

APPENDIX C

Summaries of Existing Conditions and Management Recommendations for Subreaches of the North Branch of the Root River and Tributaries

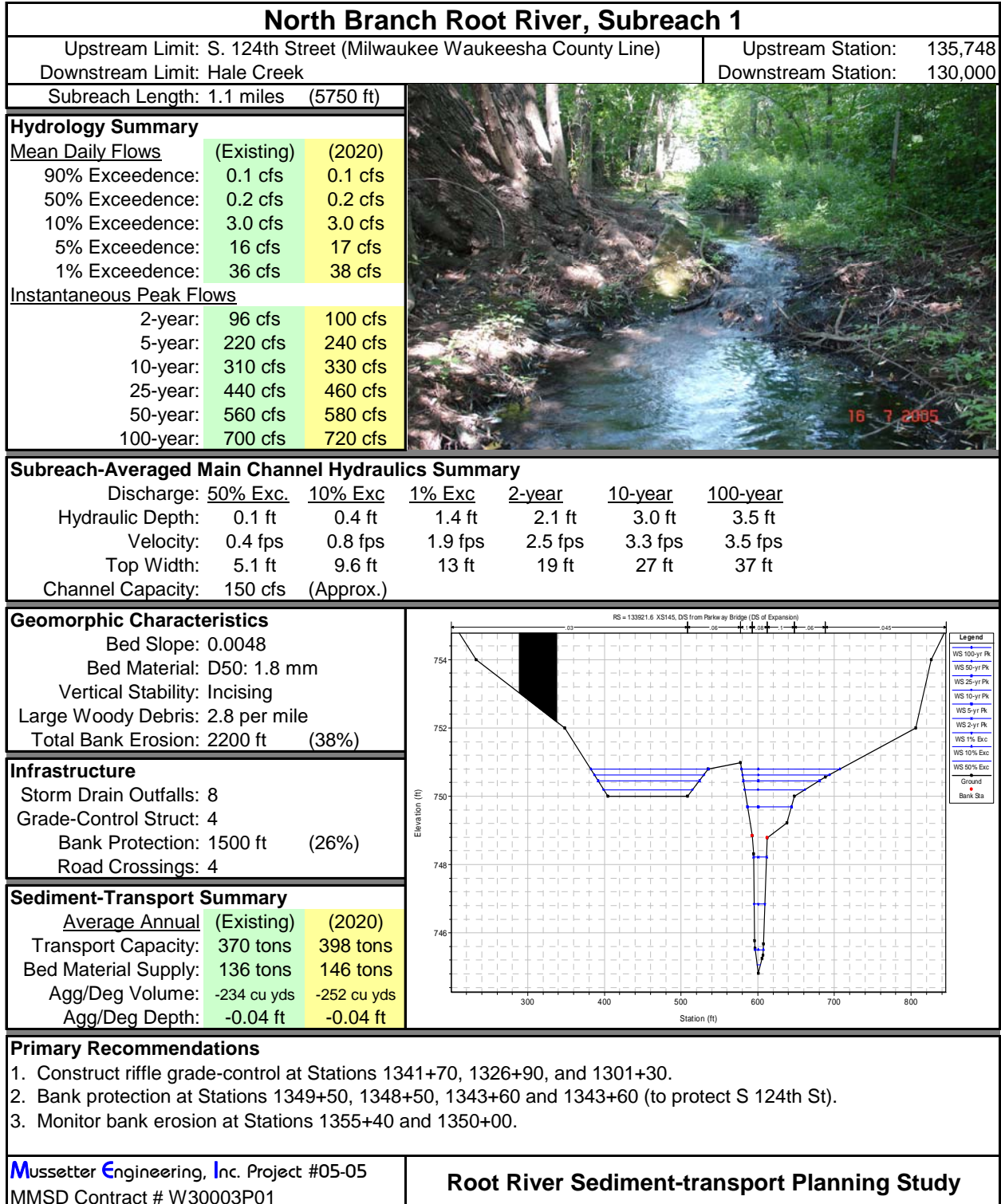


Figure C.1. Summary sheet for North Branch Root River, Subreach 1.

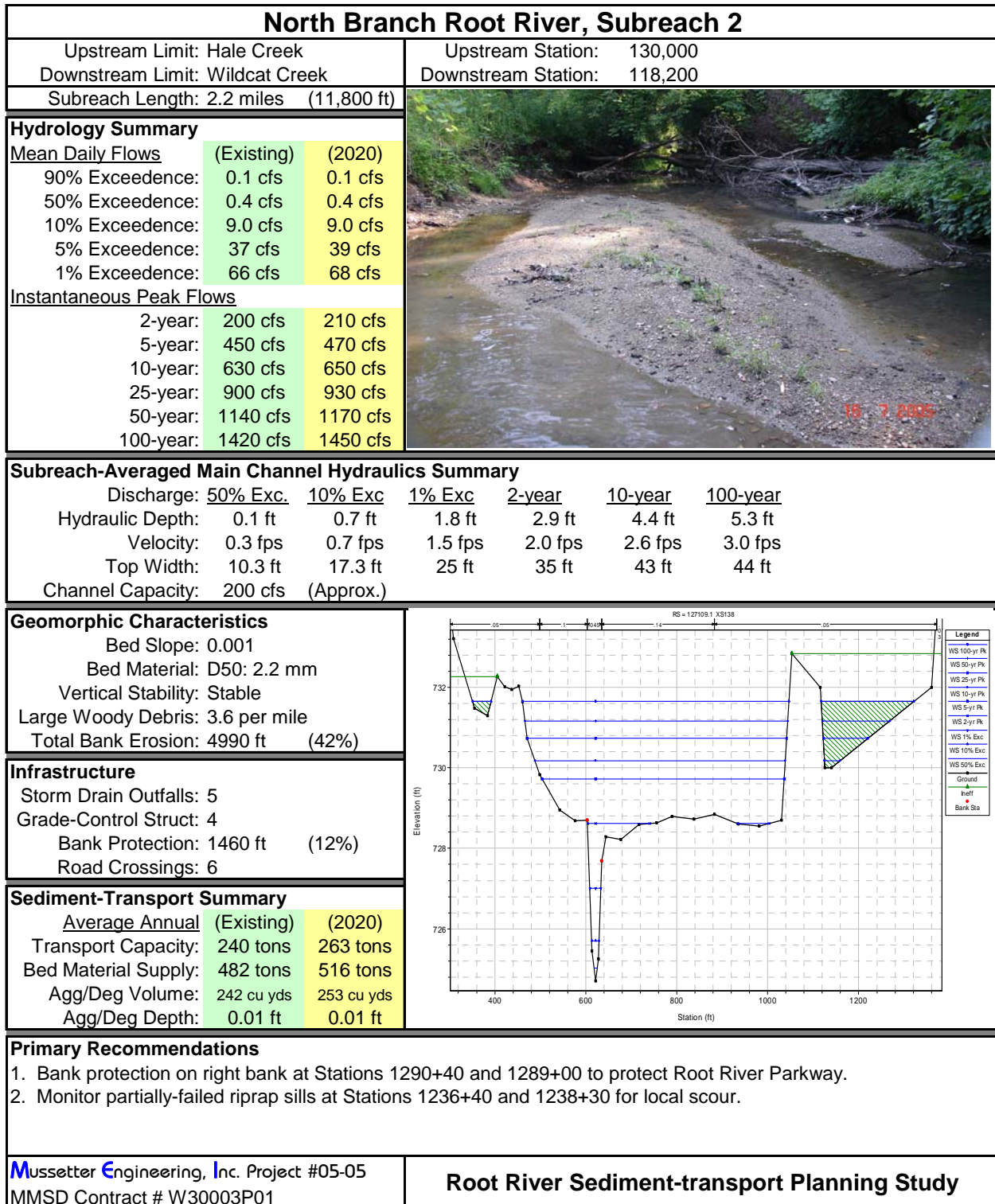


Figure C.2. Summary sheet for North Branch Root River, Subreach 2.

