

**SOUTHERN CALIFORNIA STEELHEAD PASSAGE ASSESSMENT,
LOWER SANTA MARGARITA RIVER, CALIFORNIA AND
CUP SURFACE WATER AVAILABILITY ANALYSIS (TM 1.1)**

APPENDIX F

HYDRAULIC MODEL RESULTS

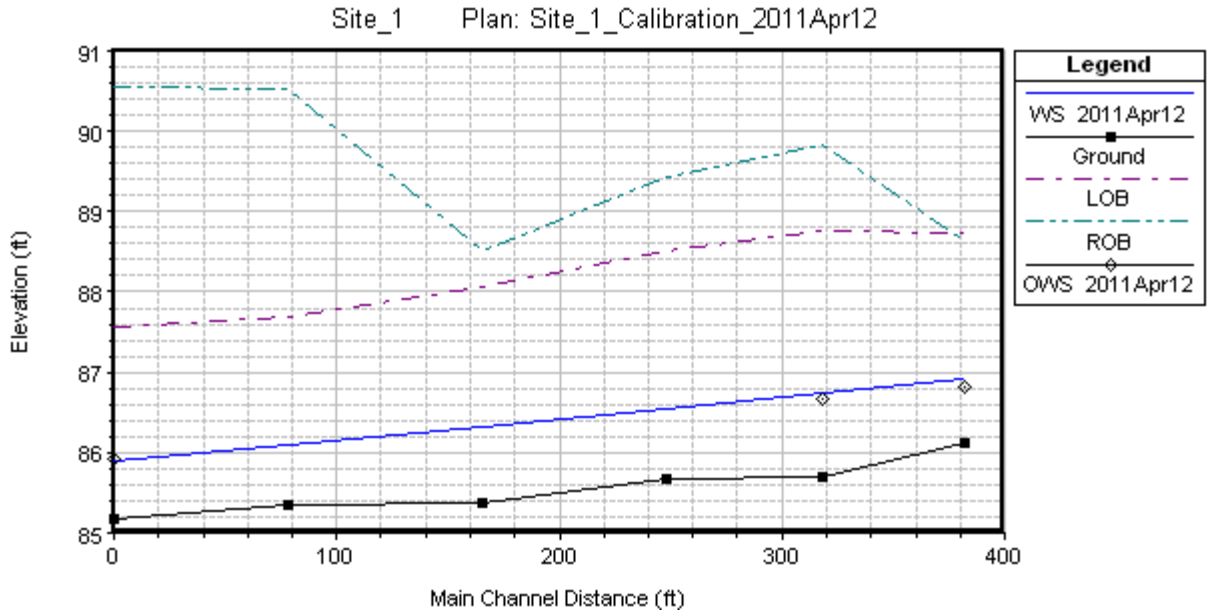


Figure F 1a HEC-RAS model calibration result – Site 1

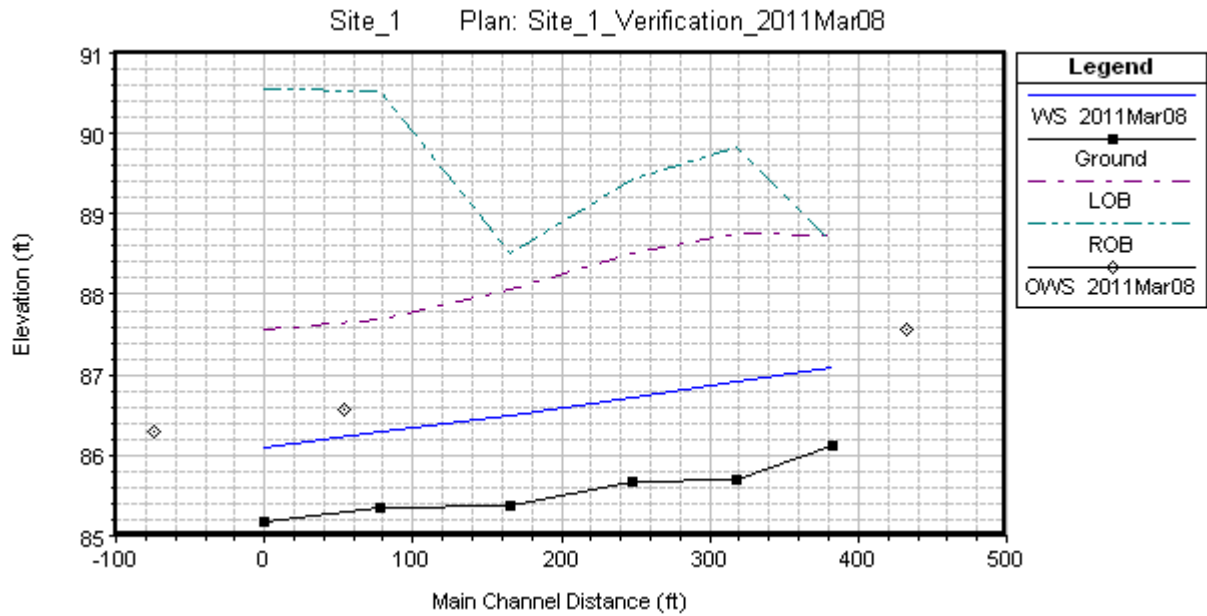


Figure F 1b HEC-RAS model verification result – Site 1

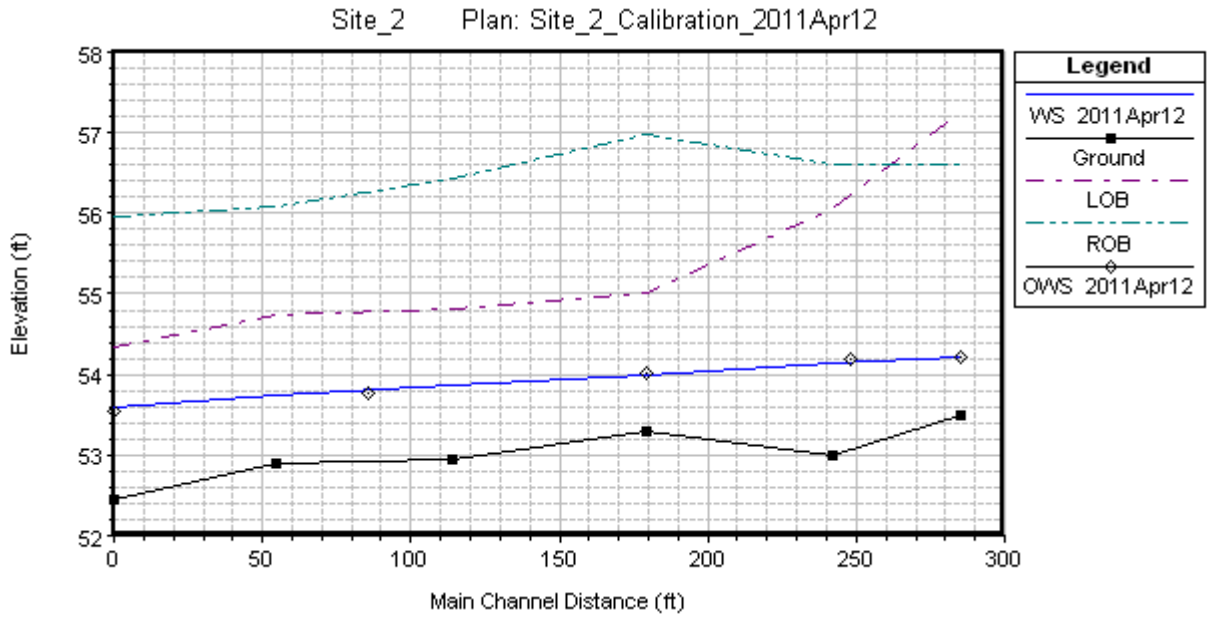


Figure F 1c HEC-RAS model calibration result – Site 2

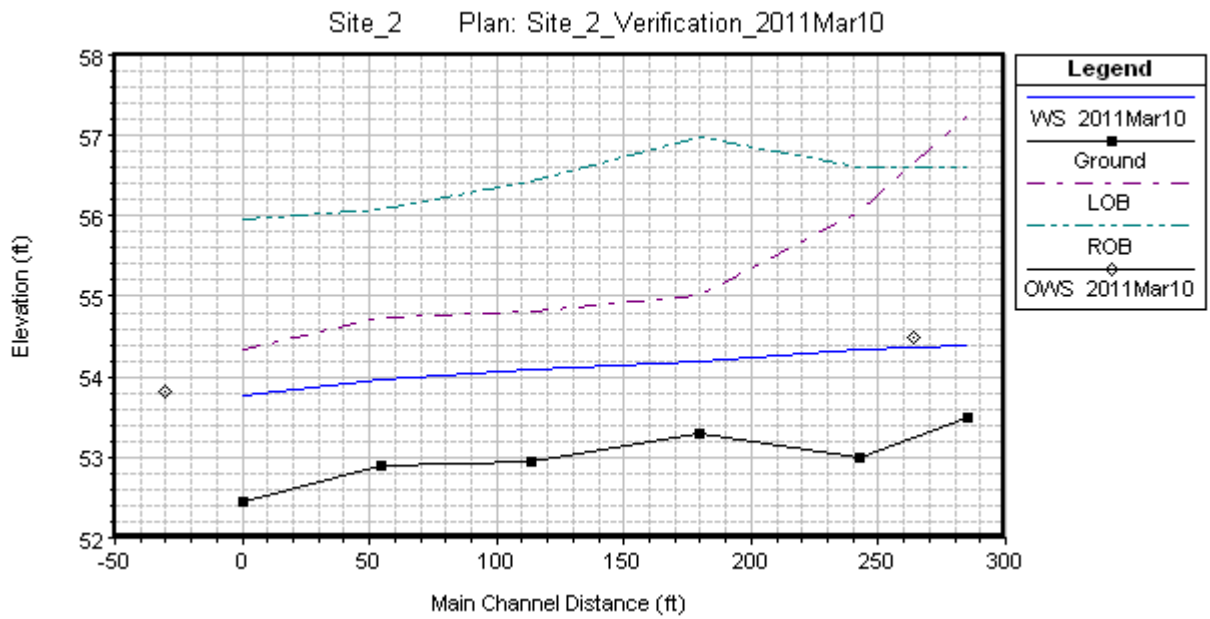


