

**Discovery PUD
Water Management Calculations**

Summary

| | | | |
|----------------------------------|-------|-----------|------------------------------------|
| Total Project Area | | 1530.6 | acres |
| Thomas Produce Offsite | | 317.0 | acres |
| Lake Area | 15.0% | 230.0 | acres |
| | | (ft-NAVD) | |
| Control Elevation | | 8.5 | |
| Minimum Road Crown Elevation | | 11.5 | (10-yr, 1-day storm) |
| Minimum Perimeter Elevation | | 12.0 | (25-yr, 3 day storm) |
| Minimum Finished Floor Elevation | | 13.5 | (100-yr, 3-day storm, 0 discharge) |

Peak Flood Stages (Cascade Model)

| Storm Event | Rainfall (inches) | Peak Stage (ft-NAVD) | |
|---------------------------------------|----------------------|-------------------------|--------|
| 10-year, 24-hour | 7.5 | 9.68 | |
| 25-year, 72-hour | 12.5 | 10.93 | |
| 100-year, 72-hour Zero Discharge | 16 | 12.83 | |
| 25-year, 72-hour Peak Discharge (cfs) | | | 131.24 |
| Allowable Discharge (cfs) | | | 147.10 |

Per HSLCD the allowable discharge rate is 2" over the site

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Land Use

Control Elevation = 8.5 ft NAVD

| | Total Area Area (Acres) | Impervious Area (Acres) | Percent Impervious | Pervious Area (Acres) | Percent Pervious |
|--------------------------|--|--|-------------------------------|--------------------------------------|-----------------------------|
| Residential | 454.2 | 227.1 | 50.0 | 227.1 | 50.0 |
| Golf Course | 262.4 | 26.2 | 10.0 | 236.2 | 90.0 |
| Loop Road | 72.8 | 43.7 | 60.0 | 29.1 | 40.0 |
| Clubhouse Road | 6.5 | 3.9 | 60.0 | 2.6 | 40.0 |
| Side Roads | 38.0 | 22.8 | 60.0 | 15.2 | 40.0 |
| Lake | 192.0 | 192.0 | 100.0 | 0.0 | 0.0 |
| Lake Bank | 27.9 | 0.0 | 0.0 | 27.9 | 100.0 |
| Recreation and Amenities | 94.0 | 70.5 | 75.0 | 23.5 | 25.0 |
| Polo Fields | 67.6 | 6.8 | 10.0 | 60.8 | 90.0 |
| Wetland Restoration | 124.4 | 124.4 | 100.0 | 0.0 | 0.0 |
| State Park Dedication | 19.4 | 9.7 | 50.0 | 9.7 | 50.0 |
| Buffer and Open Space | 166.4 | 0.0 | 0.0 | 166.4 | 100.0 |
| HSLCD Site | 5.0 | 3.8 | 75.0 | 1.3 | 25.0 |
| <i>Subtotal</i> | 1530.6 | 730.8 | 47.7 | 799.8 | 52.3 |

**Discovery PUD
Water Management Calculations**

Site Data and Grading Assumptions

| | Total Area Area (Acres) | Percent Area (Acres) | From (ft NAVD) | To (ft NAVD) | Av. Finished Grade (Ft. NAVD) | |
|--------------------------|--|-------------------------------------|---------------------------|-------------------------|--|------|
| Residential | 454.2 | 30% | 14.0 | 31.0 | 22.5 | NAVD |
| Golf Course | 262.4 | 17% | 10.0 | 37.0 | 23.5 | NAVD |
| Loop Road | 72.8 | 5% | 12.0 | 18.0 | 15.0 | NAVD |
| Clubhouse Road | 6.5 | 0% | 15.0 | 31.0 | 23.0 | NAVD |
| Side Roads | 38.0 | 2% | 12.0 | 24.0 | 12.0 | NAVD |
| Lake | 192.0 | 13% | 8.5 | up | 8.5 | NAVD |
| Lake Bank | 27.9 | 2% | 8.5 | 10.5 | 9.5 | NAVD |
| Recreation and Amenities | 94.0 | 6% | 12.0 | 33.0 | 22.5 | NAVD |
| Polo Fields | 67.6 | 4% | 12.0 | 14.0 | 13.0 | NAVD |
| Wetland Restoration | 124.4 | 8% | 8.5 | 8.5 | 8.5 | NAVD |
| State Park Dedication | 19.4 | 1% | 11.0 | 16.0 | 13.5 | NAVD |
| Buffer and Open Space | 166.4 | 11% | 10.0 | 15.0 | 12.5 | NAVD |
| SMRU Site | 5.0 | 0% | 12.0 | 15.0 | 13.5 | NAVD |
| Total Area | 1530.6 | 100% | | | 15.2 | |

| | |
|------------------------|-----------|
| Average Existing Grade | 14 NAVD |
| Average Proposed Grade | 17.1 NAVD |
| Control Elevation | 8.5 NAVD |

**Discovery PUD
Water Management Calculations**

Soil Storage

Control Elevation = 8.5 ft NAVD

| | Total Area Area (Acres) | Pervious Area (Acres) | Av. Finished Grade (Ft. NAVD) | Depth to Water Table (Feet) | Soil Storage (Inches) | Compacted Soil Storage (Inches) | Soil Storage (Ac.-Ft.) |
|--------------------------|--|--------------------------------------|--|--|--------------------------------------|--|---------------------------------------|
| Residential | 454.2 | 460.0 | 22.5 | 14.0 | 9.0 | 6.8 | 258.8 |
| Golf Course | 262.4 | 390.0 | 23.5 | 15.0 | 9.0 | 6.8 | 219.4 |
| Loop Road | 72.8 | 77.0 | 15.0 | 6.5 | 9.0 | 6.8 | 43.3 |
| Clubhouse Road | 6.5 | 5.0 | 23.0 | 14.5 | 9.0 | 6.8 | 2.8 |
| Side Roads | 38.0 | 45.0 | 12.0 | 3.5 | 9.0 | 6.8 | 25.3 |
| Lake | 192.0 | 0.0 | 8.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| Lake Bank | 27.9 | 30.0 | 9.5 | 1.0 | 4.0 | 3.0 | 7.5 |
| Recreation and Amenities | 94.0 | 77.0 | 22.5 | 14.0 | 9.0 | 6.8 | 43.3 |
| Polo Fields | 67.6 | 85.0 | 13.0 | 4.5 | 9.0 | 6.8 | 47.8 |
| Wetland Restoration | 124.4 | 0.0 | 8.5 | 0.0 | 9.0 | 6.8 | 0.0 |
| State Park Dedication | 19.4 | 9.7 | 13.5 | 5.0 | 9.0 | 6.8 | 5.5 |
| Buffer and Open Space | 166.4 | 36.0 | 12.5 | 4.0 | 9.0 | 6.8 | 20.3 |
| SMRU Site | 5.0 | 5.0 | 13.5 | 5.0 | 9.0 | 6.8 | 2.8 |
| Subtotal | 1530.6 | 1219.7 | | | | | 676.7 |

Equivalent Site's Soil Storage (S) = 5.3 inches

Curve Number = $1000/(S+10)$ = 65

Soil storage estimated from ERP Volume IV for Flatwood soils and adjusted for compaction (25%).

Discovery PUD
Water Management Calculations

| | Residential | | Golf Course | | Loop Road | | Clubhouse Road | | Side Roads | | Lake | | Lake Bank | | Recreation/Amenities | | Polo Fields | | Wetland Restoration | | State Park Dedication | | Buffer and Open Space | | SMRU Site | | Totals | |
|--------------|----------------|------------------|----------------|------------------|----------------|------------------|----------------|------------------|----------------|------------------|----------------|------------------|----------------|------------------|----------------------|------------------|----------------|------------------|---------------------|------------------|-----------------------|------------------|-----------------------|------------------|----------------|------------------|-----------------|--------------|
| Low El. | 14 | | 10 | | 12 | | 15 | | 12 | | 8.5 | 8.5 | 12 | 12 | 12 | 12 | 8.5 | 11 | 10 | 10 | 15 | 15 | 5 | 5 | | | | |
| High El. | 31 | | 37 | | 18 | | 31 | | 24 | | 8.5 | 10.5 | 33 | 33 | 14 | 14 | 8.5 | 16 | 15 | 15 | 15 | 15 | 5 | 5 | | | | |
| Area (Ac.) | 454 | | 262 | | 73 | | 7 | | 38 | | 192 | 28 | 94 | 94 | 68 | 68 | 124 | 19 | 166 | 166 | 5 | 5 | | | | | | |
| Stage (NAVD) | Linear Storage | Vertical Storage | Linear Storage | Vertical Storage | Linear Storage | Vertical Storage | Linear Storage | Vertical Storage | Linear Storage | Vertical Storage | Linear Storage | Vertical Storage | Linear Storage | Vertical Storage | Storage (Ac-ft) | Stage (NAVD) |
| 7.50 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 7.50 |
| 8.00 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 8.00 |
| 8.50 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 8.50 |
| 9.00 | - | - | - | - | - | - | - | - | - | - | 96.0 | 1.7 | - | - | - | - | - | 62.2 | - | - | - | - | - | - | - | - | 159.95 | 9.00 |
| 9.50 | - | - | - | - | - | - | - | - | - | - | 192.0 | 7.0 | - | - | - | - | - | 124.4 | - | - | - | - | - | - | - | - | 323.39 | 9.50 |
| 10.00 | - | - | - | - | - | - | - | - | - | - | 288.0 | 15.7 | - | - | - | - | - | 186.6 | - | - | - | - | - | - | - | - | 490.31 | 10.00 |
| 10.50 | - | - | 1.2 | - | - | - | - | - | - | - | 384.0 | 27.9 | - | - | - | - | - | 248.8 | - | - | 4.2 | - | - | - | - | - | 666.10 | 10.50 |
| 11.00 | - | - | 4.9 | - | - | - | - | - | - | - | 480.0 | 27.9 | 14.0 | - | - | - | - | 311.0 | - | - | 16.6 | - | - | - | - | - | 854.38 | 11.00 |
| 11.50 | - | - | 10.9 | - | - | - | - | - | - | - | 576.0 | 27.9 | 27.9 | - | - | - | - | 373.2 | 0.5 | - | 37.4 | - | - | - | - | - | 1,053.89 | 11.50 |
| 12.00 | - | - | 19.4 | - | - | - | - | - | - | - | 672.0 | 27.9 | 41.9 | - | - | - | - | 435.4 | 1.9 | - | 66.6 | - | - | - | - | - | 1,265.13 | 12.00 |
| 12.50 | - | - | 30.4 | - | 1.5 | - | - | - | 0.4 | - | 768.0 | 27.9 | 55.8 | 0.6 | - | 4.2 | - | 497.6 | 4.4 | - | 104.0 | - | 0.2 | - | - | - | 1,494.99 | 12.50 |
| 13.00 | - | - | 43.7 | - | 6.1 | - | - | - | 1.6 | - | 864.0 | 27.9 | 69.8 | 2.2 | - | 16.9 | - | 559.9 | 7.8 | - | 149.8 | - | 0.8 | - | - | - | 1,750.38 | 13.00 |
| 13.50 | - | - | 59.5 | - | 13.7 | - | - | - | 3.6 | - | 960.0 | 27.9 | 83.7 | 5.0 | - | 38.0 | - | 622.1 | 12.1 | - | 203.8 | - | 1.9 | - | - | - | 2,031.30 | 13.50 |
| 14.00 | - | - | 77.7 | - | 24.3 | - | - | - | 6.3 | - | 1,056.0 | 27.9 | 97.7 | 9.0 | - | 67.6 | - | 684.3 | 17.5 | - | 266.2 | - | 3.3 | - | - | - | 2,337.75 | 14.00 |
| 14.50 | 3.3 | - | 98.4 | - | 37.9 | - | - | - | 9.9 | - | 1,152.0 | 27.9 | 111.6 | 14.0 | - | 67.6 | 33.8 | 746.5 | 23.8 | - | 337.0 | - | 5.2 | - | - | - | 2,668.85 | 14.50 |
| 15.00 | 13.4 | - | 121.5 | - | 54.6 | - | - | - | 14.3 | - | 1,248.0 | 27.9 | 125.6 | 20.1 | - | 67.6 | 67.6 | 808.7 | 31.0 | - | 416.0 | - | 7.5 | - | - | - | 3,023.70 | 15.00 |
| 15.50 | 30.1 | - | 147.0 | - | 74.3 | - | 0.1 | - | 19.4 | - | 1,344.0 | 27.9 | 139.5 | 27.4 | - | 67.6 | 101.4 | 870.9 | 39.3 | - | 416.0 | 83.2 | 7.5 | 2.5 | - | - | 3,398.00 | 15.50 |
| 16.00 | 53.4 | - | 174.9 | - | 97.1 | - | 0.2 | - | 25.3 | - | 1,440.0 | 27.9 | 153.5 | 35.8 | - | 67.6 | 135.2 | 933.1 | 48.5 | - | 416.0 | 166.4 | 7.5 | 5.0 | - | - | 3,787.42 | 16.00 |
| 16.50 | 83.5 | - | 205.3 | - | 122.9 | - | 0.5 | - | 32.1 | - | 1,536.0 | 27.9 | 167.4 | 45.3 | - | 67.6 | 169.0 | 993.3 | 48.5 | 9.7 | 416.0 | 249.6 | 7.5 | 7.5 | - | - | 4,191.48 | 16.50 |
| 17.00 | 120.2 | - | 238.1 | - | 151.7 | - | 0.8 | - | 39.6 | - | 1,632.0 | 27.9 | 181.4 | 56.0 | - | 67.6 | 202.8 | 1,057.5 | 48.5 | 19.4 | 416.0 | 332.8 | 7.5 | 10.0 | - | - | 4,609.70 | 17.00 |
| 17.50 | 163.6 | - | 273.3 | - | 183.5 | - | 1.3 | - | 47.9 | - | 1,728.0 | 27.9 | 195.3 | 67.7 | - | 67.6 | 236.6 | 1,119.7 | 48.5 | 29.1 | 416.0 | 416.0 | 7.5 | 12.5 | - | - | 5,042.07 | 17.50 |
| 18.00 | 213.7 | - | 311.0 | - | 218.4 | - | 1.8 | - | 57.0 | - | 1,824.0 | 27.9 | 209.3 | 80.6 | - | 67.6 | 270.4 | 1,181.9 | 48.5 | 38.8 | 416.0 | 499.2 | 7.5 | 15.0 | - | - | 5,488.60 | 18.00 |
| 18.50 | 270.5 | - | 351.1 | - | 218.4 | 36.4 | 2.5 | - | 66.9 | - | 1,920.0 | 27.9 | 223.2 | 94.6 | - | 67.6 | 304.2 | 1,244.1 | 48.5 | 48.5 | 416.0 | 582.4 | 7.5 | 17.5 | - | - | 5,947.76 | 18.50 |
| 19.00 | 334.0 | - | 393.6 | - | 218.4 | 72.8 | 3.3 | - | 77.6 | - | 2,016.0 | 27.9 | 237.2 | 109.7 | - | 67.6 | 338.0 | 1,306.3 | 48.5 | 58.2 | 416.0 | 665.6 | 7.5 | 20.0 | - | - | 6,418.05 | 19.00 |
| 19.50 | 404.1 | - | 438.5 | - | 218.4 | 109.2 | 4.1 | - | 89.1 | - | 2,112.0 | 27.9 | 251.1 | 125.9 | - | 67.6 | 371.8 | 1,368.5 | 48.5 | 67.9 | 416.0 | 748.8 | 7.5 | 22.5 | - | - | 6,899.45 | 19.50 |
| 20.00 | 480.9 | - | 485.9 | - | 218.4 | 145.6 | 5.1 | - | 101.3 | - | 2,208.0 | 27.9 | 265.1 | 143.2 | - | 67.6 | 405.6 | 1,430.7 | 48.5 | 77.6 | 416.0 | 832.0 | 7.5 | 25.0 | - | - | 7,391.98 | 20.00 |
| 20.50 | 564.4 | - | 535.7 | - | 218.4 | 182.0 | 6.1 | - | 114.4 | - | 2,304.0 | 27.9 | 279.0 | 161.7 | - | 67.6 | 439.4 | 1,492.9 | 48.5 | 87.3 | 416.0 | 915.2 | 7.5 | 27.5 | - | - | 7,895.63 | 20.50 |
| 21.00 | 654.6 | - | 588.0 | - | 218.4 | 218.4 | 7.3 | - | 128.3 | - | 2,400.0 | 27.9 | 293.0 | 181.3 | - | 67.6 | 473.2 | 1,555.2 | 48.5 | 97.0 | 416.0 | 998.4 | 7.5 | 30.0 | - | - | 8,410.40 | 21.00 |
| 21.50 | 751.4 | - | 642.6 | - | 218.4 | 254.8 | 8.6 | - | 142.9 | - | 2,496.0 | 27.9 | 306.9 | 202.0 | - | 67.6 | 507.0 | 1,617.4 | 48.5 | 106.7 | 416.0 | 1,081.6 | 7.5 | 32.5 | - | - | 8,936.29 | 21.50 |
| 22.00 | 855.0 | - | 699.7 | - | 218.4 | 291.2 | 10.0 | - | 158.3 | - | 2,592.0 | 27.9 | 320.9 | 223.8 | - | 67.6 | 540.8 | 1,679.6 | 48.5 | 116.4 | 416.0 | 1,164.8 | 7.5 | 35.0 | - | - | 9,473.31 | 22.00 |
| 22.50 | 965.2 | - | 759.3 | - | 218.4 | 327.6 | 11.4 | - | 174.6 | - | 2,688.0 | 27.9 | 334.8 | 246.8 | - | 67.6 | 574.6 | 1,741.8 | 48.5 | 126.1 | 416.0 | 1,248.0 | 7.5 | 37.5 | - | - | 10,021.44 | 22.50 |
| 23.00 | 1,082.1 | - | 821.2 | - | 218.4 | 364.0 | 13.0 | - | 191.6 | - | 2,784.0 | 27.9 | 348.8 | 270.8 | - | 67.6 | 608.4 | 1,804.0 | 48.5 | 135.8 | 416.0 | 1,331.2 | 7.5 | 40.0 | - | - | 10,580.70 | 23.00 |
| 23.50 | 1,205.6 | - | 885.6 | - | 218.4 | 400.4 | 14.7 | - | 209.4 | - | 2,880.0 | 27.9 | 362.7 | 296.0 | - | 67.6 | 642.2 | 1,866.2 | 48.5 | 145.5 | 416.0 | 1,414.4 | 7.5 | 42.5 | - | - | 11,151.07 | 23.50 |
| 24.00 | 1,335.9 | - | 952.4 | - | 218.4 | 436.8 | 16.5 | - | 228.0 | - | 2,976.0 | 27.9 | 376.7 | 322.3 | - | 67.6 | 676.0 | 1,928.4 | 48.5 | 155.2 | 416.0 | 1,497.6 | 7.5 | 45.0 | - | - | 11,732.57 | 24.00 |
| 24.50 | 1,472.8 | - | 1,021.7 | - | 218.4 | 473.2 | 18.3 | - | 228.0 | - | 3,072.0 | 27.9 | 390.6 | 349.7 | - | 67.6 | 709.8 | 1,990.6 | 48.5 | 164.9 | 416.0 | 1,580.8 | 7.5 | 47.5 | - | - | 12,305.80 | 24.50 |
| 25.00 | 1,616.4 | - | 1,093.3 | - | 218.4 | 509.6 | 20.3 | - | 228.0 | - | 3,168.0 | 27.9 | 404.6 | 378.2 | - | 67.6 | 743.6 | 2,052.8 | 48.5 | 174.6 | 416.0 | 1,664.0 | 7.5 | 50.0 | - | - | 12,889.35 | 25.00 |
| 25.50 | 1,766.7 | - | 1,167.4 | - | 218.4 | 546.0 | 22.4 | - | 228.0 | - | 3,264.0 | 27.9 | 418.5 | 407.9 | - | 67.6 | 777.4 | 2,115.0 | 48.5 | 184.3 | 416.0 | 1,747.2 | 7.5 | 52.5 | - | - | 13,483.23 | 25.50 |
| 26.00 | 1,923.7 | - | 1,244.0 | - | 218.4 | 582.4 | 24.6 | - | 228.0 | - | 3,360.0 | 27.9 | 432.5 | 438.7 | - | 67.6 | 811.2 | 2,177.2 | 48.5 | 194.0 | 416.0 | 1,830.4 | 7.5 | 55.0 | - | - | 14,087.45 | 26.00 |
| 26.50 | 2,087.3 | - | 1,322.9 | - | 218.4 | 618.8 | 26.9 | - | 228.0 | - | 3,456.0 | 27.9 | 446.4 | 470.6 | - | 67.6 | 845.0 | 2,239.4 | 48.5 | 203.7 | 416.0 | 1,913.6 | 7.5 | 57.5 | - | - | 14,701.99 | 26.50 |
| 27.00 | 2,257.6 | - | 1,404.3 | - | 218.4 | 655.2 | 29.3 | - | 228.0 | - | 3,552.0 | 27.9 | 460.4 | 503.6 | - | 67.6 | 878.8 | 2,301.6 | 48.5 | 213.4 | 416.0 | 1,996.8 | 7.5 | 60.0 | - | - | 15,326.86 | 27.00 |
| 27.50 | 2,434.6 | - | 1,488.1 | - | 218.4 | 691.6 | 31.7 | - | 228.0 | - | 3,648.0 | 27.9 | 474.3 | 537.7 | - | 67.6 | 912.6 | 2,363.8 | 48.5 | 223.1 | 416.0 | 2,080.0 | 7.5 | 62.5 | - | - | 15,962.06 | 27.50 |
| 28.00 | 2,618.3 | - | 1,574.4 | - | 218.4 | 728.0 | 34.3 | - | 228.0 | - | 3,744.0 | 27.9 | 488.3 | 573.0 | - | 67.6 | 946.4 | 2,426.0 | 48.5 | 232.8 | 416.0 | 2,163.2 | 7.5 | 65.0 | - | - | 16,607.59 | 28.00 |
| 28.50 | 2,808.7 | - | 1,663.1 | - | 218.4 | 764.4 | 37.0 | - | 228.0 | - | 3,840.0 | 27.9 | 502.2 | 609.3 | - | 67.6 | 980.2 | 2,488.2 | 48.5 | 242.5 | 416.0 | 2,246.4 | 7.5 | 67.5 | - | - | 17,263.46 | 28.50 |
| 29.00 | 3,005.7 | - | 1,754.2 | - | 218.4 | 800.8 | 39.8 | - | 228.0 | - | 3,936.0 | 27.9 | 516.2 | 646.8 | - | 67.6 | 1,014.0 | 2,550.4 | 48.5 | 252.2 | 416.0 | 2,329.6 | 7.5 | 70.0 | - | - | 17,929.65 | 29.00 |
| 29.50 | 3,209.5 | - | 1,847.7 | - | 218.4 | 837.2 | 42.7 | - | 228.0 | - | 4,032.0 | 27.9 | 530.1 | 685.4 | - | 67.6 | 1,047.8 | 2,612.7 | 48.5 | 261.9 | 416.0 | 2,412.8 | 7.5 | 72.5 | - | - | 18,606.17 | 29.50 |
| 30.00 | 3,419.9 | - | 1,943.7 | - | 218.4 | 873.6 | 45.7 | - | 228.0 | - | 4,128.0 | 27.9 | 544.1 | 725.1 | - | 67.6 | 1,081.6 | 2,674.9 | 48.5 | 271.6 | 416.0 | 2,496.0 | 7.5 | 75.0 | - | - | 19,293.02 | 30.00 |
| 30.50 | 3,636.9 | - | 2,042.1 | - | 218.4 | 910.0 | 48.8 | - | 228.0 | - | 4,224.0 | 27.9 | 558.0 | 766.0 | - | 67.6 | 1,115.4 | 2,737.1 | 48.5 | 281.3 | 416.0 | 2,579.2 | 7.5 | 77.5 | - | - | 19,990.20 | 30.50 |
| 31.00 | 3,860.7 | - | 2,142.9 | - | 218.4 | 946.4 | 52.0 | - | 228.0</ | | | | | | | | | | | | | | | | | | | |

