Water Pollution Control Facilities
Permit Evaluation Report and Fact Sheet

Oregon Department of Environmental Quality
Eastern Region - Pendleton Office
800 SE Emigrant, Suite 330
Pendleton, OR 97801

Contact: Justin Sterger, (541) 633-2016

Permittee:	Red Rock Biofuels, LLC 4745 E. Boardwalk Dr., Ste D101 Ft. Collins, CO 80525
Existing Permit Information:	File Number: 127040 Permit Number: TBD Expiration Date: TBD EPA Reference Number: N/A
Source Contact:	Jeff Manternach (503) 636-1130
Facility Location:	Industrial Wastewater Treatment and Evaporative Lagoon 1 Mile S. of Town of Lakeview Lakeview, OR Lake County
LLID:	1203755421439 RM 2.5
Nearest surface stream: **Basin:** **Sub-Basin**	East Branch Thomas Creek Upper Sacramento Goose Lake
Proposed Action:	New WPCF Permit
Source Category:	WPCF Minor – Industrial
Sources Covered:	Industrial Wastewater Lagoon
Permit Type:	WPCF-IW-B15
Permit Writer:	Justin Sterger (541) 633-2016 Eastern Region/Water Quality Program - Bend Office September 20, 2020

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SUMMARY

On August 31, 2020, Merjent, Inc. submitted a WPCF permit application on behalf of Red Rock Biofuels, LLC. The application is for a proposed evaporative lagoon treatment facility in the Town of Lakeview, in Lake County. The lagoon will serve as a disposal and treatment lagoon to route controlled discharge to the Town of Lakeview NPDES (national pollution discharge elimination system) permitted wastewater treatment facility.

Red Rock Biofuels, LLC is constructing a facility to produce renewable jet fuel, diesel fuel, and naptha (gasoline blend stock) from a woody biomass feedstock consisting primarily of mill and forest residues. Construction of the facility and associated piping and the pond is also to be covered under a DEQ assigned 1200-C.

The Town of Lakeview is located at approximately 4750 feet above sea level. The construction of the treatment lagoon is expected to disturb approximately 3 acres.

The Town of Lakeview will provide Class C wastewater from the municipal waste treatment system as industrial supply water for Red Rock Biofuels, LLC needs which include industrial cooling. The average quantity of wastewater to be supplied to the Red Rock Facility as Class C wastewater is estimated at 0.93 million gallons per day (MGD) over a 12-month period. In the event that Class C wastewater cannot be provided to the Red Rock facility, domestic-use water from the municipal drinking water system will be provided for industrial uses. The Class C wastewater supplied to Red Rock will be chlorinated, pass through a filter, and must meet standards under State of Oregon Recycled Water Rules (OAR 340-055) and in accordance with a DEQ approved recycled water use plan that is regulated under the Town of Lakeview NPDES permit.

The wastewater lagoon covered by this permit will collect flows from discharged industrial wastewater for pre-treatment prior to discharge to the Lakeview municipal lagoons.

A copy of the land use compatibility statement (LUCS) for the proposed lagoon facility was submitted with the complete permit application.

FACILITY DESCRIPTION

The proposed lagoon treatment facility will consist of a single treatment pond (lagoon) with an aeration system to oxygenate the wastewater. The facility is to be constructed as a treatment lagoon to reduce biochemical oxygen demand (BOD) loading, provide cooling, and provide pH control prior to discharge into the Town of Lakeview municipal wastewater treatment facility. The facility includes a blower for air supply, an air filtering system, and chemical dosing tanks to adjust the pH via the addition of hydrochloric acid prior to discharge. The pH is adjusted to a neutral level as estimated spent industrial wastewater pH is ~8.33 and the wastewater is to be neutralized to reduce impacts to the POTW biota which relies on bacterial treatment of domestic wastewater for the Town of Lakeview.

After treatment in the lagoon, the treated wastewater will be transported to the Town of Lakeview municipal wastewater treatment system via a 3-inch diameter underground PVC pipe to an existing sewer main.

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The proposed lagoon will be located directly adjacent to the existing Lakeview POTW ponds and have a volume of approximately 4.86 million gallons and will be lined with a synthetic liner to protect groundwater resources by preventing seepage.

At the time of this permit writing, one wastewater stream (H2S Scrubber Wastewater) has been determined to require treatment via this lagoon facility. Other facility generated waste streams suitable for sanitary discharge are routed directly to the Town of Lakeview domestic wastewater treatment facility.

There are no waterbodies or wetlands present on the site for the proposed lagoon treatment facility. The permittee has applied for a 1200-C general stormwater construction permit for the construction of the facility and treatment lagoon. Adverse impacts to groundwater are not expected as the pond capacity is described to be designed to hold the project's annual production of non-sanitary wastewater and is to be lined with a synthetic liner to prevent percolation through the pond bottom to underlying soils and groundwater.