Figure F 1d HEC-RAS model verification result – Site 2

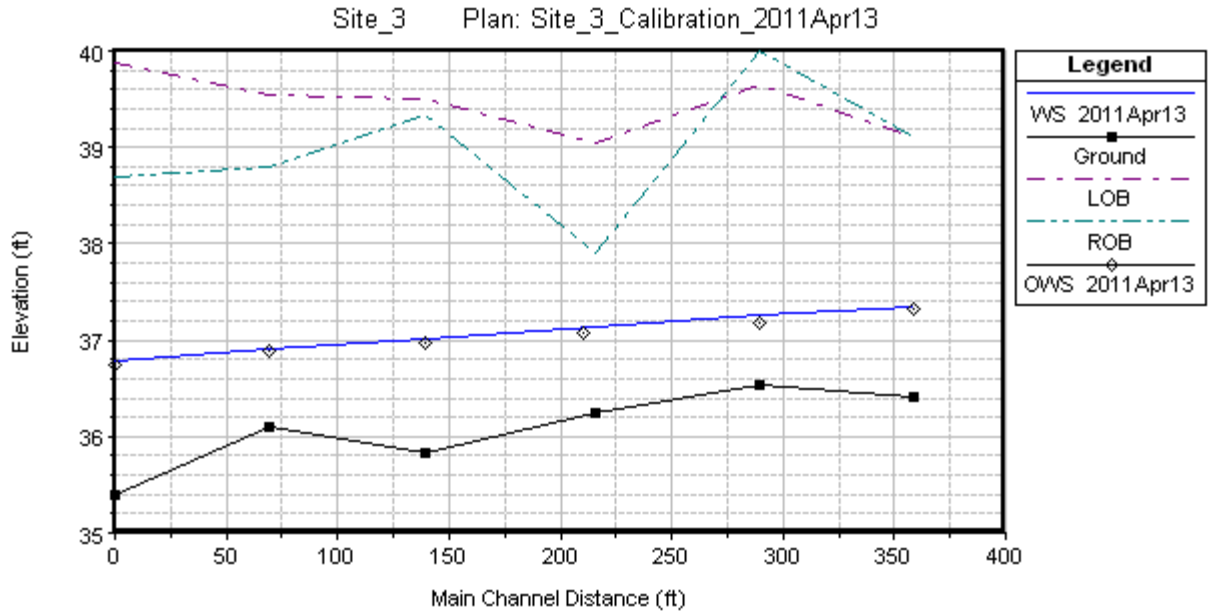


Figure F 1e HEC-RAS model calibration result – Site 3

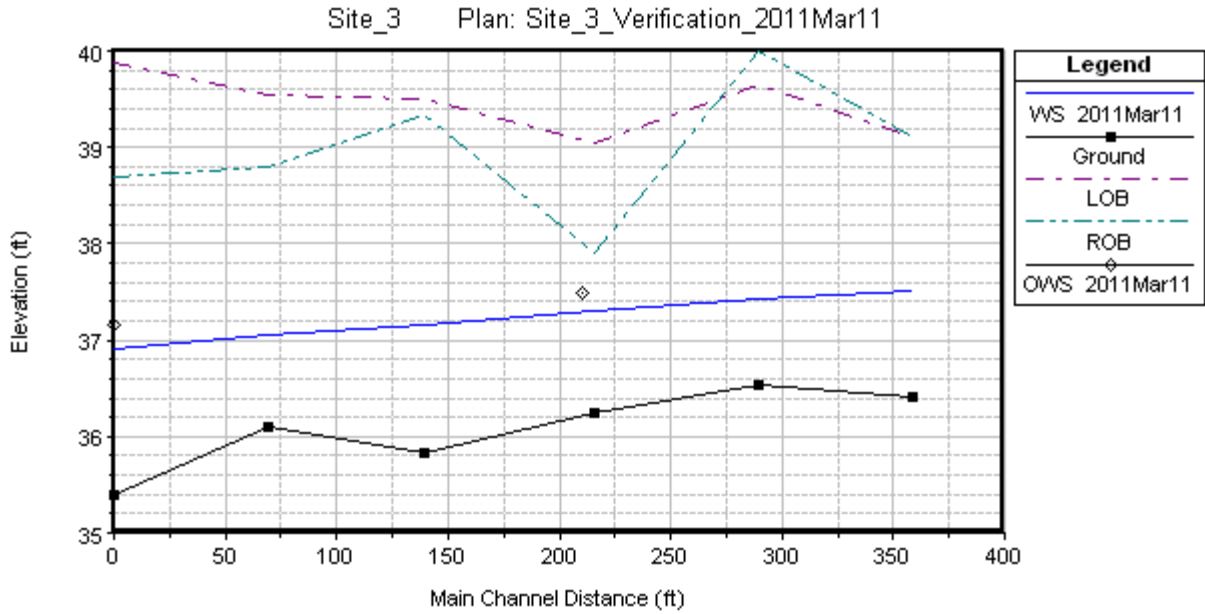


Figure F 1f HEC-RAS model verification result – Site 3

Site 1: Flow Height (Q-H) Curve up to low flow channel capacity (XS 248)

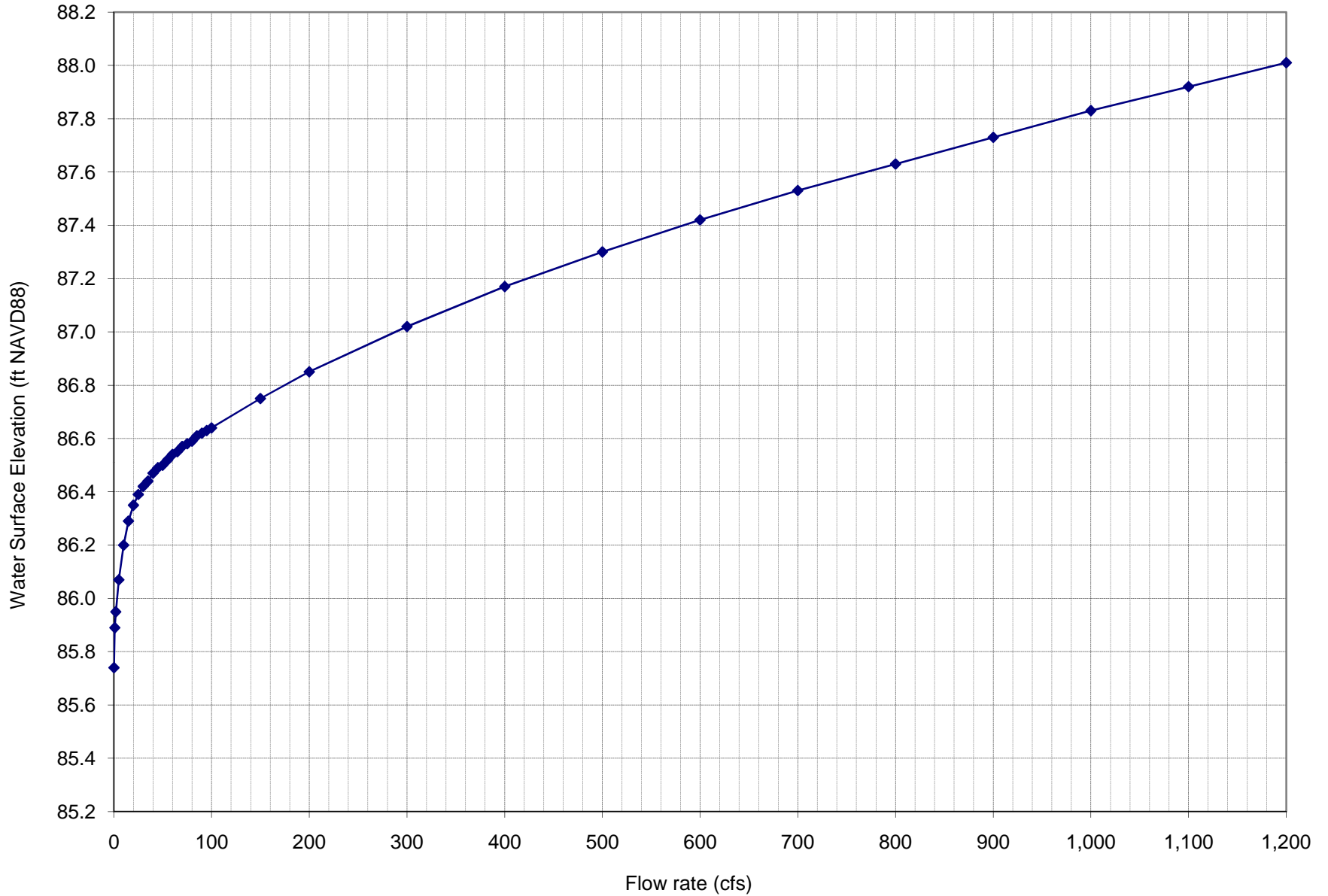
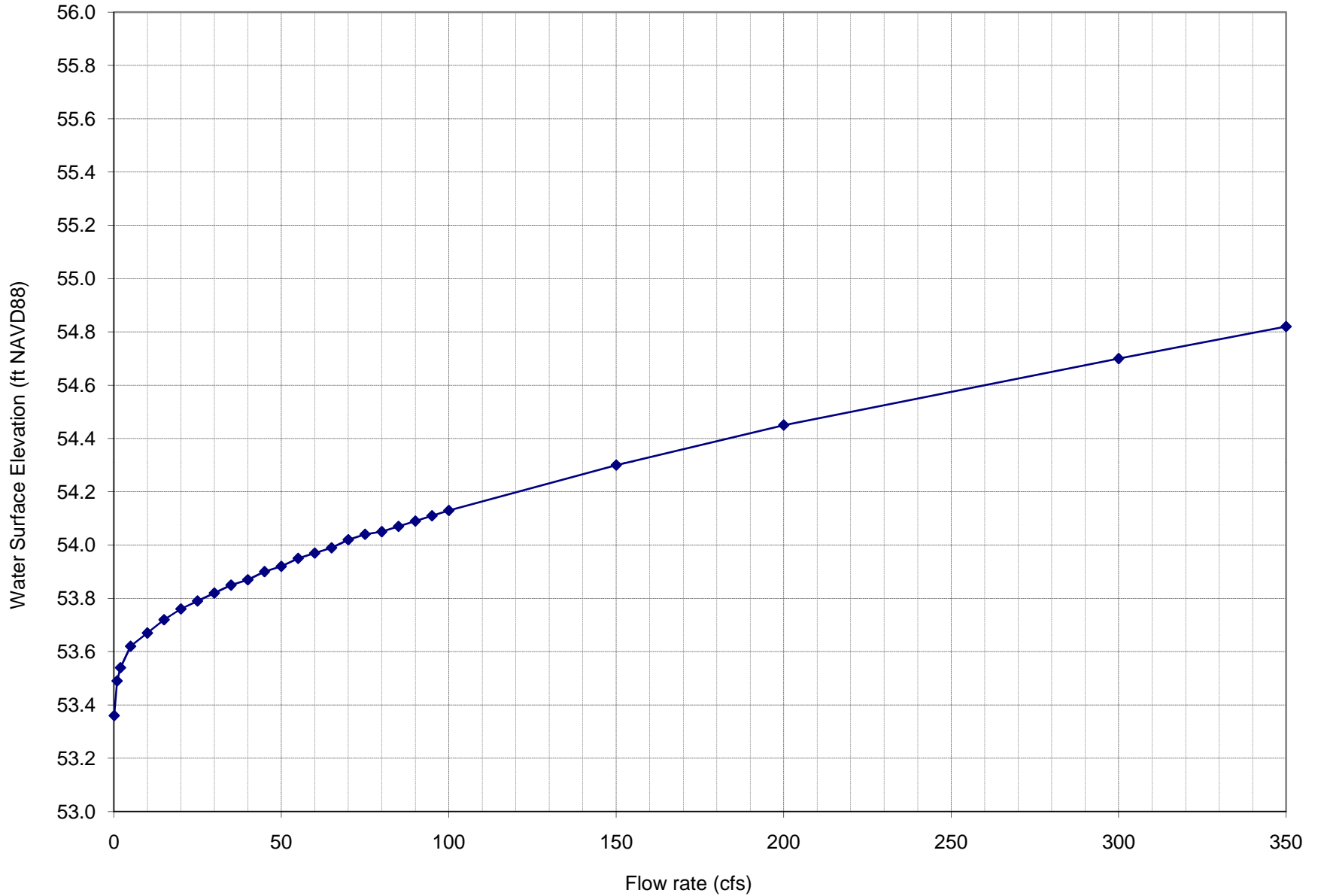


FIGURE F 2a

Site 2: Flow Height (Q-H) Curve up to low flow channel capacity (XS 179)



Site 3: Flow Height (Q-H) Curve up to low flow channel capacity (XS 248)

