Public Notice

Public Hearing About Crescent Sanitary District Proposed Water Quality Permit

The Oregon Department of Environmental Quality invites the public to provide written comment on the conditions of Crescent Sanitary District's proposed water quality permit, known officially as a Water Pollution Control Facilities permit.

Summary

Subject to public review and comment, DEQ intends to issue the permit that allows Crescent Sanitary District to construct, operate, and maintain a sewage collection and treatment system.

How do I participate?

Attend the public hearing to learn about the permit application, ask any questions you might have and provide oral or written comments on the proposed permit. You can also submit written comments by mail, fax or email.

Hearing details

When: 6 p.m.
Tuesday, Sept. 25, 2018
Where: Crescent Community Club
420 Crescent Cutoff Road
Crescent, OR 97733

Send written comments by mail, fax or email to:

Jackie Ray, Permit Coordinator
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, Oct. 1, 2018. All comments will become part of the public record.

About the facility

On April 10, 2018, Crescent Sanitary District applied to DEQ for a wastewater permit. The district is located in Klamath County. The district is proposing a new sanitary sewer collection and treatment system to serve homes and commercial buildings within district boundaries.

The district is proposing two phases of construction: first the wastewater treatment system and second, the gravity collection system.

The proposed wastewater treatment system is located in Klamath County, East of Hwy 97, approximately 1.5 miles south of the Crescent Cutoff Road and Highway 97 intersection.

The proposed wastewater treatment system includes a synthetically lined lagoon system, chlorine disinfection system and a synthetically lined recycled water storage pond. Recycled water is treated wastewater that can be used for irrigation or other beneficial purposes once it meets certain treatment standards. The district is proposing irrigation of recycled water to grow vegetation near the wastewater treatment system.

When the permit is issued, the district has 180 days to submit a recycled water use plan. After the plan has been submitted, there will be a separate public comment period before DEQ approves the plan. Until that time the districts permit prohibits the use of recycled water.

The closest surface water is the little Deschutes River. The permit prohibits discharge of wastewater to surface water.

What types of pollutants does the permit regulate?

Schedule B of the permit requires the district to monitor wastewater and recycled water for specific factors on a set schedule. One of the factors for recycled water is total coliform bacteria, which is used to determine the adequacy of treatment from the wastewater treatment system. This permit sets conditions for how the district deals with total coliform bacteria.

How does DEQ determine permit requirements?

This permit will require the district to monitor pollutants discharged using approved monitoring practices and standards. DEQ will review the facility's discharge monitoring reports for compliance with the permit.

What happens after the meeting?

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.

Alternative formats

Documents can be provided upon request in an alternate format for individuals with disabilities or in a language other than English

State of Oregon
Department of Environmental Quality

Eastern Region
800 SE Emigrant Ave, Suite 330
Pendleton, OR 97801
Phone: 541-278-4605
800-304-3513
Fax: 541-278-0168
Contact: Jackie Ray, WQ Permit Coordinator

www.oregon.gov/DEQ

DEQ is a leader in restoring, maintaining and enhancing the quality of Oregon's air, land and water.

Notice issued: 8/21/18

for people with limited English skills. To request a document in another format or language, call DEQ in Portland at 503-229-5696, or toll-free in Oregon at 1-800-452-4011, ext. 5696; or email deqinfo@deq.state.or.us.

Notice issued: 8/21/18

WATER POLLUTION CONTROL FACILITIES WASTE DISCHARGE PERMIT

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

Telephone: 541-276-4063

Issued pursuant to ORS 468B.050

ISSUED TO:

Crescent Sanitary District
PO Box 265
Crescent, OR 97733

SOURCES COVERED BY THIS PERMIT:

Type of Waste	Outfall Number	Location
Recycled Water	001	Approximately 1.5 miles south of Crescent, East of Hwy 97

FACILITY TYPE AND LOCATION:

Two Cell Facultative Lagoon and recycled water irrigation upon DEQ approval of Recycled Water Use Plan
Highway 97, approximately 1.5 miles south of Crescent Cutoff Road intersection with Highway 97

RIVER BASIN INFORMATION:

WRD Basin: Deschutes River Basin
USGS Subbasin: Little Deschutes
LLID: 1214536438546
Lat/Long: 43.441386, -121.696125
County: Klamath

Treatment System Class Level: I
Collection System Class Level: II

Nearest surface stream which would receive waste if it were to discharge: Little Deschutes

Issued in response to application number 953387 received April 10, 2018, and based on the land use compatibility statement in the permit record.

	Applicant Review Draft	**Applicant Review Draft**
Don Butcher, Eastern Region Water Quality Permit Manager	Signature Date	Effective Date

PERMITTED ACTIVITIES

Until this permit expires or is modified or revoked, the permittee is authorized to construct, install, modify, or operate a wastewater collection, treatment, control and disposal system in conformance with all the requirements, limitations, and conditions set forth in the attached schedules.

Unless specifically authorized by this permit, by another NPDES or WPCF permit, or by Oregon Administrative Rule, any other direct or indirect discharge to waters of the state is prohibited, including discharge to an underground injection control system.

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SCHEDULE A: WASTE DISCHARGE LIMITS

1. Waste Disposal Limitations

The permittee is authorized to construct, operate, and maintain a collection and wastewater treatment system. No discharge to state waters is permitted.

a. The wastewater system service area is limited to the Crescent Sanitary District[1].
b. The wastewater system lagoon levels must be sufficiently lowered by the end of the irrigation season to ensure adequate wastewater storage capacity during non-irrigation months.
c. The wastewater lagoon cells must maintain to have a minimum of 2 feet, the designed minimum wastewater depth, as necessary to prevent odors.

2. Recycled Water Outfall 001

The permittee must have a suitable recycled water use plan that conforms to OAR 340, 055 and is approved by DEQ in writing prior to land application of recycled water (refer to schedule C). Upon DEQ approval of a recycled water use plan, recycled water must be managed in accordance with the plan. Recycled water must be irrigated using sound irrigation practices including:

a. Upon DEQ approval of a suitable recycled water use plan, irrigation may occur between May 1 and September 30, unless otherwise approved in advance in writing by DEQ.
b. Recycled water must not be applied to frozen ground, snow covered, or saturated soil.
c. Recycled water must be used in a manner and applied at a rate that does not have the potential to adversely impact groundwater quality.
d. Unless otherwise approved in writing by the Department, a deep rooted, evenly distributed vegetation must be maintained on the land application site at all times of application.
e. Recycled water must be applied at a rate and in accordance with site management practices that ensure continued agricultural, horticultural, or silvicultural production and does not reduce the productivity of the site.
f. Overloading of land with nutrients, organics, or other pollutants, or leaching below the root zone is prohibited.
g. Prevention of the following:
    i. Offsite surface runoff or subsurface drainage through drainage tile;
    ii. Creation of odors, fly and mosquito breeding, or other nuisance conditions; and
    iii. Public's direct contact with recycled water.

3. Permit reopener

DEQ may reopen the permit for modification if upon DEQ's review of any annual recycled water use report it is determined the permittee is not meeting the previously listed requirements or any requirements of a DEQ approved recycled water use plan. This includes adverse impacts to groundwater.

[1] June 1, 2018 Crescent Sanitary District Boundary Map

4. Recycled Water Limitations

Class	Treatment	Beneficial Uses
C recycled water	Class C recycled water must be oxidized and disinfected. Total coliform may not exceed: • A median of 23 total coliform organisms per 100 mL, based on results of the last 7 days that analyses have been completed. • 240 total coliform organisms per 100 mL in any two consecutive samples.	Class C recycled water may be used for: • Class D and nondisinfected uses. • Irrigation of processed food crops; irrigation of orchards or vineyards if an irrigation method is used to apply recycled water directly to the soil. • Landscape irrigation of golf courses, cemeteries, highway medians, or industrial or business campuses. • Industrial, commercial, or construction uses limited to: industrial cooling, rock crushing, aggregate washing, mixing concrete, dust control, nonstructural fire fighting using aircraft, street sweeping, or sanitary sewer flushing.

5. Groundwater

The permittee must not conduct activities that could cause an adverse impact on existing or potential beneficial uses of groundwater. All wastewater, solids, and biosolids must be managed and disposed of in a manner that will prevent a violation of the Groundwater Quality Protection Rules (OAR 340, 40).

SCHEDULE B: MINIMUM MONITORING AND REPORTING REQUIREMENTS

1. Monitoring and Reporting Protocols

a. Quality Assurance and Quality Control (QA/QC)
The permittee must develop and implement a written QA/QC program to verify the accuracy of sample analysis as specified in 40 CFR Part 136. The QA/QC program must conform to the requirements of 40 CFR Part 136.7. For additional requirements on proper sampling techniques, test methods and QA/QC procedures, see Schedule F, Sections B.1 and C.

b. Re-analysis, Re-sampling and Reporting of Data if QA/QC Requirements Not Met
If QA/QC requirements are not met for any analysis, the permittee must have the sample re-analyzed. If the sample cannot be re-analyzed, the permittee must re-sample as soon as possible. If a sample result does not meet QA/QC requirements, the result must be included in the DMR along with a notation explaining how it does not meet QA/QC requirements but may not be used in any calculation required by the permit.

c. Reporting Procedures
i. Significant Figures
The permittee must report the same number of significant digits as the permit limit for a given parameter. Regardless of the rounding conventions used by the permittee (such as, rounding 5 up for the calculated results or, in the case of measured values, rounding 5 to the nearest even number), the permittee must use the convention consistently, and must ensure that laboratories employed by the permittee use the same convention.

2. Influent Monitoring and Reporting Requirements

The permittee must monitor influent at the headworks prior to the wastewater sewage lagoons and report results as listed below.

