



Remedial Design Update South River Phase 1A Banks

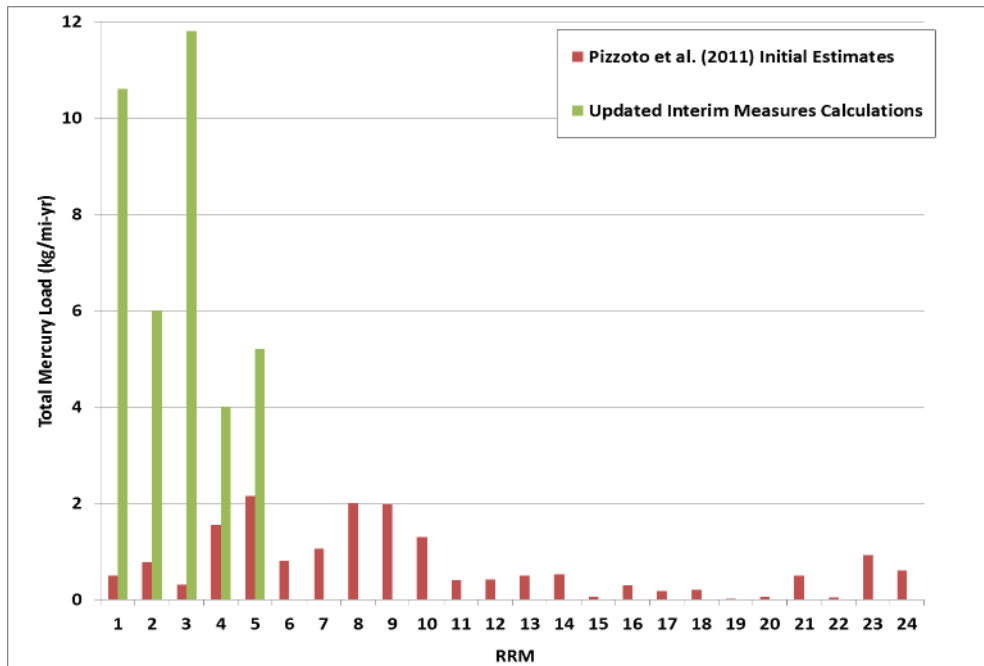
Clay Patmont

January 2016

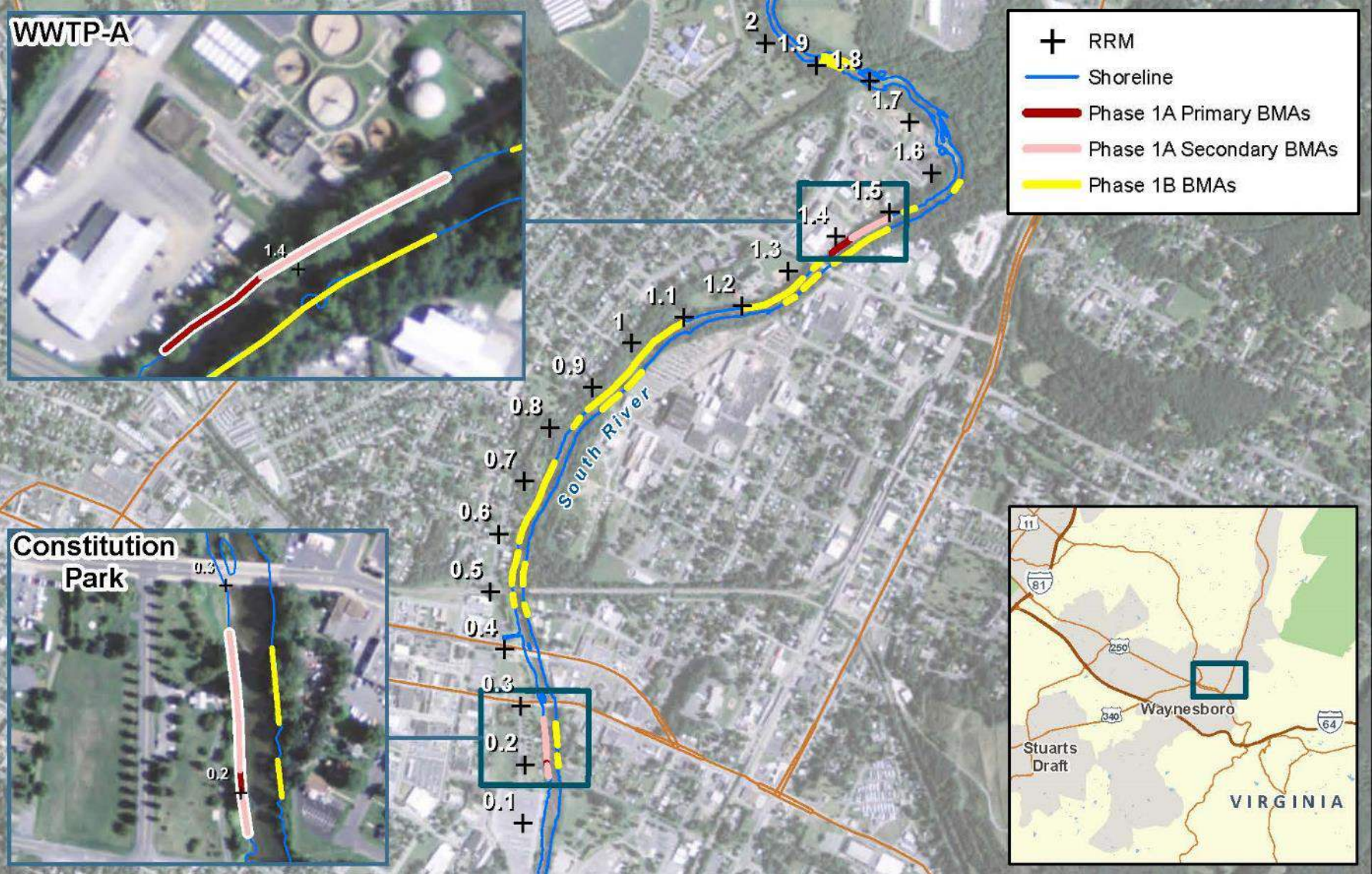


