# OFFLINE RETARDING BASIN ANALYSIS

# Sample Retarding Basin

**Prepared for**

## Client Agency

**Prepared by**

## Your Consulting Firm

7/24/2022

# INPUT PARAMETERS

## CHANNEL

| | | |
|---|---|---|
| Width (ft) | = | 70.00 |
| Wall Height (ft) | = | 16.00 |
| Invert El. @ d/s Wr. (ft) | = | 258.64 |
| Manning's Friction (n) | = | 0.014 |
| Invert Slope | = | 0.00100 |
| Invert El. @ Outlet (ft) | = | 252.00 |
| Side Slope (Z) | = | 0 |

## BASIN

| | | |
|---|---|---|
| Starting W.S. El. (ft) | = | 253.80 |
| Geometry | = | User defined |

### OGEE CREST SPILLWAY

| | | |
|---|---|---|
| Spillway Crest El. (ft) | = | 269.00 |
| Spillway Length (ft) | = | 160.00 |

## WEIR

| | | |
|---|---|---|
| Length (ft) | = | 200.00 |
| Crest Height (ft) | = | 9.00 |
| Crest Slope | = | 0.00100 |
| Vel. Corr. Factor | = | 1.09 |
| Number of Weirs | = | 1 |
| Weir Method | = | Mostafa |

## INLET(s)

| | | |
|---|---|---|
| Number of Inlets | = | 0 |

**USER-DEF. OUTFLOW** **NOT ACTIVATED**

## OUTLET ACTIVATED

| | | |
|---|---|---|
| Diameter (ft) | = | 4.00 |
| Length (ft) | = | 200.00 |
| Invert El. @ Basin (ft) | = | 253.30 |
| Invert El. @ Channel (ft) | = | 252.75 |
| Manning's Friction (n) | = | 0.013 |
| Entrance Loss Coeff. | = | 0.50 |
| Additional Losses Coeff. | = | 0.9 |
| Outlet location | = | DS Choke |
| Number of conduits | = | 1 |
| Flapgates | = | FG |
| Percent Plugged | = | 0 |

**CHANNEL**

| | | | | | |
|---|---|---|---|---|---|
| Max. Discharge @ d/s weir (cfs) | = | 4257.1 | Inflow Hydrograph Volume (Ac-Ft) | = | 2689.9412 |
| Max. Discharge @ u/s weir (cfs) | = | 8902.0 | Downstream Hydrograph Volume (Ac-Ft) | = | 2667.6538 |
| Max. Discharge @ Outlet (cfs) | = | 4381.9 | | | |

**WEIR**

| | | | | | |
|---|---|---|---|---|---|
| Max. Discharge into Basin (cfs) | = | 4644.9 | Weir Flow (Into Basin) Volume (Ac-Ft) | = | 190.7453 |
| Max. Discharge out of Basin (cfs) | = | -285.9 | Weir Flow (Out of Basin) Volume (Ac-Ft) | = | -1.1440 |

**OUTLET(s)**

| | | | | | |
|---|---|---|---|---|---|
| Max. Discharge Into Basin(cfs) | = | 0.0 | Outlet Flow (Into Basin) Volume (Ac-Ft) | = | 0.0000 |
| Max. Discharge Out of Basin(cfs) | = | -194.9 | Outlet Flow (Out of Basin) Volume (Ac-Ft) | = | -167.3128 |

**OGEE CREST SPILLWAY**

| | | | | | |
|---|---|---|---|---|---|
| Max. Discharge Out of Basin(cfs) | = | 0.0 | Spillway Flow Volume (Ac-Ft) | = | 0.0000 |

**BASIN**

| | | |
|---|---|---|
| Max. Water Surface El. (ft) | = | 268.63 |
| Max. Volume (Ac-ft) | = | 174.64751 |

**SYSTEM EFFICIENCY** = 91.7

**INLET 1**

| | | | | | |
|---|---|---|---|---|---|
| Max. Discharge (cfs) | = | 0.0 | Inlet#1 Flow Volume (Ac-Ft) | = | 0.0000 |

**INLET 2**

| | | | | | |
|---|---|---|---|---|---|
| Max. Discharge (cfs) | = | 0.0 | Inlet#2 Flow Volume (Ac-Ft) | = | 0.0000 |

**INLET 3**

| | | | | | |
|---|---|---|---|---|---|
| Max. Discharge (cfs) | = | 0.0 | Inlet#3 Flow Volume (Ac-Ft) | = | 0.0000 |

**LOW-FLOW INLET**

| | | | | | |
|---|---|---|---|---|---|
| Max. Discharge Into Basin(cfs) | = | 0.0 | Low-Flow Inlet(Into Basin) Volume (Ac-Ft) | = | 0.0000 |
| Max. Discharge Out of Basin(cfs) | = | 0.0 | Low-Flow Inlet(Out of Basin) Volume (Ac-Ft) | = | 0.0000 |

**USER-DEF. OUTFLOW**

| | | | | | |
|---|---|---|---|---|---|
| Max. Discharge Out of Basin(cfs) | = | 0.0 | User Def. Outflow Volume (Ac-Ft) | = | 0.0000 |

# BASIN ROUTING RESULTS



| Time (hrs) | Q ch. @ us Weir (cfs) | Q Weir (cfs) | Discharge Coeff. | Q ch. @ ds Weir (cfs) | Q Outlet (cfs) | Outlet control/type | Qch. @ Outlet (cfs) | WS @ ds Weir (ft) | WS @ us Weir (ft) | WS @ Outlet (ft) | WS @ Basin (ft) | Vol. Change (Ac-ft) | Net Vol. (Ac-Ft) | Weir Flow Type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **0.083** | 115.0 | | | | | | | | | | 253.80 | | 0.000 | |
| **0.167** | 148.0 | | | 148.0 | 0.0 | No Flow | 148.0 | 259.39 | 259.43 | 254.08 | 253.80 | 0.000 | 0.000 | No Flow |
| **0.333** | 273.0 | | | 273.0 | 0.0 | No Flow | 273.0 | 259.77 | 259.78 | 254.78 | 253.80 | 0.000 | 0.000 | No Flow |
| **0.583** | 390.0 | | | 390.0 | 0.0 | No Flow | 390.0 | 260.09 | 260.10 | 255.30 | 253.80 | 0.000 | 0.000 | No Flow |
| 0.783 | 412.2 | | | 412.2 | 0.0 | No Flow | 412.2 | 260.16 | 260.17 | 255.38 | 253.80 | 0.000 | 0.000 | No Flow |
| 0.983 | 434.4 | | | 434.4 | 0.0 | No Flow | 434.4 | 260.22 | 260.23 | 255.46 | 253.80 | 0.000 | 0.000 | No Flow |
| 1.183 | 456.6 | | | 456.6 | 0.0 | No Flow | 456.6 | 260.28 | 260.29 | 255.54 | 253.80 | 0.000 | 0.000 | No Flow |
| 1.383 | 478.8 | | | 478.8 | 0.0 | No Flow | 478.8 | 260.34 | 260.35 | 255.62 | 253.80 | 0.000 | 0.000 | No Flow |
| **1.583** | 501.0 | | | 501.0 | 0.0 | No Flow | 501.0 | 260.41 | 260.41 | 255.69 | 253.80 | 0.000 | 0.000 | No Flow |
| 1.740 | 506.5 | | | 506.5 | 0.0 | No Flow | 506.5 | 260.42 | 260.43 | 255.71 | 253.80 | 0.000 | 0.000 | No Flow |
| 1.898 | 512.0 | | | 512.0 | 0.0 | No Flow | 512.0 | 260.44 | 260.44 | 255.73 | 253.80 | 0.000 | 0.000 | No Flow |
| 2.055 | 517.5 | | | 517.5 | 0.0 | No Flow | 517.5 | 260.45 | 260.46 | 255.75 | 253.80 | 0.000 | 0.000 | No Flow |
| 2.213 | 523.0 | | | 523.0 | 0.0 | No Flow | 523.0 | 260.47 | 260.47 | 255.77 | 253.80 | 0.000 | 0.000 | No Flow |
| 2.370 | 528.5 | | | 528.5 | 0.0 | No Flow | 528.5 | 260.48 | 260.49 | 255.79 | 253.80 | 0.000 | 0.000 | No Flow |
| 2.528 | 534.0 | | | 534.0 | 0.0 | No Flow | 534.0 | 260.50 | 260.50 | 255.81 | 253.80 | 0.000 | 0.000 | No Flow |
| 2.685 | 539.5 | | | 539.5 | 0.0 | No Flow | 539.5 | 260.52 | 260.52 | 255.83 | 253.80 | 0.000 | 0.000 | No Flow |
| 2.843 | 545.0 | | | 545.0 | 0.0 | No Flow | 545.0 | 260.53 | 260.54 | 255.85 | 253.80 | 0.000 | 0.000 | No Flow |
| 3.000 | 550.5 | | | 550.5 | 0.0 | No Flow | 550.5 | 260.55 | 260.55 | 255.87 | 253.80 | 0.000 | 0.000 | No Flow |
| 3.157 | 556.0 | | | 556.0 | 0.0 | No Flow | 556.0 | 260.56 | 260.57 | 255.89 | 253.80 | 0.000 | 0.000 | No Flow |
| 3.315 | 561.5 | | | 561.5 | 0.0 | No Flow | 561.5 | 260.58 | 260.58 | 255.91 | 253.80 | 0.000 | 0.000 | No Flow |
| 3.472 | 567.0 | | | 567.0 | 0.0 | No Flow | 567.0 | 260.59 | 260.60 | 255.92 | 253.80 | 0.000 | 0.000 | No Flow |
| 3.630 | 572.5 | | | 572.5 | 0.0 | No Flow | 572.5 | 260.61 | 260.61 | 255.94 | 253.80 | 0.000 | 0.000 | No Flow |
| 3.787 | 578.0 | | | 578.0 | 0.0 | No Flow | 578.0 | 260.62 | 260.63 | 255.96 | 253.80 | 0.000 | 0.000 | No Flow |
| 3.945 | 583.5 | | | 583.5 | 0.0 | No Flow | 583.5 | 260.64 | 260.64 | 255.98 | 253.80 | 0.000 | 0.000 | No Flow |

# BASIN ROUTING RESULTS



| Time (hrs) | Q ch. @ us Weir (cfs) | Q Weir (cfs) | Discharge Coeff. | Q ch. @ ds Weir (cfs) | Q Outlet (cfs) | Outlet control/type | Qch. @ Outlet (cfs) | WS @ ds Weir (ft) | WS @ us Weir (ft) | WS @ Outlet (ft) | WS @ Basin (ft) | Vol. Change (Ac-ft) | Net Vol. (Ac-Ft) | Weir Flow Type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4.102 | 589.0 | | | 589.0 | 0.0 | No Flow | 589.0 | 260.65 | 260.66 | 256.00 | 253.80 | 0.000 | 0.000 | No Flow |
| 4.260 | 594.5 | | | 594.5 | 0.0 | No Flow | 594.5 | 260.67 | 260.67 | 256.02 | 253.80 | 0.000 | 0.000 | No Flow |
| **4.417** | 600.0 | | | 600.0 | 0.0 | No Flow | 600.0 | 260.69 | 260.69 | 256.04 | 253.80 | 0.000 | 0.000 | No Flow |
| 4.571 | 605.1 | | | 605.1 | 0.0 | No Flow | 605.1 | 260.70 | 260.70 | 256.05 | 253.80 | 0.000 | 0.000 | No Flow |
| 4.725 | 610.1 | | | 610.1 | 0.0 | No Flow | 610.1 | 260.71 | 260.72 | 256.07 | 253.80 | 0.000 | 0.000 | No Flow |
| 4.879 | 615.1 | | | 615.1 | 0.0 | No Flow | 615.1 | 260.73 | 260.73 | 256.08 | 253.80 | 0.000 | 0.000 | No Flow |
| 5.034 | 620.2 | | | 620.2 | 0.0 | No Flow | 620.2 | 260.74 | 260.75 | 256.10 | 253.80 | 0.000 | 0.000 | No Flow |
| 5.188 | 625.3 | | | 625.3 | 0.0 | No Flow | 625.3 | 260.76 | 260.76 | 256.11 | 253.80 | 0.000 | 0.000 | No Flow |
| 5.342 | 630.3 | | | 630.3 | 0.0 | No Flow | 630.3 | 260.77 | 260.77 | 256.13 | 253.80 | 0.000 | 0.000 | No Flow |
| 5.496 | 635.3 | | | 635.3 | 0.0 | No Flow | 635.3 | 260.78 | 260.79 | 256.14 | 253.80 | 0.000 | 0.000 | No Flow |
| 5.650 | 640.4 | | | 640.4 | 0.0 | No Flow | 640.4 | 260.80 | 260.80 | 256.16 | 253.80 | 0.000 | 0.000 | No Flow |
| 5.804 | 645.5 | | | 645.5 | 0.0 | No Flow | 645.5 | 260.81 | 260.82 | 256.17 | 253.80 | 0.000 | 0.000 | No Flow |
| 5.958 | 650.5 | | | 650.5 | 0.0 | No Flow | 650.5 | 260.83 | 260.83 | 256.19 | 253.80 | 0.000 | 0.000 | No Flow |
| 6.113 | 655.5 | | | 655.5 | 0.0 | No Flow | 655.5 | 260.84 | 260.84 | 256.20 | 253.80 | 0.000 | 0.000 | No Flow |
| 6.267 | 660.6 | | | 660.6 | 0.0 | No Flow | 660.6 | 260.86 | 260.86 | 256.22 | 253.80 | 0.000 | 0.000 | No Flow |
| 6.421 | 665.7 | | | 665.7 | 0.0 | No Flow | 665.7 | 260.87 | 260.87 | 256.23 | 253.80 | 0.000 | 0.000 | No Flow |
| 6.575 | 670.7 | | | 670.7 | 0.0 | No Flow | 670.7 | 260.88 | 260.89 | 256.25 | 253.80 | 0.000 | 0.000 | No Flow |
| 6.729 | 675.8 | | | 675.8 | 0.0 | No Flow | 675.8 | 260.90 | 260.90 | 256.26 | 253.80 | 0.000 | 0.000 | No Flow |
| 6.883 | 680.8 | | | 680.8 | 0.0 | No Flow | 680.8 | 260.91 | 260.91 | 256.27 | 253.80 | 0.000 | 0.000 | No Flow |
| 7.038 | 685.8 | | | 685.8 | 0.0 | No Flow | 685.8 | 260.93 | 260.93 | 256.29 | 253.80 | 0.000 | 0.000 | No Flow |
| 7.192 | 690.9 | | | 690.9 | 0.0 | No Flow | 690.9 | 260.94 | 260.94 | 256.30 | 253.80 | 0.000 | 0.000 | No Flow |
| 7.346 | 695.9 | | | 695.9 | 0.0 | No Flow | 695.9 | 260.96 | 260.96 | 256.32 | 253.80 | 0.000 | 0.000 | No Flow |
| **7.500** | 701.0 | | | 701.0 | 0.0 | No Flow | 701.0 | 260.97 | 260.97 | 256.33 | 253.80 | 0.000 | 0.000 | No Flow |
| 7.654 | 708.8 | | | 708.8 | 0.0 | No Flow | 708.8 | 260.99 | 260.99 | 256.36 | 253.80 | 0.000 | 0.000 | No Flow |

# BASIN ROUTING RESULTS



| Time (hrs) | Q ch. @ us Weir (cfs) | Q Weir (cfs) | Discharge Coeff. | Q ch. @ ds Weir (cfs) | Q Outlet (cfs) | Outlet control/type | Qch. @ Outlet (cfs) | WS @ ds Weir (ft) | WS @ us Weir (ft) | WS @ Outlet (ft) | WS @ Basin (ft) | Vol. Change (Ac-ft) | Net Vol. (Ac-Ft) | Weir Flow Type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7.808 | 716.5 | | | 716.5 | 0.0 | No Flow | 716.5 | 261.01 | 261.01 | 256.38 | 253.80 | 0.000 | 0.000 | No Flow |
| 7.962 | 724.3 | | | 724.3 | 0.0 | No Flow | 724.3 | 261.04 | 261.04 | 256.40 | 253.80 | 0.000 | 0.000 | No Flow |
| 8.115 | 732.1 | | | 732.1 | 0.0 | No Flow | 732.1 | 261.06 | 261.06 | 256.42 | 253.80 | 0.000 | 0.000 | No Flow |
| 8.269 | 739.8 | | | 739.8 | 0.0 | No Flow | 739.8 | 261.08 | 261.08 | 256.45 | 253.80 | 0.000 | 0.000 | No Flow |
| 8.423 | 747.6 | | | 747.6 | 0.0 | No Flow | 747.6 | 261.10 | 261.10 | 256.47 | 253.80 | 0.000 | 0.000 | No Flow |
| 8.577 | 755.4 | | | 755.4 | 0.0 | No Flow | 755.4 | 261.12 | 261.12 | 256.49 | 253.80 | 0.000 | 0.000 | No Flow |
| 8.731 | 763.2 | | | 763.2 | 0.0 | No Flow | 763.2 | 261.14 | 261.14 | 256.51 | 253.80 | 0.000 | 0.000 | No Flow |
| 8.885 | 770.9 | | | 770.9 | 0.0 | No Flow | 770.9 | 261.17 | 261.17 | 256.54 | 253.80 | 0.000 | 0.000 | No Flow |
| 9.038 | 778.7 | | | 778.7 | 0.0 | No Flow | 778.7 | 261.19 | 261.19 | 256.56 | 253.80 | 0.000 | 0.000 | No Flow |
| 9.192 | 786.5 | | | 786.5 | 0.0 | No Flow | 786.5 | 261.21 | 261.21 | 256.58 | 253.80 | 0.000 | 0.000 | No Flow |
| 9.346 | 794.2 | | | 794.2 | 0.0 | No Flow | 794.2 | 261.23 | 261.23 | 256.60 | 253.80 | 0.000 | 0.000 | No Flow |
| **9.500** | 802.0 | | | 802.0 | 0.0 | No Flow | 802.0 | 261.25 | 261.25 | 256.63 | 253.80 | 0.000 | 0.000 | No Flow |
| 9.648 | 813.0 | | | 813.0 | 0.0 | No Flow | 813.0 | 261.28 | 261.28 | 256.65 | 253.80 | 0.000 | 0.000 | No Flow |
| 9.796 | 824.0 | | | 824.0 | 0.0 | No Flow | 824.0 | 261.32 | 261.31 | 256.68 | 253.80 | 0.000 | 0.000 | No Flow |
| 9.943 | 835.0 | | | 835.0 | 0.0 | No Flow | 835.0 | 261.35 | 261.34 | 256.71 | 253.80 | 0.000 | 0.000 | No Flow |
| 10.091 | 846.0 | | | 846.0 | 0.0 | No Flow | 846.0 | 261.38 | 261.37 | 256.74 | 253.80 | 0.000 | 0.000 | No Flow |
| 10.239 | 857.0 | | | 857.0 | 0.0 | No Flow | 857.0 | 261.41 | 261.41 | 256.77 | 253.80 | 0.000 | 0.000 | No Flow |
| 10.387 | 868.0 | | | 868.0 | 0.0 | No Flow | 868.0 | 261.44 | 261.44 | 256.80 | 253.80 | 0.000 | 0.000 | No Flow |
| 10.534 | 879.0 | | | 879.0 | 0.0 | No Flow | 879.0 | 261.47 | 261.47 | 256.83 | 253.80 | 0.000 | 0.000 | No Flow |
| 10.682 | 890.0 | | | 890.0 | 0.0 | No Flow | 890.0 | 261.50 | 261.50 | 256.86 | 253.80 | 0.000 | 0.000 | No Flow |
| **10.830** | 901.0 | | | 901.0 | 0.0 | No Flow | 901.0 | 261.53 | 261.53 | 256.89 | 253.80 | 0.000 | 0.000 | No Flow |
| 10.973 | 915.6 | | | 915.6 | 0.0 | No Flow | 915.6 | 261.57 | 261.57 | 256.93 | 253.80 | 0.000 | 0.000 | No Flow |
| 11.116 | 930.1 | | | 930.1 | 0.0 | No Flow | 930.1 | 261.61 | 261.61 | 256.96 | 253.80 | 0.000 | 0.000 | No Flow |
| 11.259 | 944.7 | | | 944.7 | 0.0 | No Flow | 944.7 | 261.66 | 261.65 | 257.00 | 253.80 | 0.000 | 0.000 | No Flow |

