VICKI S. MCCONNELL, STATE GEOLOGIST



NEWS RELEASE: August 29, 2012

# Mined Land Reclamation Awards announced by the Oregon Department of Geology and Mineral Industries

Portland, Oregon: Each year the Mineral Land Regulation and Reclamation program of the Oregon Department of Geology and Mineral Industries, with an independent panel of experts, selects specific mine sites and operators to receive awards for outstanding reclamation, mine operation and fish habitat protection. This year's awards, based on an operator's performance during the 2011 calendar year, were presented at the Oregon Concrete and Aggregate Producers Association (OCAPA) Annual Meeting, June 29, 2012, at Eagle Crest Resort in Redmond, Oregon.

#### Mined Land Reclamation Award winners are:

- 2011 Outstanding Reclamation Plum Creek Timberlands LP, Siletz George Quarry, Lincoln County
- 2011 Good Neighbor Award Da-Tone Rock Products, Joe Hall Pit, Curry County
- 2011 Outstanding Operator Cornerstone Industrial Minerals Corporation, Tucker Hill Operation, Lake County
- 2011 Outstanding Operator Division II Kauffman Crushing, Inc., Eckman Creek Quarries, Lincoln County

Detailed information and site photographs for the winners can be found in this extended news release: <u>http://www.oregongeology.org/pubs/nr/press-release-2012-08-29b.pdf</u>

The Mineral Land Regulation and Reclamation program at DOGAMI serves as a steward of the state's mineral production, while encouraging best practices within the industry. MLRR's goals include environmental protection, conservation, effective site reclamation, and operational guidance regarding other engineering and technical issues. Contact Gary Lynch, Assistant Director of Regulation, MLRR, at 541-967-2053 for more information.

The Oregon Department of Geology and Mineral Industries is an independent agency of the State and has a broad responsibility in developing a geologic understanding of natural hazards. We then make this information available to communities and individuals to help reduce the risks from earthquakes, tsunamis, landslides, floods and volcanic eruptions. We assist in the formulation of state policy where an understanding of geologic materials, geologic resources, processes, and hazards is key to decision-making. The Department is also the lead state regulatory agency for mining, oil, gas and geothermal exploration, production and reclamation.

Learn more about Oregon's geology online:

DOGAMI's mission is to provide earth science information and regulation to make Oregon safe and prosperous.

Media contact: Carol DuVernois

carol.duvernois@state.or.us

800 NE Oregon St., #28, Ste. 965 Portland, OR 97232 Phone: (971) 673-1555 Fax: (971) 673-1562 www.OregonGeology.org

Mineral Land Regulation and Reclamation Program 229 Broadalbin St. SW Albany, OR 97321 Phone: (541) 967-2039 Fax: (541) 967-2075 info@mlrr.oregongeology.com Gary W. Lynch, Assistant Director

Coastal Field Office 313 SW 2nd, Ste. D Newport, OR 97365 Phone: (541) 574-6642 Fax: (541) 265-5241 Jonathan C. Allan, Coastal Team Leader

Eastern Oregon Field Office Baker County Courthouse 1995 3rd St., Ste. 130 Baker City, OR 978149 Phone: (541) 523-3133 Fax: (541) 523-5992 Jason D. McClaughry, Field Geologist

Nature of the Northwest Information Center 800 NE Oregon St., Ste. 965 Portland, Oregon 97232 (971) 673-2331 Email: info@naturenw.org Web: www.NatureNW.org Donald J. Haines, Manager

# August 31, 2012 Mined Land Reclamation Awards

Based on an operator's performance during the 2011 calendar year.

# 2011 Outstanding Reclamation— Plum Creek Timberlands, Siletz George Quarry, Lincoln County Contact: Todd West, PO Box 216, Toledo, OR 97391, 541-336-6238

This award recognizes operators who have exceeded the requirements of the DOGAMI-mandated reclamation plan, have exhibited creative measures to complete successful mine reclamation, and provide a stable, beneficial post-mine use.

The Siletz Gorge quarry was permitted by Georgia Pacific Corp. in 1977 as a Grant of Limited Exemption (LE) and later under a full operating permit in 1992. This is an upland quarry adjacent to the Siletz River. The quarry is located four miles north of Logsden on Georgia Pacific lands. Two acres were determined to be eligible for exempt status and did not require reclamation. In 2001 a corporate merger consolidated Georgia Pacific and Plum Creek. Mining concluded in 1998 and reclamation was completed in 2002. The DOGAMI file was closed in December 2002.