Discovery PUD
Water Management Calculations

Thomas Produce Stage Storage

| | | | | | | Ditches | | Pervious | | | | | | Totals | |
|--------------|--|--|--|--|--|----------------|------------------|----------------|------------------|--|--|--|--|-----------------|--------------|
| Low El. | | | | | | 10.5 | | 11.5 | | | | | | | |
| High El. | | | | | | 14.5 | | 14.5 | | | | | | | |
| Area (Ac.) | | | | | | 50 | | 267 | | | | | | | |
| Stage (NAVD) | | | | | | Linear Storage | Vertical Storage | Linear Storage | Vertical Storage | | | | | Storage (Ac-ft) | Stage (NAVD) |
| 7.50 | | | | | | - | - | - | - | | | | | - | 7.50 |
| 8.00 | | | | | | - | - | - | - | | | | | - | 8.00 |
| 8.50 | | | | | | - | - | - | - | | | | | - | 8.50 |
| 9.00 | | | | | | - | - | - | - | | | | | - | 9.00 |
| 9.50 | | | | | | - | - | - | - | | | | | - | 9.50 |
| 10.00 | | | | | | - | - | - | - | | | | | - | 10.00 |
| 10.50 | | | | | | - | - | - | - | | | | | - | 10.50 |
| 11.00 | | | | | | 1.6 | - | - | - | | | | | 1.56 | 11.00 |
| 11.50 | | | | | | 6.3 | - | - | - | | | | | 6.25 | 11.50 |
| 12.00 | | | | | | 14.1 | - | 11.1 | - | | | | | 25.19 | 12.00 |
| 12.50 | | | | | | 25.0 | - | 44.5 | - | | | | | 69.50 | 12.50 |
| 13.00 | | | | | | 39.1 | - | 100.1 | - | | | | | 139.19 | 13.00 |
| 13.50 | | | | | | 56.3 | - | 178.0 | - | | | | | 234.25 | 13.50 |
| 14.00 | | | | | | 76.6 | - | 278.1 | - | | | | | 354.69 | 14.00 |
| 14.50 | | | | | | 100.0 | - | 400.5 | - | | | | | 500.50 | 14.50 |
| 15.00 | | | | | | 100.0 | 25.0 | 400.5 | 133.5 | | | | | 659.00 | 15.00 |
| 15.50 | | | | | | 100.0 | 50.0 | 400.5 | 267.0 | | | | | 817.50 | 15.50 |
| 16.00 | | | | | | 100.0 | 75.0 | 400.5 | 400.5 | | | | | 976.00 | 16.00 |
| 16.50 | | | | | | 100.0 | 100.0 | 400.5 | 534.0 | | | | | 1,134.50 | 16.50 |

**Discovery PUD
Water Management Calculations**

**Martin County
Water Quality Detention**

The required water quality detention volume is 3" times the percent impervious including roofs.

Site Area for Water Quality (acres) 1780.0
(total project) + (Thomas Produce Site) - (water + wetland restoration)

Impervious Area (acres) 663.3
(water quality site area - pervious area)

Percent Impervious 37%
(impervious area/water quality site area)

3 x Percent Impervious over the Site 165.8 AC-FT

Martin County Requires 1.5 times more detention for wet systems

150% x 165.8 = **248.7 AC-FT**

Required Detention Stage on Lakes **9.27**
(from stage-storage table)

Discovery PUD
Water Management Calculations

SFWMD
Water Quality Detention

The required water quality detention volume is the first inch of runoff over the site or 2.5" over the impervious (SFWMD Requirement).

1" Over the Site

First Inch of Runoff (total project + Thomas Produce Site) 154.0 AC-FT

Discharge to an impaired water body required to provide 150% of normal water quality treatment

$$150\% \times 154.0 = 231.0 \text{ AC-FT}$$

2.5" Over the Impervious

Site Area for Water Quality (acres) 1780.0
(total project) + (Thomas Produce Site) - (water + wetland restoration))

Impervious Area (acres) 663.3
(water quality site area - pervious area)

2.5 x Impervious over the Site 138.2 AC-FT

Discharge to an impaired water body required to provide 150% of normal water quality treatment

$$150\% \times 138.2 = 207.3 \text{ AC-FT}$$

**Discovery PUD
Water Management Calculations**

100-Year, 72-Hour, Zero Discharge Flood Stage (NAVD)

| | | |
|---|----|-------------------|
| 100-Year, 72-Hour Rainfall = | 16 | inches |
| Site's Equivalent Soil Storage (inches) | | 5.3 |
| Runoff (inches) | | 10.7 |
| Runoff Volume (Ac-ft) | | 1646.6 |
| Flood Stage (ft-NAVD) | | 12.83 |
| 100 year, 3 day zero discharge stage elevation | | 12.83 NAVD |

Allowable Discharge

The allowable discharge for the HSLCD Unit 1 is established at 4 inches per day. However; the rate for this project has been limited to 2 inches per day over the site area for the 25-year, 72 hour storm plus offsite flows.

| | |
|------------------------------|-------------------|
| 1530-AC at 2 inches per day= | 131.10 CFS |
| Thomas Produce Offsite Flow= | 16.00 CFS |
| Total Discharge Rate= | 147.10 CFS |

Time of Concentration

The time of concentration (TC) for the routings was calculated as $2 \times \text{SqRt}$ of the Basin Area in square miles.

$$\text{TC} = 2 \times \text{SqRt}(2.89 \text{ square miles}) = \mathbf{3.4 \text{ hours}}$$

**Discovery PUD
Water Management Calculations**

Bleeder Size

The bleeder design has is based on both Martin County and SFWMD design criteria

$$\text{Water Quality Rate (Q)} = (0.5/12) * (1530 - 200)$$

$$\text{Water Quality Rate (Q)} = 67.8 \text{ AC-FT/DAY}$$

The proposed weir elevation is 9.5 and the bleeder invert is 8.5

Covert water Quality Rate (Q) from ac-ft/day to CFS

$$Q = (55.4 \text{ ac-ft/day} * 43,560 \text{ ft}^2 / \text{ac}) / (84600 \text{ sec/day})$$

$$Q = \mathbf{34.92}$$

Rectangular Sharp Crested Weir flow, $Q = CLH^{1.5}$

Where:

Q = Discharge Rate

C = weir coefficient

L = weir length

H = head of weir

$$L = (Q) / (C * H^{1.5})$$

$$L = (28.53) / (3.13 * 1^{1.5})$$

$$L = 11.16 \quad \text{Maximum Length of Bleeder at 1 foot high.}$$

**Proposed Bleeder length for WCS-1 and WCS-2 is 5' wide at EL 8.5 NAVD
for a total of 10' wide at EL 8.5 NAVD**

10 year 24 hour

Project Name: Discovery PUD

Reviewer: DG

Project Number: 21-1014

Period Begin: May 01, 2021;0000 hr End: May 02, 2021;0000 hr Duration: 24 hr

Time Step: 0.2 hr, Iterations: 10

Basin 1: Site

Method: Santa Barbara Unit Hydrograph

Rainfall Distribution: SFWMD - 24 hr

Design Frequency: 10 year

1 Day Rainfall: 7.5 inches

Area: 1530 acres

Ground Storage: 5.3 inches

Time of Concentration: 3.4 hours

Initial Stage: 8.5 ft NGVD

Elevations are in NAVD

| Stage (ft NGVD) | Storage (acre-ft) |
|--------------------|----------------------|
| 8.50 | 0.00 |
| 9.00 | 159.95 |
| 9.50 | 323.39 |
| 10.00 | 490.31 |
| 10.50 | 666.10 |
| 11.00 | 854.38 |
| 11.50 | 1053.89 |
| 12.00 | 1265.13 |
| 12.50 | 1494.99 |
| 13.00 | 1750.38 |
| 13.50 | 2031.30 |
| 14.00 | 2337.75 |
| 14.50 | 2668.85 |
| 15.00 | 3023.70 |
| 15.50 | 3398.00 |
| 16.00 | 3787.42 |

Basin 2: TP

Method: Santa Barbara Unit Hydrograph

Rainfall Distribution: SFWMD - 24 hr

Design Frequency: 10 year

1 Day Rainfall: 7.5 inches

Area: 317 acres

Ground Storage: 5.3 inches

Time of Concentration: 0.5 hours

Initial Stage: 10.5 ft NGVD

| Stage (ft NGVD) | Storage (acre-ft) |
|--------------------|----------------------|
| 11.00 | 1.56 |
| 11.50 | 6.25 |
| 12.00 | 25.19 |
| 12.50 | 69.50 |
| 13.00 | 139.19 |
| 13.50 | 234.25 |
| 14.00 | 354.69 |
| 14.50 | 500.50 |
| 15.00 | 659.00 |
| 15.50 | 817.50 |
| 16.00 | 976.00 |

Offsite Receiving Body: Offsitel

| Time (hr) | Stage (ft NGVD) |
|--------------|--------------------|
| 0.00 | 7.00 |
| 4000.00 | 7.00 |

Offsite Receiving Body: Offsite2

| Time (hr) | Stage (ft NGVD) |
|--------------|--------------------|
| 0.00 | 8.50 |
| 4000.00 | 8.50 |

Structure: 1

From Basin: Site
 To Basin: Offsite1
 Structure Type: Gravity
 Weir: Sharp Crested, Crest Elev = 9.5 ft NGVD, Length = 6 ft
 Bleeder: Rect, Invert Elev = 8.5 ft NGVD, Height = 1 ft, Width = 5 ft
 Default Coefs: Weir Coef = 3.13, Orifice Coef = 0.6
 Pipe: None

| Time (hr) | Cumulative Rainfall (in) | Instant Runoff (cfs) | Current Discharge (cfs) | Cumulative Discharge (acre-ft) | Head Water Stage (ft NGVD) | Tail Water Stage (ft NGVD) |
|--------------|--------------------------------|----------------------------|-------------------------------|--------------------------------------|----------------------------------|----------------------------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 2.00 | 0.15 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 4.00 | 0.34 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 6.00 | 0.62 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 8.00 | 1.03 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 10.00 | 1.60 | 19.05 | 0.00 | 0.00 | 8.50 | 7.00 |
| 12.00 | 4.92 | 659.34 | 0.28 | 0.01 | 8.57 | 7.00 |
| 14.00 | 6.14 | 640.54 | 4.32 | 0.39 | 8.92 | 7.00 |
| 16.00 | 6.60 | 474.70 | 9.12 | 1.54 | 9.20 | 7.00 |
| 18.00 | 6.87 | 334.65 | 13.08 | 3.43 | 9.39 | 7.00 |
| 20.00 | 7.14 | 257.90 | 17.41 | 5.92 | 9.52 | 7.00 |
| 22.00 | 7.32 | 191.78 | 19.52 | 9.00 | 9.61 | 7.00 |
| 24.00 | 7.50 | 155.46 | 21.18 | 12.38 | 9.68 | 7.00 |

Structure: 2

From Basin: Site
 To Basin: Offsite1
 Structure Type: Gravity
 Weir: Sharp Crested, Crest Elev = 9.5 ft NGVD, Length = 6 ft
 Bleeder: Rect, Invert Elev = 8.5 ft NGVD, Height = 1 ft, Width = 5 ft
 Default Coefs: Weir Coef = 3.13, Orifice Coef = 0.6
 Pipe: None

| Time (hr) | Cumulative Rainfall (in) | Instant Runoff (cfs) | Current Discharge (cfs) | Cumulative Discharge (acre-ft) | Head Water Stage (ft NGVD) | Tail Water Stage (ft NGVD) |
|--------------|--------------------------------|----------------------------|-------------------------------|--------------------------------------|----------------------------------|----------------------------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 2.00 | 0.15 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 4.00 | 0.34 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 6.00 | 0.62 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 8.00 | 1.03 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 10.00 | 1.60 | 19.05 | 0.00 | 0.00 | 8.50 | 7.00 |
| 12.00 | 4.92 | 659.34 | 0.28 | 0.01 | 8.57 | 7.00 |
| 14.00 | 6.14 | 640.54 | 4.32 | 0.39 | 8.92 | 7.00 |
| 16.00 | 6.60 | 474.70 | 9.12 | 1.54 | 9.20 | 7.00 |
| 18.00 | 6.87 | 334.65 | 13.08 | 3.43 | 9.39 | 7.00 |
| 20.00 | 7.14 | 257.90 | 17.41 | 5.92 | 9.52 | 7.00 |
| 22.00 | 7.32 | 191.78 | 19.52 | 9.00 | 9.61 | 7.00 |
| 24.00 | 7.50 | 155.46 | 21.18 | 12.38 | 9.68 | 7.00 |

