Monthly Progress Report

November 19, 2024

To: Sarah Penfield, Washington State Department of Ecology

From: Rebecca Desrosiers and Nicole Forsberg, Anchor QEA

cc: Kristin Gaines and Cheryl Vezzani, Northwest Alloys, Inc.

Re: Former Reynolds Metals Remediation – Monthly Progress Report, October 2024

Per Section XI of the Consent Decree (CD) issued by the State of Washington Cowlitz County Superior Court on December 14, 2018, Anchor QEA, is providing the following monthly progress report on behalf of Northwest Alloys, Inc. (NWA). This monthly progress report describes the actions taken during the previous month to implement the requirements of the CD. This monthly progress report also summarizes construction progress as outlined in the *Construction Quality Assurance Plan*, Appendix O to the *Final Engineering Design Report, Version 2* (Final EDR; Anchor QEA 2023), approved by the Washington State Department of Ecology (Ecology) on April 14, 2023.

A. List of on-site activities that have taken place during the month

A photograph log of construction activities is included in Attachment A.

- Installation of groundwater monitoring wells
 - Cascade Environmental, with oversight from Anchor QEA, began installation of groundwater wells for long-term monitoring
- Installation and maintenance of temporary controls and facilities
 - Installation, maintenance, and removal of temporary erosion and sediment control (TESC) best management practices (BMPs)
 - Envirocon, Inc., 1 performed site-wide dust suppression control.
 - Envirocon removed silt fencing from the perimeters of the East Landfills.
 - Observations and monitoring of performance for TESC BMPs
 - Envirocon performed daily stormwater inspections, as documented in their construction stormwater site inspection forms, and maintenance on existing TESCs.
 - Changes or improvements to temporary access and staging facilities
 - Envirocon received, inspected, and stockpiled import topsoil, drainage layer material, crushed surfacing gravel material, and 2- to 4-inch crushed rock in the East Staging Area.

¹ Multiple entities were hired by NWA to complete the cleanup. Envirocon is the prime contractor hired by NWA to conduct the remediation work. They have hired several subcontractors who are sometimes mentioned in this report, including Northwest Hydro-Mulchers, Inc.; Hargrove Fence Co.; and Northwest Linings & Geotextile Products, Inc. Anchor QEA is assisting NWA in implementing the *Construction Quality Assurance Plan* (Appendix O to the Final EDR [Anchor QEA 2023]).

- A total of 125 super sacks of activated alumina were delivered to the East Staging Area.
- Envirocon mixed Site Unit (SU) 3 reactive backfill in the East Staging Area.
- Clean material harvested from East Landfill No. 2 slopes was transported to the West Staging Area and used for final grading and restoration within the staging area. The West Staging Area was hydroseeded after grading was completed.
- Temporary facilities
 - No new temporary facilities were installed.
- Compliance with permit requirements for managing remediation water
 - No remediation water was collected or processed during this period.
- Deviations from project design documents
 - There were no deviations from project design documents.

Ground improvement

Work was completed in June 2023.

• Stormwater infrastructure

 Envirocon completed installation of the corrugated polyethylene (CPE) pipe and steel casing connecting the East Landfill No. 2 perimeter ditch to the 12-inch storm drain along Berth Road.

Excavation, consolidation, and backfilling

- West Landfill, Site Unit 2, and U-Ditch
 - Work within the West Landfill and SU2 was completed in September 2023.
 - Final regrading of the U-Ditch was completed in July 2024.
 - Northwest Hydro-Mulchers completed a hydraulic topsoil application over the West Landfill in September 2024.
 - Northwest Hydro-Mulchers completed a hydroseed application within the U-Ditch.
 - Hargrove Fence Co. completed reinstallation of the chain-link fencing between the U-Ditch and the Closed Black Mud Pond.

