Public Notice

Proposed Boise Cascade Water Quality Permit Modification

DEQ invites the public to provide written comments on the proposed modification of Boise Cascade's water quality permit, known officially as a Water Pollution Control Facilities (WPCF) permit.

Summary

Subject to public review and comment, DEQ proposes to modify the WPCF permit, which allows Boise Cascade to treat and dispose of wastewater from its stud mill and plywood manufacturing plant located in Union County.

Where can I get more information?

Go to page three of this notice to view the permit modification and evaluation, or by contacting Jackie Ray to make an appointment to review the documents in person:

Phone: 541-278-4605 or 800-304-3513
Fax: 541-278-0168
Email: ray.jackie@deq.state.or.us

How do I participate?

You may submit your comments by mail, fax or email to:

Jackie Ray, Permit Coordinator
541-278-4605 or 800-304-3513
Department of Environmental Quality
Eastern Region - Pendleton Office
800 SE Emigrant, Suite 330
Pendleton, OR 97801

Fax: 541-278-0168
Email: ray.jackie@deq.state.or.us

All comments are due by 5 p.m., Monday, October 24, 2016. All comments will become part of the public record.

About the facility

Boise Cascade manufactures studs and plywood at its plant in Elgin, Oregon and manages industrial storm water and wastewater by land application, evaporation and seepage under the subject WPCF permit. The permit prohibits direct discharge to surface water and prohibits construction and modification of wastewater facilities without first submitting detailed plans and specifications to DEQ and receiving written approval.

During Winter and Spring of 2016, Boise Cascade's wastewater facilities were at capacity and the company began constructing new facilities and modifying existing facilities. DEQ cited the company for construction and modification of wastewater facilities without DEQ plan review and approval and for using new facilities without permit authorization. DEQ's enforcement actions required Boise Cascade to apply for modification of its WPCF permit.

What types of pollutants does the permit regulate?

The permit prohibits direct discharge to surface waters and it regulates the amount of water and nitrogen Boise Cascade land applies. In addition, it requires the company to monitor pH, total dissolved solids (TDS), chemical oxygen demand (COD), iron and manganese in its wastewater.

How would the draft permit modification change the amount of pollution the facility is allowed to release?

The draft permit modification would decrease the amount of pollution the facility is allowed to release because it requires the company to upgrade wastewater facilities adjacent to Phillips Creek to prevent indirect discharge to the creek.

How did DEQ determine the proposed permit modification requirements?

DEQ evaluates types and amounts of pollutants and the water quality of the surface water or groundwater where the pollutants are proposed to be discharged, and determines permit requirements to ensure the proposed discharges will meet applicable statutes, rules, regulations and effluent guidelines of Oregon and the U.S. Environmental Protection Agency.
For this permit modification, DEQ required Boise Cascade to upgrade wastewater facilities adjacent to Phillips Creek to prevent indirect discharge and to install a liner in the new wastewater pond. DEQ made no other discretionary decisions for this permit modification.

How does DEQ monitor compliance with the permit requirements?

This permit as issued requires the facility to monitor pollutants discharged using approved monitoring practices and standards. DEQ

State of Oregon
Department of Environmental Quality

Eastern Region
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Contact: Carl Nadler

www.oregon.gov/DEQ

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Notice issued: 9/22/16
By: Jackie Ray

reviews the facility's discharge monitoring reports to check for compliance with permit limits.

What happens after the public comment period closes?

DEQ will consider and respond to all comments received and may modify the proposed permit based on comments. DEQ gives equal weight to written and oral comments.

Accessibility information

DEQ is committed to accommodating people with disabilities. Please notify DEQ of any special physical or language accommodations or if you need information in large print, Braille or another format.

To make these arrangements, contact DEQ Communications in Portland, at 503-229-5696 or call toll-free in Oregon at 800-452-4011, ext. 5696; fax to 503-229-6762; or email deqinfo@deq.state.or.us.

People with hearing impairments may call 711.

