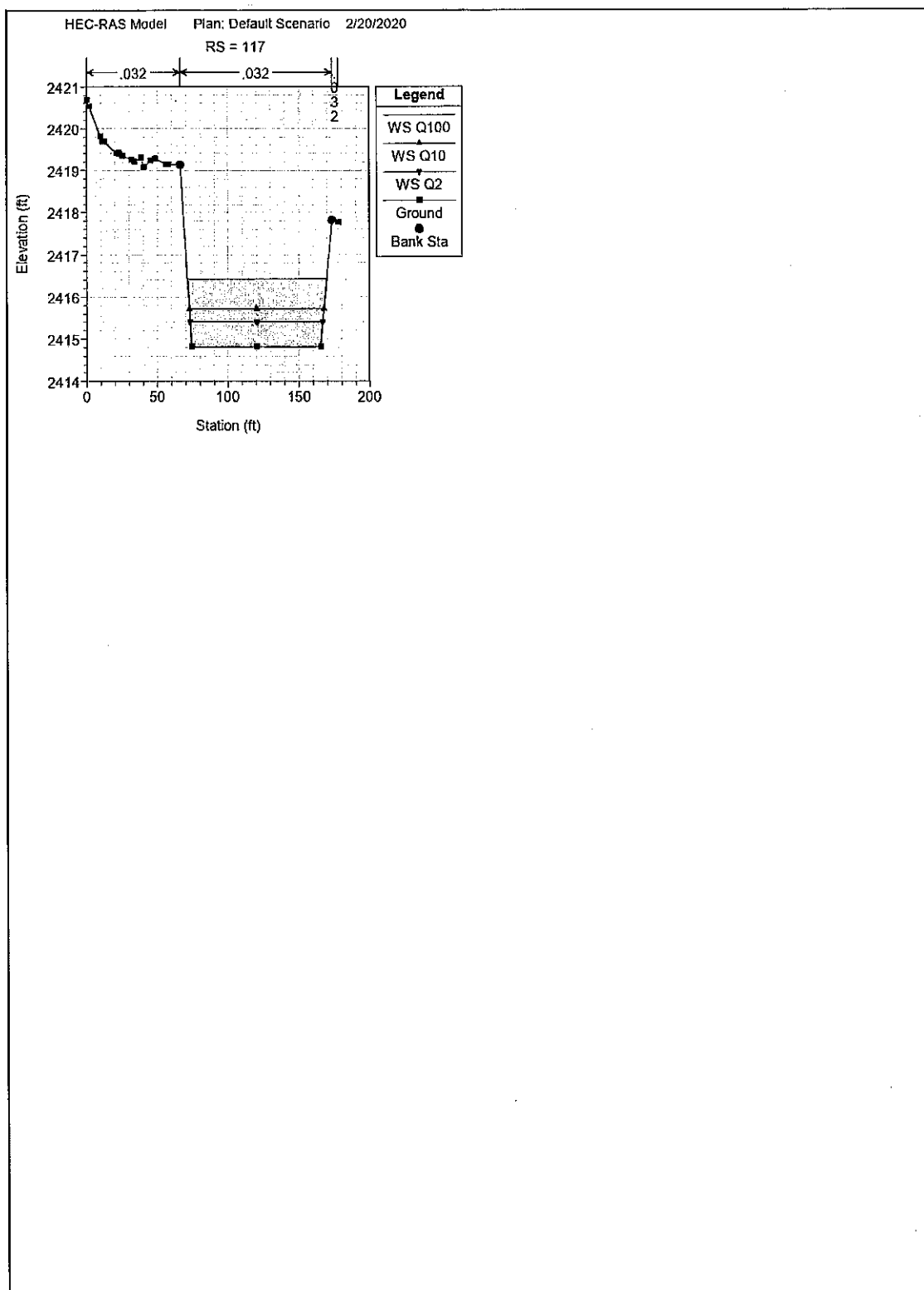
Cross Sections 6-Cell Model



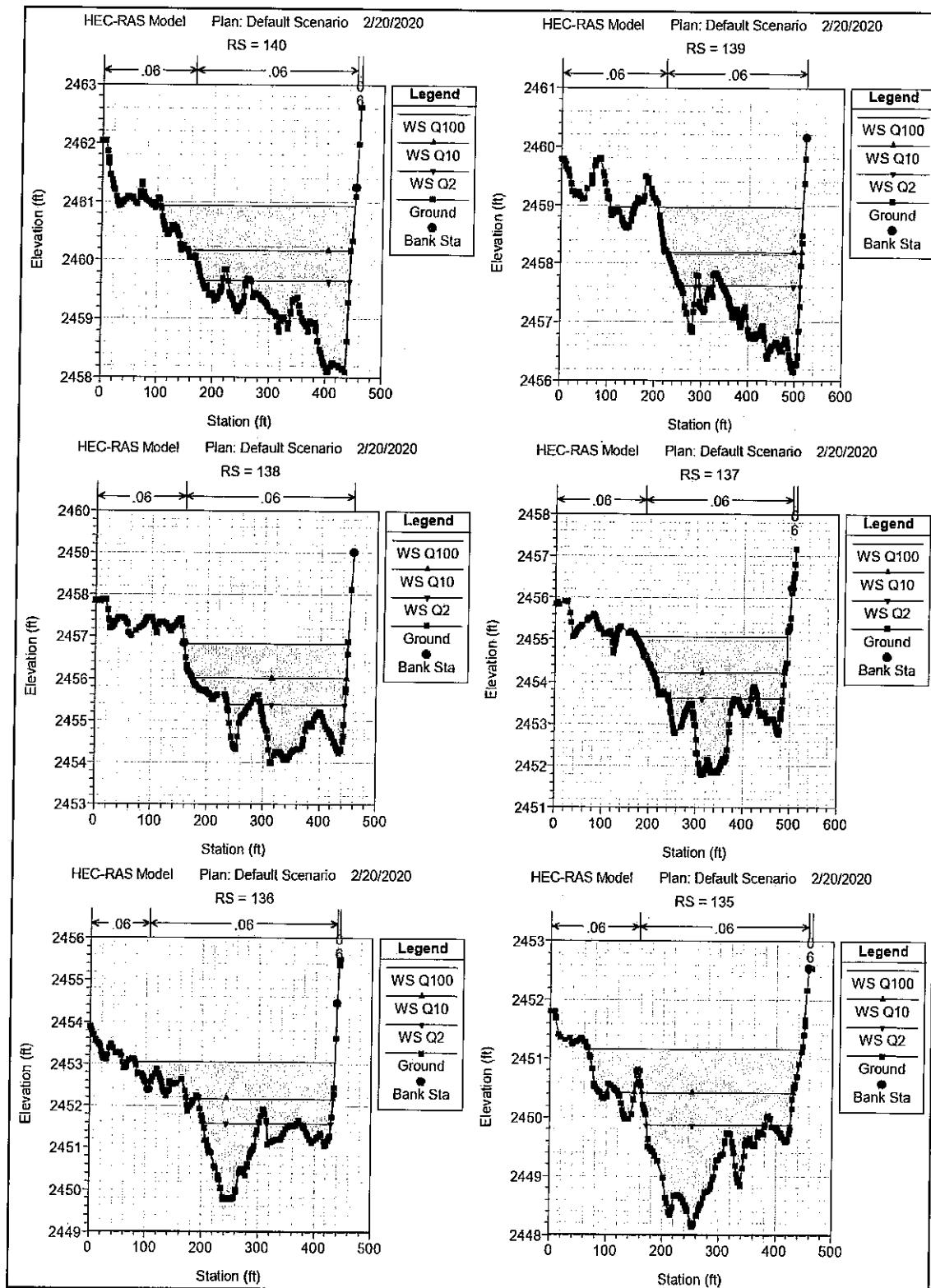


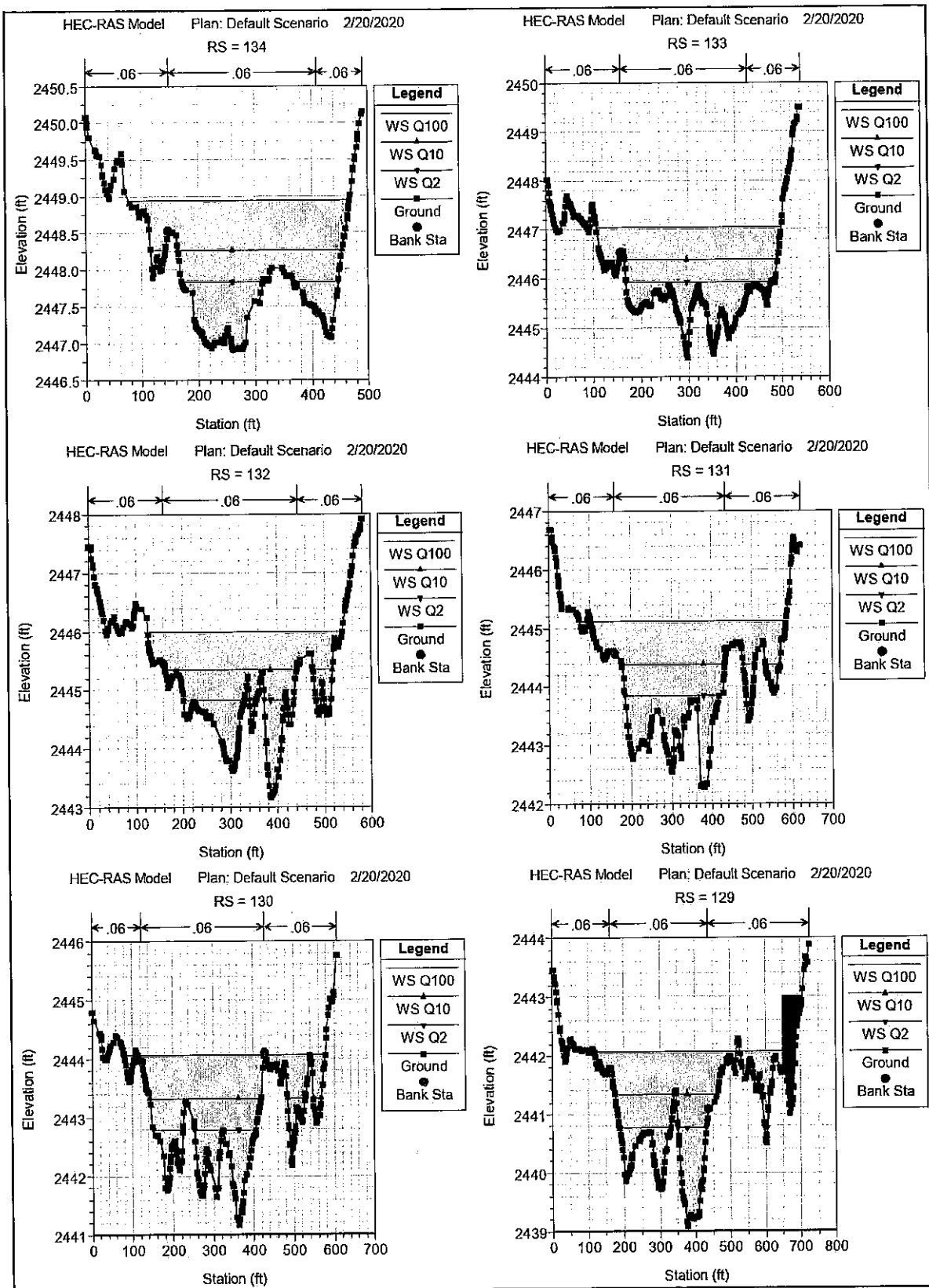


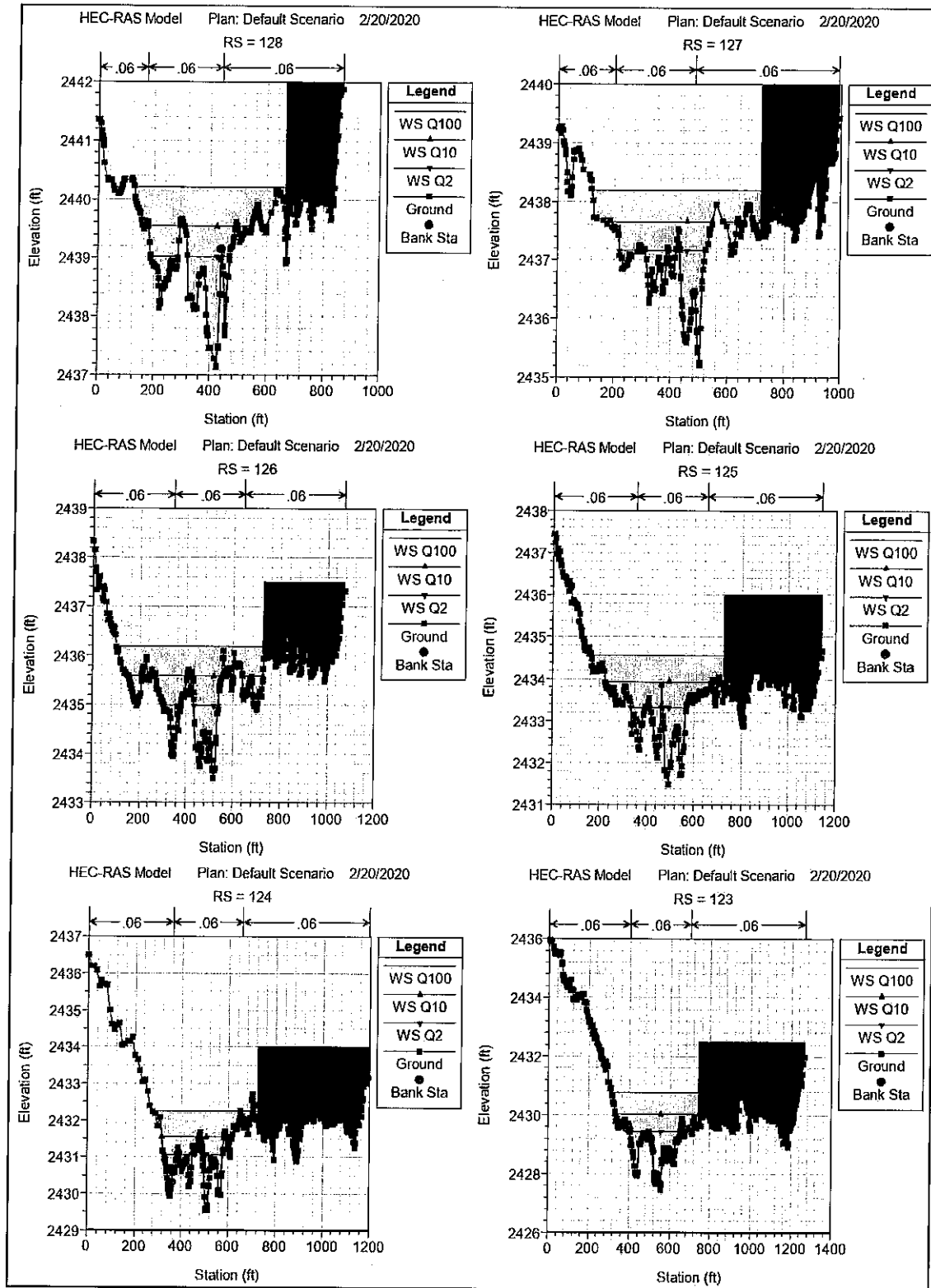


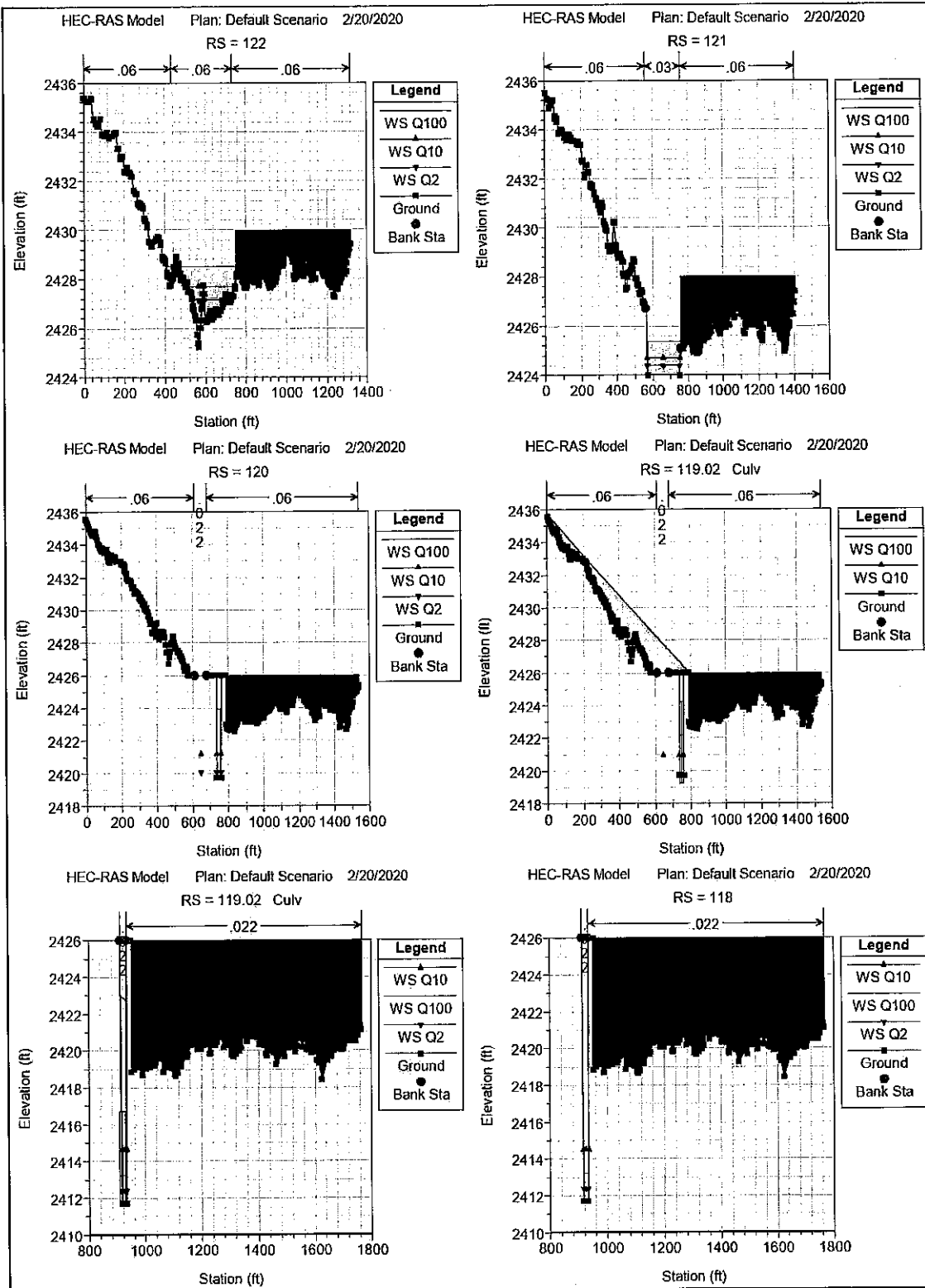


Cross Sections 2-Cell Model

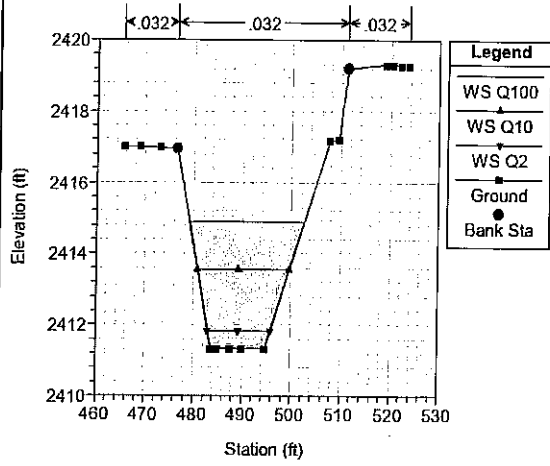








RS = 117



PRELIMINARY EAST CHANNEL ROUTING

Channel Report

Hydraflow Express by Intelisolve

Wednesday, Feb 19 2020, 11:57 AM

Section C-C

Trapezoidal

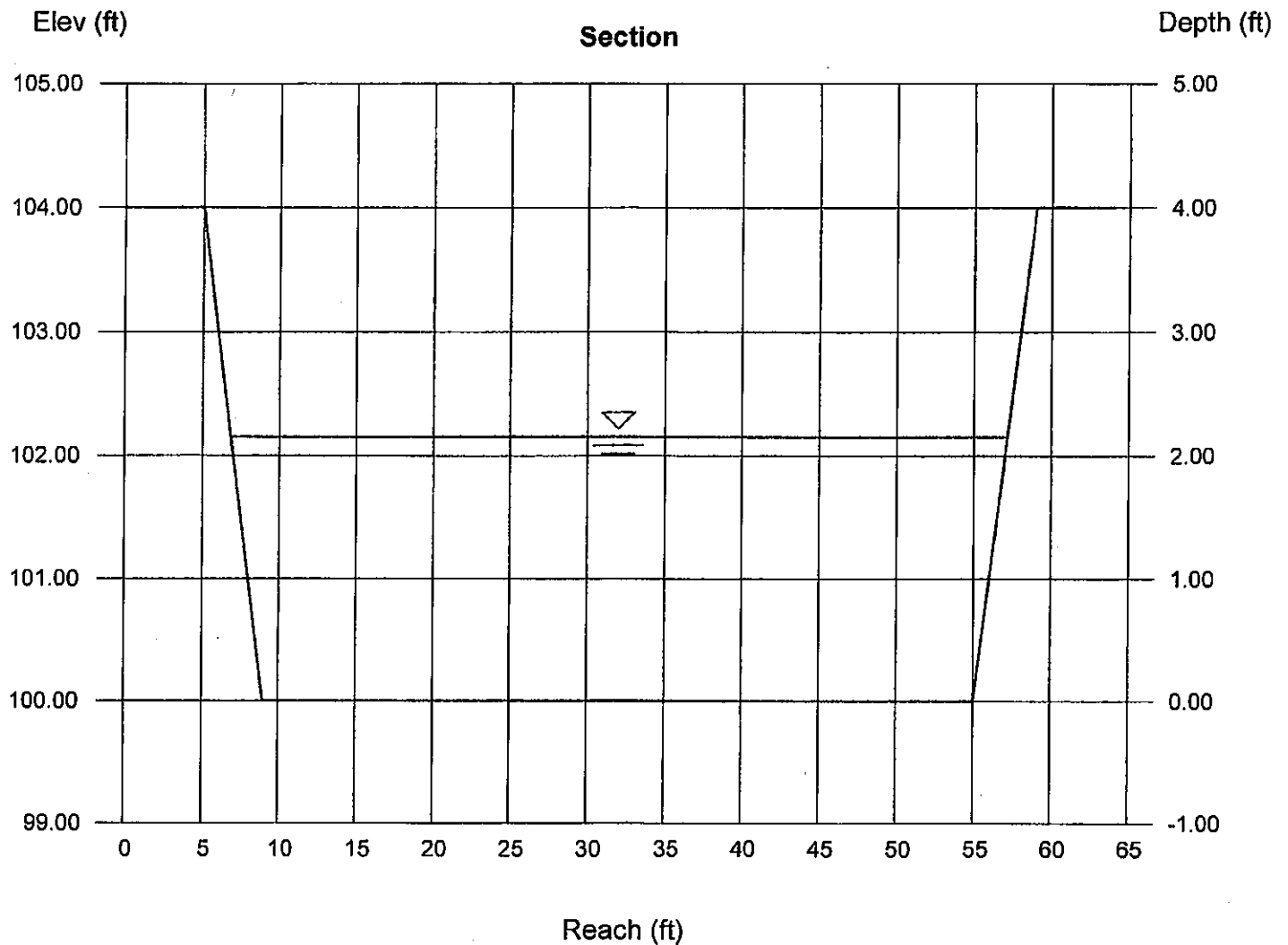
Bottom Width (ft) = 46.00
Side Slope (z:1) = 1.00
Total Depth (ft) = 4.00