Three Overarching South River Remedy Objectives

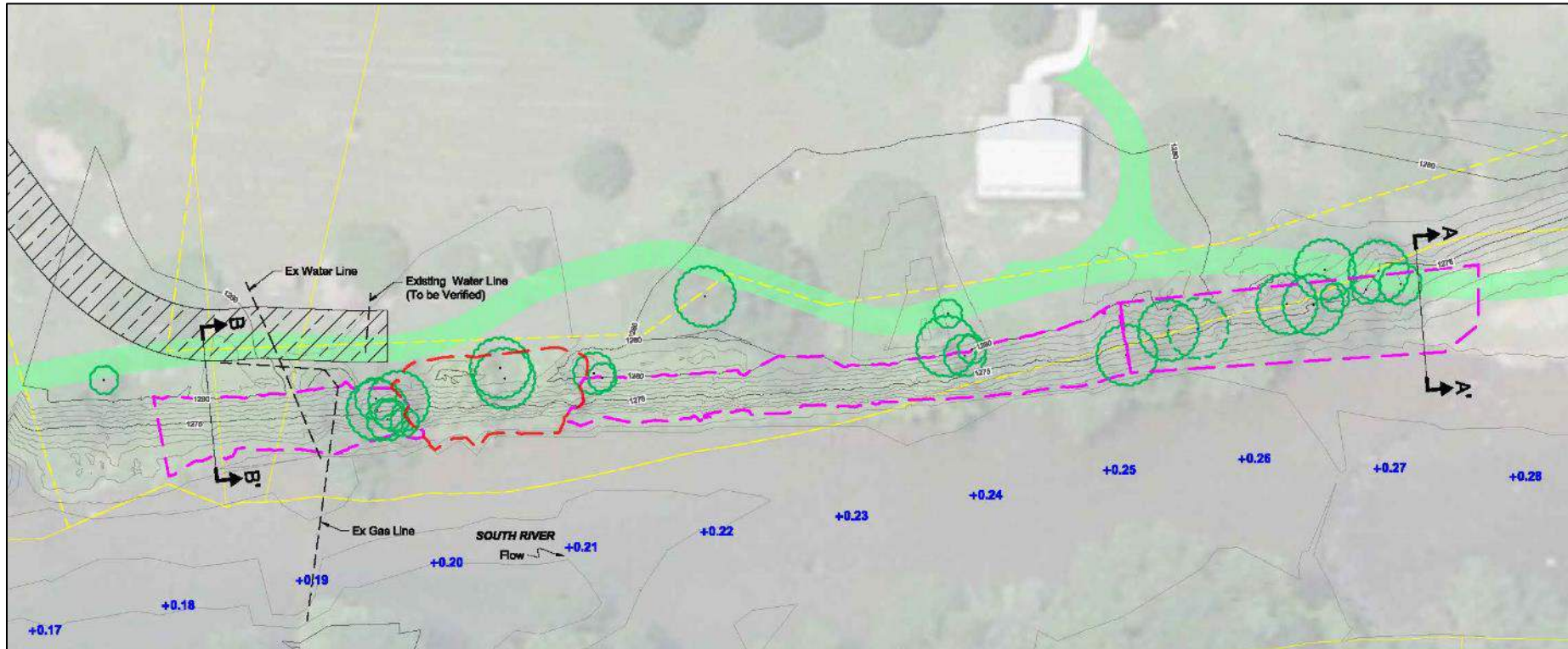
1. Reduce mercury loading
2. Maintain/improve habitat
3. Minimize disruption



