

A. Permit Certificate

**MUNICIPAL
WASTEWATER-LAND APPLICATION PERMIT
LA-000002-04
City of Spirit Lake**

City of Spirit Lake, LOCATED AT **P.O. Box 309, Spirit Lake, Idaho 83869** AND IN **Township 54N, Range S31, Section S31** IS HEREBY AUTHORIZED TO CONSTRUCT, INSTALL, AND OPERATE A WASTEWATER REUSE SYSTEM IN ACCORDANCE WITH THE WASTEWATER REUSE RULES (IDAPA 58.01.17), THE WASTEWATER RULES (IDAPA 58.01.16), THE GROUND WATER QUALITY RULE (IDAPA 58.01.11), AND ACCOMPANYING PERMIT APPENDICES AND REFERENCE DOCUMENTS. THIS PERMIT IS EFFECTIVE FROM THE DATE OF SIGNATURE AND EXPIRES ON **May 4, 2014**.



Daniel Redline
Coeur d'Alene Office Regional Administrator
Idaho Department of Environmental Quality

Signed this 4th day of May, 2009

**DEPARTMENT OF ENVIRONMENTAL QUALITY
2110 Ironwood Parkway
Coeur d'Alene, Idaho 83814
(208) 769-1422
(208) 769-1404 fax**

POSTING ON SITE RECOMMENDED

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References

1. Plan of Operation (Operation and Maintenance Manual)

The Sections, Appendices, and Reference Documents listed on this page are all elements of Wastewater Reuse Permit LA-000002-04 and are enforceable as such. This permit does not relieve the city of Spirit Lake, hereafter referred to as the permittee, from responsibility for compliance with other applicable federal, state or local laws, rules, standards or ordinances.

C. Abbreviations, Definitions

Ac-in	Acre-inch. The volume of water or wastewater to cover 1 acre of land to a depth of 1 inch. Equal to 27,154 gallons.
BMP or BMPs	Best Management Practices
COD	Chemical Oxygen Demand
DEQ or the Department	Idaho Department of Environmental Quality
Director	Director of the Idaho Department of Environmental Quality, or the Directors Designee, i.e. Regional Administrator
ET	Evapotranspiration – Loss of water from the soil and vegetation by evaporation and by plant uptake (transpiration)
GS	Growing Season – Typically April 01 through October 31 (214 days)
GW	Ground Water
GWQR	IDAPA 58.01.11 “Ground Water Quality Rule”
Guidance	Guidance for Reclamation and Reuse of Municipal and Industrial Wastewater, DEQ.
HLRgs	Growing Season Hydraulic Loading Rate. Includes any combination of wastewater and supplemental irrigation water applied to reuse hydraulic management units during the growing season. The HLRgs limit is specified in Section F. Permit Limits and Conditions.
HLRngs	Non-Growing Season Hydraulic Loading Rate. Includes any combination of wastewater and supplemental irrigation water applied to each hydraulic management unit during the non-growing season. The HLRngs limit is specified in Section F. Permit Limits and Conditions.
HMU	Hydraulic Management Unit (Serial Number designation is MU)
IWR	<p>Irrigation Water Requirement – Any combination of wastewater and supplemental irrigation water applied at rates commensurate to the moisture requirements of the crop, and calculated monthly during the growing season (GS). Calculation methodology for the IWR can be found at the following website: http://www.kimberly.uidaho.edu/water/appndxet/index.shtml. The equation used to calculate the IWR at this website is:</p> $IWR = (CU - Pe) / Ei$ <p>CU is the monthly consumptive use for a given crop in a given climatic area. CU is synonymous with crop evapotranspiration Pe is the effective precipitation. CU minus Pe is synonymous with the net irrigation requirement (IR)</p> <p>Ei is the irrigation system efficiency. To obtain the gross irrigation water requirement (IWR), divide the IR by the irrigation system efficiency.</p>
IDAPA	Idaho Administrative Procedures Act.
LG	Lagoon
lb/ac-day	Pounds (of constituent) per acre per day
MG	Million Gallons (1 MG = 36.827 acre-inches)
MGA	Million Gallons Annually (per WLAP Reporting Year)
NGS	Non-Growing Season – Typically November 01 through March 31 (151 days)
NVDS	Non-Volatile Dissolved Solids (= Total Dissolved Solids less Volatile Dissolved Solids)
O&M manual	Operation and Maintenance Manual, also referred to as the Plan of Operation
Reuse	The use of reclaimed wastewater for beneficial uses including, but not limited to, land treatment, irrigation, aquifer recharge, use in surface water features, toilet flushing in commercial buildings, dust control, and other uses.
Reuse Reporting Year	The reporting year begins with the non-growing season and extends through the growing season of the following year, typically November 01 – October 31. For example, the 2000 Reporting Year was November 01, 1999 through October 31, 2000.
SAR	Sodium Absorption Ratio
SI	Supplemental Irrigation water applied to the reuse treatment site.
Soil AWC	Soil Available Water Holding Capacity - the water storage capability of a soil to a depth at which plant roots will utilize (typically 60 inches or root limiting layer)