# BASIN ROUTING RESULTS



| Time (hrs) | Q ch. @ us Weir (cfs) | Q Weir (cfs) | Discharge Coeff. | Q ch. @ ds Weir (cfs) | Q Outlet (cfs) | Outlet control/type | Qch. @ Outlet (cfs) | WS @ ds Weir (ft) | WS @ us Weir (ft) | WS @ Outlet (ft) | WS @ Basin (ft) | Vol. Change (Ac-ft) | Net Vol. (Ac-Ft) | Weir Flow Type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11.401 | 959.3 | | | 959.3 | 0.0 | No Flow | 959.3 | 261.70 | 261.69 | 257.04 | 253.80 | 0.000 | 0.000 | No Flow |
| 11.544 | 973.9 | | | 973.9 | 0.0 | No Flow | 973.9 | 261.74 | 261.73 | 257.08 | 253.80 | 0.000 | 0.000 | No Flow |
| 11.687 | 988.4 | | | 988.4 | 0.0 | No Flow | 988.4 | 261.78 | 261.77 | 257.12 | 253.80 | 0.000 | 0.000 | No Flow |
| **11.830** | 1003.0 | | | 1003.0 | 0.0 | No Flow | 1003.0 | 261.82 | 261.81 | 257.16 | 253.80 | 0.000 | 0.000 | No Flow |
| 11.914 | 1034.8 | | | 1034.8 | 0.0 | No Flow | 1034.8 | 261.91 | 261.90 | 257.23 | 253.80 | 0.000 | 0.000 | No Flow |
| 11.998 | 1066.6 | | | 1066.6 | 0.0 | No Flow | 1066.6 | 262.00 | 261.99 | 257.30 | 253.80 | 0.000 | 0.000 | No Flow |
| 12.082 | 1098.4 | | | 1098.4 | 0.0 | No Flow | 1098.4 | 262.09 | 262.08 | 257.38 | 253.80 | 0.000 | 0.000 | No Flow |
| 12.166 | 1130.2 | | | 1130.2 | 0.0 | No Flow | 1130.2 | 262.18 | 262.17 | 257.45 | 253.80 | 0.000 | 0.000 | No Flow |
| **12.250** | 1162.0 | | | 1162.0 | 0.0 | No Flow | 1162.0 | 262.27 | 262.26 | 257.52 | 253.80 | 0.000 | 0.000 | No Flow |
| 12.313 | 1209.8 | | | 1209.8 | 0.0 | No Flow | 1209.8 | 262.40 | 262.39 | 257.45 | 253.80 | 0.000 | 0.000 | No Flow |
| 12.375 | 1257.5 | | | 1257.5 | 0.0 | No Flow | 1257.5 | 262.54 | 262.52 | 256.68 | 253.80 | 0.000 | 0.000 | No Flow |
| 12.438 | 1305.3 | | | 1305.3 | 0.0 | No Flow | 1305.3 | 262.67 | 262.66 | 255.91 | 253.80 | 0.000 | 0.000 | No Flow |
| **12.500** | 1353.0 | | | 1353.0 | 0.0 | No Flow | 1353.0 | 262.80 | 262.79 | 255.15 | 253.80 | 0.000 | 0.000 | No Flow |
| 12.667 | 1412.0 | | | 1412.0 | 0.0 | No Flow | 1412.0 | 262.97 | 262.95 | 254.40 | 253.80 | 0.000 | 0.000 | No Flow |
| 12.833 | 1471.0 | | | 1471.0 | 0.0 | No Flow | 1471.0 | 263.14 | 263.12 | 254.45 | 253.80 | 0.000 | 0.000 | No Flow |
| **13.000** | 1530.0 | | | 1530.0 | 0.0 | No Flow | 1530.0 | 263.30 | 263.28 | 254.50 | 253.80 | 0.000 | 0.000 | No Flow |
| 13.100 | 1558.6 | | | 1558.6 | 0.0 | No Flow | 1558.6 | 263.38 | 263.36 | 254.52 | 253.80 | 0.000 | 0.000 | No Flow |
| 13.200 | 1587.2 | | | 1587.2 | 0.0 | No Flow | 1587.2 | 263.46 | 263.44 | 254.55 | 253.80 | 0.000 | 0.000 | No Flow |
| 13.300 | 1615.8 | | | 1615.8 | 0.0 | No Flow | 1615.8 | 263.54 | 263.52 | 254.57 | 253.80 | 0.000 | 0.000 | No Flow |
| 13.400 | 1644.4 | | | 1644.4 | 0.0 | No Flow | 1644.4 | 263.62 | 263.60 | 254.60 | 253.80 | 0.000 | 0.000 | No Flow |
| **13.500** | 1673.0 | | | 1673.0 | 0.0 | No Flow | 1673.0 | 263.71 | 263.68 | 254.63 | 253.80 | 0.000 | 0.000 | No Flow |
| 13.583 | 1700.0 | | | 1700.0 | 0.0 | No Flow | 1700.0 | 263.78 | 263.76 | 254.65 | 253.80 | 0.000 | 0.000 | No Flow |
| 13.667 | 1727.0 | | | 1727.0 | 0.0 | No Flow | 1727.0 | 263.86 | 263.83 | 254.67 | 253.80 | 0.000 | 0.000 | No Flow |
| 13.750 | 1754.0 | | | 1754.0 | 0.0 | No Flow | 1754.0 | 263.93 | 263.91 | 254.70 | 253.80 | 0.000 | 0.000 | No Flow |

# BASIN ROUTING RESULTS



| Time (hrs) | Q ch. @ us Weir (cfs) | Q Weir (cfs) | Discharge Coeff. | Q ch. @ ds Weir (cfs) | Q Outlet (cfs) | Outlet control/type | Qch. @ Outlet (cfs) | WS @ ds Weir (ft) | WS @ us Weir (ft) | WS @ Outlet (ft) | WS @ Basin (ft) | Vol. Change (Ac-ft) | Net Vol. (Ac-Ft) | Weir Flow Type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 13.833 | 1781.0 | | | 1781.0 | 0.0 | No Flow | 1781.0 | 264.01 | 263.98 | 254.72 | 253.80 | 0.000 | 0.000 | No Flow |
| 13.917 | 1808.0 | | | 1808.0 | 0.0 | No Flow | 1808.0 | 264.09 | 264.06 | 254.75 | 253.80 | 0.000 | 0.000 | No Flow |
| **14.000** | 1835.0 | | | 1835.0 | 0.0 | No Flow | 1835.0 | 264.16 | 264.13 | 254.77 | 253.80 | 0.000 | 0.000 | No Flow |
| 14.050 | 1887.0 | | | 1887.0 | 0.0 | No Flow | 1887.0 | 264.31 | 264.28 | 254.81 | 253.80 | 0.000 | 0.000 | No Flow |
| 14.100 | 1939.0 | | | 1939.0 | 0.0 | No Flow | 1939.0 | 264.45 | 264.42 | 254.85 | 253.80 | 0.000 | 0.000 | No Flow |
| 14.150 | 1991.0 | | | 1991.0 | 0.0 | No Flow | 1991.0 | 264.60 | 264.57 | 254.89 | 253.80 | 0.000 | 0.000 | No Flow |
| 14.200 | 2043.0 | | | 2043.0 | 0.0 | No Flow | 2043.0 | 264.75 | 264.71 | 254.94 | 253.80 | 0.000 | 0.000 | No Flow |
| **14.250** | 2095.0 | | | 2095.0 | 0.0 | No Flow | 2095.0 | 264.89 | 264.86 | 254.98 | 253.80 | 0.000 | 0.000 | No Flow |
| 14.292 | 2155.0 | | | 2155.0 | 0.0 | No Flow | 2155.0 | 265.06 | 265.03 | 255.03 | 253.80 | 0.000 | 0.000 | No Flow |
| 14.333 | 2215.0 | | | 2215.0 | 0.0 | No Flow | 2215.0 | 265.23 | 265.19 | 255.08 | 253.80 | 0.000 | 0.000 | No Flow |
| 14.375 | 2275.0 | | | 2275.0 | 0.0 | No Flow | 2275.0 | 265.40 | 265.36 | 255.13 | 253.80 | 0.000 | 0.000 | No Flow |
| 14.417 | 2335.0 | | | 2335.0 | 0.0 | No Flow | 2335.0 | 265.57 | 265.53 | 255.18 | 253.80 | 0.000 | 0.000 | No Flow |
| 14.458 | 2395.0 | | | 2395.0 | 0.0 | No Flow | 2395.0 | 265.74 | 265.70 | 255.24 | 253.80 | 0.000 | 0.000 | No Flow |
| **14.500** | 2455.0 | | | 2455.0 | 0.0 | No Flow | 2455.0 | 265.91 | 265.86 | 255.28 | 253.80 | 0.000 | 0.000 | No Flow |
| 14.584 | 2538.5 | | | 2538.5 | 0.0 | No Flow | 2538.5 | 266.14 | 266.10 | 255.34 | 253.80 | 0.000 | 0.000 | No Flow |
| **14.667** | 2622.0 | | | 2622.0 | 0.0 | No Flow | 2622.0 | 266.38 | 266.33 | 255.41 | 253.80 | 0.000 | 0.000 | No Flow |
| 14.695 | 2694.0 | | | 2694.0 | 0.0 | No Flow | 2694.0 | 266.58 | 266.53 | 255.48 | 253.80 | 0.000 | 0.000 | No Flow |
| 14.722 | 2766.0 | | | 2766.0 | 0.0 | No Flow | 2766.0 | 266.78 | 266.73 | 255.55 | 253.80 | 0.000 | 0.000 | No Flow |
| **14.750** | 2838.0 | | | 2838.0 | 0.0 | No Flow | 2838.0 | 266.98 | 266.93 | 255.60 | 253.80 | 0.000 | 0.000 | No Flow |
| **14.833** | 2919.0 | | | 2919.0 | 0.0 | No Flow | 2919.0 | 267.21 | 267.16 | 255.66 | 253.80 | 0.000 | 0.000 | No Flow |
| **14.917** | 3000.0 | | | 3000.0 | 0.0 | No Flow | 3000.0 | 267.44 | 267.38 | 255.71 | 253.80 | 0.000 | 0.000 | No Flow |
| **15.000** | 3080.0 | | | 3080.0 | 0.0 | No Flow | 3080.0 | 267.60 | 267.54 | 255.80 | 253.80 | 0.000 | 0.000 | No Flow |
| **15.083** | 3165.0 | 25.1 | 0.149 | 3139.9 | 0.0 | No Flow | 3139.9 | 267.84 | 267.81 | 255.84 | 254.21 | 0.172 | 0.172 | Unsubmerged |
| **15.167** | 3252.0 | 63.7 | 0.309 | 3188.3 | 0.0 | No Flow | 3188.3 | 268.07 | 268.07 | 255.86 | 255.10 | 0.442 | 0.614 | Unsubmerged |

# BASIN ROUTING RESULTS



| Time (hrs) | Q ch. @ us Weir (cfs) | Q Weir (cfs) | Discharge Coeff. | Q ch. @ ds Weir (cfs) | Q Outlet (cfs) | Outlet control/type | Qch. @ Outlet (cfs) | WS @ ds Weir (ft) | WS @ us Weir (ft) | WS @ Outlet (ft) | WS @ Basin (ft) | Vol. Change (Ac-ft) | Net Vol. (Ac-Ft) | Weir Flow Type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15.208 | 3299.5 | 94.2 | 0.328 | 3205.3 | 0.0 | No Flow | 3205.3 | 268.15 | 268.14 | 255.87 | 255.40 | 0.319 | 0.934 | Unsubmerged |
| **15.250** | 3347.0 | 127.0 | 0.340 | 3220.0 | 0.0 | No Flow | 3220.0 | 268.22 | 268.20 | 255.88 | 255.80 | 0.441 | 1.374 | Unsubmerged |
| 15.291 | 3396.5 | 161.2 | 0.352 | 3235.3 | 0.0 | No Flow | 3235.3 | 268.30 | 268.27 | 255.89 | 256.06 | 0.546 | 1.921 | Unsubmerged |
| **15.333** | 3446.0 | 195.3 | 0.365 | 3250.7 | -16.9 | M/Open/Out/Dc | 3267.6 | 268.37 | 268.33 | 255.91 | 256.17 | 0.619 | 2.540 | Unsubmerged |
| **15.417** | 3507.0 | 237.4 | 0.380 | 3269.6 | -21.9 | M/Open/Out/Dc | 3291.5 | 268.46 | 268.41 | 255.92 | 256.43 | 1.496 | 4.036 | Unsubmerged |
| **15.500** | 3473.0 | 213.9 | 0.371 | 3259.1 | -33.6 | M/Open/Out/Dc | 3292.7 | 268.41 | 268.36 | 255.91 | 256.65 | 1.237 | 5.273 | Unsubmerged |
| 15.541 | 3394.5 | 159.8 | 0.352 | 3234.7 | -42.2 | M/Open/Out/Dc | 3276.9 | 268.29 | 268.26 | 255.89 | 256.72 | 0.398 | 5.671 | Unsubmerged |
| **15.583** | 3316.0 | 105.6 | 0.332 | 3210.4 | -44.8 | M/Open/Out/Dc | 3255.2 | 268.18 | 268.16 | 255.88 | 256.76 | 0.211 | 5.882 | Unsubmerged |
| 15.625 | 3243.0 | 58.2 | 0.305 | 3184.8 | -46.5 | M/Open/Out/Dc | 3231.3 | 268.06 | 268.05 | 255.86 | 256.77 | 0.041 | 5.923 | Unsubmerged |
| **15.667** | 3170.0 | 27.1 | 0.161 | 3142.9 | -47.1 | M/Open/Out/Dc | 3190.0 | 267.85 | 267.82 | 255.84 | 256.75 | -0.069 | 5.853 | Unsubmerged |
| **15.750** | 3110.0 | 3.9 | 0.023 | 3106.1 | -46.8 | M/Open/Out/Dc | 3152.9 | 267.67 | 267.62 | 255.82 | 256.70 | -0.294 | 5.559 | Unsubmerged |
| **15.833** | 3187.0 | 33.6 | 0.200 | 3153.4 | -44.8 | M/Open/Out/Dc | 3198.2 | 267.90 | 267.88 | 255.85 | 256.69 | -0.077 | 5.482 | Unsubmerged |
| 15.861 | 3267.7 | 73.4 | 0.317 | 3194.3 | -44.1 | M/Open/Out/Dc | 3238.4 | 268.10 | 268.10 | 255.87 | 256.70 | 0.068 | 5.550 | Unsubmerged |
| 15.889 | 3348.3 | 127.9 | 0.340 | 3220.4 | -44.2 | M/Open/Out/Dc | 3264.6 | 268.23 | 268.20 | 255.88 | 256.73 | 0.194 | 5.744 | Unsubmerged |
| **15.917** | 3429.0 | 183.6 | 0.360 | 3245.4 | -44.8 | M/Open/Out/Dc | 3290.2 | 268.34 | 268.31 | 255.90 | 256.79 | 0.321 | 6.065 | Unsubmerged |
| 15.931 | 3507.0 | 237.4 | 0.380 | 3269.6 | -46.3 | M/Open/Out/Dc | 3315.9 | 268.46 | 268.41 | 255.92 | 256.83 | 0.221 | 6.286 | Unsubmerged |
| 15.945 | 3585.0 | 293.4 | 0.395 | 3291.6 | -47.4 | M/Open/Out/Dc | 3339.0 | 268.56 | 268.49 | 255.93 | 256.88 | 0.285 | 6.571 | Unsubmerged |
| 15.958 | 3663.0 | 351.0 | 0.405 | 3312.0 | -48.5 | M/Open/Out/Dc | 3360.5 | 268.65 | 268.57 | 255.95 | 256.94 | 0.325 | 6.896 | Unsubmerged |
| 15.972 | 3741.0 | 408.7 | 0.413 | 3332.3 | -50.0 | M/Open/Out/Dc | 3382.3 | 268.73 | 268.63 | 255.97 | 257.01 | 0.415 | 7.311 | Unsubmerged |
| 15.986 | 3819.0 | 466.5 | 0.421 | 3352.5 | -51.6 | M/Open/Out/Dc | 3404.1 | 268.82 | 268.70 | 255.99 | 257.05 | 0.480 | 7.791 | Unsubmerged |
| **16.000** | 3897.0 | 524.2 | 0.429 | 3372.8 | -52.4 | M/Open/Out/Dc | 3425.2 | 268.90 | 268.77 | 256.01 | 257.11 | 0.546 | 8.337 | Unsubmerged |
| 16.006 | 3985.0 | 590.6 | 0.437 | 3394.4 | -53.8 | M/Open/Out/Dc | 3448.2 | 268.99 | 268.84 | 256.03 | 257.13 | 0.266 | 8.603 | Unsubmerged |
| 16.012 | 4073.0 | 658.0 | 0.443 | 3415.0 | -54.0 | M/Open/Out/Dc | 3469.0 | 269.07 | 268.90 | 256.05 | 257.16 | 0.300 | 8.902 | Unsubmerged |
| 16.018 | 4161.0 | 725.5 | 0.449 | 3435.5 | -54.6 | M/Open/Out/Dc | 3490.1 | 269.15 | 268.96 | 256.06 | 257.19 | 0.333 | 9.235 | Unsubmerged |

