ENVIRONMENTAL INDICATOR (EI) RCRIS CODE (CA725)

Current Human Exposures Under Control

Facility Name: ROSEBURG FOREST PRODUCTS -- DILLARD
Facility Address: 10700 Old Hwy 99S, Dillard, OR 97432
Facility EPA ID #: ORD 009 036 716

1. Has **all** available relevant/significant information on known and reasonably suspected releases to soil, groundwater, surface water/sediments, and air, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?

☒ **If yes** - check here and continue with #2 below.

☐ **If no** - re-evaluate existing data, or

☐ **If data not available** skip to #6 and enter "IN" (more information needed) status code.

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Current Human Exposures Under Control" EI

A positive "Current Human Exposures Under Control" EI determination ("YE" status code) indicates that there are no "unacceptable" human exposures to "contamination" (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Current Human Exposures Under Control" EI are for reasonably expected human exposures under current land- and groundwater-use conditions ONLY, and do not consider potential future land- or groundwater-use conditions or ecological receptors. The RCRA Corrective Action program's overall mission to protect human health and the environment requires that Final remedies address these issues (i.e., potential future human exposure scenarios, future land and groundwater uses, and ecological receptors).

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

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2. Are groundwater, soil, surface water, sediments, or air **media** known or reasonably suspected to be **"contaminated"**[1] above appropriately protective risk-based "levels" (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action (from SWMUs, RUs or AOCs)?

"Contaminated" Media	Yes	No	?	Rationale / Key Contaminants
Groundwater	✓			Acetone, methyl ethyl ketone (MEK), methyl isobutyl ketone (MIBK), chromium, lead, methyl-2-pentanone, 4-, toluene, xylene
Air (indoors)		✓		
Soil (surface, e.g., <2 ft) (at the landfill)	✓			Acetone, methyl ethyl ketone (MEK), methyl isobutyl ketone (MIBK), chromium, lead, methyl-2-pentanone, 4-, toluene, xylene
Surface Water	✓			Acetone, methyl ethyl ketone (MEK), methyl isobutyl ketone (MIBK), chromium, lead, methyl-2-pentanone, 4-, toluene, xylene
Sediment		✓		
Soil (subsurface e.g., >2 ft) (at the landfill)	✓			Acetone, methyl ethyl ketone (MEK), methyl isobutyl ketone (MIBK), chromium, lead, methyl-2-pentanone, 4-, toluene, xylene
Air (outdoors)		✓		

☐ **If no** (for all media) - skip to #6, and enter "YE," status code after providing or citing appropriate "levels," and referencing sufficient supporting documentation demonstrating that these "levels" are not exceeded.

☒ **If yes** (for any media) - continue after identifying key contaminants in each "contaminated" medium, citing appropriate "levels" (or provide an explanation for the determination that the medium could pose an unacceptable risk), and referencing supporting documentation.

☐ **If unknown** (for any media) - skip to #6 and enter "IN" status code.

Rationale and Reference(s):

This property is owned by Roseburg Forest Products (RFP). This facility has been in operation since 1951 and produces lumber, plywood and particle board products. Prior to RFP development, the property was farmland (DEQ Strategy Recommendation, 1996).

The main environmental concern was the RFP onsite solid waste landfill and its potential releases to soil, surface water and groundwater (DEQ Strategy Recommendation, 1996).

A link to the DEQ Strategy Recommendation is at
http://www.deq.state.or.us/Webdocs/Controls/Output/PdfHandler.ashx?p=19b809a8-e308-44e6-b6ea-dd90239602b5.pdf

Footnotes:

[1] *"Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriately protective risk-based "levels" (for the media, that identify risks within the acceptable risk range).*

[2] *Recent evidence (from the Colorado Dept. of Public Health and Environment, and others) suggest that unacceptable indoor air concentrations are more common in structures above groundwater with volatile contaminants than previously believed. This is a rapidly developing field and reviewers are encouraged to look to*

the latest guidance for the appropriate methods and scale of demonstration necessary to be reasonably certain that indoor air (in structures located above (and adjacent to) groundwater with volatile contaminants) does not present unacceptable risks.

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3. Are there **complete pathways** between "contamination" and human receptors such that exposures can be reasonably expected under the current (land- and groundwater-use) conditions?

