



MEMORANDUM

TO: Kristina Handt, Administrator, City of Scandia

FROM: Jed Chesnut, Wetland/Natural Resource Specialist

DATE: December 8, 2014

RE: **Zavoral Mining and Reclamation Project – Monitoring and Inspection Report
2014 Inspection #5 – October 16, 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 October 16, 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. Please note: a September inspection was not completed since the site was inactive.

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 previous 2014 reports 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. Vegetation was fully established. This was noted in the previous 2014 reports 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 previous 2014 reports 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. This was noted in the previous 2014 reports and is still valid.
 - viii. In the July report, it was noted that Tiller regraded the internal driveway road that runs along the south and east project limits so that it sloped inward to the mine and therefore runoff would be directed internally. The diversion drainage ways appeared to be functioning and were directing stormwater runoff internally to a ponding area. (see attached picture).

- ix. The silt fence located on the outside of the screening berms on the west side of the mine was inspected. The vegetation has become fully established in this area and therefore the silt fence is no longer necessary here. The WCD would support a recommendation by the City for the removal of the silt fence (shown in the attached picture) since there is no near-term plans for land disturbing activities on the outside edge of the screening berms. If future land disturbing activities were commenced, then the silt fence would need to be re-installed.
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 during the October site review.
 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. Seedlings of native grasses were observed during the October review. Based on the progress in 2014, it appears that the native prairie in Reclamation Phase 1 is establishing well. Confirmation of success will occur at the end of the monitoring period as required by the permit.
 - ii. The WCD received Tiller’s 3rd Quarter Reclamation report on October 17, 2014. Vegetation management has been ongoing for 2014 and has included spot herbicide treatments and mowing. The monitoring report was consistent with site observations during the 2014 inspections.
 - iii. 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. This was noted in the previous 2014 reports and is still valid.
 - iv. 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. A revised plan for the transition zone was approved by the City on August 19, 2014. Implementation was to begin in the fall. The transition zone will be monitored starting in 2015 as part of WCD’s inspection activities.

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

Internally draining swale.



Silt fence could be removed





Reclamation Phase 1