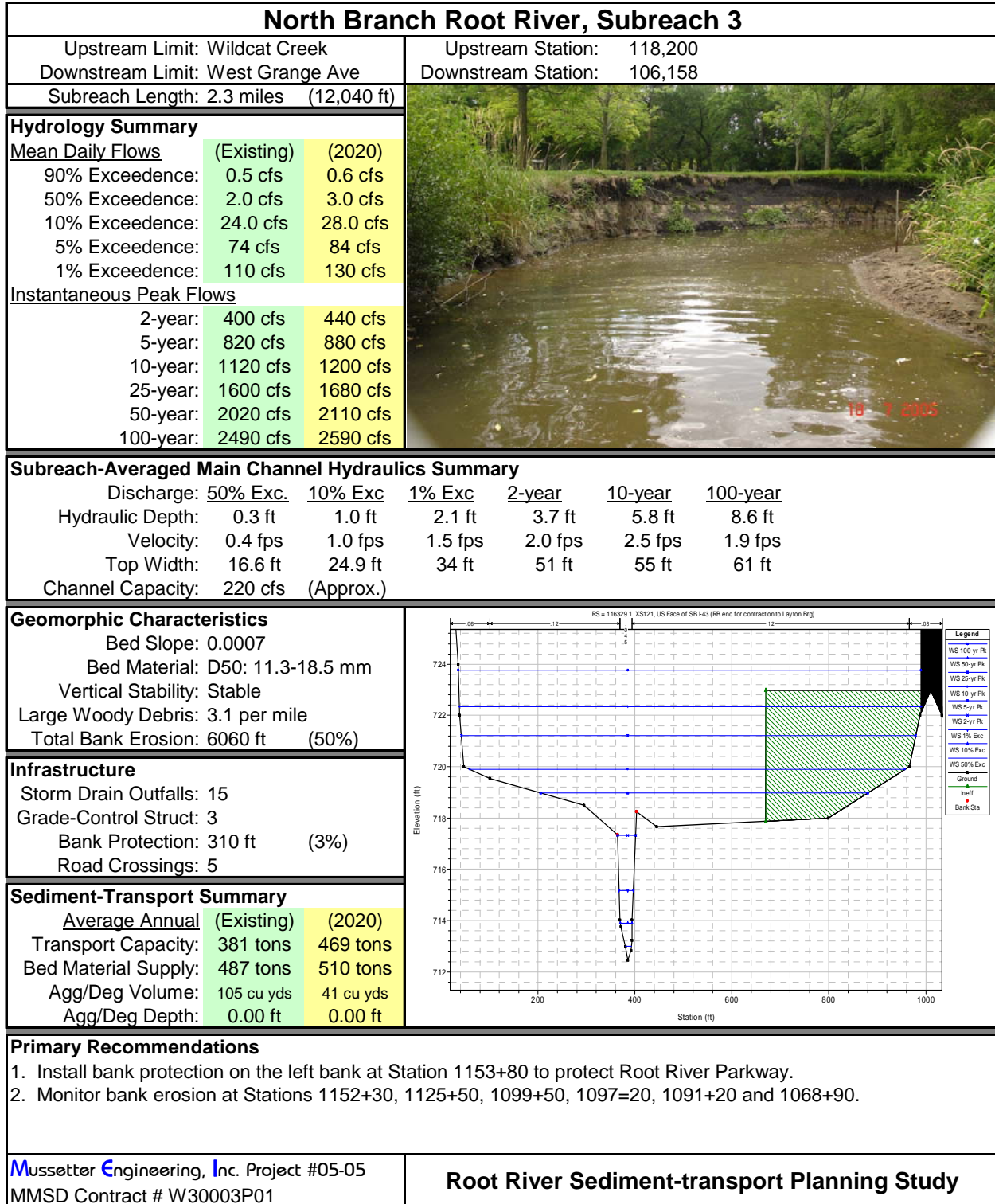


Figure C.3. Summary sheet for North Branch Root River, Subreach 3.

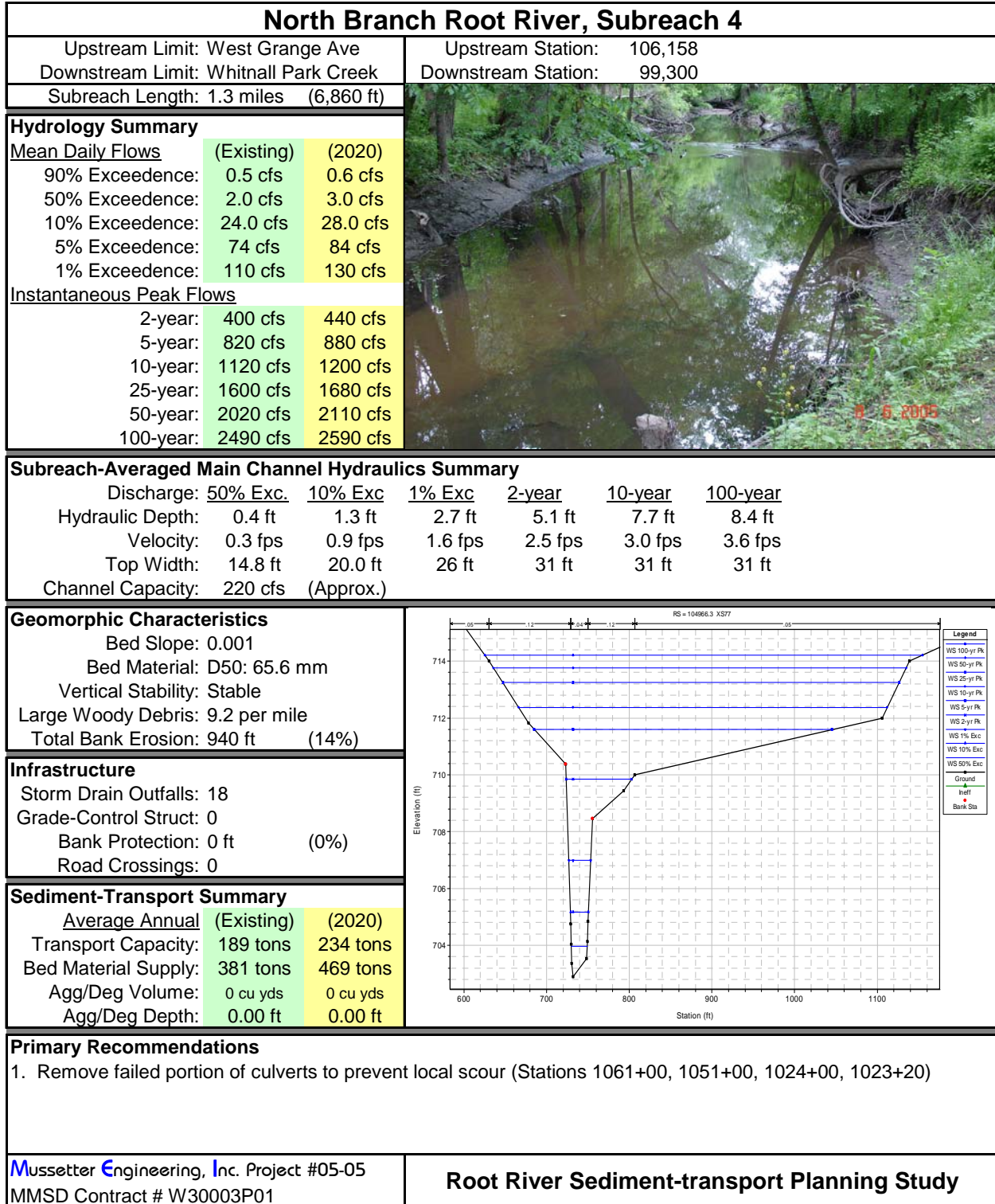


Figure C.4. Summary sheet for North Branch Root River, Subreach 4.

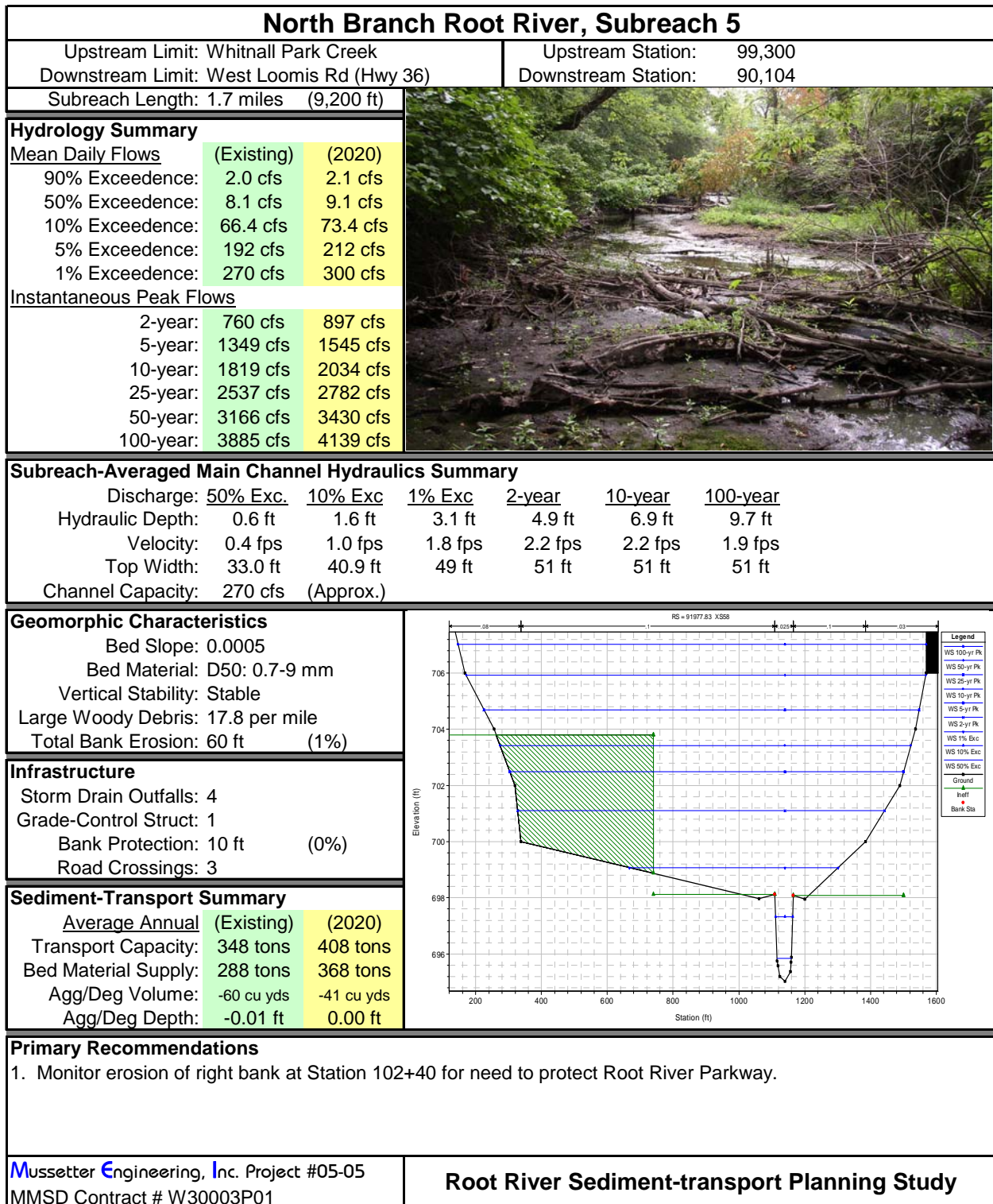


Figure C.5. Summary sheet for North Branch Root River, Subreach 5.