Structure: 3

From Basin: TP
 To Basin: Site

Structure Type: Gravity

Weir: Sharp Crested, Crest Elev = 14.5 ft NGVD, Length = 4 ft

Bleeder: None

Pipe: Diameter = 4 ft, Manning's n = 0.012, Length = 300 ft

US Invert Elev = 6.5 ft NGVD, DS Invert Elev = 6.5 ft NGVD, no flap gate

| Time (hr) | Cumulative Rainfall (in) | Instant Runoff (cfs) | Current Discharge (cfs) | Cumulative Discharge (acre-ft) | Head Water Stage (ft NGVD) | Tail Water Stage (ft NGVD) |
|-----------|--------------------------|----------------------|-------------------------|--------------------------------|----------------------------|----------------------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 10.50 | 8.50 |
| 2.00 | 0.15 | 0.00 | 0.00 | 0.00 | 11.00 | 8.50 |
| 4.00 | 0.34 | 0.00 | 0.00 | 0.00 | 11.00 | 8.50 |
| 6.00 | 0.62 | 0.00 | 0.00 | 0.00 | 11.00 | 8.50 |
| 8.00 | 1.03 | 0.00 | 0.00 | 0.00 | 11.00 | 8.50 |
| 10.00 | 1.60 | 13.17 | 0.00 | 0.00 | 11.08 | 8.50 |
| 12.00 | 4.92 | 588.28 | 0.00 | 0.00 | 11.86 | 8.57 |
| 14.00 | 6.14 | 103.54 | 0.00 | 0.00 | 12.42 | 8.92 |
| 16.00 | 6.60 | 55.50 | 0.00 | 0.00 | 12.53 | 9.20 |
| 18.00 | 6.87 | 33.62 | 0.00 | 0.00 | 12.58 | 9.39 |
| 20.00 | 7.14 | 33.67 | 0.00 | 0.00 | 12.62 | 9.52 |
| 22.00 | 7.32 | 22.87 | 0.00 | 0.00 | 12.65 | 9.61 |
| 24.00 | 7.50 | 22.86 | 0.00 | 0.00 | 12.68 | 9.68 |

STRUCTURE MAXIMUM AND MINIMUM DISCHARGES

| Struc | Max (cfs) | Time (hr) | Min (cfs) | Time (hr) |
|-------|-----------|-----------|-----------|-----------|
| 1 | 21.18 | 24.00 | 0.00 | 0.00 |
| 2 | 21.18 | 24.00 | 0.00 | 0.00 |
| 3 | 0.00 | 0.00 | 0.00 | 0.00 |

BASIN MAXIMUM AND MINIMUM STAGES

| Basin | Max (ft) | Time (hr) | Min (ft) | Time (hr) |
|-------|----------|-----------|----------|-----------|
| Site | 9.68 | 24.00 | 8.50 | 0.00 |
| TP | 12.68 | 24.00 | 10.50 | 0.00 |

BASIN WATER BUDGETS (all units in acre-ft)

| Basin | Total Runoff | Structure Inflow | Structure Outflow | Initial Storage | Final Storage | Residual |
|-------|--------------|------------------|-------------------|-----------------|---------------|----------|
| Site | 406.58 | 0.00 | 24.40 | 0.00 | 382.17 | 0.00 |
| TP | 92.33 | 0.00 | 0.00 | 1.56 | 93.89 | 0.00 |

25 year 72 hour

Project Name: Discovery PUD

Reviewer: DG

Project Number: 21-1014

Period Begin: May 01, 2021;0000 hr End: May 04, 2021;0000 hr Duration: 72 hr

Time Step: 0.2 hr, Iterations: 10

Basin 1: Site

Method: Santa Barbara Unit Hydrograph

Rainfall Distribution: SFWMD - 3day

Design Frequency: 25 year

3 Day Rainfall: 12.5 inches

Area: 1530 acres

Ground Storage: 5.3 inches

Time of Concentration: 3.4 hours

Initial Stage: 8.5 ft NGVD

Elevations are in NAVD

| Stage (ft NGVD) | Storage (acre-ft) |
|--------------------|----------------------|
| 8.50 | 0.00 |
| 9.00 | 159.95 |
| 9.50 | 323.39 |
| 10.00 | 490.31 |
| 10.50 | 666.10 |
| 11.00 | 854.38 |
| 11.50 | 1053.89 |
| 12.00 | 1265.13 |
| 12.50 | 1494.99 |
| 13.00 | 1750.38 |
| 13.50 | 2031.30 |
| 14.00 | 2337.75 |
| 14.50 | 2668.85 |
| 15.00 | 3023.70 |
| 15.50 | 3398.00 |
| 16.00 | 3787.42 |

Basin 2: TP

Method: Santa Barbara Unit Hydrograph

Rainfall Distribution: SFWMD - 3day

Design Frequency: 25 year

3 Day Rainfall: 12.5 inches

Area: 317 acres

Ground Storage: 5.3 inches

Time of Concentration: 0.5 hours

Initial Stage: 10.5 ft NGVD

| Stage (ft NGVD) | Storage (acre-ft) |
|--------------------|----------------------|
| 11.00 | 1.56 |
| 11.50 | 6.25 |
| 12.00 | 25.19 |
| 12.50 | 69.50 |
| 13.00 | 139.19 |
| 13.50 | 234.25 |
| 14.00 | 354.69 |
| 14.50 | 500.50 |
| 15.00 | 659.00 |
| 15.50 | 817.50 |
| 16.00 | 976.00 |

Offsite Receiving Body: Offsitet1

| Time (hr) | Stage (ft NGVD) |
|--------------|--------------------|
| 0.00 | 7.00 |
| 4000.00 | 7.00 |

Offsite Receiving Body: Offsite2

| Time (hr) | Stage (ft NGVD) |
|--------------|--------------------|
| 0.00 | 8.50 |
| 4000.00 | 8.50 |

Structure: 1

From Basin: Site

To Basin: Offsitel

Structure Type: Gravity

Weir: Sharp Crested, Crest Elev = 9.5 ft NGVD, Length = 6 ft

Bleeder: Rect, Invert Elev = 8.5 ft NGVD, Height = 1 ft, Width = 5 ft

Default Coefs: Weir Coef = 3.13, Orifice Coef = 0.6

Pipe: None

| Time (hr) | Cumulative Rainfall (in) | Instant Runoff (cfs) | Current Discharge (cfs) | Cumulative Discharge (acre-ft) | Head Water Stage (ft NGVD) | Tail Water Stage (ft NGVD) |
|--------------|--------------------------------|----------------------------|-------------------------------|--------------------------------------|----------------------------------|----------------------------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 2.00 | 0.11 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 4.00 | 0.22 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 6.00 | 0.34 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 8.00 | 0.45 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 10.00 | 0.56 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 12.00 | 0.67 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 14.00 | 0.78 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 16.00 | 0.90 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 18.00 | 1.01 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 20.00 | 1.12 | 0.27 | 0.00 | 0.00 | 8.50 | 7.00 |
| 22.00 | 1.23 | 1.83 | 0.00 | 0.00 | 8.50 | 7.00 |
| 24.00 | 1.34 | 4.17 | 0.00 | 0.00 | 8.50 | 7.00 |
| 26.00 | 1.51 | 9.41 | 0.01 | 0.00 | 8.51 | 7.00 |
| 28.00 | 1.67 | 15.03 | 0.02 | 0.00 | 8.51 | 7.00 |
| 30.00 | 1.83 | 20.62 | 0.05 | 0.01 | 8.52 | 7.00 |
| 32.00 | 2.00 | 26.01 | 0.09 | 0.02 | 8.53 | 7.00 |
| 34.00 | 2.16 | 31.12 | 0.16 | 0.04 | 8.55 | 7.00 |
| 36.00 | 2.32 | 35.91 | 0.26 | 0.08 | 8.56 | 7.00 |
| 38.00 | 2.49 | 40.38 | 0.38 | 0.13 | 8.58 | 7.00 |
| 40.00 | 2.65 | 44.55 | 0.54 | 0.21 | 8.61 | 7.00 |
| 42.00 | 2.81 | 48.43 | 0.73 | 0.31 | 8.63 | 7.00 |
| 44.00 | 2.98 | 52.04 | 0.95 | 0.45 | 8.65 | 7.00 |
| 46.00 | 3.14 | 55.41 | 1.20 | 0.63 | 8.68 | 7.00 |
| 48.00 | 3.30 | 58.56 | 1.49 | 0.86 | 8.71 | 7.00 |
| 50.00 | 3.49 | 65.26 | 1.83 | 1.13 | 8.74 | 7.00 |
| 52.00 | 3.72 | 79.55 | 2.25 | 1.47 | 8.77 | 7.00 |
| 54.00 | 4.07 | 114.61 | 2.85 | 1.89 | 8.82 | 7.00 |
| 56.00 | 4.56 | 170.30 | 3.82 | 2.45 | 8.89 | 7.00 |
| 58.00 | 5.26 | 257.40 | 5.44 | 3.21 | 8.99 | 7.00 |
| 60.00 | 9.34 | 1421.51 | 9.75 | 4.39 | 9.23 | 7.00 |
| 62.00 | 10.83 | 1200.14 | 27.40 | 7.60 | 9.89 | 7.00 |
| 64.00 | 11.40 | 837.62 | 42.25 | 13.54 | 10.34 | 7.00 |
| 66.00 | 11.73 | 565.93 | 52.47 | 21.52 | 10.61 | 7.00 |
| 68.00 | 12.06 | 415.58 | 58.99 | 30.83 | 10.77 | 7.00 |
| 70.00 | 12.28 | 298.59 | 63.14 | 40.98 | 10.87 | 7.00 |
| 72.00 | 12.50 | 233.83 | 65.62 | 51.66 | 10.93 | 7.00 |

Structure: 2

From Basin: Site

To Basin: Offsitel

Structure Type: Gravity

Weir: Sharp Crested, Crest Elev = 9.5 ft NGVD, Length = 6 ft

Bleeder: Rect, Invert Elev = 8.5 ft NGVD, Height = 1 ft, Width = 5 ft

Default Coefs: Weir Coef = 3.13, Orifice Coef = 0.6

Pipe: None

| Time (hr) | Cumulative Rainfall (in) | Instant Runoff (cfs) | Current Discharge (cfs) | Cumulative Discharge (acre-ft) | Head Water Stage (ft NGVD) | Tail Water Stage (ft NGVD) |
|-----------|--------------------------|----------------------|-------------------------|--------------------------------|----------------------------|----------------------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 2.00 | 0.11 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 4.00 | 0.22 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 6.00 | 0.34 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 8.00 | 0.45 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 10.00 | 0.56 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 12.00 | 0.67 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 14.00 | 0.78 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 16.00 | 0.90 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 18.00 | 1.01 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 20.00 | 1.12 | 0.27 | 0.00 | 0.00 | 8.50 | 7.00 |
| 22.00 | 1.23 | 1.83 | 0.00 | 0.00 | 8.50 | 7.00 |
| 24.00 | 1.34 | 4.17 | 0.00 | 0.00 | 8.50 | 7.00 |
| 26.00 | 1.51 | 9.41 | 0.01 | 0.00 | 8.51 | 7.00 |
| 28.00 | 1.67 | 15.03 | 0.02 | 0.00 | 8.51 | 7.00 |
| 30.00 | 1.83 | 20.62 | 0.05 | 0.01 | 8.52 | 7.00 |
| 32.00 | 2.00 | 26.01 | 0.09 | 0.02 | 8.53 | 7.00 |
| 34.00 | 2.16 | 31.12 | 0.16 | 0.04 | 8.55 | 7.00 |
| 36.00 | 2.32 | 35.91 | 0.26 | 0.08 | 8.56 | 7.00 |
| 38.00 | 2.49 | 40.38 | 0.38 | 0.13 | 8.58 | 7.00 |
| 40.00 | 2.65 | 44.55 | 0.54 | 0.21 | 8.61 | 7.00 |
| 42.00 | 2.81 | 48.43 | 0.73 | 0.31 | 8.63 | 7.00 |
| 44.00 | 2.98 | 52.04 | 0.95 | 0.45 | 8.65 | 7.00 |
| 46.00 | 3.14 | 55.41 | 1.20 | 0.63 | 8.68 | 7.00 |
| 48.00 | 3.30 | 58.56 | 1.49 | 0.86 | 8.71 | 7.00 |
| 50.00 | 3.49 | 65.26 | 1.83 | 1.13 | 8.74 | 7.00 |
| 52.00 | 3.72 | 79.55 | 2.25 | 1.47 | 8.77 | 7.00 |
| 54.00 | 4.07 | 114.61 | 2.85 | 1.89 | 8.82 | 7.00 |
| 56.00 | 4.56 | 170.30 | 3.82 | 2.45 | 8.89 | 7.00 |
| 58.00 | 5.26 | 257.40 | 5.44 | 3.21 | 8.99 | 7.00 |
| 60.00 | 9.34 | 1421.51 | 9.75 | 4.39 | 9.23 | 7.00 |
| 62.00 | 10.83 | 1200.14 | 27.40 | 7.60 | 9.89 | 7.00 |
| 64.00 | 11.40 | 837.62 | 42.25 | 13.54 | 10.34 | 7.00 |
| 66.00 | 11.73 | 565.93 | 52.47 | 21.52 | 10.61 | 7.00 |
| 68.00 | 12.06 | 415.58 | 58.99 | 30.83 | 10.77 | 7.00 |
| 70.00 | 12.28 | 298.59 | 63.14 | 40.98 | 10.87 | 7.00 |
| 72.00 | 12.50 | 233.83 | 65.62 | 51.66 | 10.93 | 7.00 |

Structure: 3

From Basin: TP

To Basin: Site

Structure Type: Gravity

Weir: Sharp Crested, Crest Elev = 14.5 ft NGVD, Length = 4 ft

Bleeder: None

Pipe: Diameter = 4 ft, Manning's n = 0.012, Length = 300 ft

US Invert Elev = 6.5 ft NGVD, DS Invert Elev = 6.5 ft NGVD, no flap gate

| Time (hr) | Cumulative Rainfall (in) | Instant Runoff (cfs) | Current Discharge (cfs) | Cumulative Discharge (acre-ft) | Head Water Stage (ft NGVD) | Tail Water Stage (ft NGVD) |
|-----------|--------------------------|----------------------|-------------------------|--------------------------------|----------------------------|----------------------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 10.50 | 8.50 |
| 2.00 | 0.11 | 0.00 | 0.00 | 0.00 | 11.00 | 8.50 |
| 4.00 | 0.22 | 0.00 | 0.00 | 0.00 | 11.00 | 8.50 |
| 6.00 | 0.34 | 0.00 | 0.00 | 0.00 | 11.00 | 8.50 |
| 8.00 | 0.45 | 0.00 | 0.00 | 0.00 | 11.00 | 8.50 |
| 10.00 | 0.56 | 0.00 | 0.00 | 0.00 | 11.00 | 8.50 |
| 12.00 | 0.67 | 0.00 | 0.00 | 0.00 | 11.00 | 8.50 |
| 14.00 | 0.78 | 0.00 | 0.00 | 0.00 | 11.00 | 8.50 |
| 16.00 | 0.90 | 0.00 | 0.00 | 0.00 | 11.00 | 8.50 |
| 18.00 | 1.01 | 0.00 | 0.00 | 0.00 | 11.00 | 8.50 |
| 20.00 | 1.12 | 0.23 | 0.00 | 0.00 | 11.00 | 8.50 |
| 22.00 | 1.23 | 0.92 | 0.00 | 0.00 | 11.01 | 8.50 |
| 24.00 | 1.34 | 1.60 | 0.00 | 0.00 | 11.03 | 8.50 |
| 26.00 | 1.51 | 3.56 | 0.00 | 0.00 | 11.08 | 8.51 |
| 28.00 | 1.67 | 4.80 | 0.00 | 0.00 | 11.16 | 8.51 |

| Time (hr) | Cumulative Rainfall (in) | Instant Runoff (cfs) | Current Discharge (cfs) | Cumulative Discharge (acre-ft) | Head Water Stage (ft NGVD) | Tail Water Stage (ft NGVD) |
|-----------|--------------------------|----------------------|-------------------------|--------------------------------|----------------------------|----------------------------|
| 30.00 | 1.83 | 5.94 | 0.00 | 0.00 | 11.25 | 8.52 |
| 32.00 | 2.00 | 6.99 | 0.00 | 0.00 | 11.36 | 8.53 |
| 34.00 | 2.16 | 7.96 | 0.00 | 0.00 | 11.50 | 8.55 |
| 36.00 | 2.32 | 8.85 | 0.00 | 0.00 | 11.54 | 8.56 |
| 38.00 | 2.49 | 9.68 | 0.00 | 0.00 | 11.58 | 8.58 |
| 40.00 | 2.65 | 10.46 | 0.00 | 0.00 | 11.62 | 8.61 |
| 42.00 | 2.81 | 11.18 | 0.00 | 0.00 | 11.67 | 8.63 |
| 44.00 | 2.98 | 11.85 | 0.00 | 0.00 | 11.72 | 8.65 |
| 46.00 | 3.14 | 12.47 | 0.00 | 0.00 | 11.77 | 8.68 |
| 48.00 | 3.30 | 13.06 | 0.00 | 0.00 | 11.83 | 8.71 |
| 50.00 | 3.49 | 15.36 | 0.00 | 0.00 | 11.89 | 8.74 |
| 52.00 | 3.72 | 21.34 | 0.00 | 0.00 | 11.97 | 8.77 |
| 54.00 | 4.07 | 35.73 | 0.00 | 0.00 | 12.04 | 8.82 |
| 56.00 | 4.56 | 53.07 | 0.00 | 0.00 | 12.12 | 8.89 |
| 58.00 | 5.26 | 82.89 | 0.00 | 0.00 | 12.25 | 8.99 |
| 60.00 | 9.34 | 1070.57 | 0.00 | 0.00 | 12.65 | 9.23 |
| 62.00 | 10.83 | 156.15 | 0.00 | 0.00 | 13.12 | 9.89 |
| 64.00 | 11.40 | 79.64 | 0.00 | 0.00 | 13.21 | 10.34 |
| 66.00 | 11.73 | 47.61 | 0.00 | 0.00 | 13.26 | 10.61 |
| 68.00 | 12.06 | 47.26 | 0.00 | 0.00 | 13.30 | 10.77 |
| 70.00 | 12.28 | 31.90 | 0.00 | 0.00 | 13.33 | 10.87 |
| 72.00 | 12.50 | 31.71 | 0.00 | 0.00 | 13.36 | 10.93 |