Table B1: Influent Monitoring

Item or Parameter	Minimum Frequency	Sample Type/Required Action	Report
Total Flow (MGD)	Daily	Measurement	1. Daily values 2. Monthly total 3. Monthly average
Flow Meter Calibration	Annual	Verification	Report when and how calibration was completed.
pH (S.U.)	2/Week	Grab	1. Daily values 2. Maximum daily value 3. Minimum daily value

3. Recycled Water Monitoring and Reporting Requirements

The permittee must monitor recycled water and report results as listed below. The samples must be representative of the recycled water delivered for beneficial reuse at the locations identified in the Recycled Water Use Plan. Monitoring locations are specified in Table B2

Table B2: Recycled Water Monitoring

Item or Parameter	Minimum Frequency	Sample Type/Required Action	Report
Monitoring Location: After the chlorine contact chamber/prior to recycled water storage pond			
pH (S.U.)	2/Week (when discharging to recycled water storage pond)	Grab	1. Daily values 2. Maximum daily value 3. Minimum daily value
Quantity Chlorine Used (lbs)	Daily (when discharging to recycled water storage pond)	Measurement	1. Daily values
Chlorine, Total Residual (mg/L)	Daily (when discharging to recycled water storage pond)	Grab	1. Daily values 2. Maximum daily value 3. Minimum daily value
Total Coliform bacteria (Class C)	Weekly (when discharging to recycled water storage pond)	Grab	1. Daily values 2. Median of the last 7 days of analyses 3. Maximum value
Monitoring Location: Fire or Dust Suppression fill pipe into tanker truck			
Total Flow (MGD) to fire or dust suppression tanker truck	Daily when in use	Measure or calculate	1. Daily values 2. Monthly total
Monitoring Location: After storage pond/prior to recycled water irrigation			
Total Flow (MGD) and inches per acre	Daily	Measurement and calculation	1. Daily values 2. Monthly total 3. Monthly average
Identify sprinkler set in use (when more than one set is used)	Daily (when irrigating)	Other	1. Daily values
Flow Meter Calibration	Annual	Verification	Report when and how calibration was completed.
Nutrients (TKN, NO2+NO3-N, NH3, Total Phosphorus)	Quarterly (when irrigating)	Grab	1. Daily values

4. Lagoon Site

Table B3: Lagoon System Monitoring

Item or Parameter	Minimum Frequency	Sample Type/Required Action
Depth of Wastewater level (all cells)	Weekly	1. Measurement/Log Entry
Perimeter Inspection[2]	Weekly	1. Observe and report
Monitor Sludge Depths in a Mapped Grid Pattern	Once every five years	1. Measurement and map

[2] A perimeter inspection is a sight surveillance of the lagoon dikes looking for the presence of rodents, vegetation growth, wind damage or other activity could threaten the structural integrity of the lagoon system.

5. Minimum Reporting Requirements

The permittee must report monitoring results as listed below.

Table B5: Reporting Requirements and Due Dates

Reporting Requirement	Frequency	Due Date	Report Form (unless otherwise specified in writing)	Submit To:
1. Table B1: Influent Monitoring 2. Table B2: Recycled Water Monitoring 3. Table B3:Lagoon System Monitoring	Monthly	15th day of the month following data collection	DEQ-approved discharge monitoring report (DMR) form.	DEQ Regional Office
1. Recycled water annual report describing effectiveness of recycled water system in complying with the DEQ-approved recycled water use plan, OAR 340-055, and this permit. See Schedule D for more detail.	Annually	January 31	2 hard copies	One each to: • DEQ Regional Office • DEQ Water Reuse Program Coordinator
Wastewater solids annual report describing quality, quantity, and use or disposal of wastewater solids generated at the facility.	Annually	February 19	2 hard copies	One each to: • DEQ Regional Office • DEQ Biosolids Program Coordinator
Inflow and infiltration report	Annually	February 1	1 hard copy	DEQ Regional Office

Notes:
d. Name, certificate classification, and grade level of each responsible principal operator as well as identification of each system classification must be included on DMRs.
e. Equipment breakdowns and bypass events must be noted on DMRs.

SCHEDULE C: COMPLIANCE SCHEDULE

1. Recycled Water use Plan

No later than 180 days after the effective date of this permit, the permittee must submit to DEQ a suitable recycled water use plan that meets the requirements of OAR 340-055. At a minimum, the plan must identify the following:

a. Measures to prepare the land application site and establish an evenly distributed, deep-rooted vegetation to minimize erosion, runoff, or infiltration of recycled water beyond the root zone.
b. Management practices, including silviculture practices that maintain the evenly distributed, deep-rooted vegetation.

2. CMOM Plan

No later than 180 days after the effective date of this permit, the permittee must submit to DEQ a capacity, management, operation, and maintenance (CMOM) plan for the sanitary sewer collection system including reduction of inflow and infiltration (I/I). The plan must include the following:

a. Standards and legal authority for inspection and approval for new connections of private laterals to sewer mains and program to implement requirements.
b. Standards, legal authority, and program implementation to verify onsite systems are decommissioned in accordance with OAR 340-071-0185 Onsite System Rules.
c. Method for systematic identification and management of I/I in the entire collections system.
d. Description of funding, budgeting, and schedule for implementation of the CMOM program.

3. Notice of Compliance

The permittee is expected to meet the compliance dates that have been established in this schedule. Either prior to or no later than fourteen (14) days following any lapsed compliance date, the permittee must submit to the DEQ a notice of compliance or noncompliance with the established schedule. The Director may revise a schedule of compliance if he/she determines good and valid cause resulting from events over which the permittee has little or no control.

SCHEDULE D: SPECIAL CONDITIONS

1. Inflow and Infiltration

An annual inflow and infiltration report must be submitted to DEQ as directed in Schedule B. The report must include the following:

a. Details of activities performed in the previous year to identify and reduce inflow and infiltration.
b. Details of activities planned for the following year to identify and reduce inflow and infiltration.
c. A summary of sanitary sewer overflows that occurred during the previous year.

2. Emergency Response and Public Notification Plan

The permittee must develop, maintain, and implement, an Emergency Response and Public Notification Plan (the Plan) per Schedule F, Section B, and Conditions 5 & 6. The permittee holder must develop the plan within six months of permit issuance and update the plan annually to ensure that telephone and email contact information for applicable public and private agencies are current and accurate. An updated copy of the plan must be kept on file for DEQ review. The latest plan revision date must be listed on the plan cover along with the reviewer's initials or signature.

3. Recycled Water Use Plan

a. In order to use or distribute recycled water for reuse, the permittee must develop, maintain, and implement a DEQ-approved Recycled Water Use Plan meeting the requirements in OAR 340-055-0025. Conditions in the plan are enforceable requirements under this permit.
b. The permittee must submit substantial modifications to an existing plan to DEQ for approval at least 60 days prior to implementation of the proposed changes.

4. Exempt Wastewater Reuse at the Treatment System

The permittee is exempt from the recycled water use requirements in OAR 340 Division-055 when recycled water is used at the wastewater treatment system for landscape irrigation or for in-plant processes at the wastewater treatment system and all of the following conditions are met:

a. The recycled water is an oxidized and disinfected wastewater.
b. The recycled water is used at the wastewater treatment system site where it is generated. Contiguous property to the parcel of land upon which the treatment system is located is considered the wastewater treatment system site if under the same ownership.
c. Spray or drift or both from the use does not occur off the site.
d. Public access to the site is restricted.

5. Biosolids Management Plan

Six (6) months prior to the removal of accumulated solids from the lagoon, the permittee must submit to DEQ a biosolids management plan developed in accordance with OAR 340, Division 50. Upon approval of the plan by the Department, the plan must be implemented by the permittee.

6. Hauled Waste Requirements

The permittee must not accept hauled wastes, including but not limited to wastewater solids from another treatment facility including domestic septage, grease trap wastes, portable and chemical toilet wastes, landfill leachate, groundwater remediation wastewater, and commercial or industrial wastewater. These must not be

accepted at this facility for treatment or processing without unless DEQ has approved a hauled waste management plan and given the permittee written approval from DEQ.

7. Wastewater Solids Transfer

The permittee may transfer or dispose of biosolids without a DEQ-approved biosolids management plan as follows:

a. *Within state.* The permittee may transfer wastewater solids including Class A and Class B biosolids, to another facility permitted to process or dispose of wastewater solids, including but not limited to: another wastewater treatment facility, landfill, or incinerator. The permittee must monitor, report, and dispose of solids as required under the permit of the receiving facility.

b. *Out of state.* If wastewater solids, including Class A and Class B biosolids, are transferred out of state for use or disposal, the permittee must obtain written authorization from DEQ, meet Oregon requirements for the use or disposal of wastewater solids, notify in writing the receiving state of the proposed use or disposal of wastewater solids, and satisfy the requirements of the receiving state.