COMPLIANCE HISTORY

This is a proposed new facility and there is no DEQ compliance history on file. Discussion for the requirement for a WPCF permit for this facility occurred with facility representatives and the Town of Lakeview as part of planning for the project.

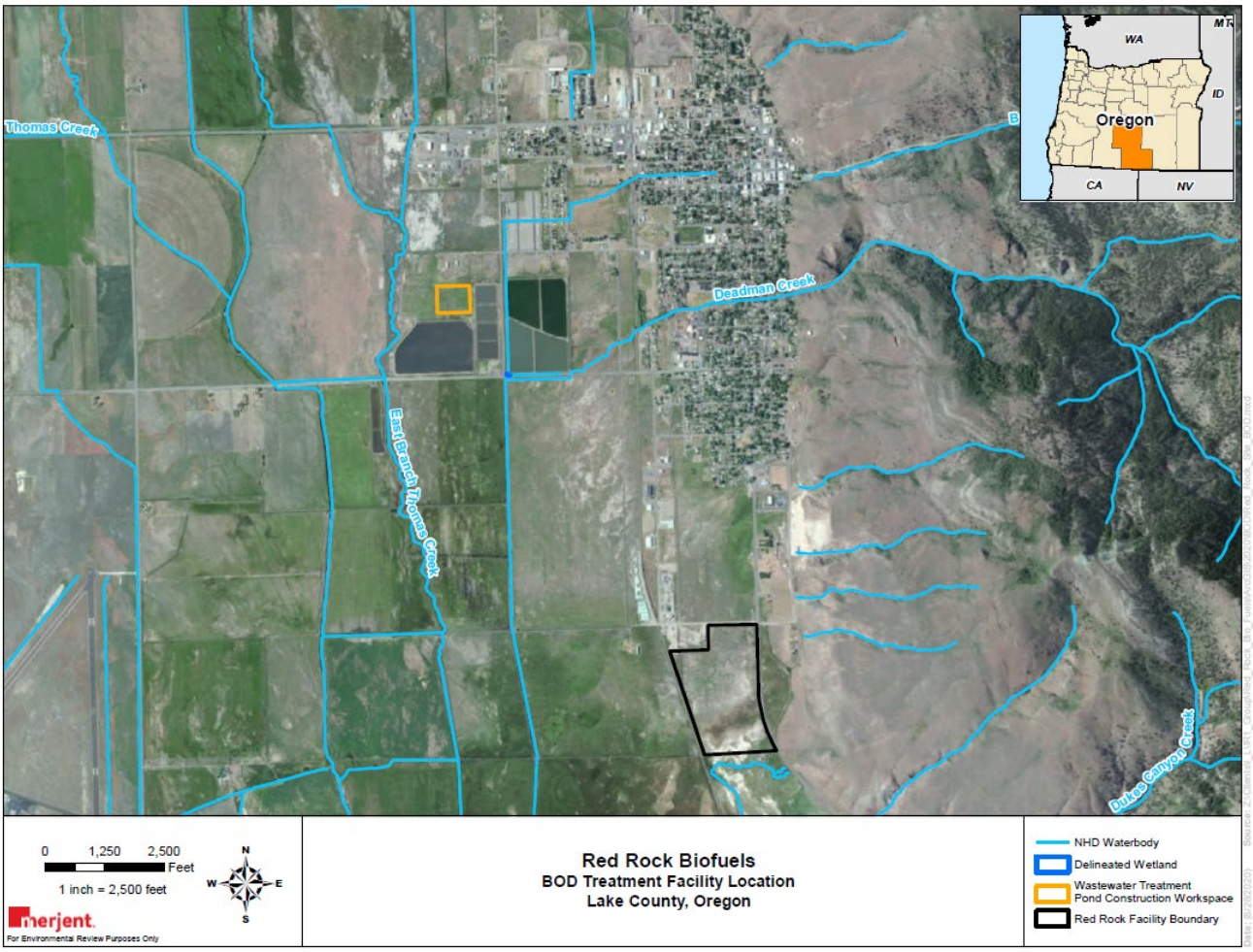

Figure 1: Overhead map supplied with the permit application

SOLIDS HANDLING/DISPOSAL

Over time, solid material (sludge) will accumulate in the bottom of the lagoon. The chemical composition of the sludge is expected to be similar to the non-sanitary wastewater in the pond. The draft permit does not approve the land application of the sludge during periodic required removal activities which are expected to occur as described by the permittee every 5-7 years. During removal activities the facility must be sure to ensure the integrity of the liner is not compromised. The removed material must be properly characterized prior to disposal in accordance with all state, federal, and local regulations.

PERMIT DISCUSSION

Face Page

The face page of the permit describes the legal name of the facility, facility type and location, the type of wastewater generated, and the wastewater outfall. The permittee is authorized to construct, install, modify, or operate a wastewater collection, treatment, control and disposal system in accordance with approved plans & specifications. The permit authorizes disposal of treated wastewater within limits set by Schedule A and according to the other permit schedules. All other discharges are prohibited.

