

WASTEWATER LAND APPLICATION PERMIT

DEPARTMENT OF HEALTH AND WELFARE
DIVISION OF ENVIRONMENTAL QUALITY
224 S. Arthur
Pocatello, ID 83204
Ph. 236-6160

ISSUED TO:

City of Newdale

SOURCES COVERED BY THIS PERMIT:

Type of Waste
Municipal sewage

Method of Treatment
Land Irrigation
lagoon effluent

PLANT TYPE AND LOCATION:

Wastewater Treatment Plant
P.O. Box 70
Newdale, Idaho 83436

AREA INFORMATION:

County: Fremont
Nearest surface stream
which may receive
runoff from wastewater
treatment area:

Teton River

Issued in response to Application No. LA-000064 received December 6, 1988.

SIGNED BY:


Richard P. Donovan, Director
Department of Health and Welfare

11/19/90
Date

PERMITTED ACTIVITIES

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

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All direct discharges to waters of the state are prohibited, except as specifically allowed by the National Pollution Discharge Elimination System.

This permit does not relieve the permittee from responsibility for compliance with other applicable federal, state or local laws, rules or standards.

SCHEDULE A

Wastewater Treatment Limitations

1. The permittee is allowed to land apply 0.045 MGD of lagoon effluent and treat it on 77 acres of agricultural land (referenced in the site map in Appendix "A") in accordance with the conditions of this permit. The wastewater shall be managed in accordance with the plan of operation. The Appendix "A" site map and the plan of operation shall be incorporated by reference into this permit.
2. All wastewater control and treatment facilities shall be operated without any discharge of wastewater or contaminated drainage to surface waters except according to a NPDES permit.
3. Wastewater shall only be applied to land treatment areas which have been approved by the Department of Health and Welfare and upon which a crop will be grown. Wastewater shall not be allowed to run off to land that has not been approved for wastewater treatment.

Criteria for applying wastewater to the approved treatment fields (unless otherwise approved in writing by the Department):

- a. Objectionable odors off the irrigation sites, flies and mosquito breeding and other nuisances shall be minimized by:
 - (1) Applying wastewater as evenly as practicable to the entire treatment area;
 - (2) Preventing organic solids (contained in the wastewater) from accumulating on the ground surface to the point where the solids putrefy or support vectors or insects; and
 - (3) Preventing wastewater from ponding in the fields to the point where the ponded wastewater putrefies or supports vectors or insects.

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- b. Ground water contamination from the wastewater shall be minimized by:
- (1) Applying the wastewater as evenly as practicable to the entire treatment area;
 - (2) Managing the treatment area as an agricultural operation where crops or grasses are grown and harvested or grazed, to utilize the nutrients and minerals in the wastewater (nutrient balanced).
 - (3) Not hydraulically overloading any particular areas of the wastewater treatment fields.

SCHEDULE B

Monitoring and Reporting Requirements

The permittee shall monitor the operation and efficiency of all treatment facilities. Samples shall be collected at times and locations that represent typical characteristics of items monitored. Unless otherwise agreed to in writing by the Department, data collected and submitted shall include, but not be limited to, the following parameters and frequencies. The Department may approve changes such as a reduction in sampling frequency and/or deletion of certain monitoring parameters, if monitoring data indicate such are no longer necessary.

1. Wastewater (during application periods)

<u>Item or Parameter</u>	<u>Frequency</u>	<u>Type of Sample</u>
Total flow (MGD)	Daily	Estimate
Chlorine residue	Weekly	Test Kit
pH	"	"
Nitrate	Twice during each season (May & Sept)	Grab
Total Kjeldahl Nitrogen	"	"
Total Dissolved Solids	"	"
Chemical Oxygen Demand	"	"
Fecal Coliform Bacteria	"	"
Total Coliform Bacteria	"	"

2. Treatment Field Monitoring:

<u>Item or Parameter</u>	<u>Frequency</u>	<u>Type of Sample</u>
hydraulic application rate	Daily (inches/week)	Calculation
COD Loading (lbs/Acre)	Monthly	"
Nitrogen Loading (lbs/Acre)	Monthly	"

3. Soil Monitoring:

<u>Item or Parameter</u>	<u>Frequency</u>	<u>Type of Sample</u>
Sodium Absorption Ratio	*Annual	**Composite
Sodium	"	"
Nitrate Nitrogen	"	"
Total Kjeldahl Nitrogen	"	"
Ammonia Nitrogen	"	"
Chloride	"	"
Electrical Conductivity	"	"

*To be Sampled at the end of the irrigation season.

**The land application site shall be split into two subareas of roughly 40 acres each for sampling purposes. Each subarea shall be sampled at both the 0-12 and 24-36 inch depths in five places so as to areally represent the treatment field. The five samples from each depth shall be composited to yield two composite samples for analysis in each subarea for a total of four composite samples for the entire land application site.

4. Ground Water Monitoring Wells:

<u>Item or Parameter</u>	<u>Frequency</u>	<u>Type of Sample</u>
COD	Semiannual (May and Oct.)	Grab*
Iron	"	"
Manganese	"	"
Nitrate	"	"
pH	"	"

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<u>Item or Parameter</u>	<u>Frequency</u>	<u>Type of Sample</u>
Total Dissolved Solids	"	"
Chloride	"	"
Static Water Level	"	Instantaneous

*The monitoring wells should be purged a minimum of three (3) casing volumes prior to obtaining a sample of the groundwater. The depth to water or static water level shall be measured prior to pumping or sampling the groundwater.

