



2013 Mined Land Reclamation Awards Winner Profiles

Outstanding Reclamation

Winner: Oregon Resources Corporation

Site: Chromite Sands, Coos County

Media Contact: Aaron Powell, 541-808-5018

The Outstanding Reclamation Award recognizes operations that go beyond the minimum requirements of the DOGAMI-approved reclamation plan or that use innovative techniques to achieve successful reclamation.

Oregon Resources Corporation won the 2013 Outstanding Reclamation Award for creative and thoughtful efforts to minimize impacts to surrounding landowners and complete successful reclamation at its heavy minerals mining site in Coos County.

Chromite, along with gold and other heavy minerals, was discovered along southern Oregon beaches in the early 20th century. It was first mined during World War II in the sand terraces above the beach north of Bandon in Coos County.

The Oregon Resources Corporation (ORC) project is located on Weyerhaeuser property, 12 miles south of Coos Bay. ORC began exploration of the area in the early 1990s. The right group of investors and operators came together in 2006, and an operating permit to begin full mining operations was issued in 2010. Mine operations began in early 2011.

During the mining process, soil is salvaged separately and stockpiled for final reclamation. Overburden is set aside to expose the mineral-rich sands. The sands are excavated and hauled to a processing plant on the south end of Coos Bay. The minerals are removed from the sands with fluid spiral separation, electro-static plates, and high-intensity induced-roll magnetic separation. Up to 70 percent of the processed material is then returned to the excavation area and backfilled. Overburden and soils are replaced and re-vegetated. This type of concurrent reclamation dramatically reduces the area of mine related disturbance.

Reclamation is particularly difficult at this site, with challenges that include shaping of stable slopes with relatively loose material and then establishing a vegetative cover before the loose material erodes. Once an area has been mined, stored overburden is replaced and graded to the required final grade. Soils that have been stockpiled separately are then replaced to a minimum depth of 18 inches. Large and medium woody debris from Weyerhaeuser logging operations are then placed to help stabilize slopes and provide structure. The area is then hydro-seeded in an approved native grass mixture and mulched.

Control of invasive species is also a major concern and an ongoing effort. The primary invasive species is gorse; an aggressive gorse control program is in place.

Voluntary Reclamation

Winner: Triple C Redi-Mix, Inc.

Site: Triple C Pit, Baker County

Media Contact: Cass Vanderwiele, 541-523-6648

The Voluntary Reclamation Award recognizes operators who perform reclamation on lands that have been deemed exempt from the reclamation law.

Triple C is again being recognized with a Voluntary Reclamation Award for reclamation of old, eyesore excavations into crop-producing agricultural land.

The Triple C property is located northeast of Baker City with 70 acres permitted for sand and gravel mining. The site has operated since 1989; prior to that date minor amounts of material were mined by Baker County and ODOT.

In 1995 Cass Vanderwiele, owner of Triple C, began backfilling several old excavations on the northern end of his property. These excavations, mined prior to 1972, were exempt from reclamation requirements. Over the years, the shallow excavations had become overgrown with weeds and blackberries. Concrete, tires and other debris were dumped in the excavations. During the irrigation season from late May to early June, the ponds would fill with up to five feet of water and become mosquito breeding grounds.

Reclamation began with clearing the invasive vegetation. Thousands of cubic yards of fill material were then hauled in to level the ground. Soil material from the active mine site was then spread as a final cover. The ponds being created by the active mining will be developed into wildlife habitat as final reclamation.

Approximately six to seven acres have been returned to agricultural production by this reclamation project. Peas were planted as the first crop in Spring 2002. This crop will be tilled into the soil as a soil-building exercise next fall. Alfalfa will ultimately be planted.

Beyond their voluntary reclamation efforts, Triple C has developed numerous innovations to improve their operation, including:

- Multiple methods of water control have been implemented. Sumps were installed throughout the yard to collect storm water and direct this water to the excavations. Overburden strippings with high clay content are used to seal the pit wall to reduce the amount of ground water infiltration. This reduces the amount of water that must be pumped from active excavations but also reduces the slope angle of the excavation wall.
- Triple C is actively backfilling mined out areas. It was discovered that using broken concrete as the first layer of backfill dramatically increased the infiltration rate of sitting storm water at the surface, which helped reduce the amount of turbid water generated on site.
- On an annual basis Triple C alters the truck traffic within the permit boundary to lessen the potential impact on nesting geese.