Summary Exposure Pathway Evaluation Table

Potential **Human Receptors** (Under Current Conditions)

"Contaminated" Media	Residents	Workers	Day-Care	Construction	Trespassers	Recreation	Food[3]
Groundwater	No	No	No	No	No	No	No
Air (indoors)	--	--	--	--	--	--	--
Soil (surface, e.g., <2 ft)	No	No	No	No	No	No	No
Surface Water	No	No	No	No	No	No	No
Sediment	--	--	--	--	--	--	--
Soil (subsurface e.g., >2 ft)	No	No	No	No	No	No	No
Air (outdoors)	--	--	--	--	--	--	--

Instructions for Summary Exposure Pathway Evaluation Table:

1. Strike-out specific Media including Human Receptors' spaces for Media which are not "contaminated") as identified in #2 above.

2. Enter "yes" or "no" for potential "completeness" under each "Contaminated" Media -- Human Receptor combination (Pathway).

   Note: In order to focus the evaluation to the most probable combinations some potential "Contaminated" Media - Human Receptor combinations (Pathways) do not have check spaces ("___"). While these combinations may not be probable in most situations they may be possible in some settings and should be added as necessary.

☒ **If no** (pathways are not complete for any contaminated media-receptor combination) - skip to #6, and enter "YE" status code, after explaining and/or referencing condition(s) in-place, whether natural or man-made, preventing a complete exposure pathway from each contaminated medium (e.g., use optional Pathway Evaluation Work Sheet to analyze major pathways).

☐ **If yes** (pathways are complete for any "Contaminated" Media - Human Receptor combination) - continue after providing supporting explanation.

☐ **If unknown** (for any "Contaminated" Media - Human Receptor combination) - skip to #6 and enter "IN" status code

Rationale and Reference(s):

The Oregon DEQ Cleanup program reviewed the environmental conditions at the RFP facility and issued, on September 17,1996, a letter stating that no further investigation is needed. Enclosed with this letter was a Strategy Recommendation approved by DEQ management that no further investigation should be conducted and that data gaps be pursued by the DEQ Solid Waste Program. The Strategy Recommendation concluded that there were no air pathway or direct contact pathway for contaminants identified. The Strategy Recommendation noted two volatile organic chemicals were found in groundwater but under or at the maximum contaminant levels.

A solid waste permit has been issued to RFP for the onsite landfill, and, the Solid Waste Program is

tracking progress. Soil contamination is contained at the landfill area and groundwater monitoring wells' concentrations do not pose a significant risk (DEQ Strategy Recommendation).

The DEQ Strategy Recommendation noted that surface water exposure was a concern.

In a discussion with Bill Mason, DEQ Cleanup Program project manager who works with staff in the DEQ Solid Waste Program, since the permit has been issued, a new solid waste landfill is being constructed in Riddle, Oregon, which will lead to further development and operational changes at the onsite Dillard landfill. Once the Riddle landfill is operational, the Dillard landfill will undergo capping with a new extension to the landfill to be built and operated for just wood waste. (interview, September 20, 2010)

The current onsite Dillard landfill's operation and maintenance must be in compliance with the solid waste permit which controls exposures to human health and the environment.

In a discussion with David Esch, the DEQ Solid Waste permit writer for Roseburg Forest Products, he considers this onsite landfill site currently stabilized with no concerns of surface water exposure or with recent concentrations found in the groundwater monitoring wells. Once the current landfill is capped, he expects gradual decreases in concentrations at the monitoring wells. (interview, September 24, 2010).

Footnotes:

[3.] *Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish, etc.)*

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4. Can the **exposures** from any of the complete pathways identified in #3 be reasonably expected to be **"significant"**[4] (i.e., potentially "unacceptable" because exposures can be reasonably expected to be: (1) greater in magnitude (intensity, frequency and/or duration) than assumed in the derivation of the acceptable "levels" (used to identify the "contamination"); or (2) the combination of exposure magnitude (perhaps even though low) and contaminant concentrations (which may be substantially above the acceptable "levels") could result in greater than acceptable risks)?

