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**To:** Ms. Mary Beth Marks – On Scene Coordinator/COR, Gallatin National Forest

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**Subject:** 2013/2014 Annual Activities Report

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## **Introduction**

The New World Mining District Response and Restoration Project entered into a long-term (20-year) operations and maintenance phase in 2012. Activities that will occur during this phase of the project are described in detail in the Long-Term Operations and Maintenance Plan (Tetra Tech, 2012) and are summarized below;

- Annual high flow (June) surface water monitoring,
- Annual low flow (September) surface water monitoring,
- Annual groundwater monitoring (July),
- Aquatics / biological monitoring (2013, 2014, and 2015),
- Area-wide reclamation / revegetation monitoring (5-year intervals beginning in 2016),
- Maintenance and erosion control (as needed),
- Preparation of an annual water resources monitoring report, and
- Preparation of an annual activities report.

Operations and maintenance activities for the 2013/2014 project year are complete. This Annual Activities Report summarizes project activities completed during the year and activities that will occur during the 2014/2015 project year.

## ***Water Resources Monitoring***

Surface water and groundwater monitoring activities were completed as scheduled. Water resource monitoring will continue in 2014 at the same locations and schedule as 2013. Total recoverable and dissolved arsenic will be added to the list of analyses for surface water samples in order to evaluate whether changing redox and pH conditions mobilize arsenic in area streams based on discussion with the Board of Environmental Review.

## ***Aquatics / Biological Monitoring***

US Forest Service (USFS) biologists completed monitoring to evaluate the presence or absence of fish in the Fisher Creek and Daisy Creek / Stillwater River drainages within the District. The first of three annual aquatic macroinvertebrate and periphyton monitoring events was also completed. Results of these monitoring events are described in detail in reports prepared by USFS (in preparation) and Confluence (2014).

Aquatic macroinvertebrate and periphyton monitoring will continue in 2014 and 2015. There are no plans to continue fisheries monitoring.

## ***Reclamation / Revegetation Monitoring***

Formal monitoring of revegetated areas is not scheduled to occur until 2016. No areas of erosion or failed plant establishment on reclaimed / revegetated areas were observed during site activities in 2013.

### ***Maintenance and Erosion Control***

Minor erosion of a run-on diversion ditch along the edge of the reclaimed waste rock pile outside of the Gold Dust Adit was observed in June 2013 and reported to the USFS who repaired the damage during August 2013. This work was not funded by the New World Response and Restoration Project budget.

Erosion issues and other maintenance concerns will be reported to USFS if they are observed during future monitoring events.

### ***Water Resources Monitoring Report***

The final water resources monitoring report was submitted to USFS in April 2014 (Tetra Tech, 2014). Data presented in the report show that 2013 monitoring results are similar to previous post-response action results and that water quality improvements have been maintained post-response. These data are discussed in greater detail in the annual water resources monitoring report.

### ***References***

Confluence Consulting. 2014. New World Mine: 2013 Macroinvertebrate and Periphyton Sampling. Data Summary Memo. April 16, 2014.

Tetra Tech. 2012. Long-Term Operations and Maintenance Plan. New World Mining District Response and Restoration Project. June 2012.

Tetra Tech. 2014. 2013 Surface Water and Groundwater Monitoring Report. New World Mining District Response and Restoration Project. April 2014.

United State Forest Service Service (USFS). Fish Community Bioassessment Study. New World Mining District Response and Restoration Project. In Preparation.