8. Operator Certification

a. Definitions
   i. “Supervise” means to have full and active responsibility for the daily onsite technical operation of a wastewater treatment system or wastewater collection system.
   ii. “Supervisor” or “designated operator” means the operator delegated authority by the permittee for establishing and executing the specific practice and procedures for operating the wastewater treatment system or wastewater collection system in accordance with the policies of the owner of the system and any permit requirements.
   iii. “Shift Supervisor" means the operator delegated authority by the permittee for executing the specific practice and procedures for operating the wastewater treatment system or wastewater collection system when the system is operated on more than one daily shift.
   iv. “System” includes both the collection system and the treatment systems.

b. The permittee must comply with OAR 340, 49, “Regulations Pertaining to Certification of Wastewater System Operator Personnel" and designate a supervisor whose certification corresponds with the classification of the collection and/or treatment system as specified on p. 1 of this permit.

c. The permittee must have its system supervised full-time by one or more operators who hold a valid certificate for the type of wastewater treatment or wastewater collection system, and at a grade equal to or greater than the wastewater system’s classification as specified on p. 1 one of this permit.

d. The permittee's wastewater system may not be without the designated supervisor for more than 30 days. During this period, there must be another person available to supervise who is certified at no more than one grade lower than the classification of the wastewater system. The permittee must delegate authority to this operator to supervise the operation of the system.

e. If the wastewater system has more than one daily shift, the permittee must have another properly certified operator available to supervise operation of the system. Each shift supervisor, if any, must be certified at no more than one grade lower than the system classification.

f. The permittee is not required to have a supervisor on site at all times; however, the supervisor must be available to the permittee and operator at all times.

g. The permittee must notify DEQ in writing of the name of the system supervisor. The permittee may replace or re-designate the system supervisor with another properly certified operator at any time and must notify DEQ in writing within 30 days of replacement or re-designation of operator in charge. The notice of replacement or re-designation must be sent to Water Quality Division, Operator Certification Program, 700 NE Multnomah Street, Suite 600, Portland, OR 97232-4100 or to another address as determined by the Operator Certification Program.

h. Upon written request, DEQ may grant the permittee reasonable time, not to exceed 120 days, to obtain the services of a qualified person to supervise the wastewater system. The written request must include a justification for the time needed, schedule for recruiting and hiring, date the system supervisor availability ceased, and name of the alternate system supervisor as required by above.

9. Spill Response Plan

The permittee must have and implement an up-to-date spill response plan for prevention and handling of spills and unplanned discharges. The spill response plan must include the following:

a. A description of the reporting system that will be used to alert responsible managers and legal authorities in the event of a spill.
b. A description of preventive measures and facilities (including an overall facility plot showing drainage patterns) to prevent, contain, or treat spills of these materials.
c. A description of the permittee's training program to ensure that employees are properly trained at all times to respond to unplanned and emergency incidents.
d. A description of the applicable reporting requirements. These must be consistent with the reporting requirements found in Schedule F, condition D.5.

SCHEDULE F (NOV 2015 VERSION)

WPCF GENERAL CONDITIONS – DOMESTIC FACILITIES

SECTION A. STANDARD CONDITIONS

1. Duty to Comply with Permit

The permittee must comply with all conditions of this permit. Failure to comply with any permit condition is a violation of Oregon Revised Statutes (ORS) 468B.025 and grounds for an enforcement action. Failure to comply is also grounds for the Department to modify, revoke, or deny renewal of a permit.

2. Property Rights and Other Legal Requirements

Issuance of this permit does not convey any property rights of any sort, or any exclusive privilege, or authorize any injury to persons or property or invasion of any other rights, or any infringement of federal, tribal, state, or local laws or regulations.

3. Liability

The Department of Environmental Quality or its officers, agents, or employees may not sustain any liability on account of the issuance of this permit or on account of the construction or maintenance of facilities or systems because of this permit.

4. Permit Actions

After notice by the Department, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including but not limited to the following:

a. Violation of any term or condition of this permit, any applicable rule or statute, or any order of the Commission;

b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts.

5. Transfer of Permit

This permit may not be transferred to a third party without prior written approval from the Department. The Department may approve transfers where the transferee acquires a property interest in the permitted activity and agrees in writing to fully comply with all the terms and conditions of this permit and the rules of the Commission. A transfer application and filing fee must be submitted to the Department.

6. Permit Fees

The permittee must pay the fees required by Oregon Administrative Rules.

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

At all times the permittee must maintain in good working order and properly operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to comply with the terms and conditions of this permit.

2. Standard Operation and Maintenance

All waste collection, control, treatment, and disposal facilities or systems must be operated in a manner consistent with the following:

a. At all times, all facilities or systems must be operated as efficiently as possible in a manner that will prevent discharges, health hazards, and nuisance conditions.

b. All screenings, grit, and sludge must be disposed of in a manner approved by the Department to prevent any pollutant from the materials from reaching waters of the state, creating a public health hazard, or causing a nuisance condition.

c. Bypassing untreated waste is generally prohibited. Bypassing may not occur without prior written permission from the Department except where unavoidable to prevent loss of life, personal injury, or severe property damage.

3. Noncompliance and Notification Procedures

If the permittee is unable to comply with conditions of this permit because of surfacing sewage; a breakdown of equipment, facilities or systems; an accident caused by human error or negligence; or any other cause such as an act of nature, the permittee must:

a. Immediately take action to stop, contain, and clean up the unauthorized discharges and correct the problem.

b. Immediately notify the Department's Regional office so that an investigation can be made to evaluate the impact and the corrective actions taken, and to determine any additional action that must be taken.

c. Within 5 days of the time the permittee becomes aware of the circumstances, the permittee must submit to the Department a detailed written report describing the breakdown, the actual quantity and quality of waste discharged, corrective action taken, steps taken to prevent a recurrence, and any other pertinent information.

Compliance with these requirements does not relieve the permittee from responsibility to maintain continuous compliance with the conditions of this permit or liability for failure to comply.

4. Wastewater System Personnel

The permittee must provide an adequate operating staff that is duly qualified to carry out the operation, maintenance, and monitoring requirements to assure continuous compliance with the conditions of this permit.

5. Public Notification of Effluent Violation or Overflow

If effluent limitations specified in this permit are exceeded or an overflow occurs that threatens public health, the permittee must take such steps as are necessary to alert the public, health agencies and other affected entities (e.g., public water systems) about the extent and nature of the discharge in accordance with the notification procedures developed under General Condition B.6. Such steps may include, but are not limited to, posting of the river at access points and other places, news releases, and paid announcements on radio and television.

6. Emergency Response and Public Notification Plan

The permittee must develop and implement an emergency response and public notification plan that identifies measures to protect public health from overflows, bypasses or upsets that may endanger public health. At a minimum the plan must include mechanisms to:

a. Ensure that the permittee is aware (to the greatest extent possible) of such events;
b. Ensure notification of appropriate personnel and ensure that they are immediately dispatched for investigation and response;
c. Ensure immediate notification to the public, health agencies, and other affected public entities (including public water systems). The overflow response plan must identify the public health and other officials who will receive immediate notification;
d. Ensure that appropriate personnel are aware of and follow the plan and are appropriately trained;
e. Provide emergency operations; and
f. Ensure that DEQ is notified of the public notification steps taken.

SECTION C. MONITORING AND RECORDS

1. Inspection and Entry

The permittee must at all reasonable times allow authorized representatives of the Department to:

a. Enter upon the permittee's premises where a waste source or disposal system is located or where any records are required to be kept under the terms and conditions of this permit;

b. Have access to and copy any records required by this permit;

c. Inspect any treatment or disposal system, practices, operations, monitoring equipment, or monitoring method regulated or required by this permit; or

d. Sample or monitor any substances or permit parameters at any location at reasonable times for the purpose of assuring permit compliance or as otherwise authorized by state law...

2. Averaging of Measurements

Calculations of averages of measurements required for all parameters except bacteria must use an arithmetic mean; bacteria must be averaged as specified in the permit.

3. Monitoring Procedures

Monitoring must be conducted according to test procedures specified in the most recent edition of **Standard Methods for the Examination of Water and Wastewater**, unless other test procedures have been approved in writing by the Department and specified in this permit.

4. Representative Sampling

Sampling and measurements taken as required herein must be representative of the volume and nature of the monitored discharge when discharging or land applying. Monitoring points must not be changed without notification to and the approval of DEQ.

5. Retention of Records

The permittee must retain records of all monitoring and maintenance information, including all calibrations, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. The Department may extend this period at any time.

SECTION D. REPORTING REQUIREMENTS

1. Plan Submittal

Pursuant to Oregon Revised Statute 468B.055, unless specifically exempted by rule, construction, installation, or modification of disposal systems, treatment works, or sewerage systems may not commence until plans and specifications are submitted to and approved in writing by the Department. All construction, installation, or modification shall be in strict conformance with the Department's written approval of the plans.

2. Change in Discharge

Whenever a facility expansion, production increase, or process modification is expected to result in a change in the character of pollutants to be discharged or in a new or increased discharge that will exceed the conditions of this permit, a new application must be submitted together with the necessary reports, plans, and specifications for the proposed changes. A change may not be made until plans have been approved and a new permit or permit modification has been issued.

3. Signatory Requirements

All applications, reports, or information submitted to the Department must be signed and certified by the official applicant of record (owner) or authorized designee.

4. Twenty-Four Hour Reporting

The permittee must report any noncompliance that may endanger health or the environment. Any information must be provided orally (by telephone) to DEQ or to the Oregon Emergency Response System (1-800-452-0311) as specified below within 24 hours from the time the permittee becomes aware of the circumstances.

a. Overflows.

(1) Oral Reporting within 24 hours.

i. For overflows other than basement backups, the following information must be reported to the Oregon Emergency Response System (OERS) at 1-800-452-0311. For basement backups, this information should be reported directly to DEQ.

a) The location of the overflow;
b) The receiving water (if there is one);
c) An estimate of the volume of the overflow;
d) A description of the sewer system component from which the release occurred (e.g., manhole, constructed overflow pipe, crack in pipe); and
e) The estimated date and time when the overflow began and stopped or will be stopped.

ii. The following information must be reported to the Department's Regional office within 24 hours, or during normal business hours, whichever is first:

a) The OERS incident number (if applicable) along with a brief description of the event.

(2) Written reporting within 5 days.

i. The following information must be provided in writing to the Department's Regional office within 5 days of the time the permittee becomes aware of the overflow:

a) The OERS incident number (if applicable);
b) The cause or suspected cause of the overflow;
c) Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the overflow and a schedule of major milestones for those steps;
d) Steps taken or planned to mitigate the impact(s) of the overflow and a schedule of major milestones for those steps; and
e) (for storm-related overflows) The rainfall intensity (inches/hour) and duration of the storm associated with the overflow.