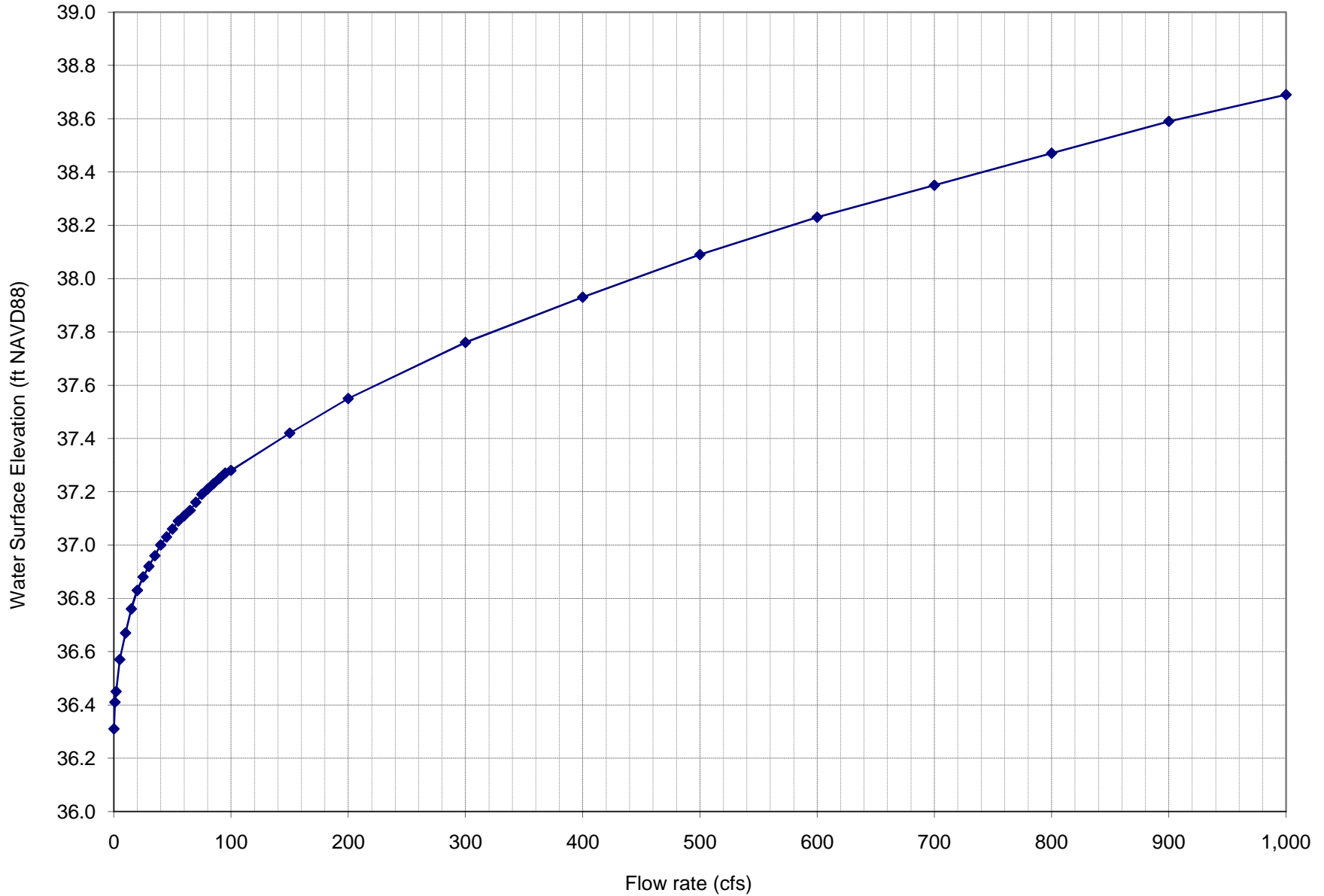
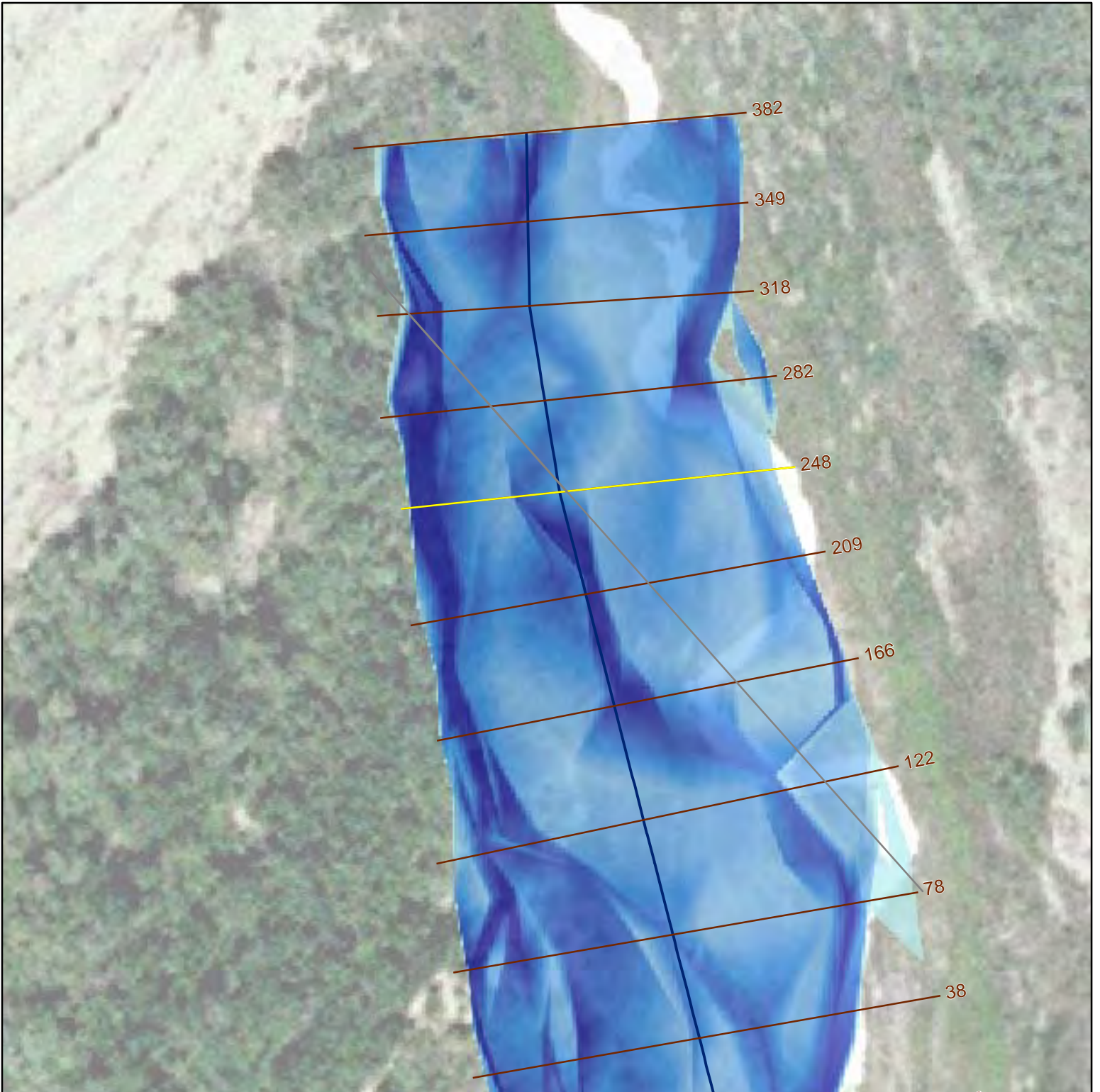


FIGURE F 2c

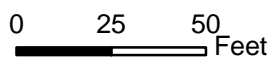
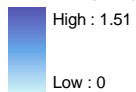


Site 1: Fish Passage Hydraulic Model
Computed Water Depth (166 cfs)