| Time (hrs) | Q ch. @ us Weir (cfs) | Q Weir (cfs) | Discharge Coeff. | Q ch. @ ds Weir (cfs) | Q Outlet (cfs) | Outlet control/type | Qch. @ Outlet (cfs) | WS @ ds Weir (ft) | WS @ us Weir (ft) | WS @ Outlet (ft) | WS @ Basin (ft) | Vol. Change (Ac-ft) | Net Vol. (Ac-Ft) | Weir Flow Type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16.024 | 4249.0 | 793.1 | 0.454 | 3455.9 | -55.2 | M/Open/Out/Dc | 3511.1 | 269.23 | 269.02 | 256.07 | 257.23 | 0.366 | 9.601 | Unsubmerged |
| 16.030 | 4337.0 | 860.6 | 0.460 | 3476.4 | -55.9 | M/Open/Out/Dc | 3532.3 | 269.31 | 269.08 | 256.09 | 257.27 | 0.399 | 10.000 | Unsubmerged |
| 16.036 | 4425.0 | 929.1 | 0.464 | 3495.9 | -56.6 | M/Open/Out/Dc | 3552.5 | 269.38 | 269.14 | 256.10 | 257.31 | 0.433 | 10.433 | Unsubmerged |
| 16.041 | 4513.0 | 998.1 | 0.468 | 3514.9 | -57.2 | M/Open/Out/Dc | 3572.1 | 269.46 | 269.19 | 256.11 | 257.35 | 0.389 | 10.821 | Unsubmerged |
| 16.047 | 4601.0 | 1067.3 | 0.472 | 3533.7 | -58.0 | M/Open/Out/Dc | 3591.7 | 269.53 | 269.25 | 256.12 | 257.40 | 0.500 | 11.322 | Unsubmerged |
| 16.053 | 4689.0 | 1136.4 | 0.476 | 3552.6 | -58.8 | M/Open/Out/Dc | 3611.4 | 269.60 | 269.30 | 256.14 | 257.45 | 0.534 | 11.856 | Unsubmerged |
| 16.059 | 4777.0 | 1205.6 | 0.479 | 3571.4 | -59.9 | M/Open/Out/Dc | 3631.3 | 269.67 | 269.35 | 256.15 | 257.50 | 0.568 | 12.424 | Unsubmerged |
| 16.065 | 4865.0 | 1275.1 | 0.483 | 3589.9 | -61.0 | M/Open/Out/Dc | 3650.9 | 269.74 | 269.40 | 256.16 | 257.56 | 0.602 | 13.026 | Unsubmerged |
| 16.071 | 4953.0 | 1345.3 | 0.486 | 3607.7 | -62.0 | M/Open/Out/Dc | 3669.7 | 269.81 | 269.44 | 256.18 | 257.62 | 0.636 | 13.663 | Unsubmerged |
| 16.077 | 5041.0 | 1415.9 | 0.488 | 3625.1 | -63.2 | M/Open/Out/Dc | 3688.3 | 269.88 | 269.49 | 256.19 | 257.69 | 0.671 | 14.333 | Unsubmerged |
| **16.083** | 5129.0 | 1486.4 | 0.491 | 3642.6 | -64.7 | M/Open/Out/Dc | 3707.3 | 269.94 | 269.53 | 256.20 | 257.76 | 0.705 | 15.038 | Unsubmerged |
| 16.087 | 5217.2 | 1557.1 | 0.494 | 3660.1 | -66.0 | M/Open/Out/Dc | 3726.1 | 270.01 | 269.58 | 256.21 | 257.80 | 0.493 | 15.531 | Unsubmerged |
| 16.091 | 5305.4 | 1627.8 | 0.497 | 3677.6 | -66.8 | M/Open/Out/Dc | 3744.4 | 270.07 | 269.62 | 256.22 | 257.85 | 0.516 | 16.047 | Unsubmerged |
| 16.095 | 5393.6 | 1698.9 | 0.499 | 3694.7 | -67.6 | M/Open/Out/Dc | 3762.3 | 270.14 | 269.67 | 256.24 | 257.91 | 0.539 | 16.587 | Unsubmerged |
| 16.099 | 5481.8 | 1769.1 | 0.501 | 3712.7 | -68.7 | M/Open/Out/Dc | 3781.4 | 270.20 | 269.71 | 256.25 | 257.96 | 0.562 | 17.149 | Unsubmerged |
| 16.103 | 5570.0 | 1838.7 | 0.503 | 3731.3 | -69.5 | M/Open/Out/Dc | 3800.8 | 270.26 | 269.75 | 256.27 | 258.01 | 0.585 | 17.734 | Unsubmerged |
| 16.107 | 5658.1 | 1908.2 | 0.505 | 3749.9 | -70.4 | M/Open/Out/Dc | 3820.3 | 270.32 | 269.79 | 256.28 | 258.06 | 0.608 | 18.341 | Unsubmerged |
| 16.111 | 5746.3 | 1977.9 | 0.507 | 3768.4 | -71.3 | M/Open/Out/Dc | 3839.7 | 270.39 | 269.82 | 256.29 | 258.11 | 0.630 | 18.971 | Unsubmerged |
| 16.115 | 5834.5 | 2047.6 | 0.509 | 3786.9 | -73.4 | M/Prs/Out | 3860.3 | 270.45 | 269.86 | 256.31 | 258.16 | 0.653 | 19.624 | Unsubmerged |
| 16.119 | 5922.7 | 2119.1 | 0.511 | 3803.6 | -74.3 | M/Prs/Out | 3877.9 | 270.51 | 269.90 | 256.32 | 258.21 | 0.676 | 20.300 | Unsubmerged |
| 16.123 | 6010.9 | 2194.2 | 0.512 | 3816.7 | -75.1 | M/Prs/Out | 3891.8 | 270.57 | 269.94 | 256.33 | 258.27 | 0.701 | 21.001 | Unsubmerged |
| 16.127 | 6099.1 | 2269.3 | 0.514 | 3829.8 | -76.1 | M/Prs/Out | 3905.9 | 270.63 | 269.97 | 256.34 | 258.33 | 0.725 | 21.726 | Unsubmerged |
| 16.131 | 6187.3 | 2344.4 | 0.516 | 3842.9 | -77.0 | M/Prs/Out | 3919.9 | 270.69 | 270.01 | 256.35 | 258.38 | 0.750 | 22.475 | Unsubmerged |
| 16.135 | 6275.5 | 2419.5 | 0.518 | 3856.0 | -77.8 | M/Prs/Out | 3933.8 | 270.75 | 270.05 | 256.36 | 258.44 | 0.774 | 23.249 | Unsubmerged |

| Time (hrs) | Q ch. @ us Weir (cfs) | Q Weir (cfs) | Discharge Coeff. | Q ch. @ ds Weir (cfs) | Q Outlet (cfs) | Outlet control/type | Qch. @ Outlet (cfs) | WS @ ds Weir (ft) | WS @ us Weir (ft) | WS @ Outlet (ft) | WS @ Basin (ft) | Vol. Change (Ac-ft) | Net Vol. (Ac-Ft) | Weir Flow Type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16.139 | 6363.7 | 2494.6 | 0.519 | 3869.1 | -78.6 | M/Prs/Out | 3947.7 | 270.81 | 270.08 | 256.38 | 258.51 | 0.799 | 24.048 | Unsubmerged |
| 16.143 | 6451.9 | 2569.7 | 0.521 | 3882.2 | -79.7 | M/Prs/Out | 3961.9 | 270.88 | 270.12 | 256.39 | 258.57 | 0.823 | 24.871 | Unsubmerged |
| 16.147 | 6540.0 | 2645.1 | 0.523 | 3894.9 | -80.6 | M/Prs/Out | 3975.5 | 270.94 | 270.15 | 256.40 | 258.64 | 0.848 | 25.719 | Unsubmerged |
| 16.151 | 6628.2 | 2719.8 | 0.524 | 3908.4 | -81.8 | M/Prs/Out | 3990.2 | 270.99 | 270.19 | 256.41 | 258.71 | 0.872 | 26.591 | Unsubmerged |
| 16.155 | 6716.4 | 2793.9 | 0.525 | 3922.5 | -82.8 | M/Prs/Out | 4005.3 | 271.05 | 270.22 | 256.42 | 258.78 | 0.896 | 27.487 | Unsubmerged |
| 16.159 | 6804.6 | 2868.1 | 0.527 | 3936.5 | -83.9 | M/Prs/Out | 4020.4 | 271.11 | 270.25 | 256.43 | 258.85 | 0.920 | 28.408 | Unsubmerged |
| 16.163 | 6892.8 | 2942.2 | 0.528 | 3950.6 | -85.0 | M/Prs/Out | 4035.6 | 271.17 | 270.28 | 256.44 | 258.92 | 0.945 | 29.352 | Unsubmerged |
| **16.167** | 6981.0 | 3016.4 | 0.529 | 3964.6 | -86.0 | M/Prs/Out | 4050.6 | 271.22 | 270.31 | 256.45 | 259.00 | 0.969 | 30.321 | Unsubmerged |
| 16.171 | 7067.4 | 3089.0 | 0.530 | 3978.4 | -87.4 | M/Prs/Out | 4065.8 | 271.28 | 270.34 | 256.45 | 259.07 | 0.992 | 31.313 | Unsubmerged |
| 16.175 | 7153.8 | 3161.9 | 0.532 | 3991.9 | -88.4 | M/Prs/Out | 4080.3 | 271.34 | 270.37 | 256.46 | 259.15 | 1.016 | 32.329 | Unsubmerged |
| 16.178 | 7240.2 | 3234.4 | 0.533 | 4005.8 | -89.6 | M/Prs/Out | 4095.4 | 271.39 | 270.40 | 256.47 | 259.20 | 0.780 | 33.109 | Unsubmerged |
| 16.182 | 7326.6 | 3306.5 | 0.534 | 4020.1 | -90.3 | M/Prs/Out | 4110.4 | 271.45 | 270.43 | 256.48 | 259.28 | 1.063 | 34.172 | Unsubmerged |
| 16.186 | 7413.0 | 3378.7 | 0.535 | 4034.3 | -91.4 | M/Prs/Out | 4125.7 | 271.50 | 270.46 | 256.49 | 259.36 | 1.087 | 35.259 | Unsubmerged |
| 16.190 | 7499.5 | 3450.9 | 0.536 | 4048.6 | -92.6 | M/Prs/Out | 4141.2 | 271.55 | 270.48 | 256.50 | 259.45 | 1.110 | 36.369 | Unsubmerged |
| 16.193 | 7585.9 | 3523.7 | 0.537 | 4062.2 | -93.9 | M/Prs/Out | 4156.1 | 271.61 | 270.51 | 256.51 | 259.51 | 0.850 | 37.219 | Unsubmerged |
| 16.197 | 7672.3 | 3596.6 | 0.538 | 4075.7 | -94.7 | M/Prs/Out | 4170.4 | 271.66 | 270.54 | 256.52 | 259.59 | 1.158 | 38.377 | Unsubmerged |
| 16.201 | 7758.7 | 3669.6 | 0.539 | 4089.1 | -95.8 | M/Prs/Out | 4184.9 | 271.72 | 270.56 | 256.53 | 259.68 | 1.181 | 39.558 | Unsubmerged |
| 16.205 | 7845.1 | 3742.6 | 0.540 | 4102.5 | -96.9 | M/Prs/Out | 4199.4 | 271.77 | 270.59 | 256.55 | 259.77 | 1.205 | 40.764 | Unsubmerged |
| 16.208 | 7931.5 | 3815.7 | 0.540 | 4115.8 | -97.8 | M/Prs/Out | 4213.6 | 271.82 | 270.61 | 256.58 | 259.84 | 0.922 | 41.685 | Unsubmerged |
| 16.212 | 8017.9 | 3888.8 | 0.541 | 4129.1 | -98.2 | M/Prs/Out | 4227.3 | 271.88 | 270.64 | 256.62 | 259.93 | 1.253 | 42.938 | Unsubmerged |
| 16.216 | 8104.3 | 3961.9 | 0.542 | 4142.4 | -99.2 | M/Prs/Out | 4241.6 | 271.93 | 270.66 | 256.65 | 260.03 | 1.277 | 44.215 | Unsubmerged |
| 16.220 | 8190.7 | 4035.7 | 0.543 | 4155.0 | -100.5 | M/Prs/Out | 4255.5 | 271.98 | 270.68 | 256.66 | 260.12 | 1.301 | 45.516 | Unsubmerged |
| 16.224 | 8277.1 | 4110.4 | 0.544 | 4166.7 | -102.0 | M/Prs/Out | 4268.7 | 272.04 | 270.71 | 256.65 | 260.21 | 1.325 | 46.841 | Unsubmerged |
| 16.227 | 8363.5 | 4185.0 | 0.544 | 4178.5 | -103.4 | M/Prs/Out | 4281.9 | 272.09 | 270.73 | 256.64 | 260.28 | 1.012 | 47.853 | Unsubmerged |

# BASIN ROUTING RESULTS



| Time (hrs) | Q ch. @ us Weir (cfs) | Q Weir (cfs) | Discharge Coeff. | Q ch. @ ds Weir (cfs) | Q Outlet (cfs) | Outlet control/type | Qch. @ Outlet (cfs) | WS @ ds Weir (ft) | WS @ us Weir (ft) | WS @ Outlet (ft) | WS @ Basin (ft) | Vol. Change (Ac-ft) | Net Vol. (Ac-Ft) | Weir Flow Type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16.231 | 8450.0 | 4259.8 | 0.545 | 4190.2 | -104.7 | M/Prs/Out | 4294.9 | 272.14 | 270.76 | 256.62 | 260.38 | 1.374 | 49.227 | Unsubmerged |
| 16.235 | 8536.4 | 4334.3 | 0.546 | 4202.1 | -106.3 | M/Prs/Out | 4308.4 | 272.20 | 270.78 | 256.61 | 260.48 | 1.398 | 50.625 | Unsubmerged |
| 16.239 | 8622.8 | 4407.7 | 0.546 | 4215.1 | -107.6 | M/Prs/Out | 4322.7 | 272.25 | 270.80 | 256.62 | 260.58 | 1.422 | 52.046 | Unsubmerged |
| 16.242 | 8709.2 | 4481.2 | 0.547 | 4228.0 | -108.8 | M/Prs/Out | 4336.8 | 272.30 | 270.82 | 256.63 | 260.66 | 1.084 | 53.130 | Unsubmerged |
| 16.246 | 8795.6 | 4554.7 | 0.548 | 4240.9 | -109.8 | M/Prs/Out | 4350.7 | 272.35 | 270.84 | 256.64 | 260.76 | 1.469 | 54.600 | Unsubmerged |
| **16.250** | 8882.0 | 4628.0 | 0.548 | 4254.0 | -111.0 | M/Prs/Out | 4365.0 | 272.41 | 270.86 | 256.65 | 260.87 | 1.493 | 56.093 | Unsubmerged |
| **16.333** | 8902.0 | 4644.9 | 0.549 | 4257.1 | -112.5 | M/Prs/Out | 4369.6 | 272.42 | 270.87 | 256.65 | 263.02 | 31.090 | 87.183 | Unsubmerged |
| 16.341 | 8813.6 | 4570.0 | 0.548 | 4243.6 | -138.3 | M/Prs/Out | 4381.9 | 272.36 | 270.85 | 256.64 | 263.21 | 2.930 | 90.113 | Unsubmerged |
| 16.350 | 8725.2 | 4494.8 | 0.547 | 4230.4 | -140.4 | M/Prs/Out | 4370.8 | 272.31 | 270.83 | 256.63 | 263.43 | 3.239 | 93.352 | Unsubmerged |
| 16.358 | 8636.8 | 4419.7 | 0.546 | 4217.1 | -142.9 | M/Prs/Out | 4360.0 | 272.26 | 270.81 | 256.62 | 263.62 | 2.828 | 96.179 | Unsubmerged |
| 16.367 | 8548.4 | 4344.5 | 0.546 | 4203.9 | -145.0 | M/Prs/Out | 4348.9 | 272.21 | 270.78 | 256.61 | 263.83 | 3.124 | 99.303 | Unsubmerged |
| 16.375 | 8460.0 | 4268.5 | 0.545 | 4191.5 | -147.0 | M/Prs/Out | 4338.5 | 272.15 | 270.76 | 256.62 | 264.01 | 2.725 | 102.028 | Unsubmerged |
| 16.383 | 8371.6 | 4192.0 | 0.544 | 4179.6 | -148.7 | M/Prs/Out | 4328.3 | 272.10 | 270.74 | 256.63 | 264.19 | 2.673 | 104.701 | Unsubmerged |
| 16.392 | 8283.2 | 4115.6 | 0.544 | 4167.6 | -150.3 | M/Prs/Out | 4317.9 | 272.04 | 270.71 | 256.65 | 264.38 | 2.949 | 107.650 | Unsubmerged |
| 16.400 | 8194.8 | 4039.2 | 0.543 | 4155.6 | -152.1 | M/Prs/Out | 4307.7 | 271.99 | 270.69 | 256.66 | 264.55 | 2.570 | 110.220 | Unsubmerged |
| 16.409 | 8106.4 | 3963.7 | 0.542 | 4142.7 | -153.9 | M/Prs/Out | 4296.6 | 271.93 | 270.66 | 256.65 | 264.74 | 2.834 | 113.054 | Unsubmerged |
| **16.417** | 8018.0 | 3888.9 | 0.541 | 4129.1 | -156.0 | M/Prs/Out | 4285.1 | 271.88 | 270.64 | 256.62 | 264.90 | 2.468 | 115.522 | Unsubmerged |
| 16.422 | 7933.4 | 3817.3 | 0.540 | 4116.1 | -157.9 | M/Prs/Out | 4274.0 | 271.82 | 270.61 | 256.58 | 265.00 | 1.512 | 117.034 | Unsubmerged |
| 16.427 | 7848.9 | 3745.8 | 0.540 | 4103.1 | -159.2 | M/Prs/Out | 4262.3 | 271.77 | 270.59 | 256.55 | 265.09 | 1.482 | 118.516 | Unsubmerged |
| 16.433 | 7764.3 | 3674.3 | 0.539 | 4090.0 | -160.2 | M/Prs/Out | 4250.2 | 271.72 | 270.56 | 256.53 | 265.21 | 1.743 | 120.259 | Unsubmerged |
| 16.438 | 7679.8 | 3603.0 | 0.538 | 4076.8 | -161.4 | M/Prs/Out | 4238.2 | 271.67 | 270.54 | 256.52 | 265.30 | 1.422 | 121.681 | Unsubmerged |
| 16.443 | 7595.2 | 3531.6 | 0.537 | 4063.6 | -162.3 | M/Prs/Out | 4225.9 | 271.61 | 270.51 | 256.51 | 265.39 | 1.392 | 123.073 | Unsubmerged |
| 16.448 | 7510.6 | 3460.1 | 0.536 | 4050.5 | -163.2 | M/Prs/Out | 4213.7 | 271.56 | 270.49 | 256.50 | 265.48 | 1.362 | 124.436 | Unsubmerged |
| 16.453 | 7426.1 | 3389.6 | 0.535 | 4036.5 | -164.2 | M/Prs/Out | 4200.7 | 271.51 | 270.46 | 256.49 | 265.56 | 1.333 | 125.769 | Unsubmerged |

# BASIN ROUTING RESULTS



| Time (hrs) | Q ch. @ us Weir (cfs) | Q Weir (cfs) | Discharge Coeff. | Q ch. @ ds Weir (cfs) | Q Outlet (cfs) | Outlet control/type | Qch. @ Outlet (cfs) | WS @ ds Weir (ft) | WS @ us Weir (ft) | WS @ Outlet (ft) | WS @ Basin (ft) | Vol. Change (Ac-ft) | Net Vol. (Ac-Ft) | Weir Flow Type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16.458 | 7341.5 | 3319.0 | 0.534 | 4022.5 | -165.0 | M/Prs/Out | 4187.5 | 271.46 | 270.43 | 256.48 | 265.65 | 1.303 | 127.072 | Unsubmerged |
| 16.464 | 7256.9 | 3248.4 | 0.533 | 4008.5 | -165.8 | M/Prs/Out | 4174.3 | 271.40 | 270.41 | 256.48 | 265.74 | 1.529 | 128.600 | Unsubmerged |
| 16.469 | 7172.4 | 3177.6 | 0.532 | 3994.8 | -166.7 | M/Prs/Out | 4161.5 | 271.35 | 270.38 | 256.47 | 265.83 | 1.244 | 129.845 | Unsubmerged |
| 16.474 | 7087.8 | 3106.2 | 0.531 | 3981.6 | -167.6 | M/Prs/Out | 4149.2 | 271.29 | 270.35 | 256.46 | 265.90 | 1.214 | 131.059 | Unsubmerged |
| 16.479 | 7003.3 | 3035.1 | 0.529 | 3968.2 | -168.3 | M/Prs/Out | 4136.5 | 271.24 | 270.32 | 256.45 | 265.98 | 1.185 | 132.244 | Unsubmerged |
| 16.484 | 6918.7 | 2964.0 | 0.528 | 3954.7 | -169.1 | M/Prs/Out | 4123.8 | 271.18 | 270.29 | 256.44 | 266.05 | 1.155 | 133.398 | Unsubmerged |
| 16.490 | 6834.1 | 2892.9 | 0.527 | 3941.2 | -169.8 | M/Prs/Out | 4111.0 | 271.13 | 270.26 | 256.43 | 266.14 | 1.350 | 134.749 | Unsubmerged |
| 16.495 | 6749.6 | 2821.9 | 0.526 | 3927.7 | -170.7 | M/Prs/Out | 4098.4 | 271.07 | 270.23 | 256.42 | 266.21 | 1.096 | 135.844 | Unsubmerged |
| **16.500** | 6665.0 | 2750.7 | 0.525 | 3914.3 | -171.4 | M/Prs/Out | 4085.7 | 271.02 | 270.20 | 256.41 | 266.28 | 1.066 | 136.910 | Unsubmerged |
| 16.508 | 6580.2 | 2679.4 | 0.523 | 3900.8 | -172.1 | M/Prs/Out | 4072.9 | 270.96 | 270.17 | 256.40 | 266.38 | 1.658 | 138.568 | Unsubmerged |
| 16.517 | 6495.4 | 2607.0 | 0.522 | 3888.4 | -173.1 | M/Prs/Out | 4061.5 | 270.91 | 270.14 | 256.39 | 266.50 | 1.810 | 140.378 | Unsubmerged |
| 16.525 | 6410.6 | 2534.5 | 0.520 | 3876.1 | -174.2 | M/Prs/Out | 4050.3 | 270.85 | 270.10 | 256.38 | 266.60 | 1.561 | 141.939 | Unsubmerged |
| 16.533 | 6325.8 | 2462.3 | 0.519 | 3863.5 | -175.1 | M/Prs/Out | 4038.6 | 270.79 | 270.07 | 256.37 | 266.69 | 1.512 | 143.451 | Unsubmerged |
| 16.541 | 6241.0 | 2390.1 | 0.517 | 3850.9 | -176.0 | M/Prs/Out | 4026.9 | 270.73 | 270.03 | 256.36 | 266.79 | 1.464 | 144.915 | Unsubmerged |
| 16.550 | 6156.2 | 2317.9 | 0.515 | 3838.3 | -176.9 | M/Prs/Out | 4015.2 | 270.67 | 270.00 | 256.35 | 266.89 | 1.592 | 146.507 | Unsubmerged |
| 16.558 | 6071.4 | 2245.7 | 0.514 | 3825.7 | -177.8 | M/Prs/Out | 4003.5 | 270.61 | 269.96 | 256.34 | 266.97 | 1.367 | 147.874 | Unsubmerged |
| 16.566 | 5986.6 | 2173.5 | 0.512 | 3813.1 | -178.6 | M/Prs/Out | 3991.7 | 270.55 | 269.93 | 256.33 | 267.06 | 1.319 | 149.193 | Unsubmerged |
| 16.575 | 5901.8 | 2101.3 | 0.510 | 3800.5 | -179.4 | M/Prs/Out | 3979.9 | 270.49 | 269.89 | 256.32 | 267.15 | 1.430 | 150.623 | Unsubmerged |
| **16.583** | 5817.0 | 2033.7 | 0.509 | 3783.3 | -180.3 | M/Prs/Out | 3963.6 | 270.43 | 269.85 | 256.31 | 267.22 | 1.225 | 151.848 | Unsubmerged |
| 16.595 | 5739.6 | 1972.6 | 0.507 | 3767.0 | -181.0 | M/Prs/Out | 3948.0 | 270.38 | 269.82 | 256.29 | 267.33 | 1.777 | 153.625 | Unsubmerged |
| 16.607 | 5662.1 | 1911.4 | 0.505 | 3750.7 | -182.0 | M/Prs/Out | 3932.7 | 270.33 | 269.79 | 256.28 | 267.44 | 1.715 | 155.340 | Unsubmerged |
| 16.619 | 5584.7 | 1850.3 | 0.503 | 3734.4 | -183.0 | M/Prs/Out | 3917.4 | 270.27 | 269.75 | 256.27 | 267.54 | 1.654 | 156.994 | Unsubmerged |
| 16.631 | 5507.3 | 1789.2 | 0.502 | 3718.1 | -184.0 | M/Prs/Out | 3902.1 | 270.22 | 269.72 | 256.25 | 267.64 | 1.592 | 158.586 | Unsubmerged |
| 16.643 | 5429.9 | 1728.1 | 0.500 | 3701.8 | -184.9 | M/Prs/Out | 3886.7 | 270.17 | 269.68 | 256.24 | 267.74 | 1.530 | 160.116 | Unsubmerged |