RRM 0 to 2 Bank Management Areas (BMAs)



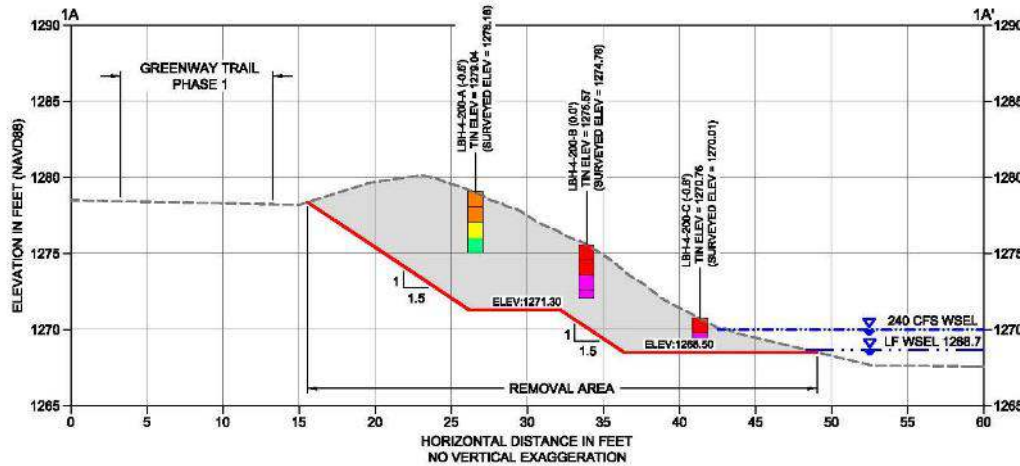
Constitution Park BMA Layout



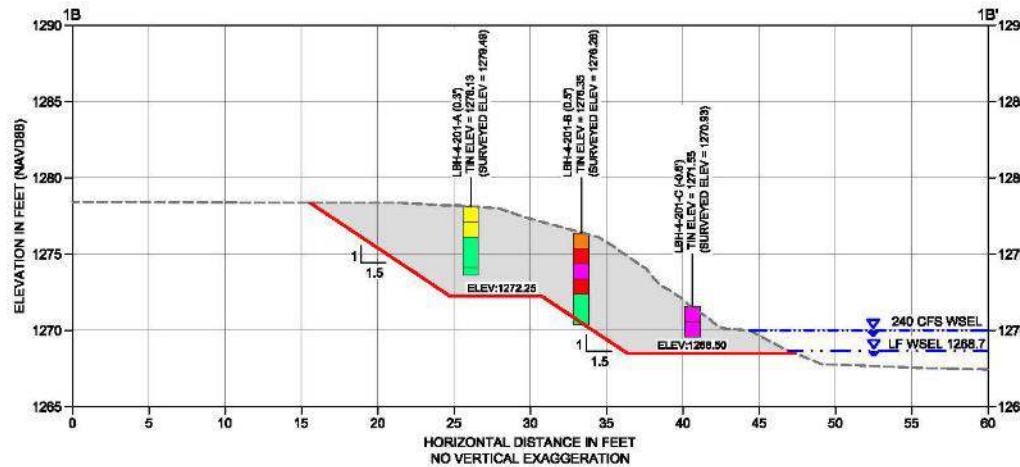
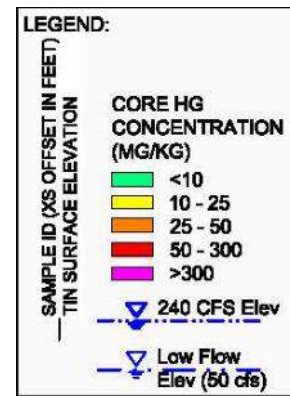
LEGEND:

- | | | | | | |
|--------------|---|--|--|--|-----------------------|
| | Parcel Line | | Existing Utility Line | | Proposed Access Route |
| | Property Boundary from 1986 Survey (approx) | | Existing Tree | | Primary BMA |
| +0.20 | River Mile | | Cross Section Location and Designation | | Secondary BMA |
| | AQ Merged Topo (1 ft Intervals) | | Greenway Trail | | |

Constitution Park Primary BMA Removal Prism

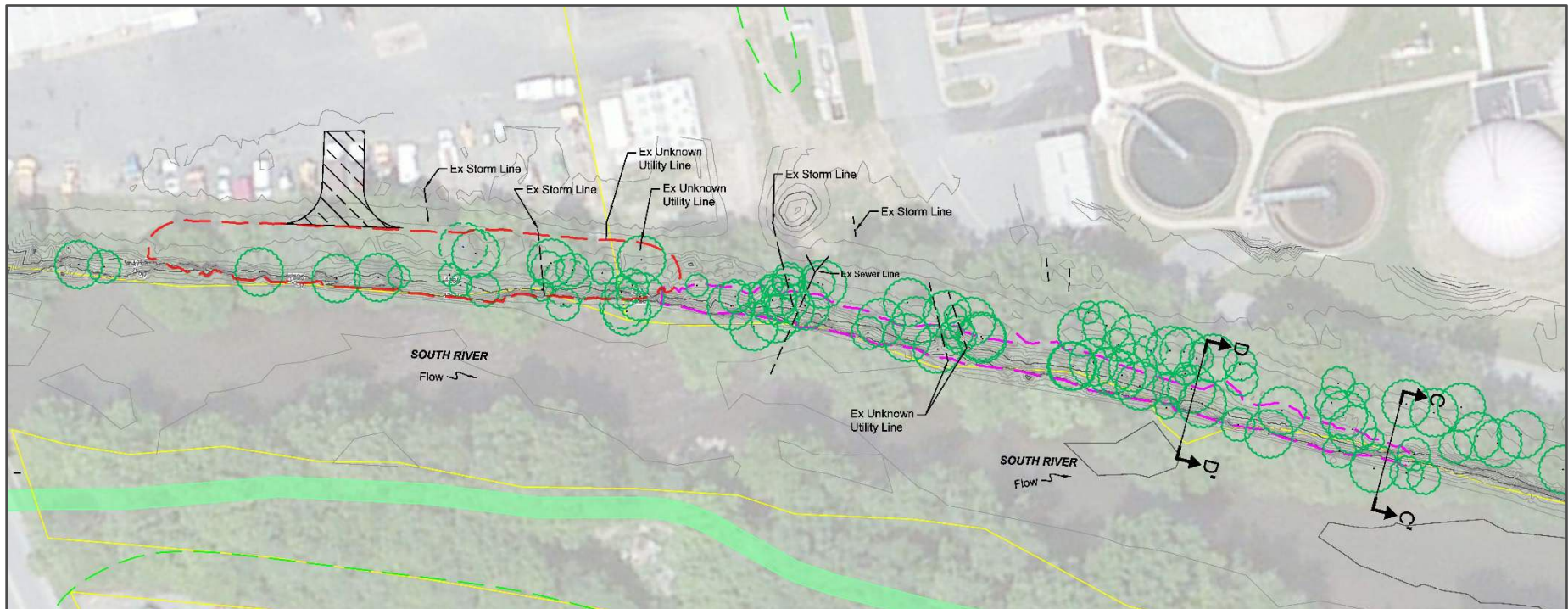


1A SECTION - CONSTITUTION PARK
SCALE: 1" = 5'