The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

b. Other instances of noncompliance.

(1) The following instances of noncompliance must be reported:

i. Any unanticipated bypass that exceeds any effluent limitation in this permit;
ii. Any upset that exceeds any effluent limitation in this permit;
iii. Violation of maximum daily discharge limitation for any of the pollutants listed by the Department in this permit; and
iv. Any noncompliance that may endanger human health or the environment.

(2) During normal business hours, the Department's Regional office must be called. Outside of normal business hours, the Department must be contacted at 1-800-452-0311 (Oregon Emergency Response System).

(3) A written submission must be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission must contain:

i. A description of the noncompliance and its cause;
ii. The period of noncompliance, including exact dates and times;
iii. The estimated time noncompliance is expected to continue if it has not been corrected;
iv. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance; and
v. Public notification steps taken, pursuant to General Condition B.6.

(4) The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

SECTION E. DEFINITIONS

1. *BOD_5* means five-day biochemical oxygen demand.
2. *TSS* means total suspended solids.
3. *FC* means fecal coliform bacteria.
4. *NH_3-N* means Ammonia Nitrogen.
5. *NO_3-N* means Nitrate Nitrogen.
6. *NO_2-N* means Nitrite Nitrogen.
7. *TKN* means Total Kjeldahl Nitrogen.
8. *Cl* means Chloride.
9. *TN* means Total Nitrogen.
10. "*Bacteria*" includes but is not limited to fecal coliform bacteria, total coliform bacteria, and E. coli bacteria.
11. *Total residual chlorine* means combined chlorine forms plus free residual chlorine.
12. *mg/1* means milligrams per liter.
13. *ug/l* means micrograms per liter.
14. *kg* means kilograms.
15. *GPD* means gallons per day.
16. *MGD* means million gallons per day.
17. *Grab sample* means an individual discrete sample collected over a period of time not to exceed 15 minutes.
18. *Composite sample* means a combination of samples collected, generally at equal flow or time intervals over a 24-hour period.
19. *Week* means a calendar week of Sunday through Saturday.
20. *Month* means a calendar month.
21. *Quarter* means January through March, April through June, July through September, or October through December.

Oregon Department of Environmental Quality

Water Pollution Control Facilities

Permit Evaluation Report and Fact Sheet

Draft Date: June 18, 2018

Eastern Region – Pendleton Office
800 SE Emigrant Ave, Suite 330
Pendleton OR 97801
800-304-3513

Permittee:	Crescent Sanitary District PO Box 265 Crescent, OR 97733
Existing Permit Information:	N/A, new proposed facility
Source Contact:	Charles Lawrence, (541) 876-7881 Crescent Sanitary District, Project Manager
Site Location:	Mile and a half due south of Crescent, East of Highway 97 Crescent Oregon Klamath
LLID:	1214536438546
Facility:	Facultative lagoon system with winter storage. Land application of recycled water with DEQ approved recycled water use plan. Deschutes River Basin Little Deschutes River Sub-Basin
Proposed Action:	Issuance of new WPCF Permit Application Number: 953387 Date Received: April 10, 2018
Source Category:	WPCF – Domestic
Sources Covered:	Domestic sewage
Permit Type:	Water Pollution Control Facilities Permit
Permit Writer:	Steve McMillan DEQ Western Region WQ Compliance, 541-686-7799 June 18, 2018

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Figures

1.0 Introduction

The purpose of this permit evaluation report is to explain and provide justification for the permit.

Crescent Sanitary District is a special taxing district in Klamath County and not within the corporate limits of a City. DEQ proposes to issue a Water Pollution Control Facilities wastewater permit for the district. Discharge to surface water or waters of the state is prohibited. The proposed permit authorizes the district to construct, operate and maintain a sewage collection system and a lagoon treatment system for biological treatment of wastewater and disposal by evaporation. The permit also authorizes recycled water use after DEQ receives, places on public notice, and approves a suitable recycled water use plan. Recycled water is the treated effluent from a domestic wastewater treatment system that, after the appropriate level of treatment, is used for a specific beneficial purpose. Schedule C of the proposed permit has a compliance schedule for the district to submit and implement a suitable recycled water use plan (RWUP).

2.0 Issuance, Renewal and Modifications

This is a new proposed permit for a domestic wastewater treatment system serving the Crescent Sanitary District. DEQ received application number 953387 from the district on April 10, 2018.

The district is located near the Little Deschutes River (Appendix A, Boundary Map of the district). The Crescent Sanitary District does not currently have a centralized sewage collection and treatment system and therefore has no compliance history.

The existing development within Crescent Sanitary District disposes of domestic waste using onsite sewage disposal (septic) systems located on private property. Groundwater is present at shallow depths below the ground surface. Septic systems rely on biological treatment of domestic sewage. The presence of groundwater at or immediately below septic systems impedes the biological treatment of sewage. Septic systems in the presence of groundwater and rapidly draining soils can leach nitrates, and other pollutants, into groundwater. Nitrates in drinking water may cause public health issues.

New development in Crescent is problematic due to challenges of meeting onsite sewage system requirements. Challenges for onsite sewage disposal include small lots, shallow water tables, and rapidly draining soil. Some of the existing businesses in Crescent have chosen to use portable toilets to alleviate high flows to their septic systems during periods of high use.

Sanitary Districts can adopt ordinances and regulations in Oregon. Crescent Sanitary District is a government special district and proposes a central sewage collection and treatment system to help protect the groundwater resource and community drinking water. Sanitary districts can compel all residents and property owners in the district to connect their houses and structures to a common collection system to be treated at a central sewage treatment plant (Oregon Revised Statute 450.075). The district also states that ordinances will address, among other things, decommissioning of septic systems upon connection to sanitary sewer.

3.0 Facility description

3.1 Wastewater Treatment

The proposed sanitary sewage system includes the connection of individual sewer laterals on private property to a centralized collection system. The collection system will flow by gravity to five lift stations[1]. The raw wastewater will flow to a wastewater treatment system south of Crescent. The wastewater treatment system is located approximately 1.5 miles south of the Crescent Cutoff Road and Highway 97 intersection. The proposed treatment and land application system is located east of Highway 97.

The proposed collection system will flow to an inlet distribution system of the two primary lagoons of the wastewater treatment system. The lagoons are designed with a high-density polyethylene liner to prevent leakage and adverse impacts

[1] There are five proposed lifts stations in the collection system at the time of writing the draft permit.

to groundwater. The lagoons can be operated in parallel or in series to maximize treatment. In addition, a lagoon can be taken offline when needed for maintenance. The treated effluent flows to a wastewater disinfection system after biological treatment in the primary lagoons.

The proposal includes plans for disinfection of the wastewater with liquid chlorine sodium hypochlorite in a below grade contact chamber. Controls for chlorine disinfection are located in a chlorination building. The chlorinated wastewater then flows into a 20-acre HDPE lined pond for storage (Process Flow Diagram, Appendix B).

The discharge from the storage pond is proposed for use as Class C recycled water on land near the wastewater treatment system. The proposed permit does not authorize recycled water use until a suitable recycled water use plan is submitted and approved in writing by DEQ. The plan will be placed on public notice prior to DEQ approval.

The district plans also proposes use of the treated storage pond effluent as recycled water for either wildfire firefighting (non-structural) or dust suppression.