Max Rate = 131.2

STRUCTURE MAXIMUM AND MINIMUM DISCHARGES

| Struc | Max (cfs) | Time (hr) | Min (cfs) | Time (hr) |
|-------|-----------|-----------|-----------|-----------|
| 1 | 65.62 | 72.00 | 0.00 | 0.00 |
| 2 | 65.62 | 72.00 | 0.00 | 0.00 |
| 3 | 0.00 | 0.00 | 0.00 | 0.00 |

BASIN MAXIMUM AND MINIMUM STAGES

| Basin | Max (ft) | Time (hr) | Min (ft) | Time (hr) |
|-------|----------|-----------|----------|-----------|
| Site | 10.93 | 72.00 | 8.50 | 0.00 |
| TP | 13.36 | 72.00 | 10.50 | 0.00 |

Thomas Produce Stage lower than weir at 14.5 NAVD

BASIN WATER BUDGETS (all units in acre-ft)

| Basin | Total Runoff | Structure Inflow | Structure Outflow | Initial Storage | Final Storage | Residual |
|-------|--------------|------------------|-------------------|-----------------|---------------|----------|
| Site | 930.76 | 0.00 | 102.23 | 0.00 | 828.53 | 0.00 |
| TP | 205.13 | 0.00 | 0.00 | 1.56 | 206.69 | 0.00 |

25 year 72 hour
288 hour Run #1

Project Name: Discovery PUD

Reviewer: DG

Project Number: 21-1014

Period Begin: May 01, 2021;0000 hr End: May 13, 2021;0000 hr Duration: 288 hr

Time Step: 0.2 hr, Iterations: 10

Basin 1: Site

Method: Santa Barbara Unit Hydrograph

Rainfall Distribution: SFWMD - 3day

Design Frequency: 25 year

3 Day Rainfall: 12.5 inches

Area: 1530 acres

Ground Storage: 5.3 inches

Time of Concentration: 3.4 hours

Initial Stage: 8.5 ft NGVD

Elevations are in NAVD

| Stage (ft NGVD) | Storage (acre-ft) |
|--------------------|----------------------|
| 8.50 | 0.00 |
| 9.00 | 159.95 |
| 9.50 | 323.39 |
| 10.00 | 490.31 |
| 10.50 | 666.10 |
| 11.00 | 854.38 |
| 11.50 | 1053.89 |
| 12.00 | 1265.13 |
| 12.50 | 1494.99 |
| 13.00 | 1750.38 |
| 13.50 | 2031.30 |
| 14.00 | 2337.75 |
| 14.50 | 2668.85 |
| 15.00 | 3023.70 |
| 15.50 | 3398.00 |
| 16.00 | 3787.42 |

Basin 2: TP

Method: Santa Barbara Unit Hydrograph

Rainfall Distribution: SFWMD - 3day

Design Frequency: 25 year

3 Day Rainfall: 12.5 inches

Area: 317 acres

Ground Storage: 5.3 inches

Time of Concentration: 0.5 hours

Initial Stage: 10.5 ft NGVD

| Stage (ft NGVD) | Storage (acre-ft) |
|--------------------|----------------------|
| 11.00 | 1.56 |
| 11.50 | 6.25 |
| 12.00 | 25.19 |
| 12.50 | 69.50 |
| 13.00 | 139.19 |
| 13.50 | 234.25 |
| 14.00 | 354.69 |
| 14.50 | 500.50 |
| 15.00 | 659.00 |
| 15.50 | 817.50 |
| 16.00 | 976.00 |

Offsite Receiving Body: Offsitel

| Time (hr) | Stage (ft NGVD) |
|--------------|--------------------|
| 0.00 | 7.00 |
| 4000.00 | 7.00 |

Offsite Receiving Body: Offsite2

| Time (hr) | Stage (ft NGVD) |
|--------------|--------------------|
| 0.00 | 8.50 |
| 4000.00 | 8.50 |

Structure: 1

From Basin: Site

To Basin: Offsitel

Structure Type: Gravity

Weir: Sharp Crested, Crest Elev = 9.5 ft NGVD, Length = 6 ft

Bleeder: Rect, Invert Elev = 8.5 ft NGVD, Height = 1 ft, Width = 5 ft

Default Coefs: Weir Coef = 3.13, Orifice Coef = 0.6

Pipe: None

| Time (hr) | Cumulative Rainfall (in) | Instant Runoff (cfs) | Current Discharge (cfs) | Cumulative Discharge (acre-ft) | Head Water Stage (ft NGVD) | Tail Water Stage (ft NGVD) |
|--------------|--------------------------------|----------------------------|-------------------------------|--------------------------------------|----------------------------------|----------------------------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 2.00 | 0.11 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 4.00 | 0.22 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 6.00 | 0.34 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 8.00 | 0.45 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 10.00 | 0.56 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 12.00 | 0.67 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 14.00 | 0.78 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 16.00 | 0.90 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 18.00 | 1.01 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 20.00 | 1.12 | 0.27 | 0.00 | 0.00 | 8.50 | 7.00 |
| 22.00 | 1.23 | 1.83 | 0.00 | 0.00 | 8.50 | 7.00 |
| 24.00 | 1.34 | 4.17 | 0.00 | 0.00 | 8.50 | 7.00 |
| 26.00 | 1.51 | 9.41 | 0.01 | 0.00 | 8.51 | 7.00 |
| 28.00 | 1.67 | 15.03 | 0.02 | 0.00 | 8.51 | 7.00 |
| 30.00 | 1.83 | 20.62 | 0.05 | 0.01 | 8.52 | 7.00 |
| 32.00 | 2.00 | 26.01 | 0.09 | 0.02 | 8.53 | 7.00 |
| 34.00 | 2.16 | 31.12 | 0.16 | 0.04 | 8.55 | 7.00 |
| 36.00 | 2.32 | 35.91 | 0.26 | 0.08 | 8.56 | 7.00 |
| 38.00 | 2.49 | 40.38 | 0.38 | 0.13 | 8.58 | 7.00 |
| 40.00 | 2.65 | 44.55 | 0.54 | 0.21 | 8.61 | 7.00 |
| 42.00 | 2.81 | 48.43 | 0.73 | 0.31 | 8.63 | 7.00 |
| 44.00 | 2.98 | 52.04 | 0.95 | 0.45 | 8.65 | 7.00 |
| 46.00 | 3.14 | 55.41 | 1.20 | 0.63 | 8.68 | 7.00 |
| 48.00 | 3.30 | 58.56 | 1.49 | 0.86 | 8.71 | 7.00 |
| 50.00 | 3.49 | 65.26 | 1.83 | 1.13 | 8.74 | 7.00 |
| 52.00 | 3.72 | 79.55 | 2.25 | 1.47 | 8.77 | 7.00 |
| 54.00 | 4.07 | 114.61 | 2.85 | 1.89 | 8.82 | 7.00 |
| 56.00 | 4.56 | 170.30 | 3.82 | 2.45 | 8.89 | 7.00 |
| 58.00 | 5.26 | 257.40 | 5.44 | 3.21 | 8.99 | 7.00 |
| 60.00 | 9.34 | 1421.51 | 9.75 | 4.39 | 9.23 | 7.00 |
| 62.00 | 10.83 | 1200.14 | 27.40 | 7.60 | 9.89 | 7.00 |
| 64.00 | 11.40 | 837.62 | 42.25 | 13.54 | 10.34 | 7.00 |
| 66.00 | 11.73 | 565.93 | 52.47 | 21.52 | 10.61 | 7.00 |
| 68.00 | 12.06 | 415.58 | 58.99 | 30.83 | 10.77 | 7.00 |
| 70.00 | 12.28 | 298.59 | 63.14 | 40.98 | 10.87 | 7.00 |
| 72.00 | 12.50 | 233.83 | 65.62 | 51.66 | 10.93 | 7.00 |
| 74.00 | 12.50 | 129.85 | 66.45 | 62.61 | 10.95 | 7.00 |
| 76.00 | 12.50 | 72.10 | 65.81 | 73.55 | 10.94 | 7.00 |
| 78.00 | 12.50 | 40.04 | 64.40 | 84.31 | 10.90 | 7.00 |
| 80.00 | 12.50 | 22.23 | 62.62 | 94.80 | 10.86 | 7.00 |
| 82.00 | 12.50 | 12.35 | 60.68 | 104.98 | 10.81 | 7.00 |
| 84.00 | 12.50 | 6.86 | 58.70 | 114.83 | 10.77 | 7.00 |
| 86.00 | 12.50 | 3.81 | 56.74 | 124.35 | 10.72 | 7.00 |
| 88.00 | 12.50 | 2.11 | 54.84 | 133.56 | 10.67 | 7.00 |
| 90.00 | 12.50 | 1.17 | 52.99 | 142.46 | 10.62 | 7.00 |
| 92.00 | 12.50 | 0.65 | 51.22 | 151.06 | 10.58 | 7.00 |
| 94.00 | 12.50 | 0.36 | 49.52 | 159.37 | 10.53 | 7.00 |

| Time (hr) | Cumulative Rainfall (in) | Instant Runoff (cfs) | Current Discharge (cfs) | Cumulative Discharge (acre-ft) | Head Water Stage (ft NGVD) | Tail Water Stage (ft NGVD) |
|--------------|--------------------------------|----------------------------|-------------------------------|--------------------------------------|----------------------------------|----------------------------------|
| 96.00 | 12.50 | 0.20 | 47.87 | 167.40 | 10.49 | 7.00 |
| 98.00 | 12.50 | 0.11 | 46.21 | 175.17 | 10.45 | 7.00 |
| 100.00 | 12.50 | 0.06 | 44.62 | 182.66 | 10.40 | 7.00 |
| 102.00 | 12.50 | 0.03 | 43.11 | 189.90 | 10.36 | 7.00 |
| 104.00 | 12.50 | 0.02 | 41.67 | 196.89 | 10.32 | 7.00 |
| 106.00 | 12.50 | 0.01 | 40.29 | 203.65 | 10.28 | 7.00 |
| 108.00 | 12.50 | 0.01 | 38.97 | 210.19 | 10.25 | 7.00 |
| 110.00 | 12.50 | 0.00 | 37.72 | 216.52 | 10.21 | 7.00 |
| 112.00 | 12.50 | 0.00 | 36.51 | 222.65 | 10.18 | 7.00 |
| 114.00 | 12.50 | 0.00 | 35.36 | 228.58 | 10.14 | 7.00 |
| 116.00 | 12.50 | 0.00 | 34.26 | 234.32 | 10.11 | 7.00 |
| 118.00 | 12.50 | 0.00 | 33.21 | 239.89 | 10.08 | 7.00 |
| 120.00 | 12.50 | 0.00 | 32.20 | 245.29 | 10.05 | 7.00 |
| 122.00 | 12.50 | 0.00 | 31.24 | 250.52 | 10.02 | 7.00 |
| 124.00 | 12.50 | 0.00 | 30.29 | 255.60 | 9.99 | 7.00 |
| 126.00 | 12.50 | 0.00 | 29.36 | 260.52 | 9.96 | 7.00 |
| 128.00 | 12.50 | 0.00 | 28.47 | 265.29 | 9.93 | 7.00 |
| 130.00 | 12.50 | 0.00 | 27.61 | 269.92 | 9.90 | 7.00 |
| 132.00 | 12.50 | 0.00 | 26.80 | 274.41 | 9.87 | 7.00 |
| 134.00 | 12.50 | 0.00 | 26.01 | 278.77 | 9.85 | 7.00 |
| 136.00 | 12.50 | 0.00 | 25.27 | 283.00 | 9.82 | 7.00 |
| 138.00 | 12.50 | 0.00 | 24.55 | 287.11 | 9.80 | 7.00 |
| 140.00 | 12.50 | 0.00 | 23.86 | 291.11 | 9.77 | 7.00 |
| 142.00 | 12.50 | 0.00 | 23.21 | 294.99 | 9.75 | 7.00 |
| 144.00 | 12.50 | 0.00 | 22.58 | 298.77 | 9.73 | 7.00 |
| 146.00 | 12.50 | 0.00 | 21.97 | 302.45 | 9.71 | 7.00 |
| 148.00 | 12.50 | 0.00 | 21.40 | 306.03 | 9.68 | 7.00 |
| 150.00 | 12.50 | 0.00 | 20.84 | 309.51 | 9.66 | 7.00 |
| 152.00 | 12.50 | 0.00 | 20.32 | 312.91 | 9.64 | 7.00 |
| 154.00 | 12.50 | 0.00 | 19.81 | 316.22 | 9.62 | 7.00 |
| 156.00 | 12.50 | 0.00 | 19.33 | 319.46 | 9.60 | 7.00 |
| 158.00 | 12.50 | 0.00 | 18.87 | 322.61 | 9.58 | 7.00 |
| 160.00 | 12.50 | 0.00 | 18.44 | 325.69 | 9.57 | 7.00 |
| 162.00 | 12.50 | 0.00 | 18.02 | 328.70 | 9.55 | 7.00 |
| 164.00 | 12.50 | 0.00 | 17.64 | 331.64 | 9.53 | 7.00 |
| 166.00 | 12.50 | 0.00 | 17.28 | 334.52 | 9.51 | 7.00 |
| 168.00 | 12.50 | 0.00 | 15.57 | 337.28 | 9.50 | 7.00 |
| 170.00 | 12.50 | 0.00 | 15.21 | 339.82 | 9.48 | 7.00 |
| 172.00 | 12.50 | 0.00 | 14.85 | 342.30 | 9.47 | 7.00 |
| 174.00 | 12.50 | 0.00 | 14.51 | 344.73 | 9.45 | 7.00 |
| 176.00 | 12.50 | 0.00 | 14.18 | 347.10 | 9.44 | 7.00 |
| 178.00 | 12.50 | 0.00 | 13.86 | 349.41 | 9.42 | 7.00 |
| 180.00 | 12.50 | 0.00 | 13.55 | 351.68 | 9.41 | 7.00 |
| 182.00 | 12.50 | 0.00 | 13.25 | 353.89 | 9.39 | 7.00 |
| 184.00 | 12.50 | 0.00 | 12.95 | 356.05 | 9.38 | 7.00 |
| 186.00 | 12.50 | 0.00 | 12.67 | 358.17 | 9.37 | 7.00 |
| 188.00 | 12.50 | 0.00 | 12.39 | 360.24 | 9.36 | 7.00 |
| 190.00 | 12.50 | 0.00 | 12.13 | 362.26 | 9.34 | 7.00 |
| 192.00 | 12.50 | 0.00 | 11.86 | 364.24 | 9.33 | 7.00 |
| 194.00 | 12.50 | 0.00 | 11.61 | 366.18 | 9.32 | 7.00 |
| 196.00 | 12.50 | 0.00 | 11.37 | 368.08 | 9.31 | 7.00 |
| 198.00 | 12.50 | 0.00 | 11.13 | 369.93 | 9.30 | 7.00 |
| 200.00 | 12.50 | 0.00 | 10.89 | 371.75 | 9.29 | 7.00 |
| 202.00 | 12.50 | 0.00 | 10.67 | 373.53 | 9.27 | 7.00 |
| 204.00 | 12.50 | 0.00 | 10.45 | 375.28 | 9.26 | 7.00 |
| 206.00 | 12.50 | 0.00 | 10.23 | 376.98 | 9.25 | 7.00 |
| 208.00 | 12.50 | 0.00 | 10.03 | 378.66 | 9.24 | 7.00 |
| 210.00 | 12.50 | 0.00 | 9.82 | 380.29 | 9.23 | 7.00 |
| 212.00 | 12.50 | 0.00 | 9.63 | 381.90 | 9.22 | 7.00 |
| 214.00 | 12.50 | 0.00 | 9.44 | 383.47 | 9.21 | 7.00 |
| 216.00 | 12.50 | 0.00 | 9.25 | 385.02 | 9.20 | 7.00 |
| 218.00 | 12.50 | 0.00 | 9.07 | 386.53 | 9.19 | 7.00 |
| 220.00 | 12.50 | 0.00 | 8.89 | 388.01 | 9.19 | 7.00 |
| 222.00 | 12.50 | 0.00 | 8.72 | 389.47 | 9.18 | 7.00 |
| 224.00 | 12.50 | 0.00 | 8.55 | 390.89 | 9.17 | 7.00 |
| 226.00 | 12.50 | 0.00 | 8.39 | 392.29 | 9.16 | 7.00 |
| 228.00 | 12.50 | 0.00 | 8.23 | 393.66 | 9.15 | 7.00 |
| 230.00 | 12.50 | 0.00 | 8.07 | 395.01 | 9.14 | 7.00 |
| 232.00 | 12.50 | 0.00 | 7.92 | 396.33 | 9.13 | 7.00 |

| Time (hr) | Cumulative Rainfall (in) | Instant Runoff (cfs) | Current Discharge (cfs) | Cumulative Discharge (acre-ft) | Head Water Stage (ft NGVD) | Tail Water Stage (ft NGVD) |
|-----------|--------------------------|----------------------|-------------------------|--------------------------------|----------------------------|----------------------------|
| 234.00 | 12.50 | 0.00 | 7.77 | 397.62 | 9.13 | 7.00 |
| 236.00 | 12.50 | 0.00 | 7.63 | 398.89 | 9.12 | 7.00 |
| 238.00 | 12.50 | 0.00 | 7.49 | 400.14 | 9.11 | 7.00 |
| 240.00 | 12.50 | 0.00 | 7.35 | 401.37 | 9.10 | 7.00 |
| 242.00 | 12.50 | 0.00 | 7.21 | 402.57 | 9.10 | 7.00 |
| 244.00 | 12.50 | 0.00 | 7.08 | 403.75 | 9.09 | 7.00 |
| 246.00 | 12.50 | 0.00 | 6.96 | 404.91 | 9.08 | 7.00 |
| 248.00 | 12.50 | 0.00 | 6.83 | 406.05 | 9.08 | 7.00 |
| 250.00 | 12.50 | 0.00 | 6.71 | 407.17 | 9.07 | 7.00 |
| 252.00 | 12.50 | 0.00 | 6.59 | 408.26 | 9.06 | 7.00 |
| 254.00 | 12.50 | 0.00 | 6.48 | 409.34 | 9.06 | 7.00 |
| 256.00 | 12.50 | 0.00 | 6.36 | 410.40 | 9.05 | 7.00 |
| 258.00 | 12.50 | 0.00 | 6.25 | 411.45 | 9.04 | 7.00 |
| 260.00 | 12.50 | 0.00 | 6.14 | 412.47 | 9.04 | 7.00 |
| 262.00 | 12.50 | 0.00 | 6.04 | 413.47 | 9.03 | 7.00 |
| 264.00 | 12.50 | 0.00 | 5.93 | 414.46 | 9.02 | 7.00 |
| 266.00 | 12.50 | 0.00 | 5.83 | 415.44 | 9.02 | 7.00 |
| 268.00 | 12.50 | 0.00 | 5.74 | 416.39 | 9.01 | 7.00 |
| 270.00 | 12.50 | 0.00 | 5.64 | 417.33 | 9.01 | 7.00 |
| 272.00 | 12.50 | 0.00 | 5.54 | 418.25 | 9.00 | 7.00 |
| 274.00 | 12.50 | 0.00 | 5.45 | 419.16 | 9.00 | 7.00 |
| 276.00 | 12.50 | 0.00 | 5.36 | 420.05 | 8.99 | 7.00 |
| 278.00 | 12.50 | 0.00 | 5.27 | 420.93 | 8.98 | 7.00 |
| 280.00 | 12.50 | 0.00 | 5.18 | 421.79 | 8.98 | 7.00 |
| 282.00 | 12.50 | 0.00 | 5.09 | 422.64 | 8.97 | 7.00 |
| 284.00 | 12.50 | 0.00 | 5.01 | 423.48 | 8.97 | 7.00 |
| 286.00 | 12.50 | 0.00 | 4.93 | 424.30 | 8.96 | 7.00 |
| 288.00 | 12.50 | 0.00 | 4.85 | 425.11 | 8.96 | 7.00 |