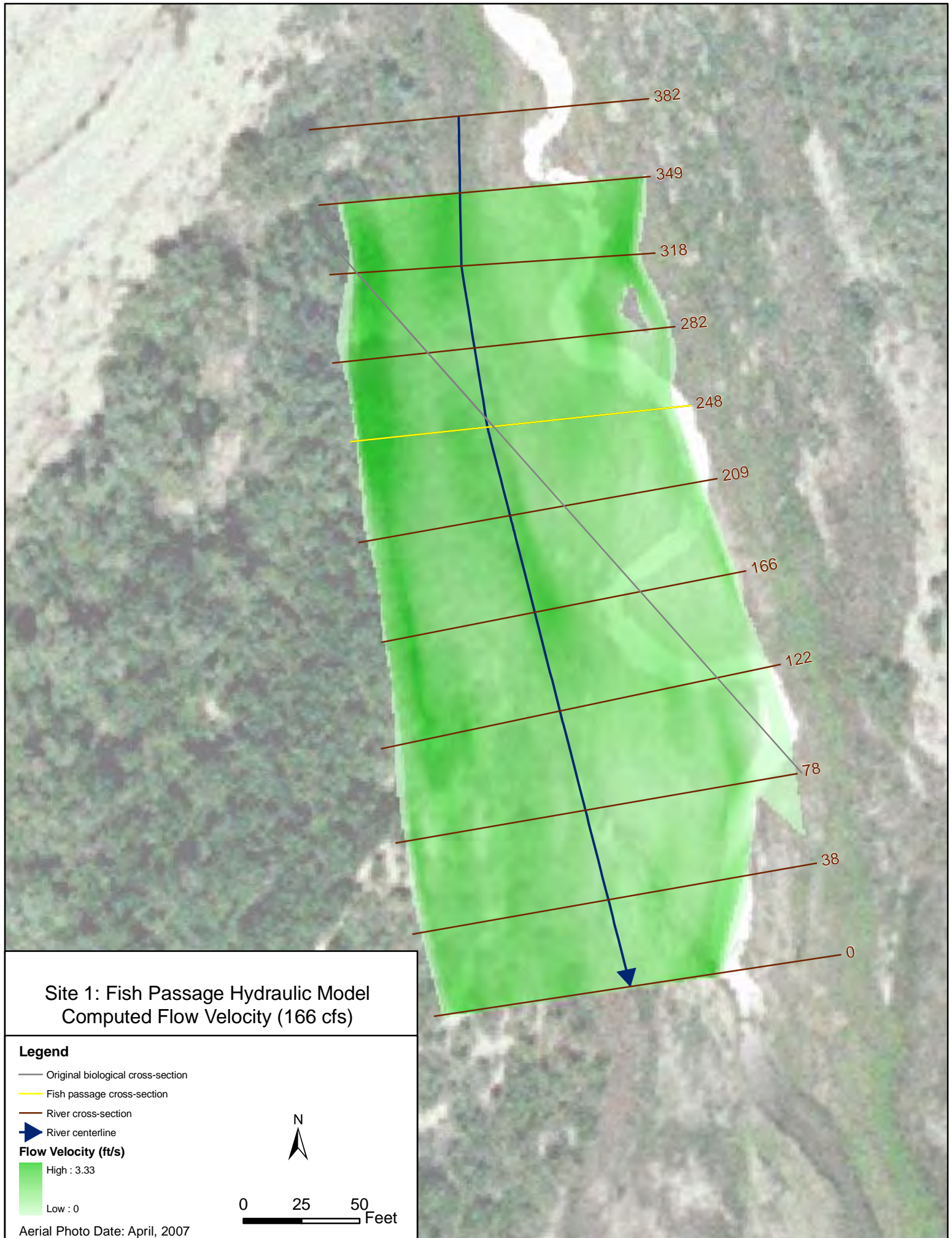
Legend

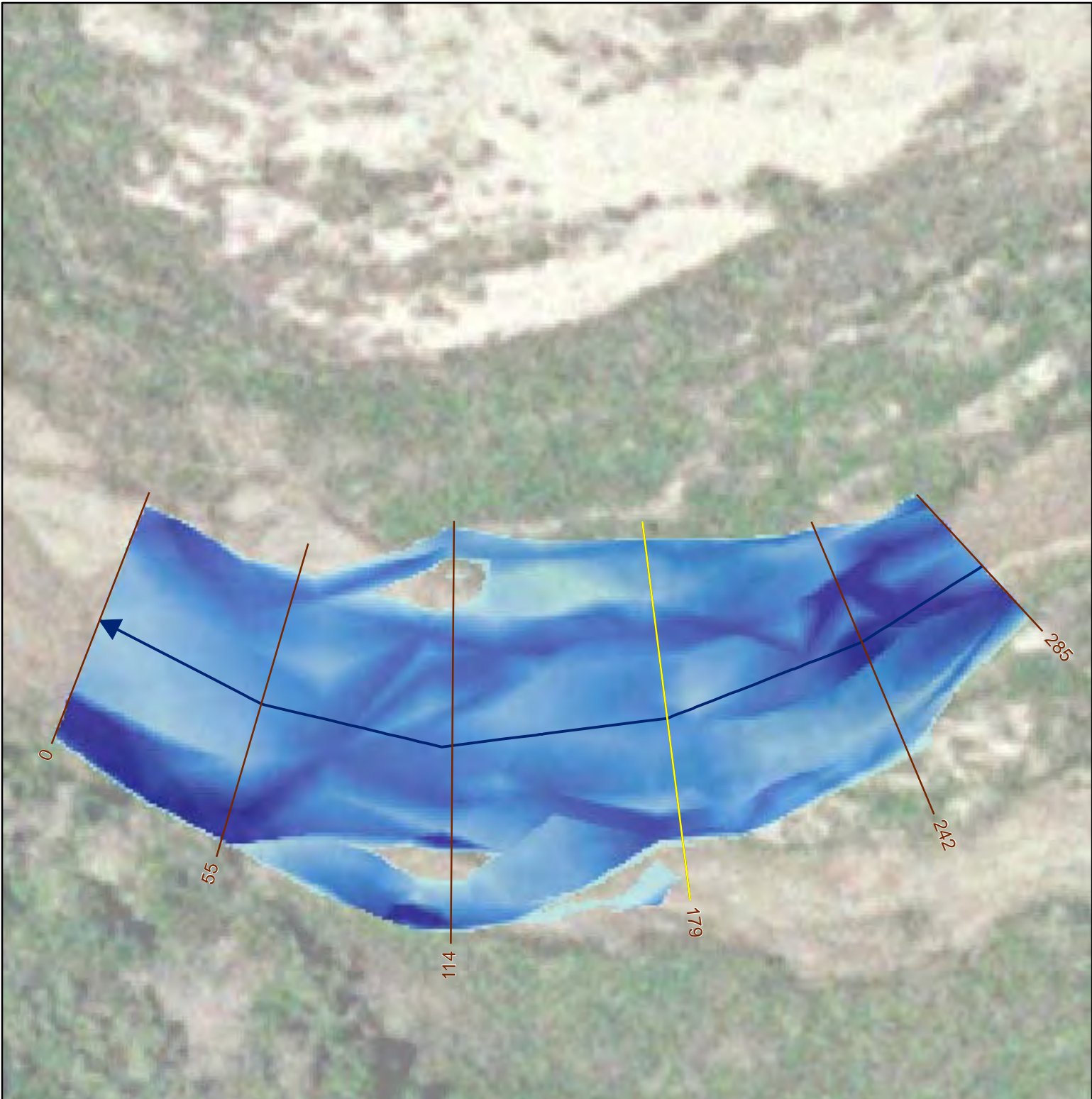
- Original biological cross-section
- Fish passage cross-section
- River cross-section
- ▶ River centerline

Water Depth (ft)




Aerial Photo Date: April, 2007







Site 2: Fish Passage Hydraulic Model
Computed Water Depth (103 cfs)

Legend

 Fish passage cross-section

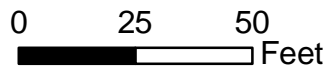
 River cross-section

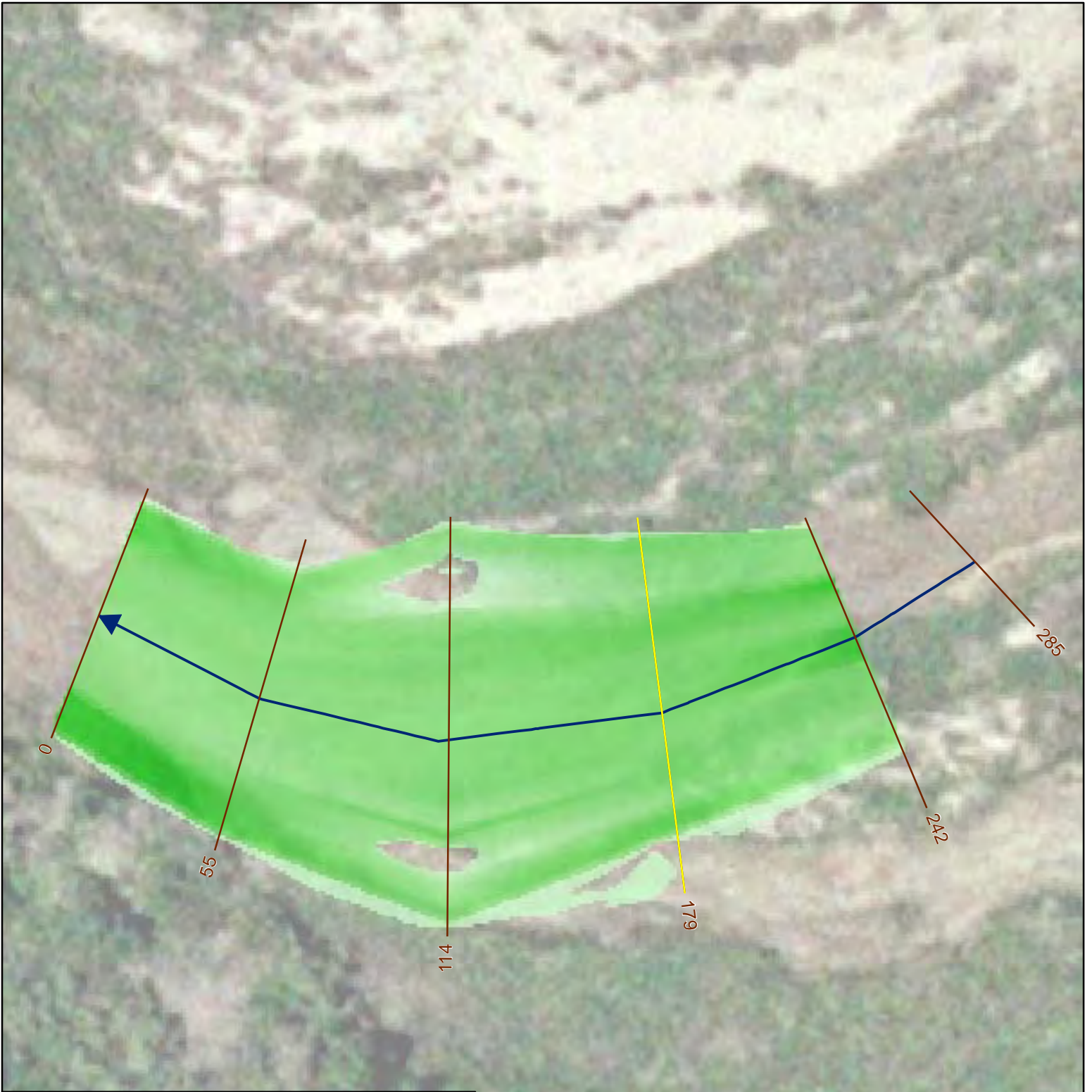
 River centerline

Water Depth (ft)

 High : 1.29

 Low : 0





Site 2: Fish Passage Hydraulic Model
Computed Flow Velocity (103 cfs)

Legend

— Fish passage cross-section

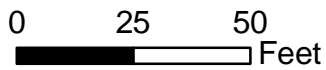
— River cross-section

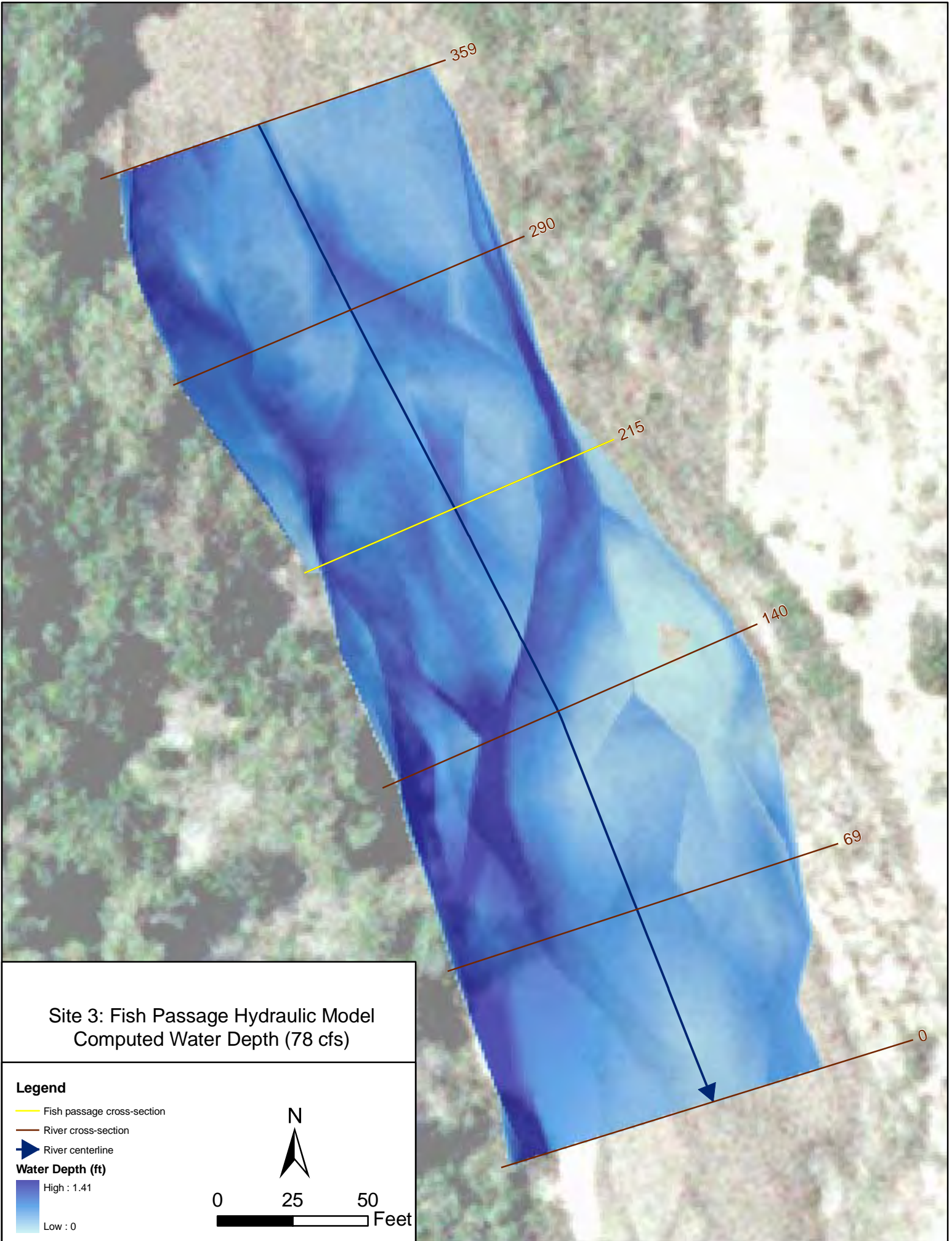
▶ River centerline

Flow Velocity (ft/s)

High : 3.68

Low : 0





Site 3: Fish Passage Hydraulic Model
Computed Water Depth (78 cfs)

Legend

— Fish passage cross-section

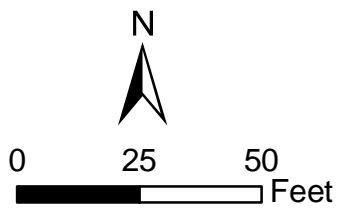
— River cross-section

▶ River centerline

Water Depth (ft)

High : 1.41

Low : 0





Site 3: Fish Passage Hydraulic Model
Computed Flow Velocity (78 cfs)