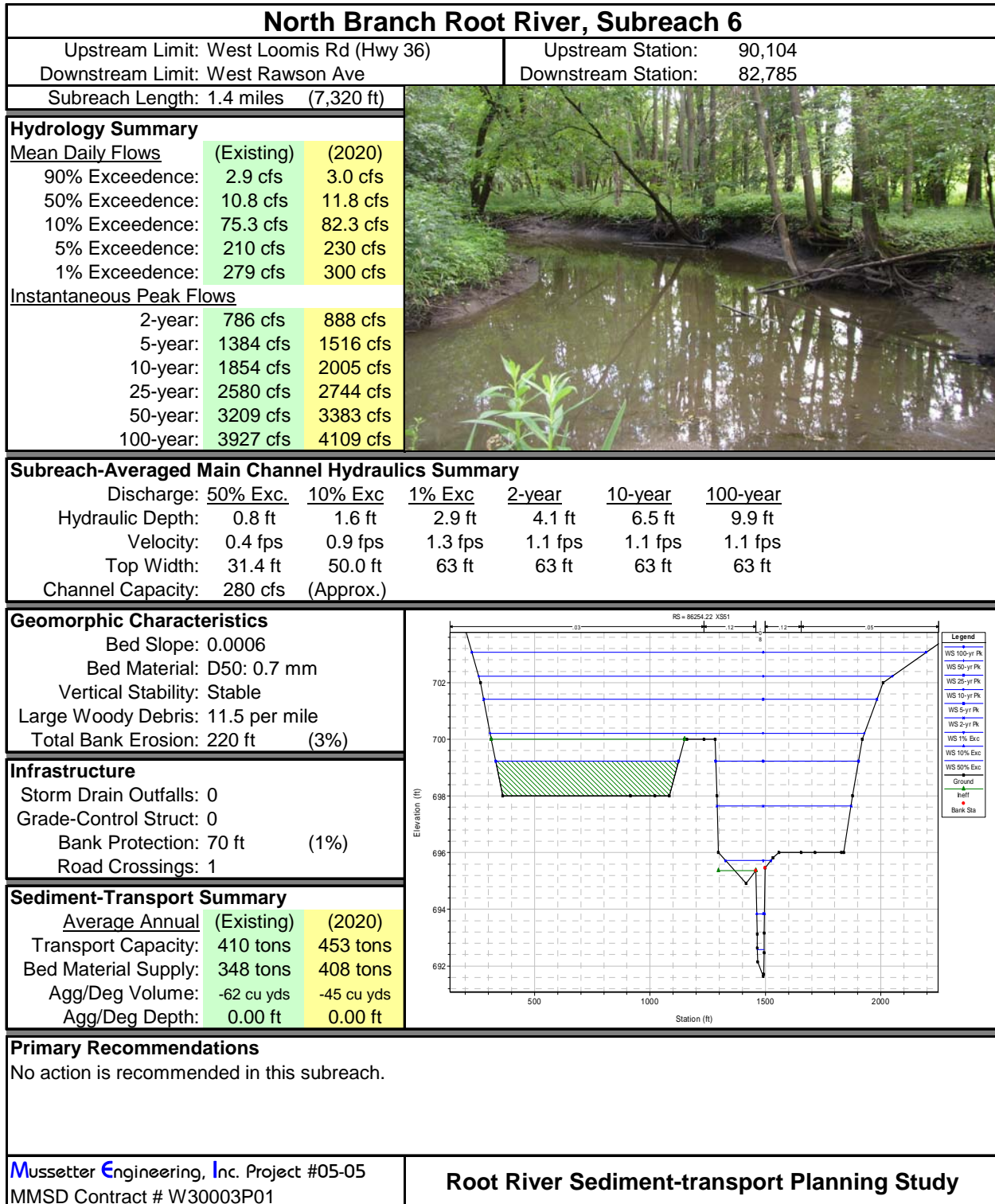


Figure C.6. Summary sheet for North Branch Root River, Subreach 6.

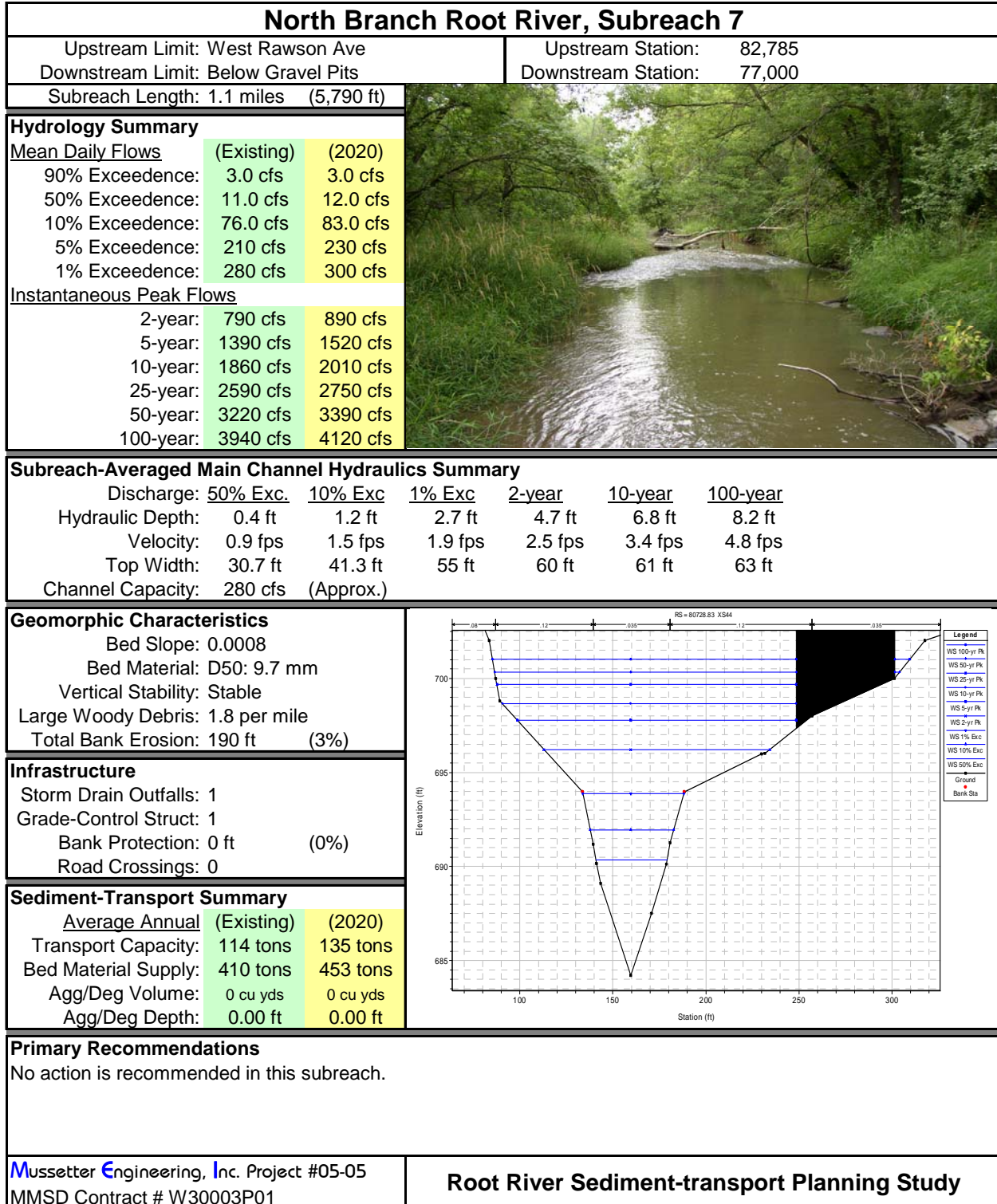


Figure C.7. Summary sheet for North Branch Root River, Subreach 7.

