Water Quality Objective Monitoring, Mayo River Watershed, 2009

In 2009, 2 samples were taken as part of the water quality monitoring protocol and an additional 30 samples were collected by E.M.R staff during routine mine inspections.

Basin total flow data was provided to us by the Yukon Energy station located at the Mayo Lake Outlet. Flow data for the individual tributaries to the Mayo River was collected at the time of sampling by the staff of E.M.R CS&I using the methodology outlined in the Water Quality Objectives Monitoring Protocol.

Site Codes and Global Position of Water Quality Sampling Locations in the Mayo Lake Watershed

SITE CODE	LOCATION	LAT_Y	LONG_X
M 01	Mayo River mouth	63.59297	-135.90965
M 04	Mayo River u/s Highet Creek	63.73728	-135.75497
M 06	Mayo River d/s bridge u/s Davidson	63.76857	-135.44739
M DCN 01	Duncan Creek Below All Mining (BAM)	63.78395	-135.50555
M DVN 01	Davidson Creek mouth	63.76793	-135.45035
M HIGH 01	Highet Creek mouth	63.72393	-136.07204
M MIN 01	Minto Creek mouth	63.70271	-135.87244

Water Quality Objective monitoring, Mayo Lake Watershed – Summary

The provisions of the *Yukon Placer Authorization* continued to apply in the Mayo River watershed for the 2009 operating season and will remain in place until such time as a new authorization is approved for this watershed.

On July 16th, 2009, the failure of a settling pond at a mining operation located on Lightning Creek resulted in the short duration deposit of a high concentration of both settleable and suspended solids downstream into Duncan Creek. Mining was suspended immediately at the operation, stopping the discharge of additional sediment from the pond.

The Fish Habitat Management System - Mayo Lake Watershed (Category B)
Sample Results that Exceed Water Quality Objectives for 2009

Sampling Station	M 01	M HIGH 01	M 04	M DCN 01	M DVN 01	M 06	Other	Other	Other	Other	Other
Location Description	Mouth	Mouth	d/s DCN 01	BAM	Mouth	u/s DVN 01					
Sample Type		Grab									
Lat Y	63.595	63.72393	63.73728	63.78395	63.76793	63.76857					
Long X	-135.904	-136.07204	-135.75497	-135.50555	-135.45035	-135.44739					
Habitat Classification	High	Low	Low	Low	Low	Low					
Water Quality Objective (mg/L)	25	300	300	300	300	300					
Date of Sampling											
	No samples exceeded the Water Quality Objectives										
Total Seasonal Average TSS (mg/L by site		20.7									
Number of days sampled		1									

Legend: Not continuously monitored

Water Samples that are: Above / Below the Water Quality Objective