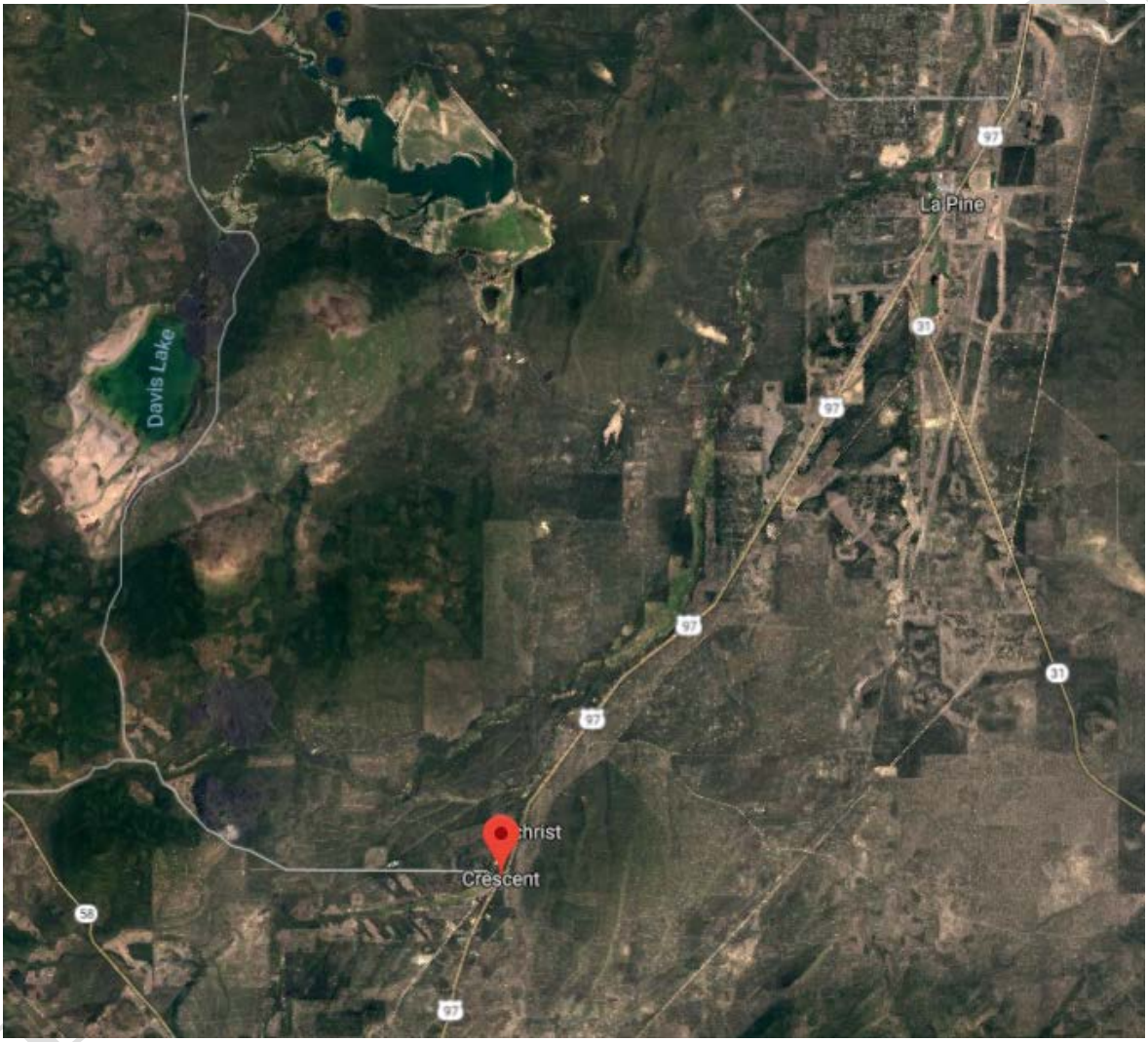


Figure 1: Crescent, North Klamath County

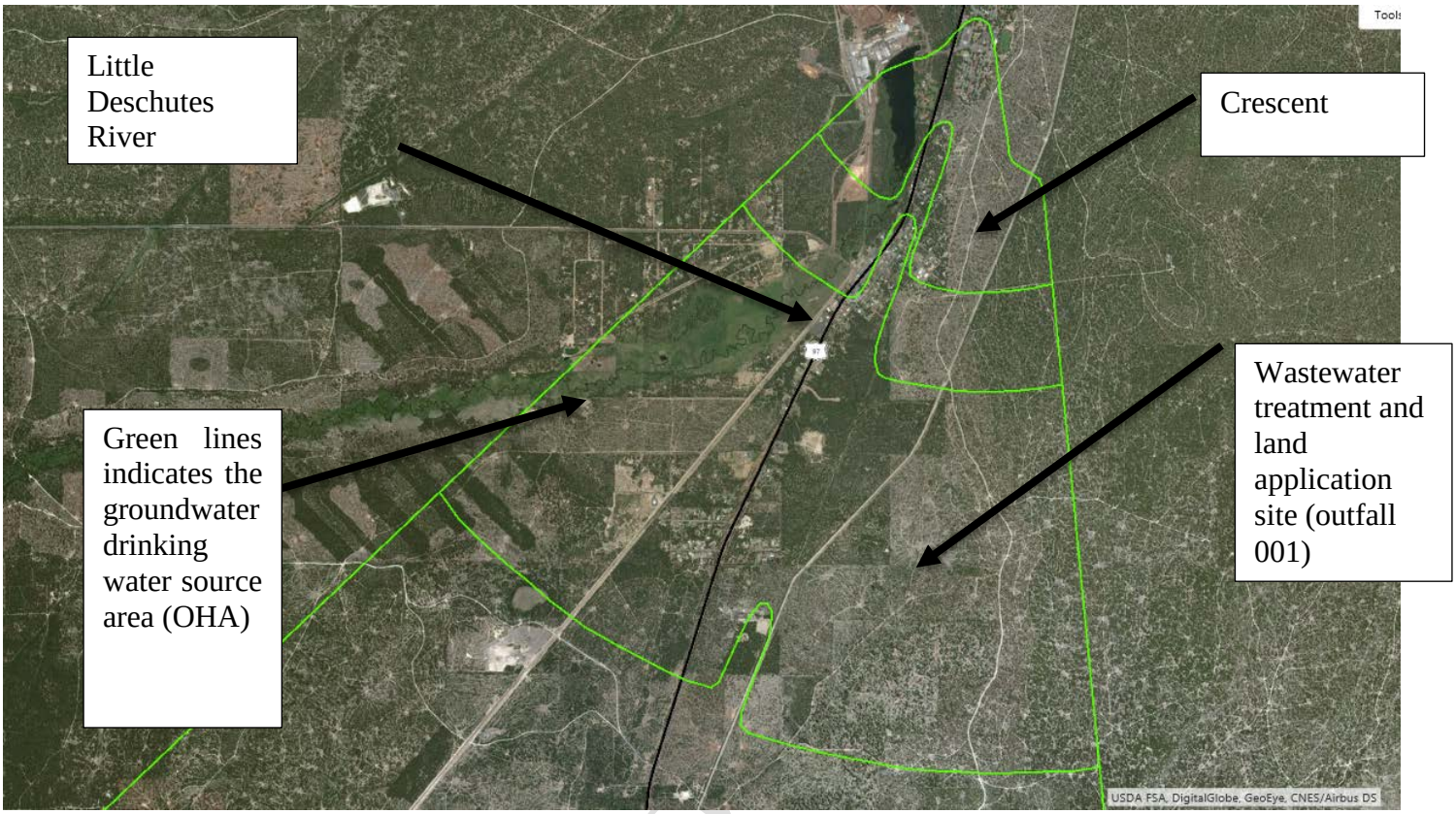


Figure 2: District Wastewater Treatment Facility Location

3.2 Outfalls

Outfall 001 is the storage pond for recycled water. Recycled water use; either irrigation or for dust or fire suppression, is not authorized by the proposed permit until a suitable recycled water use plan is approved in writing by DEQ. The district is proposing recycled water irrigation near the proposed wastewater treatment facility located in Township 24 South, Range 9 East, Sections 19 and 30; Township 24 South, Range 8 East Section 25; and Township 25 South, Range 9 East, Section 6. Sewage Collection System

Sewer collection systems are designed to collect and transport raw sewage from residences and businesses within the served communities. The district proposes a wastewater treatment facility to treat and dispose of sewage. The proposed collection system will flow by gravity to five lift stations that will pump the sewage to the wastewater treatment system.

As collection systems age, pipes develop cracks or separate at connections, allowing the infiltration of groundwater. Shallow water tables increase the possibility of groundwater infiltration into the centralized connection system. Private sewer lines that are not watertight that connect to the district's collection system can cause appreciable amounts of groundwater inflow into the collection system. Stormwater runoff may also enter the system. The entry of groundwater and stormwater into the collection system is known as infiltration and inflow, or I/I for short.

I/I can be problematic for centralized wastewater treatment systems as a significant cost is associated with pumping, treating, and disposing of I/I that comingles with the raw sewage within the collection system. The district will need an active I/I control program with specific requirements including inspection of new connections to the collection system to ensure they are watertight. As part of the I/I control program the district will also need to fund the identification and rehabilitation of any areas with high I/I in the collection system. Without a consistently vigilant I/I program, the district may need to expand the wastewater treatment system at some point in the future to address high volumes of I/I.

3.3 Recycled Water

Recycled water is the treated effluent from a domestic wastewater treatment system that, after the appropriate level of treatment, is used for a specific beneficial purpose. A common use of recycled water is for growing crops that use the water and the nutrients in recycled water for plant growth. Recycled water must be applied at agronomic rates that will not result in public health and environmental impacts. Specifically, recycled water application must be managed so that recycled water and its nutrients do not leach past the crop's roots in the soil. The recycled water irrigation site is reported to have a rapidly draining soil. This increases the importance of careful application rates of recycled water that does not exceed the receiving crop or vegetation's consumptive requirements.

The permit authorizes the use of recycled water after DEQ receives, places on public notice, and approves a suitable recycled water use plan. Schedule C of the proposed permit has a compliance schedule for the district to submit and implement a recycled water use plan. The recycled water use plan, including the specifics of any proposed use of recycled water and how it will be managed to comply with Oregon's recycled water use rules (OAR 340, 055) will be available for public comment after a suitable plan is submitted. Oregon rules requires that Oregon Health Authority be provided the opportunity to comment on Class C recycled water use plans.

The district proposes irrigation of Class C recycled water. Class C recycled water requires a specific level of treatment. The treatment criteria is included as a limit in the proposed permit.

The district also proposes beneficial use of recycled water use for either firefighting (non-structural) or dust suppression. The plans include a distribution system for tanker trucks using an overhead fill pipe with a 90 degree bend and drop hose connection for filling tanker trucks with recycled water (Class C recycled water). Recycled water use rules also require notification of the rules to recycled water users or people that may come in direct contact with recycled water.

When a recycled water use plan is approved by DEQ, any major changes[2] to the approved plan require resubmittal to DEQ for review prior to implementing the changes. Foreplaning by the permittee is necessary to provide DEQ and Oregon Health Authority sufficient time to review the revised plan along with the required 35-day public comment period.

3.4 Land Use Compatibility Statement

DEQ and other state agencies with permitting or approval activities that affect land use are required by Oregon law (OAR 340, 018) to be consistent with local comprehensive plans and have a process for determining consistency. Permittees are required to submit a complete Land Use Compatibility form with wastewater applications. The LUCS form was developed by DEQ to determine whether a DEQ permit or approval will be consistent with local government comprehensive plans and land use regulations. DEQ received Crescent Sanitary's District's LUCS on April 10, 2018. The Klamath County Planning Commission findings had conditions of approval that included:

> Any changes to the siting of the setbacks, storage pond. Lagoons, primary irrigation area or secondary irrigation area reflected in the proposed site plan, submitted with the applications, shall require County Land Use approval.