Outstanding Operator Award

Winner: Southern Oregon Ready-Mix

Site: Pit No. 2, Jackson County

Media Contact: Ron Andrews, 541-664-1954

The Outstanding Operator Awards recognize operations that have done an excellent job of mine development and/or operations on a daily basis. These operations that go beyond regulations to protect surface and ground water, to protect adjacent natural resources, to protect adjacent properties, and use innovative techniques to minimize adverse impacts.

Southern Oregon Ready-Mix (SORM) is being recognized for their efforts to rectify problems inherited from past operators and closely working with agencies to insure future compliance, completing concurrent reclamation next to adjacent farm ground and minimizing the potential impacts to adjacent landowners.

The site is located five miles north of Central Point along Bear Creek, upstream from the confluence with the Rogue River. Mining of sand and gravel began at this site in 1987.

Through the site's mining history, operations have been checkered with DOGAMI and Department of State Lands regulation violations. The permit was transferred to SORM in 2009, and the company quickly changed the environment at this sand and gravel operation and implemented best management practices to protect adjacent natural resources and reduce the potential for off-site impacts. Efforts included:

- SORM relocated the process water ponds away from Bear Creek. The ponds were reconstructed following best management practices to increase capacity and the margin of safety. A comprehensive storm water control plan was compiled and implemented. Final reclamation of the Pit No. 1 excavation was completed, much to the appreciation of the adjacent farmer.
- The Pit No. 1 excavation had been excavated deeper than originally allowed, in-water slopes were steeper than allowed, water quality violations were documented on several occasions, and Bear Creek had breached the berm separating the creek and pit in 2006. Stabilizing Pit No. 1 was an important aspect of bringing this site back into compliance with the DOGAMI permit. Re-configuring the processing area greatly reduces the potential for impacts to Bear Creek. This site has not discharged stormwater the past two winters.
- In 2010, SORM submitted an amendment application to DOGAMI in order to address deficiencies in the existing operating and reclamation plan. A flood plain analysis was completed to determine potential effects to the existing facilities during a flood event. From this analysis a flood berm was designed and constructed to prevent a 100-year event from overtopping the mine site. To further protect this site an engineered flood bypass was constructed to convey flood waters higher than the calculated 100-year event around the mine operations. Stabilizing this floodplain site dramatically decreases the potential for channel changes of Bear Creek which could adversely affect landowners both up and down stream. A fish egress channel was also designed and constructed to allow fish access out of the mine ponds if flood waters do enter the site.

- A detailed post-mine revegetation plan was also part of the 2010 amendment. Final reclamation at this site will create fish and wildlife habitat as open-water ponds. Native plants will be planted in wetland, riparian, and upland environments through the site.

Outstanding Operator, Division II

Winner: Western Mine Development LLC

Site: Twin Lake Ranch, Baker County

Media Contact: Philip Wirth, 971-241-9202

The Outstanding Operator Awards recognize operations that have done an excellent job of mine development and/or operations on a daily basis. The Division II Award recognizes “mom and pop” operations that go beyond regulations to protect surface and ground water, to protect adjacent natural resources, to protect adjacent properties, and use innovative techniques to minimize adverse impacts.

Western Mine Development’s excellent initial planning and development, along with their day-to-day operations, help ensure protection of natural resources adjacent to their Twin Lake Ranch gold mining site.

The Twin Lake Ranch site is located at the historic China Town settlement along Clark’s Creek, southwest of Bridgeport in Baker County. Mining along Clark’s Creek goes back to the 1880s when the valley was dredged at least two separate times. Dredge piles still line the creek bed.

Modern mine operations began in 2007, with an operating permit issued for full-scale mining in 2008. Disputes between the then-operator and landowner resulted in a loss of lease and permit transfer.

Western Mine Development assumed the lease and the DOGAMI permit in 2011. Philip Wirth, mine manager for Western Mine, began his career in the aggregate industry in the Willamette Valley. Gold fever brought him to Eastern Oregon.