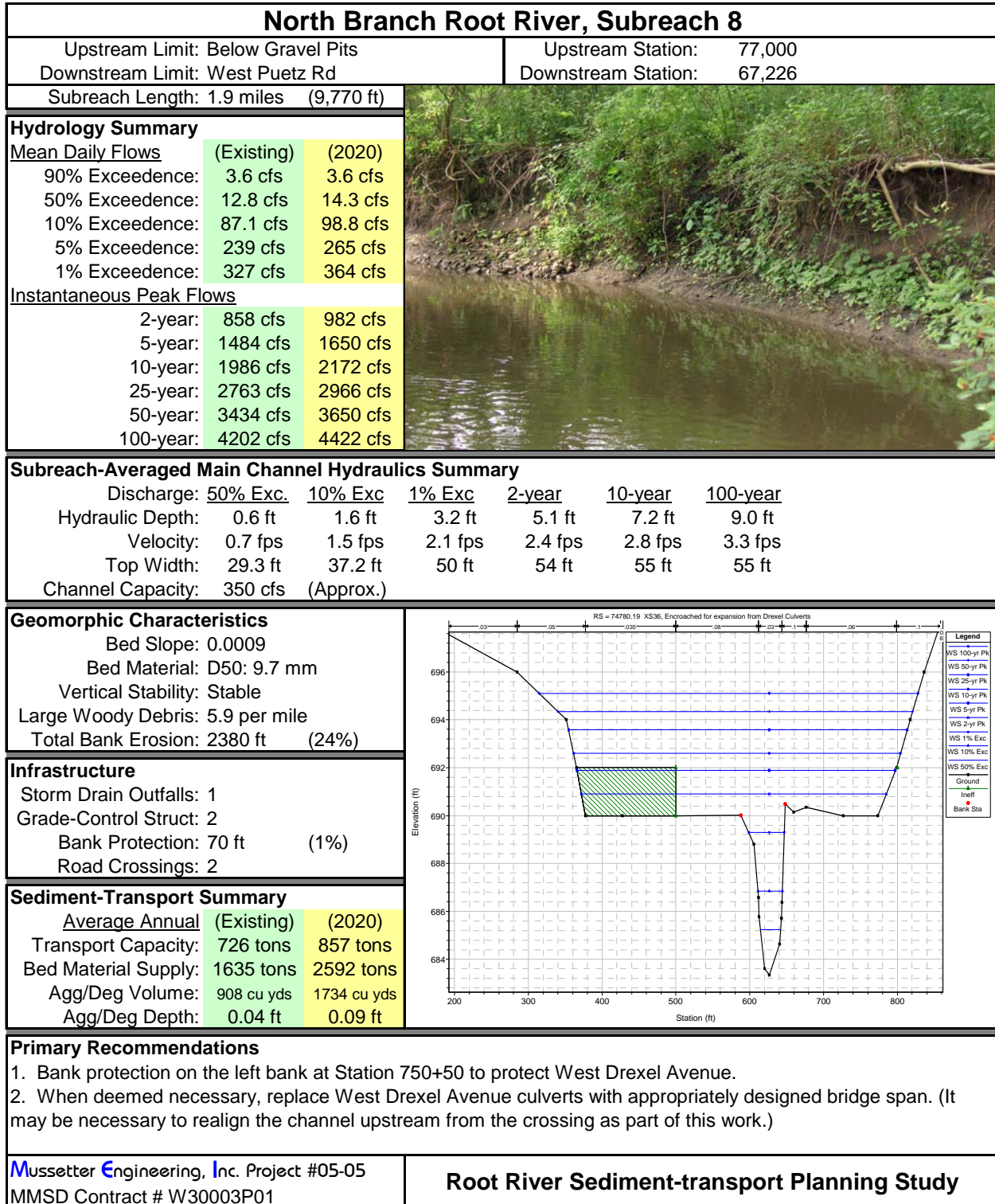


Figure C.8. Summary sheet for North Branch Root River, Subreach 8.

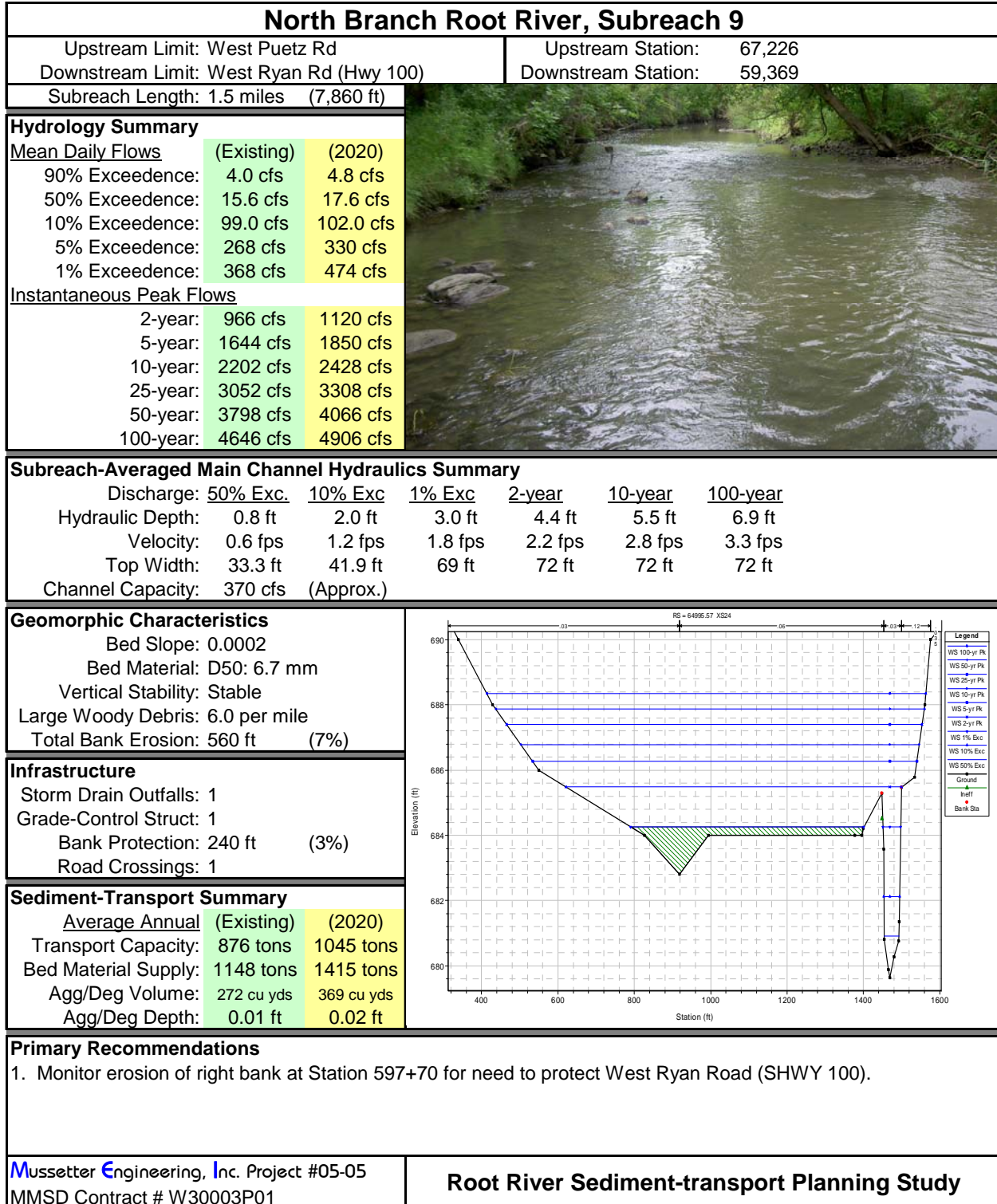


Figure C.9. Summary sheet for North Branch Root River, Subreach 9.