Structure: 2

From Basin: Site

To Basin: Offsite1

Structure Type: Gravity

Weir: Sharp Crested, Crest Elev = 9.5 ft NGVD, Length = 6 ft

Bleeder: Rect, Invert Elev = 8.5 ft NGVD, Height = 1 ft, Width = 5 ft

Default Coefs: Weir Coef = 3.13, Orifice Coef = 0.6

Pipe: None

| Time (hr) | Cumulative Rainfall (in) | Instant Runoff (cfs) | Current Discharge (cfs) | Cumulative Discharge (acre-ft) | Head Water Stage (ft NGVD) | Tail Water Stage (ft NGVD) |
|-----------|--------------------------|----------------------|-------------------------|--------------------------------|----------------------------|----------------------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 2.00 | 0.11 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 4.00 | 0.22 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 6.00 | 0.34 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 8.00 | 0.45 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 10.00 | 0.56 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 12.00 | 0.67 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 14.00 | 0.78 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 16.00 | 0.90 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 18.00 | 1.01 | 0.00 | 0.00 | 0.00 | 8.50 | 7.00 |
| 20.00 | 1.12 | 0.27 | 0.00 | 0.00 | 8.50 | 7.00 |
| 22.00 | 1.23 | 1.83 | 0.00 | 0.00 | 8.50 | 7.00 |
| 24.00 | 1.34 | 4.17 | 0.00 | 0.00 | 8.50 | 7.00 |
| 26.00 | 1.51 | 9.41 | 0.01 | 0.00 | 8.51 | 7.00 |
| 28.00 | 1.67 | 15.03 | 0.02 | 0.00 | 8.51 | 7.00 |
| 30.00 | 1.83 | 20.62 | 0.05 | 0.01 | 8.52 | 7.00 |
| 32.00 | 2.00 | 26.01 | 0.09 | 0.02 | 8.53 | 7.00 |
| 34.00 | 2.16 | 31.12 | 0.16 | 0.04 | 8.55 | 7.00 |
| 36.00 | 2.32 | 35.91 | 0.26 | 0.08 | 8.56 | 7.00 |
| 38.00 | 2.49 | 40.38 | 0.38 | 0.13 | 8.58 | 7.00 |
| 40.00 | 2.65 | 44.55 | 0.54 | 0.21 | 8.61 | 7.00 |
| 42.00 | 2.81 | 48.43 | 0.73 | 0.31 | 8.63 | 7.00 |
| 44.00 | 2.98 | 52.04 | 0.95 | 0.45 | 8.65 | 7.00 |
| 46.00 | 3.14 | 55.41 | 1.20 | 0.63 | 8.68 | 7.00 |
| 48.00 | 3.30 | 58.56 | 1.49 | 0.86 | 8.71 | 7.00 |

| Time (hr) | Cumulative Rainfall (in) | Instant Runoff (cfs) | Current Discharge (cfs) | Cumulative Discharge (acre-ft) | Head Water Stage (ft NGVD) | Tail Water Stage (ft NGVD) |
|-----------|--------------------------|----------------------|-------------------------|--------------------------------|----------------------------|----------------------------|
| 50.00 | 3.49 | 65.26 | 1.83 | 1.13 | 8.74 | 7.00 |
| 52.00 | 3.72 | 79.55 | 2.25 | 1.47 | 8.77 | 7.00 |
| 54.00 | 4.07 | 114.61 | 2.85 | 1.89 | 8.82 | 7.00 |
| 56.00 | 4.56 | 170.30 | 3.82 | 2.45 | 8.89 | 7.00 |
| 58.00 | 5.26 | 257.40 | 5.44 | 3.21 | 8.99 | 7.00 |
| 60.00 | 9.34 | 1421.51 | 9.75 | 4.39 | 9.23 | 7.00 |
| 62.00 | 10.83 | 1200.14 | 27.40 | 7.60 | 9.89 | 7.00 |
| 64.00 | 11.40 | 837.62 | 42.25 | 13.54 | 10.34 | 7.00 |
| 66.00 | 11.73 | 565.93 | 52.47 | 21.52 | 10.61 | 7.00 |
| 68.00 | 12.06 | 415.58 | 58.99 | 30.83 | 10.77 | 7.00 |
| 70.00 | 12.28 | 298.59 | 63.14 | 40.98 | 10.87 | 7.00 |
| 72.00 | 12.50 | 233.83 | 65.62 | 51.66 | 10.93 | 7.00 |
| 74.00 | 12.50 | 129.85 | 66.45 | 62.61 | 10.95 | 7.00 |
| 76.00 | 12.50 | 72.10 | 65.81 | 73.55 | 10.94 | 7.00 |
| 78.00 | 12.50 | 40.04 | 64.40 | 84.31 | 10.90 | 7.00 |
| 80.00 | 12.50 | 22.23 | 62.62 | 94.80 | 10.86 | 7.00 |
| 82.00 | 12.50 | 12.35 | 60.68 | 104.98 | 10.81 | 7.00 |
| 84.00 | 12.50 | 6.86 | 58.70 | 114.83 | 10.77 | 7.00 |
| 86.00 | 12.50 | 3.81 | 56.74 | 124.35 | 10.72 | 7.00 |
| 88.00 | 12.50 | 2.11 | 54.84 | 133.56 | 10.67 | 7.00 |
| 90.00 | 12.50 | 1.17 | 52.99 | 142.46 | 10.62 | 7.00 |
| 92.00 | 12.50 | 0.65 | 51.22 | 151.06 | 10.58 | 7.00 |
| 94.00 | 12.50 | 0.36 | 49.52 | 159.37 | 10.53 | 7.00 |
| 96.00 | 12.50 | 0.20 | 47.87 | 167.40 | 10.49 | 7.00 |
| 98.00 | 12.50 | 0.11 | 46.21 | 175.17 | 10.45 | 7.00 |
| 100.00 | 12.50 | 0.06 | 44.62 | 182.66 | 10.40 | 7.00 |
| 102.00 | 12.50 | 0.03 | 43.11 | 189.90 | 10.36 | 7.00 |
| 104.00 | 12.50 | 0.02 | 41.67 | 196.89 | 10.32 | 7.00 |
| 106.00 | 12.50 | 0.01 | 40.29 | 203.65 | 10.28 | 7.00 |
| 108.00 | 12.50 | 0.01 | 38.97 | 210.19 | 10.25 | 7.00 |
| 110.00 | 12.50 | 0.00 | 37.72 | 216.52 | 10.21 | 7.00 |
| 112.00 | 12.50 | 0.00 | 36.51 | 222.65 | 10.18 | 7.00 |
| 114.00 | 12.50 | 0.00 | 35.36 | 228.58 | 10.14 | 7.00 |
| 116.00 | 12.50 | 0.00 | 34.26 | 234.32 | 10.11 | 7.00 |
| 118.00 | 12.50 | 0.00 | 33.21 | 239.89 | 10.08 | 7.00 |
| 120.00 | 12.50 | 0.00 | 32.20 | 245.29 | 10.05 | 7.00 |
| 122.00 | 12.50 | 0.00 | 31.24 | 250.52 | 10.02 | 7.00 |
| 124.00 | 12.50 | 0.00 | 30.29 | 255.60 | 9.99 | 7.00 |
| 126.00 | 12.50 | 0.00 | 29.36 | 260.52 | 9.96 | 7.00 |
| 128.00 | 12.50 | 0.00 | 28.47 | 265.29 | 9.93 | 7.00 |
| 130.00 | 12.50 | 0.00 | 27.61 | 269.92 | 9.90 | 7.00 |
| 132.00 | 12.50 | 0.00 | 26.80 | 274.41 | 9.87 | 7.00 |
| 134.00 | 12.50 | 0.00 | 26.01 | 278.77 | 9.85 | 7.00 |
| 136.00 | 12.50 | 0.00 | 25.27 | 283.00 | 9.82 | 7.00 |
| 138.00 | 12.50 | 0.00 | 24.55 | 287.11 | 9.80 | 7.00 |
| 140.00 | 12.50 | 0.00 | 23.86 | 291.11 | 9.77 | 7.00 |
| 142.00 | 12.50 | 0.00 | 23.21 | 294.99 | 9.75 | 7.00 |
| 144.00 | 12.50 | 0.00 | 22.58 | 298.77 | 9.73 | 7.00 |
| 146.00 | 12.50 | 0.00 | 21.97 | 302.45 | 9.71 | 7.00 |
| 148.00 | 12.50 | 0.00 | 21.40 | 306.03 | 9.68 | 7.00 |
| 150.00 | 12.50 | 0.00 | 20.84 | 309.51 | 9.66 | 7.00 |
| 152.00 | 12.50 | 0.00 | 20.32 | 312.91 | 9.64 | 7.00 |
| 154.00 | 12.50 | 0.00 | 19.81 | 316.22 | 9.62 | 7.00 |
| 156.00 | 12.50 | 0.00 | 19.33 | 319.46 | 9.60 | 7.00 |
| 158.00 | 12.50 | 0.00 | 18.87 | 322.61 | 9.58 | 7.00 |
| 160.00 | 12.50 | 0.00 | 18.44 | 325.69 | 9.57 | 7.00 |
| 162.00 | 12.50 | 0.00 | 18.02 | 328.70 | 9.55 | 7.00 |
| 164.00 | 12.50 | 0.00 | 17.64 | 331.64 | 9.53 | 7.00 |
| 166.00 | 12.50 | 0.00 | 17.28 | 334.52 | 9.51 | 7.00 |
| 168.00 | 12.50 | 0.00 | 15.57 | 337.28 | 9.50 | 7.00 |
| 170.00 | 12.50 | 0.00 | 15.21 | 339.82 | 9.48 | 7.00 |
| 172.00 | 12.50 | 0.00 | 14.85 | 342.30 | 9.47 | 7.00 |
| 174.00 | 12.50 | 0.00 | 14.51 | 344.73 | 9.45 | 7.00 |
| 176.00 | 12.50 | 0.00 | 14.18 | 347.10 | 9.44 | 7.00 |
| 178.00 | 12.50 | 0.00 | 13.86 | 349.41 | 9.42 | 7.00 |
| 180.00 | 12.50 | 0.00 | 13.55 | 351.68 | 9.41 | 7.00 |
| 182.00 | 12.50 | 0.00 | 13.25 | 353.89 | 9.39 | 7.00 |
| 184.00 | 12.50 | 0.00 | 12.95 | 356.05 | 9.38 | 7.00 |
| 186.00 | 12.50 | 0.00 | 12.67 | 358.17 | 9.37 | 7.00 |

| Time (hr) | Cumulative Rainfall (in) | Instant Runoff (cfs) | Current Discharge (cfs) | Cumulative Discharge (acre-ft) | Head Water Stage (ft NGVD) | Tail Water Stage (ft NGVD) |
|--------------|--------------------------------|----------------------------|-------------------------------|--------------------------------------|----------------------------------|----------------------------------|
| 188.00 | 12.50 | 0.00 | 12.39 | 360.24 | 9.36 | 7.00 |
| 190.00 | 12.50 | 0.00 | 12.13 | 362.26 | 9.34 | 7.00 |
| 192.00 | 12.50 | 0.00 | 11.86 | 364.24 | 9.33 | 7.00 |
| 194.00 | 12.50 | 0.00 | 11.61 | 366.18 | 9.32 | 7.00 |
| 196.00 | 12.50 | 0.00 | 11.37 | 368.08 | 9.31 | 7.00 |
| 198.00 | 12.50 | 0.00 | 11.13 | 369.93 | 9.30 | 7.00 |
| 200.00 | 12.50 | 0.00 | 10.89 | 371.75 | 9.29 | 7.00 |
| 202.00 | 12.50 | 0.00 | 10.67 | 373.53 | 9.27 | 7.00 |
| 204.00 | 12.50 | 0.00 | 10.45 | 375.28 | 9.26 | 7.00 |
| 206.00 | 12.50 | 0.00 | 10.23 | 376.98 | 9.25 | 7.00 |
| 208.00 | 12.50 | 0.00 | 10.03 | 378.66 | 9.24 | 7.00 |
| 210.00 | 12.50 | 0.00 | 9.82 | 380.29 | 9.23 | 7.00 |
| 212.00 | 12.50 | 0.00 | 9.63 | 381.90 | 9.22 | 7.00 |
| 214.00 | 12.50 | 0.00 | 9.44 | 383.47 | 9.21 | 7.00 |
| 216.00 | 12.50 | 0.00 | 9.25 | 385.02 | 9.20 | 7.00 |
| 218.00 | 12.50 | 0.00 | 9.07 | 386.53 | 9.19 | 7.00 |
| 220.00 | 12.50 | 0.00 | 8.89 | 388.01 | 9.19 | 7.00 |
| 222.00 | 12.50 | 0.00 | 8.72 | 389.47 | 9.18 | 7.00 |
| 224.00 | 12.50 | 0.00 | 8.55 | 390.89 | 9.17 | 7.00 |
| 226.00 | 12.50 | 0.00 | 8.39 | 392.29 | 9.16 | 7.00 |
| 228.00 | 12.50 | 0.00 | 8.23 | 393.66 | 9.15 | 7.00 |
| 230.00 | 12.50 | 0.00 | 8.07 | 395.01 | 9.14 | 7.00 |
| 232.00 | 12.50 | 0.00 | 7.92 | 396.33 | 9.13 | 7.00 |
| 234.00 | 12.50 | 0.00 | 7.77 | 397.62 | 9.13 | 7.00 |
| 236.00 | 12.50 | 0.00 | 7.63 | 398.89 | 9.12 | 7.00 |
| 238.00 | 12.50 | 0.00 | 7.49 | 400.14 | 9.11 | 7.00 |
| 240.00 | 12.50 | 0.00 | 7.35 | 401.37 | 9.10 | 7.00 |
| 242.00 | 12.50 | 0.00 | 7.21 | 402.57 | 9.10 | 7.00 |
| 244.00 | 12.50 | 0.00 | 7.08 | 403.75 | 9.09 | 7.00 |
| 246.00 | 12.50 | 0.00 | 6.96 | 404.91 | 9.08 | 7.00 |
| 248.00 | 12.50 | 0.00 | 6.83 | 406.05 | 9.08 | 7.00 |
| 250.00 | 12.50 | 0.00 | 6.71 | 407.17 | 9.07 | 7.00 |
| 252.00 | 12.50 | 0.00 | 6.59 | 408.26 | 9.06 | 7.00 |
| 254.00 | 12.50 | 0.00 | 6.48 | 409.34 | 9.06 | 7.00 |
| 256.00 | 12.50 | 0.00 | 6.36 | 410.40 | 9.05 | 7.00 |
| 258.00 | 12.50 | 0.00 | 6.25 | 411.45 | 9.04 | 7.00 |
| 260.00 | 12.50 | 0.00 | 6.14 | 412.47 | 9.04 | 7.00 |
| 262.00 | 12.50 | 0.00 | 6.04 | 413.47 | 9.03 | 7.00 |
| 264.00 | 12.50 | 0.00 | 5.93 | 414.46 | 9.02 | 7.00 |
| 266.00 | 12.50 | 0.00 | 5.83 | 415.44 | 9.02 | 7.00 |
| 268.00 | 12.50 | 0.00 | 5.74 | 416.39 | 9.01 | 7.00 |
| 270.00 | 12.50 | 0.00 | 5.64 | 417.33 | 9.01 | 7.00 |
| 272.00 | 12.50 | 0.00 | 5.54 | 418.25 | 9.00 | 7.00 |
| 274.00 | 12.50 | 0.00 | 5.45 | 419.16 | 9.00 | 7.00 |
| 276.00 | 12.50 | 0.00 | 5.36 | 420.05 | 8.99 | 7.00 |
| 278.00 | 12.50 | 0.00 | 5.27 | 420.93 | 8.98 | 7.00 |
| 280.00 | 12.50 | 0.00 | 5.18 | 421.79 | 8.98 | 7.00 |
| 282.00 | 12.50 | 0.00 | 5.09 | 422.64 | 8.97 | 7.00 |
| 284.00 | 12.50 | 0.00 | 5.01 | 423.48 | 8.97 | 7.00 |
| 286.00 | 12.50 | 0.00 | 4.93 | 424.30 | 8.96 | 7.00 |
| 288.00 | 12.50 | 0.00 | 4.85 | 425.11 | 8.96 | 7.00 |