# BASIN ROUTING RESULTS



| Time (hrs) | Q ch. @ us Weir (cfs) | Q Weir (cfs) | Discharge Coeff. | Q ch. @ ds Weir (cfs) | Q Outlet (cfs) | Outlet control/type | Qch. @ Outlet (cfs) | WS @ ds Weir (ft) | WS @ us Weir (ft) | WS @ Outlet (ft) | WS @ Basin (ft) | Vol. Change (Ac-ft) | Net Vol. (Ac-Ft) | Weir Flow Type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16.655 | 5352.4 | 1593.2 | 0.498 | 3759.2 | -185.3 | M/Prs/Out | 3944.5 | 270.11 | 269.80 | 256.29 | 267.83 | 1.396 | 161.512 | Submerged |
| **16.667** | 5275.0 | 1464.3 | 0.496 | 3810.7 | -185.7 | M/Prs/Out | 3996.4 | 270.05 | 269.92 | 256.33 | 267.90 | 1.268 | 162.780 | Submerged |
| 16.688 | 5192.3 | 1347.5 | 0.493 | 3844.8 | -186.0 | M/Prs/Out | 4030.8 | 269.99 | 270.01 | 256.36 | 268.03 | 2.016 | 164.796 | Submerged |
| 16.708 | 5109.5 | 1186.6 | 0.491 | 3922.9 | -186.6 | M/Prs/Out | 4109.5 | 269.93 | 270.22 | 256.42 | 268.13 | 1.653 | 166.449 | Submerged |
| 16.729 | 5026.8 | 1049.3 | 0.488 | 3977.5 | -187.1 | M/Prs/Out | 4164.6 | 269.86 | 270.34 | 256.45 | 268.22 | 1.496 | 167.946 | Submerged |
| **16.750** | 4944.0 | 923.9 | 0.485 | 4020.1 | -187.6 | M/Prs/Out | 4207.7 | 269.80 | 270.43 | 256.48 | 268.30 | 1.278 | 169.223 | Submerged |
| 16.771 | 4875.8 | 819.2 | 0.483 | 4056.6 | -188.0 | M/Prs/Out | 4244.6 | 269.75 | 270.50 | 256.51 | 268.37 | 1.095 | 170.319 | Submerged |
| 16.791 | 4807.5 | 724.6 | 0.481 | 4082.9 | -188.4 | M/Prs/Out | 4271.3 | 269.70 | 270.55 | 256.53 | 268.42 | 0.886 | 171.205 | Submerged |
| 16.812 | 4739.3 | 644.3 | 0.478 | 4095.0 | -188.7 | M/Prs/Out | 4283.7 | 269.64 | 270.57 | 256.54 | 268.47 | 0.791 | 171.996 | Submerged |
| **16.833** | 4671.0 | 568.7 | 0.475 | 4102.3 | -189.0 | M/Prs/Out | 4291.3 | 269.59 | 270.59 | 256.55 | 268.51 | 0.659 | 172.655 | Submerged |
| 16.861 | 4590.0 | 491.7 | 0.471 | 4098.3 | -189.4 | M/Prs/Out | 4287.7 | 269.52 | 270.58 | 256.54 | 268.56 | 0.700 | 173.354 | Submerged |
| 16.889 | 4509.0 | 411.4 | 0.468 | 4097.6 | -189.8 | M/Prs/Out | 4287.4 | 269.45 | 270.58 | 256.54 | 268.59 | 0.513 | 173.867 | Submerged |
| **16.917** | 4428.0 | 349.8 | 0.464 | 4078.2 | -190.2 | M/Prs/Out | 4268.4 | 269.39 | 270.54 | 256.52 | 268.61 | 0.369 | 174.236 | Submerged |
| 16.945 | 4352.7 | 295.3 | 0.461 | 4057.4 | -190.5 | M/Prs/Out | 4247.9 | 269.32 | 270.50 | 256.51 | 268.62 | 0.243 | 174.479 | Submerged |
| 16.972 | 4277.3 | 248.8 | 0.456 | 4028.5 | -190.7 | M/Prs/Out | 4219.2 | 269.25 | 270.44 | 256.49 | 268.63 | 0.130 | 174.609 | Submerged |
| **17.000** | 4202.0 | 207.7 | 0.451 | 3994.3 | -190.9 | M/Prs/Out | 4185.2 | 269.19 | 270.38 | 256.47 | 268.63 | 0.039 | 174.648 | Submerged |
| 17.028 | 4138.0 | 175.9 | 0.447 | 3962.1 | -191.2 | M/Prs/Out | 4153.3 | 269.13 | 270.31 | 256.44 | 268.63 | -0.035 | 174.612 | Submerged |
| 17.055 | 4074.0 | 145.7 | 0.443 | 3928.3 | -191.3 | M/Prs/Out | 4119.6 | 269.07 | 270.23 | 256.42 | 268.63 | -0.102 | 174.510 | Submerged |
| **17.083** | 4010.0 | 117.2 | 0.439 | 3892.8 | -191.5 | M/Prs/Out | 4084.3 | 269.01 | 270.15 | 256.39 | 268.62 | -0.172 | 174.338 | Submerged |
| 17.111 | 3934.7 | 90.3 | 0.433 | 3844.4 | -191.7 | M/Prs/Out | 4036.1 | 268.94 | 270.01 | 256.36 | 268.60 | -0.235 | 174.104 | Submerged |
| 17.139 | 3859.3 | 66.7 | 0.425 | 3792.6 | -191.9 | M/Prs/Out | 3984.5 | 268.86 | 269.87 | 256.31 | 268.58 | -0.290 | 173.814 | Submerged |
| **17.167** | 3784.0 | 45.4 | 0.417 | 3738.6 | -192.1 | M/Prs/Out | 3930.7 | 268.78 | 269.76 | 256.27 | 268.56 | -0.339 | 173.475 | Submerged |
| 17.188 | 3715.3 | 27.2 | 0.410 | 3688.1 | -192.3 | M/Prs/Out | 3880.4 | 268.70 | 269.65 | 256.23 | 268.55 | -0.287 | 173.188 | Submerged |
| 17.208 | 3646.5 | 12.1 | 0.403 | 3634.4 | -192.5 | M/Prs/Out | 3826.9 | 268.63 | 269.51 | 256.19 | 268.53 | -0.298 | 172.890 | Submerged |

# BASIN ROUTING RESULTS



| Time (hrs) | Q ch. @ us Weir (cfs) | Q Weir (cfs) | Discharge Coeff. | Q ch. @ ds Weir (cfs) | Q Outlet (cfs) | Outlet control/type | Qch. @ Outlet (cfs) | WS @ ds Weir (ft) | WS @ us Weir (ft) | WS @ Outlet (ft) | WS @ Basin (ft) | Vol. Change (Ac-ft) | Net Vol. (Ac-Ft) | Weir Flow Type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17.229 | 3577.8 | 1.7 | 0.394 | 3576.1 | -192.6 | M/Prs/Out | 3768.7 | 268.55 | 269.36 | 256.15 | 268.51 | -0.331 | 172.559 | Submerged |
| **17.250** | 3509.0 | -6.4 | 1.529 | 3515.4 | -192.8 | M/Prs/Out | 3708.2 | 268.41 | 268.41 | 256.11 | 268.49 | -0.346 | 172.213 | Subm. Rev. Flow |
| 17.271 | 3440.3 | -23.0 | 1.983 | 3463.3 | -192.9 | M/Prs/Out | 3656.2 | 268.32 | 268.32 | 256.08 | 268.46 | -0.375 | 171.838 | Subm. Rev. Flow |
| 17.291 | 3371.5 | -45.0 | 2.284 | 3416.5 | -192.9 | M/Prs/Out | 3609.4 | 268.23 | 268.23 | 256.05 | 268.44 | -0.393 | 171.445 | Subm. Rev. Flow |
| 17.312 | 3302.8 | -78.4 | 2.552 | 3381.2 | -193.0 | M/Prs/Out | 3574.2 | 268.15 | 268.15 | 256.02 | 268.41 | -0.471 | 170.974 | Subm. Rev. Flow |
| **17.333** | 3234.0 | -127.3 | 2.811 | 3361.3 | -192.9 | M/Prs/Out | 3554.2 | 268.04 | 268.04 | 256.00 | 268.38 | -0.556 | 170.418 | Subm. Rev. Flow |
| 17.361 | 3156.7 | -285.9 | 3.189 | 3442.6 | -192.1 | M/Prs/Out | 3634.7 | 267.78 | 267.78 | 256.07 | 268.31 | -1.106 | 169.312 | Subm. Rev. Flow |
| 17.389 | 3079.3 | | | 3079.3 | -193.7 | M/Prs/Out | 3273.0 | 267.60 | 267.54 | 255.80 | 268.28 | -0.448 | 168.864 | No Flow |
| **17.417** | 3002.0 | | | 3002.0 | -194.1 | M/Prs/Out | 3196.1 | 267.44 | 267.39 | 255.71 | 268.25 | -0.449 | 168.415 | No Flow |
| 17.458 | 2915.5 | | | 2915.5 | -194.3 | M/Prs/Out | 3109.8 | 267.20 | 267.15 | 255.66 | 268.21 | -0.658 | 167.756 | No Flow |
| **17.500** | 2829.0 | | | 2829.0 | -194.4 | M/Prs/Out | 3023.4 | 266.96 | 266.91 | 255.60 | 268.17 | -0.675 | 167.082 | No Flow |
| 17.541 | 2749.5 | | | 2749.5 | -194.7 | M/Prs/Out | 2944.2 | 266.73 | 266.68 | 255.53 | 268.13 | -0.660 | 166.422 | No Flow |
| **17.583** | 2670.0 | | | 2670.0 | -194.9 | M/Prs/Out | 2864.9 | 266.51 | 266.46 | 255.46 | 268.09 | -0.677 | 165.745 | No Flow |
| 17.615 | 2634.6 | | | 2634.6 | -194.9 | M/Prs/Out | 2829.5 | 266.41 | 266.36 | 255.42 | 268.06 | -0.515 | 165.230 | No Flow |
| 17.647 | 2599.2 | | | 2599.2 | -194.9 | M/Prs/Out | 2794.1 | 266.31 | 266.26 | 255.39 | 268.02 | -0.515 | 164.714 | No Flow |
| 17.679 | 2563.8 | | | 2563.8 | -194.8 | M/Prs/Out | 2758.6 | 266.21 | 266.17 | 255.36 | 267.99 | -0.515 | 164.199 | No Flow |
| 17.711 | 2528.5 | | | 2528.5 | -194.7 | M/Prs/Out | 2723.2 | 266.11 | 266.07 | 255.34 | 267.96 | -0.515 | 163.684 | No Flow |
| 17.743 | 2493.1 | | | 2493.1 | -194.7 | M/Prs/Out | 2687.8 | 266.01 | 265.97 | 255.31 | 267.93 | -0.515 | 163.169 | No Flow |
| 17.775 | 2457.7 | | | 2457.7 | -194.7 | M/Prs/Out | 2652.4 | 265.91 | 265.87 | 255.28 | 267.90 | -0.515 | 162.654 | No Flow |
| 17.808 | 2422.3 | | | 2422.3 | -194.7 | M/Prs/Out | 2617.0 | 265.81 | 265.77 | 255.26 | 267.86 | -0.531 | 162.123 | No Flow |
| 17.840 | 2386.9 | | | 2386.9 | -194.6 | M/Prs/Out | 2581.5 | 265.71 | 265.67 | 255.23 | 267.83 | -0.515 | 161.609 | No Flow |
| 17.872 | 2351.5 | | | 2351.5 | -194.6 | M/Prs/Out | 2546.1 | 265.61 | 265.57 | 255.20 | 267.80 | -0.515 | 161.094 | No Flow |
| 17.904 | 2316.2 | | | 2316.2 | -194.6 | M/Prs/Out | 2510.8 | 265.52 | 265.48 | 255.17 | 267.77 | -0.515 | 160.580 | No Flow |
| 17.936 | 2280.8 | | | 2280.8 | -194.6 | M/Prs/Out | 2475.4 | 265.42 | 265.38 | 255.14 | 267.74 | -0.515 | 160.065 | No Flow |

# BASIN ROUTING RESULTS



| Time (hrs) | Q ch. @ us Weir (cfs) | Q Weir (cfs) | Discharge Coeff. | Q ch. @ ds Weir (cfs) | Q Outlet (cfs) | Outlet control/type | Qch. @ Outlet (cfs) | WS @ ds Weir (ft) | WS @ us Weir (ft) | WS @ Outlet (ft) | WS @ Basin (ft) | Vol. Change (Ac-ft) | Net Vol. (Ac-Ft) | Weir Flow Type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17.968 | 2245.4 | | | 2245.4 | -194.6 | M/Prs/Out | 2440.0 | 265.32 | 265.28 | 255.11 | 267.70 | -0.515 | 159.550 | No Flow |
| **18.000** | 2210.0 | | | 2210.0 | -194.5 | M/Prs/Out | 2404.5 | 265.22 | 265.18 | 255.08 | 267.67 | -0.514 | 159.036 | No Flow |
| 18.017 | 2194.6 | | | 2194.6 | -194.3 | M/Prs/Out | 2388.9 | 265.17 | 265.14 | 255.07 | 267.65 | -0.273 | 158.763 | No Flow |
| 18.034 | 2179.1 | | | 2179.1 | -194.3 | M/Prs/Out | 2373.4 | 265.13 | 265.09 | 255.05 | 267.64 | -0.273 | 158.490 | No Flow |
| 18.052 | 2163.7 | | | 2163.7 | -194.3 | M/Prs/Out | 2358.0 | 265.09 | 265.05 | 255.04 | 267.62 | -0.289 | 158.201 | No Flow |
| 18.069 | 2148.3 | | | 2148.3 | -194.3 | M/Prs/Out | 2342.6 | 265.04 | 265.01 | 255.03 | 267.60 | -0.273 | 157.928 | No Flow |
| 18.086 | 2132.8 | | | 2132.8 | -194.3 | M/Prs/Out | 2327.1 | 265.00 | 264.96 | 255.01 | 267.58 | -0.273 | 157.655 | No Flow |
| 18.103 | 2117.4 | | | 2117.4 | -194.2 | M/Prs/Out | 2311.6 | 264.96 | 264.92 | 255.00 | 267.57 | -0.273 | 157.382 | No Flow |
| 18.121 | 2102.0 | | | 2102.0 | -194.2 | M/Prs/Out | 2296.2 | 264.91 | 264.88 | 254.99 | 267.55 | -0.289 | 157.093 | No Flow |
| 18.138 | 2086.6 | | | 2086.6 | -194.2 | M/Prs/Out | 2280.8 | 264.87 | 264.84 | 254.97 | 267.53 | -0.273 | 156.820 | No Flow |
| 18.155 | 2071.1 | | | 2071.1 | -194.1 | M/Prs/Out | 2265.2 | 264.83 | 264.79 | 254.96 | 267.52 | -0.273 | 156.548 | No Flow |
| 18.172 | 2055.7 | | | 2055.7 | -194.1 | M/Prs/Out | 2249.8 | 264.78 | 264.75 | 254.95 | 267.50 | -0.273 | 156.275 | No Flow |
| 18.190 | 2040.3 | | | 2040.3 | -194.1 | M/Prs/Out | 2234.4 | 264.74 | 264.71 | 254.93 | 267.48 | -0.289 | 155.986 | No Flow |
| 18.207 | 2024.8 | | | 2024.8 | -194.0 | M/Prs/Out | 2218.8 | 264.70 | 264.66 | 254.92 | 267.46 | -0.273 | 155.714 | No Flow |
| 18.224 | 2009.4 | | | 2009.4 | -194.0 | M/Prs/Out | 2203.4 | 264.65 | 264.62 | 254.91 | 267.45 | -0.273 | 155.441 | No Flow |
| 18.241 | 1994.0 | | | 1994.0 | -194.0 | M/Prs/Out | 2188.0 | 264.61 | 264.58 | 254.90 | 267.43 | -0.273 | 155.169 | No Flow |
| 18.259 | 1978.5 | | | 1978.5 | -194.0 | M/Prs/Out | 2172.5 | 264.57 | 264.53 | 254.88 | 267.41 | -0.289 | 154.880 | No Flow |
| 18.276 | 1963.1 | | | 1963.1 | -193.9 | M/Prs/Out | 2157.0 | 264.52 | 264.49 | 254.87 | 267.39 | -0.272 | 154.607 | No Flow |
| 18.293 | 1947.7 | | | 1947.7 | -193.8 | M/Prs/Out | 2141.5 | 264.48 | 264.45 | 254.86 | 267.38 | -0.272 | 154.335 | No Flow |
| 18.310 | 1932.2 | | | 1932.2 | -193.8 | M/Prs/Out | 2126.0 | 264.43 | 264.40 | 254.85 | 267.36 | -0.272 | 154.063 | No Flow |
| 18.328 | 1916.8 | | | 1916.8 | -193.8 | M/Prs/Out | 2110.6 | 264.39 | 264.36 | 254.83 | 267.34 | -0.288 | 153.775 | No Flow |
| 18.345 | 1901.4 | | | 1901.4 | -193.7 | M/Prs/Out | 2095.1 | 264.35 | 264.32 | 254.82 | 267.33 | -0.272 | 153.502 | No Flow |
| 18.362 | 1885.9 | | | 1885.9 | -193.7 | M/Prs/Out | 2079.6 | 264.30 | 264.28 | 254.81 | 267.31 | -0.272 | 153.230 | No Flow |
| 18.379 | 1870.5 | | | 1870.5 | -193.7 | M/Prs/Out | 2064.2 | 264.26 | 264.23 | 254.80 | 267.29 | -0.272 | 152.958 | No Flow |