1B SECTION - CONSTITUTION PARK
SCALE: 1" = 5'

Wastewater Treatment Plant (WWTP) BMA Layout



LEGEND:

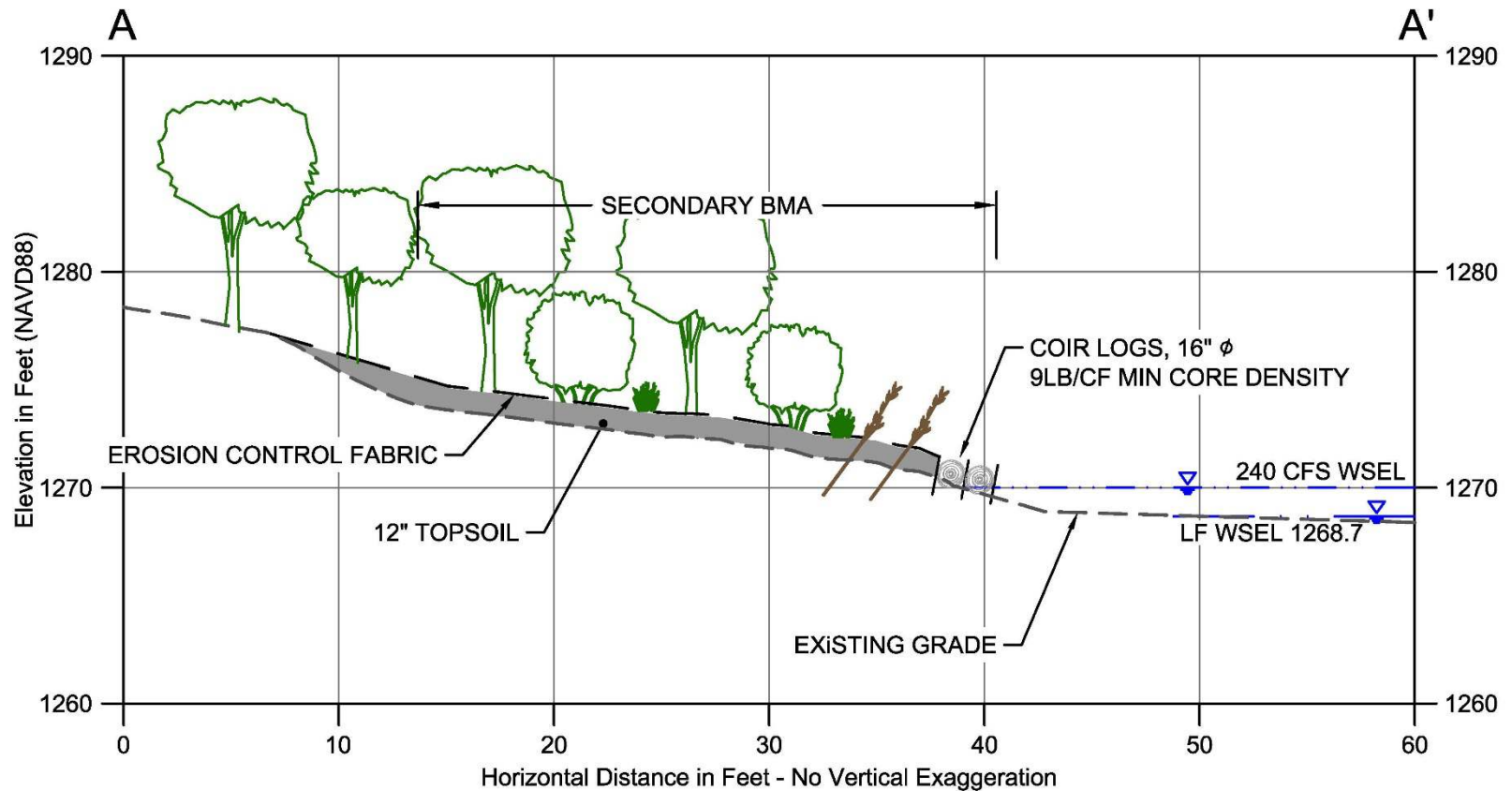
- | | | | | | |
|--------------|---|--|--|--|-----------------------|
| | Parcel Line | | Existing Utility Line | | Proposed Access Route |
| | Property Boundary from 1986 Survey (approx) | | Existing Tree | | Primary BMA |
| +0.20 | River Mile | | Cross Section Location and Designation | | Secondary BMA |
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Secondary BMA Objectives

