



MEMORANDUM

TO: Kristina Handt, Administrator, City of Scandia

FROM: Jed Chesnut, Wetland/Natural Resource Specialist

DATE: April 16, 2014

RE: **Zavoral Mining and Reclamation Project – Monitoring and Inspection Report
2014 Inspection #1 – April 2, 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 Wednesday, April 2, 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 relatively good shape. There were a couple of areas with slightly damaged silt fence. This damage was due to plowing snow against the silt fence. That activity was ceased during the winter when Tiller determined that it was not effective for maintaining site access. The minor damages will be repaired as soon as possible. The silt fence appears to have maintained its integrity and is still effective for perimeter control; there were just a couple of small rips in the fence material.
 - 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).
 - v. WCD recommended seeding the slopes of the old road bed remnants with oats, if the area was going to be left alone for more than a couple weeks. This would help stabilize the slopes until Tiller is ready to finalize the grades in that area.
 - vi. Tiller noted that the disturbed land, as described above, drained along the edge of the mining area and back into the mine area. Christina Morrison observed flowing water along this course during a site visit in late March. See attached photo for more information.
 - 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. The ground was still frozen during the April inspection, but Tiller remained committed to installing the silt fence as soon as possible.
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 asked Tiller to reflagging the tree so that it would be easily identified. Tiller’s consultant did mark the tree and its presence was verified.

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 April 2nd site visit. The site was graded, topsoil had been installed and the native prairie seed was dormant seeded in the fall/winter of 2013. Many of the transplanted white pines exhibited varying degrees of needle discoloration; however the cause of this is currently undetermined since the growing season has not yet started.
 - ii. 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. Since the City will most likely be viewing this area on a separate site visit as part of the Annual Operating Permit, no specific detail is provided here. A photo of the area is attached for information.

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

Remnants of old road, could erode into buffer on right

HWY 95 in background

Row of transplanted pines

New access gate

Large vegetated buffer between mine and property boundary/offsite resources.



Approximate runoff
flow paths back
into the mine

Phase I
Restoration Area



Phase I Reclamation Area

Engineered topsoil



Wooded transition zone: proposed in the 2013 Annual Reclamation Report to be left standing as an alternative to the original plan of clear-cutting and converting to grassland.