# BASIN ROUTING RESULTS



| Time (hrs) | Q ch. @ us Weir (cfs) | Q Weir (cfs) | Discharge Coeff. | Q ch. @ ds Weir (cfs) | Q Outlet (cfs) | Outlet control/type | Qch. @ Outlet (cfs) | WS @ ds Weir (ft) | WS @ us Weir (ft) | WS @ Outlet (ft) | WS @ Basin (ft) | Vol. Change (Ac-ft) | Net Vol. (Ac-Ft) | Weir Flow Type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18.397 | 1855.1 | | | 1855.1 | -193.7 | M/Prs/Out | 2048.8 | 264.22 | 264.19 | 254.78 | 267.27 | -0.288 | 152.670 | No Flow |
| 18.414 | 1839.7 | | | 1839.7 | -193.6 | M/Prs/Out | 2033.3 | 264.17 | 264.15 | 254.77 | 267.26 | -0.272 | 152.398 | No Flow |
| 18.431 | 1824.2 | | | 1824.2 | -193.6 | M/Prs/Out | 2017.8 | 264.13 | 264.10 | 254.76 | 267.24 | -0.272 | 152.126 | No Flow |
| 18.448 | 1808.8 | | | 1808.8 | -193.5 | M/Prs/Out | 2002.3 | 264.09 | 264.06 | 254.75 | 267.22 | -0.272 | 151.854 | No Flow |
| 18.466 | 1793.4 | | | 1793.4 | -193.5 | M/Prs/Out | 1986.9 | 264.04 | 264.02 | 254.73 | 267.20 | -0.288 | 151.566 | No Flow |
| 18.483 | 1777.9 | | | 1777.9 | -193.4 | M/Prs/Out | 1971.3 | 264.00 | 263.97 | 254.72 | 267.19 | -0.272 | 151.295 | No Flow |
| 18.500 | 1762.5 | | | 1762.5 | -193.4 | M/Prs/Out | 1955.9 | 263.96 | 263.93 | 254.71 | 267.17 | -0.272 | 151.023 | No Flow |
| 18.517 | 1747.1 | | | 1747.1 | -193.4 | M/Prs/Out | 1940.5 | 263.91 | 263.89 | 254.69 | 267.15 | -0.272 | 150.751 | No Flow |
| 18.534 | 1731.6 | | | 1731.6 | -193.3 | M/Prs/Out | 1924.9 | 263.87 | 263.84 | 254.68 | 267.14 | -0.272 | 150.480 | No Flow |
| 18.552 | 1716.2 | | | 1716.2 | -193.4 | M/Prs/Out | 1909.6 | 263.83 | 263.80 | 254.66 | 267.12 | -0.288 | 150.192 | No Flow |
| 18.569 | 1700.8 | | | 1700.8 | -193.3 | M/Prs/Out | 1894.1 | 263.78 | 263.76 | 254.65 | 267.10 | -0.272 | 149.920 | No Flow |
| 18.586 | 1685.3 | | | 1685.3 | -193.3 | M/Prs/Out | 1878.6 | 263.74 | 263.72 | 254.64 | 267.08 | -0.272 | 149.649 | No Flow |
| 18.603 | 1669.9 | | | 1669.9 | -193.3 | M/Prs/Out | 1863.2 | 263.70 | 263.67 | 254.62 | 267.07 | -0.272 | 149.377 | No Flow |
| 18.621 | 1654.5 | | | 1654.5 | -193.3 | M/Prs/Out | 1847.8 | 263.65 | 263.63 | 254.61 | 267.05 | -0.288 | 149.090 | No Flow |
| 18.638 | 1639.1 | | | 1639.1 | -193.2 | M/Prs/Out | 1832.3 | 263.61 | 263.59 | 254.60 | 267.03 | -0.271 | 148.818 | No Flow |
| 18.655 | 1623.6 | | | 1623.6 | -193.2 | M/Prs/Out | 1816.8 | 263.57 | 263.54 | 254.58 | 267.02 | -0.271 | 148.547 | No Flow |
| 18.672 | 1608.2 | | | 1608.2 | -193.2 | M/Prs/Out | 1801.4 | 263.52 | 263.50 | 254.57 | 267.00 | -0.271 | 148.275 | No Flow |
| 18.690 | 1592.8 | | | 1592.8 | -193.2 | M/Prs/Out | 1786.0 | 263.48 | 263.46 | 254.55 | 266.98 | -0.287 | 147.988 | No Flow |
| 18.707 | 1577.3 | | | 1577.3 | -193.1 | M/Prs/Out | 1770.4 | 263.44 | 263.41 | 254.54 | 266.96 | -0.271 | 147.717 | No Flow |
| 18.724 | 1561.9 | | | 1561.9 | -193.0 | M/Prs/Out | 1754.9 | 263.39 | 263.37 | 254.53 | 266.95 | -0.271 | 147.445 | No Flow |
| 18.741 | 1546.5 | | | 1546.5 | -193.1 | M/Prs/Out | 1739.6 | 263.35 | 263.33 | 254.51 | 266.93 | -0.271 | 147.174 | No Flow |
| 18.759 | 1531.0 | | | 1531.0 | -193.0 | M/Prs/Out | 1724.0 | 263.31 | 263.29 | 254.50 | 266.91 | -0.287 | 146.887 | No Flow |
| 18.776 | 1515.6 | | | 1515.6 | -193.0 | M/Prs/Out | 1708.6 | 263.26 | 263.24 | 254.49 | 266.89 | -0.271 | 146.616 | No Flow |
| 18.793 | 1500.2 | | | 1500.2 | -192.9 | M/Prs/Out | 1693.1 | 263.22 | 263.20 | 254.48 | 266.88 | -0.271 | 146.345 | No Flow |

| Time (hrs) | Q ch. @ us Weir (cfs) | Q Weir (cfs) | Discharge Coeff. | Q ch. @ ds Weir (cfs) | Q Outlet (cfs) | Outlet control/type | Qch. @ Outlet (cfs) | WS @ ds Weir (ft) | WS @ us Weir (ft) | WS @ Outlet (ft) | WS @ Basin (ft) | Vol. Change (Ac-ft) | Net Vol. (Ac-Ft) | Weir Flow Type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18.810 | 1484.7 | | | 1484.7 | -193.0 | M/Prs/Out | 1677.7 | 263.18 | 263.16 | 254.46 | 266.86 | -0.271 | 146.074 | No Flow |
| 18.828 | 1469.3 | | | 1469.3 | -192.9 | M/Prs/Out | 1662.2 | 263.13 | 263.11 | 254.45 | 266.84 | -0.287 | 145.787 | No Flow |
| 18.845 | 1453.9 | | | 1453.9 | -192.8 | M/Prs/Out | 1646.7 | 263.09 | 263.07 | 254.44 | 266.82 | -0.271 | 145.516 | No Flow |
| 18.862 | 1438.4 | | | 1438.4 | -192.8 | M/Prs/Out | 1631.2 | 263.05 | 263.03 | 254.42 | 266.81 | -0.271 | 145.245 | No Flow |
| 18.879 | 1423.0 | | | 1423.0 | -192.8 | M/Prs/Out | 1615.8 | 263.00 | 262.98 | 254.41 | 266.79 | -0.271 | 144.974 | No Flow |
| 18.897 | 1407.6 | | | 1407.6 | -192.7 | M/Prs/Out | 1600.3 | 262.96 | 262.94 | 254.40 | 266.77 | -0.287 | 144.687 | No Flow |
| 18.914 | 1392.2 | | | 1392.2 | -191.6 | M/Prs/Out | 1583.8 | 262.92 | 262.90 | 254.52 | 266.75 | -0.269 | 144.418 | No Flow |
| 18.931 | 1376.7 | | | 1376.7 | -189.5 | M/Prs/Out | 1566.2 | 262.87 | 262.86 | 254.77 | 266.74 | -0.266 | 144.152 | No Flow |
| 18.948 | 1361.3 | | | 1361.3 | -187.5 | M/Prs/Out | 1548.8 | 262.83 | 262.81 | 255.01 | 266.72 | -0.263 | 143.889 | No Flow |
| 18.966 | 1345.9 | | | 1345.9 | -185.3 | M/Prs/Out | 1531.2 | 262.78 | 262.77 | 255.26 | 266.70 | -0.276 | 143.613 | No Flow |
| 18.983 | 1330.4 | | | 1330.4 | -183.1 | M/Prs/Out | 1513.5 | 262.74 | 262.73 | 255.51 | 266.69 | -0.257 | 143.356 | No Flow |
| **19.000** | 1315.0 | | | 1315.0 | -181.0 | M/Prs/Out | 1496.0 | 262.70 | 262.68 | 255.76 | 266.67 | -0.254 | 143.101 | No Flow |
| 19.045 | 1299.7 | | | 1299.7 | -178.8 | M/Prs/Out | 1478.5 | 262.65 | 262.64 | 256.00 | 266.63 | -0.665 | 142.436 | No Flow |
| 19.091 | 1284.4 | | | 1284.4 | -176.4 | M/Prs/Out | 1460.8 | 262.61 | 262.60 | 256.25 | 266.59 | -0.671 | 141.766 | No Flow |
| 19.136 | 1269.0 | | | 1269.0 | -173.9 | M/Prs/Out | 1442.9 | 262.57 | 262.55 | 256.50 | 266.54 | -0.647 | 141.119 | No Flow |
| 19.182 | 1253.7 | | | 1253.7 | -171.3 | M/Prs/Out | 1425.0 | 262.53 | 262.51 | 256.75 | 266.50 | -0.651 | 140.468 | No Flow |
| 19.227 | 1238.4 | | | 1238.4 | -168.8 | M/Prs/Out | 1407.2 | 262.48 | 262.47 | 256.99 | 266.46 | -0.628 | 139.840 | No Flow |
| 19.273 | 1223.1 | | | 1223.1 | -166.2 | M/Prs/Out | 1389.3 | 262.44 | 262.43 | 257.24 | 266.42 | -0.632 | 139.208 | No Flow |
| 19.318 | 1207.8 | | | 1207.8 | -163.7 | M/Prs/Out | 1371.5 | 262.40 | 262.38 | 257.48 | 266.38 | -0.609 | 138.599 | No Flow |
| 19.364 | 1192.5 | | | 1192.5 | -162.3 | M/Prs/Out | 1354.8 | 262.35 | 262.34 | 257.59 | 266.35 | -0.617 | 137.982 | No Flow |
| 19.409 | 1177.1 | | | 1177.1 | -162.3 | M/Prs/Out | 1339.4 | 262.31 | 262.30 | 257.56 | 266.31 | -0.604 | 137.379 | No Flow |
| 19.455 | 1161.8 | | | 1161.8 | -162.3 | M/Prs/Out | 1324.1 | 262.27 | 262.26 | 257.52 | 266.27 | -0.617 | 136.762 | No Flow |
| 19.500 | 1146.5 | | | 1146.5 | -162.2 | M/Prs/Out | 1308.7 | 262.22 | 262.21 | 257.49 | 266.23 | -0.603 | 136.159 | No Flow |
| 19.545 | 1131.2 | | | 1131.2 | -162.2 | M/Prs/Out | 1293.4 | 262.18 | 262.17 | 257.45 | 266.19 | -0.603 | 135.555 | No Flow |

# BASIN ROUTING RESULTS



| Time (hrs) | Q ch. @ us Weir (cfs) | Q Weir (cfs) | Discharge Coeff. | Q ch. @ ds Weir (cfs) | Q Outlet (cfs) | Outlet control/type | Qch. @ Outlet (cfs) | WS @ ds Weir (ft) | WS @ us Weir (ft) | WS @ Outlet (ft) | WS @ Basin (ft) | Vol. Change (Ac-ft) | Net Vol. (Ac-Ft) | Weir Flow Type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19.591 | 1115.9 | | | 1115.9 | -162.1 | M/Prs/Out | 1278.0 | 262.14 | 262.13 | 257.42 | 266.15 | -0.616 | 134.939 | No Flow |
| 19.636 | 1100.5 | | | 1100.5 | -162.1 | M/Prs/Out | 1262.6 | 262.09 | 262.08 | 257.38 | 266.11 | -0.603 | 134.336 | No Flow |
| 19.682 | 1085.2 | | | 1085.2 | -162.0 | M/Prs/Out | 1247.2 | 262.05 | 262.04 | 257.35 | 266.07 | -0.616 | 133.720 | No Flow |
| 19.727 | 1069.9 | | | 1069.9 | -162.0 | M/Prs/Out | 1231.9 | 262.01 | 262.00 | 257.31 | 266.04 | -0.602 | 133.118 | No Flow |
| 19.773 | 1054.6 | | | 1054.6 | -162.0 | M/Prs/Out | 1216.6 | 261.96 | 261.96 | 257.28 | 266.00 | -0.616 | 132.502 | No Flow |
| 19.818 | 1039.3 | | | 1039.3 | -162.0 | M/Prs/Out | 1201.3 | 261.92 | 261.91 | 257.24 | 265.96 | -0.602 | 131.900 | No Flow |
| 19.864 | 1024.0 | | | 1024.0 | -162.0 | M/Prs/Out | 1186.0 | 261.88 | 261.87 | 257.21 | 265.92 | -0.616 | 131.284 | No Flow |
| 19.909 | 1008.6 | | | 1008.6 | -162.0 | M/Prs/Out | 1170.6 | 261.84 | 261.83 | 257.17 | 265.88 | -0.602 | 130.681 | No Flow |
| 19.955 | 993.3 | | | 993.3 | -162.0 | M/Prs/Out | 1155.3 | 261.79 | 261.79 | 257.13 | 265.84 | -0.616 | 130.065 | No Flow |
| **20.000** | 978.0 | | | 978.0 | -162.0 | M/Prs/Out | 1140.0 | 261.75 | 261.74 | 257.09 | 265.80 | -0.602 | 129.463 | No Flow |
| 20.077 | 963.2 | | | 963.2 | -162.0 | M/Prs/Out | 1125.2 | 261.71 | 261.70 | 257.05 | 265.73 | -1.031 | 128.432 | No Flow |
| 20.154 | 948.3 | | | 948.3 | -161.7 | M/Prs/Out | 1110.0 | 261.67 | 261.66 | 257.01 | 265.67 | -1.029 | 127.403 | No Flow |
| 20.231 | 933.5 | | | 933.5 | -161.5 | M/Prs/Out | 1095.0 | 261.62 | 261.62 | 256.97 | 265.60 | -1.028 | 126.375 | No Flow |
| 20.308 | 918.6 | | | 918.6 | -161.2 | M/Prs/Out | 1079.8 | 261.58 | 261.58 | 256.93 | 265.53 | -1.026 | 125.349 | No Flow |
| 20.385 | 903.8 | | | 903.8 | -160.8 | M/Prs/Out | 1064.6 | 261.54 | 261.54 | 256.90 | 265.47 | -1.023 | 124.326 | No Flow |
| 20.462 | 888.9 | | | 888.9 | -160.7 | M/Prs/Out | 1049.6 | 261.50 | 261.49 | 256.86 | 265.40 | -1.023 | 123.304 | No Flow |
| 20.538 | 874.1 | | | 874.1 | -160.4 | M/Prs/Out | 1034.5 | 261.46 | 261.45 | 256.82 | 265.34 | -1.007 | 122.296 | No Flow |
| 20.615 | 859.2 | | | 859.2 | -160.2 | M/Prs/Out | 1019.4 | 261.41 | 261.41 | 256.78 | 265.27 | -1.019 | 121.277 | No Flow |
| 20.692 | 844.4 | | | 844.4 | -159.9 | M/Prs/Out | 1004.3 | 261.37 | 261.37 | 256.74 | 265.21 | -1.018 | 120.259 | No Flow |
| 20.769 | 829.5 | | | 829.5 | -159.7 | M/Prs/Out | 989.2 | 261.33 | 261.33 | 256.70 | 265.14 | -1.016 | 119.243 | No Flow |
| 20.846 | 814.7 | | | 814.7 | -159.4 | M/Prs/Out | 974.1 | 261.29 | 261.29 | 256.66 | 265.07 | -1.014 | 118.228 | No Flow |
| 20.923 | 799.8 | | | 799.8 | -159.2 | M/Prs/Out | 959.0 | 261.25 | 261.25 | 256.62 | 265.01 | -1.013 | 117.215 | No Flow |
| **21.000** | 785.0 | | | 785.0 | -159.0 | M/Prs/Out | 944.0 | 261.21 | 261.20 | 256.58 | 264.94 | -1.012 | 116.204 | No Flow |
| 21.143 | 770.7 | | | 770.7 | -158.7 | M/Prs/Out | 929.4 | 261.17 | 261.16 | 256.54 | 264.82 | -1.876 | 114.328 | No Flow |

# BASIN ROUTING RESULTS



| Time (hrs) | Q ch. @ us Weir (cfs) | Q Weir (cfs) | Discharge Coeff. | Q ch. @ ds Weir (cfs) | Q Outlet (cfs) | Outlet control/type | Qch. @ Outlet (cfs) | WS @ ds Weir (ft) | WS @ us Weir (ft) | WS @ Outlet (ft) | WS @ Basin (ft) | Vol. Change (Ac-ft) | Net Vol. (Ac-Ft) | Weir Flow Type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 21.286 | 756.4 | | | 756.4 | -158.0 | M/Prs/Out | 914.4 | 261.13 | 261.13 | 256.49 | 264.70 | -1.867 | 112.461 | No Flow |
| 21.429 | 742.1 | | | 742.1 | -157.3 | M/Prs/Out | 899.4 | 261.09 | 261.09 | 256.45 | 264.57 | -1.859 | 110.602 | No Flow |
| 21.571 | 727.9 | | | 727.9 | -156.4 | M/Prs/Out | 884.3 | 261.05 | 261.05 | 256.41 | 264.45 | -1.835 | 108.766 | No Flow |
| 21.714 | 713.6 | | | 713.6 | -155.6 | M/Prs/Out | 869.2 | 261.01 | 261.01 | 256.37 | 264.33 | -1.839 | 106.927 | No Flow |
| 21.857 | 699.3 | | | 699.3 | -154.9 | M/Prs/Out | 854.2 | 260.96 | 260.97 | 256.33 | 264.21 | -1.831 | 105.097 | No Flow |
| **22.000** | 685.0 | | | 685.0 | -154.1 | M/Prs/Out | 839.1 | 260.92 | 260.93 | 256.29 | 264.09 | -1.821 | 103.276 | No Flow |
| 22.200 | 672.2 | | | 672.2 | -153.3 | M/Prs/Out | 825.5 | 260.89 | 260.89 | 256.25 | 263.92 | -2.534 | 100.742 | No Flow |
| 22.400 | 659.4 | | | 659.4 | -152.0 | M/Prs/Out | 811.4 | 260.85 | 260.85 | 256.21 | 263.76 | -2.512 | 98.229 | No Flow |
| 22.600 | 646.6 | | | 646.6 | -150.7 | M/Prs/Out | 797.3 | 260.82 | 260.82 | 256.18 | 263.59 | -2.491 | 95.738 | No Flow |
| 22.800 | 633.8 | | | 633.8 | -149.4 | M/Prs/Out | 783.2 | 260.78 | 260.78 | 256.14 | 263.42 | -2.469 | 93.269 | No Flow |
| **23.000** | 621.0 | | | 621.0 | -148.1 | M/Prs/Out | 769.1 | 260.74 | 260.75 | 256.10 | 263.26 | -2.448 | 90.821 | No Flow |
| 23.200 | 611.8 | | | 611.8 | -146.8 | M/Prs/Out | 758.6 | 260.72 | 260.72 | 256.07 | 263.10 | -2.426 | 88.395 | No Flow |
| 23.400 | 602.6 | | | 602.6 | -145.4 | M/Prs/Out | 748.0 | 260.69 | 260.70 | 256.05 | 262.93 | -2.403 | 85.991 | No Flow |
| 23.600 | 593.4 | | | 593.4 | -143.9 | M/Prs/Out | 737.3 | 260.67 | 260.67 | 256.02 | 262.77 | -2.379 | 83.613 | No Flow |
| 23.800 | 584.2 | | | 584.2 | -142.7 | M/Prs/Out | 726.9 | 260.64 | 260.64 | 255.98 | 262.61 | -2.359 | 81.254 | No Flow |
| **24.000** | 575.0 | | | 575.0 | -141.3 | M/Prs/Out | 716.3 | 260.62 | 260.62 | 255.95 | 262.45 | -2.336 | 78.919 | No Flow |
| 24.040 | 559.7 | | | 559.7 | -140.1 | M/Prs/Out | 699.8 | 260.57 | 260.58 | 255.90 | 262.42 | -0.463 | 78.455 | No Flow |
| 24.080 | 544.4 | | | 544.4 | -140.3 | M/Prs/Out | 684.7 | 260.53 | 260.53 | 255.85 | 262.39 | -0.464 | 77.992 | No Flow |
| 24.120 | 529.2 | | | 529.2 | -140.7 | M/Prs/Out | 669.9 | 260.49 | 260.49 | 255.79 | 262.36 | -0.465 | 77.526 | No Flow |
| 24.160 | 513.9 | | | 513.9 | -140.9 | M/Prs/Out | 654.8 | 260.44 | 260.45 | 255.74 | 262.33 | -0.466 | 77.061 | No Flow |
| 24.200 | 498.6 | | | 498.6 | -141.1 | M/Prs/Out | 639.7 | 260.40 | 260.41 | 255.69 | 262.29 | -0.466 | 76.594 | No Flow |
| 24.240 | 483.3 | | | 483.3 | -141.3 | M/Prs/Out | 624.6 | 260.36 | 260.36 | 255.63 | 262.26 | -0.467 | 76.127 | No Flow |
| 24.280 | 468.0 | | | 468.0 | -141.5 | M/Prs/Out | 609.5 | 260.31 | 260.32 | 255.58 | 262.23 | -0.468 | 75.659 | No Flow |
| 24.320 | 452.8 | | | 452.8 | -141.8 | M/Prs/Out | 594.6 | 260.27 | 260.28 | 255.52 | 262.20 | -0.469 | 75.191 | No Flow |

