



INTRODUCTION

September 2014 marks the two year anniversary of the Community Environmental Monitoring Program (CEMP) and also the start of the “operations” phase of the Eagle Mine. Prior to this phase, much of the environmental monitoring data collected was baseline or pre-mining data. From this point forward, CEMP will use this baseline data to interpret results of environmental monitoring data collected during the “operations” phase of Eagle Mine.

INDEPENDENT MONITORING

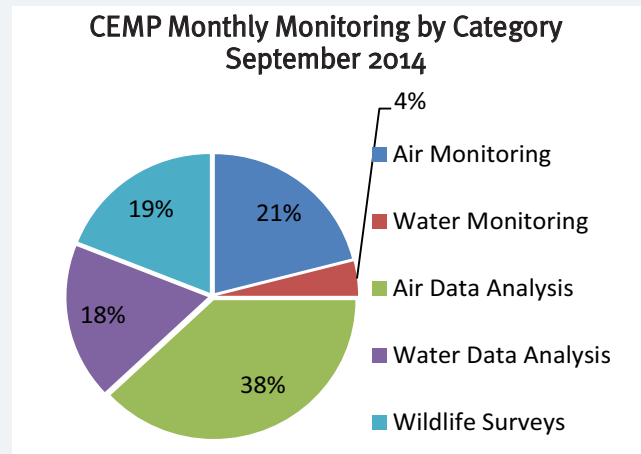
During September 2014, independent environmental monitoring of Eagle Mine by the Superior Watershed Partnership (SWP) included both split sampling and review and observations of data collected in and around the mine site and the Humboldt Mill. This included:

- Independent sampling and analysis of Eagle Mine’s Water Treatment Plant discharge
- Contined air quality monitoring in Powell Township at the CEMP Air/Meteorological Station
- Portable air quality monitoring was conducted at Mine Ventilation Air Raise (MVAR) in conjunction with the Michigan DEQ permit required stack test.
- Field staff reviewed procedures and observed data collection by Eagle Mine consultants including small mammal and bird surveys at both the Eagle Mine and Humboldt Mill and fall fish population studies in the Salmon Trout and Yellow Dog Rivers

FINDINGS/RESULTS

- CEMP continued to monitor effluent from the Waste-water Treatment Plant prior to discharge to the Treated Water Infiltration System (TWIS). September results were in compliance with the Groundwater Discharge Permit.
- Air quality data from the Powell Township Air Station and portable air monitoring site near the Humboldt Mill were in compliance with the National Air Quality Standards.
- Results of the MVAR stack test are pending and will be posted to the CEMP website as soon as available.

- The Michigan Department of Environmental Quality Air Quality Division recently compared CEMP’s air quality monitoring results (metal concentrations) from the Powell Township Air Station to appropriate health protective benchmarks in order to characterize the public health significance of the measured levels. Click [here](#) to go directly to the DEQ report.
- The CEMP Website Report Card was updated to reflect environmental performance during the Second Quarter of 2014. Eagle Mine received 5 green lights and 2 yellow lights for their performance during the quarter. Click [here](#) to go directly to the Report Card for more information.



PUBLIC OUTREACH/COMMUNITY INPUT

- CEMP and Eagle Mine environmental monitoring data continues to be uploaded to the CEMP website. To view recently uploaded data visit the CEMP data portal.
- SWP staff participated in related CEMP technical and policy committee meetings.

The SWP received the following inquiries/input from community members during September 2014:

Monitoring Category	Number of Inquiries
Noise/Vibration	2
Transportation Route	2
Mine Vent. Air Raise Testing Monitoring Data	0
Treated Water Infiltration System	1
Total Inquiries	7

CEMP SUMMARY OF MONITORING September 2012 – September 2014

The CEMP has conducted the following environmental monitoring of the Eagle Mine since the start of the program in September 2012.

	Number of Samples/Events
EAGLE MINE	
Air	6
Groundwater	70
Surface Water	32
Flora/Fauna	13
Facilities	38
TOTAL EAGLE MINE	159
HUMBOLDT MILL	
Air	6
Groundwater	0
Surface Water	0
Flora/Fauna	3
Facilities	5
TOTAL HUMBOLDT MILL	14
TRANSPORTATION ROUTE	
Air	9
Groundwater	0
Surface Water	26
Noise	0
TOTAL TRANSPORTATION ROUTE	35
POWELL TOWNSHIP AIR STATION	
Particulate Matter (10 microns)	daily*
Particulate Matter (2.5 microns)	55
Metals	5
Meteorological Station	daily*
TOTAL POWELL TWP AIR STATION	60
TOTAL SAMPLES/EVENTS	268

*over 8,000 samples collected annually



The CEMP deployed the portable air monitoring equipment to collect ambient air quality data at the Mine Ventilation Air Raise (MVAR) during the Michigan DEQ required stack test on September 16.



Eagle contractor and CEMP technician Hunter King conducting fish surveys on the Salmon Trout River, September 2014.