



## MEMORANDUM

**TO:** Kristina Handt, Administrator, City of Scandia

**FROM:** Jed Chesnut, Wetland/Natural Resource Specialist

**DATE:** August 26, 2014

**RE:** **Zavoral Mining and Reclamation Project – Monitoring and Inspection Report  
2014 Inspection #3 – July 28, 2014**

As per the contract (14-01) between the Washington Conservation District (WCD) and the City of Scandia (City), WCD staff performed site inspection and monitoring tasks pertaining to Technical Services of Exhibit B. This memorandum serves as a summary of applicable activities and reviews. The site inspection took place on Monday, July 28, 2014. Christina Morrison of Tiller Corporation (Tiller) was present and provided a descriptive tour of the project area. Each service area is listed below with a summary description of results.

1. Technical Service 3 – Erosion and Sediment Control Inspections
  - a. Task 1 – Site Inspection
    - i. Active mining was not occurring during the site visit.
    - ii. Silt fence that had been installed in 2013 as per the stormwater pollution and prevention plan (SWPPP) was in good shape. The silt fence throughout the project area is still effective for perimeter control.
    - iii. There was still no major land disturbing activities in the northern portion of the project area, just north of where the old access road was.
    - iv. The old access road was mostly removed; however there was still a small area of disturbed land that sloped toward the buffered area. But, since there was still a very large vegetated buffer between the land disturbing activity and the project boundary, the installation of silt fence was still deemed unnecessary. This was noted in the April and June report and is still valid.
    - v. The slopes of the old road bed had been seeded with oats and in combination with natural plant growth on the site has helped to stabilize the slopes in that area. This was noted in the June report and is still valid.
    - vi. The disturbed land near the old access road does drain along the edge of the mining area and back into the mine area. There was some erosion here, but it is inconsequential since it drains internally. This was noted in the June report and is still valid.
    - vii. There was an area along the southern project limits where a gap in perimeter control was identified in 2013. This silt fence has since been installed and was noted in the June report. Vegetation in this area, upslope from the silt fence, is now well established and is stabilizing the previously disturbed soils (see attached photo).
    - viii. In the June report, it was noted that Tiller planned to regrade the internal driveway road that runs along the south and east project limits so that it slopes inward to the mine and therefore runoff will be directed internally. This work had been completed prior to the July site inspection. Along the length of the road, Tiller graded on the mine side to create drainageways that direct and collect runoff into the mining area. This significantly reduces the potential for stormwater discharge off the mine site along the south and southeast edge of the mine (along the owner's driveway). Tiller

is leaving the silt fence in place as perimeter control for the very small area of road and edge that drains away from the mining area (see attached pictures).

2. Technical Service 4 – Threatened and Endangered Species
  - a. Task 2 – Annual Inspection of Site and Monitor T&E Listing Status of Butternut Tree  
The status of the butternut tree (*Juglans cinerea*) had been changed to “endangered” on August 19, 2013. As a result, removal of a butternut tree after August 19, 2013 would require permitting from the Department of Natural Resources. One non-diseased tree has been identified on the property. WCD verified its presence.
  
3. Technical Service 5: Reclamation Plan Review and Inspection
  - a. Task 2 – Conduct Site Inspections to Verify Implementation of the Restoration Plan
    - i. A majority of Phase 1 of the reclamation was mostly complete as of the June site visit. The site was graded, topsoil had been installed and the native prairie seed was dormant seeded in the fall/winter of 2013. There was evidence of native prairie seedlings starting to germinate; mostly what appeared to be black-eyed susans. This was noted in the June report and is still valid.
    - ii. One of the 25 transplanted white pines appeared dead during the July site inspection suggesting that it was not successfully transplanted. The trees will continue to be monitored.
    - iii. The area noted in Tiller’s annual reclamation report for 2013 as the proposed wooded transition zone (left uncut and planned to be managed) between the mine and the forest, was reviewed by City Staff, Tiller, and the National Park Service in May. Since a final decision by the City regarding this area is still pending, it was not included in the inspection. This was noted in the June report and is still valid.

This ends the reporting of WCD’s July 2014 monitoring activities. Please call me with any questions at 651-275-1136 x25.



Driveway that exits on the south side of property.

Silt fence installed in spring of 2014 where a gap in perimeter control was identified.

Previously disturbed area is now stabilized with vegetation

Road/driveway is located on the other side of these small dirt piles.

Channel to collect and direct runoff into mine



Channel to collect and direct runoff into mine



Grading to collect and direct runoff into mine



Grading to collect and direct runoff into mine



Silt fence left in place

Grading to collect and direct runoff into mine



Grading to collect and direct runoff into mine



Grading to collect and direct runoff into mine





One dead  
transplanted white  
pine.