

Summary of Sampling Parameters and Frequency Pre-Construction				
Type	Parameter	Pre-Construction-Wetland and Waterway <sup>a</sup>		Temporary Clear Span Bridges/Access Roads/Yards
		2023 Sampling	5-Days Prior to Construction	
Chemical	Total Phosphorus	X	X	X
	Nitrogen-Total Kjeldahl	X	X	X
	Nitrate + Nitrite	X	X	X
	Ammonia	X	X	X
	Dissolved Oxygen (DO)	X	X	X
	Conductivity	X	X	X
	pH	X	X	X
	Sulfate	X	X	X
	Total Mercury	X	X	X
	Total Suspended Solids (TSS)	X	X	X
	Chemical Oxygen Demand (COD)	X	X	X
	Biological Oxygen Demand (COD)	X	X	X
	Polycyclic Aromatic Hydrocarbons (PAHs)	X	X	X
	Total Petroleum Hydrocarbons (TPH)	X	X	X
	Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)	X	X	X
Physical	Temperature	X	X	X
	Turbidity	X	X	X
	Channel Width, Depth	X	X	X
	Riparian Disturbance	X	X	X
	Vegetative Cover/Buffers	X	X	X
	Fish Habitat	X	X	X
	Bed and Back Scouring/Deposition	X	X	X
	Bed and bank substrate, substrate embeddedness <sup>1</sup>	X	X	X
	Presence of oil and grease	X	X	X
	Stream Velocity	X	X	X
Biological	Mussels <sup>1</sup>	X		
	Fish Kills (Presence, locations, species)	X	X	X
	Brook Trout Redds (Presence, Locations)	X	X	X

<sup>a</sup> = Additional site-specific parameters will be collected for Trout Brook and Marengo River

<sup>1</sup> =Mussel monitoring to be conducted at select perennial streams crossed by non-HDD/Direct Pipe methods

Summary of Sampling Parameters and Frequency - Active Construction				
Type	Parameters	Dry Crossing Method <sup>a</sup>	HDD/Direct Pipe Method <sup>b</sup>	NTU Exceedance <sup>c</sup>
Chemical	Total Phosphorus			
	Nitrogen-Total Kjeldahl			
	Nitrate + Nitrite			
	Ammonia			
	Dissolved Oxygen (DO)	X	X	X
	Conductivity	X	X	X
	pH	X	X	X
	Sulfate			
	Total Mercury			
	Total Suspended Solids (TSS)			
	Chemical Oxygen Demand (COD)			
	Biological Oxygen Demand (BOD)			
	Polycyclic Aromatic Hydrocarbons (PAHs)			
	Total Petroleum Hydrocarbons (TPH)			
	Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)			
Physical	Temperature			
	Turbidity	X	X	X
	Channel Width, Depth			
	Riparian Disturbance			
	Vegetative Cover/Buffers			
	Fish Habitat			
	Bed and Bank Scouring/Deposition			
	Bed and bank substrate, substrate embeddedness			
	Presence of oil and grease	X	X	X
	Stream Velocity			
Biological	Mussels			
	Fish Kills (Presence, locations, species)	X	X	X
	Brook Trout Redds (Presence, Locations)			

<sup>a</sup> = Sampled prior to installation of dam and after dam removal and daily following dam installation

<sup>b</sup> = Sampled prior to initiation of HDD

<sup>c</sup> = Sampled every 2 hours during instream construction, NTU exceedance is described in Section 2.2 of the WQMP. See Inadvertent Return Response sampling for a description of parameters to be tested in the event of an inadvertent return into a waterbody

### Summary of Sampling Parameters and Frequency Post- Construction

Type	Parameters	Post Construction Waterway <sup>a</sup>						Temporary Clear Span Bridges/Access Roads/Yards
		0-3 Days <sup>1</sup>	7 Days <sup>1</sup>	30 Days <sup>1</sup>	Year 1	Year 2	Year 5	
Chemical	Total Phosphorus				X	X	X	X
	Nitrogen-Total Kjeldahl				X	X	X	X
	Nitrate + Nitrite				X	X	X	X
	Ammonia				X	X	X	X
	Dissolved Oxygen (DO)	X	X	X	X	X	X	X
	Conductivity	X	X	X	X	X	X	X
	pH	X	X	X	X	X	X	X
	Sulfate				X	X	X	X
	Total Mercury				X	X	X	X
	Total Suspended Solids (TSS)				X	X	X	X
	Chemical Oxygen Demand (COD)				X	X	X	X
	Biological Oxygen Demand (COD)				X	X	X	X
	Polycyclic Aromatic Hydrocarbons (PAHs)				X	X	X	X
	Total Petroleum Hydrocarbons (TPH)				X	X	X	X
	Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)				X	X	X	X
Physical	Temperature			X	X	X	X	X
	Turbidity	X	X	X	X	X	X	X
	Channel Width, Depth			X	X	X	X	X
	Riparian Disturbance			X	X	X	X	X
	Vegetative Cover/Buffers			X	X	X	X	X
	Fish Habitat			X	X	X	X	X
	Bed and Bank Scouring/Deposition			X	X	X	X	X
	Bed and bank substrate, substrate embeddedness			X	X	X	X	X
	Presence of oil and grease	X	X	X	X	X	X	X
	Stream Velocity			X	X	X	X	X
Biological	Mussels <sup>2</sup>							
	Fish Kills (Presence, locations, species)	X	X	X	X	X	X	X
	Brook Trout Redds (Presence, Locations)			X	X	X	X	X

<sup>a</sup> = Additional site-specific parameters will be collected for Trout Brook and Marengo River

<sup>1</sup> = Sampling to be conducted only on those features crossed by the pipeline centerline.

<sup>2</sup> = Post-construction mussel monitoring will be dependent on the results of the pre-construction mussel monitoring.

### Summary of Sampling Parameters and Frequency – Inadvertent Returns

Type	Parameters	Inadvertent Return Monitoring	
		Waterbody	Wetland
Chemical	Total Phosphorus		
	Nitrogen-Total Kjeldahl		
	Nitrate + Nitrite		
	Ammonia		
	Dissolved Oxygen (DO)	X	X
	Conductivity	X	X
	pH	X	X
	Sulfate		
	Total Mercury		
	Total Suspended Solids (TSS)		
	Chemical Oxygen Demand (COD)		
	Biological Oxygen Demand (BOD)		
	Polycyclic Aromatic Hydrocarbons (PAHs)		
	Total Petroleum Hydrocarbons (TPH)		
	Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)		
Physical	Temperature		
	Turbidity (NTU and TSS)	X	X
	Channel Width, Depth		
	Riparian Disturbance		
	Vegetative Cover/Buffers		
	Fish Habitat		
	Bed and Bank Scouring/Deposition		
	Bed and bank substrate, substrate embeddedness		
	Presence of oil and grease	X	X
	Stream Velocity	X	X
Biological	Mussels		
	Fish Kills (Presence, locations, species)	X	X
	Brook Trout Redds (Presence, Locations)		