# BASIN ROUTING RESULTS

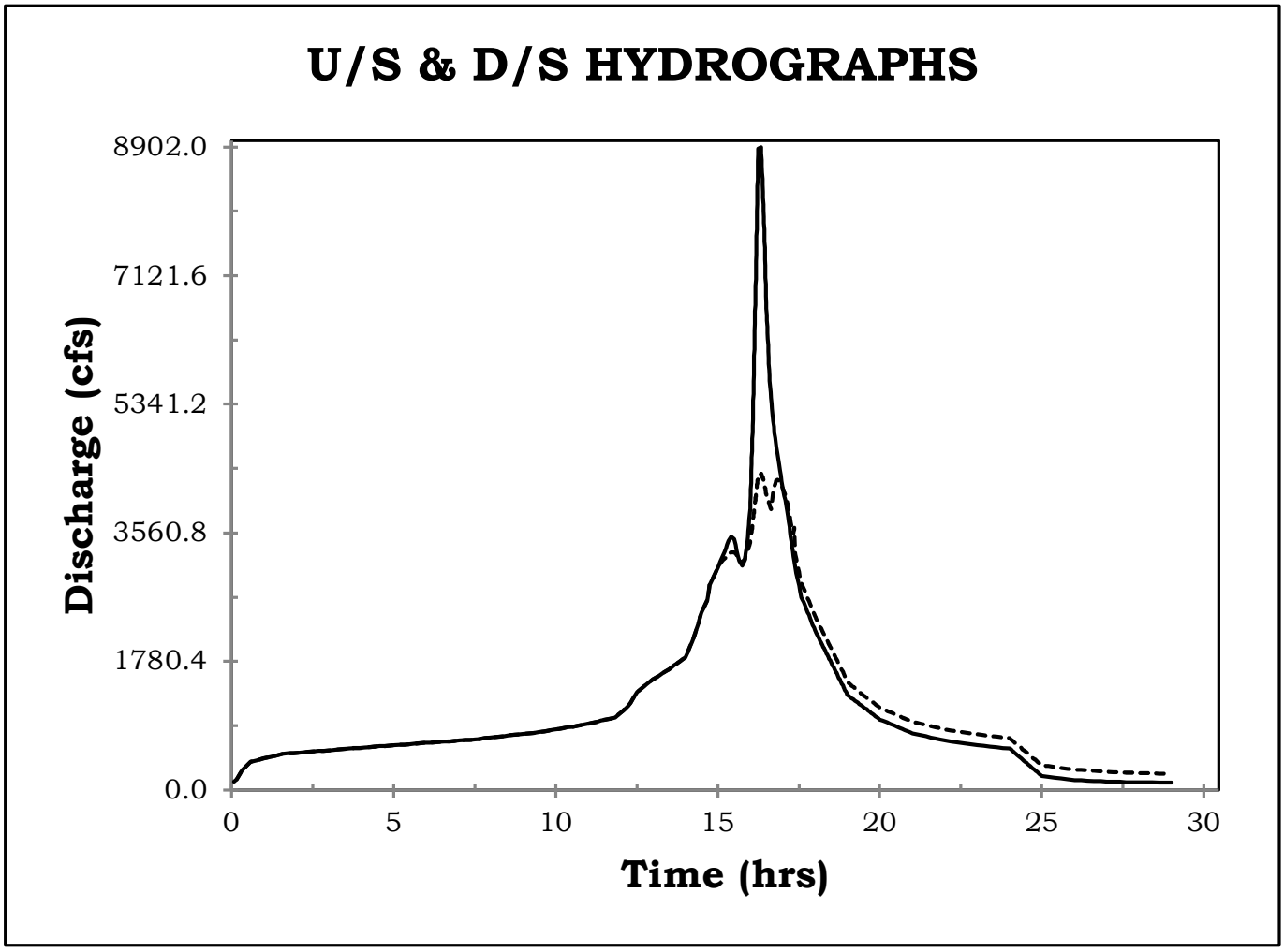


| Time (hrs) | Q ch. @ us Weir (cfs) | Q Weir (cfs) | Discharge Coeff. | Q ch. @ ds Weir (cfs) | Q Outlet (cfs) | Outlet control/type | Qch. @ Outlet (cfs) | WS @ ds Weir (ft) | WS @ us Weir (ft) | WS @ Outlet (ft) | WS @ Basin (ft) | Vol. Change (Ac-ft) | Net Vol. (Ac-Ft) | Weir Flow Type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 24.360 | 437.5 | | | 437.5 | -142.0 | M/Prs/Out | 579.5 | 260.23 | 260.24 | 255.47 | 262.17 | -0.469 | 74.721 | No Flow |
| 24.400 | 422.2 | | | 422.2 | -142.2 | M/Prs/Out | 564.4 | 260.19 | 260.19 | 255.42 | 262.13 | -0.470 | 74.251 | No Flow |
| 24.440 | 406.9 | | | 406.9 | -142.5 | M/Prs/Out | 549.4 | 260.14 | 260.15 | 255.36 | 262.10 | -0.471 | 73.780 | No Flow |
| 24.480 | 391.6 | | | 391.6 | -142.8 | M/Prs/Out | 534.4 | 260.10 | 260.11 | 255.30 | 262.07 | -0.472 | 73.308 | No Flow |
| 24.520 | 376.4 | | | 376.4 | -143.1 | M/Prs/Out | 519.5 | 260.06 | 260.07 | 255.24 | 262.04 | -0.473 | 72.835 | No Flow |
| 24.560 | 361.1 | | | 361.1 | -143.5 | M/Prs/Out | 504.6 | 260.01 | 260.02 | 255.17 | 262.00 | -0.474 | 72.361 | No Flow |
| 24.600 | 345.8 | | | 345.8 | -143.8 | M/Prs/Out | 489.6 | 259.97 | 259.98 | 255.10 | 261.97 | -0.475 | 71.885 | No Flow |
| 24.640 | 330.5 | | | 330.5 | -144.2 | M/Prs/Out | 474.7 | 259.93 | 259.94 | 255.03 | 261.94 | -0.477 | 71.408 | No Flow |
| 24.680 | 315.2 | | | 315.2 | -144.5 | M/Prs/Out | 459.7 | 259.88 | 259.89 | 254.97 | 261.91 | -0.478 | 70.931 | No Flow |
| 24.720 | 300.0 | | | 300.0 | -145.0 | M/Prs/Out | 445.0 | 259.84 | 259.85 | 254.90 | 261.87 | -0.479 | 70.451 | No Flow |
| 24.760 | 284.7 | | | 284.7 | -145.3 | M/Prs/Out | 430.0 | 259.80 | 259.81 | 254.83 | 261.84 | -0.480 | 69.971 | No Flow |
| 24.800 | 269.4 | | | 269.4 | -145.6 | M/Prs/Out | 415.0 | 259.76 | 259.77 | 254.77 | 261.81 | -0.481 | 69.490 | No Flow |
| 24.840 | 254.1 | | | 254.1 | -146.0 | M/Prs/Out | 400.1 | 259.71 | 259.72 | 254.70 | 261.77 | -0.483 | 69.007 | No Flow |
| 24.880 | 238.8 | | | 238.8 | -146.3 | M/Prs/Out | 385.1 | 259.67 | 259.68 | 254.63 | 261.74 | -0.484 | 68.523 | No Flow |
| 24.920 | 223.6 | | | 223.6 | -146.7 | M/Prs/Out | 370.3 | 259.63 | 259.64 | 254.56 | 261.70 | -0.485 | 68.039 | No Flow |
| 24.960 | 208.3 | | | 208.3 | -146.9 | M/Prs/Out | 355.2 | 259.58 | 259.60 | 254.50 | 261.67 | -0.486 | 67.553 | No Flow |
| **25.000** | 193.0 | | | 193.0 | -147.5 | M/Prs/Out | 340.5 | 259.54 | 259.55 | 254.41 | 261.64 | -0.488 | 67.065 | No Flow |
| 25.200 | 182.0 | | | 182.0 | -148.0 | M/Prs/Out | 330.0 | 259.50 | 259.52 | 254.33 | 261.47 | -2.446 | 64.619 | No Flow |
| 25.400 | 171.0 | | | 171.0 | -147.1 | M/Prs/Out | 318.1 | 259.47 | 259.49 | 254.25 | 261.30 | -2.431 | 62.188 | No Flow |
| 25.600 | 160.0 | | | 160.0 | -146.2 | M/Prs/Out | 306.2 | 259.43 | 259.47 | 254.17 | 261.13 | -2.417 | 59.771 | No Flow |
| 25.800 | 149.0 | | | 149.0 | -145.3 | M/Prs/Out | 294.3 | 259.40 | 259.44 | 254.09 | 260.96 | -2.402 | 57.369 | No Flow |
| **26.000** | 138.0 | | | 138.0 | -144.3 | M/Prs/Out | 282.3 | 259.36 | 259.41 | 254.01 | 260.79 | -2.385 | 54.984 | No Flow |
| 26.200 | 133.4 | | | 133.4 | -143.0 | M/Prs/Out | 276.4 | 259.35 | 259.39 | 253.97 | 260.62 | -2.364 | 52.621 | No Flow |
| 26.400 | 128.8 | | | 128.8 | -141.5 | M/Prs/Out | 270.3 | 259.33 | 259.38 | 253.94 | 260.46 | -2.339 | 50.282 | No Flow |

# BASIN ROUTING RESULTS



| Time (hrs) | Q ch. @ us Weir (cfs) | Q Weir (cfs) | Discharge Coeff. | Q ch. @ ds Weir (cfs) | Q Outlet (cfs) | Outlet control/type | Qch. @ Outlet (cfs) | WS @ ds Weir (ft) | WS @ us Weir (ft) | WS @ Outlet (ft) | WS @ Basin (ft) | Vol. Change (Ac-ft) | Net Vol. (Ac-Ft) | Weir Flow Type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 26.600 | 124.2 | | | 124.2 | -140.1 | M/Prs/Out | 264.3 | 259.32 | 259.37 | 253.91 | 260.29 | -2.316 | 47.966 | No Flow |
| 26.800 | 119.6 | | | 119.6 | -138.7 | M/Prs/Out | 258.3 | 259.30 | 259.36 | 253.87 | 260.13 | -2.293 | 45.674 | No Flow |
| **27.000** | 115.0 | | | 115.0 | -137.3 | M/Prs/Out | 252.3 | 259.29 | 259.34 | 253.84 | 259.97 | -2.269 | 43.404 | No Flow |
| 27.200 | 113.6 | | | 113.6 | -135.7 | M/Prs/Out | 249.3 | 259.28 | 259.34 | 253.83 | 259.80 | -2.243 | 41.161 | No Flow |
| 27.400 | 112.2 | | | 112.2 | -133.9 | M/Prs/Out | 246.1 | 259.28 | 259.34 | 253.82 | 259.64 | -2.213 | 38.948 | No Flow |
| 27.600 | 110.8 | | | 110.8 | -132.2 | M/Prs/Out | 243.0 | 259.27 | 259.33 | 253.81 | 259.47 | -2.185 | 36.763 | No Flow |
| 27.800 | 109.4 | | | 109.4 | -130.4 | M/Prs/Out | 239.8 | 259.27 | 259.33 | 253.80 | 259.32 | -2.155 | 34.607 | No Flow |
| **28.000** | 108.0 | | | 108.0 | -128.8 | M/Prs/Out | 236.8 | 259.27 | 259.33 | 253.79 | 259.16 | -2.129 | 32.479 | No Flow |
| 28.200 | 107.0 | | | 107.0 | -127.0 | M/Prs/Out | 234.0 | 259.26 | 259.32 | 253.78 | 259.00 | -2.099 | 30.379 | No Flow |
| 28.400 | 106.0 | | | 106.0 | -125.2 | M/Prs/Out | 231.2 | 259.26 | 259.32 | 253.77 | 258.84 | -2.069 | 28.310 | No Flow |
| 28.600 | 105.0 | | | 105.0 | -123.3 | M/Prs/Out | 228.3 | 259.26 | 259.32 | 253.77 | 258.68 | -2.038 | 26.272 | No Flow |
| 28.800 | 104.0 | | | 104.0 | -121.4 | M/Prs/Out | 225.4 | 259.25 | 259.32 | 253.76 | 258.52 | -2.007 | 24.265 | No Flow |
| **29.000** | 103.0 | | | 103.0 | -119.6 | M/Prs/Out | 222.6 | 259.25 | 259.31 | 253.75 | 258.37 | -1.977 | 22.288 | No Flow |

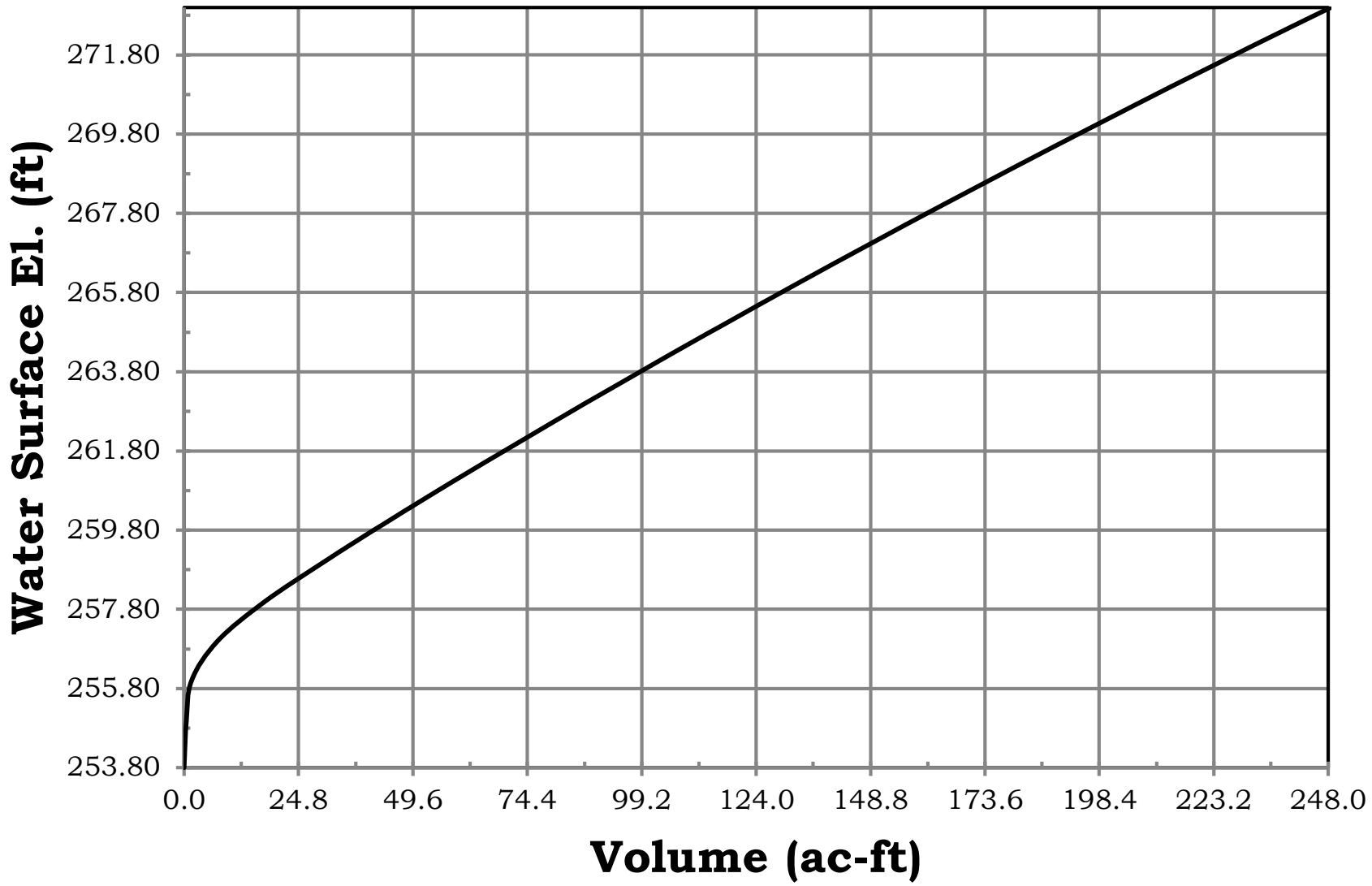

U/S & D/S HYDROGRAPHS
8902.0
7121.6
5341.2
3560.8
1780.4
0.0
Discharge (cfs)
0
5
10
15
20
25
30
Time (hrs)

# Sample Retarding Basin

**INPUT DATA**

| Vol-WS @ Basin | |
|---|---|
| **Volume (ac-ft)** | **W.S. El (ft)** |
| 0.000 | 253.80 |
| 0.500 | 255.00 |
| 1.593 | 256.00 |
| 7.246 | 257.00 |
| 17.560 | 258.00 |
| 30.348 | 259.00 |
| 43.858 | 260.00 |
| 57.904 | 261.00 |
| 72.290 | 262.00 |
| 86.951 | 263.00 |
| 101.877 | 264.00 |
| 117.082 | 265.00 |
| 132.548 | 266.00 |
| 148.294 | 267.00 |
| 164.308 | 268.00 |
| 180.601 | 269.00 |
| 197.171 | 270.00 |
| 214.014 | 271.00 |
| 231.143 | 272.00 |
| 248.589 | 273.00 |