☐ **If no** (exposures can not be reasonably expected to be significant (i.e., potentially "unacceptable") for any complete exposure pathway) - skip to #6 and enter "YE" status code after explaining and/or referencing documentation justifying why the exposures (from each of the complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

☐ **If yes** (exposures could be reasonably expected to be "significant" (i.e., potentially "unacceptable") for any complete exposure pathway) - continue after providing a description (of each potentially "unacceptable" exposure pathway) and explaining and/or referencing documentation justifying why the exposures (from each of the remaining complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

☐ **If unknown** (for any complete pathway) - skip to #6 and enter "IN" status code

Rationale and Reference(s):

_____
_____
_____
_____

Footnotes:

[4] *If there is any question on whether the identified exposures are "significant" (i.e., potentially "unacceptable") consult a human health Risk Assessment specialist with appropriate education, training and experience.*

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5. Can the "significant" **exposures** (identified in #4) be shown to be within **acceptable** limits?

☐ **If yes** (all "significant" exposures have been shown to be within acceptable limits) - continue and enter "YE" after summarizing and referencing documentation justifying why all "significant" exposures to "contamination" are within acceptable limits (e.g., a site-specific Human Health Risk Assessment).

☐ **If no** (there are current exposures that can be reasonably expected to be "unacceptable")- continue and enter "NO" status code after providing a description of each potentially "unacceptable" exposure.

☐ **If unknown** (for any potentially "unacceptable" exposure) - continue and enter "IN" status code

Rationale and Reference(s):

_____

_____

_____

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Environmental Indicator (EI) RCRIS Code (CA725)
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6. Check the appropriate RCRIS status codes for the Current Human Exposures Under Control EI event code (CA725), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (and attach appropriate supporting documentation as well as a map of the facility):

☒ **YE - Yes**, "Current Human Exposures Under Control" has been verified. Based on a review of the information contained in this EI Determination, "Current Human Exposures" are expected to be "Under Control" at the **ROSEBURG FOREST PRODUCTS -- DILLARD** facility, EPA ID **ORD 009 036 716**, located at **10700 Old Hwy 99S, Dillard, OR 97432,** under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

☐ **NO** - "Current Human Exposures" are NOT "Under Control."

☐ **IN** - More information is needed to make a determination.

Completed By:

Fredrick Moore — 9/30/2010

(Signature) — *(Date)*

Fredrick Moore — Hazardous Waste Permit Writer
(Print Name) — *(Title)*

Supervisor:

Elizabeth Druback — 9/30/2010

(Signature) — *(Date)*

Elizabeth Druback — Manager, Eastern Region Hazardous Waste Program
(Print Name) — *(Title)*

Oregon Department of Environmental Quality
(EPA Region or State)

Locations where References may be found:

DEQ – Eugene Office, 165 E. 7th Ave. Suite 100, Eugene, OR 97401 .

Contact telephone and E-mail numbers:

Bill Mason	541.687.7427	mason.bill@deq.state.or.us
(Name)	*(Phone Number)*	*(E-Mail)*

FINAL NOTE: THE HUMAN EXPOSURES EI IS A QUALITATIVE SCREENING OF EXPOSURES AND THE DETERMINATIONS WITHIN THIS DOCUMENT SHOULD NOT BE USED AS THE SOLE BASIS FOR RESTRICTING THE SCOPE OF MORE DETAILED (E.G., SITE-SPECIFIC) ASSESSMENTS OF RISK.

ENVIRONMENTAL INDICATOR (EI) RCRIS CODE (CA750)

Migration of Contaminated Groundwater Under Control

Facility Name: ROSEBURG FOREST PRODUCTS -- DILLARD
Facility Address: 10700 Old Hwy 99S, Dillard, OR 97432
Facility EPA ID #: ORD 009 036 716

1. Has **all** available relevant/significant information on known and reasonably suspected releases to the groundwater media, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?

☒ **If yes** - check here and continue with #2 below.

☐ **If no** - re-evaluate existing data, or

☐ **If data are not available,** skip to #8 and enter "IN" (more information needed) status code.