The District must submit to DEQ a new LUCS signed by the local planning official when applicable in accordance with the Klamath County Commission findings.

3.5 Wastewater Solids

Wastewater solids is a term that includes sewage sludge and biosolids. Sewage sludge refers to solids from primary, secondary, or advanced treatment of domestic wastewater that have not been treated or determined to be suitable for land application as fertilizer or soil amendment. The term biosolids refers to domestic wastewater treatment facility solids that have undergone adequate treatment and are suitable for application to the land as a fertilizer or soil amendment.

[2] Major changes may include but are not limited to: changes in the treatment system, new beneficial purpose(s), change of classification of water use.

It is anticipated that the wastewater solids will be stored in the lagoon system during the term of the proposed permit. However, a condition is included in the permit requiring a biosolids management plan, with the sufficient time for evaluation and public notification, prior to anticipated removal of any sludge from the lagoons system.

3.6 Storm Water

Stormwater is not addressed in this permit. General NPDES permits for stormwater are not required for facilities with a design flow of less than 1 MGD.

3.7 Groundwater

The majority of the service area receives water service from the Crescent Water Association Water System. The Association obtains the source water from a number of public water supply wells. The closest community drinking water well is approximately 1200 feet from the recycled water irrigation site. Most of the wells are more than 200 feet to groundwater. Two wells are much shallower. Rick Hill, DEQ Hydrogeologist, reviewed the groundwater information that the district provided and provided comments. The majority of the community drinking water system wells are approximately a mile away. There is a potential for some impact but it is minimized if recycled water irrigation rates do not exceed the recycled water agronomic requirements. A worksheet with screening criteria for Groundwater Review is attached (Appendix C).

4.0 Permit Draft Discussion

4.1 Face Page

The face page provides information about the permittee, description of the wastewater, outfall locations, receiving stream information, permit approval authority, and a description of permitted activities. The permittee is authorized to construct, install, modify, or operate a wastewater collection, treatment, control, and disposal system. The permit allows beneficial land application of recycled water and biosolids within limits set by Schedule A and the following schedules. Discharges to waters of the state are prohibited.

A Wastewater Classification Worksheet for Operator Certification was completed for the proposed wastewater collection and treatment system. The worksheet is attached (Appendix D). The draft permit requires an operator Grade I treatment certification and Grade II collections certification.

4.2 Schedule A. Waste Discharge Limits

The proposed permit limits for the district are included in Schedule A of the permit. Narrative limits are listed in the proposed permit. Numeric limits are also included in the proposed permit as follows:

Class	Treatment	Beneficial Uses
C recycled water	Class C recycled water must be oxidized and disinfected. Total coliform may not exceed: • A median of 23 total coliform organisms per 100 mL, based on results of the last 7 days that analyses have been completed. • 240 total coliform organisms per 100 mL in any two consecutive samples.	Class C recycled water may be used for: • Class D and nondisinfected uses. • Irrigation of processed food crops; irrigation of orchards or vineyards if an irrigation method is used to apply recycled water directly to the soil. • Landscape irrigation of golf courses, cemeteries, highway medians, or industrial or business campuses. • Industrial, commercial, or construction uses limited to: industrial cooling, rock crushing, aggregate washing, mixing concrete, dust control, nonstructural firefighting using aircraft, street sweeping, or sanitary sewer flushing.

4.2.1 Groundwater

The permit requires that the permittee not adversely affect groundwater.

4.3 Schedule B- Minimum Monitoring and Reporting Requirements

The permittee must comply with the monitoring and reporting QA/QC requirements and reporting requirements in Schedule B. The permittee must also comply with the minimum monitoring reporting requirements proposed in Schedule B along with any monitoring and reporting required in any DEQ approved recycled water use plan. Monthly discharge monitoring reports and annual reports must be submitted in accordance to the requirements in Schedule B.

4.4 Schedule C-Compliance Schedule

4.4.1 Recycled Water

The permittee must submit to DEQ a suitable recycled water use plan within 180 days of the permit effective date.

4.4.2 Inflow and Infiltration

The permittee must submit to DEQ a capacity, management, operation, and maintenance plan within 180 days of the permit effective date.

4.4.3 Compliance with Schedule

The permittee must submit a notice of noncompliance with the established schedule prior or no later than 14 days following any lapsed compliance date.

4.5 Schedule D-Special Conditions

4.5.1 Inflow and Infiltration

Annual inflow and infiltration reports must be submitted to DEQ.

4.5.2 Emergency Response and Public Notification Plan

The permittee must develop within 6 months of permit issuance an Emergency Response and Public Notification Plan. The plan must be kept on file for DEQ review upon request.

4.5.3 Exempt Wastewater Reuse at the Treatment System

This condition exempts the permit holder from the recycled water requirements in OAR 340-055, when recycled water is used for landscape irrigation at the treatment facility or for in-plant processes, such as in plant maintenance activities. Landscape irrigation includes water applied to small-scale irrigation such as supplying supplemental irrigation to turf grass, shrubs, and ornamental trees. Landscape irrigation may include the irrigation of native vegetation along dikes, banks, and earthen impounds around wastewater lagoons—especially as needed to reduce erosion and maintain structural integrity. Landscape irrigation does not include large-scale of pasture, hayfields, or native vegetation adjacent to the wastewater treatment facility (i.e., these activities are subject to OAR 340-055 and require development of a recycled water use plan). All of the conditions listed in (6)(i) through (6)(iv), Schedule D of the permit must be satisfied for an exempt use to be valid.

4.5.4 Biosolids Management Plan

The permittee must submit to DEQ a biosolids management plan a minimum of 6 months prior to the removal of accumulated solids from the lagoon system.

4.5.5 Hauled Waste Requirements

The permittee must not accept hauled wastes as defined.

4.5.6 Wastewater Solids

Conditions requiring the permit holder to develop and maintain a biosolids management plan and land application plan are provided in Schedule D. The biosolids management plan and the land application plan must meet the requirements in

OAR 340-050-0031 and describe where and how the land application of biosolids is managed to protect public health and the environment.

The land application plan includes all sites authorized by DEQ for land application of Class B biosolids and described in individual, DEQ-issued site authorization letters.

A DEQ-initiated public notice will be provided for any new site that does not meet these criteria and/or that DEQ considers sensitive with respect to residential housing, runoff potential, and/or threat to groundwater.

4.5.7 Wastewater Solids Transfers

The permit allows the facility to transfer treated or untreated wastewater solids to other in-state or out-of-state facilities that are permitted to accept the wastewater solids. The permittee is required to monitor, report, and dispose of solids as required by the permit of the receiving facility. Wastewater solids that are transferred out-of-state must meet all requirements for the use of disposal or wastewater solids as required by both Oregon and the receiving state.

4.5.8 Operator Certification

The permittee must comply with Oregon Administrative Rules (OAR) Chapter 340, Division 49, "Regulation Pertaining to Certification of Wastewater System Operator Personnel".

4.5.9 Spill Response Plan

The permittee must have an up to date spill response plan for preventing and handling of spills and unplanned discharges. (The plan may be combined with the Emergency Response and Public Notification Plan) The plan must be implemented.

4.6 Schedule F - WPCF General Conditions

These conditions are standard to all WPCF permits and address state statutes and rules that pertain to all types of system operations that do not discharge directly to surface waters. The General Conditions were revised in 2010. A summary of the changes is as follows:

- Reporting requirements regarding overflows have been made more explicit.
- Requirements regarding emergency response and public notification plans have been made more explicit.

5.0 Next Steps

5.1 Public Comment Period

The proposed NPDES permit will be made available for public comment for 35 days. Public notice and links to the proposed permit will be posted on DEQ's website and sent to subscribers to DEQ's pertinent public notice e-mail lists. A public hearing for the proposed permit will also be held.

5.2 Response to Comments

DEQ will respond to comments received during the comment period. All those providing comment will receive a copy of DEQ's response. Interested parties may also request a copy of DEQ's response. Once comments are received and evaluated, DEQ will decide whether to issue the permit as proposed, to make changes to the permit, or to deny the permit. DEQ will notify the permittee of DEQ's decision.