Structure: 3

From Basin: TP

To Basin: Site

Structure Type: Gravity

Weir: Sharp Crested, Crest Elev = 14.5 ft NGVD, Length = 4 ft

Bleeder: None

Pipe: Diameter = 4 ft, Manning's n = 0.012, Length = 200 ft

US Invert Elev = 8 ft NGVD, DS Invert Elev = 2.5 ft NGVD, no flap gate

| Time (hr) | Cumulative Rainfall (in) | Instant Runoff (cfs) | Current Discharge (cfs) | Cumulative Discharge (acre-ft) | Head Water Stage (ft NGVD) | Tail Water Stage (ft NGVD) |
|--------------|--------------------------------|----------------------------|-------------------------------|--------------------------------------|----------------------------------|----------------------------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 10.50 | 8.50 |
| 2.00 | 0.11 | 0.00 | 0.00 | 0.00 | 11.00 | 8.50 |
| 4.00 | 0.22 | 0.00 | 0.00 | 0.00 | 11.00 | 8.50 |
| 6.00 | 0.34 | 0.00 | 0.00 | 0.00 | 11.00 | 8.50 |
| 8.00 | 0.45 | 0.00 | 0.00 | 0.00 | 11.00 | 8.50 |
| 10.00 | 0.56 | 0.00 | 0.00 | 0.00 | 11.00 | 8.50 |
| 12.00 | 0.67 | 0.00 | 0.00 | 0.00 | 11.00 | 8.50 |
| 14.00 | 0.78 | 0.00 | 0.00 | 0.00 | 11.00 | 8.50 |
| 16.00 | 0.90 | 0.00 | 0.00 | 0.00 | 11.00 | 8.50 |
| 18.00 | 1.01 | 0.00 | 0.00 | 0.00 | 11.00 | 8.50 |
| 20.00 | 1.12 | 0.23 | 0.00 | 0.00 | 11.00 | 8.50 |
| 22.00 | 1.23 | 0.92 | 0.00 | 0.00 | 11.01 | 8.50 |
| 24.00 | 1.34 | 1.60 | 0.00 | 0.00 | 11.03 | 8.50 |
| 26.00 | 1.51 | 3.56 | 0.00 | 0.00 | 11.08 | 8.51 |
| 28.00 | 1.67 | 4.80 | 0.00 | 0.00 | 11.16 | 8.51 |
| 30.00 | 1.83 | 5.94 | 0.00 | 0.00 | 11.25 | 8.52 |
| 32.00 | 2.00 | 6.99 | 0.00 | 0.00 | 11.36 | 8.53 |
| 34.00 | 2.16 | 7.96 | 0.00 | 0.00 | 11.50 | 8.55 |
| 36.00 | 2.32 | 8.85 | 0.00 | 0.00 | 11.54 | 8.56 |
| 38.00 | 2.49 | 9.68 | 0.00 | 0.00 | 11.58 | 8.58 |
| 40.00 | 2.65 | 10.46 | 0.00 | 0.00 | 11.62 | 8.61 |
| 42.00 | 2.81 | 11.18 | 0.00 | 0.00 | 11.67 | 8.63 |
| 44.00 | 2.98 | 11.85 | 0.00 | 0.00 | 11.72 | 8.65 |
| 46.00 | 3.14 | 12.47 | 0.00 | 0.00 | 11.77 | 8.68 |
| 48.00 | 3.30 | 13.06 | 0.00 | 0.00 | 11.83 | 8.71 |
| 50.00 | 3.49 | 15.36 | 0.00 | 0.00 | 11.89 | 8.74 |
| 52.00 | 3.72 | 21.34 | 0.00 | 0.00 | 11.97 | 8.77 |
| 54.00 | 4.07 | 35.73 | 0.00 | 0.00 | 12.04 | 8.82 |
| 56.00 | 4.56 | 53.07 | 0.00 | 0.00 | 12.12 | 8.89 |
| 58.00 | 5.26 | 82.89 | 0.00 | 0.00 | 12.25 | 8.99 |
| 60.00 | 9.34 | 1070.57 | 0.00 | 0.00 | 12.65 | 9.23 |
| 62.00 | 10.83 | 156.15 | 0.00 | 0.00 | 13.12 | 9.89 |
| 64.00 | 11.40 | 79.64 | 0.00 | 0.00 | 13.21 | 10.34 |
| 66.00 | 11.73 | 47.61 | 0.00 | 0.00 | 13.26 | 10.61 |
| 68.00 | 12.06 | 47.26 | 0.00 | 0.00 | 13.30 | 10.77 |
| 70.00 | 12.28 | 31.90 | 0.00 | 0.00 | 13.33 | 10.87 |
| 72.00 | 12.50 | 31.71 | 0.00 | 0.00 | 13.36 | 10.93 |
| 74.00 | 12.50 | 0.58 | 0.00 | 0.00 | 13.36 | 10.95 |
| 76.00 | 12.50 | 0.01 | 0.00 | 0.00 | 13.36 | 10.94 |
| 78.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.90 |
| 80.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.86 |
| 82.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.81 |
| 84.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.77 |
| 86.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.72 |
| 88.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.67 |
| 90.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.62 |
| 92.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.58 |
| 94.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.53 |
| 96.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.49 |
| 98.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.45 |
| 100.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.40 |
| 102.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.36 |
| 104.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.32 |
| 106.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.28 |
| 108.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.25 |
| 110.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.21 |
| 112.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.18 |
| 114.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.14 |
| 116.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.11 |
| 118.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.08 |
| 120.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.05 |
| 122.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.02 |
| 124.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.99 |
| 126.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.96 |
| 128.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.93 |
| 130.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.90 |
| 132.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.87 |
| 134.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.85 |
| 136.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.82 |

| Time (hr) | Cumulative Rainfall (in) | Instant Runoff (cfs) | Current Discharge (cfs) | Cumulative Discharge (acre-ft) | Head Water Stage (ft NGVD) | Tail Water Stage (ft NGVD) |
|--------------|--------------------------------|----------------------------|-------------------------------|--------------------------------------|----------------------------------|----------------------------------|
| 138.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.80 |
| 140.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.77 |
| 142.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.75 |
| 144.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.73 |
| 146.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.71 |
| 148.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.68 |
| 150.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.66 |
| 152.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.64 |
| 154.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.62 |
| 156.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.60 |
| 158.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.58 |
| 160.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.57 |
| 162.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.55 |
| 164.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.53 |
| 166.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.51 |
| 168.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.50 |
| 170.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.48 |
| 172.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.47 |
| 174.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.45 |
| 176.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.44 |
| 178.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.42 |
| 180.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.41 |
| 182.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.39 |
| 184.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.38 |
| 186.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.37 |
| 188.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.36 |
| 190.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.34 |
| 192.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.33 |
| 194.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.32 |
| 196.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.31 |
| 198.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.30 |
| 200.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.29 |
| 202.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.27 |
| 204.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.26 |
| 206.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.25 |
| 208.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.24 |
| 210.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.23 |
| 212.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.22 |
| 214.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.21 |
| 216.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.20 |
| 218.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.19 |
| 220.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.19 |
| 222.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.18 |
| 224.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.17 |
| 226.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.16 |
| 228.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.15 |
| 230.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.14 |
| 232.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.13 |
| 234.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.13 |
| 236.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.12 |
| 238.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.11 |
| 240.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.10 |
| 242.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.10 |
| 244.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.09 |
| 246.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.08 |
| 248.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.08 |
| 250.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.07 |
| 252.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.06 |
| 254.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.06 |
| 256.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.05 |
| 258.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.04 |
| 260.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.04 |
| 262.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.03 |
| 264.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.02 |
| 266.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.02 |
| 268.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.01 |
| 270.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.01 |
| 272.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.00 |
| 274.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.00 |

| Time (hr) | Cumulative Rainfall (in) | Instant Runoff (cfs) | Current Discharge (cfs) | Cumulative Discharge (acre-ft) | Head Water Stage (ft NGVD) | Tail Water Stage (ft NGVD) |
|-----------|--------------------------|----------------------|-------------------------|--------------------------------|----------------------------|----------------------------|
| 276.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 8.99 |
| 278.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 8.98 |
| 280.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 8.98 |
| 282.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 8.97 |
| 284.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 8.97 |
| 286.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 8.96 |
| 288.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 8.96 |

STRUCTURE MAXIMUM AND MINIMUM DISCHARGES

| Struc | Max (cfs) | Time (hr) | Min (cfs) | Time (hr) |
|-------|-----------|-----------|-----------|-----------|
| 1 | 66.45 | 74.00 | 0.00 | 0.00 |
| 2 | 66.45 | 74.00 | 0.00 | 0.00 |
| 3 | 0.00 | 0.00 | 0.00 | 0.00 |

BASIN MAXIMUM AND MINIMUM STAGES

| Basin | Max (ft) | Time (hr) | Min (ft) | Time (hr) |
|-------|----------|-----------|----------|-----------|
| Site | 10.95 | 74.00 | 8.50 | 0.00 |
| TP | 13.36 | 76.80 | 10.50 | 0.00 |

BASIN WATER BUDGETS (all units in acre-ft)

| Basin | Total Runoff | Structure Inflow | Structure Outflow | Initial Storage | Final Storage | Residual |
|-------|--------------|------------------|-------------------|-----------------|---------------|----------|
| Site | 996.48 | 0.00 | 850.02 | 0.00 | 146.46 | 0.00 |
| TP | 206.46 | 0.00 | 0.00 | 1.56 | 208.02 | 0.00 |

25 year 72 hour
288 hour Run #2

Project Name: Discovery PUD

Reviewer: DG

Project Number: 21-1014

Period Begin: May 01, 2021;0000 hr End: May 13, 2021;0000 hr Duration: 288 hr

Time Step: 0.2 hr, Iterations: 10

Elevations are in NAVD

Basin 1: Site

Method: Santa Barbara Unit Hydrograph

Rainfall Distribution: SFWMD - 3day

Design Frequency: 25 year

3 Day Rainfall: 12.5 inches

Area: 1530 acres

Ground Storage: 5.3 inches

Time of Concentration: 3.4 hours

Initial Stage: 8.96 ft NGVD

Initial Stage from
Hour 288 of Run #1



| Stage (ft NGVD) | Storage (acre-ft) |
|--------------------|----------------------|
| 8.50 | 0.00 |
| 9.00 | 159.95 |
| 9.50 | 323.39 |
| 10.00 | 490.31 |
| 10.50 | 666.10 |
| 11.00 | 854.38 |
| 11.50 | 1053.89 |
| 12.00 | 1265.13 |
| 12.50 | 1494.99 |
| 13.00 | 1750.38 |
| 13.50 | 2031.30 |
| 14.00 | 2337.75 |
| 14.50 | 2668.85 |
| 15.00 | 3023.70 |
| 15.50 | 3398.00 |
| 16.00 | 3787.42 |

Basin 2: TP

Method: Santa Barbara Unit Hydrograph

Rainfall Distribution: SFWMD - 3day

Design Frequency: 25 year

3 Day Rainfall: 12.5 inches

Area: 317 acres

Ground Storage: 5.3 inches

Time of Concentration: 0.5 hours

Initial Stage: 10.5 ft NGVD

| Stage (ft NGVD) | Storage (acre-ft) |
|--------------------|----------------------|
| 11.00 | 1.56 |
| 11.50 | 6.25 |
| 12.00 | 25.19 |
| 12.50 | 69.50 |
| 13.00 | 139.19 |
| 13.50 | 234.25 |
| 14.00 | 354.69 |
| 14.50 | 500.50 |
| 15.00 | 659.00 |
| 15.50 | 817.50 |
| 16.00 | 976.00 |

Offsite Receiving Body: Offsitel

| Time (hr) | Stage (ft NGVD) |
|--------------|--------------------|
| 0.00 | 7.00 |
| 4000.00 | 7.00 |

Offsite Receiving Body: Offsite2

| Time (hr) | Stage (ft NGVD) |
|--------------|--------------------|
| 0.00 | 8.50 |
| 4000.00 | 8.50 |

Structure: 1

From Basin: Site

To Basin: Offsitel

Structure Type: Gravity

Weir: Sharp Crested, Crest Elev = 9.5 ft NGVD, Length = 6 ft

Bleeder: Rect, Invert Elev = 8.5 ft NGVD, Height = 1 ft, Width = 5 ft

Default Coefs: Weir Coef = 3.13, Orifice Coef = 0.6

Pipe: None

| Time (hr) | Cumulative Rainfall (in) | Instant Runoff (cfs) | Current Discharge (cfs) | Cumulative Discharge (acre-ft) | Head Water Stage (ft NGVD) | Tail Water Stage (ft NGVD) |
|--------------|--------------------------------|----------------------------|-------------------------------|--------------------------------------|----------------------------------|----------------------------------|
| 0.00 | 0.00 | 0.00 | 4.88 | 0.00 | 8.96 | 7.00 |
| 2.00 | 0.11 | 0.00 | 4.80 | 0.80 | 8.95 | 7.00 |
| 4.00 | 0.22 | 0.00 | 4.73 | 1.59 | 8.95 | 7.00 |
| 6.00 | 0.34 | 0.00 | 4.65 | 2.36 | 8.95 | 7.00 |
| 8.00 | 0.45 | 0.00 | 4.57 | 3.12 | 8.94 | 7.00 |
| 10.00 | 0.56 | 0.00 | 4.50 | 3.87 | 8.94 | 7.00 |
| 12.00 | 0.67 | 0.00 | 4.43 | 4.61 | 8.93 | 7.00 |
| 14.00 | 0.78 | 0.00 | 4.36 | 5.34 | 8.93 | 7.00 |
| 16.00 | 0.90 | 0.00 | 4.29 | 6.05 | 8.92 | 7.00 |
| 18.00 | 1.01 | 0.00 | 4.23 | 6.75 | 8.92 | 7.00 |
| 20.00 | 1.12 | 0.27 | 4.16 | 7.45 | 8.91 | 7.00 |
| 22.00 | 1.23 | 1.83 | 4.10 | 8.13 | 8.91 | 7.00 |
| 24.00 | 1.34 | 4.17 | 4.06 | 8.80 | 8.91 | 7.00 |
| 26.00 | 1.51 | 9.41 | 4.05 | 9.47 | 8.91 | 7.00 |
| 28.00 | 1.67 | 15.03 | 4.08 | 10.15 | 8.91 | 7.00 |
| 30.00 | 1.83 | 20.62 | 4.16 | 10.83 | 8.91 | 7.00 |
| 32.00 | 2.00 | 26.01 | 4.28 | 11.53 | 8.92 | 7.00 |
| 34.00 | 2.16 | 31.12 | 4.43 | 12.25 | 8.93 | 7.00 |
| 36.00 | 2.32 | 35.91 | 4.63 | 13.00 | 8.94 | 7.00 |
| 38.00 | 2.49 | 40.38 | 4.86 | 13.78 | 8.96 | 7.00 |
| 40.00 | 2.65 | 44.55 | 5.13 | 14.61 | 8.98 | 7.00 |
| 42.00 | 2.81 | 48.43 | 5.44 | 15.49 | 8.99 | 7.00 |
| 44.00 | 2.98 | 52.04 | 5.77 | 16.41 | 9.01 | 7.00 |
| 46.00 | 3.14 | 55.41 | 6.13 | 17.40 | 9.04 | 7.00 |
| 48.00 | 3.30 | 58.56 | 6.52 | 18.45 | 9.06 | 7.00 |
| 50.00 | 3.49 | 65.26 | 6.95 | 19.56 | 9.08 | 7.00 |
| 52.00 | 3.72 | 79.55 | 7.48 | 20.76 | 9.11 | 7.00 |
| 54.00 | 4.07 | 114.61 | 8.23 | 22.06 | 9.15 | 7.00 |
| 56.00 | 4.56 | 170.30 | 9.44 | 23.52 | 9.21 | 7.00 |
| 58.00 | 5.26 | 257.40 | 11.40 | 25.25 | 9.31 | 7.00 |
| 60.00 | 9.34 | 1421.51 | 17.79 | 27.48 | 9.54 | 7.00 |
| 62.00 | 10.83 | 1200.14 | 36.62 | 32.12 | 10.18 | 7.00 |
| 64.00 | 11.40 | 837.62 | 52.15 | 39.66 | 10.60 | 7.00 |
| 66.00 | 11.73 | 565.93 | 62.31 | 49.27 | 10.85 | 7.00 |
| 68.00 | 12.06 | 415.58 | 68.83 | 60.20 | 11.01 | 7.00 |
| 70.00 | 12.28 | 298.59 | 72.61 | 71.96 | 11.09 | 7.00 |
| 72.00 | 12.50 | 233.83 | 74.72 | 84.17 | 11.14 | 7.00 |
| 74.00 | 12.50 | 129.85 | 75.21 | 96.59 | 11.15 | 7.00 |
| 76.00 | 12.50 | 72.10 | 74.26 | 108.95 | 11.13 | 7.00 |
| 78.00 | 12.50 | 40.04 | 72.58 | 121.08 | 11.09 | 7.00 |
| 80.00 | 12.50 | 22.23 | 70.53 | 132.89 | 11.05 | 7.00 |
| 82.00 | 12.50 | 12.35 | 68.34 | 144.36 | 11.00 | 7.00 |
| 84.00 | 12.50 | 6.86 | 65.99 | 155.44 | 10.94 | 7.00 |
| 86.00 | 12.50 | 3.81 | 63.69 | 166.14 | 10.89 | 7.00 |
| 88.00 | 12.50 | 2.11 | 61.45 | 176.46 | 10.83 | 7.00 |
| 90.00 | 12.50 | 1.17 | 59.30 | 186.43 | 10.78 | 7.00 |
| 92.00 | 12.50 | 0.65 | 57.24 | 196.04 | 10.73 | 7.00 |
| 94.00 | 12.50 | 0.36 | 55.27 | 205.32 | 10.68 | 7.00 |

