

# **CARNELIAN-MARINE-ST. CROIX WATERSHED MANAGEMENT PLAN**

## **APPENDIX B**

### **Lake and Stream Monitoring Plans**



Name	2003 Stream Health Grade	2014 Stream Health Grade	2022 Goal	Impaired?	Trout?	2015 Imp. Strategy	2032 Outcome	2022	2022 Cost	2023	2023 Cost	2024	2024 Cost	2025	2025 Cost	2026	2026 Cost	2027	2027 Cost	2028	2028 Cost	2029	2029 Cost	2030	2030 Cost	2031	2031 Cost		
Clapp's	A+	A+	A+		X	Routine	Preserve	Level + Temp	x					Level + Temp	x									Level + Temp	x				
Zavora's	A	B+	A		X	Focused	Improve	Level + Temp	x					Level + Temp	x									Level + Temp	x				
Foster's	A-	A-	A-		X	Routine	Preserve	Level + Temp	x					Level + Temp	x									Level + Temp	x				
Judd Street	A-	A-	A-			Routine	Preserve	Baseflow	x					Baseflow	x									Baseflow	x				
Arcola	A-	B+	A-		X	Focused	Improve	Baseflow	x					Baseflow	x									Baseflow	x				
Campsite No. 1	B+	B	B			Routine	Preserve	Baseflow	x					Baseflow	x									Baseflow	x				
Campsite No. 2	A	B	B+		X	Routine	Preserve	Baseflow	x					Baseflow	x									Baseflow	x				
Dunn's	B	B	B			Routine	Preserve	Baseflow	x					Baseflow	x									Baseflow	x				
Fall's	B	B	B+		X	Focused	Improve	Level + Temp	x	Level + Temp	x	Level + Temp	x	Level + Temp	x	Flow + WQ	x	Flow + WQ	x	Flow + WQ	x	Flow + WQ	x	Flow + WQ	x	Flow + WQ	x	Flow + WQ	
Silver	B-	B-	B-			Routine	Preserve	WOMP	x	WOMP	x	WOMP	x	WOMP	x	WOMP	x	WOMP	x	WOMP	x	WOMP	x	WOMP	x	WOMP	x		
William O'Brien	B	B-	B			Routine	Preserve	Baseflow	x					Baseflow	x									Baseflow	x				
Marine Landing	A-	B-	A			Focused	Improve	Baseflow	x					Baseflow	x									Baseflow	x				
Mill Stream	A	B	A		X	Focused	Restore	Level + Temp	x	Level + Temp	x	Level + Temp	x	Level + Temp	x	Flow + WQ	x	Flow + WQ	x	Flow + WQ	x	Flow + WQ	x	Flow + WQ	x	Flow + WQ	x		
Spring	A	C	A		X	Focused	Improve	Level + Temp	x					Level + Temp	x									Level + Temp	x				
Willow Brook	A-	C	B+		X	Focused	Restore	Level + Temp	x	Level + Temp	x	Level + Temp	x	Level + Temp	x									Level + Temp	x				
Cedar Bend Trout Farm	B	C	C			Focused	Improve	Baseflow	x					Baseflow	x									Level + Temp	x				
Arcola Court	C-	C-	C-			Routine	Preserve	Baseflow	x					Baseflow	x									Baseflow	x				
Highway 95 Ravine	C-	C-	C-			Routine	Preserve	Baseflow	x					Baseflow	x									Baseflow	x				
Gilbertson's	A	B-	A	E. Coli	X	Focused	Restore	Level + Temp	x					Level + Temp	x	Molecular	x							Level + Temp	x				
Swedish Flag	A-	C	B+	E. Coli		Focused	Restore	Baseflow	x					Baseflow	x	Molecular	x							Baseflow	x				
Carnelian Creek	B-	B-	B-	E. Coli		Focused	Improve	Level + Temp	x	Level + Temp	x	Level + Temp	x	Level + Temp	x	Flow + WQ	x	Flow + WQ	x	Flow + WQ	x	Flow + WQ	x	Flow + WQ	x	Flow + WQ	x		
Carnelian Creek	B-	B-	B-	E. Coli		Focused	Improve	Level + Temp	x	Level + Temp	x	Level + Temp	x	Level + Temp	x	Flow + WQ	x	Flow + WQ	Bacteria	x	Flow + WQ	x	Flow + WQ	x	Flow + WQ	x	Flow + WQ		
ALL - Spring Creeks	--	--	--	--	--	--	--	Macro-I Sampling	x					Macro-I Sampling	x									Macro-I Sampling	x				
St. Croix	--	--	--			--	--																						
<b>Monitoring Types:</b>																													
<b>Baseflow</b>	Fall baseflow flowmeter sampling (1x) at most downstream road crossing.																												
<b>Level + Temp</b>	Continuous level (for baseflow or H&H) and temperature via District owned logger (Apr-Oct) - install, 6x flow/data, removal.																												
<b>Macro-I Sampling</b>	Macroinvertebrate sampling, May & September, one location.																												
<b>Rapid Assmnt</b>	Pre-geomorph (inventory of in-stream instabilities, instream habitat degradation and noting terrestrial invasives).																												
<b>Targeted Trib</b>	Continuous flow and grab sampling per SWA and/or Rapid Assessment.																												
<b>Corridor Study</b>	Geomorphology, Macroinvertebrates (3yrs, 3x/yr, 3 locations), 3yrs Continuous Flow + WQ, Public Engagement, Reporting.																												
<b>Bacteria</b>	exclusions.																												
<b>Molecular</b>	Molecular Biomark testing to confirm wildlife source and if wildlife, delist.																												
<b>Flow + WQ</b>	Continuous flow monitor and auto sampler (Apr-Oct).																												
<b>WOMP</b>	Per grant agreement.																												