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MEMORANDUM

TO: Kristina Handt, Administrator, City of Scandia

FROM: Jed Chesnut, Wetland/Natural Resource Specialist

DATE: June 11, 2015

RE: **Zavoral Mining and Reclamation Project – Monitoring and Inspection Report**
2015 Inspection #3 – May 28, 2015

As per the contract (15-01) 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 May 28, 2015. 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 was still effective for perimeter control.
        iii. During the March site visit stockpiles of very fine silt material were being blown off-site due to the windy conditions. This has been corrected. Tiller has mulched, crimped, and seeded the area.
        iv. Nearly the entire mine site now drains internally, with one exception where the landowner's driveway exits the mine area and begins its descent towards the river. This area had sufficient perimeter control for erosion and sediment control.
        v. The old access road has been completely removed and the northern area of the mine had been "finished-graded" in preparation for Reclamation Phase II. The entire northern boundary of the active mine area slopes and drains internally. This was noted in the March report and is still valid.
        vi. A small area of exposed soils was observed along the east project limit. The soils had experience some erosion, however the silt fence was functioning properly to contain the sediment. This area will be checked during each inspection to ensure that sediment does not discharge out of the mine area. This area was checked during the May site visit and is not an issue at this time.

2. Technical Service 4 – Threatened and Endangered Species
    a. Task 1 – Conduct Site Reviews to Document Compliance with Blanding's Turtle SOP
        i. The site was in compliance with the mitigation measures as listed in Appendix C of the Zavoral Mine FEIS.
    b. Task 2 – Annual Inspection of Site and Monitor T&E Listing Status of Butternut Tree
        i. 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, outside of the mine limits. WCD verified its presence during the May site review.

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3. Technical Service 5: Reclamation Plan Review and Inspection
    a. Task 2 – Conduct Site Inspections to Verify Implementation of the Restoration Plan
        i. Grading of Reclamation Phase II had begun and the northern section of Phase II was at final grade and ready for the topsoil.
        ii. One of the 25 transplanted white pines appeared dead during the 2014 site inspections suggesting that it was not successfully transplanted. This tree was checked and has no indication of live growth. It is dead and therefore was not successfully transplanted.
        iii. A revised plan for the wooded transition zone (left uncut and planned to be managed) between the mine and the undisturbed forest was approved by the City on August 19, 2014. Initial implementation had begun including selective removal of non-native herbaceous vegetation. The transition area had been planted prior to the May inspection. Tiller planted a significant number of trees and shrubs along the wooded edge of the mine in accordance with the transition zone plan (see attached photos).
        iv. A significant amount of the required organic soil and mixed material was stockpiled on site and ready for final placement into the reclamation areas.
        v. Based on observations during this inspection, it appears that the native prairie in Reclamation Phase 1 is establishing well. Native forb species were abundant and dominant throughout the reclamation area (see photos). Native grasses were germinating, as well. Clover (weed species) was abundant in several areas and Tiller's consultant was actively performing weed control through removal by hand or chemical treatments. Confirmation of long term success will occur at the end of the monitoring period as required by the permit.

This ends the reporting of WCD's May 2015 monitoring activities. Please call me with any questions at 651-330-8220 x25.

Planted shrubs and trees