MODIFICATION
WATER POLLUTION CONTROL FACILITIES PERMIT

Department of Environmental Quality
Eastern Region
800 S.E. Emigrant Avenue, Suite 330, Pendleton, OR 97801
Telephone: (541) 276-4063

Issued pursuant to ORS 468B.050

FACILITY:

Boise Cascade Wood Products, L.L.C.
1917 Jackson Street
La Grande, OR 97850

SOURCES COVERED BY THIS PERMIT:

Type of Waste	Method of Disposal
Process wastewater, non-process wastewater, storm water and groundwater	Land Application, Evaporation, and Seepage

PLANT TYPE AND LOCATION:

Stud Mill and Plywood
Manufacturing Facility
90 S. 21st Street
Elgin, OR 97827

RIVER BASIN INFORMATION:

Basin: Grande Ronde River
Sub-Basin: Upper Grande Ronde
LLID: 1179109455600 RM 1
County: Union

Nearest surface stream which would receive waste if it were to discharge: Phillips Creek

This modification is attached to and made part of WPCF Permit No. 103020.

Don Butcher, Water Quality Permit Manager Eastern Region	Signature Date	Effective Date

ADDENDUM NO. 1

Schedule A, Condition 1 is replaced with the following:

1. The Permittee is authorized to manage and dispose of:

   a. Storm water, fire system flush and test water in the Storm Water Treatment and Disposal (SWTD) system and through reuse by land application;

   b. Storm water and process and non-process wastewaters, which are described in the Department-approved Operations Monitoring and Management (OM&M) Plan, in the Lined Pond Oil/Water Separator (LPO), Settling Pond/Open Water Wetland (SP/OWW), Process Wastewater Pond 1 (PWP1), and through reuse by land application; and,

   c. Storm water and process and non-process wastewaters, which are described in the Department-approved Operations Monitoring and Management (OM&M) Plan, in Process Wastewater Pond 2

(PWP2) and the Emergency Bypass Site (EBS), after written approval from the Department to operate PWP2 and the EBS.

Schedule A, Condition 2 is replaced with the following:

2. Direct and indirect discharge to surface water is prohibited.

The following condition is added to Schedule A:

12. Storm Water Detention Basins 1 and 2 (SDB1 and SDB2) are for storm water detention only. Wastewater and storm water commingled with wastewater are prohibited in SDB1 and SDB2.

Schedule B, Conditions 1.a and 1.b are replaced with the following:

1. **Monitoring Requirements** (unless otherwise approved in writing by the Department)
The Permittee must monitor the operation and efficiency of all wastewater treatment and disposal facilities. Minimum monitoring requirements are listed below.

a. Wastewater Impoundments (LPO, SP/OWW, PWP1, PWP2 and EBS) must be monitored in accordance with the following table.

Item or Parameter	Minimum Frequency	Sample Type/Action
Inspect containment system of LPO, SP/OWW, PWP1 and PWP2	Daily	Record
Inspect EBS containment system	Daily when using EBS	Record
pH[1]	Monthly when irrigating or sprinkling log yard	Grab (field measurement)
COD[1]	Monthly when irrigating or sprinkling log yard	Grab
TDS[1]	Monthly when irrigating	Grab
TKN[1]	Monthly when irrigating	Grab
Volume of settled solids removed from LPO, SP/OWW, PWP1, PWP2 and EBS	Each occurrence	Estimate

[1] PWP1 and PWP2 wastewater only, to be monitored at the pump to the log yard and land application areas when log sprinkling or irrigating, respectively.

b. Wastewater Land Application Areas (West AR and East AR) must be monitored in accordance with the following table.

Item or Parameter[2]	Minimum Frequency	Sample Type/Action
Inspect irrigation equipment and areas	Daily when irrigating	Record
Inspect SDB2	Daily, when irrigating West AR	Verify and record presence and absence of wastewater in SDB2
Total flow applied	Daily when irrigating	Measure/Calculate
Area applied	Daily when irrigating	Record
Hydraulic, nitrogen, TDS loading	Monthly when irrigating	Calculate
Supplemental nitrogen applied	When applied	Record
Soil moisture	Weekly when irrigating	As described in OM&M Plan
Soil nitrogen	Beginning/end growing season	Composite[3] to 60 inches[4]
Crops grown	Monthly when planted and harvested	Record

Schedule B, Condition 3 is replaced with the following:

3. **PWP1, PWP2, EBS, SWTD and Land Application Reporting Requirements**

The reporting period is the calendar year. The Permittee must submit monitoring reports to the Department by March 1 each year. Monitoring results must be submitted in a format that includes all parameters that are required to be monitored.