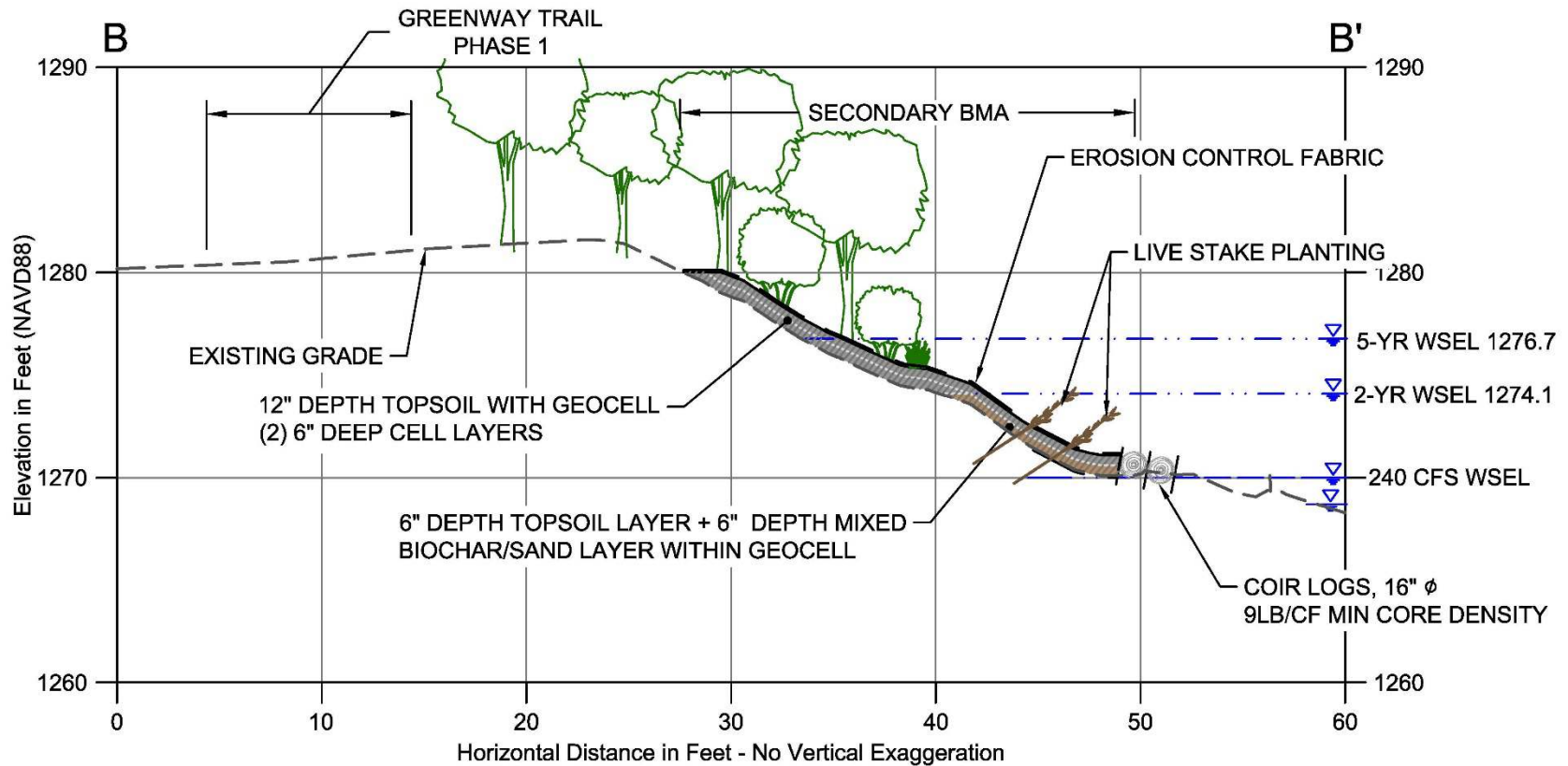
- Multiple design criteria
 - Reduce mercury loading
 - Protect existing large trees
 - Maintain/enhance habitat
 - Minimize excavation
 - Use proven/effective methods
 - Address stakeholder concerns
- Optimize and balance criteria
- Location-specific designs
 - Slopes determine design elements
 - Existing habitat quality varies