Because of the proximity of the quarry to the Siletz River, stormwater control measures were very important during the operation of the quarry and completion of reclamation.



A total of six acres were disturbed by the mine operation over the years. The excavation was a side hill cut with a 20-foot-wide bench established on the 60-foot highwall. Now, red alders have established along the base of the highwall as well as on the bench. Cliff swallows have established nests in the vertical face of the highwall.

Before the quarry was established, a seasonal drainage was present on this site. Plum Creek has re-established this drainage and created a pond for wildlife habitat on the quarry floor. The drainage and pond system effectively prevents sediment from leaving the site during rain events. Wetland areas have been established where they did not exist before. Oversized material was placed along the county road to prevent entry by vehicles onto the reclaimed area.





#### Media contact: Carol DuVernois

carol.duvernois@state.or.us

800 NE Oregon St., #28, Ste. 965 Portland, OR 97232 Phone: (971) 673-1555 Fax: (971) 673-1562 www.OregonGeology.org

Mineral Land Regulation and Reclamation Program 229 Broadalbin St. SW Albany, OR 97321 Phone: (541) 967-2039 Fax: (541) 967-2075 info@mlrr.oregongeology.com Gary W. Lynch, Assistant Director

Page 1 of 8



DOGAMI nominated Plum Creek for completing reclamation at the Siletz Quarry that exceeded that required by the approved operating and reclamation plan. Adjacent natural resources have been protected and new habitat has been created.



#### Media contact: Carol DuVernois

carol.duvernois@state.or.us 800 NE Oregon St., #28, Ste. 965 Portland, OR 97232 Phone: (971) 673-1555 Fax: (971) 673-1562 www.OregonGeology.org

#### 2011 Good Neighbor Award— Da-Tone Rock Products, Joe Hall Pit, Curry County Contact: Sam Williams, PO Box 1597, Brookings, OR 97415, 541-661-3500

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.

The Joe Hall Pit is located at mile post 1.6 on the North Bank Chetco River Road, east of Brookings. Access is from Highway 101. Mining began at this site well before the reclamation law took effect in Oregon. In 1979 a Grant of Limited Exemption (LE) was issued recognizing six acres as eligible for exempt status, having been mined before 1972. The LE was issued to the landowner and was maintained through 2000. Failure to renew the LE in 2001 resulted in the closure of the DOGAMI file and loss of the exempt status of the previously disturbed area.

The quarry site was developed as a side-hill cut, creating a level quarry floor used for processing and stockpiling of aggregate materials. Joe Hall Creek, a perennial fish-bearing stream, is the eastern property boundary. The Chetco River is located south of the North Bank Road.

Da-Tone Rock Products obtained a DOGAMI operating permit for this upland quarry in 2003. Prior to Da-Tone, stormwater control measures at the quarry were minimal at best. As part of the DOGAMI permitting process a DEQ 1200A discharge permit was required of Da-Tone as well. A stormwater control plan is an integral part of the 1200A permit. The DOGAMI permit was issued in December 2003, and temporary stormwater control measures were immediately implemented. The following summer the approved 1200A stormwater control plan was started. This plan has been expanded and improved annually since.



In late December 2008 the Brookings area received over 15 inches of rain in a 72-hour period. The first two miles of the North Bank Road is an area with a history of slope instability. The road itself has been affected by slope movement. During the last weekend in 2008, three landslides occurred along this stretch of road. The largest was on Da-Tone Rock property, west of the active quarry operation. The Da-Tone slide deposited approximately 5,000 cubic yards

of material across the road up to 15 feet deep. The permittee, Sam Williams, worked with county road personnel through the night in seriously dangerous conditions to clear the road. A DOGAMI inspection the following week noted the stormwater control system was functioning as planned, with the discharge meeting state standards.

Mr. Williams hired a geo-technical engineer to evaluate the area of slope failure and recommend measures to mitigate the problem. The geotechnical report described several Pleistocene era slides in this area and concluded the main factor in the slope failure was the high intensity rain fall – 16.5 inches in 53 hours. During the summer of 2009, Da-Tone Rock excavated a trench up slope through the middle of the failure zone.