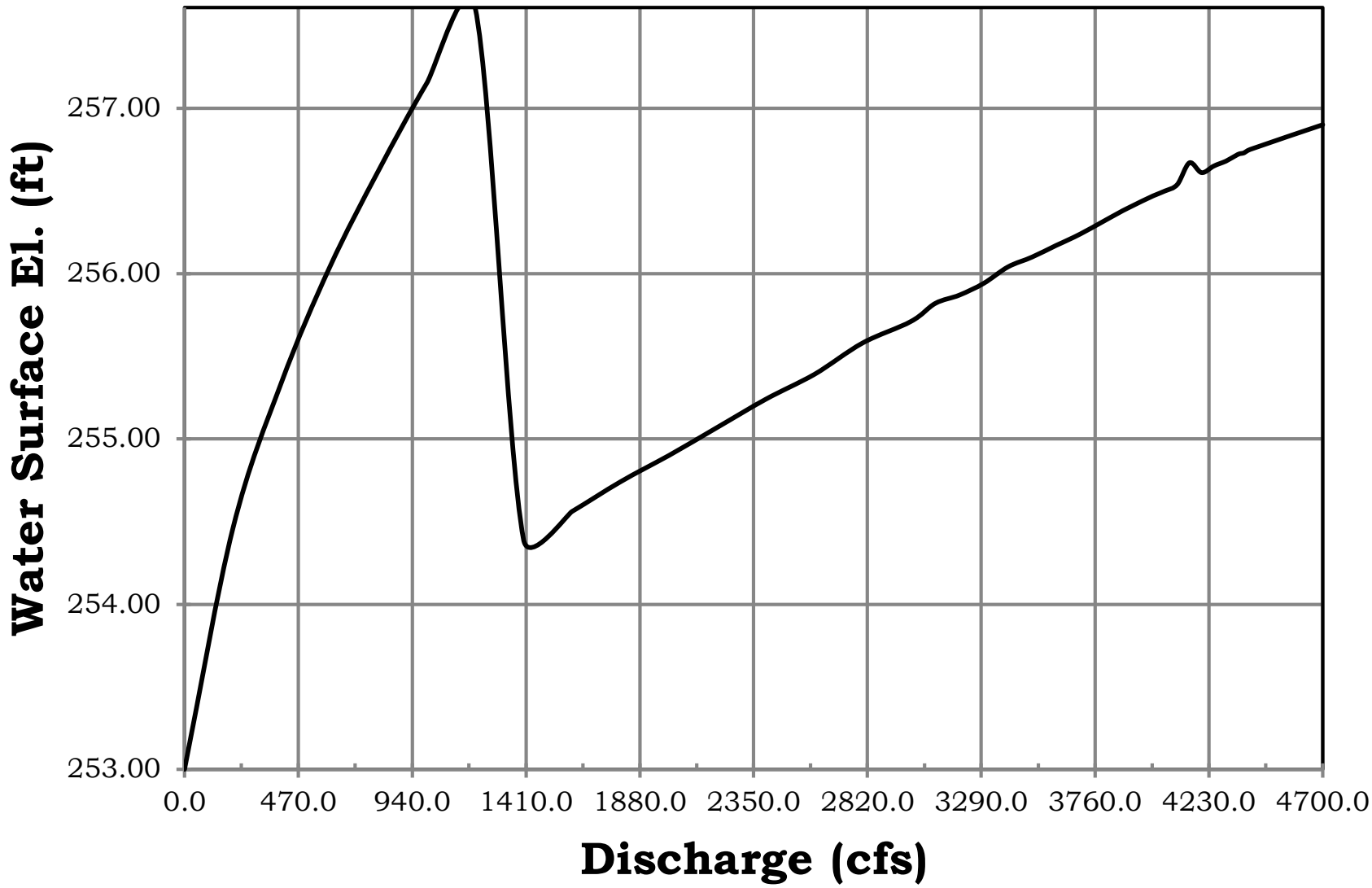
# STAGE-VOLUME (@ Basin)



# Sample Retarding Basin

| Q-WS @ d/s Outlet | |
|---|---|
| Discharge (cfs) | W.S. El (ft) |
| 0.1 | 253.00 |
| 200.0 | 254.46 |
| 400.0 | 255.34 |
| 600.0 | 256.04 |
| 800.0 | 256.62 |
| 1000.0 | 257.15 |
| 1200.0 | 257.61 |
| 1400.0 | 254.39 |
| 1600.0 | 254.56 |
| 1800.0 | 254.74 |
| 2000.0 | 254.90 |
| 2200.0 | 255.07 |
| 2400.0 | 255.24 |
| 2600.0 | 255.39 |
| 2800.0 | 255.58 |
| 3000.0 | 255.71 |
| 3100.0 | 255.82 |
| 3200.0 | 255.87 |
| 3300.0 | 255.94 |
| 3400.0 | 256.04 |
| 3500.0 | 256.10 |
| 3600.0 | 256.17 |
| 3700.0 | 256.24 |
| 3800.0 | 256.32 |
| 3900.0 | 256.40 |
| 4000.0 | 256.47 |
| 4050.0 | 256.50 |
| 4100.0 | 256.54 |
| 4150.0 | 256.67 |
| 4200.0 | 256.61 |
| 4250.0 | 256.65 |
| 4300.0 | 256.68 |
| 4350.0 | 256.72 |
| 4375.0 | 256.73 |
| 4400.0 | 256.75 |
| 4700.0 | 256.90 |

# STAGE-DISCHARGE (@ Outlet)

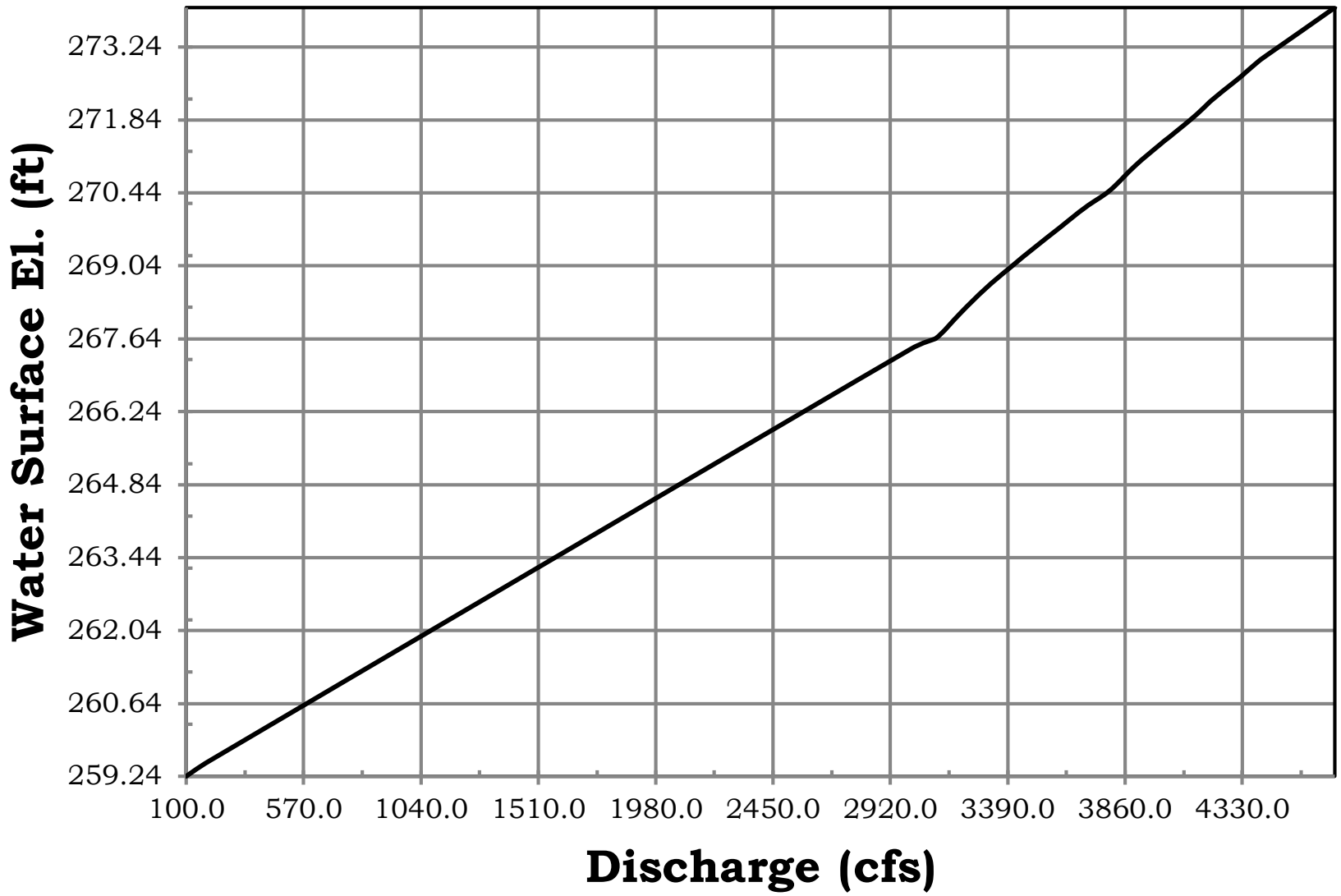


# Sample Retarding Basin

**INPUT DATA**

| Q-WS @ ds Weir | |
|---|---|
| Discharge (cfs) | W.S. El (ft) |
| 100.0 | 259.24 |
| 193.0 | 259.54 |
| 3000.0 | 267.44 |
| 3100.0 | 267.64 |
| 3200.0 | 268.13 |
| 3300.0 | 268.60 |
| 3400.0 | 269.01 |
| 3500.0 | 269.40 |
| 3600.0 | 269.78 |
| 3700.0 | 270.16 |
| 3800.0 | 270.49 |
| 3900.0 | 270.96 |
| 4000.0 | 271.37 |
| 4050.0 | 271.56 |
| 4100.0 | 271.76 |
| 4150.0 | 271.96 |
| 4200.0 | 272.19 |
| 4250.0 | 272.39 |
| 4300.0 | 272.58 |
| 4350.0 | 272.78 |
| 4400.0 | 272.99 |
| 4430.0 | 273.09 |
| 4700.0 | 274.00 |

# STAGE-DISCHARGE (@ Weir)



# Sample Retarding Basin

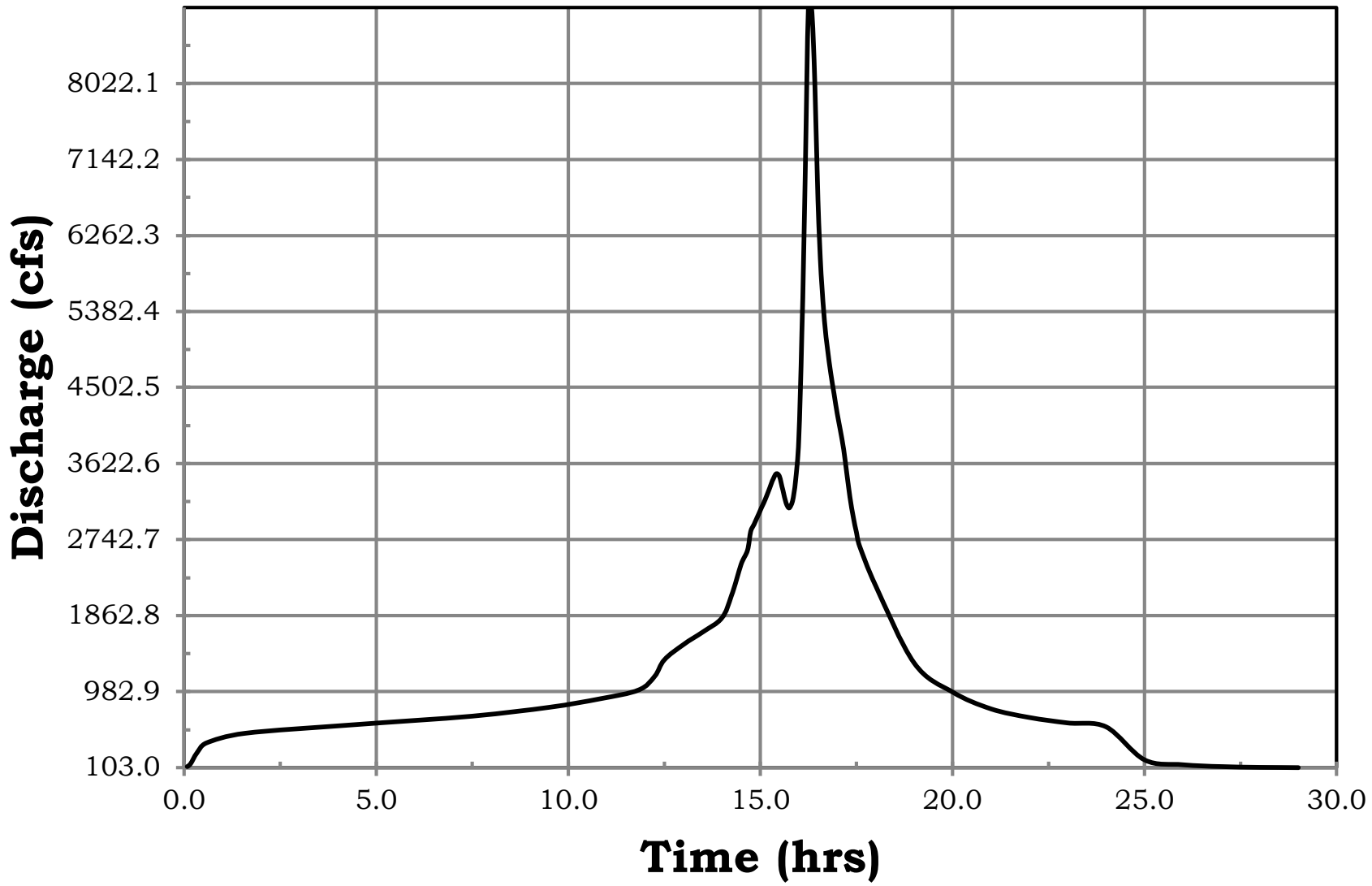
**INPUT DATA**

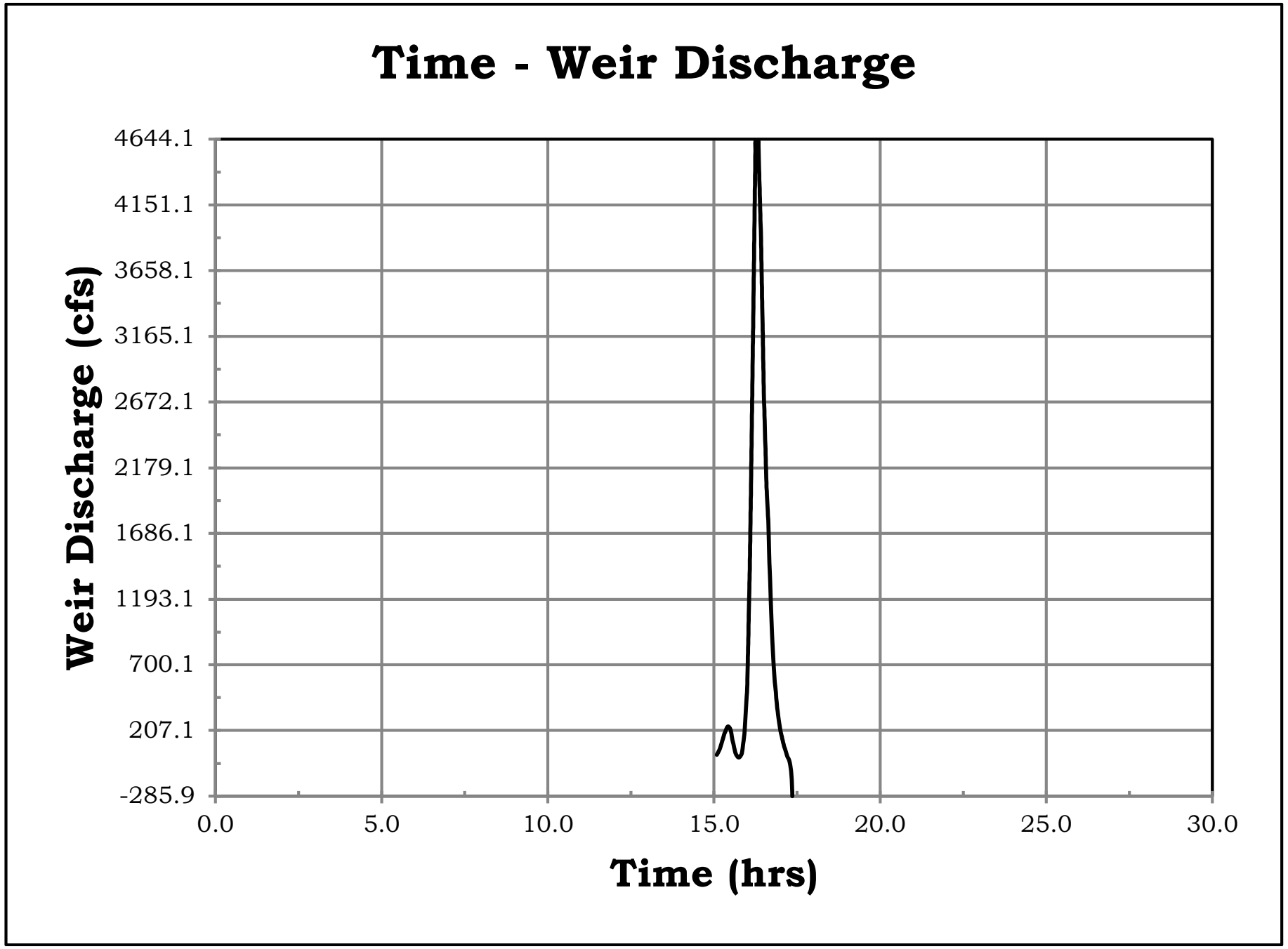
| U/S HYDROGRAPH | |
|---|---|
| **Time (hrs)** | **Discharge (cfs)** |
| 0.083 | 115.0 |
| 0.167 | 148.0 |
| 0.333 | 273.0 |
| 0.583 | 390.0 |
| 1.583 | 501.0 |
| 4.417 | 600.0 |
| 7.500 | 701.0 |
| 9.500 | 802.0 |
| 10.830 | 901.0 |
| 11.830 | 1003.0 |
| 12.250 | 1162.0 |
| 12.500 | 1353.0 |
| 13.000 | 1530.0 |
| 13.500 | 1673.0 |
| 14.000 | 1835.0 |
| 14.250 | 2095.0 |
| 14.500 | 2455.0 |
| 14.667 | 2622.0 |
| 14.750 | 2838.0 |
| 14.833 | 2919.0 |
| 14.917 | 3000.0 |
| 15.000 | 3080.0 |
| 15.083 | 3165.0 |
| 15.167 | 3252.0 |
| 15.250 | 3347.0 |
| 15.333 | 3446.0 |
| 15.417 | 3507.0 |
| 15.500 | 3473.0 |
| 15.583 | 3316.0 |
| 15.667 | 3170.0 |
| 15.750 | 3110.0 |
| 15.833 | 3187.0 |
| 15.917 | 3429.0 |
| 16.000 | 3897.0 |
| 16.083 | 5129.0 |
| 16.167 | 6981.0 |
| 16.250 | 8882.0 |
| 16.333 | 8902.0 |
| 16.417 | 8018.0 |
| 16.500 | 6665.0 |
| 16.583 | 5817.0 |