Backed by Wirth’s vast mining experience and sound business sense, Western Mine took steps to improve relations with the landowner and protect natural resources. Notable efforts include:

- Western Mine had a surveyor monument all corners of the permit boundary and mark the boundary in the field to ensure all operations were within the boundary. This is now a requirement for all new mine operations. Wetlands were also identified and buffers marked in the field to protect these surface water features.
- During the vital initial exploration phase, Western Mine hired a seismic crew to run cross sections across the property to accurately determine the depth to bedrock, and subsequently the depth to the pay zone, which is a relatively thin layer sitting above the bedrock.
- A state-of-the-art processing plant was constructed on site, along with process water ponds to contain all process water on site. The processing plant does not use chemicals to separate the gold from the alluvial material. Gravity separation is used after the finer material is segregated away from the coarse excavated materials.
- Soil material is stripped and salvaged separately from overburden for final reclamation. As the excavation progresses, overburden is used to backfill the mined out area in a process called concurrent reclamation. Two feet of soil material is then spread and the area planted in a Natural Resources Conservation Service approved weed free pasture grass mixture. The area is being reclaimed back to livestock grazing.

Good Neighbor Award

Winner: Latham Excavation Inc.

Site: Johnson Road Pit, Deschutes County

Media Contact: Levi McClain, 541-3382-8267

The Good Neighbor Award recognizes those operators who go the extra mile to insure adjacent landowners are not adversely impacted by the mine operation or who look for ways to benefit the community at large.

Latham Excavation was honored with the 2013 Good Neighbor Award for efforts to reduce off-site impacts and complete interim and concurrent reclamation on previously disturbed areas at the Johnson Road Pit in Deschutes County.

An operating permit was first issued by DOGAMI for this site, located south of Tumalo above the Deschutes River, in 1981. The operating permit was transferred to Latham Excavation in 2006, and has been maintained since.

Latham Excavation has taken a number of actions to reduce off-site impacts. The area of active excavation is on the east side of the highwall along the south side of the permitted boundary. Latham Excavation has used overburden material stockpiled on site to begin the backfilling along the base of the southern highwall, in order to stabilize the slope. At final reclamation this slope will be covered with a soil layer and seeded in a native grass mixture.

An eight-acre area along the northern property line that had been disturbed by a previous operator has been successfully stabilized and re-vegetated. This work was accomplished to reduce the generation of dust, and to re-establish a 100-foot setback from mine activity and the northern property line.

Oregon Plan Award

Winner: Weyerhaeuser Company

Site: Kenstone Quarry and Koostone Quarry, Coos County

Media Contact: Al Alexander, 541-269-9336

The Oregon Plan Award recognizes operations that voluntarily create or enhance salmonid habitat within a permitted area or that volunteer equipment for offsite use.

Weyerhaeuser Company is being honored with the Oregon Plan Award for work accomplished at Kenstone Quarry and Koostone Quarry to improve the operation of the sites, protect water quality, and enhance fish and wildlife habitat.

The Kenstone Quarry is located eight miles east of North Bend along Kentuck Creek, in Coos County. The Koostone Quarry is located five miles east of Coos Bay along Bridge Creek. Mining began at these sites in the mid-1960s. In 2010, Weyerhaeuser purchased this property and transferred the DOGAMI operating permits.

Control of storm water has been a primary concern since the early 1990s. Permits were obtained in 1997 from the Department of State Lands to divert Kentuck Creek away from the active mine operation. The storm water control system has been modified and improved upon as the quarry has expanded.

When Weyerhaeuser took over operations in 2010, the storm water control system was not performing as well as it could have. Weyerhaeuser immediately began an upgrade program. The first order of business was an upgrade of the interior access and haul roads. Cross-drain culverts and double ditches were installed and constructed. All bare soil areas were seeded in a cover crop and mulched. This work has dramatically improved the storm water control system for the site.

Weyerhaeuser also constructed a box culvert on a tributary of Kentuck Creek, which not only reduced the potential for run off from the road to the creek, but also opened up access to one mile of salmonid habitat and spawning gravels. Within two years of this access Coho salmon have been documented as spawning within the new area, inside of the permit boundary.

Similar activities have occurred along Bridge Creek as well. Culverts have been removed and replaced with bridges. Debris has been removed from the stream channel, and riparian species have been planted. Large woody debris has been placed in Bridge Creek to add structure. Almost immediately fish moved into the new habitat made accessible by the removal of culverts.

A new sediment retention system was constructed that now receives all storm water from the quarry operations. With just one discharge point the job of monitoring and sampling storm water discharge has been simplified. No tested parameters in the storm water discharge from the Kenstone quarry have exceeded state standards since 2010.