Invert Elev (ft) = 100.00
Slope (%) = 0.50
N-Value = 0.030

Calculations

Compute by: Known Q
Known Q (cfs) = 571.73

Highlighted

Depth (ft) = 2.15
Q (cfs) = 571.73
Area (sqft) = 103.52
Velocity (ft/s) = 5.52
Wetted Perim (ft) = 52.08
Crit Depth, Yc (ft) = 1.67
Top Width (ft) = 50.30
EGL (ft) = 2.62



Channel Report

Hydraflow Express by Intelisolve

Wednesday, Feb 19 2020, 12:11 PM

Section D-D

Trapezoidal

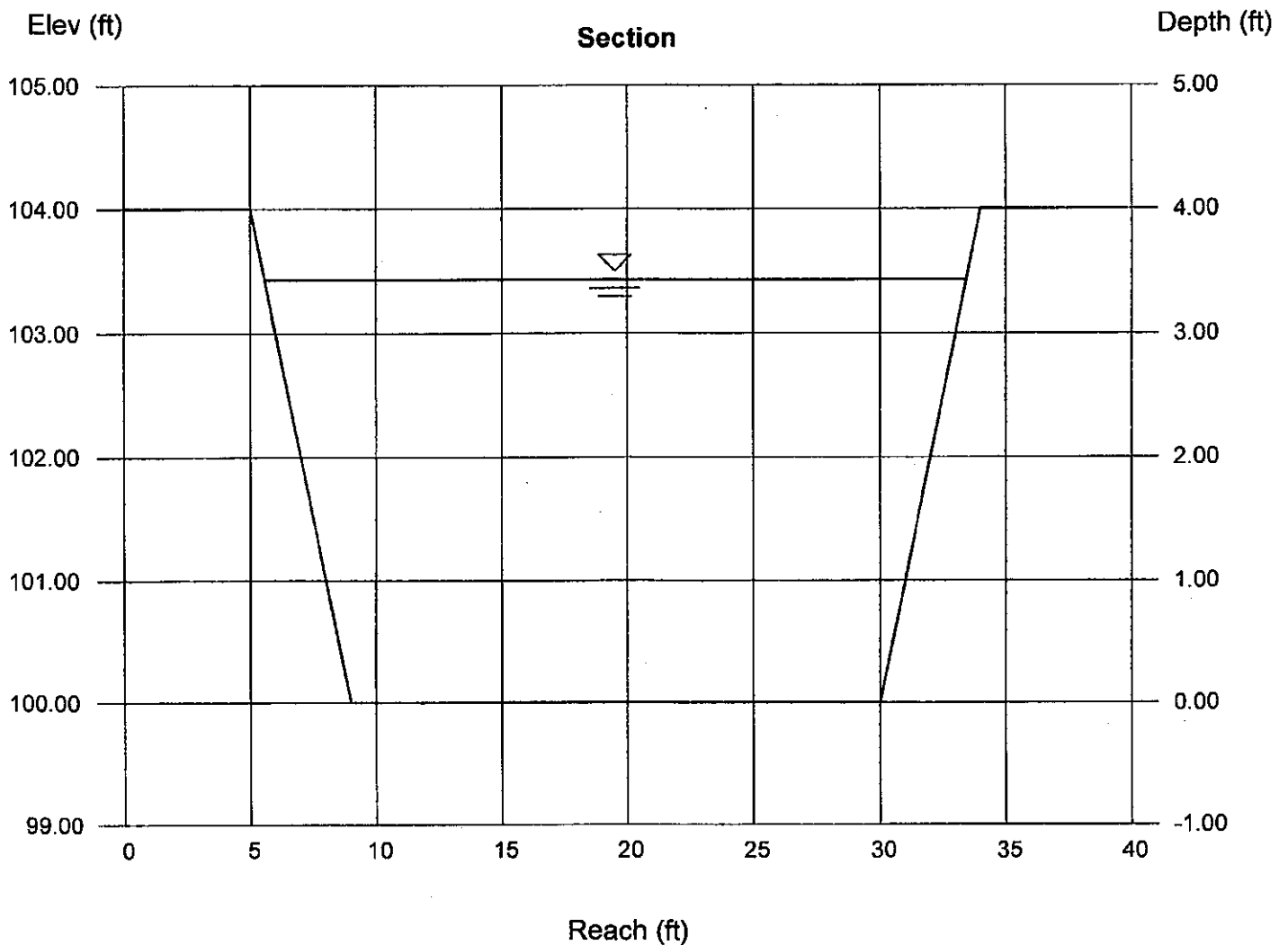
Bottom Width (ft) = 21.00
Side Slope (z:1) = 1.00
Total Depth (ft) = 4.00
Invert Elev (ft) = 100.00
Slope (%) = 0.50
N-Value = 0.030