| Time (hr) | Cumulative Rainfall (in) | Instant Runoff (cfs) | Current Discharge (cfs) | Cumulative Discharge (acre-ft) | Head Water Stage (ft NGVD) | Tail Water Stage (ft NGVD) |
|--------------|--------------------------------|----------------------------|-------------------------------|--------------------------------------|----------------------------------|----------------------------------|
| 96.00 | 12.50 | 0.20 | 53.38 | 214.29 | 10.63 | 7.00 |
| 98.00 | 12.50 | 0.11 | 51.58 | 222.95 | 10.59 | 7.00 |
| 100.00 | 12.50 | 0.06 | 49.86 | 231.31 | 10.54 | 7.00 |
| 102.00 | 12.50 | 0.03 | 48.21 | 239.41 | 10.50 | 7.00 |
| 104.00 | 12.50 | 0.02 | 46.53 | 247.22 | 10.45 | 7.00 |
| 106.00 | 12.50 | 0.01 | 44.93 | 254.77 | 10.41 | 7.00 |
| 108.00 | 12.50 | 0.01 | 43.40 | 262.05 | 10.37 | 7.00 |
| 110.00 | 12.50 | 0.00 | 41.94 | 269.10 | 10.33 | 7.00 |
| 112.00 | 12.50 | 0.00 | 40.55 | 275.90 | 10.29 | 7.00 |
| 114.00 | 12.50 | 0.00 | 39.22 | 282.48 | 10.25 | 7.00 |
| 116.00 | 12.50 | 0.00 | 37.96 | 288.85 | 10.22 | 7.00 |
| 118.00 | 12.50 | 0.00 | 36.74 | 295.02 | 10.18 | 7.00 |
| 120.00 | 12.50 | 0.00 | 35.58 | 300.98 | 10.15 | 7.00 |
| 122.00 | 12.50 | 0.00 | 34.47 | 306.76 | 10.11 | 7.00 |
| 124.00 | 12.50 | 0.00 | 33.41 | 312.37 | 10.08 | 7.00 |
| 126.00 | 12.50 | 0.00 | 32.39 | 317.80 | 10.05 | 7.00 |
| 128.00 | 12.50 | 0.00 | 31.42 | 323.06 | 10.02 | 7.00 |
| 130.00 | 12.50 | 0.00 | 30.48 | 328.17 | 9.99 | 7.00 |
| 132.00 | 12.50 | 0.00 | 29.53 | 333.12 | 9.96 | 7.00 |
| 134.00 | 12.50 | 0.00 | 28.64 | 337.92 | 9.93 | 7.00 |
| 136.00 | 12.50 | 0.00 | 27.78 | 342.58 | 9.91 | 7.00 |
| 138.00 | 12.50 | 0.00 | 26.95 | 347.09 | 9.88 | 7.00 |
| 140.00 | 12.50 | 0.00 | 26.16 | 351.48 | 9.85 | 7.00 |
| 142.00 | 12.50 | 0.00 | 25.41 | 355.73 | 9.83 | 7.00 |
| 144.00 | 12.50 | 0.00 | 24.69 | 359.87 | 9.80 | 7.00 |
| 146.00 | 12.50 | 0.00 | 23.99 | 363.89 | 9.78 | 7.00 |
| 148.00 | 12.50 | 0.00 | 23.33 | 367.79 | 9.75 | 7.00 |
| 150.00 | 12.50 | 0.00 | 22.70 | 371.59 | 9.73 | 7.00 |
| 152.00 | 12.50 | 0.00 | 22.09 | 375.29 | 9.71 | 7.00 |
| 154.00 | 12.50 | 0.00 | 21.51 | 378.89 | 9.69 | 7.00 |
| 156.00 | 12.50 | 0.00 | 20.95 | 382.39 | 9.67 | 7.00 |
| 158.00 | 12.50 | 0.00 | 20.42 | 385.80 | 9.65 | 7.00 |
| 160.00 | 12.50 | 0.00 | 19.91 | 389.13 | 9.63 | 7.00 |
| 162.00 | 12.50 | 0.00 | 19.42 | 392.38 | 9.61 | 7.00 |
| 164.00 | 12.50 | 0.00 | 18.96 | 395.55 | 9.59 | 7.00 |
| 166.00 | 12.50 | 0.00 | 18.52 | 398.64 | 9.57 | 7.00 |
| 168.00 | 12.50 | 0.00 | 18.10 | 401.66 | 9.55 | 7.00 |
| 170.00 | 12.50 | 0.00 | 17.71 | 404.62 | 9.53 | 7.00 |
| 172.00 | 12.50 | 0.00 | 17.34 | 407.51 | 9.52 | 7.00 |
| 174.00 | 12.50 | 0.00 | 15.64 | 410.33 | 9.50 | 7.00 |
| 176.00 | 12.50 | 0.00 | 15.28 | 412.88 | 9.48 | 7.00 |
| 178.00 | 12.50 | 0.00 | 14.92 | 415.37 | 9.47 | 7.00 |
| 180.00 | 12.50 | 0.00 | 14.58 | 417.81 | 9.45 | 7.00 |
| 182.00 | 12.50 | 0.00 | 14.25 | 420.19 | 9.44 | 7.00 |
| 184.00 | 12.50 | 0.00 | 13.92 | 422.51 | 9.42 | 7.00 |
| 186.00 | 12.50 | 0.00 | 13.61 | 424.79 | 9.41 | 7.00 |
| 188.00 | 12.50 | 0.00 | 13.31 | 427.01 | 9.40 | 7.00 |
| 190.00 | 12.50 | 0.00 | 13.01 | 429.18 | 9.38 | 7.00 |
| 192.00 | 12.50 | 0.00 | 12.72 | 431.31 | 9.37 | 7.00 |
| 194.00 | 12.50 | 0.00 | 12.45 | 433.38 | 9.36 | 7.00 |
| 196.00 | 12.50 | 0.00 | 12.18 | 435.42 | 9.35 | 7.00 |
| 198.00 | 12.50 | 0.00 | 11.91 | 437.41 | 9.33 | 7.00 |
| 200.00 | 12.50 | 0.00 | 11.66 | 439.35 | 9.32 | 7.00 |
| 202.00 | 12.50 | 0.00 | 11.41 | 441.26 | 9.31 | 7.00 |
| 204.00 | 12.50 | 0.00 | 11.17 | 443.12 | 9.30 | 7.00 |
| 206.00 | 12.50 | 0.00 | 10.94 | 444.95 | 9.29 | 7.00 |
| 208.00 | 12.50 | 0.00 | 10.71 | 446.74 | 9.28 | 7.00 |
| 210.00 | 12.50 | 0.00 | 10.49 | 448.49 | 9.27 | 7.00 |
| 212.00 | 12.50 | 0.00 | 10.28 | 450.20 | 9.26 | 7.00 |
| 214.00 | 12.50 | 0.00 | 10.07 | 451.88 | 9.25 | 7.00 |
| 216.00 | 12.50 | 0.00 | 9.86 | 453.53 | 9.24 | 7.00 |
| 218.00 | 12.50 | 0.00 | 9.66 | 455.14 | 9.23 | 7.00 |
| 220.00 | 12.50 | 0.00 | 9.47 | 456.72 | 9.22 | 7.00 |
| 222.00 | 12.50 | 0.00 | 9.28 | 458.27 | 9.21 | 7.00 |
| 224.00 | 12.50 | 0.00 | 9.10 | 459.79 | 9.20 | 7.00 |
| 226.00 | 12.50 | 0.00 | 8.92 | 461.27 | 9.19 | 7.00 |
| 228.00 | 12.50 | 0.00 | 8.75 | 462.73 | 9.18 | 7.00 |
| 230.00 | 12.50 | 0.00 | 8.58 | 464.16 | 9.17 | 7.00 |
| 232.00 | 12.50 | 0.00 | 8.42 | 465.57 | 9.16 | 7.00 |

| Time (hr) | Cumulative Rainfall (in) | Instant Runoff (cfs) | Current Discharge (cfs) | Cumulative Discharge (acre-ft) | Head Water Stage (ft NGVD) | Tail Water Stage (ft NGVD) |
|-----------|--------------------------|----------------------|-------------------------|--------------------------------|----------------------------|----------------------------|
| 234.00 | 12.50 | 0.00 | 8.26 | 466.94 | 9.15 | 7.00 |
| 236.00 | 12.50 | 0.00 | 8.10 | 468.29 | 9.14 | 7.00 |
| 238.00 | 12.50 | 0.00 | 7.95 | 469.62 | 9.14 | 7.00 |
| 240.00 | 12.50 | 0.00 | 7.80 | 470.92 | 9.13 | 7.00 |
| 242.00 | 12.50 | 0.00 | 7.65 | 472.20 | 9.12 | 7.00 |
| 244.00 | 12.50 | 0.00 | 7.51 | 473.45 | 9.11 | 7.00 |
| 246.00 | 12.50 | 0.00 | 7.37 | 474.68 | 9.11 | 7.00 |
| 248.00 | 12.50 | 0.00 | 7.24 | 475.88 | 9.10 | 7.00 |
| 250.00 | 12.50 | 0.00 | 7.11 | 477.07 | 9.09 | 7.00 |
| 252.00 | 12.50 | 0.00 | 6.98 | 478.23 | 9.08 | 7.00 |
| 254.00 | 12.50 | 0.00 | 6.86 | 479.38 | 9.08 | 7.00 |
| 256.00 | 12.50 | 0.00 | 6.73 | 480.50 | 9.07 | 7.00 |
| 258.00 | 12.50 | 0.00 | 6.61 | 481.60 | 9.06 | 7.00 |
| 260.00 | 12.50 | 0.00 | 6.50 | 482.68 | 9.06 | 7.00 |
| 262.00 | 12.50 | 0.00 | 6.38 | 483.75 | 9.05 | 7.00 |
| 264.00 | 12.50 | 0.00 | 6.27 | 484.79 | 9.04 | 7.00 |
| 266.00 | 12.50 | 0.00 | 6.16 | 485.82 | 9.04 | 7.00 |
| 268.00 | 12.50 | 0.00 | 6.06 | 486.83 | 9.03 | 7.00 |
| 270.00 | 12.50 | 0.00 | 5.95 | 487.82 | 9.03 | 7.00 |
| 272.00 | 12.50 | 0.00 | 5.85 | 488.79 | 9.02 | 7.00 |
| 274.00 | 12.50 | 0.00 | 5.75 | 489.75 | 9.01 | 7.00 |
| 276.00 | 12.50 | 0.00 | 5.66 | 490.70 | 9.01 | 7.00 |
| 278.00 | 12.50 | 0.00 | 5.56 | 491.62 | 9.00 | 7.00 |
| 280.00 | 12.50 | 0.00 | 5.47 | 492.53 | 9.00 | 7.00 |
| 282.00 | 12.50 | 0.00 | 5.38 | 493.43 | 8.99 | 7.00 |
| 284.00 | 12.50 | 0.00 | 5.29 | 494.31 | 8.99 | 7.00 |
| 286.00 | 12.50 | 0.00 | 5.20 | 495.18 | 8.98 | 7.00 |
| 288.00 | 12.50 | 0.00 | 5.11 | 496.03 | 8.97 | 7.00 |

Structure: 2

From Basin: Site

To Basin: Offsitel

Structure Type: Gravity

Weir: Sharp Crested, Crest Elev = 9.5 ft NGVD, Length = 6 ft

Bleeder: Rect, Invert Elev = 8.5 ft NGVD, Height = 1 ft, Width = 5 ft

Default Coefs: Weir Coef = 3.13, Orifice Coef = 0.6

Pipe: None

| Time (hr) | Cumulative Rainfall (in) | Instant Runoff (cfs) | Current Discharge (cfs) | Cumulative Discharge (acre-ft) | Head Water Stage (ft NGVD) | Tail Water Stage (ft NGVD) |
|-----------|--------------------------|----------------------|-------------------------|--------------------------------|----------------------------|----------------------------|
| 0.00 | 0.00 | 0.00 | 4.88 | 0.00 | 8.96 | 7.00 |
| 2.00 | 0.11 | 0.00 | 4.80 | 0.80 | 8.95 | 7.00 |
| 4.00 | 0.22 | 0.00 | 4.73 | 1.59 | 8.95 | 7.00 |
| 6.00 | 0.34 | 0.00 | 4.65 | 2.36 | 8.95 | 7.00 |
| 8.00 | 0.45 | 0.00 | 4.57 | 3.12 | 8.94 | 7.00 |
| 10.00 | 0.56 | 0.00 | 4.50 | 3.87 | 8.94 | 7.00 |
| 12.00 | 0.67 | 0.00 | 4.43 | 4.61 | 8.93 | 7.00 |
| 14.00 | 0.78 | 0.00 | 4.36 | 5.34 | 8.93 | 7.00 |
| 16.00 | 0.90 | 0.00 | 4.29 | 6.05 | 8.92 | 7.00 |
| 18.00 | 1.01 | 0.00 | 4.23 | 6.75 | 8.92 | 7.00 |
| 20.00 | 1.12 | 0.27 | 4.16 | 7.45 | 8.91 | 7.00 |
| 22.00 | 1.23 | 1.83 | 4.10 | 8.13 | 8.91 | 7.00 |
| 24.00 | 1.34 | 4.17 | 4.06 | 8.80 | 8.91 | 7.00 |
| 26.00 | 1.51 | 9.41 | 4.05 | 9.47 | 8.91 | 7.00 |
| 28.00 | 1.67 | 15.03 | 4.08 | 10.15 | 8.91 | 7.00 |
| 30.00 | 1.83 | 20.62 | 4.16 | 10.83 | 8.91 | 7.00 |
| 32.00 | 2.00 | 26.01 | 4.28 | 11.53 | 8.92 | 7.00 |
| 34.00 | 2.16 | 31.12 | 4.43 | 12.25 | 8.93 | 7.00 |
| 36.00 | 2.32 | 35.91 | 4.63 | 13.00 | 8.94 | 7.00 |
| 38.00 | 2.49 | 40.38 | 4.86 | 13.78 | 8.96 | 7.00 |
| 40.00 | 2.65 | 44.55 | 5.13 | 14.61 | 8.98 | 7.00 |
| 42.00 | 2.81 | 48.43 | 5.44 | 15.49 | 8.99 | 7.00 |
| 44.00 | 2.98 | 52.04 | 5.77 | 16.41 | 9.01 | 7.00 |
| 46.00 | 3.14 | 55.41 | 6.13 | 17.40 | 9.04 | 7.00 |
| 48.00 | 3.30 | 58.56 | 6.52 | 18.45 | 9.06 | 7.00 |

| Time (hr) | Cumulative Rainfall (in) | Instant Runoff (cfs) | Current Discharge (cfs) | Cumulative Discharge (acre-ft) | Head Water Stage (ft NGVD) | Tail Water Stage (ft NGVD) |
|-----------|--------------------------|----------------------|-------------------------|--------------------------------|----------------------------|----------------------------|
| 50.00 | 3.49 | 65.26 | 6.95 | 19.56 | 9.08 | 7.00 |
| 52.00 | 3.72 | 79.55 | 7.48 | 20.76 | 9.11 | 7.00 |
| 54.00 | 4.07 | 114.61 | 8.23 | 22.06 | 9.15 | 7.00 |
| 56.00 | 4.56 | 170.30 | 9.44 | 23.52 | 9.21 | 7.00 |
| 58.00 | 5.26 | 257.40 | 11.40 | 25.25 | 9.31 | 7.00 |
| 60.00 | 9.34 | 1421.51 | 17.79 | 27.48 | 9.54 | 7.00 |
| 62.00 | 10.83 | 1200.14 | 36.62 | 32.12 | 10.18 | 7.00 |
| 64.00 | 11.40 | 837.62 | 52.15 | 39.66 | 10.60 | 7.00 |
| 66.00 | 11.73 | 565.93 | 62.31 | 49.27 | 10.85 | 7.00 |
| 68.00 | 12.06 | 415.58 | 68.83 | 60.20 | 11.01 | 7.00 |
| 70.00 | 12.28 | 298.59 | 72.61 | 71.96 | 11.09 | 7.00 |
| 72.00 | 12.50 | 233.83 | 74.72 | 84.17 | 11.14 | 7.00 |
| 74.00 | 12.50 | 129.85 | 75.21 | 96.59 | 11.15 | 7.00 |
| 76.00 | 12.50 | 72.10 | 74.26 | 108.95 | 11.13 | 7.00 |
| 78.00 | 12.50 | 40.04 | 72.58 | 121.08 | 11.09 | 7.00 |
| 80.00 | 12.50 | 22.23 | 70.53 | 132.89 | 11.05 | 7.00 |
| 82.00 | 12.50 | 12.35 | 68.34 | 144.36 | 11.00 | 7.00 |
| 84.00 | 12.50 | 6.86 | 65.99 | 155.44 | 10.94 | 7.00 |
| 86.00 | 12.50 | 3.81 | 63.69 | 166.14 | 10.89 | 7.00 |
| 88.00 | 12.50 | 2.11 | 61.45 | 176.46 | 10.83 | 7.00 |
| 90.00 | 12.50 | 1.17 | 59.30 | 186.43 | 10.78 | 7.00 |
| 92.00 | 12.50 | 0.65 | 57.24 | 196.04 | 10.73 | 7.00 |
| 94.00 | 12.50 | 0.36 | 55.27 | 205.32 | 10.68 | 7.00 |
| 96.00 | 12.50 | 0.20 | 53.38 | 214.29 | 10.63 | 7.00 |
| 98.00 | 12.50 | 0.11 | 51.58 | 222.95 | 10.59 | 7.00 |
| 100.00 | 12.50 | 0.06 | 49.86 | 231.31 | 10.54 | 7.00 |
| 102.00 | 12.50 | 0.03 | 48.21 | 239.41 | 10.50 | 7.00 |
| 104.00 | 12.50 | 0.02 | 46.53 | 247.22 | 10.45 | 7.00 |
| 106.00 | 12.50 | 0.01 | 44.93 | 254.77 | 10.41 | 7.00 |
| 108.00 | 12.50 | 0.01 | 43.40 | 262.05 | 10.37 | 7.00 |
| 110.00 | 12.50 | 0.00 | 41.94 | 269.10 | 10.33 | 7.00 |
| 112.00 | 12.50 | 0.00 | 40.55 | 275.90 | 10.29 | 7.00 |
| 114.00 | 12.50 | 0.00 | 39.22 | 282.48 | 10.25 | 7.00 |
| 116.00 | 12.50 | 0.00 | 37.96 | 288.85 | 10.22 | 7.00 |
| 118.00 | 12.50 | 0.00 | 36.74 | 295.02 | 10.18 | 7.00 |
| 120.00 | 12.50 | 0.00 | 35.58 | 300.98 | 10.15 | 7.00 |
| 122.00 | 12.50 | 0.00 | 34.47 | 306.76 | 10.11 | 7.00 |
| 124.00 | 12.50 | 0.00 | 33.41 | 312.37 | 10.08 | 7.00 |
| 126.00 | 12.50 | 0.00 | 32.39 | 317.80 | 10.05 | 7.00 |
| 128.00 | 12.50 | 0.00 | 31.42 | 323.06 | 10.02 | 7.00 |
| 130.00 | 12.50 | 0.00 | 30.48 | 328.17 | 9.99 | 7.00 |
| 132.00 | 12.50 | 0.00 | 29.53 | 333.12 | 9.96 | 7.00 |
| 134.00 | 12.50 | 0.00 | 28.64 | 337.92 | 9.93 | 7.00 |
| 136.00 | 12.50 | 0.00 | 27.78 | 342.58 | 9.91 | 7.00 |
| 138.00 | 12.50 | 0.00 | 26.95 | 347.09 | 9.88 | 7.00 |
| 140.00 | 12.50 | 0.00 | 26.16 | 351.48 | 9.85 | 7.00 |
| 142.00 | 12.50 | 0.00 | 25.41 | 355.73 | 9.83 | 7.00 |
| 144.00 | 12.50 | 0.00 | 24.69 | 359.87 | 9.80 | 7.00 |
| 146.00 | 12.50 | 0.00 | 23.99 | 363.89 | 9.78 | 7.00 |
| 148.00 | 12.50 | 0.00 | 23.33 | 367.79 | 9.75 | 7.00 |
| 150.00 | 12.50 | 0.00 | 22.70 | 371.59 | 9.73 | 7.00 |
| 152.00 | 12.50 | 0.00 | 22.09 | 375.29 | 9.71 | 7.00 |
| 154.00 | 12.50 | 0.00 | 21.51 | 378.89 | 9.69 | 7.00 |
| 156.00 | 12.50 | 0.00 | 20.95 | 382.39 | 9.67 | 7.00 |
| 158.00 | 12.50 | 0.00 | 20.42 | 385.80 | 9.65 | 7.00 |
| 160.00 | 12.50 | 0.00 | 19.91 | 389.13 | 9.63 | 7.00 |
| 162.00 | 12.50 | 0.00 | 19.42 | 392.38 | 9.61 | 7.00 |
| 164.00 | 12.50 | 0.00 | 18.96 | 395.55 | 9.59 | 7.00 |
| 166.00 | 12.50 | 0.00 | 18.52 | 398.64 | 9.57 | 7.00 |
| 168.00 | 12.50 | 0.00 | 18.10 | 401.66 | 9.55 | 7.00 |
| 170.00 | 12.50 | 0.00 | 17.71 | 404.62 | 9.53 | 7.00 |
| 172.00 | 12.50 | 0.00 | 17.34 | 407.51 | 9.52 | 7.00 |
| 174.00 | 12.50 | 0.00 | 15.64 | 410.33 | 9.50 | 7.00 |
| 176.00 | 12.50 | 0.00 | 15.28 | 412.88 | 9.48 | 7.00 |
| 178.00 | 12.50 | 0.00 | 14.92 | 415.37 | 9.47 | 7.00 |
| 180.00 | 12.50 | 0.00 | 14.58 | 417.81 | 9.45 | 7.00 |
| 182.00 | 12.50 | 0.00 | 14.25 | 420.19 | 9.44 | 7.00 |
| 184.00 | 12.50 | 0.00 | 13.92 | 422.51 | 9.42 | 7.00 |
| 186.00 | 12.50 | 0.00 | 13.61 | 424.79 | 9.41 | 7.00 |