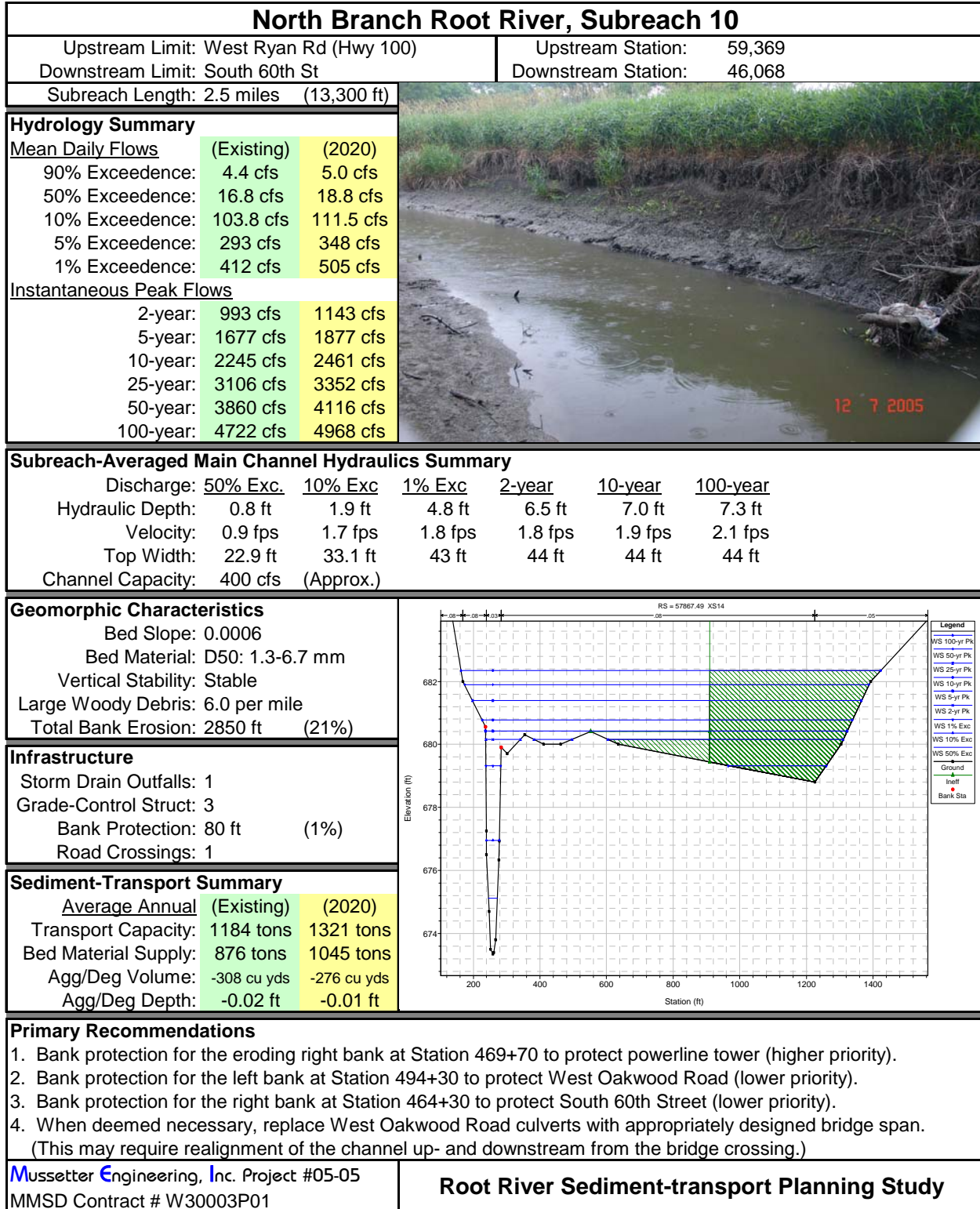


Figure C.10. Summary sheet for North Branch Root River, Subreach 10.

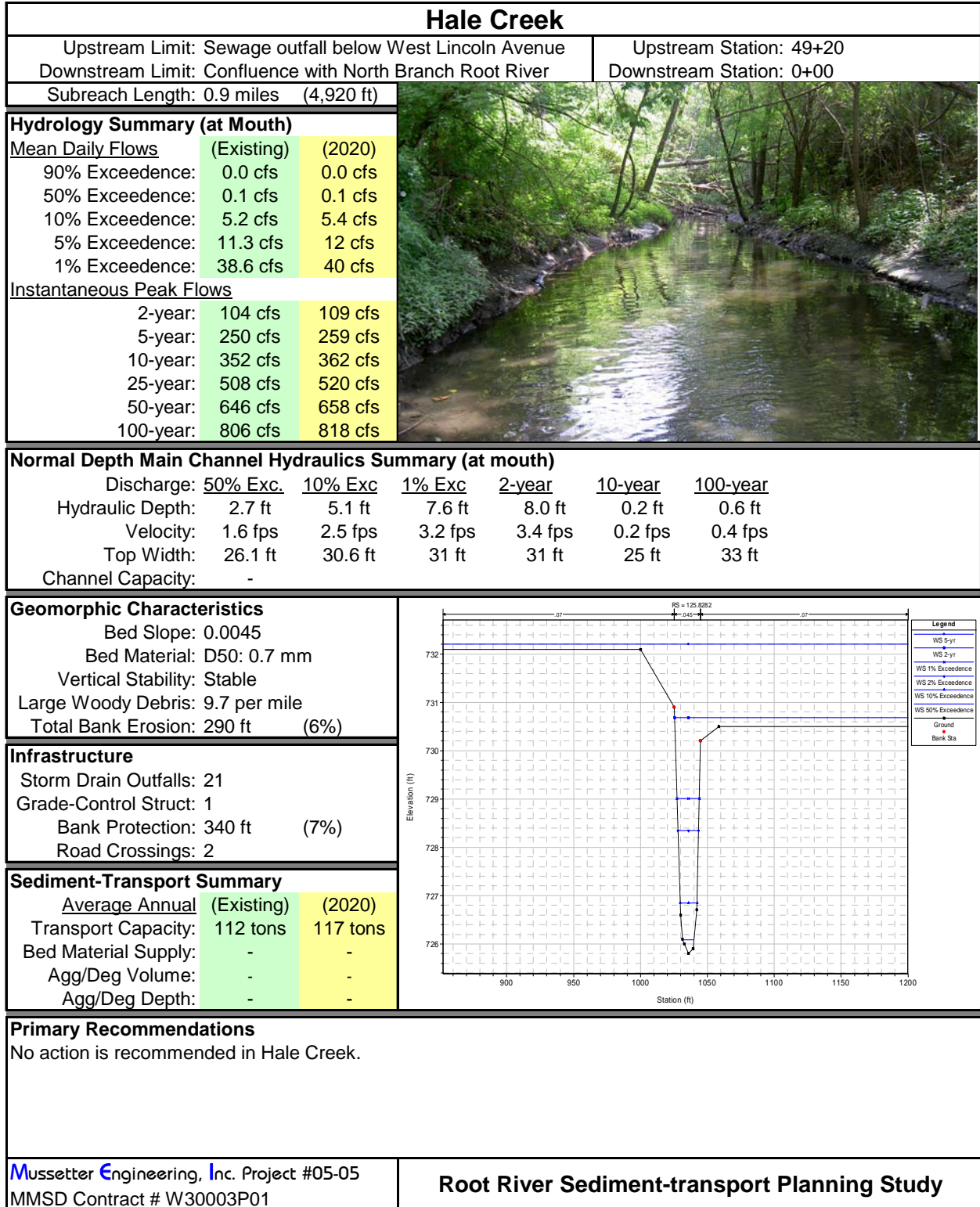


Figure C.11. Summary sheet for Hale Creek.

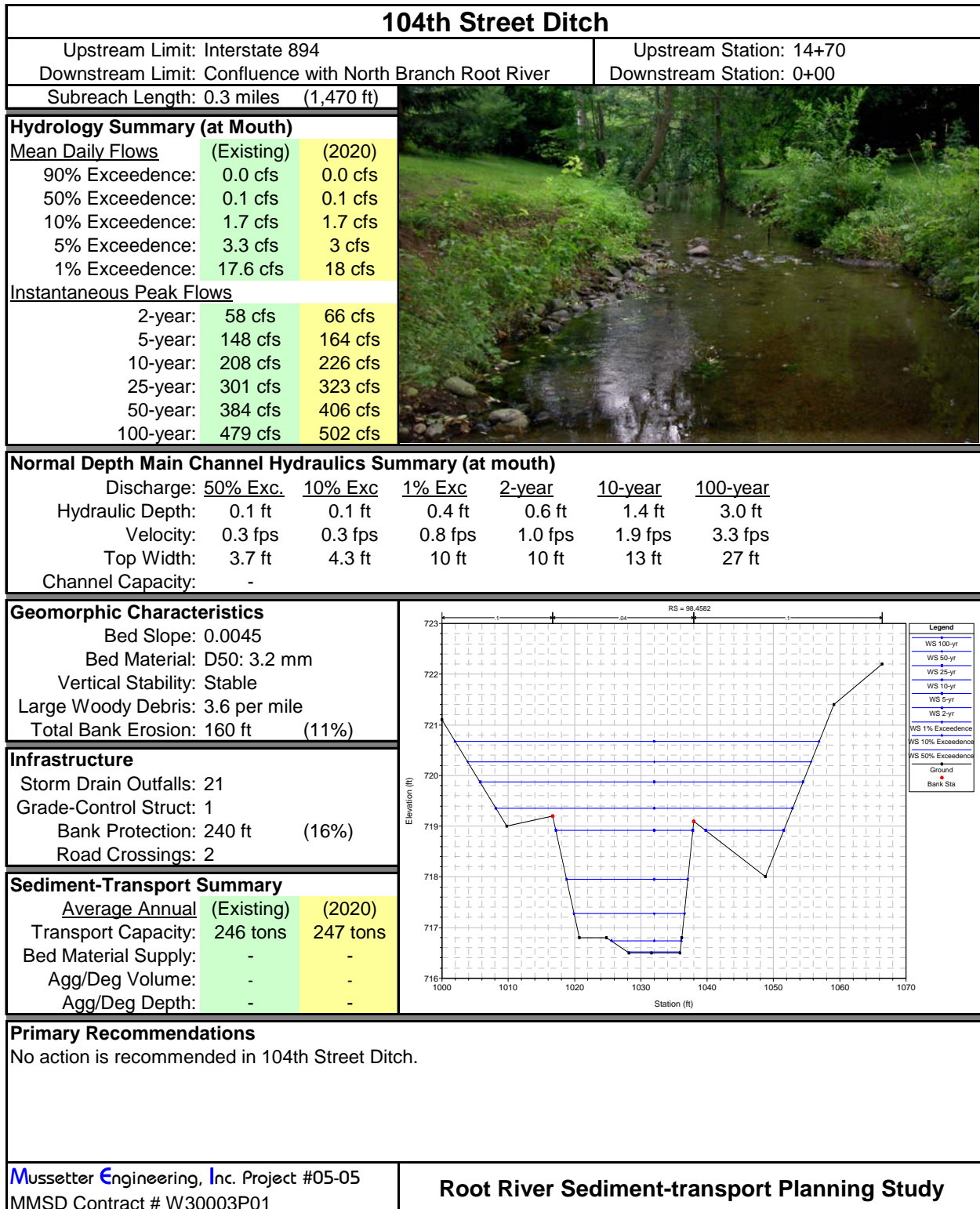


Figure C.12. Summary sheet for 104th Street Ditch.