Legend

— Fish passage cross-section

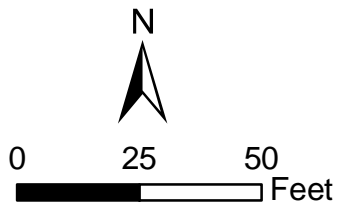
— River cross-section

▶ River centerline

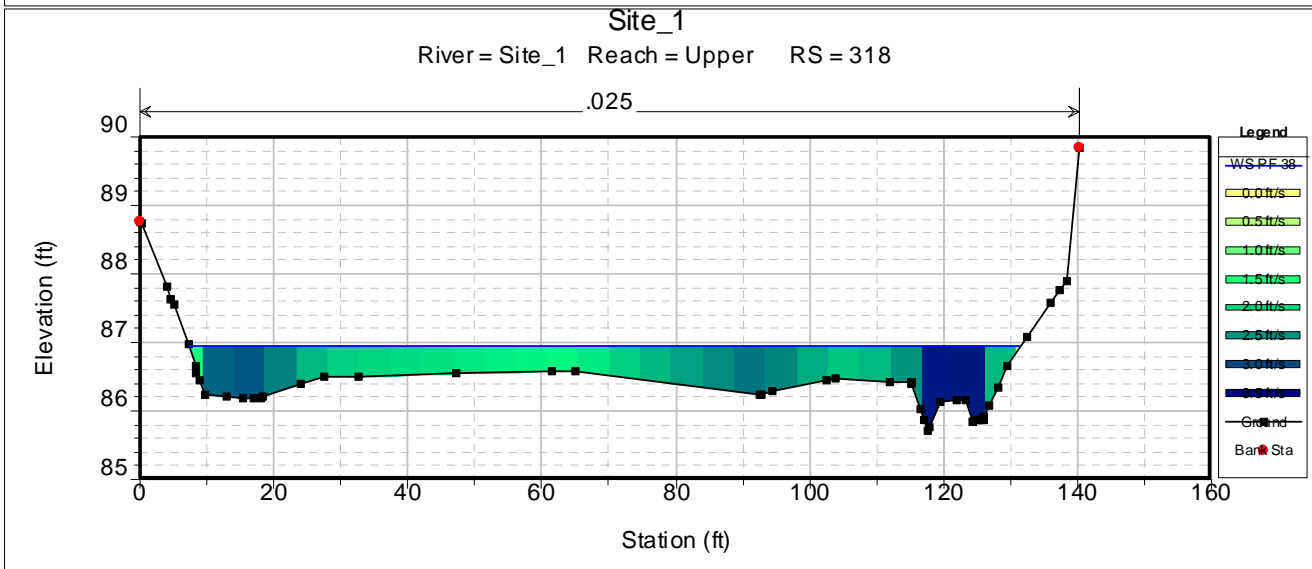
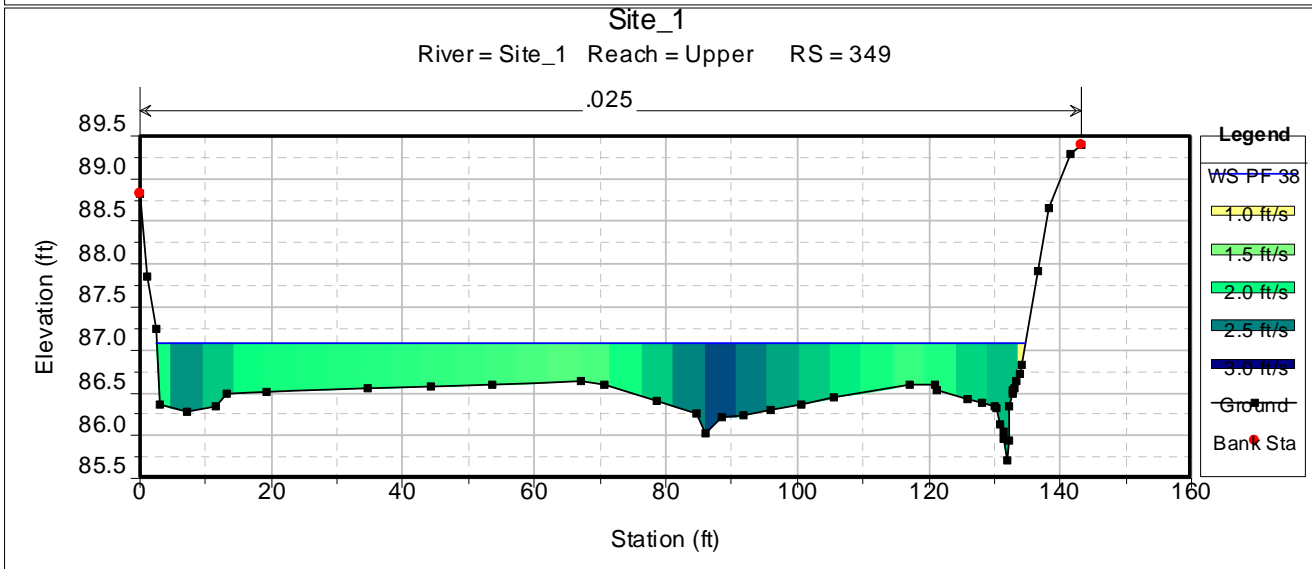
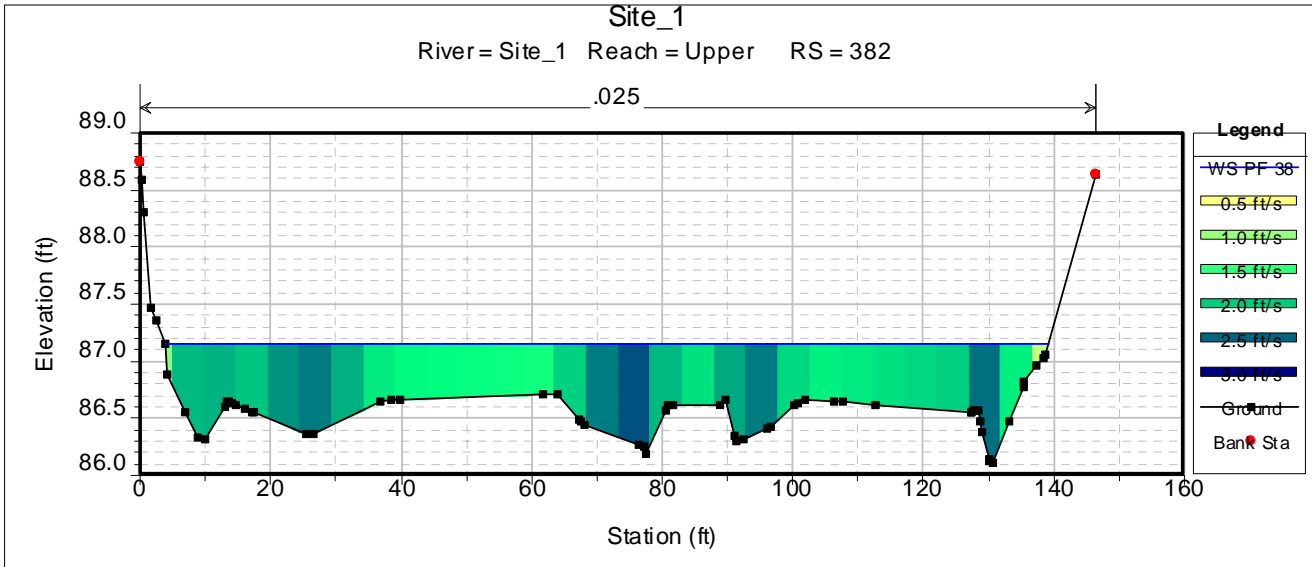
Flow Velocity (ft/s)

High : 3.10

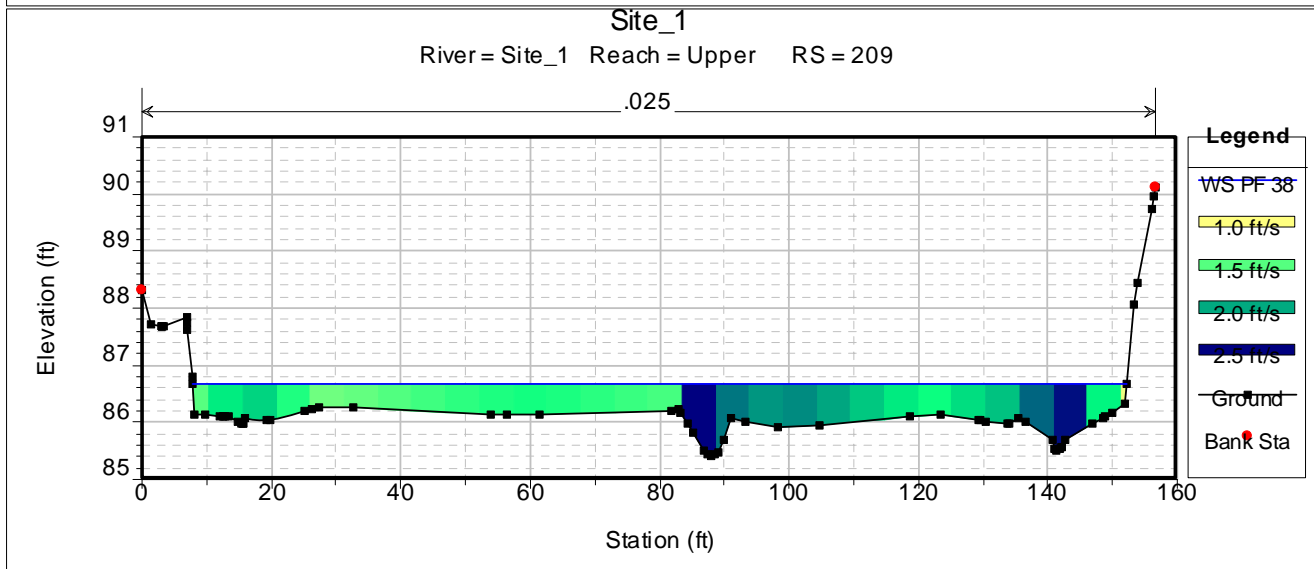
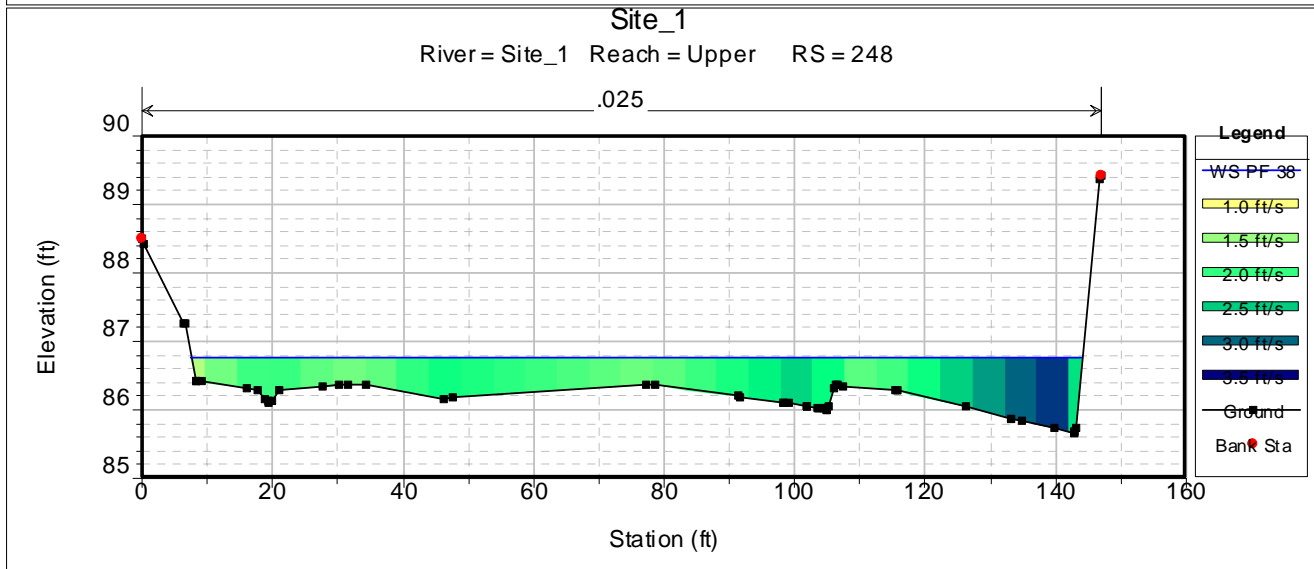
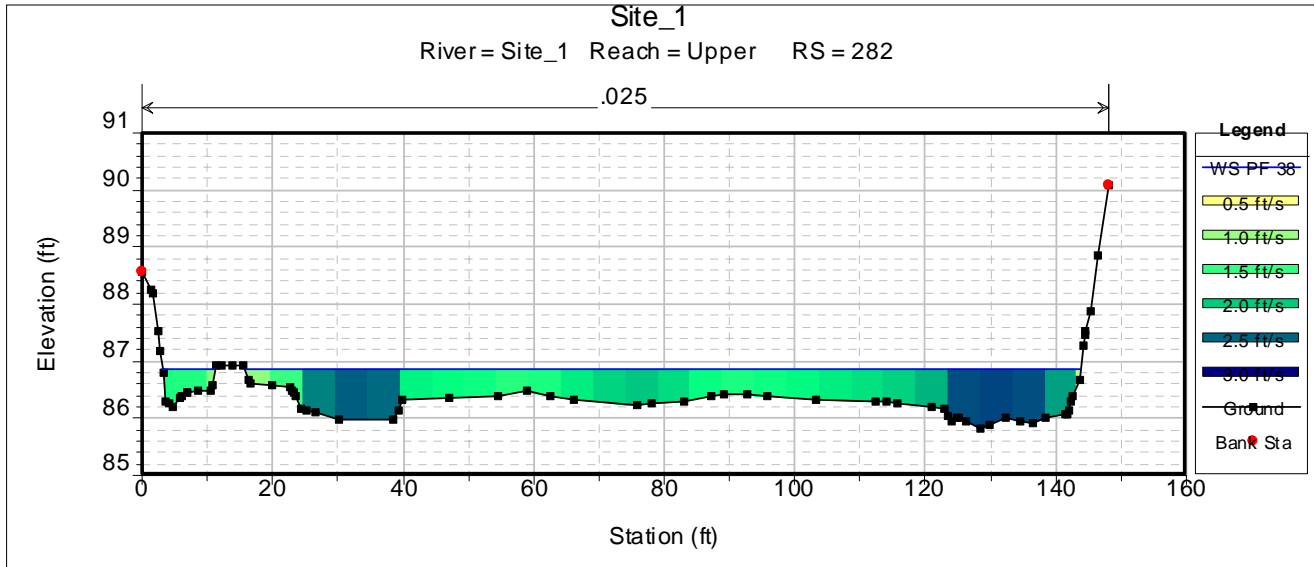
Low : 0