5.3 Modifications to Permit Evaluation Report and Fact Sheet

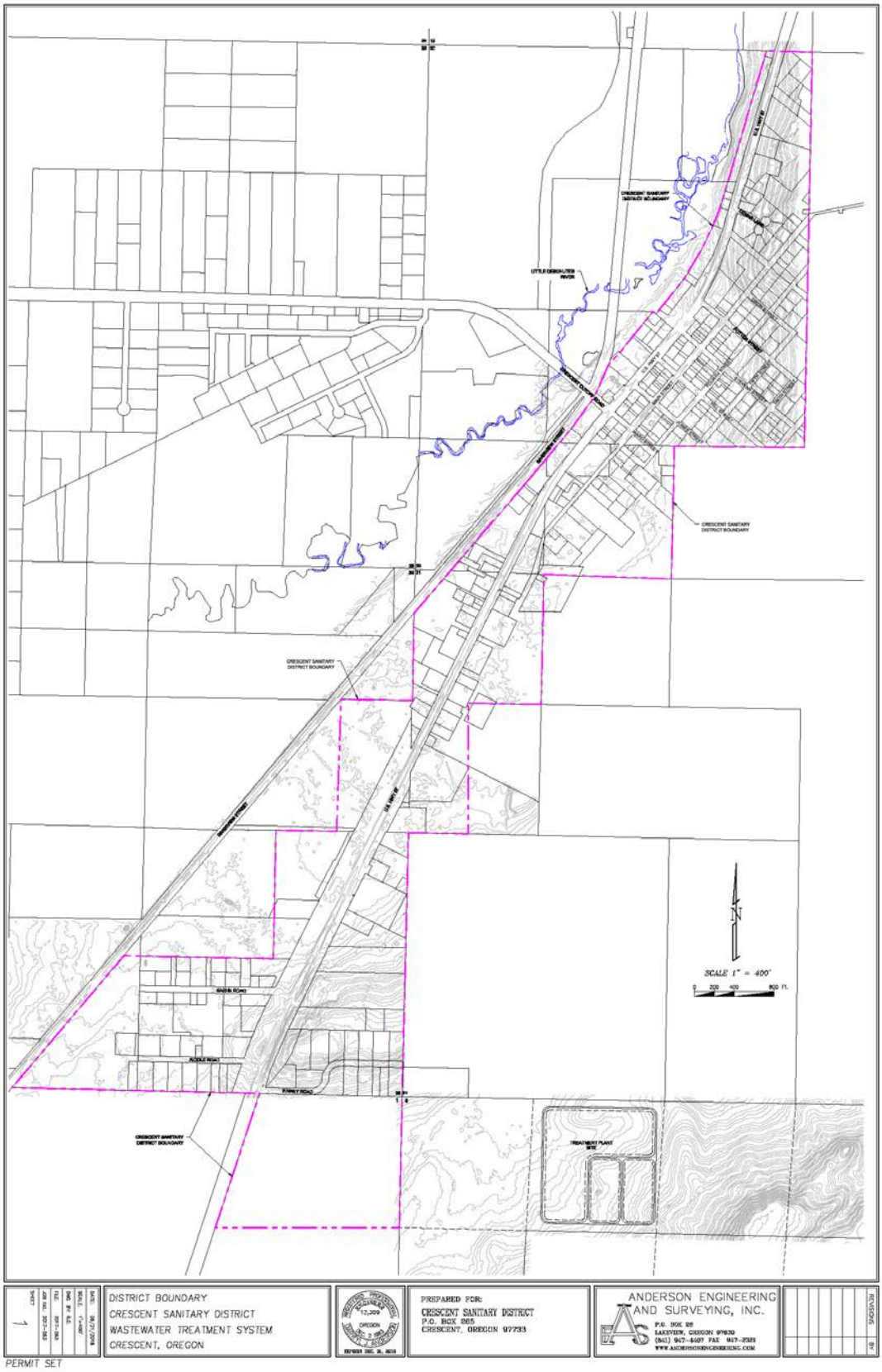
Depending on the nature of the comments and any changes made to the permit as result of comments, DEQ may modify this permit evaluation report and fact sheet. DEQ may also choose to update the permit evaluation report and fact sheet through memorandum or addendum. If substantive changes are made to the permit, then an additional round of public comment may occur.

5.4 Issuance

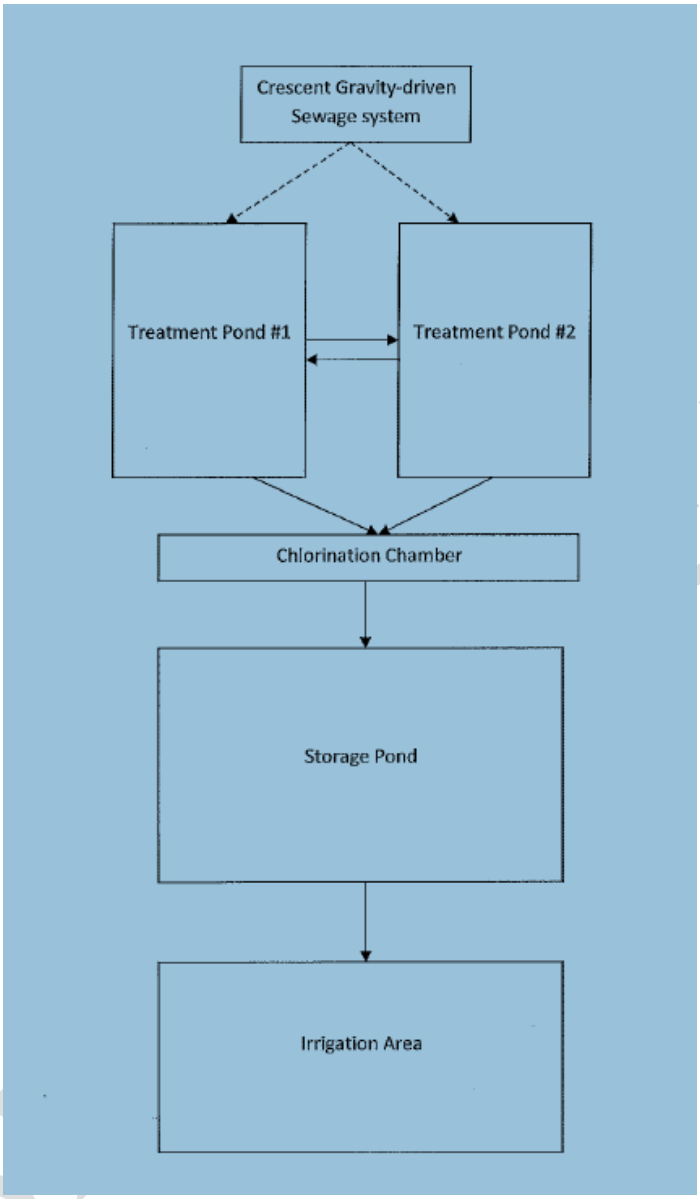
DEQ mails the finalized, signed permit to the permittee.

APPENDIX A: JUNE 1, 2018 CRESCENT SANITARY DISTRICT BOUNDARY MAP

Map is not to scale



APPENDIX B: CRESCENT SANITARY DISTRICT WASTEWATER PROCESS FLOW DIAGRAM



APPENDIX C: SCREENING CRITERIA FOR GROUNDWATER REVIEW

Water Quality Program NPDES and WPCF Permitted Facilities
Prioritization Screening Criteria For Groundwater Review

Sign Off Sheet

Permit Type (circle one): NPDES (WPCF)
Type of Facility: Crescent Sewer District
Application Number: 953387
File Number: 125831

Worksheet Completed by: Steve McMillan	Approved by:
Date: 6/25/2018	Date:

Additional Information Provided to Refute Significance of *False* Responses.
See Note in File Dated: June 13, 2018 File Name: Map (from Rick Hill)

Prioritization Worksheet and Preliminary Groundwater Assessment Steps Waived by Permit Applicant. Applicant Will Proceed Directly to Hydrogeologic Characterization.

Approved by: N/A, Applicant
Approved by: _____, DEQ
Date: _____

Water Quality Program NPDES and WPCF Permitted Facilities
Prioritization Screening Criteria For Groundwater Review

DOMESTIC WASTEWATER FACILITIES N/A - Not Existing

EXISTING **Wastewater and Sludge/Biosolids Impoundment Systems (confirm all statements given as true or false):**		
1. System (any or all of its individual impoundment components) does not leak excessively. (An **"excessively"** leaking lagoon system or cell may be defined as one that has been designed for subsurface infiltration, rarely or never needs to discharge, dries up in the summer, or contains rooted vegetation.)	○ True	○ False
2. System is not located in a Groundwater Management Area where an identified contaminant of concern may be associated with domestic wastewater or sludge.	○ True	○ False
3. System is not located within 1000 ft. of an existing public or private drinking water supply well, is not located within a designated Wellhead Protection Area, and all land within 1000 ft. of the system is zoned such that no drinking water wells are likely to be installed in the future.	○ True	○ False
4. There are no **exceptional situations** under which the impoundment system may require further groundwater review to determine the likelihood of an adverse impact.	○ True	○ False

NEW **Wastewater and Sludge/Biosolids Impoundment Systems (confirm all statements given as true or false):**		
1. System (any or all of its individual impoundment components) is designed to leak no more than 1/8" per day.	⊙ True	○ False
2. System is not located in a Groundwater Management Area where an identified contaminant of concern may be associated with domestic wastewater or sludge.	⊙ True	○ False
3. System is not located within 1000 ft. of an existing public or private drinking water supply well, is not located within a designated Wellhead Protection Area, and all land within 1000 ft. of the system is zoned such that no drinking water wells are likely to be installed in the future.	⊙ True	○ False
4. There are no **exceptional situations** under which the impoundment system may require further groundwater review to determine the likelihood of an adverse impact.	⊙ True	⊙ False Void

If *all* answers for a given facility type are true, then no further information is needed. Narrative groundwater standards should be included in the permit.

If *any* answers for a given facility type were false, additional information may be gathered to satisfy the permit writer and groundwater reviewer that the facility actually has a low potential to adversely impact groundwater quality. If this cannot easily be done, the applicant should proceed with a Preliminary Groundwater Assessment. If there is reason to believe the facility poses a high risk to groundwater quality, the applicant may be encouraged to skip the Preliminary Groundwater Assessment step and proceed directly with the Hydrogeologic Characterization.

DOMESTIC WASTEWATER FACILITIES (CONTINUED)

Recycled Water Use Plan Pending

New and *Existing* Wastewater and Sludge/Biosolids Land Application (confirm **all** statements given as true or false):		
1. Application is in compliance with the "reuse" rules (or municipal sewage sludge application rules) and application rates are at or less than agronomic rates. (Note: Nominal leaching fractions may be considered to be in compliance with the "reuse" rules in some areas of the state such as parts of eastern Oregon where climatic conditions indicate the need.)	O True	O False
2. There are no **exceptional situations** under which the impoundment system may require further groundwater review to determine the likelihood of an adverse impact.	O True	O False

Not a Drainfield

N/A

New and *Existing* Drainfield Systems (confirm all statements given as true or false):		
1. Based on the depth to the water table, circle the letter of the applicable statement and confirm it as either true or false: A. Depth to water table is less than 100 feet: System design flow is less than 5,000 gpd. B. Depth to water table is between 100 and 300 feet: System design flow is less than 10,000 gpd. C. Depth to water table is greater than 300 feet: System design flow is less than 15,000 gpd.	O True	O False
2. System is not located in a Groundwater Management Area where an identified contaminant of concern may be associated with domestic wastewater.	O True	O False
3. System is not located within 1000 ft. of an existing public or private drinking water supply well, is not located within a designated Wellhead Protection Area, and all land within 1000 ft. of the system is zoned such that no drinking water wells are likely to be installed in the future.	O True	O False
4. No industrial sources discharge to the system.	O True	O False
5. There are no **exceptional situations** under which the system may require further groundwater review to determine the likelihood of an adverse impact.	O True	O False

If *all* answers for a given facility type are true, then no further information is needed. Narrative groundwater standards should be included in the permit.