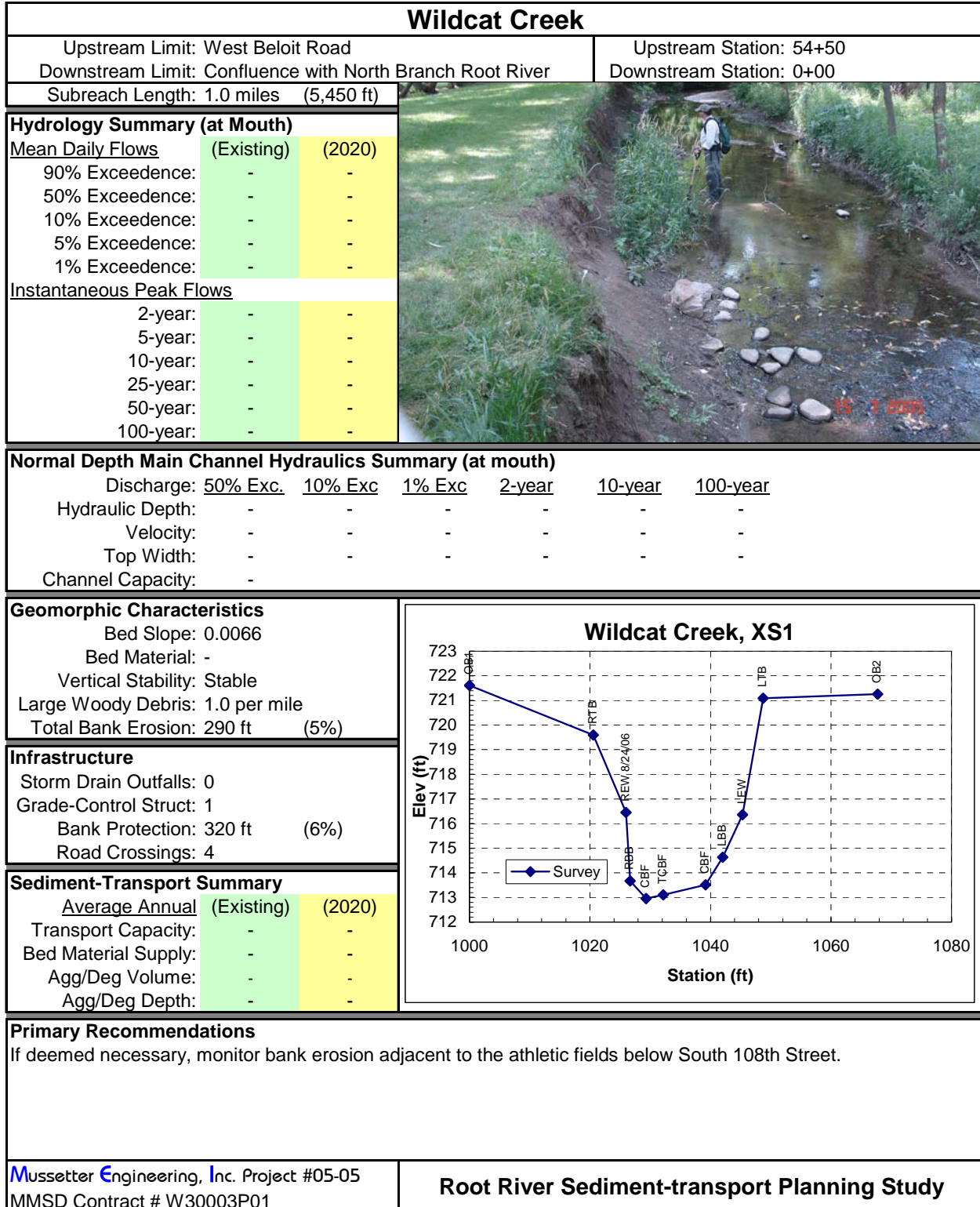


Figure C.13. Summary sheet for Wildcat Creek.

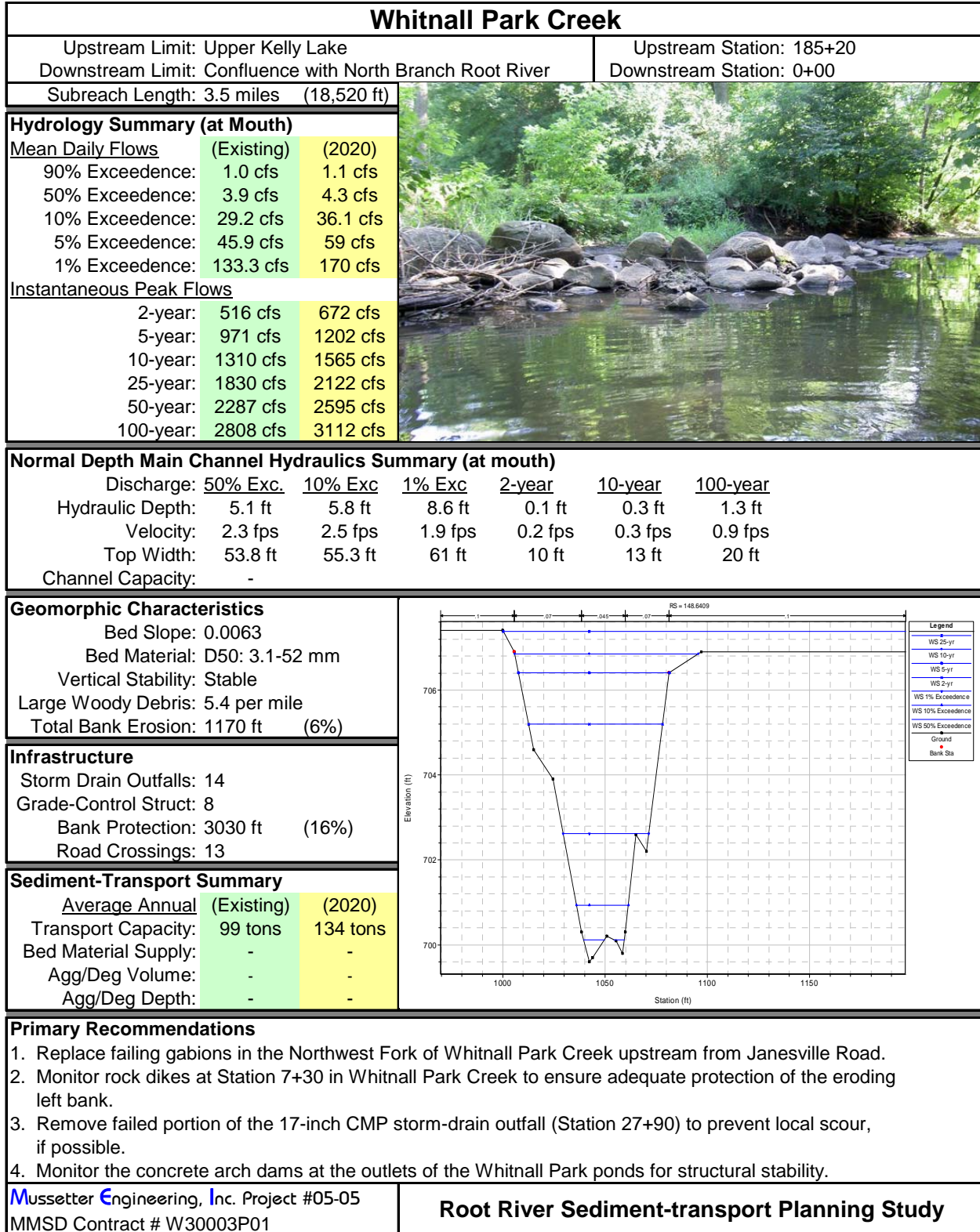


Figure C.14. Summary sheet for Whitnall Park Creek.

