

East Bank Improvements

Sewershed	Total Area (Ac.)	Imperv. Area (Ac.)	Mean Annual TSS Load (lbs/yr)	Proposed BMP	Mean Annual TSS Reduction	Total Potential Cost Range	Comments
2.1 and 1.6	21.2	6.9	4,370	Infiltration	48% (2,098 lbs/yr)	\$110,000 - \$140,000	<ul style="list-style-type: none"> • Deduct approximately \$30,000 if only doing 2.1 alone • Assumes a 50' x 50' footprint at the parking lot facility
4.3 and 4.4	26.2	16.5	10,460	Ravine Storage	41% (4,289 lbs/yr)	\$60,000	<ul style="list-style-type: none"> • Could potentially also capture runoff from 1 acre of Econofoods parking lot (add/alt = \$45,000 extra) • Assumes 80% efficiency by ponding in shaded ravine parallel to river • Desirable to inventory shade tree locations to prevent mortality
2.1, 2.2.2.4, 3.1, 4.3, 4.4	83.3	41.7	26,470	Stormwater Interceptor	Rough estimate is 60-70% reduction to channel	\$420,000 - \$500,000 (preliminary estimate)	<ul style="list-style-type: none"> • Assumes 80% efficiency from ponding in reduced Lake George • Does not include costs for reservoir modification • Thermal model shows peak temperature reduction of 0.3 degree C. for July 1 storm, and 1.0 degrees C for June 15 storm at Footbridge

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2.3	7.9	3.5	2,210	Open Channel	50% (1,105 lbs/yr)	\$40,000	<ul style="list-style-type: none"> • <i>Feasibility: high</i> • Open channel would be developed on city-owned property • TSS reductions based on well-vegetated channel in stable condition

West Bank Improvements – Continued

2.5 (north)	11.7	4.8	3,035	Infiltration	49% (1,487 lbs/yr)	\$65,000	<ul style="list-style-type: none"> • City-owned, undeveloped land
2.5 (south) and 4.1	3.6	2.9	1,715	Infiltration and Rainwater Garden (RWG)	69% (1,183 lbs/yr)	\$50,000 - \$110,000	<ul style="list-style-type: none"> • <i>Feasibility: high</i> • Could be combined with proposed parking lot/trail reconstruction • Two separate infiltration approaches <ul style="list-style-type: none"> ○ East of lot, south of Maple ○ South of lot, diverting storm line from sewershed 4.1 • RWG would treat parking lot runoff at south end of lot.
5.5	5.8	1.6	1,030	Infiltration	47% (484 lbs/yr)	\$70,000	<ul style="list-style-type: none"> • <i>Feasibility: limited to moderate</i> • Currently vacant, city-owned lot • Existing slopes would require backfill material to bury infiltration feature.

NOTES AND ASSUMPTIONS

1. Size of all stormwater BMPs can accommodate 0.2” runoff over impervious area of sewershed.
2. Approximately 0.5” rainfall depth is required to generate 0.2” runoff volume, in all scenarios.
3. Infiltration galleries sized assuming 35% void space in storage medium.
4. Allowances:
 - a. \$20,000 allowance was made for all infiltration galleries to account for a pre-treatment swirl concentrator
 - b. Excavation costs were assumed at \$5/CY
 - c. Mobilization costs were assumed at \$10,000 (conservative)
5. Costs include a 30-35% factor for design, construction services and contingency.