#### Media contact: Carol DuVernois

carol.duvernois@state.or.us

800 NE Oregon St., #28, Ste. 965 Portland, OR 97232 Phone: (971) 673-1555 Fax: (971) 673-1562 www.OregonGeology.org

This trench was lined in filter fabric, a six-inch perforated pipe, and then clean drain rock. The slope above the North Bank Road was reconstructed using coarse fill placed in compacted lifts. Two back sloped benches were constructed across the slide zone with lateral drains connected to the perforated pipe. All areas were seeded in a native grass mixture and mulched with straw.

A DOGAMI inspection in December 2010 noted additional work on the stormwater control system. A subsurface drain system was constructed on the guarry floor and beneath the processing/stockpile area. A drainage ditch, excavated along the toe of the quarry highwall, intercepts any seepage and eliminates any standing water in the high-traffic areas of the quarry. A new access road was constructed that bypasses the slope failure area.



After heavy rains during the winters of 2010 and 2011, no new movement was noted within the repaired slide area. The stormwater discharge from the slide area as well as from the quarry area was significantly less turbid than the receiving stream, a slough of the Chetco River.

Da-Tone Rock is currently working with a local watershed council to improve habitat along Joe Hall Creek for the salmonid fisheries.



DOGAMI nominated Da-Tone Rock as a Good Neighbor for their on-going efforts to protect adjacent waterways identified as important habitat for listed fish species and for working with local agencies to enhance fisheries habitat.



#### Media contact: Carol DuVernois

carol.duvernois@state.or.us 800 NE Oregon St., #28, Ste. 965 Portland, OR 97232 Phone: (971) 673-1555 Fax: (971) 673-1562 www.OregonGeology.org

# 2011 Outstanding Operator— Cornerstone Industrial Minerals Corporation, Tucker Hill Operation, Lake County Contact: Bruce Addington, PO Box 1287, Lakeview, OR 97630, 541-947-5755

The outstanding operator is divided into two divisions to recognize that large corporations have a distinct advantage over small, family-owned operations in their ability to bring resources to a mine operation. The Outstanding Operator award recognizes those operators who go beyond the regulations to protect surface and ground water, to protect adjacent natural resources, to protect adjacent properties, and utilizing innovative techniques to minimize adverse impacts.

The Tucker Hill mine site is located several miles south of Paisley on BLM land in Lake County. Atlas Precious Metals began exploration activities at this site in 1987, operating under a Grant of Total Exemption (GTE), less than one acre and less than 5,000 cubic yards of production. Shallow exploratory drilling, trenching, and bulk sampling occurred over the next seven years. In 1994 an exploration permit was issued to allow deeper drilling and expanded sampling, up to 30,000 cubic yards. A full Operating Permit was issued in 1996 for full production. Material is excavated at the Tucker Hill site and transported to Lakeview where the perlite material is processed.

As the active mine operation began, Atlas actively reclaimed several old test pits that were visible from the highway. Soil/overburden was spread from the mine excavation and revegetated in native grasses and shrubs.

The Operating Permit was transferred to Cornerstone in 1999 who has maintained the permit since. Cornerstone, coordinating with the BLM, has established several revegetation test plots south of the Cornerstone claim area. Different soil and overburden mixtures and seed mixtures have been used to determine the most effective reclamation techniques. Native seeds area also collected from the plots and used in local sage grouse restoration projects.

Screening of this site from public viewing areas was considered an important aspect of mine development. Leaving a topographic high along the northern permit boundary, and delaying mining in this area until the end of the project, effectively screened the site from the public highway 31. The quarry is also internally drained, thereby containing all stormwater within the confines of the excavation.





Cornerstone also treated freshly exposed perlite, a highly visible white rock, with a staining product to artificially weather the rock to a more natural earth tone.



#### Media contact: Carol DuVernois

carol.duvernois@state.or.us 800 NE Oregon St., #28, Ste. 965 Portland, OR 97232 Phone: (971) 673-1555 Fax: (971) 673-1562 www.OregonGeology.org



A 2001 DOGAMI inspection report stated that past disturbances from exploration have all successfully been reclaimed and were removed from the disturbed acres. Overburden/soil stockpiles were revegetated and remain stable. Test plot data are submitted to the BLM and DOGAMI annually to document successful and not-sosuccessful planting techniques and plant species. Future planting plans have been modified to reflect the successful attempts.