Highlighted

Depth (ft) = 3.43
Q (cfs) = 571.73
Area (sqft) = 83.79
Velocity (ft/s) = 6.82
Wetted Perim (ft) = 30.70
Crit Depth, Y_c (ft) = 2.73
Top Width (ft) = 27.86
EGL (ft) = 4.15

Calculations

Compute by: Known Q
Known Q (cfs) = 571.73



Channel Report

Hydraflow Express by Intelisolve

Wednesday, Feb 19 2020, 12:15 PM

Intermediate Section at Outlet to Box Culvert

Trapezoidal

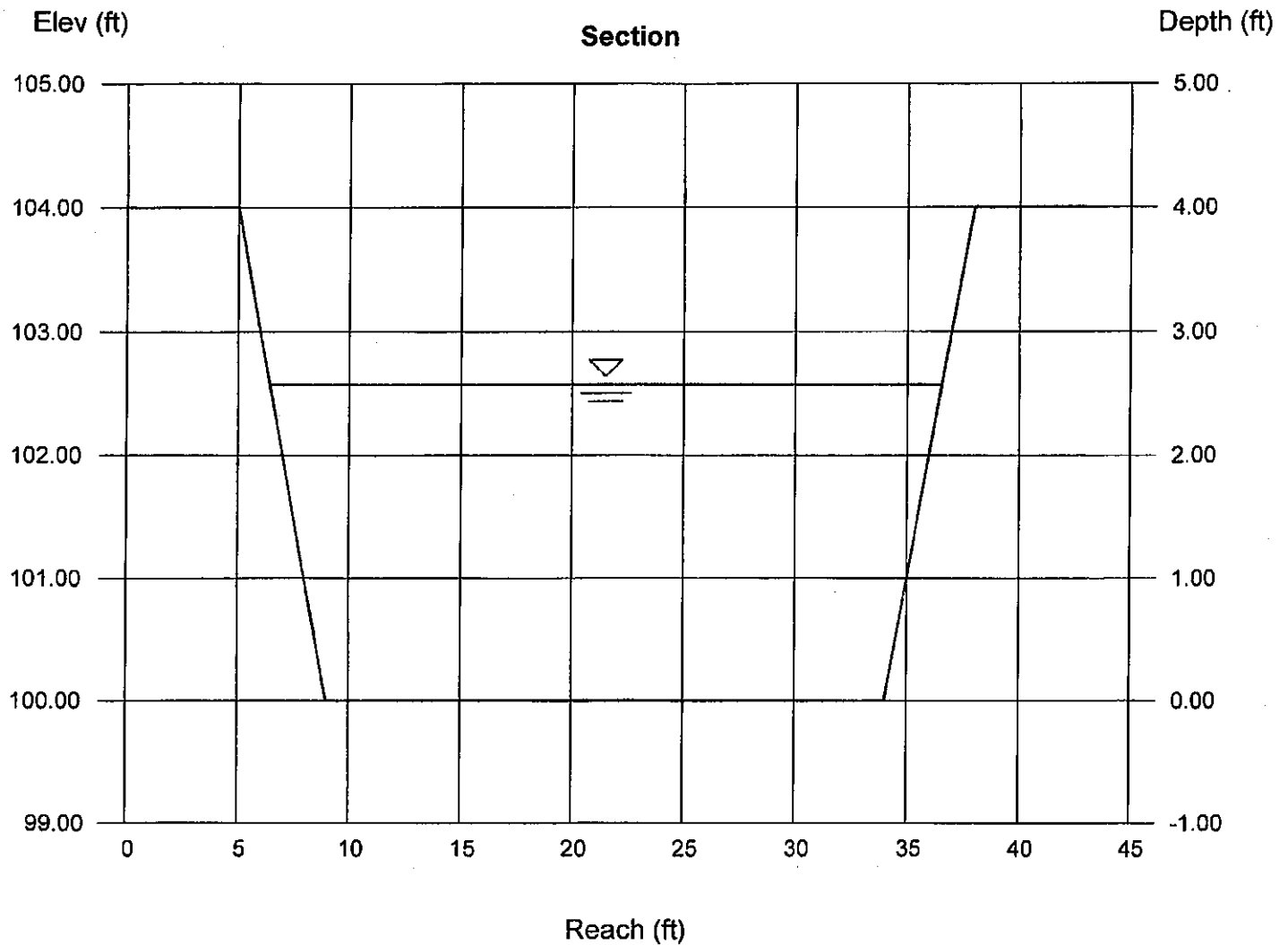
Bottom Width (ft) = 25.00
Side Slope (z:1) = 1.00
Total Depth (ft) = 4.00
Invert Elev (ft) = 100.00
Slope (%) = 0.50
N-Value = 0.022

Calculations

Compute by: Known Q
Known Q (cfs) = 571.73

Highlighted

Depth (ft) = 2.57
Q (cfs) = 571.73
Area (sqft) = 70.85
Velocity (ft/s) = 8.07
Wetted Perim (ft) = 32.27
Crit Depth, Yc (ft) = 2.45
Top Width (ft) = 30.14
EGL (ft) = 3.58



Channel Report

Hydraflow Express by Intelisolve

Wednesday, Feb 19 2020, 12:18 PM

Intermediate Section at Transition in Channel

Trapezoidal

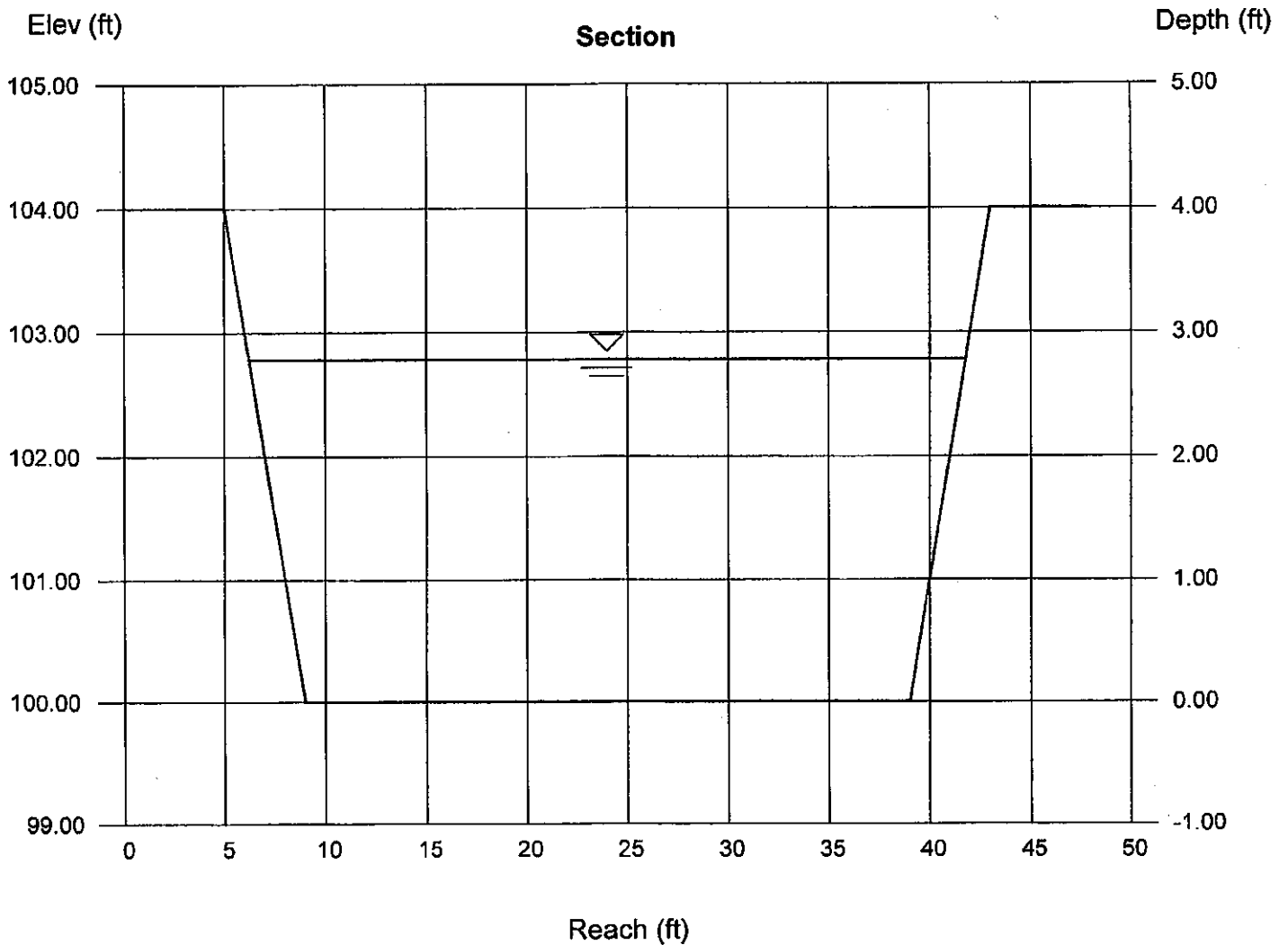
Bottom Width (ft) = 30.00
Side Slope (z:1) = 1.00
Total Depth (ft) = 4.00
Invert Elev (ft) = 100.00
Slope (%) = 0.50
N-Value = 0.030

Highlighted

Depth (ft) = 2.78
Q (cfs) = 571.73
Area (sqft) = 91.13
Velocity (ft/s) = 6.27
Wetted Perim (ft) = 37.86
Crit Depth, Yc (ft) = 2.19
Top Width (ft) = 35.56
EGL (ft) = 3.39

Calculations

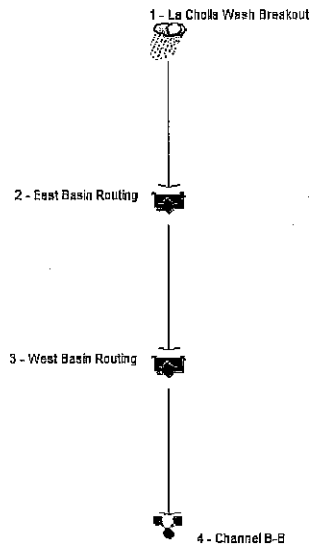
Compute by: Known Q
Known Q (cfs) = 571.73



PRELIMINARY REGIONAL BASIN ROUTING

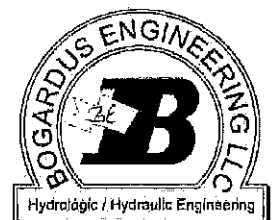
Watershed Model Schematic

Hydraflow Hydrographs by Intelisolve v9.01



Legend

<u>Hvd.</u>	<u>Origin</u>	<u>Description</u>
1	Manual	La Cholla Wash Breakout
2	Reservoir	East Basin Routing
3	Reservoir	West Basin Routing
4	Combine	Channel B-B



Hydrograph Summary Report

Hydraflow Hydrographs by Intelisolve v9.01

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph description
1	Manual	24.80	1	91	71,250	----	-----	-----	La Cholla Wash Breakout
2	Reservoir	23.36	1	94	71,249	1	2381.43	6,274	East Basin Routing
3	Reservoir	21.57	1	99	71,249	2	2380.41	7,232	West Basin Routing
4	Combine	21.57	1	99	71,249	3	-----	-----	Channel B-B
VDO Basin Routing revised Feb no weir.gpw					Return Period: 2 Year			Thursday, Feb 20, 2020	

Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.01

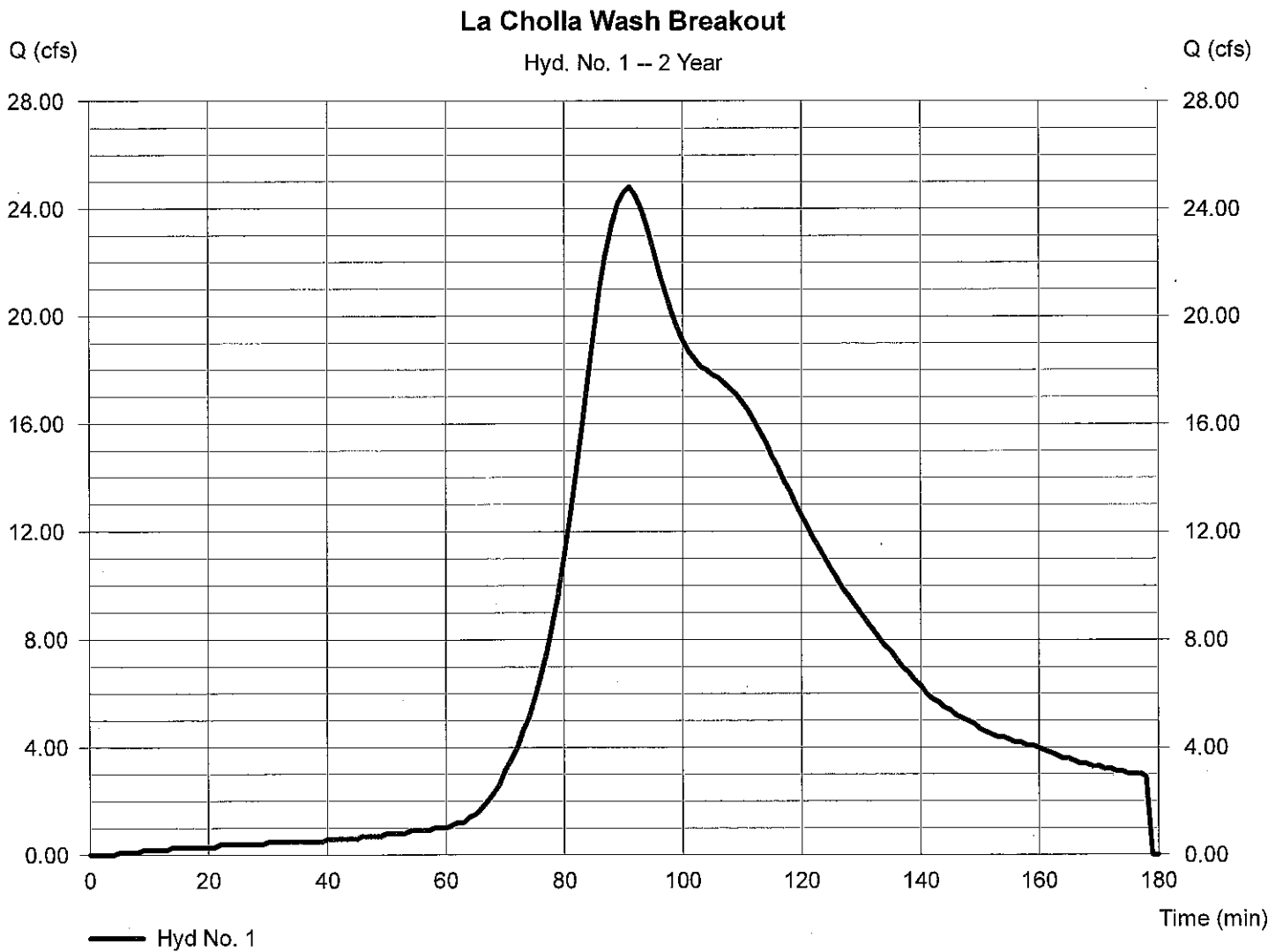
Thursday, Feb 20, 2020

Hyd. No. 1

La Cholla Wash Breakout

Hydrograph type = Manual
Storm frequency = 2 yrs
Time interval = 1 min

Peak discharge = 24.80 cfs
Time to peak = 91 min
Hyd. volume = 71,250 cuft



Hydrograph Report

Hydraflow Hydrographs by Intellisolve v9.01

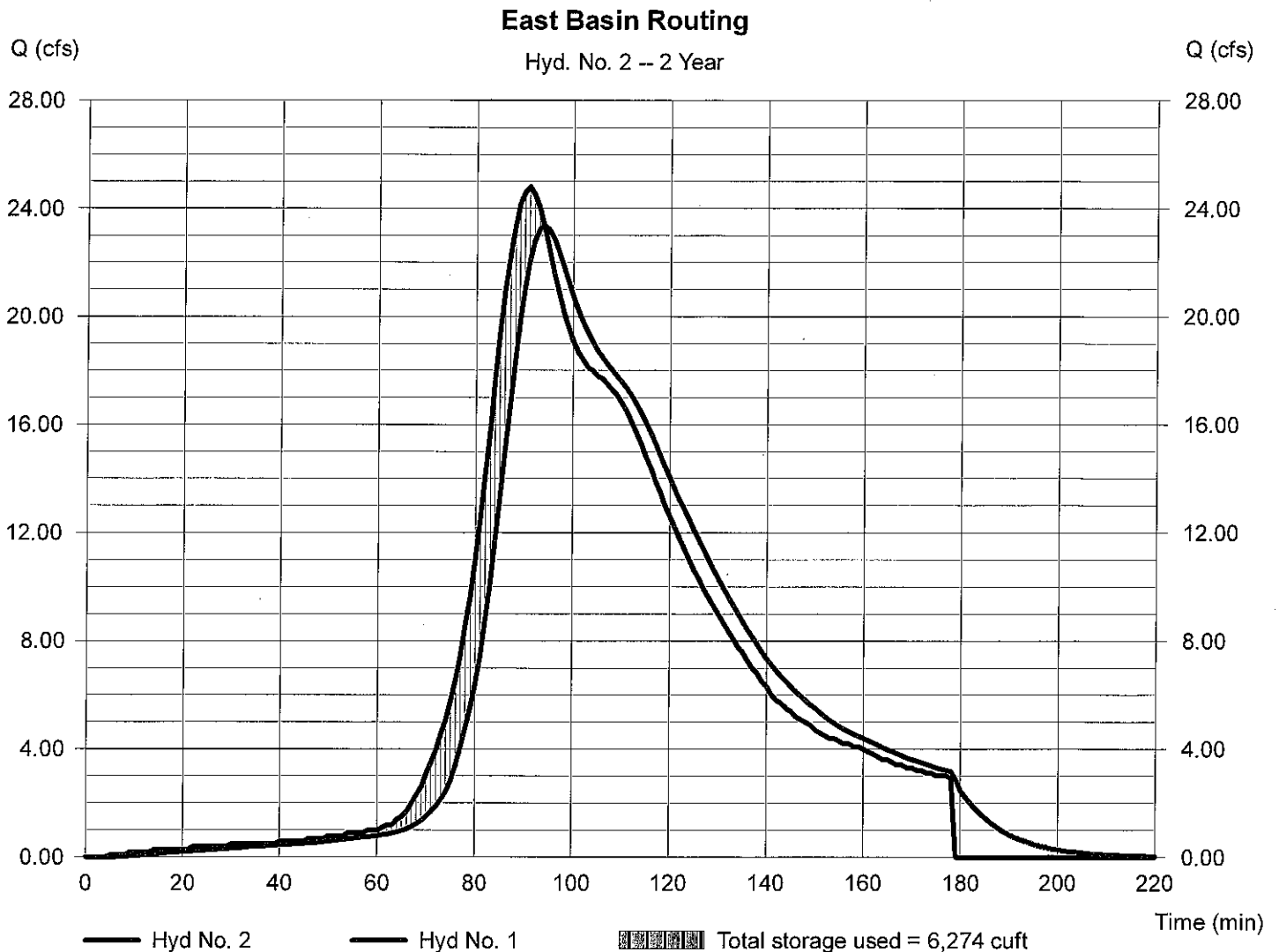
Thursday, Feb 20, 2020

Hyd. No. 2

East Basin Routing

Hydrograph type	= Reservoir	Peak discharge	= 23.36 cfs
Storm frequency	= 2 yrs	Time to peak	= 94 min
Time interval	= 1 min	Hyd. volume	= 71,249 cuft
Inflow hyd. No.	= 1 - La Cholla Wash Breakout	Max. Elevation	= 2381.43 ft
Reservoir name	= East Basin	Max. Storage	= 6,274 cuft

Storage Indication method used.



Pond Report

5

Hydraflow Hydrographs by Intelisolve v9.01

Thursday, Feb 20, 2020

Pond No. 1 - East Basin

Pond Data

Contours - User-defined contour areas. Conic method used for volume calculation. Beginning Elevation = 2381.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	2381.00	10,071	0	0
1.00	2382.00	19,472	14,514	14,514
2.00	2383.00	33,835	26,322	40,836
3.00	2384.00	39,666	36,708	77,545
4.00	2385.00	45,714	42,650	120,195
5.00	2386.00	54,524	50,049	170,244

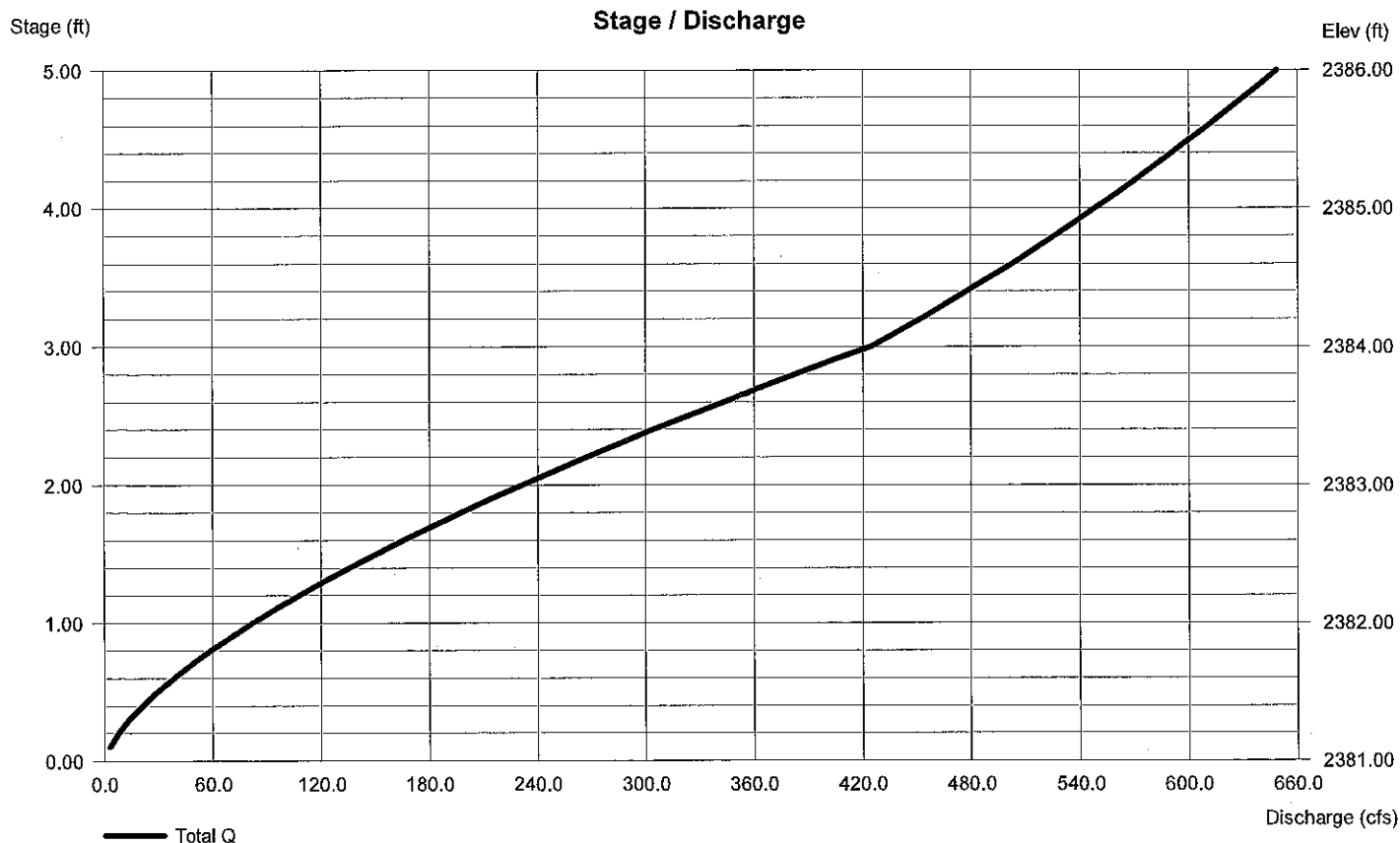
Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 36.00	0.00	0.00	0.00
Span (in)	= 144.00	0.00	0.00	0.00
No. Barrels	= 2	0	0	0
Invert El. (ft)	= 2381.00	0.00	0.00	0.00
Length (ft)	= 100.00	0.00	0.00	0.00
Slope (%)	= 1.50	0.00	0.00	n/a
N-Value	= .012	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 0.00	0.00	0.00	0.00
Crest El. (ft)	= 0.00	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= ---	---	---	---
Multi-Stage	= No	No	No	No
Exfil.(in/hr)	= 0.000 (by Contour)			
TW Elev. (ft)	= 0.00			

Note: Culvert/Orifice outflows are analyzed under inlet and outlet control. Weir risers are checked for orifice conditions.