- Site Unit 8, Site Unit 10, and East Landfill No. 1

- Work in SU8 and SU10 was completed in September 2023.
- A temporary cap of East Landfill No. 1 was completed in September 2023.
- A final survey of the seven settlement monuments within East Landfill No. 1 was completed by Envirocon in April 2024.
- Northwest Linings & Geotextile Products completed installation of liner and geotextile components of the East Landfill No. 1 in June 2024.
- Envirocon completed the East Landfill No. 1 perimeter ditch construction in September 2024.

 Northwest Hydro-Mulchers completed hydroseed application over the top of East Landfill No. 1 and the perimeter ditch berm.

Site Units 3 through 5 and East Landfill No. 2

- Site Units 3 through 5
 - Envirocon completed placement of reactive backfill and began placement and compaction of select fill over reactive backfill in SU3.
 - Envirocon completed placement and compaction of materials within SU5 and SU4 (excluding the portion of SU4 within the limits of SU3), including the following:
 - Placement and compaction of select fill over reactive backfill
 - Placement and compaction of crushed gravel surface material over select fill

• East Landfill No. 2

- Envirocon completed grading of the landfill perimeter ditches and began construction of the access road along the south and east side of the landfill.
- Northwest Linings & Geotextile Products completed deployment of non-woven geotextile over drainage layer material.
- Envirocon completed placement of material components of the low permeability cap, including the following:
 - 12 inches of drainage layer material over the geosynthetic clay liner
 - 6 inches of general fill over non-woven geotextile
 - 6 inches of topsoil over general fill
- Northwest Hydro-Mulchers completed hydroseed application over the top of East Landfill No. 2 and the perimeter ditch berm.

- Site Unit 9, Site Unit 11, and Diesel Aboveground Storage Tank (AST) Area

• Work was completed in October 2023.

Cap placement

Refer to the previous West Landfill and East Landfill discussions.

• Permeable reactive barrier

- Envirocon continued housekeeping and restoration work within the limits of the permeable reactive barrier (PRB).
- Northwest Hydro-Mulchers completed hydroseed application over the PRB area.
- Hargrove Fence Co. completed reinstallation of chain-link fencing between the PRB and the Closed Black Mud Pond.

B. Detailed description of any deviations from required tasks not otherwise documented in project plans and specs or amendment requests

None.

C. Description of all deviations from the Scope of Work and Schedule (Exhibit C) during the current month and any planned deviations in the upcoming month

None.

D. For any deviations in schedule, a plan for recovering lost time and maintaining compliance with the schedule

None.

- E. Summary of all environmental data received by Owner during the past month None.
- F. (At Ecology's request) All raw data including laboratory analyses and an identification of the source of the sample

None.

G. A list of deliverables for the upcoming month if different from the schedule and a list of deliverables submitted during October.

Table 1
Deliverables for Upcoming Month or Currently Pending

Deliverable	Submittal Date
Compliance Monitoring and Contingency Response Plan	December 1, pending Ecology comments on SQAPP

Table 2
Deliverables Submitted in October

Deliverable	Submittal Date
None	N/A

H. Reference

Anchor QEA, 2023. *Final Engineering Design Report, Version 2*. Former Reynolds Metals Reduction Plant – Longview. Prepared for Northwest Alloys, Inc. March 2023.

Attachment A Construction Photographs

Photograph 1 East Landfill No. 2



Cap installation: placement of drainage layer material, non-woven geotextile, general fill, and topsoil

Photograph 2 East Landfill No. 2



Northern perimeter ditch construction and hydroseed placement

Photograph 3 East Landfill No. 2



Access road construction between landfill and railroad (facing east)

Photograph 4 East Landfill No. 1



Hydroseeding and silt fence removal

Photograph 5 East Staging Area



Mixing reactive backfill for placement into SU3

Photograph 6 Site Unit 3



Placement of select fill over reactive backfill

Photograph 7 Site Unit 4



Compaction of crushed surfacing gravel material over select fill

Photograph 8 Site Unit 5



Compaction of crushed surfacing gravel material over select fill

Photograph 9 Permeable Reactive Barrier



Topsoil placement and restoration along segment 1

Photograph 10 Permeable Reactive Barrier



Hydroseed placement and chain-link fence reinstallation along segment 2