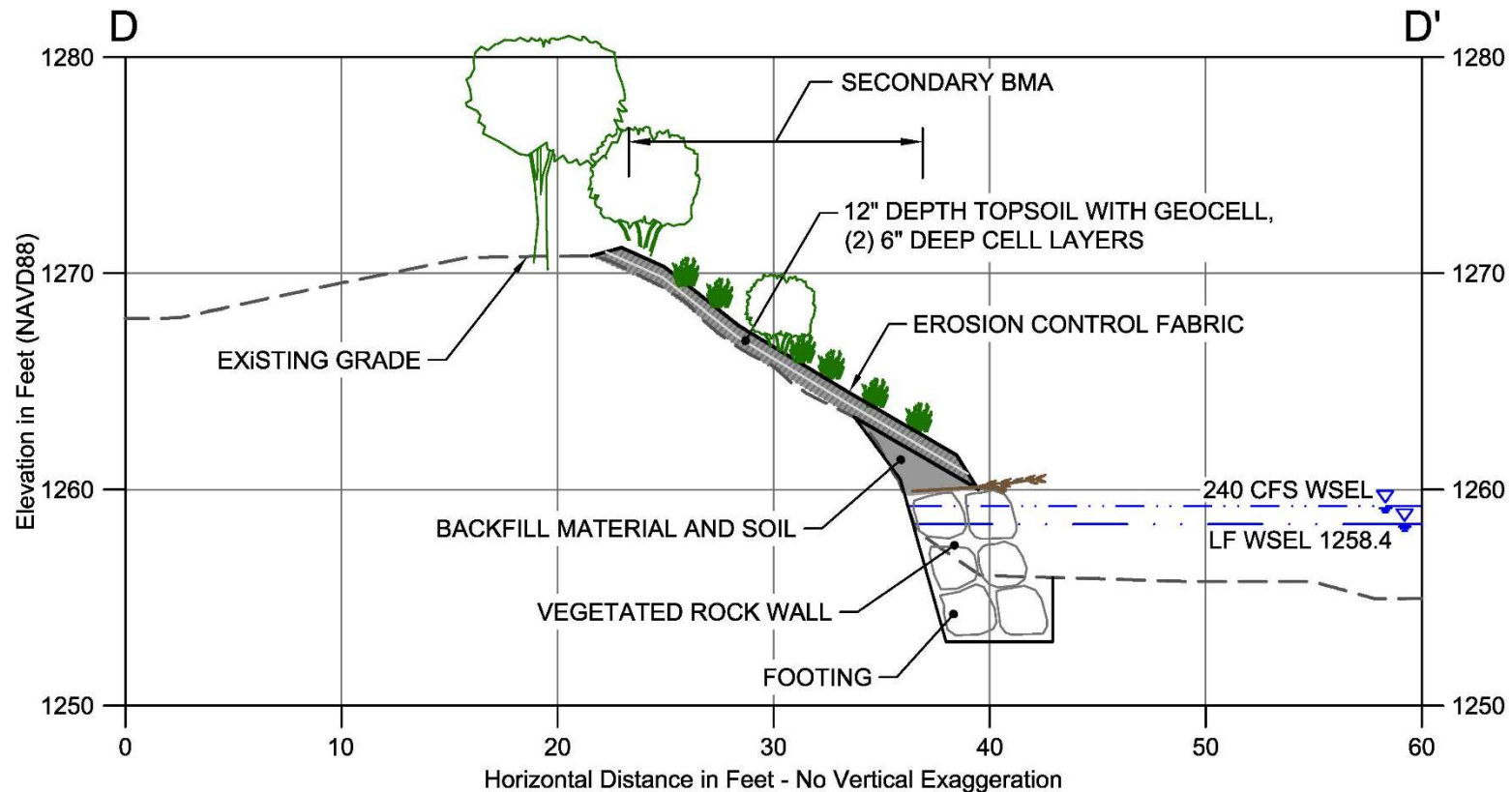
Typical Secondary BMA Design – Gradual Slopes