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.01

Thursday, Feb 20, 2020

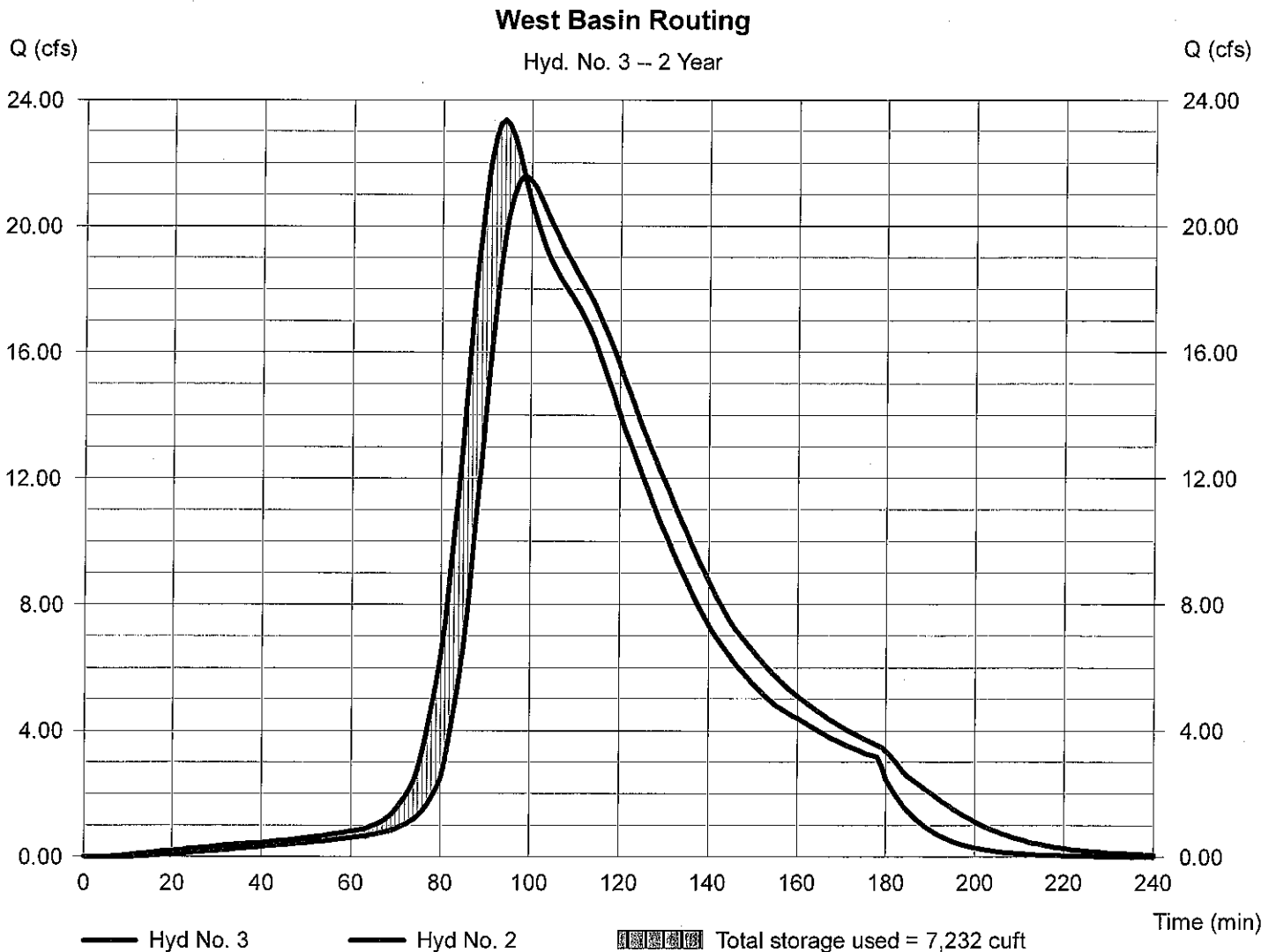
Hyd. No. 3

West Basin Routing

Hydrograph type = Reservoir
 Storm frequency = 2 yrs
 Time interval = 1 min
 Inflow hyd. No. = 2 - East Basin Routing
 Reservoir name = West Basin

Peak discharge = 21.57 cfs
 Time to peak = 99 min
 Hyd. volume = 71,249 cuft
 Max. Elevation = 2380.41 ft
 Max. Storage = 7,232 cuft

Storage Indication method used.



Hydrograph Report

Hydraflow Hydrographs by Intellisolve v9.01

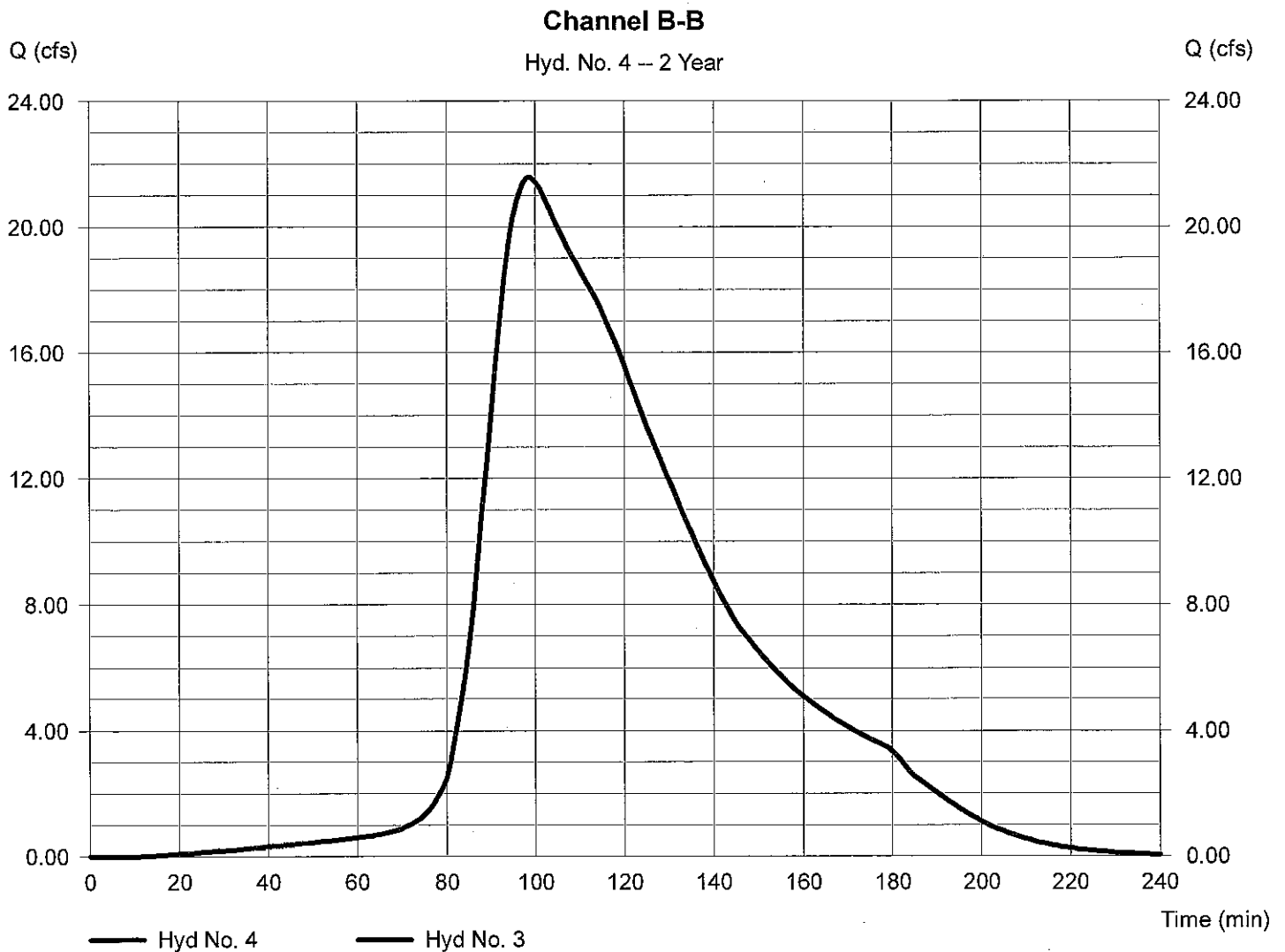
Thursday, Feb 20, 2020

Hyd. No. 4

Channel B-B

Hydrograph type = Combine
Storm frequency = 2 yrs
Time interval = 1 min
Inflow hyds. = 3

Peak discharge = 21.57 cfs
Time to peak = 99 min
Hyd. volume = 71,249 cuft
Contrib. drain. area = 0.000 ac



Hydrograph Summary Report

Hydraflow Hydrographs by Intelisolve v9.01

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph description
1	Manual	255.90	1	91	736,902	---	-----	-----	La Cholla Wash Breakout
2	Reservoir	243.49	1	94	736,901	1	2383.07	43,421	East Basin Routing
3	Reservoir	239.44	1	96	736,901	2	2382.05	37,156	West Basin Routing
4	Combine	239.44	1	96	736,901	3	-----	-----	Channel B-B
VDO Basin Routing revised Feb no weir.gpw					Return Period: 10 Year			Thursday, Feb 20, 2020	

Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.01

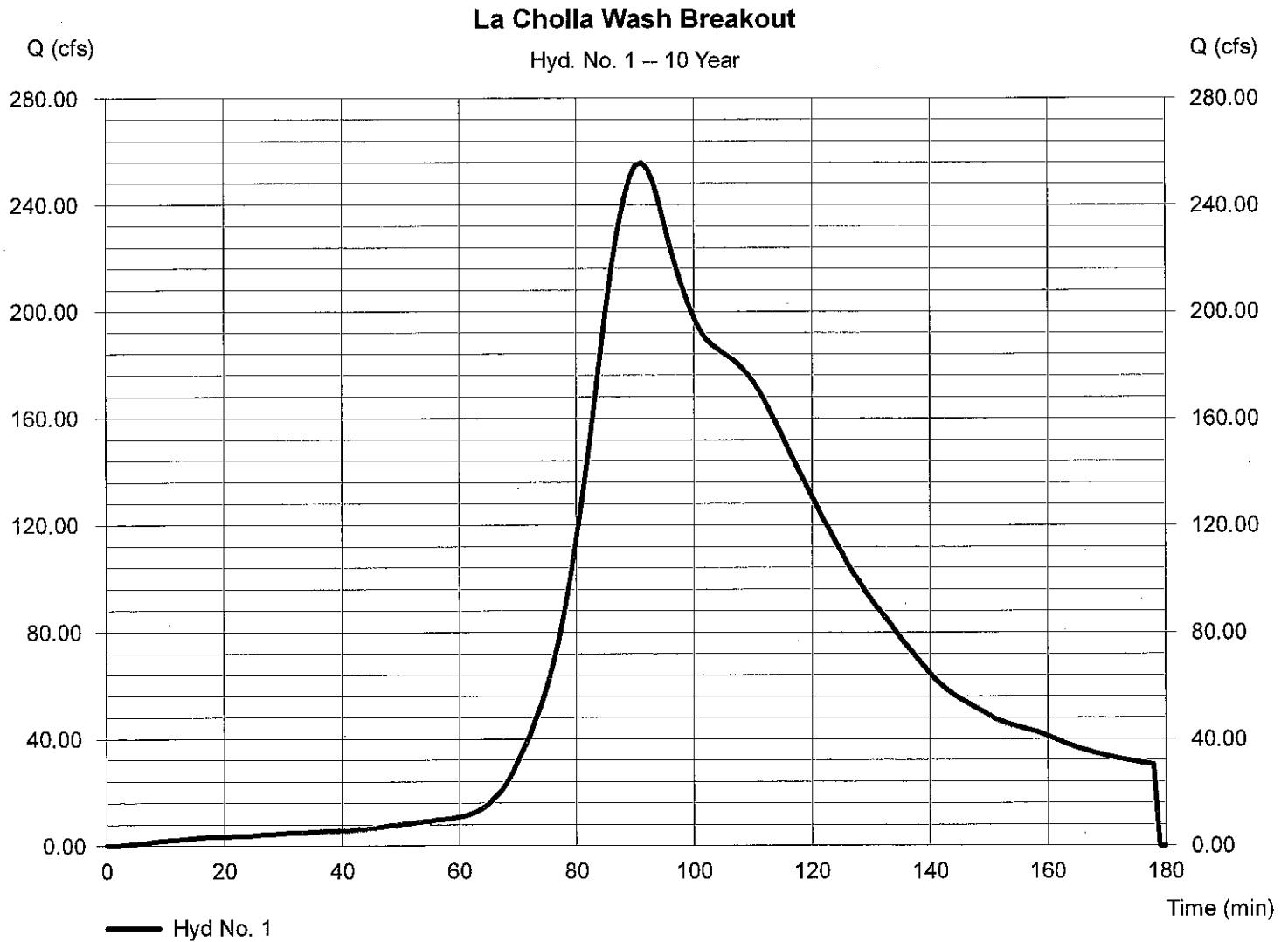
Thursday, Feb 20, 2020

Hyd. No. 1

La Cholla Wash Breakout

Hydrograph type = Manual
Storm frequency = 10 yrs
Time interval = 1 min

Peak discharge = 255.90 cfs
Time to peak = 91 min
Hyd. volume = 736,902 cuft



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.01

Thursday, Feb 20, 2020

Hyd. No. 2

East Basin Routing

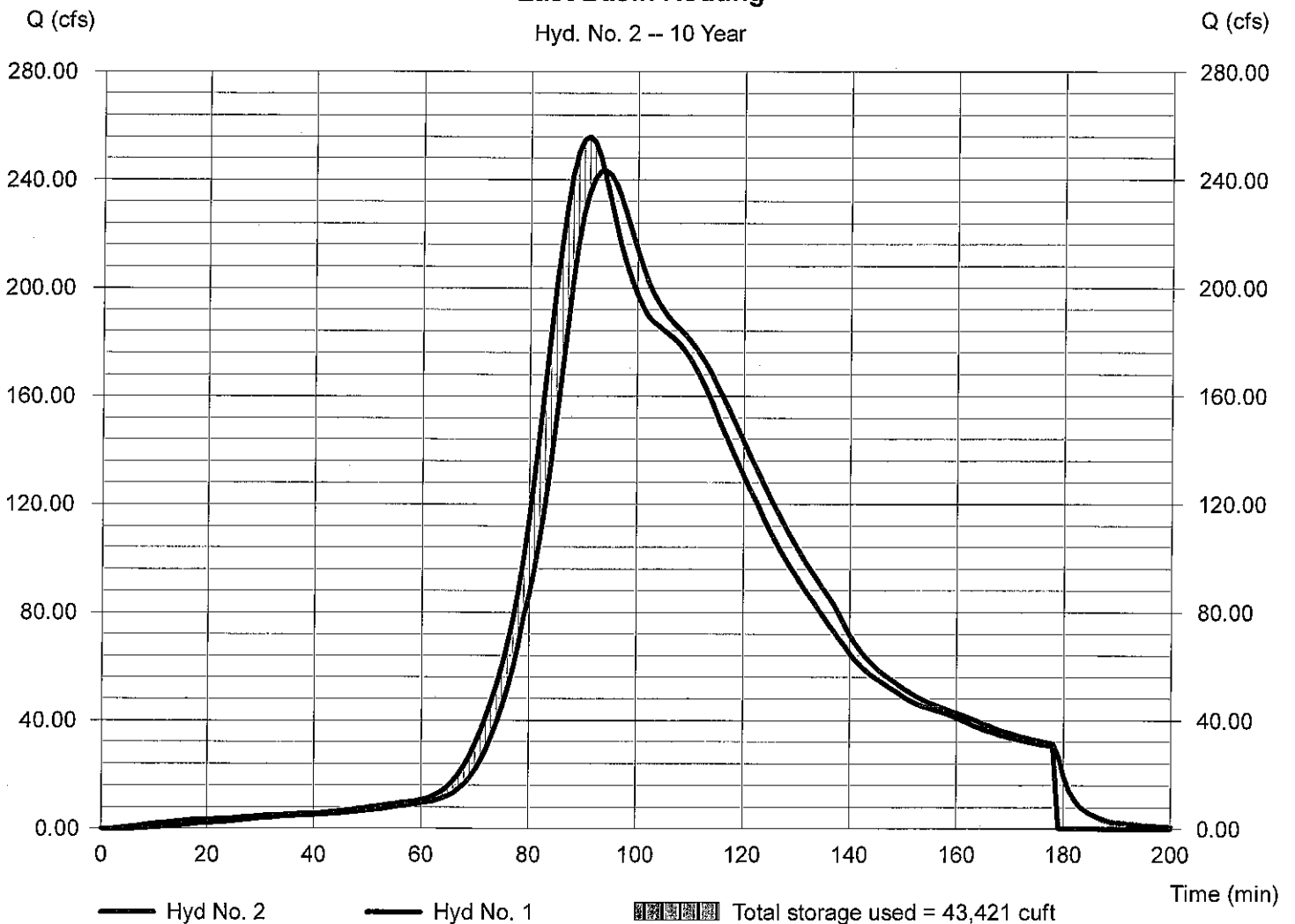
Hydrograph type = Reservoir
 Storm frequency = 10 yrs
 Time interval = 1 min
 Inflow hyd. No. = 1 - La Cholla Wash Breakout
 Reservoir name = East Basin

Peak discharge = 243.49 cfs
 Time to peak = 94 min
 Hyd. volume = 736,901 cuft
 Max. Elevation = 2383.07 ft
 Max. Storage = 43,421 cuft

Storage Indication method used.

East Basin Routing

Hyd. No. 2 -- 10 Year



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.01

Thursday, Feb 20, 2020

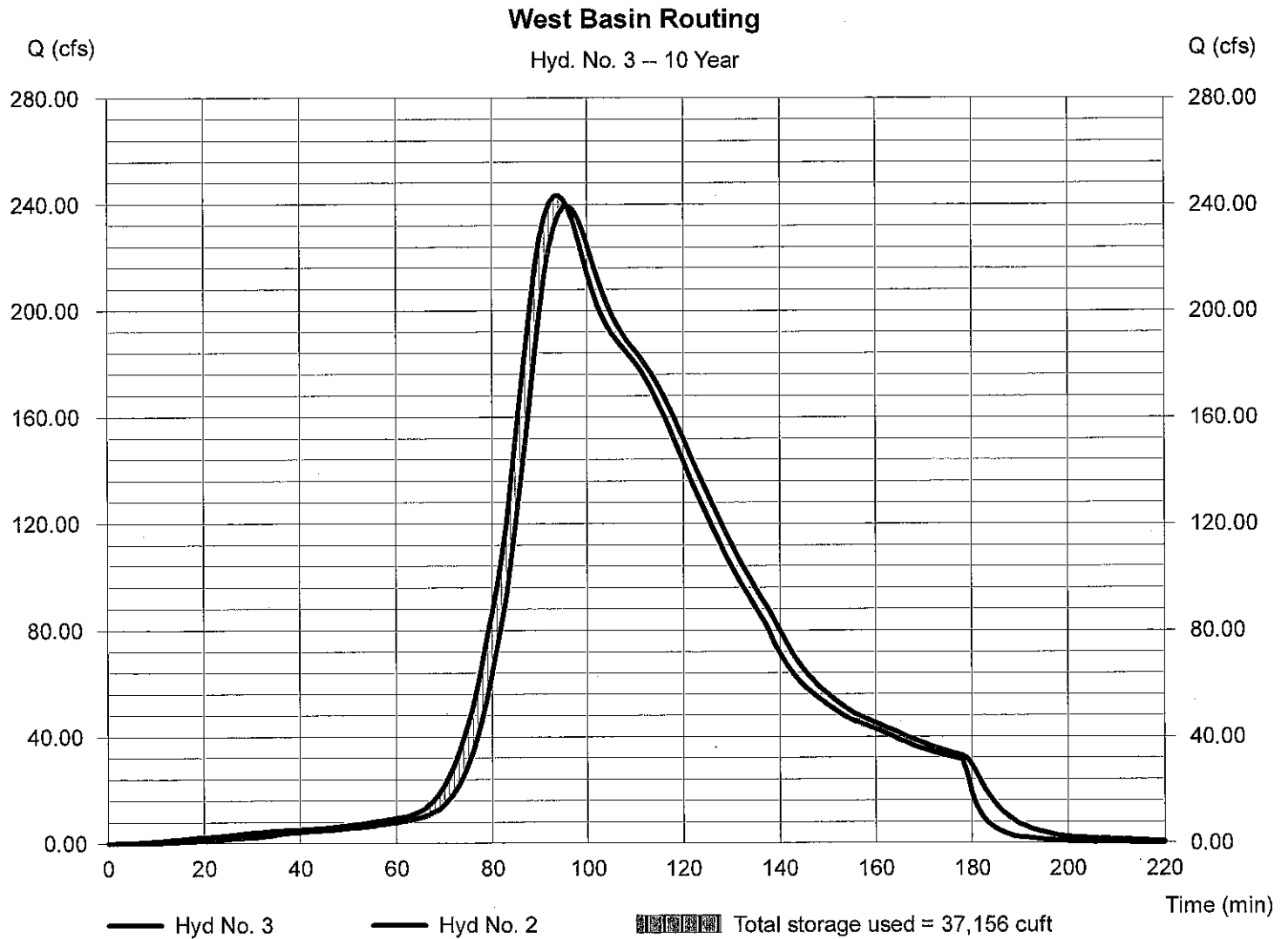
Hyd. No. 3

West Basin Routing

Hydrograph type = Reservoir
 Storm frequency = 10 yrs
 Time interval = 1 min
 Inflow hyd. No. = 2 - East Basin Routing
 Reservoir name = West Basin

Peak discharge = 239.44 cfs
 Time to peak = 96 min
 Hyd. volume = 736,901 cuft
 Max. Elevation = 2382.05 ft
 Max. Storage = 37,156 cuft

Storage Indication method used.



Hydrograph Report

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Hydraflow Hydrographs by Intelisolve v9.01

Thursday, Feb 20, 2020

Hyd. No. 4

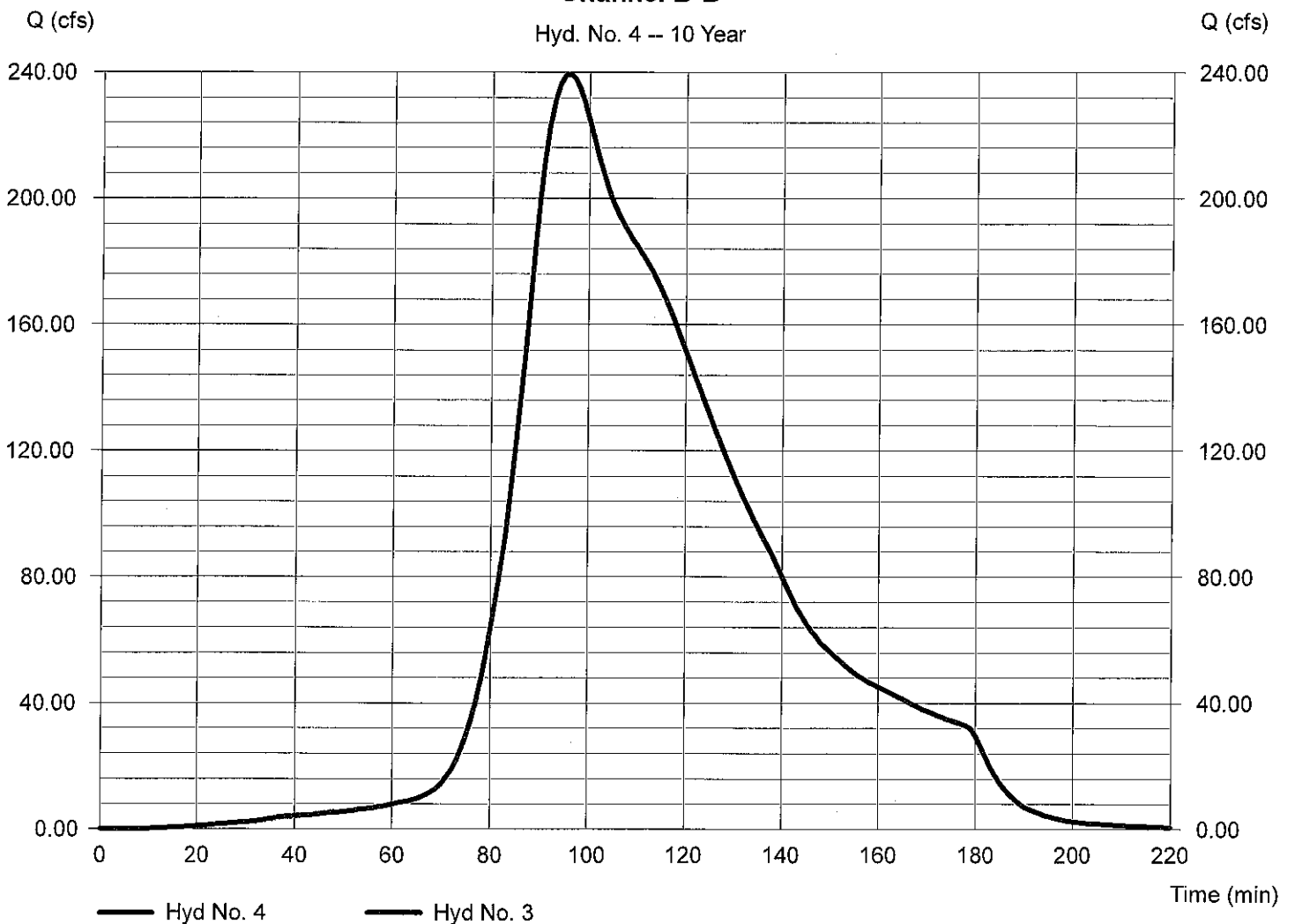
Channel B-B

Hydrograph type = Combine
Storm frequency = 10 yrs
Time interval = 1 min
Inflow hyds. = 3

Peak discharge = 239.44 cfs
Time to peak = 96 min
Hyd. volume = 736,901 cuft
Contrib. drain. area = 0.000 ac

Channel B-B

Hyd. No. 4 -- 10 Year



Hydrograph Summary Report

Hydraflow Hydrographs by Intelisolve v9.01

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph description
1	Manual	571.73	1	91	1,646,411	---	-----	-----	La Cholla Wash Breakout
2	Reservoir	518.52	1	95	1,646,411	1	2384.74	108,961	East Basin Routing
3	Reservoir	507.54	1	98	1,646,410	2	2383.64	69,708	West Basin Routing
4	Combine	507.54	1	98	1,646,410	3	-----	-----	Channel B-B