The following conditions are added to Schedule C:

1. **Compliance Schedule for Facility Upgrades**
The permittee must meet the following compliance dates:

a. On or before October 25, 2016:
   i) Submit surveyed locations and elevations of new monitoring wells at PWP2; and,
   ii) Submit a proposal with schedule to install a monitoring well network at the EBS. The proposal must be implemented in accordance with DEQ approval.

b. On or before October 31, 2016, submit updated OM&M and Groundwater Monitoring Plans. The plans must be implemented in accordance with DEQ approval.

c. On or before December 31, 2016:
   i) Submit an Inspection and Certification of Proper Construction form for EBS upgrade;
   ii) Submit as-built plans for EBS upgrade; and,
   iii) Confirm abandonment of old EBS cell.

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[2] Each item or parameter is required to be monitored at the West AR and East AR.
[3] As defined in the approved OM&M Plan.
[4] If 60 inches is not attainable with a hand auger, then the root zone for the entire field is the depth of auger refusal. Alternatively, the Permittee may relocate the sampling site.

d. If notified by DEQ in writing, the permittee must within 30 days from date of notification submit a proposal with schedule to install additional monitoring wells at PWP2. The proposal must be implemented in accordance with DEQ approval.

2. **Responsibility to Meet Compliance Dates**
No later than 14 days following each milestone, the permittee must notify DEQ in writing of its compliance or noncompliance with the requirements.

Any reports of noncompliance must include the cause of noncompliance, any remedial actions taken, and a discussion of the likelihood of meeting the next scheduled requirements.

The following condition is added to Schedule D:

11. The permittee must maintain the EBS clay liner to prohibit leakage. The permittee must prohibit the clay from cracking and must prohibit vegetation growth within the EBS. If notified by DEQ in writing, the permittee must within 30 days from date of notification submit a work plan with schedule to conduct a leak test of the EBS. The proposal must be implemented in accordance with DEQ approval.

All other permit conditions remain unchanged by this permit modification.

WPCF WASTEWATER DISPOSAL PERMIT MODIFICATION EVALUATION

Department of Environmental Quality
Eastern Region - Pendleton Office
800 SE Emigrant, Suite 330, Pendleton, OR 97801
Telephone: (541) 276-4063

PERMITTEE: Boise Cascade Wood Products, LLC
1917 Jackson Street
La Grande, OR 97850
File Number: 9444
Permit Number: 103020

SOURCE LOCATION: 90 S. 21st Street
Elgin, OR 97827

SOURCE CONTACT: Bart Barlow Telephone Number: 541-962-2057

PERMIT WRITER: Carl Nadler Telephone Number: 541-298-7255, ext. 227

PROPOSED ACTION: Modification of a Water Pollution Control Facilities (WPCF) permit

SOURCE CATEGORY: Industrial

SUMMARY

Boise Cascade Wood Products, LLC (Boise Cascade) operates industrial wastewater treatment and disposal facilities under Water Pollution Control Facilities (WPCF) Permit 103020 at its plywood and stud mill in Elgin, Oregon. The permit was issued on February 24, 2012 with a January 31, 2022 expiration date.

During the Winter and Spring of 2016, Boise Cascade's wastewater and storm water facilities were at capacity and the company began construction on a new Process Wastewater Pond (PWP2), wastewater containment dikes (now referred to as SDB1) and modification on the existing Emergency Bypass Site (EBS). DEQ subsequently cited the company for construction and modification of wastewater facilities without DEQ plan review and approval and for using PWP2 without permit authorization. This permit modification authorizes Boise Cascade to use the new facilities and includes a compliance schedule to bring the company into compliance with its permit and Oregon environmental law.

FACILITY DESCRIPTION

Boise Cascade's stud mill and plywood manufacturing plant are located at 90 S. 21st Street, Elgin, Oregon. The plant and wastewater facilities straddle Phillips Creek, which is a tributary to the Grande Ronde River. Manufacturing plant components include log storage yards (wet deck), veneer block vats, lathe, three indirect fired veneer dryers, three plywood press units, saw mill, planer, two hog fuel fired boilers, lumber drying kilns and product storage. Supporting facilities include various maintenance and storage buildings, administrative offices, pollution control equipment, a Storm Water Treatment and Disposal (SWTD) system, wastewater ponds, land application sites, an industrial waste landfill and a rock pit. See Figure 1.

