



MEMORANDUM

TO: Kristina Handt, Administrator, City of Scandia

FROM: Jed Chesnut, Wetland/Natural Resource Specialist

DATE: June 19, 2014

RE: **Zavoral Mining and Reclamation Project – Monitoring and Inspection Report
2014 Inspection #2 – June 5, 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 Thursday, June 5, 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. During the April inspection a couple of areas with slightly damaged silt fence were noted. This damage has been sufficiently repaired. 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 (see attached photo). This was noted in the April 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.
 - 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.
 - vii. There was an area along the southern project limits where a gap in perimeter control was identified in 2013. Tiller had installed bio-rolls as sediment control with the intention of installing silt fence as soon as ground conditions would allow. This silt fence has since been installed.
 - viii. Another layer of redundant silt fence has also been installed along the owner's access road on the southern edge of the mining area. Since there is a gradual slope parallel to the silt fence in this area, there was some undercutting of the fence. Tiller plans to regrade the road so that it slopes inward to the mine and therefore runoff will be directed internally.
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.
 - ii. All 25 of the transplanted white pines had new growth (buds) suggesting that they were successfully transplanted. They 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 decision by the City regarding this area is still pending, it was not included in the inspection.

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



Old Access Road remnants

Vegetated buffer

Surface runoff directed down into mining area, not offsite.

Early growth of newly seeded prairie



Silt fence is in good condition



Biologs and silt fence in place for perimeter control. Both in functional condition



Extra layer of silt fence has been installed.

Tiller stated they are considering regrading owner's access driveway so that it tilts towards the mine and therefore redirecting runoff into the mine area.



New silt fence that
was installed this
spring

