



Curtis Creek Gravel Pit - Hegge Reclamation Plan Narrative December 5, 2025

General Reclamation Plan for Gravel Pit Operations

This reclamation plan is prepared in accordance with the **Idaho Dredge and Placer Mining Protection Act** and **IDAPA 20.03.02 – Rules Governing Reclamation of Surface Mined Areas**. The plan describes measures to stabilize disturbed areas, protect water quality, and return mined lands to a beneficial post-mining use.

Drainage Control and Erosion Management

A drainage control map will be provided showing the location of all BMPs. Best management practices (BMPs) to control erosion and stormwater runoff include:

- BMP 12 – Sand Filter
- BMP 23 – Extended Detention Basin
- BMP 25 – Presettling/Sedimentation Basin
- BMP 41 – Stabilized Construction Roads and Staging Areas
- BMP 43 – Dust Control
- BMP 44 – Stockpile Management
- BMP 64 – Fiber Rolls
- BMP 65 – Silt Fence
- Construction of interceptor ditches and berms around the pit perimeter to divert clean water away from disturbed areas.
- Use of sediment basins, silt fences, and straw wattles to capture and slow runoff.
- Temporary stabilization of stockpiles with cover crops, mulch, or erosion control blankets when needed.
- Seeding and revegetation of reclaimed areas as final stabilization.

Water Quality Impacts and Management

Foreseeable impacts include:

- Increased turbidity during precipitation events.
- Sediment transport into adjacent water bodies if not controlled.
- Minor risks of hydrocarbon contamination from fuel or equipment leaks.

Water management measures include:

- Directing all pit drainage into sediment ponds & sand filters for settling
- Maintaining secondary containment around fuel storage and refueling areas.
- Routine water quality monitoring at discharge points as required by IDEQ.
- Implementing spill response procedures consistent with IDL requirements.

Post-Closure Water Handling

Following closure:

- Sediment ponds will be abandoned in place and continue to filter out sediment. (3:1 or flatter).

Road Reclamation

All haul and access roads not designated for long-term use will be reclaimed. Road reclamation activities include:

- Scarifying and regrading roadbeds to match natural contours.
- Installing water bars on slopes to break runoff velocity.
- Replacing topsoil and revegetating road surfaces with native grasses.
- Removal of culverts unless needed for permanent access.

Revegetation Plan

Topsoil Salvage & Storage:

- Topsoil will be stripped prior to mining and placed in bermed, seeded stockpiles for future use.
- Interim cover crops (e.g., sterile wheatgrass) will be planted on stockpiles to reduce erosion and preserve soil viability.

Soils & Climate:

- Per USDA's Web Soil Survey, the existing soils and their respective slopes on site are:
 - 28 – Lenz Rock Outcrop Association, 20-65% slopes; Ksat – 1.98-5.95 in/hr
 - 35 – Pend Oreille Silt Loam, 5-45% slopes; Ksat – 0.57-1.98 in/hr
 - 15 – Hoodoo Silt Loam, 0-1% slopes; Ksat – 0.43-2.13 in/hr
 - 2 – Bonner Gravelly Ash Silt Loam, 0-4% slopes; Ksat – 0.43-2.13 in/hr
- Soils are generally sandy loam to gravelly loam.
- Final reclaimed slopes will remain the same as they are during the excavations (1:1; H:V), as it is on solid rock.
- Local precipitation averages 28–32 inches annually, primarily in winter/spring, according to NOAA's "Climate at a Glance" and State Summaries for Idaho.

Seed Mix (typical for North Idaho gravel pit reclamation, IDL-approved):

- Bluebunch Wheatgrass – 6 lbs/acre
- Slender Wheatgrass – 6 lbs/acre
- Idaho Fescue – 4 lbs/acre
- Sandberg Bluegrass – 2 lbs/acre
- Lewis Flax (for diversity/pollinators) – 2 lbs/acre

Application Method:

- Drill-seeding in fall to promote natural cold stratification.
- Broadcast or hydroseeding on steep or rocky slopes.
- Fertilizer: 150–200 lbs/acre of balanced N-P-K (based on soil tests).
- Mulch: 1.5–2 tons/acre certified weed-free straw.

Reclamation of Ponds and Process Areas



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- Sediment ponds will be dewatered, regraded, and either filled or allowed to persist as wetlands, depending on drainage conditions and landowner preference.
- Excavated process areas will be backfilled, contoured, and covered with topsoil to support vegetation.

Underground Openings

No underground mine openings are planned for this gravel pit.

Reclamation Cost Estimate

In accordance with IDAPA 20.03.02.120, the cost of third-party reclamation is estimated to include:

- Mobilization/demobilization of equipment
- Regrading & contouring disturbed ground
- Seed, fertilizer, mulch, and soil amendments
- Erosion control BMP installation
- Labor, equipment, and materials
- Contractor profit and overhead
- Insurance and administration

Total estimated cost: \$5,000–\$7,500 per acre, depending on site conditions. For a 22.6-acre disturbance, the anticipated third-party reclamation cost is approximately \$113,000.