| Time (hr) | Cumulative Rainfall (in) | Instant Runoff (cfs) | Current Discharge (cfs) | Cumulative Discharge (acre-ft) | Head Water Stage (ft NGVD) | Tail Water Stage (ft NGVD) |
|--------------|--------------------------------|----------------------------|-------------------------------|--------------------------------------|----------------------------------|----------------------------------|
| 188.00 | 12.50 | 0.00 | 13.31 | 427.01 | 9.40 | 7.00 |
| 190.00 | 12.50 | 0.00 | 13.01 | 429.18 | 9.38 | 7.00 |
| 192.00 | 12.50 | 0.00 | 12.72 | 431.31 | 9.37 | 7.00 |
| 194.00 | 12.50 | 0.00 | 12.45 | 433.38 | 9.36 | 7.00 |
| 196.00 | 12.50 | 0.00 | 12.18 | 435.42 | 9.35 | 7.00 |
| 198.00 | 12.50 | 0.00 | 11.91 | 437.41 | 9.33 | 7.00 |
| 200.00 | 12.50 | 0.00 | 11.66 | 439.35 | 9.32 | 7.00 |
| 202.00 | 12.50 | 0.00 | 11.41 | 441.26 | 9.31 | 7.00 |
| 204.00 | 12.50 | 0.00 | 11.17 | 443.12 | 9.30 | 7.00 |
| 206.00 | 12.50 | 0.00 | 10.94 | 444.95 | 9.29 | 7.00 |
| 208.00 | 12.50 | 0.00 | 10.71 | 446.74 | 9.28 | 7.00 |
| 210.00 | 12.50 | 0.00 | 10.49 | 448.49 | 9.27 | 7.00 |
| 212.00 | 12.50 | 0.00 | 10.28 | 450.20 | 9.26 | 7.00 |
| 214.00 | 12.50 | 0.00 | 10.07 | 451.88 | 9.25 | 7.00 |
| 216.00 | 12.50 | 0.00 | 9.86 | 453.53 | 9.24 | 7.00 |
| 218.00 | 12.50 | 0.00 | 9.66 | 455.14 | 9.23 | 7.00 |
| 220.00 | 12.50 | 0.00 | 9.47 | 456.72 | 9.22 | 7.00 |
| 222.00 | 12.50 | 0.00 | 9.28 | 458.27 | 9.21 | 7.00 |
| 224.00 | 12.50 | 0.00 | 9.10 | 459.79 | 9.20 | 7.00 |
| 226.00 | 12.50 | 0.00 | 8.92 | 461.27 | 9.19 | 7.00 |
| 228.00 | 12.50 | 0.00 | 8.75 | 462.73 | 9.18 | 7.00 |
| 230.00 | 12.50 | 0.00 | 8.58 | 464.16 | 9.17 | 7.00 |
| 232.00 | 12.50 | 0.00 | 8.42 | 465.57 | 9.16 | 7.00 |
| 234.00 | 12.50 | 0.00 | 8.26 | 466.94 | 9.15 | 7.00 |
| 236.00 | 12.50 | 0.00 | 8.10 | 468.29 | 9.14 | 7.00 |
| 238.00 | 12.50 | 0.00 | 7.95 | 469.62 | 9.14 | 7.00 |
| 240.00 | 12.50 | 0.00 | 7.80 | 470.92 | 9.13 | 7.00 |
| 242.00 | 12.50 | 0.00 | 7.65 | 472.20 | 9.12 | 7.00 |
| 244.00 | 12.50 | 0.00 | 7.51 | 473.45 | 9.11 | 7.00 |
| 246.00 | 12.50 | 0.00 | 7.37 | 474.68 | 9.11 | 7.00 |
| 248.00 | 12.50 | 0.00 | 7.24 | 475.88 | 9.10 | 7.00 |
| 250.00 | 12.50 | 0.00 | 7.11 | 477.07 | 9.09 | 7.00 |
| 252.00 | 12.50 | 0.00 | 6.98 | 478.23 | 9.08 | 7.00 |
| 254.00 | 12.50 | 0.00 | 6.86 | 479.38 | 9.08 | 7.00 |
| 256.00 | 12.50 | 0.00 | 6.73 | 480.50 | 9.07 | 7.00 |
| 258.00 | 12.50 | 0.00 | 6.61 | 481.60 | 9.06 | 7.00 |
| 260.00 | 12.50 | 0.00 | 6.50 | 482.68 | 9.06 | 7.00 |
| 262.00 | 12.50 | 0.00 | 6.38 | 483.75 | 9.05 | 7.00 |
| 264.00 | 12.50 | 0.00 | 6.27 | 484.79 | 9.04 | 7.00 |
| 266.00 | 12.50 | 0.00 | 6.16 | 485.82 | 9.04 | 7.00 |
| 268.00 | 12.50 | 0.00 | 6.06 | 486.83 | 9.03 | 7.00 |
| 270.00 | 12.50 | 0.00 | 5.95 | 487.82 | 9.03 | 7.00 |
| 272.00 | 12.50 | 0.00 | 5.85 | 488.79 | 9.02 | 7.00 |
| 274.00 | 12.50 | 0.00 | 5.75 | 489.75 | 9.01 | 7.00 |
| 276.00 | 12.50 | 0.00 | 5.66 | 490.70 | 9.01 | 7.00 |
| 278.00 | 12.50 | 0.00 | 5.56 | 491.62 | 9.00 | 7.00 |
| 280.00 | 12.50 | 0.00 | 5.47 | 492.53 | 9.00 | 7.00 |
| 282.00 | 12.50 | 0.00 | 5.38 | 493.43 | 8.99 | 7.00 |
| 284.00 | 12.50 | 0.00 | 5.29 | 494.31 | 8.99 | 7.00 |
| 286.00 | 12.50 | 0.00 | 5.20 | 495.18 | 8.98 | 7.00 |
| 288.00 | 12.50 | 0.00 | 5.11 | 496.03 | 8.97 | 7.00 |

Structure: 3

From Basin: TP

To Basin: Site

Structure Type: Gravity

Weir: Sharp Crested, Crest Elev = 14.5 ft NGVD, Length = 4 ft

Bleeder: None

Pipe: Diameter = 4 ft, Manning's n = 0.012, Length = 200 ft

US Invert Elev = 8 ft NGVD, DS Invert Elev = 2.5 ft NGVD, no flap gate

| Time (hr) | Cumulative Rainfall (in) | Instant Runoff (cfs) | Current Discharge (cfs) | Cumulative Discharge (acre-ft) | Head Water Stage (ft NGVD) | Tail Water Stage (ft NGVD) |
|-----------|--------------------------|----------------------|-------------------------|--------------------------------|----------------------------|----------------------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 10.50 | 8.96 |
| 2.00 | 0.11 | 0.00 | 0.00 | 0.00 | 11.00 | 8.95 |
| 4.00 | 0.22 | 0.00 | 0.00 | 0.00 | 11.00 | 8.95 |
| 6.00 | 0.34 | 0.00 | 0.00 | 0.00 | 11.00 | 8.95 |
| 8.00 | 0.45 | 0.00 | 0.00 | 0.00 | 11.00 | 8.94 |
| 10.00 | 0.56 | 0.00 | 0.00 | 0.00 | 11.00 | 8.94 |
| 12.00 | 0.67 | 0.00 | 0.00 | 0.00 | 11.00 | 8.93 |
| 14.00 | 0.78 | 0.00 | 0.00 | 0.00 | 11.00 | 8.93 |
| 16.00 | 0.90 | 0.00 | 0.00 | 0.00 | 11.00 | 8.92 |
| 18.00 | 1.01 | 0.00 | 0.00 | 0.00 | 11.00 | 8.92 |
| 20.00 | 1.12 | 0.23 | 0.00 | 0.00 | 11.00 | 8.91 |
| 22.00 | 1.23 | 0.92 | 0.00 | 0.00 | 11.01 | 8.91 |
| 24.00 | 1.34 | 1.60 | 0.00 | 0.00 | 11.03 | 8.91 |
| 26.00 | 1.51 | 3.56 | 0.00 | 0.00 | 11.08 | 8.91 |
| 28.00 | 1.67 | 4.80 | 0.00 | 0.00 | 11.16 | 8.91 |
| 30.00 | 1.83 | 5.94 | 0.00 | 0.00 | 11.25 | 8.91 |
| 32.00 | 2.00 | 6.99 | 0.00 | 0.00 | 11.36 | 8.92 |
| 34.00 | 2.16 | 7.96 | 0.00 | 0.00 | 11.50 | 8.93 |
| 36.00 | 2.32 | 8.85 | 0.00 | 0.00 | 11.54 | 8.94 |
| 38.00 | 2.49 | 9.68 | 0.00 | 0.00 | 11.58 | 8.96 |
| 40.00 | 2.65 | 10.46 | 0.00 | 0.00 | 11.62 | 8.98 |
| 42.00 | 2.81 | 11.18 | 0.00 | 0.00 | 11.67 | 8.99 |
| 44.00 | 2.98 | 11.85 | 0.00 | 0.00 | 11.72 | 9.01 |
| 46.00 | 3.14 | 12.47 | 0.00 | 0.00 | 11.77 | 9.04 |
| 48.00 | 3.30 | 13.06 | 0.00 | 0.00 | 11.83 | 9.06 |
| 50.00 | 3.49 | 15.36 | 0.00 | 0.00 | 11.89 | 9.08 |
| 52.00 | 3.72 | 21.34 | 0.00 | 0.00 | 11.97 | 9.11 |
| 54.00 | 4.07 | 35.73 | 0.00 | 0.00 | 12.04 | 9.15 |
| 56.00 | 4.56 | 53.07 | 0.00 | 0.00 | 12.12 | 9.21 |
| 58.00 | 5.26 | 82.89 | 0.00 | 0.00 | 12.25 | 9.31 |
| 60.00 | 9.34 | 1070.57 | 0.00 | 0.00 | 12.65 | 9.54 |
| 62.00 | 10.83 | 156.15 | 0.00 | 0.00 | 13.12 | 10.18 |
| 64.00 | 11.40 | 79.64 | 0.00 | 0.00 | 13.21 | 10.60 |
| 66.00 | 11.73 | 47.61 | 0.00 | 0.00 | 13.26 | 10.85 |
| 68.00 | 12.06 | 47.26 | 0.00 | 0.00 | 13.30 | 11.01 |
| 70.00 | 12.28 | 31.90 | 0.00 | 0.00 | 13.33 | 11.09 |
| 72.00 | 12.50 | 31.71 | 0.00 | 0.00 | 13.36 | 11.14 |
| 74.00 | 12.50 | 0.58 | 0.00 | 0.00 | 13.36 | 11.15 |
| 76.00 | 12.50 | 0.01 | 0.00 | 0.00 | 13.36 | 11.13 |
| 78.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 11.09 |
| 80.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 11.05 |
| 82.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 11.00 |
| 84.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.94 |
| 86.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.89 |
| 88.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.83 |
| 90.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.78 |
| 92.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.73 |
| 94.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.68 |
| 96.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.63 |
| 98.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.59 |
| 100.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.54 |
| 102.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.50 |
| 104.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.45 |
| 106.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.41 |
| 108.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.37 |
| 110.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.33 |
| 112.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.29 |
| 114.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.25 |
| 116.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.22 |
| 118.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.18 |
| 120.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.15 |
| 122.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.11 |
| 124.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.08 |
| 126.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.05 |
| 128.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 10.02 |
| 130.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.99 |
| 132.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.96 |
| 134.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.93 |
| 136.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.91 |

| Time (hr) | Cumulative Rainfall (in) | Instant Runoff (cfs) | Current Discharge (cfs) | Cumulative Discharge (acre-ft) | Head Water Stage (ft NGVD) | Tail Water Stage (ft NGVD) |
|--------------|--------------------------------|----------------------------|-------------------------------|--------------------------------------|----------------------------------|----------------------------------|
| 138.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.88 |
| 140.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.85 |
| 142.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.83 |
| 144.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.80 |
| 146.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.78 |
| 148.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.75 |
| 150.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.73 |
| 152.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.71 |
| 154.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.69 |
| 156.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.67 |
| 158.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.65 |
| 160.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.63 |
| 162.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.61 |
| 164.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.59 |
| 166.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.57 |
| 168.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.55 |
| 170.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.53 |
| 172.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.52 |
| 174.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.50 |
| 176.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.48 |
| 178.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.47 |
| 180.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.45 |
| 182.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.44 |
| 184.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.42 |
| 186.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.41 |
| 188.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.40 |
| 190.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.38 |
| 192.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.37 |
| 194.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.36 |
| 196.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.35 |
| 198.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.33 |
| 200.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.32 |
| 202.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.31 |
| 204.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.30 |
| 206.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.29 |
| 208.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.28 |
| 210.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.27 |
| 212.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.26 |
| 214.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.25 |
| 216.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.24 |
| 218.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.23 |
| 220.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.22 |
| 222.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.21 |
| 224.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.20 |
| 226.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.19 |
| 228.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.18 |
| 230.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.17 |
| 232.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.16 |
| 234.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.15 |
| 236.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.14 |
| 238.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.14 |
| 240.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.13 |
| 242.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.12 |
| 244.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.11 |
| 246.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.11 |
| 248.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.10 |
| 250.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.09 |
| 252.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.08 |
| 254.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.08 |
| 256.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.07 |
| 258.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.06 |
| 260.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.06 |
| 262.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.05 |
| 264.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.04 |
| 266.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.04 |
| 268.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.03 |
| 270.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.03 |
| 272.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.02 |
| 274.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.01 |

| Time (hr) | Cumulative Rainfall (in) | Instant Runoff (cfs) | Current Discharge (cfs) | Cumulative Discharge (acre-ft) | Head Water Stage (ft NGVD) | Tail Water Stage (ft NGVD) |
|-----------|--------------------------|----------------------|-------------------------|--------------------------------|----------------------------|----------------------------|
| 276.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.01 |
| 278.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.00 |
| 280.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 9.00 |
| 282.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 8.99 |
| 284.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 8.99 |
| 286.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 8.98 |
| 288.00 | 12.50 | 0.00 | 0.00 | 0.00 | 13.36 | 8.97 |

STRUCTURE MAXIMUM AND MINIMUM DISCHARGES

| Struc | Max (cfs) | Time (hr) | Min (cfs) | Time (hr) |
|-------|-----------|-----------|-----------|-----------|
| 1 | 75.25 | 73.40 | 4.05 | 25.60 |
| 2 | 75.25 | 73.40 | 4.05 | 25.60 |
| 3 | 0.00 | 0.00 | 0.00 | 0.00 |

Max Stage Lower than proposed perimeter berm

BASIN MAXIMUM AND MINIMUM STAGES

| Basin | Max (ft) | Time (hr) | Min (ft) | Time (hr) |
|-------|----------|-----------|----------|-----------|
| Site | 11.15 | 73.40 | 8.91 | 25.60 |
| TP | 13.36 | 76.80 | 10.50 | 0.00 |

BASIN WATER BUDGETS (all units in acre-ft)

| Basin | Total Runoff | Structure Inflow | Structure Outflow | Initial Storage | Final Storage | Residual |
|-------|--------------|------------------|-------------------|-----------------|---------------|----------|
| Site | 996.48 | 0.00 | 991.83 | 147.15 | 151.72 | 0.08 |
| TP | 206.46 | 0.00 | 0.00 | 1.56 | 208.02 | 0.00 |