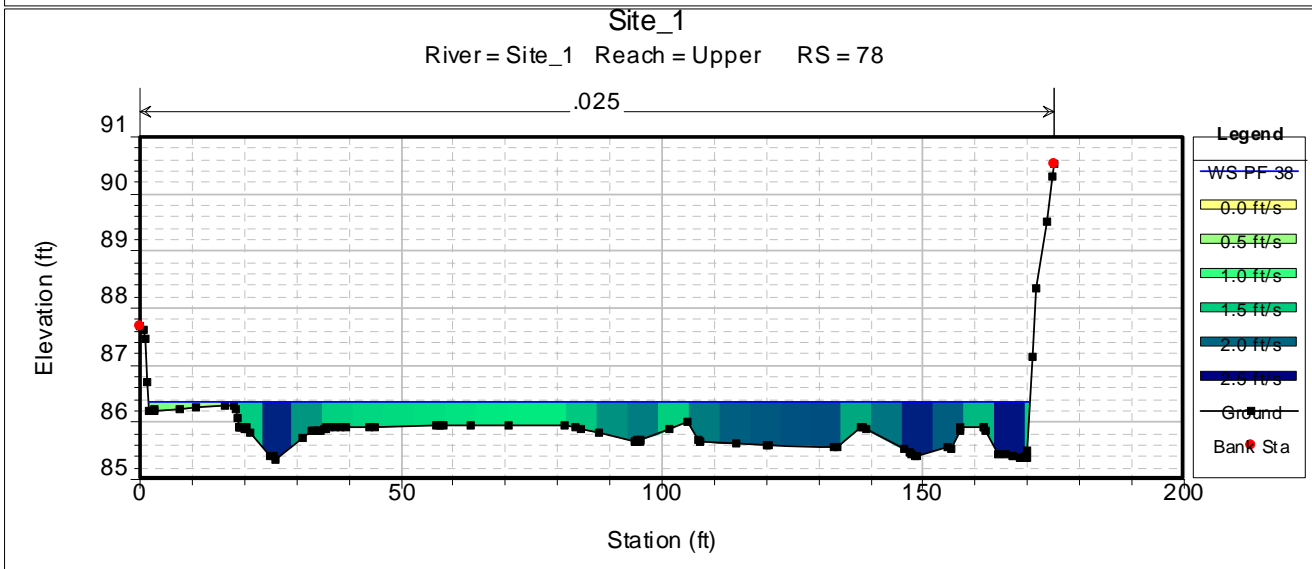
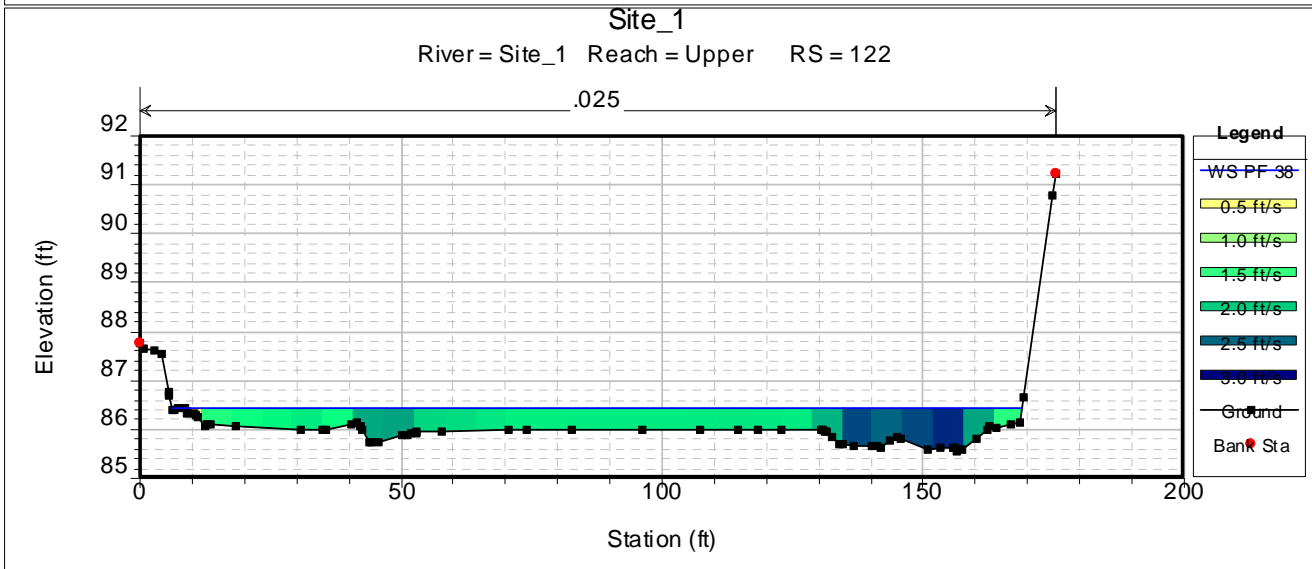
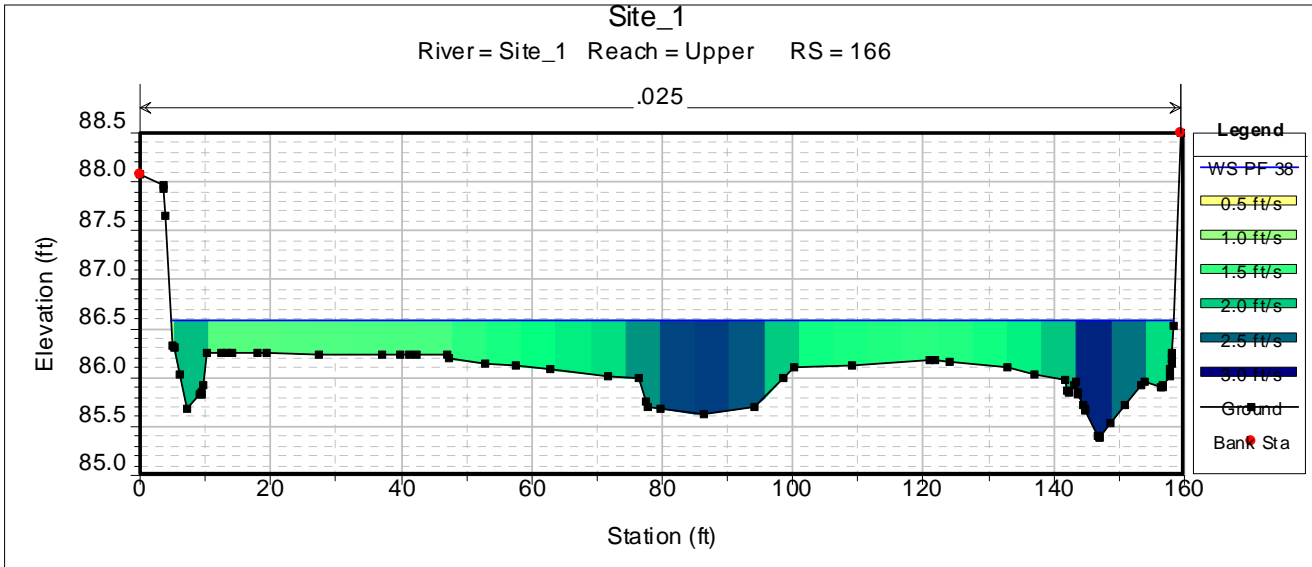
Appendix F 4a Site 1 Cross Section Profiles



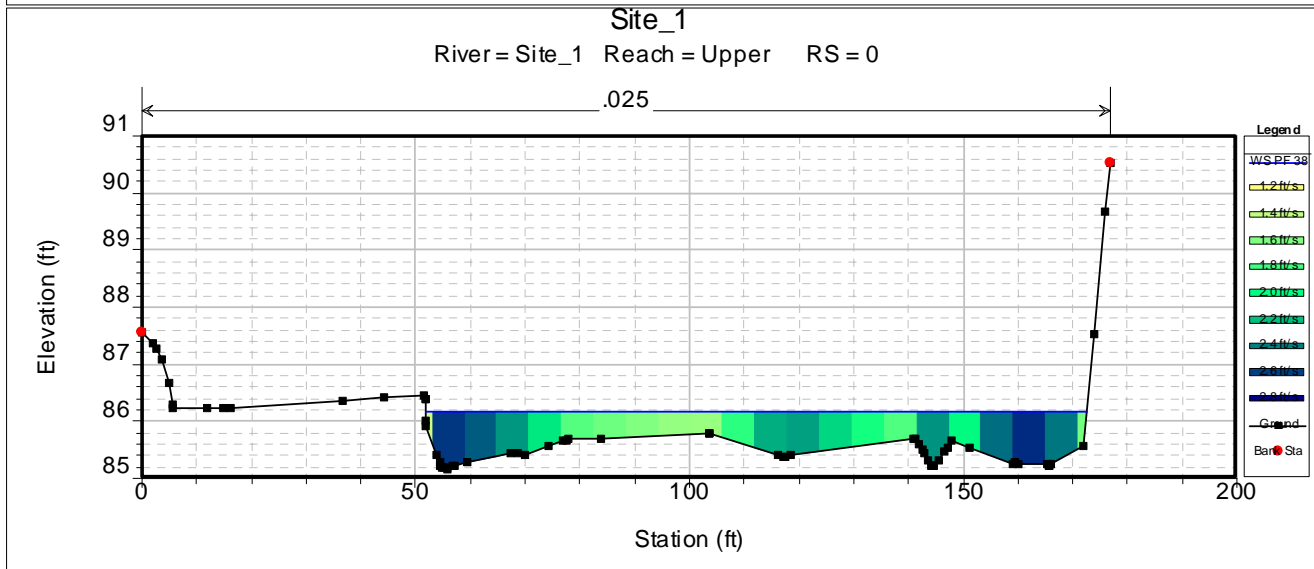
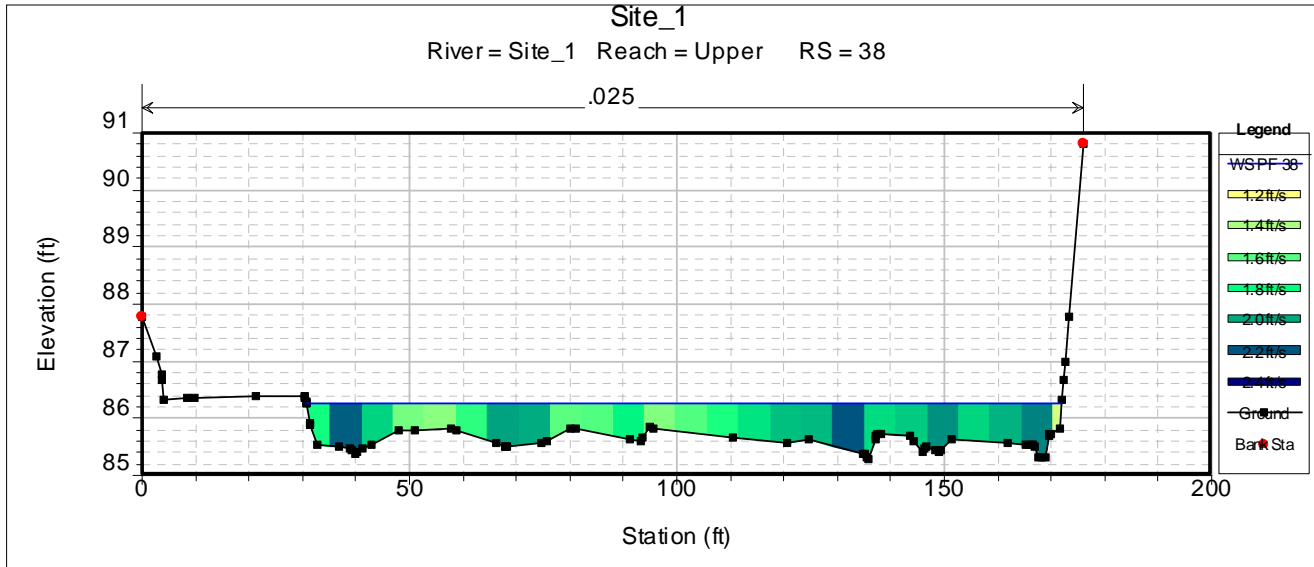
Appendix F 4a Site 1 Cross Section Profiles