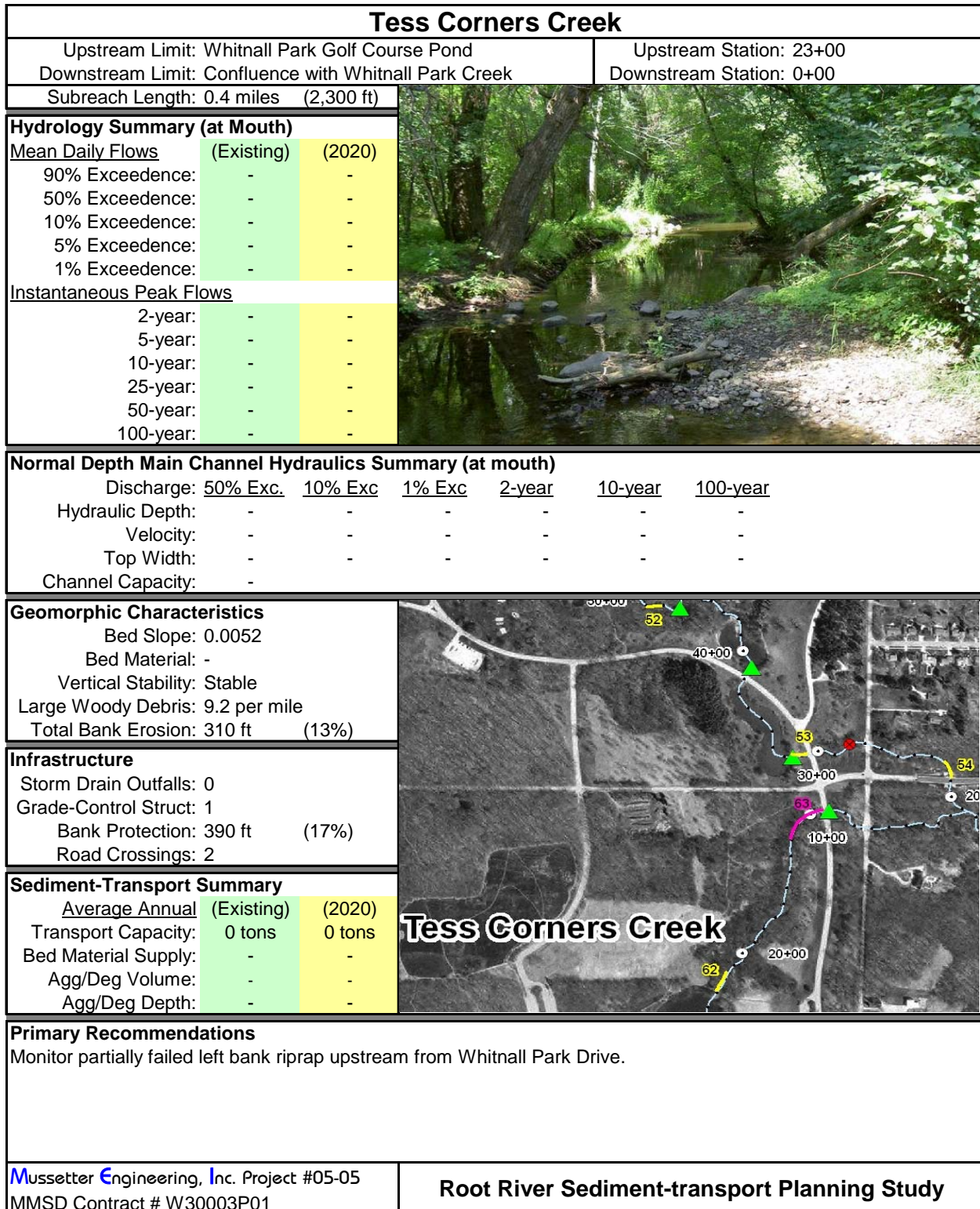


Figure C.15. Summary sheet for Tess Corners Creek.

Dale Creek						
Upstream Limit: West Grange Avenue Downstream Limit: Confluence with North Branch Root River		Upstream Station: 44+00 Downstream Station: 0+00				
Subreach Length: 0.8 miles (4,400 ft)						
Hydrology Summary (at Mouth)						
<u>Mean Daily Flows</u>	(Existing)	(2020)				
90% Exceedence:	-	-				
50% Exceedence:	-	-				
10% Exceedence:	-	-				
5% Exceedence:	-	-				
1% Exceedence:	-	-				
<u>Instantaneous Peak Flows</u>						
2-year:	-	-				
5-year:	-	-				
10-year:	-	-				
25-year:	-	-				
50-year:	-	-				
100-year:	-	-				
Normal Depth Main Channel Hydraulics Summary (at mouth)						
Discharge:	<u>50% Exc.</u>	<u>10% Exc</u>	<u>1% Exc</u>	<u>2-year</u>	<u>10-year</u>	<u>100-year</u>
Hydraulic Depth:	-	-	-	-	-	-
Velocity:	-	-	-	-	-	-
Top Width:	-	-	-	-	-	-
Channel Capacity:	-	-	-	-	-	-
Geomorphic Characteristics						
Bed Slope: 0.0044						
Bed Material: -						
Vertical Stability: Locally Incising						
Large Woody Debris: 3.6 per mile						
Total Bank Erosion: 0 ft (0%)						
Infrastructure						
Storm Drain Outfalls: 0						
Grade-Control Struct: 3						
Bank Protection: 0 ft (0%)						
Road Crossings: 3						
Sediment-Transport Summary						
<u>Average Annual</u>	(Existing)	(2020)				
Transport Capacity:	-	-				
Bed Material Supply:	-	-				
Agg/Deg Volume:	-	-				
Agg/Deg Depth:	-	-				
Primary Recommendations						
<ol style="list-style-type: none"> 1. Install constructed rock riffle at Station 25+50 to prevent upstream migration of channel downcutting. 2. Remove woody debris and sediment upstream from Southway Road to improve conveyance. 						
Mussetter Engineering, Inc. Project #05-05 MMSD Contract # W30003P01		Root River Sediment-transport Planning Study				

Figure C.16. Summary sheet for Dale Creek.

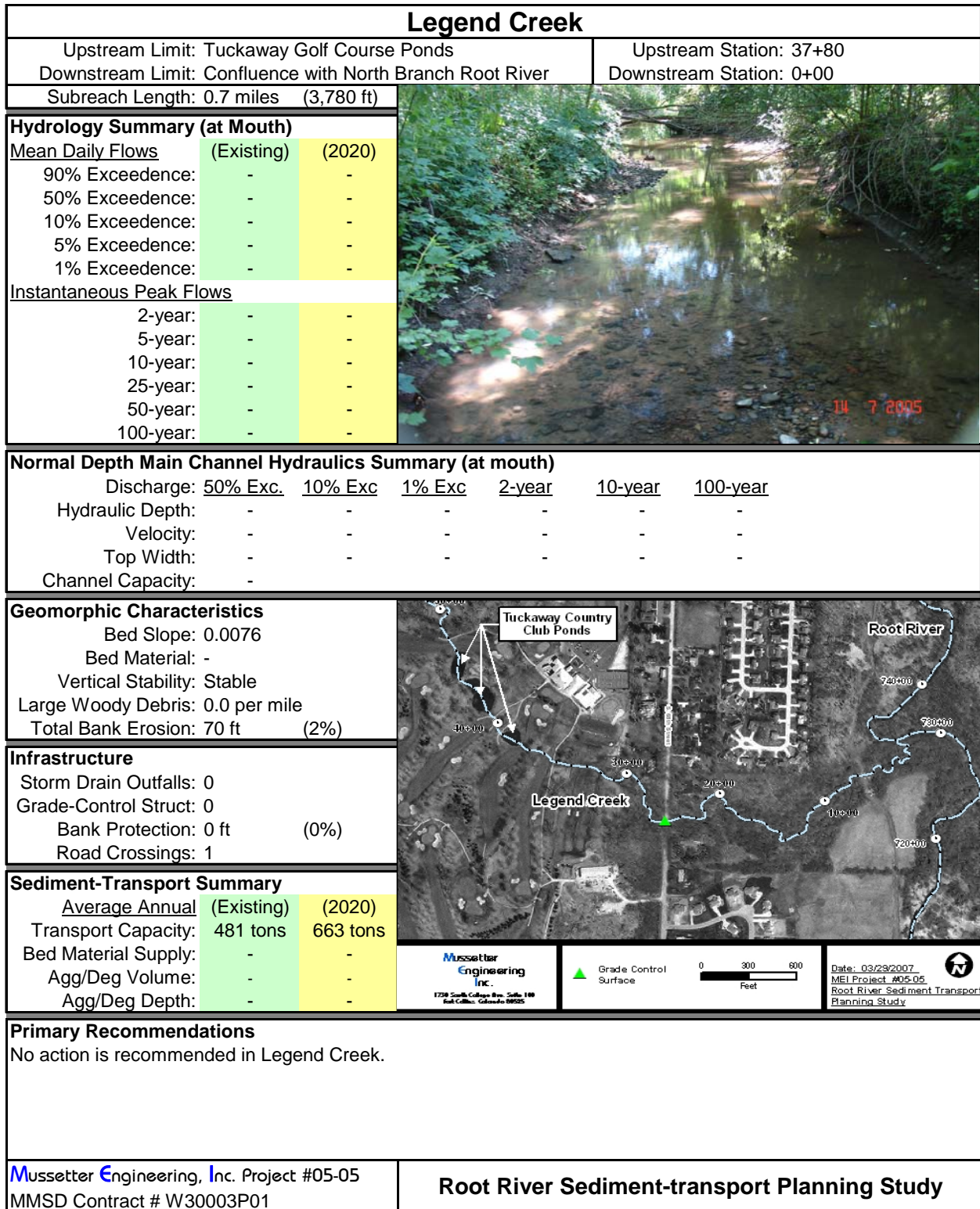


Figure C.17. Summary sheet for Legend Creek.