On the face page of the permit the Department has included an LLID number. The LLID or Longitude/Latitude Identification is a unique system of identifiers for streams. An LLID consists of the longitude and latitude at the mouth of the stream and only one LLID exists per stream. Using LLIDs for permittees will allow permit information related to receiving streams to be linked directly to other water quality databases.

Schedule A - Waste Discharge Limits

This section of the permit describes the permitted system which is a single-cell lined lagoon. Some wastewater will be lost (disposed) via evaporation during residence time in the lagoon. The remaining wastewater will be discharged to the Town of Lakeview municipal wastewater treatment system.

This section also describes groundwater protection rules, a prohibition on surface water discharge, and a clause regarding re-opening of the permit by DEQ. Land application is prohibited from this permit, and no sanitary wastewater is allowed to be discharged to the industrial wastewater lagoon.

The only wastewater authorized for discharge and disposal via the treatment lagoon is spent H2S scrubber wastewater and incidental stormwater.

Schedule B - Minimum Monitoring and Reporting Requirements

Schedule B includes minimum acceptable record keeping, monitoring, and reporting. The monitoring proposed is the standard monitoring required by DEQ for similar facilities in the state.

Proposed monitoring requirements are included in order to characterize water entering and exiting the pond and also to assist the operator in identifying operational issues.

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The requirements are as follows:

a. Influent Monitoring

The permittee must monitor influent prior to discharge into the treatment lagoon and report results in accordance with the Table B1 below:

Table B1: Influent Monitoring Requirements

Item or Parameter	Units	Time Period	Minimum Frequency	Sample Type / Required Action See note a.	Report Statistic
Flow (50050)	MGD	Year-round	5x/week	Measurement	Monthly Average Daily Maximum
BOD_5 (00310)	mg/L	Year-round	Quarterly	Grab	Quarterly Value
TSS (00530)	mg/L	Year-round	Quarterly	Grab	Quarterly Value
pH (00400)	Standard Units SU	Year-round	Quarterly	Grab	Quarterly Value
Temperature (00010)	ºC	Year-round	Quarterly	Grab	Quarterly Value

b. Lagoon Site Monitoring

The permittee must periodically assess the following parameters of the lagoon as described in Table B2 below:

Table B2: Lagoon Monitoring and Reporting

Item or Parameter	Minimum Frequency	Type of Sample	Report
Perimeter Inspection (See Note a)	Monthly	Observation/Log Entry	Report monthly inspection completed date
Depth of Wastewater per Lagoon	Monthly	Staff gauge measurement	Record Measurement
Lagoon Solids Accumulation	Once/Permit Cycle	Measurement	Record Measurement
Notes: a. A perimeter inspection is a visual surveillance of the lagoon dikes looking for the presence of muskrats, ground hogs, or other rodents whose burrowing activities could threaten the structural integrity of a dike.			

c. Effluent Monitoring

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The permittee must monitor effluent for the discharge from the lagoon to the domestic wastewater treatment facility and report results in accordance with Table B3 below:

Table B3: Effluent Monitoring Requirements

Item or Parameter	Units	Time Period	Minimum Frequency	Sample Type/ Required Action See note c.	Report Statistic
Flow (50050)	MGD	Year-round	5x/week	Measurement	Monthly Average Daily Maximum
BOD_5 (00310)	mg/L	Year-round	Quarterly	Grab	Quarterly Value
TSS (00530)	mg/L	Year-round	Quarterly	Grab	Quarterly Value
pH (00400)	Standard Units (SU)	Year-round	Quarterly	Grab	Quarterly Value
Temperature (00010)	ºC	Year-round	Quarterly	Grab	Quarterly Value

Schedule C – Compliance Conditions

The proposed permit does not contain any compliance conditions in Schedule C.

Schedule D - Special Conditions

The proposed permit includes several special operating conditions. Conditions are included requiring that a contingency plan for spills be developed, and requiring the Department to be notified in the event of a spill or other malfunction.

Prior to constructing or modifying the facility the permittee must submit detailed plans and specifications for approval in writing by the Department.

The facility must properly address nuisance conditions, and designate an environmental supervisor to coordinate all necessary oversight of the treatment facility.

The contact information for the DEQ Bend office is included for notifications of non-compliance with the terms and conditions of the permit.

The facility is responsible for adhering to any additional pretreatment requirements required by the accepting POTW. No hauled waste is allowed for discharge into the wastewater lagoon.

General Conditions

These are conditions that are attached to and part of all WPCF permits. The general conditions for industrial WPCF permits are included in this permit.

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CONCLUSION

DEQ proposes to assign a new WPCF permit to the facility in response to the submitted application. The drafted permit documents will be routed to the applicant for a 14-day applicant review period. A required public notification will follow as required by OAR 340-045.

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