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Migration of Contaminated Groundwater Under Control" EI

A positive "Migration of Contaminated Groundwater Under Control" EI determination ("YE" status code) indicates that the migration of "contaminated" groundwater has stabilized, and that monitoring will be conducted to confirm that contaminated groundwater remains within the original "area of contaminated groundwater" (for all groundwater "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Migration of Contaminated Groundwater Under Control" EI pertains ONLY to the physical migration (i.e., further spread) of contaminated ground water and contaminants within groundwater (e.g., non-aqueous phase liquids or NAPLs). Achieving this EI does not substitute for achieving other stabilization or final remedy requirements and expectations associated with sources of contamination and the need to restore, wherever practicable, contaminated groundwater to be suitable for its designated current and future uses.

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

Migration of Contaminated Groundwater Under Control
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2. Is **groundwater** known or reasonably suspected to be **"contaminated"**[1] above appropriately protective "levels" (i.e., applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action, anywhere at, or from, the facility?

☒ **If yes** - continue after identifying key contaminants, citing appropriate "levels," and referencing supporting documentation.

☐ **If no** - skip to #8 and enter "YE" status code, after citing appropriate "levels," and referencing supporting documentation to demonstrate that groundwater is not "contaminated."

☐ **If unknown** - skip to #8 and enter "IN" status code.

Rationale and Reference(s):

This property is owned by Roseburg Forest Products (RFP). This facility has been in operation since 1951 and produces lumber, plywood and particle board products. Prior to RFP development, the property was farmland (DEQ Strategy Recommendation, 1996).

The main environmental concern was the RFP onsite solid waste landfill and its potential releases to soil, surface water and groundwater (DEQ Strategy Recommendation, 1996).

Groundwater sampling in August 1985 found significant concentrations of volatiles in groundwater. Such volatiles included 1,1,2-TCA and PCE. Low detections of MIBK, toluene and xylene were noted (DEQ Strategy Recommendation, 1996).

A link to the DEQ Strategy Recommendation is at
http://www.deq.state.or.us/Webdocs/Controls/Output/PdfHandler.ashx?p=19b809a8-e308-44e6-b6ea-dd90239602b5.pdf

Footnotes:

1. *"Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriate "levels" (appropriate for the protection of the groundwater resource and its beneficial uses).*

Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS Code (CA750)
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3. Has the **migration** of contaminated groundwater **stabilized** (such that contaminated groundwater is expected to remain within "existing area of contaminated groundwater"[2] as defined by the monitoring locations designated at the time of this determination)?

☒ **If yes,** continue, after presenting or referencing the physical evidence (e.g., groundwater sampling/measurement/migration barrier data) and rationale why contaminated groundwater is expected to remain within the (horizontal or vertical) dimensions of the "existing area of groundwater contamination"[2]).

☐ **If no,** (contaminated groundwater is observed or expected to migrate beyond the designated locations defining the "existing area of groundwater contamination"[2]) - skip to #8 and enter "NO" status code, after providing an explanation.

☐ **If unknown** - skip to #8 and enter "IN" status code.

Rationale and Reference(s):

The Oregon Cleanup program reviewed the environmental conditions at the RFP facility and issued, on September 17,1996, a letter stating that no further investigation is needed. Enclosed with this letter was a Strategy Recommendation approved by DEQ management that no further investigation should be conducted and that data gaps be pursued by the DEQ Solid Waste Program. The Strategy Recommendation concluded that there were no air pathway or direct contact pathway for contaminants identified. The Strategy Recommendation noted two volatile organic chemicals were found in groundwater but under or at the maximum contaminant levels.

A solid waste permit has been issued to RFP for their onsite landfill, and, the Solid Waste Program is tracking progress. Soil contamination is contained at the landfill area and groundwater monitoring wells' concentrations do not pose a significant risk.

In a discussion with Bill Mason, DEQ Cleanup Program project manager who works with staff in the DEQ Solid Waste Program, groundwater monitoring continues at the landfill. Since permit issuance, concentrations in groundwater have fluctuated, sometimes above DEQ screening levels. Such fluctuations seem to correspond with changes in precipitation and waste disposal. For the following reasons, such fluctuations do not cause DEQ to set a groundwater protection standard or require corrective action (interview, September 2010):

1. Even without the hazardous constituents component to the local groundwater, local groundwater is of dubious quality. Relatively high levels of iron and chloride makes groundwater usage questionable.