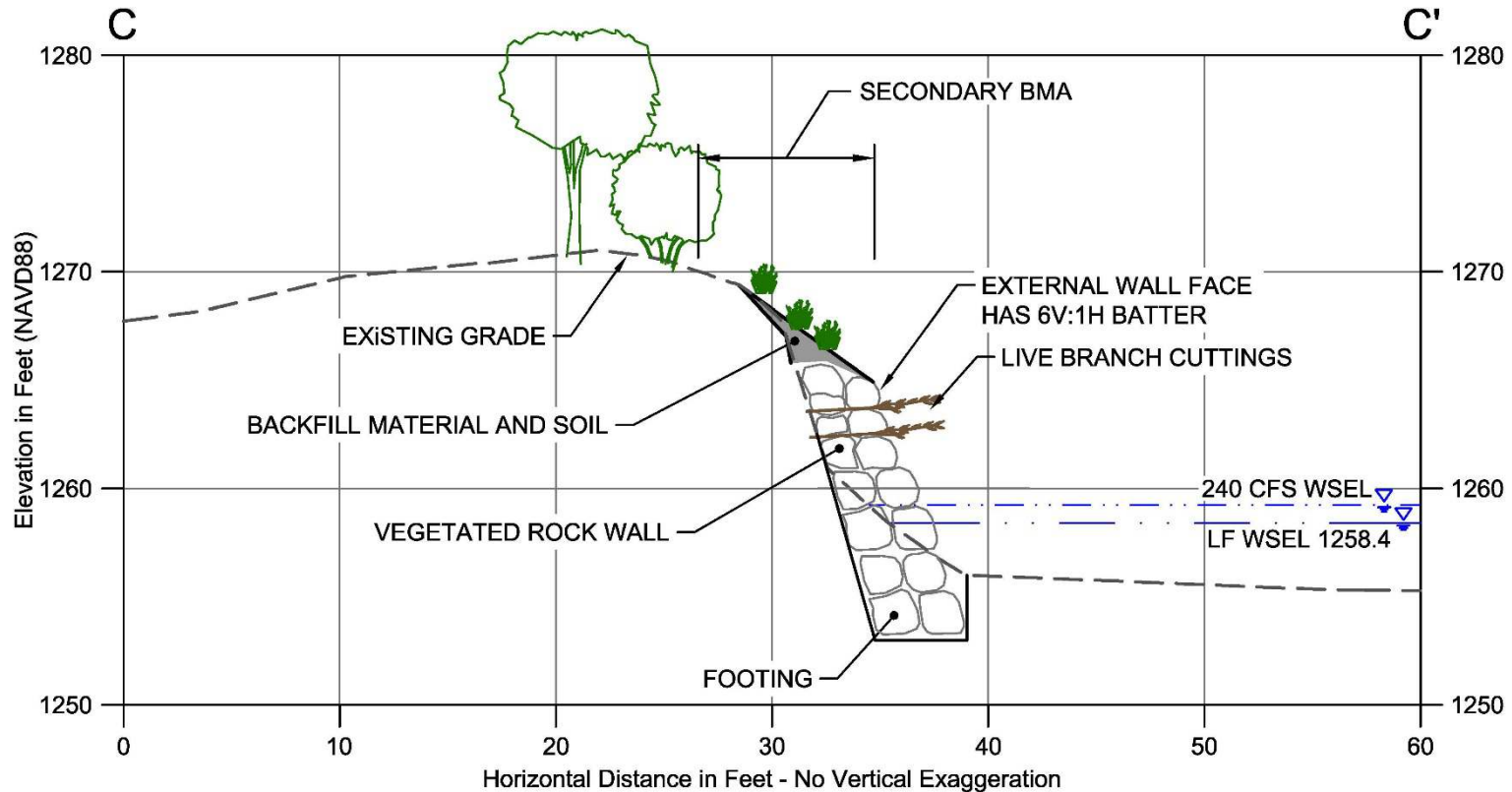
Typical Secondary BMA Design – Moderate Slopes



Typical Secondary BMA Design – Moderate Slopes with Steep Toes



Typical Secondary BMA Design – Steep Slopes



Schedule and Next Steps

- January/February – Resolution of City and VADEQ comments on draft Phase 1A preliminary design report
- Spring 2016 – Phase 1A final design, access agreements, and permits
- Summer 2016 – begin Phase 1A construction