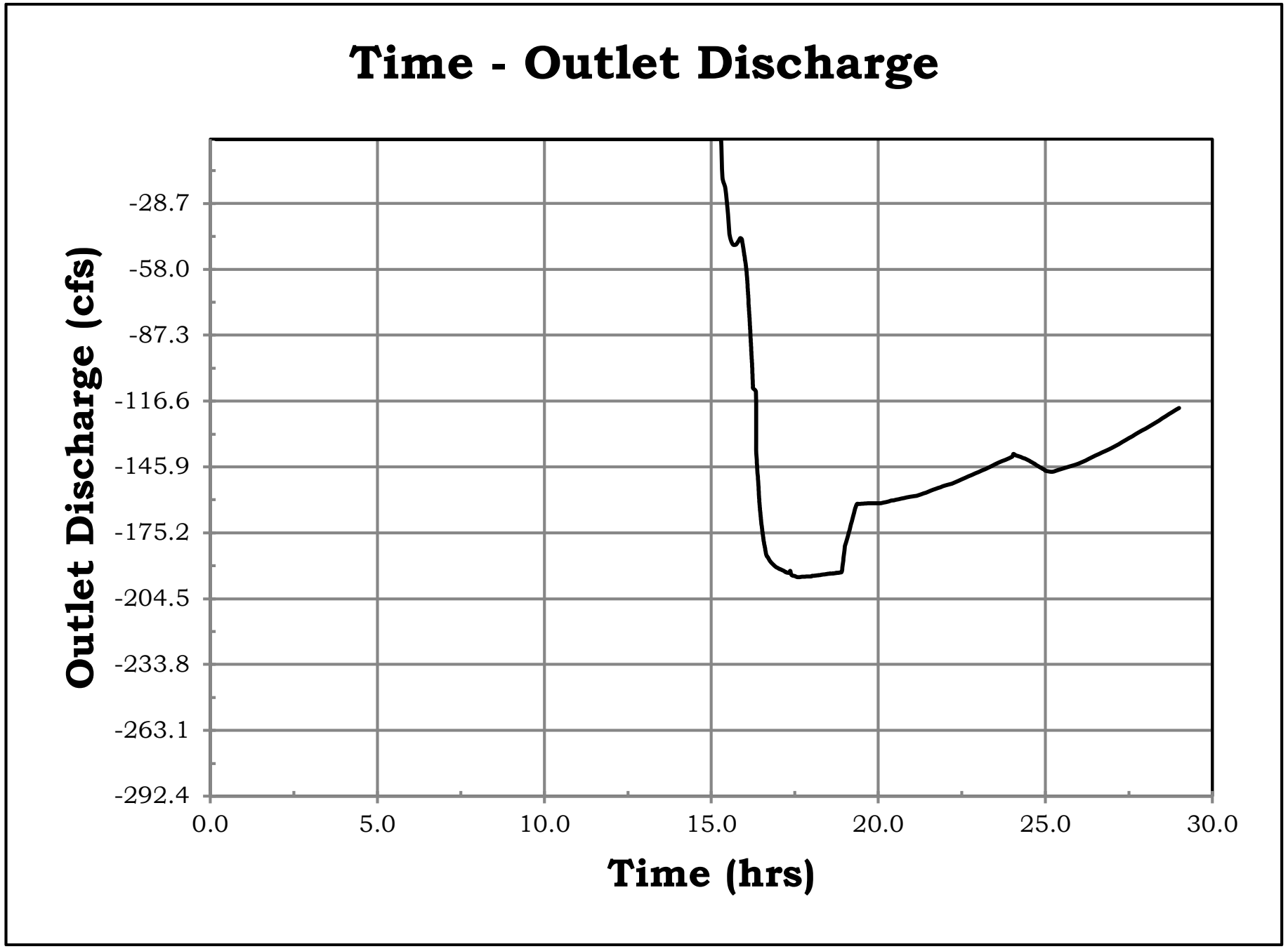
## Sample Retarding Basin

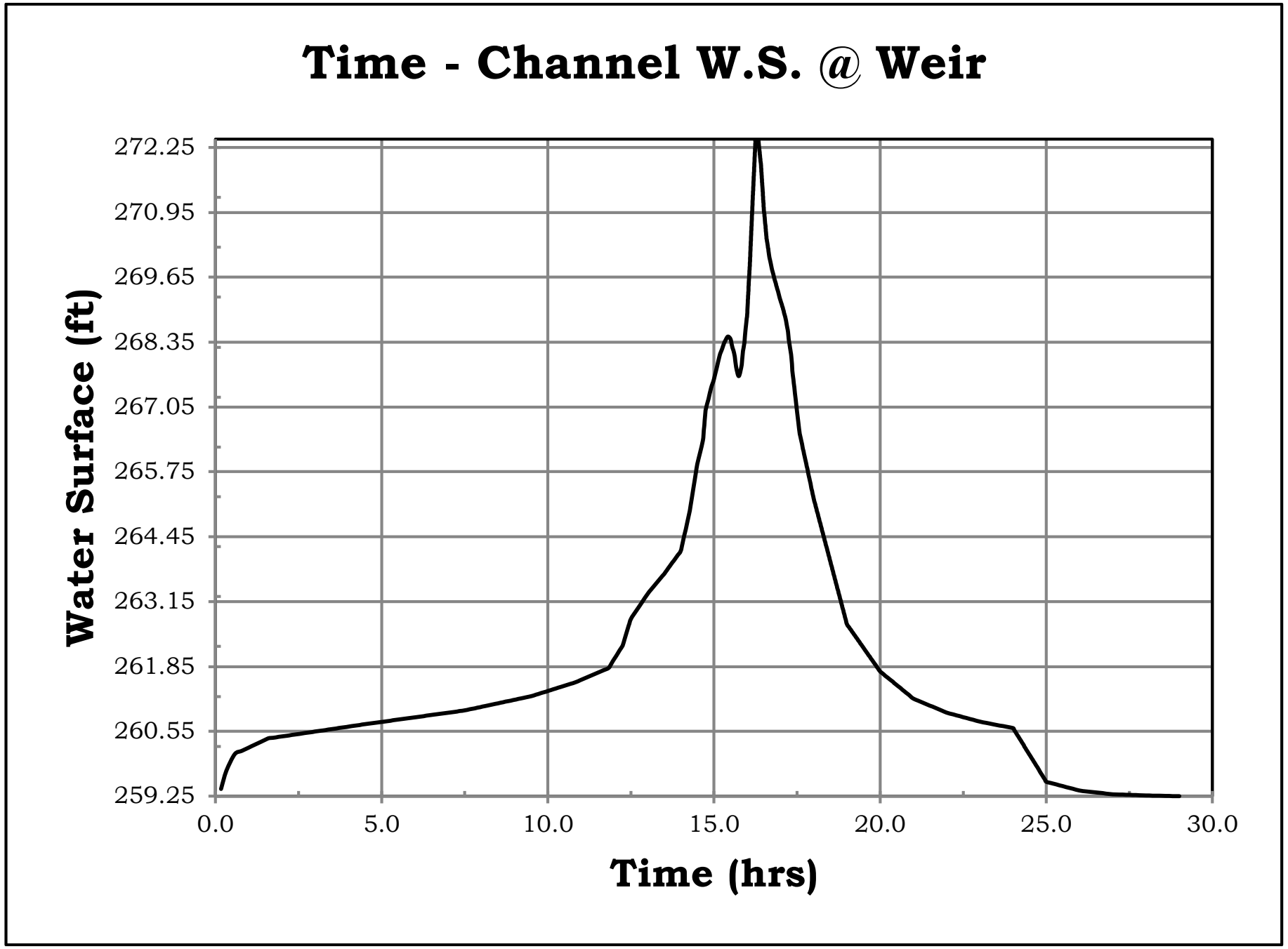
| U/S HYDROGRAPH | |
|---|---|
| Time (hrs) | Discharge (cfs) |
| 16.667 | 5275.0 |
| 16.750 | 4944.0 |
| 16.833 | 4671.0 |
| 16.917 | 4428.0 |
| 17.000 | 4202.0 |
| 17.083 | 4010.0 |
| 17.167 | 3784.0 |
| 17.250 | 3509.0 |
| 17.333 | 3234.0 |
| 17.417 | 3002.0 |
| 17.500 | 2829.0 |
| 17.583 | 2670.0 |
| 18.000 | 2210.0 |
| 19.000 | 1315.0 |
| 20.000 | 978.0 |
| 21.000 | 785.0 |
| 22.000 | 685.0 |
| 23.000 | 621.0 |
| 24.000 | 575.0 |
| 25.000 | 193.0 |
| 26.000 | 138.0 |
| 27.000 | 115.0 |
| 28.000 | 108.0 |
| 29.000 | 103.0 |

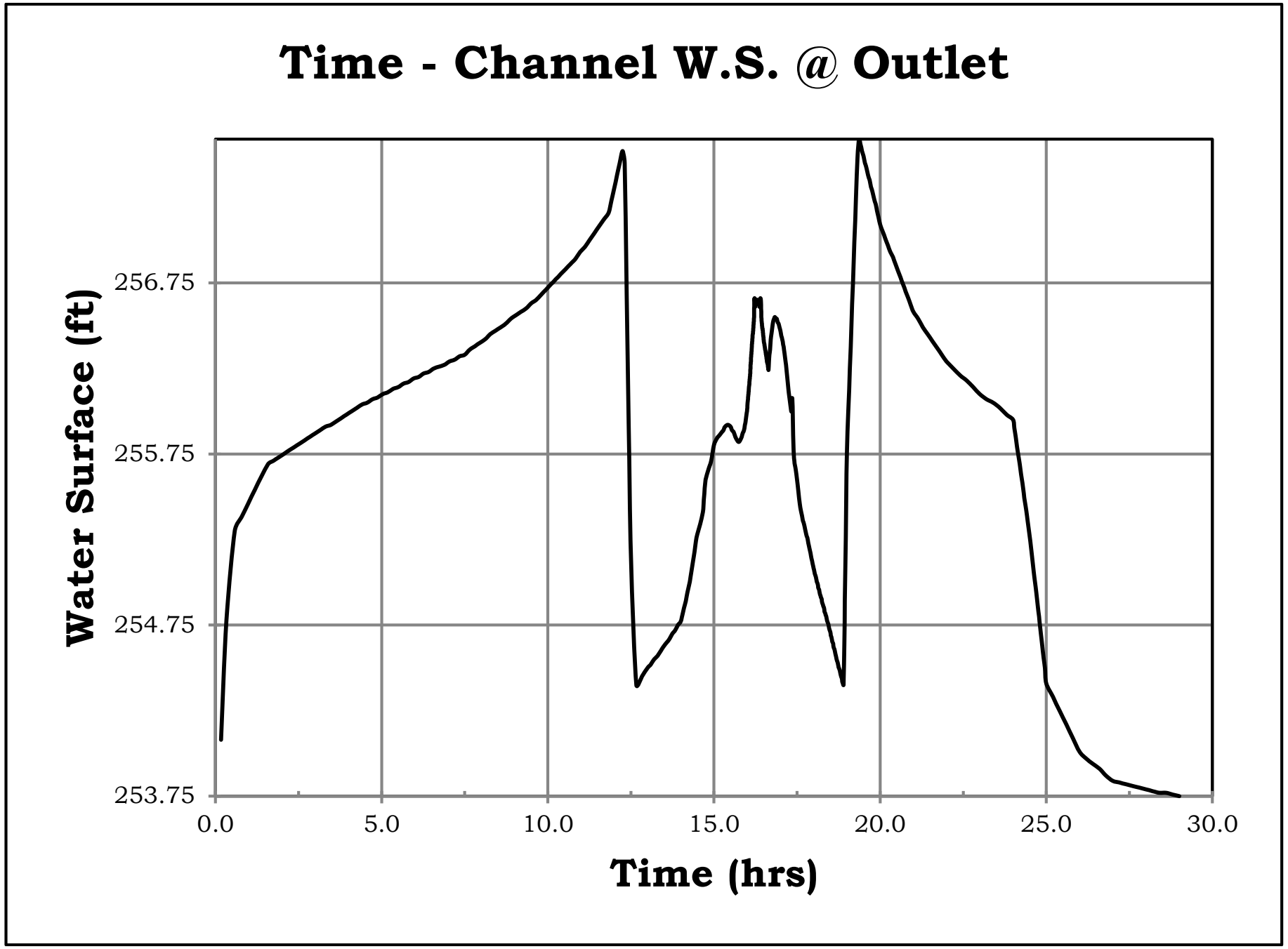
# Upstream Hydrograph

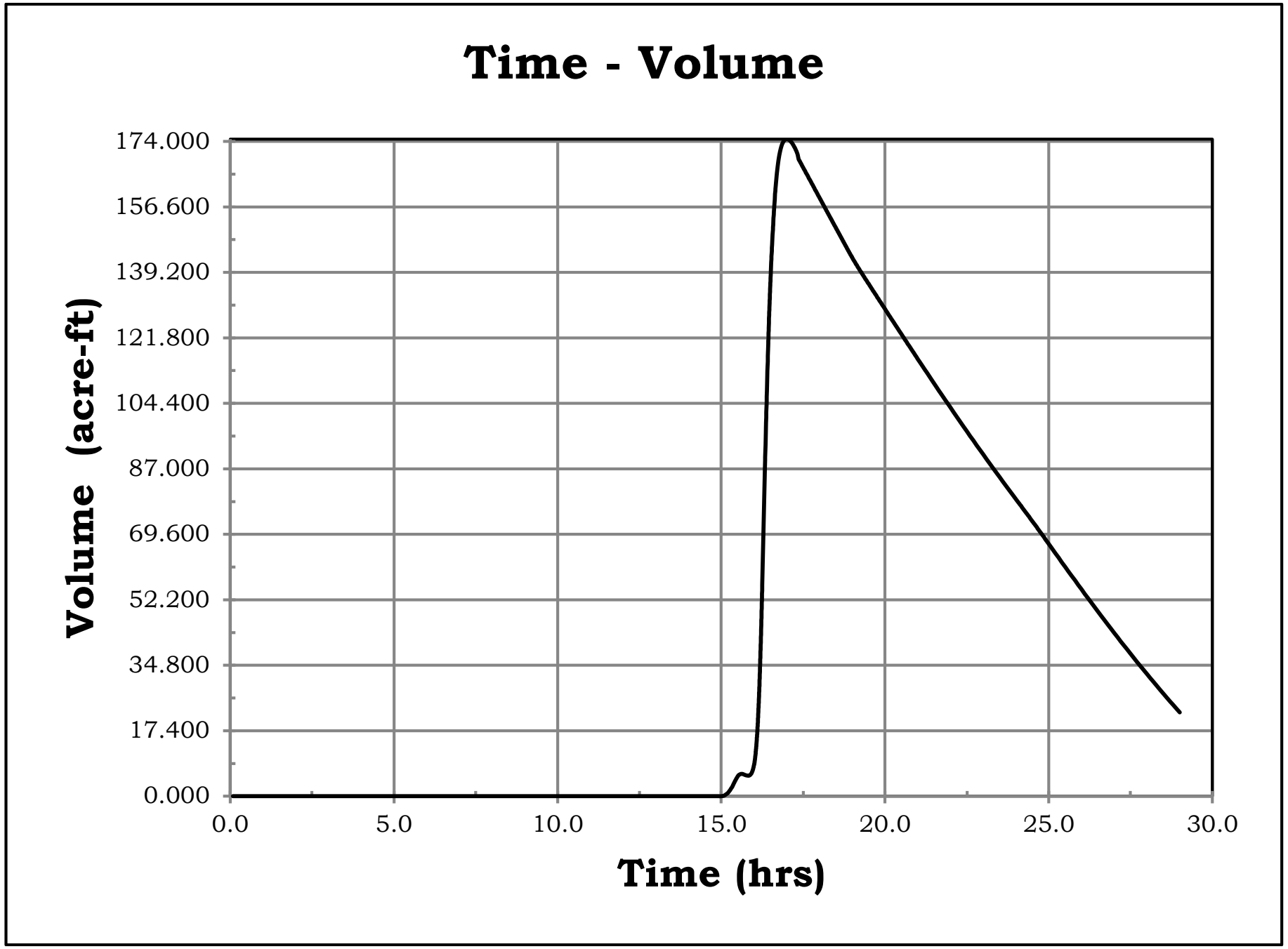


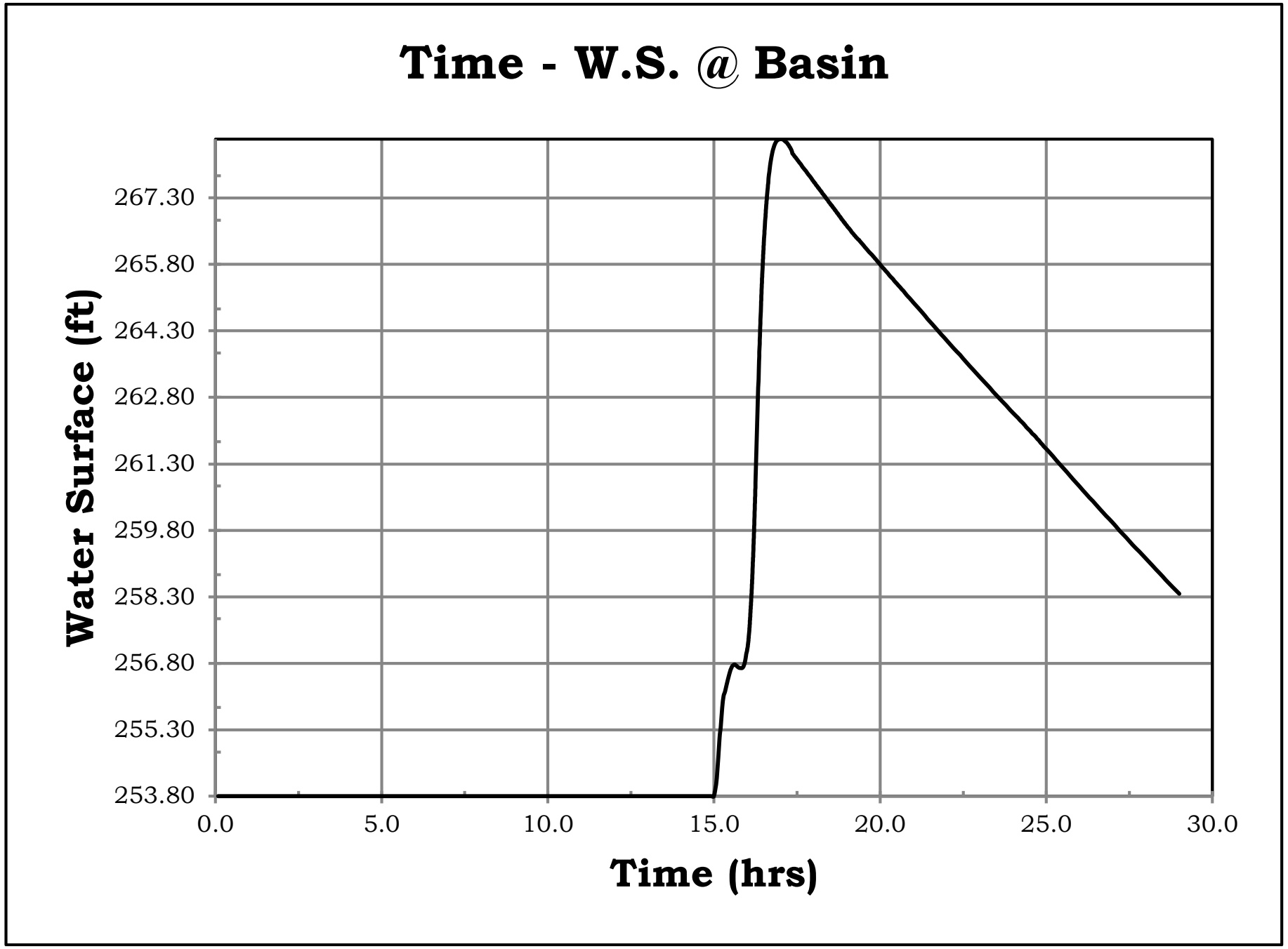

Time - Weir Discharge
Weir Discharge (cfs)
4644.1
4151.1
3658.1
3165.1
2672.1
2179.1
1686.1
1193.1
700.1
207.1
-285.9
0.0
5.0
10.0
15.0
20.0
25.0
30.0
Time (hrs)


Time - Outlet Discharge
Outlet Discharge (cfs)
-28.7
-58.0
-87.3
-116.6
-145.9
-175.2
-204.5
-233.8
-263.1
-292.4
0.0
5.0
10.0
15.0
20.0
25.0
30.0
Time (hrs)


Time - Channel W.S. @ Weir
Water Surface (ft)
272.25
270.95
269.65
268.35
267.05
265.75
264.45
263.15
261.85
260.55
259.25
0.0
5.0
10.0
15.0
20.0
25.0
30.0
Time (hrs)


Time - Channel W.S. @ Outlet
Water Surface (ft)
256.75
255.75
254.75
253.75
0.0
5.0
10.0
15.0
20.0
25.0
30.0
Time (hrs)


Time - Volume
Volume (acre-ft)
174.000
156.600
139.200
121.800
104.400
87.000
69.600
52.200
34.800
17.400
0.000
0.0
5.0
10.0
15.0
20.0
25.0
30.0
Time (hrs)


Time - W.S. @ Basin
Water Surface (ft)
267.30
265.80
264.30
262.80
261.30
259.80
258.30
256.80
255.30
253.80
0.0
5.0
10.0
15.0
20.0
25.0
30.0
Time (hrs)