2. Local use of water comes from surface water.

3. Groundwater contamination is localized in a fractured basalt unit which does not yield economic groundwater withdrawal flows. The Cleanup Program determined that this aquifer does not have a beneficial use.

4. DEQ conducted a survey in the immediate area for groundwater usage. Some groundwater wells were found, but they are very old, probably many former irrigation wells, and none in use.

5. It is predicted that once the landfill is capped, The lack of waste disposal and infiltration will likely decrease such groundwater concentrations over time. (interview, September 20, 2010)

With groundwater monitoring, a determination of no beneficial use, and no identifiable groundwater

usage, at this facility groundwater exposure is in control.

In a discussion with David Esch, the DEQ Solid Waste permit writer for Roseburg Forest Products, he considers the onsite landfill site currently stabilized with no concerns of surface water exposure or with recent concentrations found in the groundwater monitoring wells. Once the current landfill is capped, he expects gradual decreases in concentrations at the monitoring wells. (interview, September 24, 2010).

Footnotes:

[2] *"Existing area of contaminated groundwater" is an area (with horizontal and vertical dimensions) that has been verifiably demonstrated to contain all relevant groundwater contamination for this determination, and is defined by designated (monitoring) locations proximate to the outer perimeter of "contamination" that can and will be sampled/tested in the future to physically verify that all "contaminated" groundwater remains within this area, and that the further migration of "contaminated" groundwater is not occurring. Reasonable allowances in the proximity of the monitoring locations are permissible to incorporate formal remedy decisions (i.e., including public participation) allowing a limited area for natural attenuation.*

Migration of Contaminated Groundwater Under Control
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4. Does "contaminated" groundwater **discharge** into **surface water** bodies?

☐ **If yes** - continue after identifying potentially affected surface water bodies.

☒ **If no** - skip to #7 (and enter a "YE" status code in #8, if #7 = yes) after providing an explanation and/or referencing documentation supporting that groundwater "contamination" does not enter surface water bodies.

☐ **If unknown** - skip to #8 and enter "IN" status code.

Rationale and Reference(s):

Migration of Contaminated Groundwater Under Control
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5. Is the **discharge** of "contaminated" groundwater into surface water likely to be **"insignificant"** (i.e., the maximum concentration[3] of each contaminant discharging into surface water is less than 10 times their appropriate groundwater "level," and there are no other conditions (e.g., the nature, and number, of discharging contaminants, or environmental setting), which significantly increase the potential for unacceptable impacts to surface water, sediments, or ecosystems at these concentrations)?

☐ **If yes** - skip to #7 (and enter "YE" status code in #8 if #7 = yes), after documenting: (1) the maximum known or reasonably suspected concentration[3] of key contaminants discharged above their groundwater "level," the value of the appropriate "level(s)," and if there is evidence that the concentrations are increasing; and (2) provide a statement of professional judgement/explanation (or reference documentation) supporting that the discharge of groundwater contaminants into the surface water is not anticipated to have unacceptable impacts to the receiving surface water, sediments, or ecosystem.

☐ **If no** - (the discharge of "contaminated" groundwater into surface water is potentially significant) - continue after documenting: (1) the maximum known or reasonably suspected concentration[3] of each contaminant discharged above its groundwater "level," the value of the appropriate "level(s)," and if there is evidence that the concentrations are increasing; and (2) for any contaminants discharging into surface water in concentrations[3] greater than 100 times their appropriate groundwater "levels," the estimated total amount (mass in kg/yr) of each of these contaminants that are being discharged (loaded) into the surface water body (at the time of the determination), and identify if there is evidence that the amount of discharging contaminants is increasing.

☐ **If unknown** - enter "IN" status code in #8.

Rationale and Reference(s):

_____

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Footnotes:

[3] *As measured in groundwater prior to entry to the groundwater-surface water/sediment interaction (e.g., hyporheic) zone.*

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6. Can the **discharge** of "contaminated" groundwater into surface water be shown to be "**currently acceptable**" (i.e., not cause impacts to surface water, sediments or ecosystems that should not be allowed to continue until a final remedy decision can be made and implemented[4])?