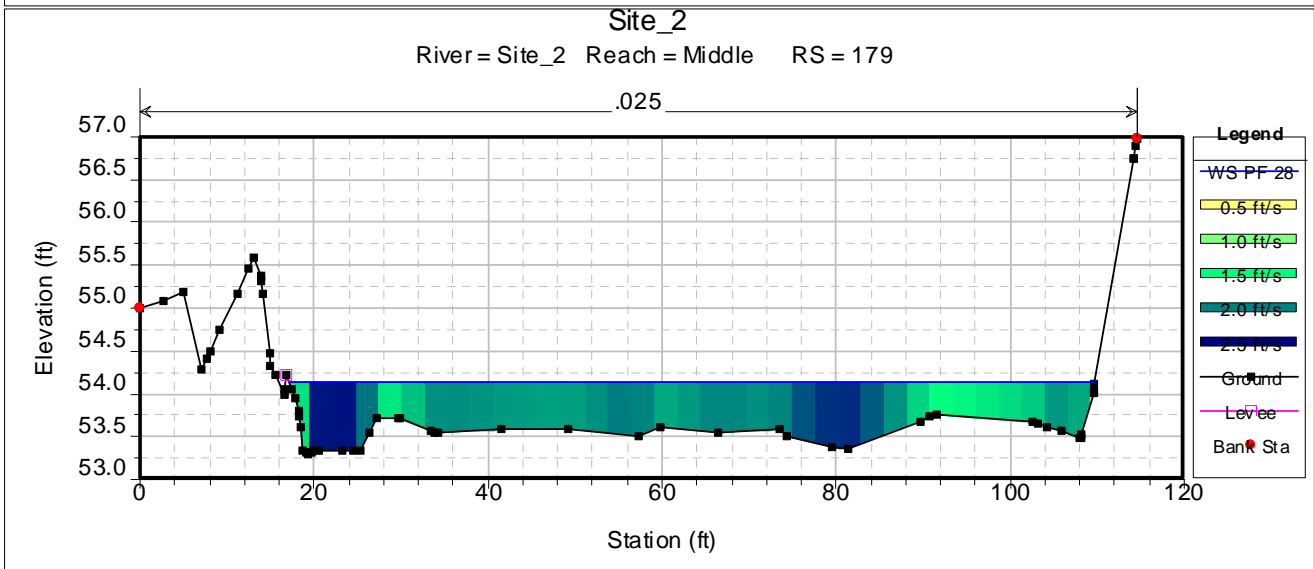
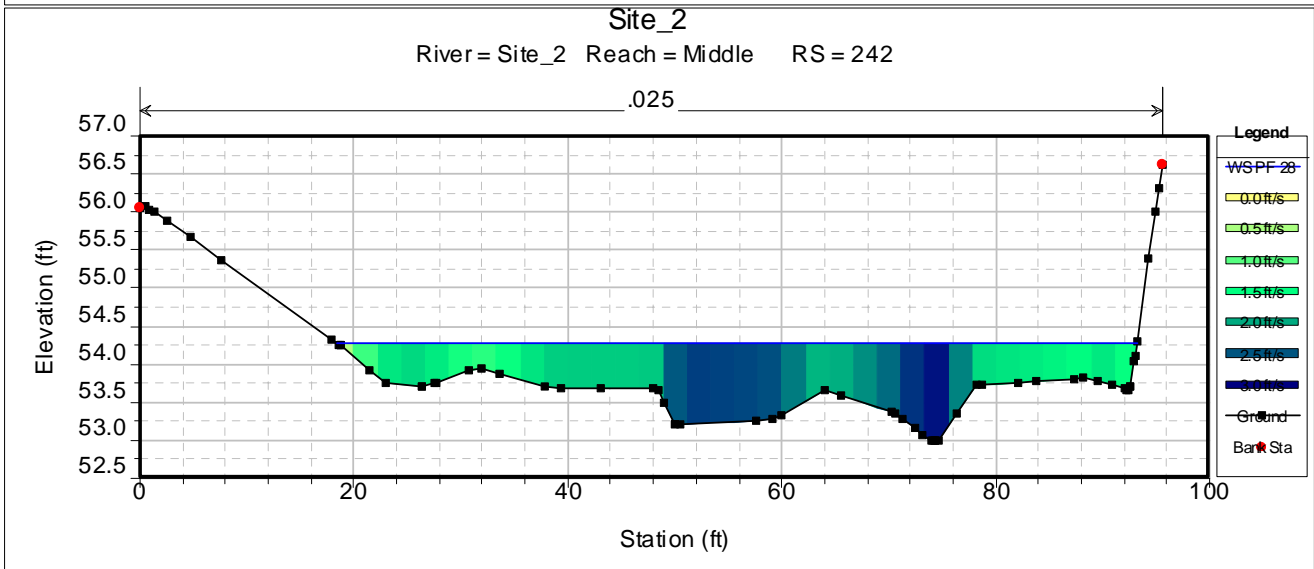
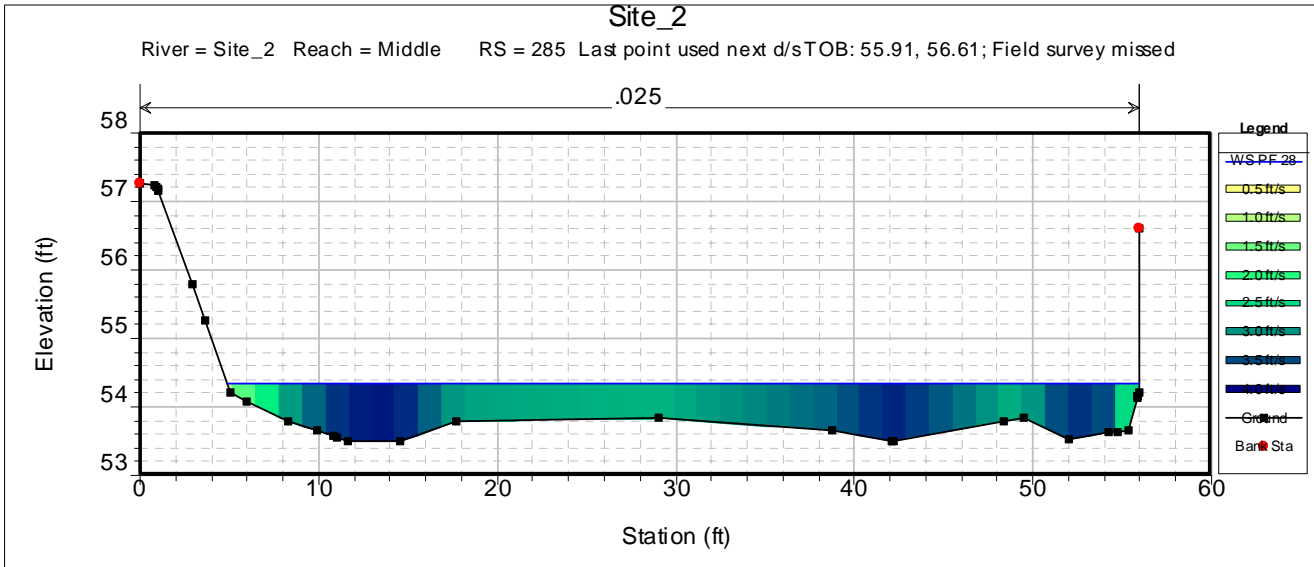
Appendix F 4a Site 1 Cross Section Profiles