Hydrograph Report

14

Hydraflow Hydrographs by Intelisolve v9.01

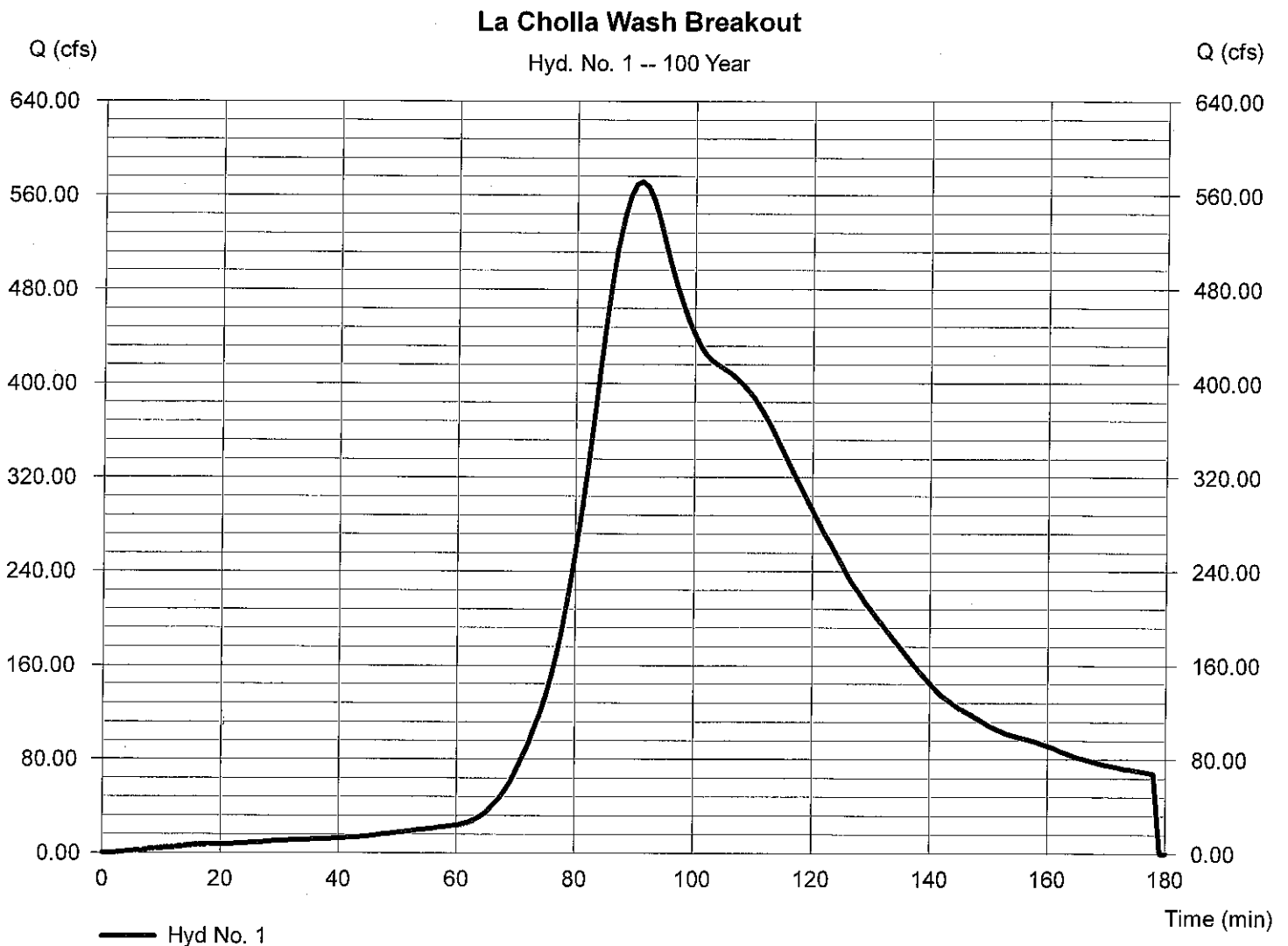
Thursday, Feb 20, 2020

Hyd. No. 1

La Cholla Wash Breakout

Hydrograph type = Manual
Storm frequency = 100 yrs
Time interval = 1 min

Peak discharge = 571.73 cfs
Time to peak = 91 min
Hyd. volume = 1,646,411 cuft



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.01

Thursday, Feb 20, 2020

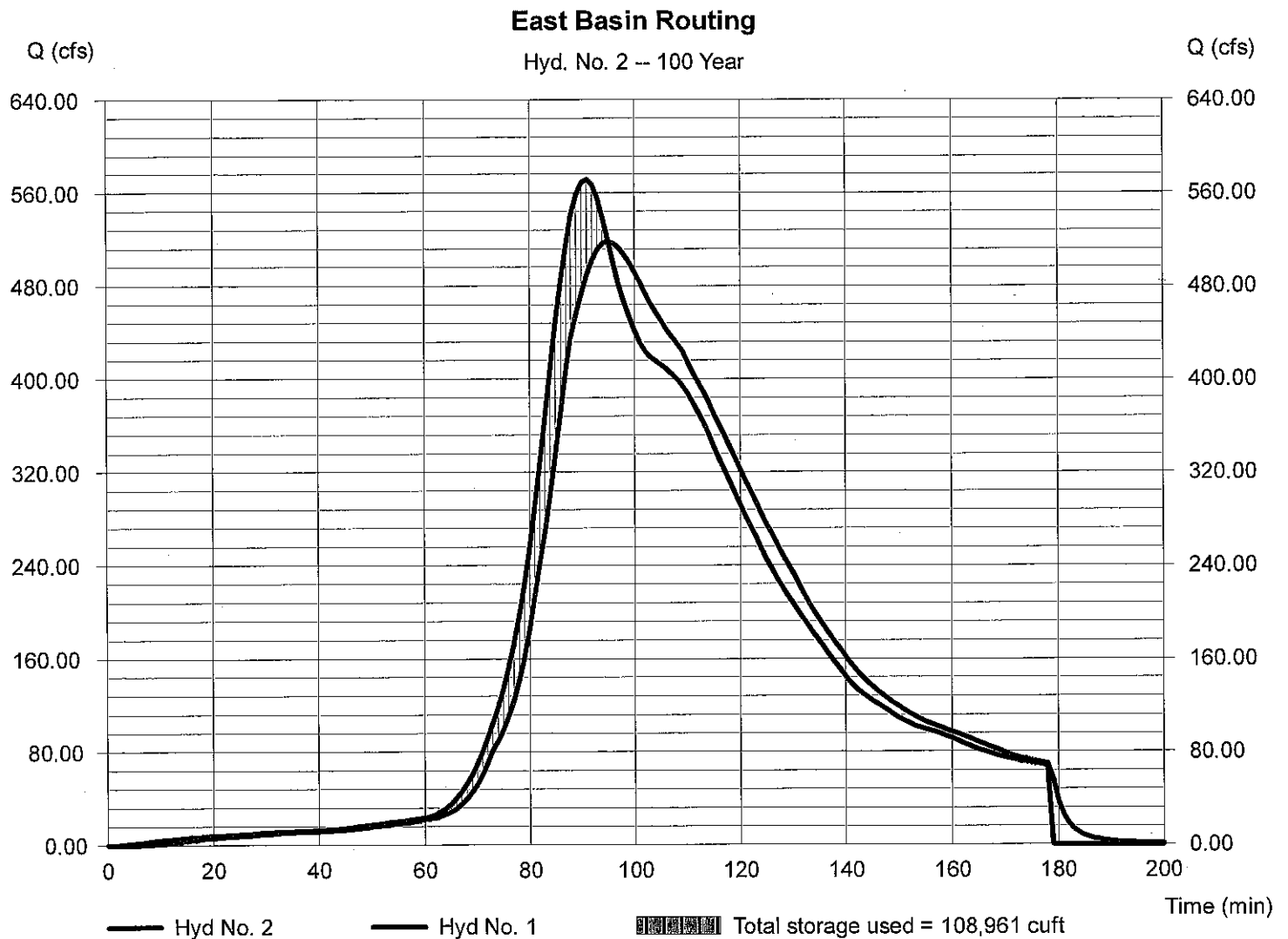
Hyd. No. 2

East Basin Routing

Hydrograph type = Reservoir
 Storm frequency = 100 yrs
 Time interval = 1 min
 Inflow hyd. No. = 1 - La Cholla Wash Breakout
 Reservoir name = East Basin

Peak discharge = 518.52 cfs
 Time to peak = 95 min
 Hyd. volume = 1,646,411 cuft
 Max. Elevation = 2384.74 ft
 Max. Storage = 108,961 cuft

Storage Indication method used.



Hydrograph Report

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Hydraflow Hydrographs by Intelisolve v9.01

Thursday, Feb 20, 2020

Hyd. No. 3

West Basin Routing

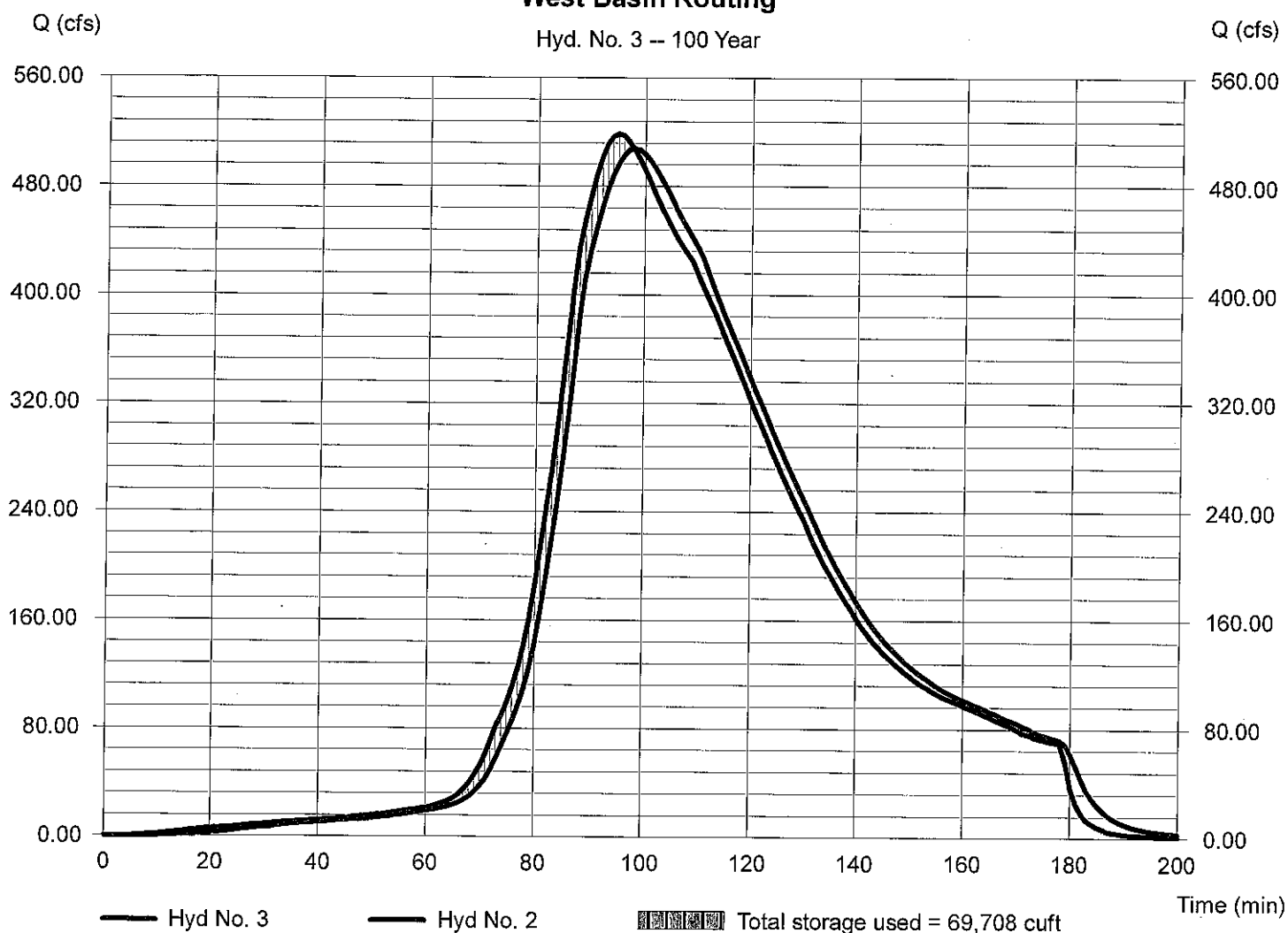
Hydrograph type = Reservoir
Storm frequency = 100 yrs
Time interval = 1 min
Inflow hyd. No. = 2 - East Basin Routing
Reservoir name = West Basin

Peak discharge = 507.54 cfs
Time to peak = 98 min
Hyd. volume = 1,646,410 cuft
Max. Elevation = 2383.64 ft
Max. Storage = 69,708 cuft

Storage Indication method used.

West Basin Routing

Hyd. No. 3 -- 100 Year



Hydrograph Report

Hydraflow Hydrographs by Intelsolve v9.01

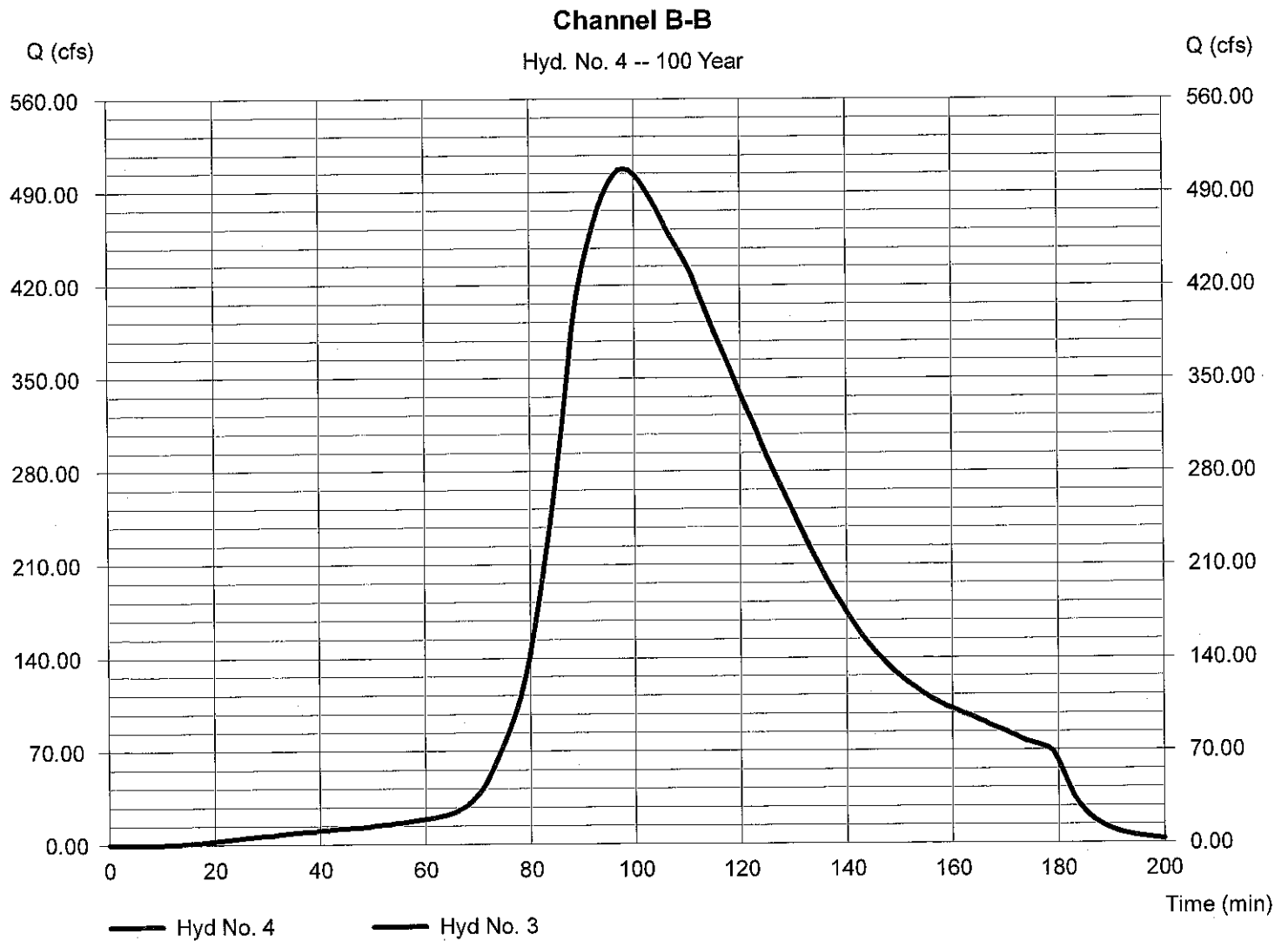
Thursday, Feb 20, 2020

Hyd. No. 4

Channel B-B

Hydrograph type = Combine
Storm frequency = 100 yrs
Time interval = 1 min
Inflow hyds. = 3