☐ **If yes** - continue after either: (1) identifying the Final Remedy decision incorporating these conditions, or other site-specific criteria (developed for the protection of the site's surface water, sediments, and ecosystems), and referencing supporting documentation demonstrating that these criteria are not exceeded by the discharging groundwater; OR (2) providing or referencing an interim-assessment,[5] appropriate to the potential for impact, that shows the discharge of groundwater contaminants into the surface water is (in the opinion of a trained specialists, including ecologist) adequately protective of receiving surface water, sediments, and ecosystems, until such time when a full assessment and final remedy decision can be made. Factors which should be considered in the interim-assessment (where appropriate to help identify the impact associated with discharging groundwater) include: surface water body size, flow, use/classification/habitats and contaminant loading limits, other sources of surface water/sediment contamination, surface water and sediment sample results and comparisons to available and appropriate surface water and sediment "levels," as well as any other factors, such as effects on ecological receptors (e.g., via bio-assays/benthic surveys or site-specific ecological Risk Assessments), that the overseeing regulatory agency would deem appropriate for making the EI determination.

☐ **If no** - (the discharge of "contaminated" groundwater can not be shown to be "**currently acceptable**") - skip to #8 and enter "NO" status code, after documenting the currently unacceptable impacts to the surface water body, sediments, and/or ecosystems.

☐ **If unknown** - skip to 8 and enter "IN" status code.

Rationale and Reference(s):

_____

_____

Footnotes:

[4] *Note, because areas of inflowing groundwater can be critical habitats (e.g., nurseries or thermal refugia) for many species, appropriate specialist (e.g., ecologist) should be included in management decisions that could eliminate these areas by significantly altering or reversing groundwater flow pathways near surface water bodies.*

[5] *The understanding of the impacts of contaminated groundwater discharges into surface water bodies is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration to be reasonably certain that discharges are not causing currently unacceptable impacts to the surface waters, sediments or ecosystems.*

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7. Will groundwater **monitoring** / measurement data (and surface water/sediment/ecological data, as necessary) be collected in the future to verify that contaminated groundwater has remained within the horizontal (or vertical, as necessary) dimensions of the "existing area of contaminated groundwater?"

☒ **If yes** - continue after providing or citing documentation for planned activities or future sampling/measurement events. Specifically identify the well/measurement locations which will be tested in the future to verify the expectation (identified in #3) that groundwater contamination will not be migrating horizontally (or vertically, as necessary) beyond the "existing area of groundwater contamination."

☐ **If no** - enter "NO" status code in #8.

☐ **If unknown** - enter "IN" status code in #8.

Rationale and Reference(s):

In a phone discussion with David Esch, the DEQ Solid Waste Program permit writer for Roseburg Forest Products, the solid waste permit for the onsite landfill requires groundwater monitoring on an annual basis and will continue (interview September 24, 2010).

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8. Check the appropriate RCRIS status codes for the Migration of Contaminated Groundwater Under Control EI (event code CA750), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (attach appropriate supporting documentation as well as a map of the facility).

☒ **YE** - Yes, "Migration of Contaminated Groundwater Under Control" has been verified. Based on a review of the information contained in this EI determination, it has been determined that the "Migration of Contaminated Groundwater" is "Under Control" at the **ROSEBURG FOREST PRODUCTS -- DILLARD** facility, EPA ID **#ORD 009 036 716**, located at **10700 Old Hwy 99S, Dillard, OR 97432**. Specifically, this determination indicates that the migration of "contaminated" groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the "existing area of contaminated groundwater." This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.

☐ **NO** - Unacceptable migration of contaminated groundwater is observed or expected.

☐ **IN** - More information is needed to make a determination.

Completed By:

Fredrick Moore — 9/30/2010

(Signature) — *(Date)*

Fredrick Moore — Hazardous Waste Permit Writer
(Print Name) — *(Title)*

Supervisor:

Elizabeth Druback — 9/30/2010

(Signature) — *(Date)*

Elizabeth Druback — Manager, Eastern Region Hazardous Waste Program
(Print Name) — *(Title)*

Oregon Department of Environmental Quality
(EPA Region or State)

Locations where References may be found:

DEQ – Eugene Office, 165 E. 7th Ave. Suite 100, Eugene, OR 97401

Contact telephone and E-mail numbers:

Bill Mason	(541) 687-7427	mason.bill@deq.state.or.us
(Name)	*(Phone Number)*	*(E-Mail)*