If *any* answers for a given facility type were false, additional information may be gathered to satisfy the permit writer and groundwater reviewer that the facility actually has a low potential to adversely impact groundwater quality. If this cannot easily be done, the applicant should proceed with a Preliminary Groundwater Assessment. If there is reason to believe the facility poses a high risk to groundwater quality, the applicant may be encouraged to skip the Preliminary Groundwater Assessment step and proceed directly with the Hydrogeologic Characterization.

APPENDIX D: THE DISTRICT WASTEWATER SYSTEM CLASSIFICATION WORKSHEET

Oregon Department of Environmental Quality

Wastewater System Classification Worksheet for Operator Certification

STEP 1: Criteria for Classifying Wastewater Treatment Systems (OAR 340-049-0025)

NOTE : see bottom two spreadsheet tabs for Worksheet Instructions & Worksheet Information. See Classification chart at bottom of this worksheet for Classes I-IV.

Wastewater System Common Name:	Crescent Sanitary District		
Location:	Crescent, OR	Region:	ER
County:	Klamath	Date:	18-Jun-18
Facility File #:	125831	Classified by:	Steve McMillan
Design ADWF (Influent MDG):	0.163	WWC Class:	II
Design Population*:	3250	WWT Class:	I
Design BOD (Influent lbs/day):	553	Small WWS:	
		If Small WWS, # of connections:	
Is this a change from a prior classification? (yes/no)	N/A	Total Points:	19.0
1. Design Population		or Population Equivalent	1300
Based on: Flow (gallons/person/day)	325	BOD (pounds/person/day)	

WWC Classification	(based on population size)
Less than 500	**Eligible for Small WW System classification if treatment points < 30**
1500 or less	**WWC Class 1**
1501 to 15,000	**WWC Class 2**
15,001 to 50,000	**WWC Class 3**
over 50,000	**WWC Class 4**

WWT Classification	(based on total points)		
Less than 750		0.5	
751 to 2,000		1.0	
2,001 to 5,000		1.5	1.5
5,001 to 10,000		2.0	
Greater than 10,000	(3 + 1 for each additional 10 K)	3.0	

2. Average Dry Weather Flow (Design Capacity)			
Less than 0.075 MGD		0.5	
Greater than 0.075 MGD to 0.1 MGD		1.0	
Greater than 0.1 to 0.5 MGD		1.5	1.5
Greater than 0.5 to 1.0 MGD		2.0	
Greater than 1.0 MGD	(3 + 1 for each additional 1.0 MGD)	3.0	

3. Unit Processes

Preliminary Treatment and Plant Hydraulics		
Comminution (cutter, shredder, grinder, barminutor, etc.)	1.0	
Grit Removal (gravity)	1.0	
Grit Removal (mechanical)	2.0	
Screen(s) (in-situ or mechanical, coarse solids only)	1.0	
Pump/Lift Station(s) (pumping of main flow)	2.0	2.0
Flow Equalization (any type)	1.0	
Primary Treatment		
Community Septic Tank(s) (STEP, STEG, etc.)	2.0	
Clarifier(s)	5.0	
Flotation Clarifier(s)	7.0	
Chemical Addition System	2.0	
Imhoff Tanks (large septic tank or similar sedimentation & digestion)	3.0	
Secondary, Advanced, and Tertiary Treatment		
Low Rate Trickling Filter(s) (no recirculation)	7.0	
High Rate Trickling Filter(s) (recirculating)	10.0	
Trickling Filter - Solids Contact System	12.0	
Activated Sludge (includes SBR & basic MBR process)	15.0	
Pure Oxygen Activated Sludge	20.0	
Activated Bio Filter Tower (less than 0.1 MGD)	6.0	
Activated Bio Filter Tower (greater than 0.1 MGD)	12.0	
Rotating Biological Contactors (1 to 4 shafts)	7.0	
Rotating Biological Contactors (5 or more shafts)	12.0	
Stabilization Lagoons (1 to 3 cells without aeration)	5.0	5.0
Stabilization Lagoons (1 or more cells with primary aeration)	7.0	
Stabilization Lagoons (2 or more cells with full aeration)	9.0	
Recirculating Gravel Filter (or recirculating textile filters)	7.0	
Chemical Precipitation Unit(s)	3.0	
Gravity Filtration Unit(s)	2.0	
Pressure Filtration Unit(s)	4.0	
Nitrogen Removal (Biological (BNR) or Chemical/Biological System)	4.0	
Nitrogen Removal (Design Extended Aeration Only - Nitrification)	2.0	
Phosphorous Removal Unit(s)	4.0	
Effluent Microscreen(s)	2.0	
Chemical Flocculation Unit(s)	3.0	
Ultra Filtration Membrane(s)	15.0	
Chemical Addition System *Description:*	2.0	
Solids Handling (excludes long-term storage in treatment lagoons above)		
Anaerobic Primary Sludge Digester(s) w/o Mixing and Heating	5.0	
Anaerobic Primary Sludge Digester(s) with Mixing and Heating	7.0	
Anaerobic Primary and Secondary Sludge Digesters	10.0	
Sludge Digester Gas Reuse	3.0	
Aerobic Sludge Digester(s)	8.0	
Sludge Storage Lagoon(s) (List Basin(s) or Tank(s) in Step 2)	2.0	

Sludge Lagoon(s) with Aeration	3.0	
Sludge Drying Bed(s)	1.0	
Sludge Air or Gravity Thickening	3.0	
Sludge Composting (in Vessel)	12.0	
Sludge Belt(s) or Vacuum Press/Dewatering	5.0	
Sludge Centrifuge(s)	5.0	
Sludge Incineration	12.0	
Sludge Chemical Addition Unit(s) (alum, polymer, alkaline stab, etc.)	2.0	
Non-Beneficial Sludge Disposal (landfill or burial)	1.0	
Beneficial Sludge Utilization (see also Step 2)	3.0	
Solids Reduction Processing	4.0	
Disinfection		
Liquid Chlorine Disinfection	2.0	2.0
Gas Chlorine Disinfection	5.0	
Dechlorination System	4.0	
Other Disinfection System including Ultraviolet and Ozonation	5.0	
On-Site Chlorine Generation of Disinfectants	5.0	
4. Effluent Permit Requirements		
Minimum of Secondary Effluent Limitation for BOD and/or TSS	2.0	
Minimum of 20 mg/L BOD and/or Total Suspended Solids	3.0	
Minimum of 10 mg/L and/or Total Suspended Solids	4.0	
Minimum of 5 mg/L BOD and/or Total Suspended Solids	5.0	
Effluent Limitations for Effluent Oxygen	1.0	
Other Limits (see Step 2)		
5. Variation in Raw Waste		
Points in this category will be awarded only when conditions are extreme to the extent that operation and handling procedure changes are needed to adequately treat waste due to variation of raw waste (strength or flow).		
Recurring deviations or excessive variations (100 - 200 %)	2.0	
Recurring deviations or excessive variations of more than 200 %, **or** conveyance and treatment of industrial wastes covered by the pretreatment program.	4.0	
Septage or truck-hauled waste	2.0	
6. Sampling and Laboratory Testing		
Sample for BOD, Total Suspended Solids (performed by outside lab)	2.0	2.0
BOD or Total Suspended Solids analysis (performed at treatment plant)	4.0	
Bacteriological analysis (performed by outside lab)	1.0	1.0
Bacteriological analysis (performed at wastewater treatment plant lab)	2.0	
Nutrient, Heavy Metals, or Organic analysis (performed by outside lab, ≤ 1 per month = 1 pt)	*3.0	1.0
Nutrient, Heavy Metals or Organic analysis (performed at WWTP)	5.0	
	Points based on 340-049-0025:	16.0
	Classification based on 340-049-0025	**Class 1**
STEP 2: Complexity Reflected in OAR 340-049 0020(4)		

Note: Include additional points from Step 2 only if the complexity of the wastewater treatement system is not reflected in the points from Step 1. Be sure to justify any additional points from Step 2 in the permit Fact Sheet. Points shown below are given as guidance.

Fine Screen Preliminary Treatment (includes washing & compaction)		2.0	
SCADA or similar instrumentation providing data/w process op.	2.0 - 4.0		
Post-aeration (includes mechanical and diffused aeration - not cascade)		1.0	
Class A recycled water (storage, distribution & monitoring)		6.0	
Class B, C, D and Non-disinfected Recycle (surface & subsurface)		3.0	3.0
Sludge dewatering using bag or tube system		1.0	
Solids Composting (ASP or windrow)		6.0	
Land application of biosolids by system operator		5.0	
Odor or corrosion control (separate or combined)		2.0	
Chemical/physical advanced waste treatment	10 - 15.0		
Reverse Osmosis, Electro-dialysis, Membrane Filtration		15.0	
Standby power	1.0 - 3.0		
Digester Gas Recovery Systems	1.0 - 3.0		
Other Effluent Limitations (describe below)		1.0	
Description:			
		Total	19.0
		Classification based on 340-049-0025	**Class 1**