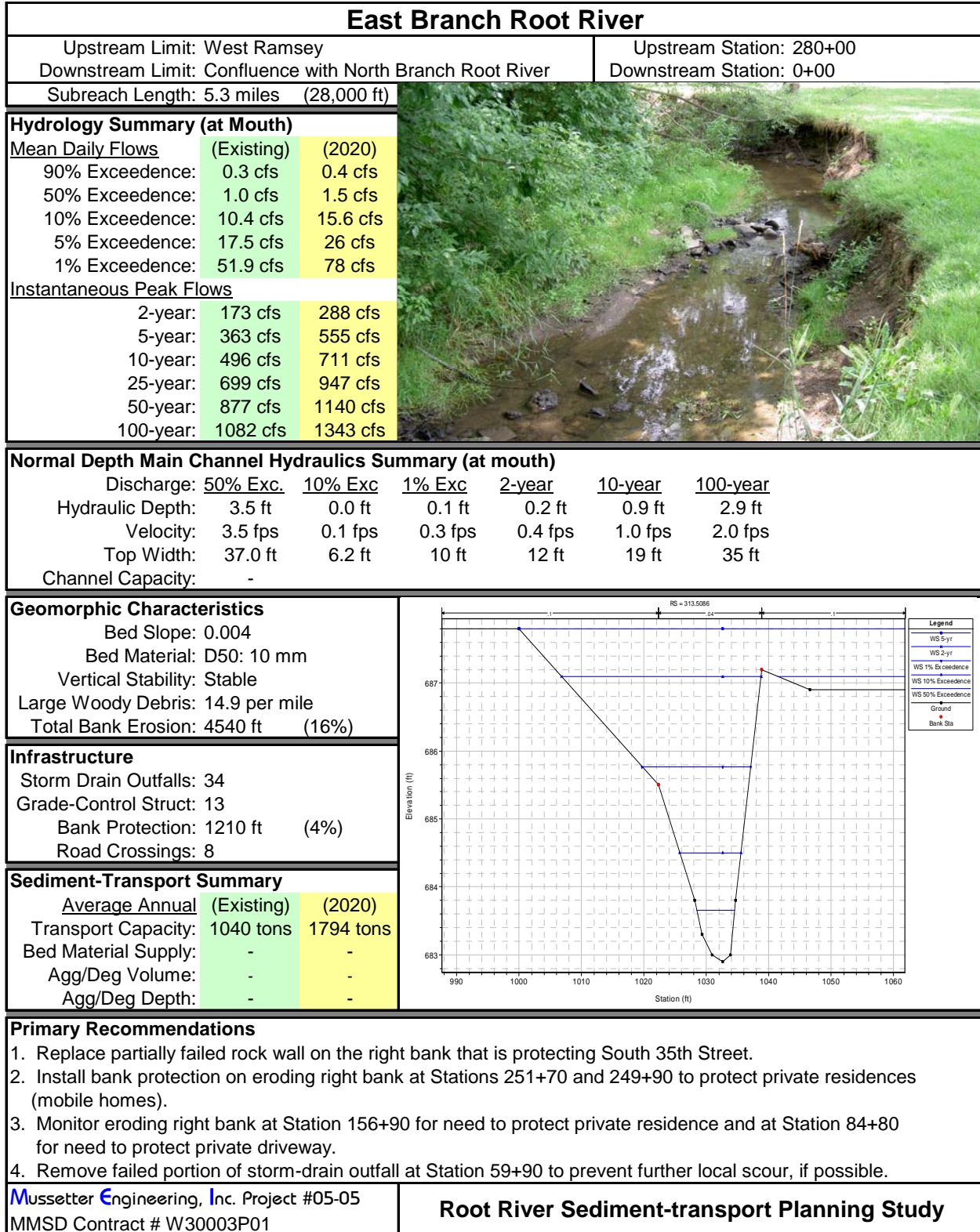


Figure C.18. Summary sheet for East Branch Root River.

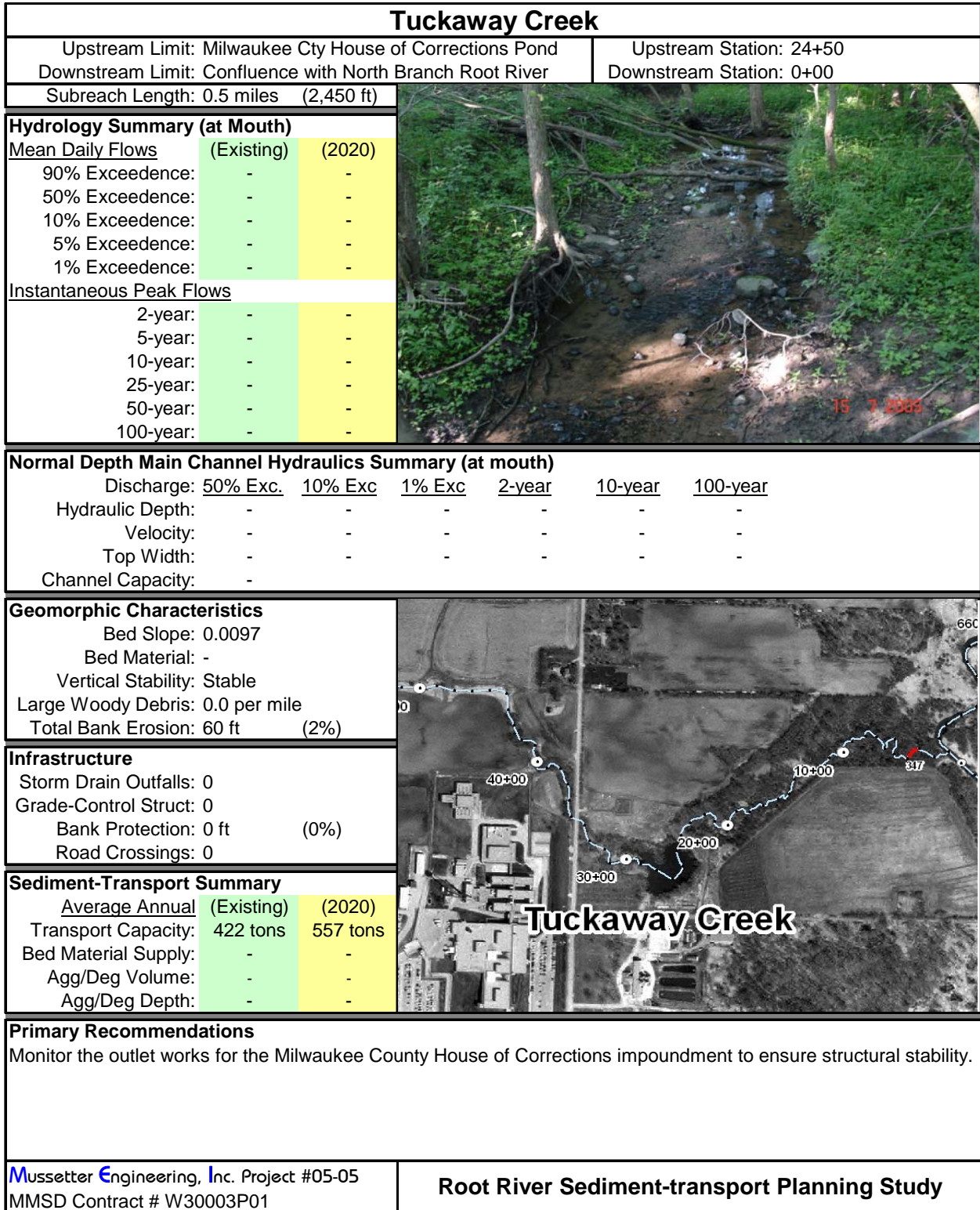


Figure C.19. Summary sheet for Tuckaway Creek.





Ryan Creek						
Upstream Limit: South 92nd Street Downstream Limit: Confluence with North Branch Root River			Upstream Station: 122+60 Downstream Station: 0+00			
Subreach Length: 2.3 miles (12,260 ft)						
Hydrology Summary (at Mouth)						
<u>Mean Daily Flows</u> (Existing) (2020)						
90% Exceedence:	-	-				
50% Exceedence:	-	-				
10% Exceedence:	-	-				
5% Exceedence:	-	-				
1% Exceedence:	-	-				
<u>Instantaneous Peak Flows</u>						
2-year:	-	-				
5-year:	-	-				
10-year:	-	-				
25-year:	-	-				
50-year:	-	-				
100-year:	-	-				
Normal Depth Main Channel Hydraulics Summary (at mouth)						
Discharge:	<u>50% Exc.</u>	<u>10% Exc</u>	<u>1% Exc</u>	<u>2-year</u>	<u>10-year</u>	<u>100-year</u>
Hydraulic Depth:	-	-	-	-	-	-
Velocity:	-	-	-	-	-	-
Top Width:	-	-	-	-	-	-
Channel Capacity:	-	-	-	-	-	-
Geomorphic Characteristics						
Bed Slope: 0.0037						
Bed Material: -						
Vertical Stability: Stable						
Large Woody Debris: 0.9 per mile						
Total Bank Erosion: 0 ft (0%)						
Infrastructure						
Storm Drain Outfalls: 0						
Grade-Control Struct: 0						
Bank Protection: 50 ft (0%)						
Road Crossings: 0						
Sediment-Transport Summary						
<u>Average Annual</u> (Existing) (2020)						
Transport Capacity:	-	-				
Bed Material Supply:	-	-				
Agg/Deg Volume:	-	-				
Agg/Deg Depth:	-	-				
Primary Recommendations						
No action is recommended in Ryan Creek.						
Mussetter Engineering, Inc. Project #05-05 MMSD Contract # W30003P01			Root River Sediment-transport Planning Study			

Figure C.20. Summary sheet for Ryan Creek.