5. Monitoring results from items 1 through 4 above shall be reported to the Department quarterly and shall be received by the Department no later than 30 days after the end of each calendar quarter.
6. Annual Report: (An annual report shall be submitted no later than January 1 of each year and shall cover the previous year.)

The permittee shall provide an annual report to include the following:

- a. Total quantity of wastewater applied (gallons and acre feet per year).
- b. COD applied (pounds per acre per year and total pounds per year).
- c. Nitrogen applied (pounds per acre per year and total pounds per year).
- c. Hydraulic application rate for each field (feet/year).
- d. Soil SAR, nitrate, and salinity status.
- e. Ground Water Status Report (an informed interpretive report of the year's data with respect to the impact on ground water by the facility).

SCHEDULE C

Compliance Conditions and Schedules

1. By November 1, 1990 the city shall have a written agreement/contract with the property owner(s) on which the lagoon effluent is land applied. The agreement shall describe the acres to which the effluent can be applied. The agreement shall also describe when, how and the maximum amount of effluent that can be applied to the described acreage (as described in this document). The agreement will also allow for the construction of monitor wells (as described in item 2 of this document) and shall allow access by city and state officials to collect effluent, soil and groundwater samples. The city shall allow the Department the opportunity to review and comment on the agreement before it is finalized.
2. By November 30, 1990 the city shall install three (3) approved groundwater monitor wells around the designated land application area (one upgradient well and two downgradient wells) so that groundwater can be gauged and sampled during a typical year.
- 3 2. By November 1, 1990 the city shall submit to the Department valid "seepage test" results of the effluent storage pond.
- 4 3. The city shall operate the lagoons so that land application of effluent will be primarily during the crop growing season and so that the effluent storage pond will not overflow nor need to be drained during the non-crop growing season. Land application shall be restricted to no more than 1.5 acre inches per week during the non-crop growing season unless otherwise approved by the Department.
- 5 4. The city shall adequately disinfect effluent that will be land applied.
- 6 5. The wastewater lagoons and ponds shall be adequately maintained. All lagoon transfer structures, pumps, etc., shall be maintained in good working condition. Lagoon/pond dikes shall be checked for rodent damage, leaks or other structural deterioration. Weeds shall be mowed and/or chemically treated so that the structure and function of the dikes and lagoons are not compromised and can be visually inspected. Aquatic and emergent weeds shall be controlled so that they do not interfere with treatment in the lagoons.

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7/8. As a result of operation of this facility, groundwaters of the state must not contain contaminants exceeding those values as referenced under Sections 16.01.2250,06 and 07 of the Idaho Water Quality Standards and Wastewater Treatment Requirements.

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SCHEDULE D

Special Conditions

1. Prior to constructing or modifying any wastewater control facilities, detailed plans and specifications shall be approved in writing by the Department.
2. All waste solids, including dredgings and sludges, shall be utilized or disposed in a manner which will prevent their entry, or the entry of contaminated drainage or leachate therefrom, into the waters of the state such that health hazards and nuisance conditions are not created.

GENERAL CONDITIONS

1. The permittee shall provide an adequate operating staff which is duly qualified to carry out the operation, maintenance and testing functions required to ensure compliance with the conditions of this permit.
2. All wastewater collection, control and treatment facilities shall be operated in a manner consistent with the following:
 - a. At all times, all facilities shall be operated as efficiently as possible and in a manner which will prevent discharges, health hazards and nuisance conditions.
 - b. All screenings, grit and sludge shall be disposed of in a manner such that it does not reach any of the waters of the state or create a health hazard or nuisance condition. Disposal methods and sites are required to be reviewed and approved by DEQ.
 - c. Unauthorized discharge of wastewater is prohibited and no discharge shall occur without prior written permission from the Department.
3. Whenever a facility expansion, production increase or process modification is anticipated which will result in a change in the character of pollutants to be discharged or which will result 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. No change shall be made until plans have been approved and a new permit or permit modification has been issued.
4. 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 terms or conditions of this permit or any applicable rule or standard;
 - b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts.

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5. The permittee shall, at all reasonable times, allow authorized representatives of the Department:
 - a. To enter upon the permittee's premises where a waste source or treatment system is located or in which any records are required to be kept under the terms and conditions of this permit;
 - b. To have access to and copy any records required to be kept under the terms and conditions of this permit;
 - c. To inspect any monitoring equipment or monitoring method required by this permit; or
 - d. To sample any discharge of pollutants.

6. In the event the permittee is unable to comply with all the conditions of this permit because of a breakdown of equipment or facilities, or any other cause, the permittee shall:
 - a. Immediately take action to stop, contain and clean up the unauthorized discharge and correct the problem;
 - b. Notify the Department as required by the Wastewater Land Application Permit Regulations so that an investigation can be made to evaluate the impact and the corrective actions taken and determine additional action that must be taken; and
 - c. Submit a detailed written report as required by these permit regulations describing the breakdown, the actual quantity and quality of resulting waste discharges, corrective action taken, steps taken to prevent a recurrence and all other pertinent information.
 - d. Compliance with these requirements does not relieve the permittee from responsibility to maintain continuous compliance with the conditions of this permit or the resulting liability for failure to comply.