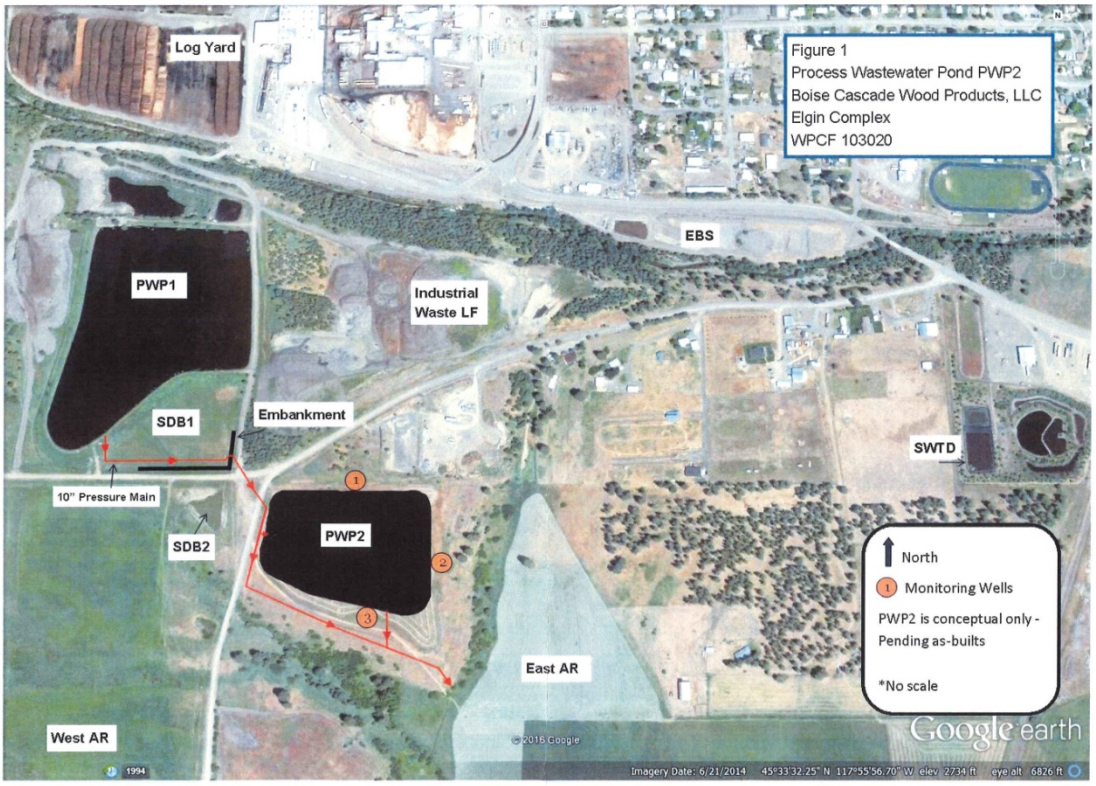

Figure 1: Site Map

In addition to industrial storm water, the facility generates process and non-process wastewaters. Process wastewater consists of veneer block sprinkling return flow, veneer dryer cleanup and deluge water, groundwater from various dewatering systems, kiln water, hog fuel boiler water treatment/filter backflush water, dry electrostatic precipitator (DESP) cleanup water, ash storage area runoff water, heavy equipment wash pad water, vat waters and regenerative catalytic/thermal oxidizer (RCO-1) cleanup water. Boise Cascade uses process wastewater for log deck sprinkling. Hence, log yard runoff during the log deck sprinkling season is regulated as a process wastewater. Non-process wastewater consists of boiler blowdown and associated waters, non-contact cooling water, fire system flush water (non-chlorinated city water) and groundwater from construction dewatering.

Commingled process and non-process wastewaters and storm water flow by gravity to the Frog Pond (a concrete structure/duplex pump equipped lift station). An emergency gravity overflow/bypass vault and unlined basins are adjacent to the Frog Pond. From the Frog Pond, combined flows are pumped to a Lined Pond Oil/Water Separator (LPO), which overflows to a 3-acre settling pond/open water wetland (SP/OWW), which in turn overflows to a 15-acre Process Wastewater Pond (PWP1). The LPO is lined with 60-mil HDPE liner and includes an oil skimmer system. The SP/OWW provides additional primary treatment. PWP1 capacity is approximately 50 MG. PWP1 wastewater is irrigated on land application sites (West AR and East AR; the PWP South is no longer used), sprinkled on decked logs or veneer blocks for log quality control, or it is applied to roads and other unpaved areas for dust suppression. Between April and October in 2009, Boise Cascade sprinkled 255 inches per acre of wastewater on the log yard. During the same period in 2010, the company sprinkled 271 inches per acre on the log yard.

