

Table 1. Modeled Water Surface Elevation Comparisons with winter aquatic plant growth conditions (roughness coefficients calibrated to November & April measurements)

| River Station (ft) | LOCATION | Water Surface Elevation (ft) | | | | | | | | | | Water Surface Difference between Existing and Proposed (ft) | | | | | | |
|--------------------|--|------------------------------|---------|---------|-----------------------|---------|---------|----------|-----------------------|---------|---------|---|---------|---------|----------|-----------------------|---------|---------|
| | | Existing Conditions | | | with Proposed Project | | | *GATE UP | with full Dam Removal | | | with Proposed Project | | | *GATE UP | with full Dam Removal | | |
| | | 650 cfs | 380 cfs | 150 cfs | 650 cfs | 380 cfs | 150 cfs | 150 cfs | 650 cfs | 380 cfs | 150 cfs | 650 cfs | 380 cfs | 150 cfs | 150 cfs | 650 cfs | 380 cfs | 150 cfs |
| 88236 | Stoughton Mill Pond | 841.2 | 841.4 | 841.5 | 840.1 | 839.4 | 838.6 | 840.4 | 837.0 | 836.1 | 835.1 | -1.1 | -2.0 | -2.9 | -1.1 | -4.2 | -5.3 | -6.4 |
| 89646 | Main St | 841.3 | 841.4 | 841.5 | 840.3 | 839.6 | 838.6 | 840.4 | 839.0 | 838.2 | 837.1 | -1.0 | -1.9 | -2.9 | -1.1 | -2.4 | -3.3 | -4.4 |
| 93817 | Widening between RR bridge & County Rd B | 842.1 | 841.7 | 841.5 | 841.6 | 840.7 | 839.5 | 840.5 | 841.4 | 840.5 | 839.4 | -0.4 | -1.0 | -2.1 | -1.0 | -0.6 | -1.2 | -2.2 |
| 103439 | Widening north of County Rd B | 842.4 | 841.9 | 841.6 | 842.1 | 841.1 | 840.0 | 840.6 | 842.0 | 841.0 | 840.0 | -0.3 | -0.8 | -1.5 | -1.0 | -0.4 | -0.9 | -1.6 |
| 117303 | Immediately downstream of Lafollette Dam | 843.3 | 842.6 | 841.8 | 843.2 | 842.3 | 841.2 | 841.3 | 843.2 | 842.3 | 841.2 | -0.1 | -0.3 | -0.5 | -0.5 | -0.1 | -0.3 | -0.5 |

*GATE UP refers to proposed design with pneumatic gate installed on structure crest. The gate would be raised when Yahara River flows are 250 cfs and below. Higher flows the gate would be flat and upstream water surface unaffected

Table 2. Modeled Water Surface Elevation Comparisons with peak aquatic plant growth conditions (roughness coefficients calibrated to June measurements)

| River Station (ft) | LOCATION | Water Surface Elevation (ft) | | | | | | | | | | Water Surface Difference between Existing and Proposed (ft) | | | | | | |
|--------------------|--|------------------------------|---------|---------|-----------------------|---------|---------|----------|-----------------------|---------|---------|---|---------|---------|----------|-----------------------|---------|---------|
| | | Existing Conditions | | | with Proposed Project | | | *GATE UP | with full Dam Removal | | | with Proposed Project | | | *GATE UP | with full Dam Removal | | |
| | | 650 cfs | 380 cfs | 150 cfs | 650 cfs | 380 cfs | 150 cfs | 150 cfs | 650 cfs | 380 cfs | 150 cfs | 650 cfs | 380 cfs | 150 cfs | 150 cfs | 650 cfs | 380 cfs | 150 cfs |
| 88236 | Stoughton Mill Pond | 841.2 | 841.4 | 841.5 | 840.1 | 839.4 | 838.6 | 840.4 | 837.0 | 836.1 | 835.1 | -1.1 | -2.0 | -2.9 | -1.1 | -4.2 | -5.3 | -6.4 |
| 89646 | Main St | 841.3 | 841.4 | 841.5 | 840.3 | 839.6 | 838.6 | 840.4 | 839.0 | 838.2 | 837.1 | -1.0 | -1.9 | -2.9 | -1.1 | -2.4 | -3.3 | -4.4 |
| 93817 | Widening between RR bridge & County Rd B | 842.2 | 841.8 | 841.7 | 841.8 | 840.8 | 840.3 | 840.8 | 841.6 | 840.6 | 840.2 | -0.4 | -1.0 | -1.4 | -0.9 | -0.6 | -1.2 | -1.4 |
| 103439 | Widening north of County Rd B | 844.3 | 843.1 | 842.3 | 844.2 | 842.9 | 841.7 | 841.9 | 844.2 | 842.8 | 841.7 | -0.1 | -0.3 | -0.6 | -0.4 | -0.1 | -0.3 | -0.6 |
| 117303 | Immediately downstream of Lafollette Dam | 845.4 | 844.3 | 843.5 | 845.4 | 844.2 | 843.4 | 843.4 | 845.4 | 844.2 | 843.4 | 0.0 | -0.1 | -0.1 | -0.1 | 0.0 | -0.1 | -0.1 |

*GATE UP refers to proposed design with pneumatic gate installed on structure crest. The gate would be raised when Yahara River flows are 250 cfs and below. Higher flows the gate would be flat and upstream water surface unaffected