Peak discharge = 507.54 cfs
Time to peak = 98 min
Hyd. volume = 1,646,410 cuft
Contrib. drain. area = 0.000 ac



Reach	River Sta	Profile	E.G. US	W.S. US	E.G. IC	E.G. OC	Min El Water Flow	Q.C.M. Group	Q Weir	Delta WS	Q.W. Vel US	Culv Vel US
100	118.02 Culvert #1	Q100	2424.95	2423.96	2424.03	2424.95	2436.30	2332.27	(ft)	(ft)	(ft/s)	(ft/s)
	118.02 Culvert #1	Q10	2421.61	2421.29	2421.26	2421.61	2436.30	935.70	(ft)	(ft)	(ft/s)	(ft/s)
	118.02 Culvert #1	Q2	2420.21	2420.01	2419.98	2420.21	2436.30	418.35	(ft)	(ft)	(ft/s)	(ft/s)
100	119.02 Culvert #2	Q100	2424.39	2423.97	2423.83	2424.39	2436.01	271.73	(ft)	(ft)	(ft/s)	(ft/s)
	119.02 Culvert #2	Q10	2421.94	2421.21	2421.82	2422.36	2436.01	24.73	(ft)	(ft)	(ft/s)	(ft/s)
	119.02 Culvert #2	Q2	2420.21	2420.05			2436.01		(ft)	(ft)	(ft/s)	(ft/s)

**EXISTING CONDITIONS
MODELED PER APPROVED DOT
6-10'X6' RCBC
UP_{INVERT}=2418.25
DOWN_{INVERT}=2416.61**

**MATCH DOT DESIGN
HEADWATER
WSEL DOT MODEL = 2424.04
WSEL PROPOSED = 2423.79**

**OVERTON RD
BREAKOUT FLOW
Q₁₀₀ PROPOSED = 571.7 CFS**

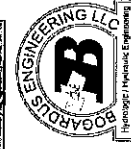
Q₁₀₀ PROPOSED = 2332.3 CFS



250'
SCALE

VISTA DEL ORO

**LA CHOLLA WASH CULVERT BREAKOUT
PROPOSED FLOODPLAIN WORK MAP**



BOGARDUS ENGINEERING, LLC
TRACY A BOGARDUS P.E.
BE JOB: 18-002-A-001D
02-18-2020

Appendix E:

**Executed Roof-Top Agreement with
Amphitheatre Public School District**



**GOVERNING BOARD AGENDA ITEM
AMPHITHEATER UNIFIED SCHOOL DISTRICT NO. 10**

DATE OF MEETING: March 27, 2019

TITLE: **Ratification of Superintendent's Execution of Agreement with Real Estate Developer KB Home Regarding Voluntary School Impact Donation Pursuant to Governing Board Policy KLJA.**

BACKGROUND:

Governing Board policy KLJA permits the district to solicit and encourage real estate developers to contribute voluntary "educational donations" to the district to offset the impact on the district's schools of their proposed developments. Especially in the growing northern part of the District's boundaries, increased enrollment resulting from developments may result in over-enrollment, exceeding schools' physical capacity.

Presently, the State School Facilities Board (SFB) does not provide funding for school construction in growing neighborhoods if physical enrollment capacity exists elsewhere in a school district. Instead, the SFB requires districts to bus children where capacity exists or to redraw school boundaries to adjust enrollment patterns, both of which substantially interfere with the neighborhood school philosophy our district and community have long embraced.

In a proactive effort to avoid overcrowding and negative impact on the district's students, the district has entered into negotiations with real estate developers pursuant to Policy KLJA. In each case, the district has sought an educational donation per home, due at the close of escrow of each home, or the donation of land to be used for school construction.

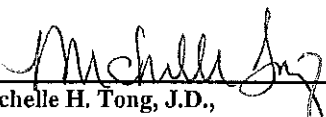
The district concluded favorable negotiations with KB Home related to a development consisting of approximately one hundred twenty-five (125) single-family residential units on fifty-two (52) acres located at the northwest corner of La Cholla Boulevard at Overton Road. The Project will impact the enrollment at Wilson K-5 (estimated 26 students); Wilson 6-8 (estimated 28 students) and Ironwood Ridge High (estimated 16 students).

The result of this negotiation was the developer's commitment to pay the District twelve hundred dollars (\$1,200.00) for each detached single-family residential unit built on platted lots in its proposed development. An agreement has been reached with the developer and is attached for the Board's ratification.

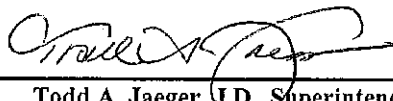
RECOMMENDATION:

This is presented for the Board's ratification, which the administration recommends.

INITIATED BY:


Michelle H. Tong, J.D.,
Associate to the Superintendent and General Counsel

Date: March 25, 2019


Todd A. Jaeger, J.D., Superintendent

Developer Donation Agreement

This Agreement ("the Agreement") is entered into as of the 25th of March, 2019, by and between the AMPHITHEATER UNIFIED SCHOOL DISTRICT NO. 10 OF PIMA COUNTY, ARIZONA (also known as Amphitheater Public Schools), a political subdivision of the State of Arizona ("District") and KB Home Tucson, Inc. ("Developer").

RECITALS

A. Developer owns an interest in certain real property in Oro Valley, Arizona, which is more particularly described on "Exhibit A" attached hereto and incorporated by reference herein (the "Property"). Developer is currently developing the Property as a single family residential subdivision commonly known as Vista del Oro (the "Project") which is located within unincorporated Pima County, Arizona.

B. High quality schools and school facilities are in the best interest of Developer's homebuyers within the Project, who are also the present and future residents of the District;

C. The District is financially constrained in its ability to build and furnish new school facilities by the current system of school and capital funding within the State of Arizona; and

D. Voluntary financial contributions made to the District by the Developer will be utilized to mitigate the impact of the increased student population of the Project upon the District and mitigate the limitation of the District's ability to build and furnish facilities.

AGREEMENT

Therefore, in consideration of the mutual promises and performances set forth herein and the potential impact of the Project on the resources of the District, the parties hereby agree to the following:

1. Payment of Education Donation. Developer agrees to pay the District a voluntary cash contribution totaling twelve hundred dollars (\$1,200.00) for each planned single-family residential unit ("Dwelling Unit") in the Project which are sold to a third party.

2. Future Development Fees. The parties acknowledge that Developer's financial contributions to the District in accordance with the terms and conditions of this Agreement are intended to satisfy any and all obligation of Developer (in connection with Developer's development of the Project) to facilitate the acquisition, development, construction and/or improvement of any and all public school facilities within the District and to address the anticipated impact of Developer's development of the Property on the District. Notwithstanding any provision in this Agreement, if during the development of the Project, any other governmental authority with jurisdiction imposes any development fee, impact fee, dedication

requirement or similar fee or charge per dwelling unit, the District will reduce the contribution amount per dwelling unit by the amount of the development or impact fee, if such fee is assessed to facilitate the acquisition, development, construction and/or improvement of the District's public school facilities.

3. Time and Manner of Payment. The financial for each Dwelling Unit sold by Developer, or its successors or assignees, shall be paid to District at or prior to the close of escrow for each Dwelling Unit within the Project.

4. Assignment and Succession. All of the provisions hereof shall inure to the benefit of and be binding upon the personal representatives, heirs, successors and assigns of District and Developer. Developer may assign its interest hereunder without the prior written consent of District.

5. Party Benefit. It is not intended by this Agreement to, and nothing contained in this Agreement shall, create any partnership, joint venture or other arrangement between District and Developer. No term or provision of this Agreement is intended to, or shall, be for the benefit of any person, firm, corporation or other entity not a party hereto (including, without limitation, any broker), and no such party shall have any right or cause of action hereunder.

6. Miscellaneous Terms and Conditions.

a. Recitals Incorporated. The recitals set forth above are accepted by the parties to be true and correct and are incorporated herein by this reference.

b. Headings. The descriptive headings of the sections of this Agreement are inserted by convenience only and shall not control or affect the meaning or construction of any of the Agreement's provisions.

c. Exhibits. Any exhibit attached to this Agreement shall be deemed to have been incorporated in this Agreement by this reference with the same force and effect as if it were fully set forth in the body of the Agreement.

d. Entire Agreement. This Agreement and the attached exhibit constitutes the entire agreement between the parties pertaining to the subject matter of the Agreement. All prior and contemporaneous agreements, representations and understandings of the parties, oral or written, are superseded and merged in this Agreement. This Agreement shall be governed by the laws of the State of Arizona and is also subject to A.R.S. 38-511.

e. Counterparts. This Agreement may be executed in any number of counterparts. Each such counterpart hereof shall be deemed an original, but all counterparts shall constitute one agreement.

f. Representations. Each of the parties represents and warrants to the other that it is duly formed and validly existing in the state of its formation and is good

standing in the State of Arizona; that it has full power and authority to enter into and carry out the provisions of this Agreement and all documents and instruments contemplated hereunder; that doing so will not violate or be in conflict with any law, rule, regulation or order of any agreement to which it is a party or under which it is bound; that this Agreement has been authorized by all necessary action and is the valid and binding obligation of such party.

g. Further Acts. Each of the parties to this Agreement shall promptly and expeditiously execute and deliver all of such documents and perform all of such acts as reasonably necessary, from time to time, to carry out the matters contemplated by this Agreement.

h. Notices. All notices, requests, demand or other communications ("Notices") required or permitted by this Agreement shall be in writing and served by personal delivery, recognized overnight courier service, electronically confirmed telecopy with a follow-up by regular United States Mail, or by deposit in the United States mail, certified mail, return receipt requested, postage prepaid, addressed to the party to receive the same as follows:

If to the District: Legal Department
 Amphitheater Public Schools
 701 West Wetmore Road
 Tucson, Arizona 85705

If to Owner: KB Home Tucson, Inc.
 c/o Amy McReynolds, Division President
 201 N. Bonita Avenue – Suite 135
 Tucson, AZ 85745

All Notices shall be effective upon delivery and shall be deemed delivered on the date when actually received, whether notice is given by personal delivery, recognized overnight courier service, electronically confirmed telecopy or by mail. Any party may designate a difference person or entity or change the place to which any Notice shall be given as provided in this Agreement, which Notice shall be effective after the same is actually received by the other party.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed on the day and year first above written.

DISTRICT:

**AMPHITHEATER UNIFIED SCHOOL DISTRICT
NO. 10 OF PIMA COUNTY, ARIZONA,**

A political subdivision of the State of Arizona

By: Michelle Tong
Name: Michelle Tong

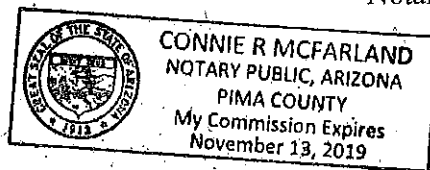
Its: Associate to the Superintendent and General Counsel

STATE OF ARIZONA)
) ss.
County of Pima)

The foregoing instrument was acknowledged before me this 25th day of March, 2019 by Michelle Tong, the Associate to the Superintendent and General Counsel of Amphitheater Unified School District No. 10 of Pima County, Arizona, on behalf of the District.

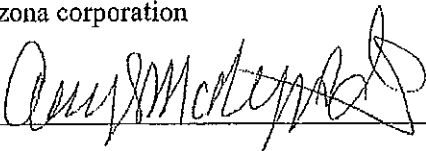
Connie R McFarland
Notary Public

My commission expires:



DEVELOPER:

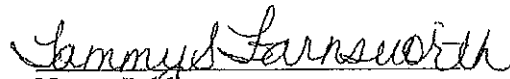
KB Home Tucson, Inc.
An Arizona corporation

By:  (signature)

Name: Amy McReynolds
Its: Division President

STATE OF ARIZONA)
) ss.
County of Pima)

The foregoing instrument was acknowledged before me this 18 day of March, 2019
by Amy McReynolds, the Division President of
KB Home Tucson, Inc., an Arizona corporation.


Notary Public

My commission expires: 10/12/19

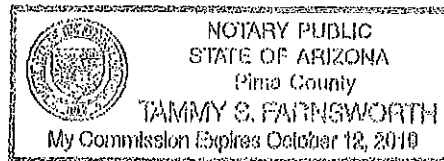


EXHIBIT "A"

LEGAL DESCRIPTION OF REAL PROPERTY

The Project Site is a portion of the NE ¼ of Section 21, T12S, R13E, and is more particularly located at the immediate northwest corner La Cholla Boulevard and Overton Road. The Site consists of four (4) contiguous parcels of land (Assessors Parcel Nos. 225-04-002A, 225-04-002C, 225-04-003P, and 225-04-008B), totaling approximately 50.7 acres in gross area.