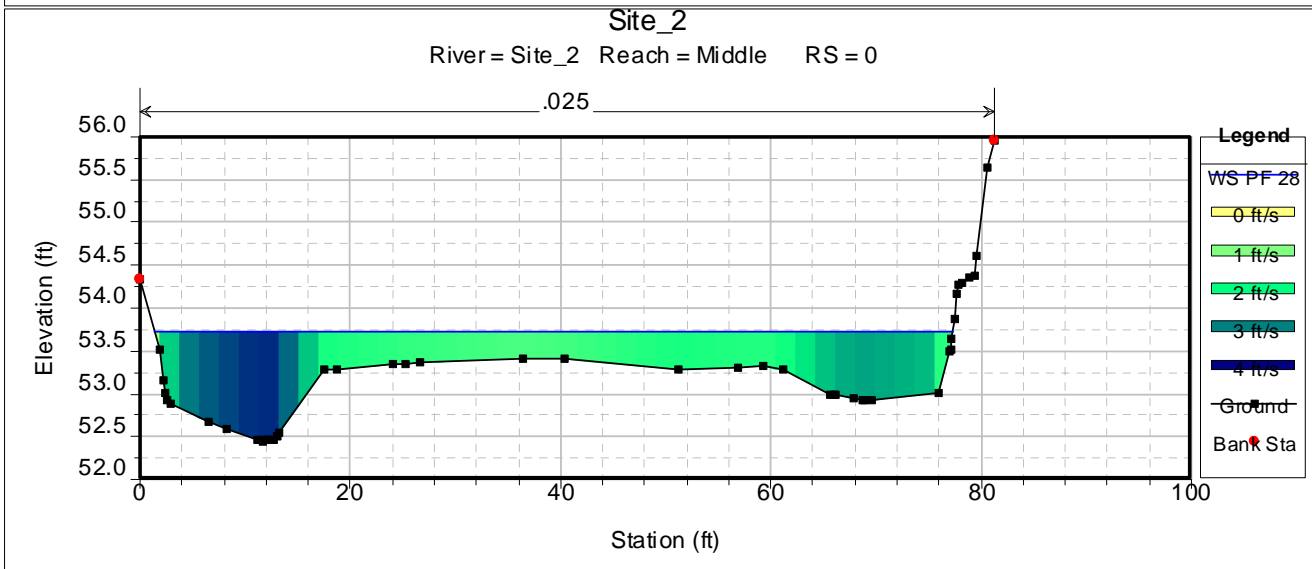
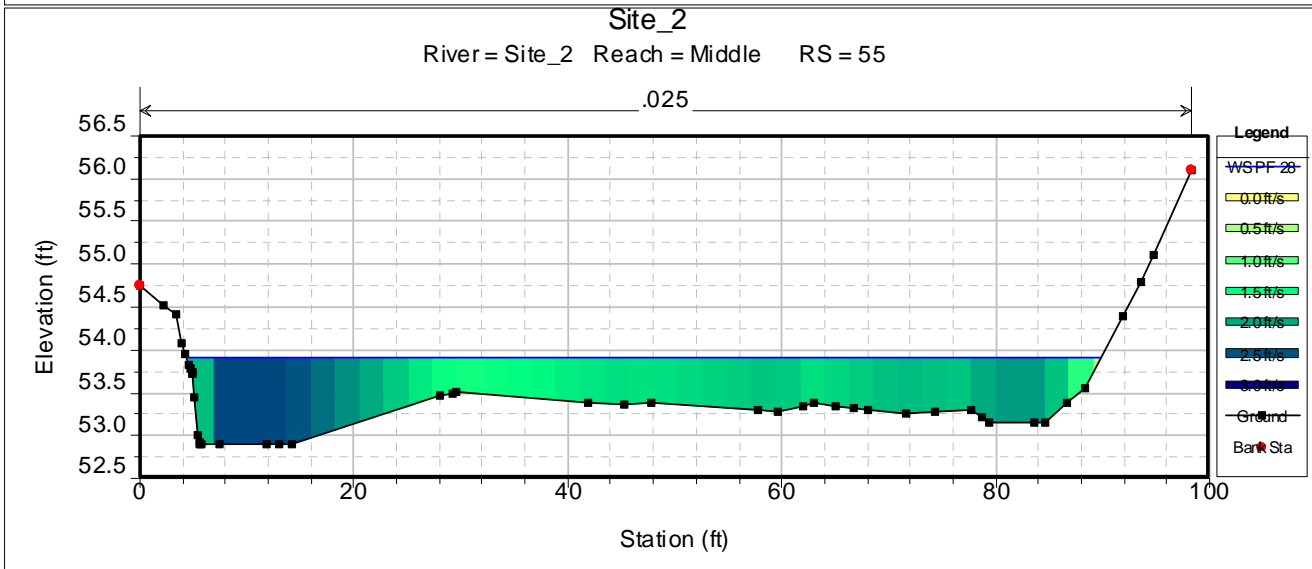
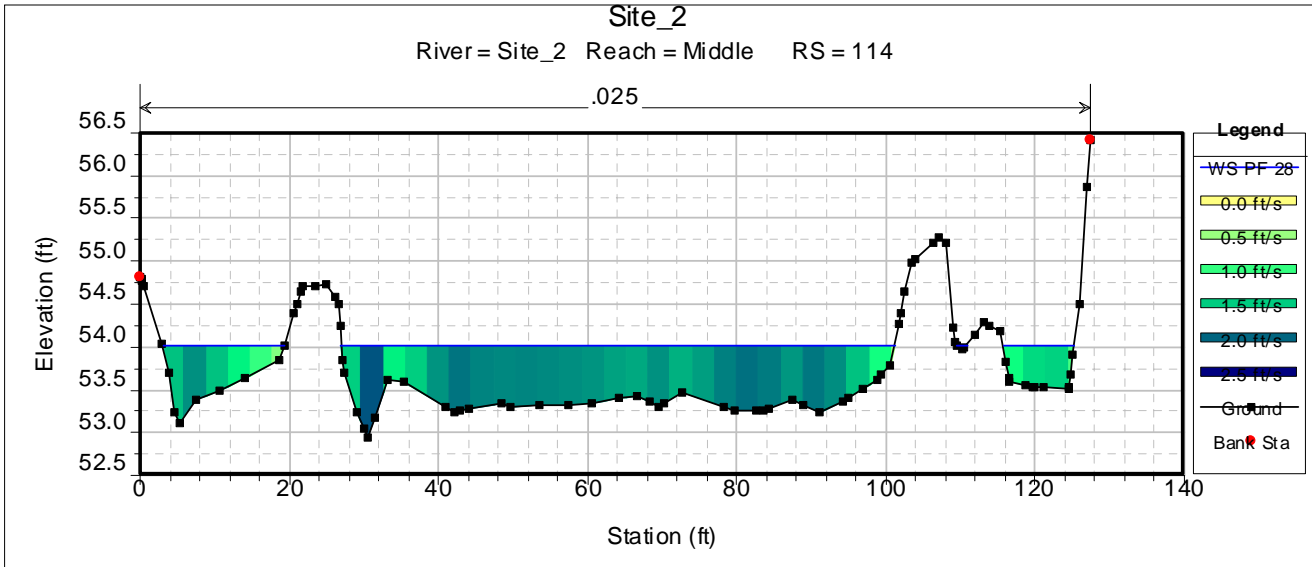
Appendix F 4a Site 1 Cross Section Profiles



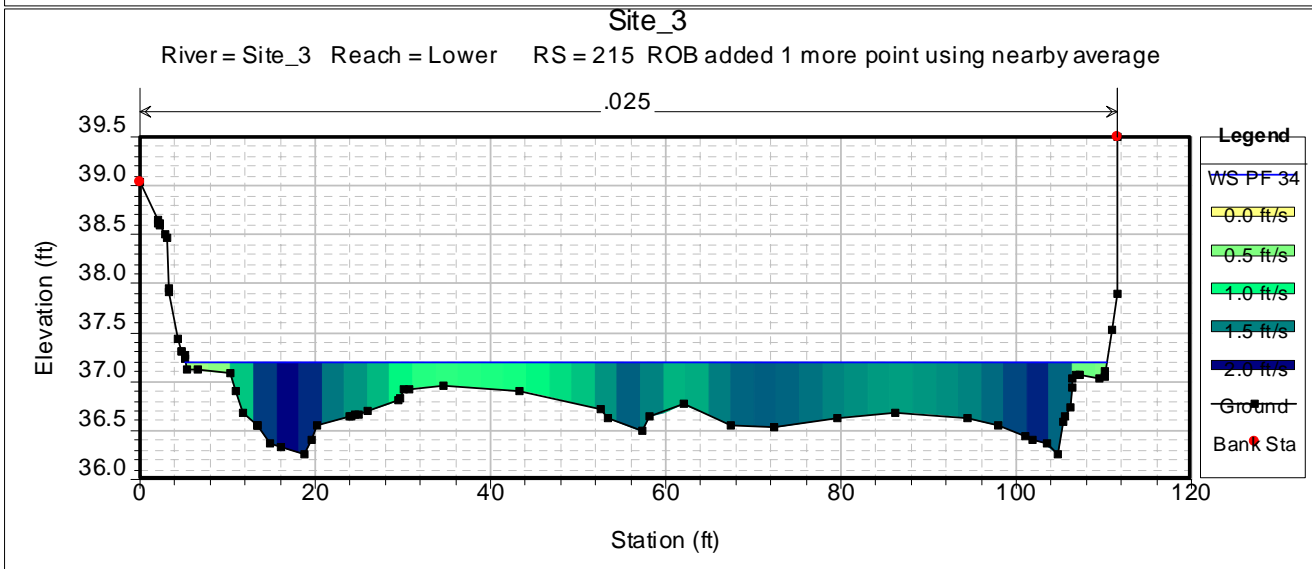
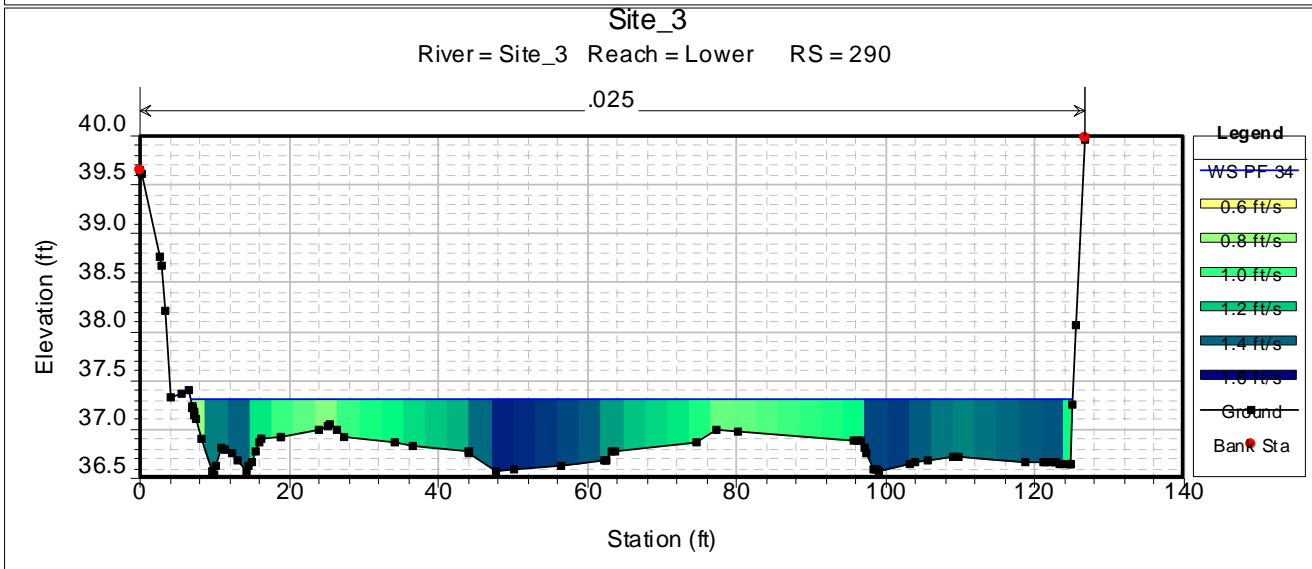
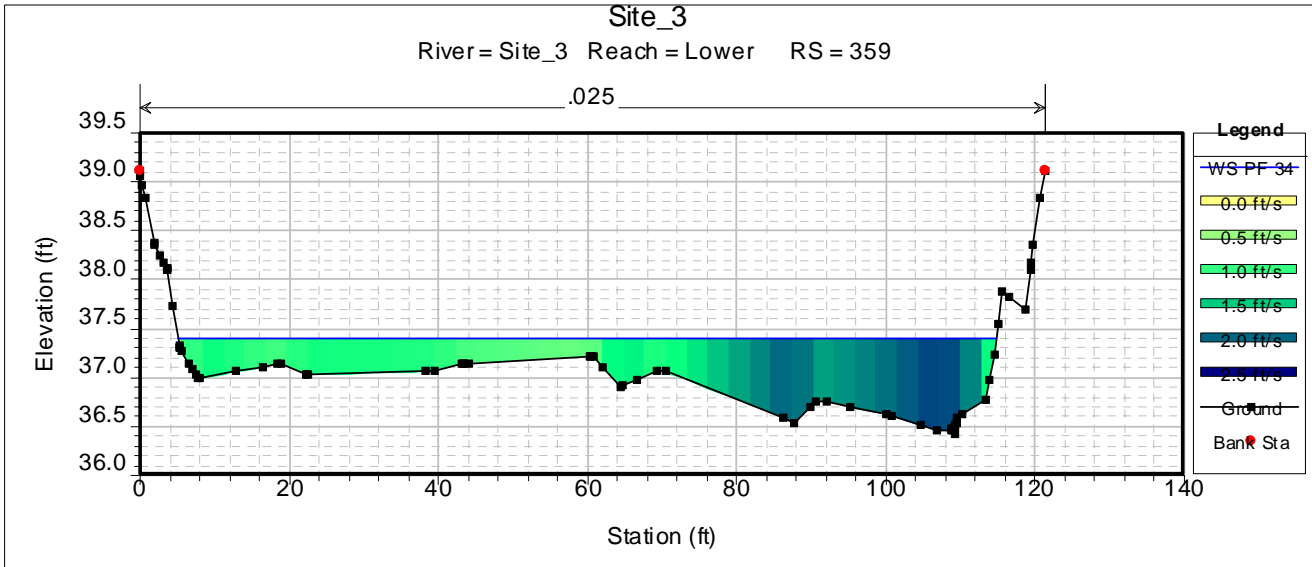
Appendix F 4b Site 2 Cross Section Profiles



Appendix F 4b Site 2 Cross Section Profiles



Appendix F 4c Site 3 Cross Section Profiles



Appendix F 4c Site 3 Cross Section Profiles