According to the Permittee's Operations, Monitoring and Management (OM&M) Plan, PWP1 wastewaters contain TDS (329 mg/l avg., 549 mg/l max.) and COD (264 mg/l avg., 669 mg/l max.). Nitrogen content of PWSP wastewater is low (0.4 mg/l dissolved inorganic nitrogen and 3.9 mg/l TKN).

The East AR consists of about 53 acres and it is irrigated with three wheel-lines. The West AR is about 30 acres and it is irrigated with wheel-lines and handlines.

Storm water and fire system flush and test water (non-chlorinated city water) are conveyed by gravity to the Storm Water Treatment and Disposal (SWTD) system. The SWTD consists of a two-cell, lined (60-mil HDPE) pond, followed by a clay-lined constructed wetland and a groundwater recharge basin (infiltration gallery) in series. Storm water and fire system flush and test water is irrigated from the HDPE lined pond on ground within the SWTD enclosure and on the adjacent SWTD Test Plots (4.5 acres total, not including the lined cells and infiltration gallery). Storm water and fire system flush and test water irrigated from the HDPE lined pond contain oil and grease (8.8 mg/l avg., 17 mg/l max.), COD (355 mg/l avg., 1150 mg/l max.), TSS (724 mg/l avg., 2330 mg/l max.), total iron (28.9 mg/l avg., 95.3 mg/l max.), total manganese (1.8 mg/l avg., 5.2 mg/l max.) and toluene (9.0 µg/l avg., 45 µg/l max.). Storm water and fire system flush and test water discharged to the groundwater recharge basin from the constructed wetland contains oil and grease (9.1 mg/l avg., 15 mg/l max.), COD (162 mg/l avg., 873 mg/l max.), TSS (187 mg/l avg., 1610 mg/l max.), total iron (18 mg/l avg., 102 mg/l max.), total manganese (1.0 mg/l avg., 2.6 mg/l max.) and toluene (6.9 µg/l avg., 19 µg/l max.).

Sanitary wastewater is discharged to the local publicly owned treatment works.

PERMIT MODIFICATION DISCUSSION

As discussed above, industrial storm water may be discharge to PWP1 or to the SWTD. However, when the SWTD is at capacity, Boise Cascade commingles storm water with wastewater at the Frog Pond and pumps it to PWP1. When PWP1 and the SWTD are at capacity, the company begins filling the Emergency Bypass Site (EBS) located next to Phillips Creek. See Figure 1.

On February 10, 2016, Boise Cascade notified DEQ that the SWTD, PWP1 and EBS were all at or near capacity and the company planned to begin construction of a new wastewater pond, PWP2. Without DEQ plan review and approval, Boise Cascade started construction on PWP2 on February 18, 2016. DEQ subsequently issued a Pre-Enforcement Notice (PEN) to Boise Cascade on March 1, 2016 and required submittal of the following items: plans and specifications for PWP2, along with soil permeability tests; proposed groundwater monitoring well locations; a proposal to leak test PWP2; proposed modifications to the Operations, Monitoring and Management (OM&M) Plan; and, a request to modify WPCF Permit 103020.

On March 10, 2016, Boise Cascade notified DEQ that it had modified the EBS to provide additional capacity and had constructed dikes (now referred to as SDB1) on PWP South to contain wastewater and provide storage capacity for when the company diverted wastewater from PWP1 to PWP South. As a result, DEQ issued a second PEN to Boise Cascade on April 7, 2016 and required the company to remove SDB1 or submit the following items: a Land Use Compatibility Statement (LUCS) for SDB1; plans and specifications, along with soil permeability tests; proposed groundwater monitoring well locations; a proposal to leak test SDB1; and proposed modifications to the OM&M Plan. DEQ also notified Boise Cascade that the company must apply for and obtain an individual National Pollutant Discharge Elimination System (NPDES) permit for indirect discharge from the EBS to Philips Creek because seepage from the un-lined EBS constitutes discharge of pollutants to waters of the state, which is not authorized under WPCF Permit 103020.

On March 18, 2016, Boise Cascade submitted plans and specifications for PWP2. The plans included installation of a 60-mil HDPE liner. However, it should be noted that DEQ does not approve plans for partially-completed facilities. Rather, Boise Cascade agreed on May 24, 2016, to submit as-built plans for PWP2 (see below). In

addition, at the date of drafting this permit modification, Boise Cascade lacks approval to operate PWP2 from the Oregon Department of Water Resources Dam Safety Program.