Cornerstone has done an excellent job of minimizing surface disturbance, reducing visual impacts, and completing concurrent reclamation. DOGAMI nominated Cornerstone as an outstanding operator for their dedicated and innovative approach to mine development and management.



#### Media contact: Carol DuVernois

carol.duvernois@state.or.us 800 NE Oregon St., #28, Ste. 965 Portland, OR 97232 Phone: (971) 673-1555 Fax: (971) 673-1562 www.OregonGeology.org

## 2011 Outstanding Operator, Division II— Kauffman Crushing, Inc., Eckman Creek Quarries, Lincoln County Contact: Harold/ David Kauffman, PO Box 540, Waldport, OR 97394, 541-563-3178

In the past, this award was called the Outstanding Small Operator. "Division II" recognizes that "mom-and-pop" operations as well as large corporations do business in Oregon. The Outstanding Operator award recognizes those operators who go beyond the regulations to protect surface and ground water, to protect adjacent natural resources, to protect adjacent properties, and utilizing innovative techniques to minimize adverse impacts.

The Eckman Creek quarry is located four miles southeast of Waldport, south of Highway 34, adjacent to Eckman Creek Road. Mining began at this site before 1948. By 1972, when reclamation laws in Oregon took effect, approximately 18 acres had been affected by mining and were eligible for exempt status. However, the mine operator, Mr. Kauffman, opted for an operating permit, which would allow the mine to expand beyond the 18 acres. This permit was among the first DOGAMI issued in June 1974.

A DOGAMI inspection report from May 1976 noted the main problem was stormwater runoff, which impacted downstream landowners and residents on Eckman Lake. Later in 1976 a multi-agency team (DEQ, ODFW, USFS, and DOGAMI) made a series of suggestions to address off-site turbid stormwater discharges. Subsequently, Mr. Kauffman initiated the on-the-ground changes recommended and began using a flocculent in the primary sediment retention pond. A follow-up inspection in March 1977 noted the mine operator was doing an excellent job dealing with the extremely adverse conditions. The use of a flocculent was working very well.

In 1980, Mr. Kauffman negotiated a lease agreement with the USFS to expand the operation onto adjacent USFS lands. The expansion allowed Mr. Kauffman to more effectively deal with the surface water problems and to reduce an unstable highwall that had been excavated up to the property line within the exempt 18 acres, where setbacks were not required.



In 1983 a series of stormwater retention ponds were constructed to handle the winter storms that batter this area. The design allowed the emptying of individual ponds to perform a complete clean-out of sediment to keep adequate storage capacity within the system.

In 1989, a new operator, Tri-Agg. Inc., assumed the DOGAMI permit from Mr. Kauffman, who remained the landowner. The new operator

was required to obtain a DEQ NPDES 1200A discharge permit. As part of the new stormwater system, an irrigation system was installed to land apply water from retention ponds in areas away from Eckman Creek. A February 1995, inspection report noted that even after several large storms the ponds had not reached capacity.



#### Media contact: Carol DuVernois

carol.duvernois@state.or.us 800 NE Oregon St., #28, Ste. 965 Portland, OR 97232 Phone: (971) 673-1555 Fax: (971) 673-1562 www.OregonGeology.org



In 2003, the lease agreement with Tri-Agg. ended and the DOGAMI permit was transferred back to Mr. Kauffman. In 2006, Dan Kauffman became the operator. Kauffman Crushing has expanded the land application irrigation system and continues constant maintenance to insure proper operation.



A recent DOGAMI inspection noted the extensive and unique stormwater control system on the quarry floor. Large vegetated ponds trap sediment; the overflow water is then pumped into a perforated pipe that allows the water to disperse into porous forest soils without creating overland flow. This subsurface delivery of stormwater eliminates all turbidity.

DOGAMI nominated Eckman Creek Quarries as an Outstanding Operator for the many decades of diligence to protect adjacent surface waters and the water quality of Eckman Creek.



#### Media contact: Carol DuVernois

carol.duvernois@state.or.us 800 NE Oregon St., #28, Ste. 965 Portland, OR 97232 Phone: (971) 673-1555 Fax: (971) 673-1562 www.OregonGeology.org