On April 15, 2016, Boise Cascade notified DEQ that it had discharged wastewater from PWP1 to the new, but unlined, PWP2. As a result, DEQ issued a third PEN to Boise Cascade on April 28, 2016 for using PWP2 without a permit and required the company to submit the following items: soil permeability tests; proposed groundwater monitoring well locations; a proposal to leak test PWP2; proposed modifications to the Operations, Monitoring and Management (OM&M) Plan; a request to modify WPCF Permit 103020; a LUCS for PWP2; proposed monitoring well construction details; and, proposed modifications to the groundwater monitoring plan.

On May 24, 2016, DEQ met with Boise Cascade and the company agreed to the following. The company will install a 60-mil liner in PWP2, and a leak test and *in situ* soil permeability tests will not be required. However, Boise Cascade will submit as-built plans for PWP2 and the results of laboratory-measured soil permeability tests. In addition, the company reported that three monitoring wells had been installed and that boring logs and as-built details would be included with an OM&M Plan update. After surveyed locations and elevations of the new monitoring wells are submitted, DEQ will review the data and determine if additional monitoring wells will be required. Boise Cascade agreed to not use SDB1 for wastewater in exchange for not having to install groundwater monitoring wells, conduct a leak test, and do *in situ* soil permeability tests. However, the company submitted as-built plans and laboratory-measured soil permeability tests for SDB1. Regarding the EBS, Boise Cascade agreed to evaluate alternatives to the EBS and make required upgrades by December 31, 2016.

On June 13, 2016, Boise Cascade submitted an application to modify the WPCF permit, along with proposed revisions to the OM&M Plan.

On June 28, 2016, DEQ met with Boise Cascade and discussed five alternatives in lieu of continuing to use the EBS in its unlined condition. The company indicated that the most likely alternative will be to line the EBS[1] with clay or HDPE. On June 29, 2016, the company submitted a timeline for EBS upgrades that included submittal of an engineering report with the chosen alternative by July 15, 2016 and submittal of detailed plans and specifications for the facility upgrades by August 15, 2016. Boise Cascade proposed to have the upgrade completed by December 31, 2016. On July 15, 2016, Boise Cascade notified DEQ that its selected alternative was to line the EBS with clay.

On August 19, 2016, Boise Cascade submitted plans for the EBS upgrade along with laboratory permeability data for PWP2. DEQ reviewed the EBS upgrade plans and conditionally approved them on August 25, 2016. Under the approval, the company is required to abandon the basins that were part of the original EBS system and install monitoring wells in accordance with a DEQ-approved workplan. On September 19, 2016 DEQ received Boise Cascade's as-built plans and an Inspection and Certification of Proper Construction form for PWP2.

Accordingly, the proposed permit modification allows Boise Cascade to operate PWP2 and the EBS following DEQ approval. In addition, it prohibits use of SDB1 and SDB2 for wastewater. By October 25, 2016, the company must submit surveyed locations and elevations of the new monitoring wells at PWP2 and submit a proposal to install a monitoring well network at the EBS. If DEQ determines that additional monitoring wells are necessary at PWP2, the permittee is required to submit a proposal and install the additional wells in accordance with DEQ's approval.

By October 31, 2016, Boise Cascade must submit updated OM&M and Groundwater Monitoring Plans, which must be implemented in accordance with DEQ approval. By December 31, 2016, the company must submit an Inspection and Certification of Proper Construction form for the EBS, along with as-built plans and confirmation of abandonment of the old EBS cell. In addition, the proposed permit modification requires that the

[1] An NPDES permit is not required if a liner is installed in the EBS.

clay liner in the EBS is maintained to prohibit leakage. The permittee is required to prohibit the clay from cracking and is required to prohibit vegetation growth inside the EBS. If DEQ notifies the permittee in writing, the permittee must, within 30 days from the date of notification, submit a work plan with schedule to conduct a leak test of the EBS. The proposal must be implemented in accordance with DEQ approval.

CONCLUSION

The proposed permit modification authorizes Boise Cascade to operate PWP2, SDB1, SDB2 and the EBS and it includes a compliance schedule to bring the company into compliance following violations for constructing and modifying wastewater facilities without DEQ plan review and approval.