C. Abbreviations, Definitions

SMU	Soil Monitoring Unit (Serial Number designation is SU)
SW	Surface Water
TDS	Total Dissolved Solids or Total Filterable Residue
TDIS	Total Dissolved Inorganic Solids – The summation of chemical concentration results in mg/L for the following common ions: calcium, magnesium, potassium, sodium, chloride, sulfate, and 0.6 times alkalinity (alkalinity expressed as calcium carbonate). Nitrate, Silica and fluoride shall be included if present in significant quantities (i.e. > 5 mg/L each).
TMDL	Total Maximum Daily Load – The sum of the individual waste-load allocations (WLA's) for point sources, Load Allocations (LA's) for non-point sources, and natural background. Such load shall be established at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety that takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality. IDAPA 58.01.02 <i>Water Quality Standards and Wastewater Treatment Requirements</i>
Typical Crop Uptake	Typical Crop Uptake is defined as the median constituent crop uptake from the three (3) most recent years the crop has been grown. Typical Crop Uptake is determined for each hydraulic management unit. For new crops having less than three years of on-site crop uptake data, regional crop yield data and typical nutrient content values, or other values approved by DEQ may be used.
USGS	United States Geological Survey
WW	Wastewater applied to the reuse treatment site

D. Facility Information

Legal Name of Permittee	City of Spirit Lake
Type of Wastewater	Municipal
Method of Treatment	Aerated lagoon, storage lagoons, gas chlorine disinfection, slow-rate land application
Type of Facility	Lagoon
Facility Location	Located about 1 mi. NW from the City, west of State Hwy. 41
Legal Location	South ½ of the Northwest ¼ of Section 31, Township 54 North, Range 4 West, B.M and in the North ½ of the Southwest ¼ of the Section 31, Township 54 North, Range 4 West, B.M.
County	Bonner
USGS Quad	Spirit Lake West
Soils on Site	Silt Loam and Loamy sand
Depth to Ground Water	350 feet
Beneficial Uses of Ground Water	Drinking water and protected as federally designated "Sole Source Aquifer" and Idaho designated "Sensitive Resource Aquifer".
Nearest Surface Water	Spirit Creek- intermittent stream
Beneficial Uses of Surface Water	Undesignated
Responsible Official Mailing Address	Mayor Roxy Martin P.O. Box 309 Spirit Lake, ID 83869
Phone / Fax	(208) 623-2131 / (208)623-6463 FAX
Facility Consultants Mailing Address	Kevin Koesel, P.E. and Eric Eldenburg, P.E. James A. Sewell and Associates 600 4 th St. West Newport, WA 99156
Phone / Fax	(509) 447-3626 / (509) 447-2112 FAX

E. Compliance Schedule for Required Activities

The Activities in the following table shall be completed on or before the Completion Date unless modified by the Department in writing.

Compliance Activity Number Completion Date	Compliance Activity Description
<p>CA-002-01 Draft within nine (9) months from Permit issuance</p> <p>Final within twelve (12) months from Permit issuance</p>	<p>Revise applicable sections of the Plan of Operation (Operation and Maintenance Manual or O&M Manual) for the wastewater reuse system, incorporating the requirements of this permit and submit to DEQ for review and approval. The Plan of Operation shall be designed for use as an operator guide for actual day-to-day operations to meet permit requirements and shall include daily sampling and monitoring requirements to insure proper operation of the wastewater treatment facility. The Plan of Operation shall contain at a minimum all of the information required by the latest revision of the Plan of Operation Checklist in the Reuse Program Guidance and:</p> <ul style="list-style-type: none"> a) A crop plan for the entire site; b) A revised map of the sites to be irrigated during the 5-year period covered by this permit showing acres irrigated, dimensions of fields, type of crops to be grown, center pivot lengths with end gun coverage, length of wheel-line irrigation system, soil moisture probe locations, roads/property boundaries and fences; c) Flow rates that can be delivered for the different fields; d) Details on piping used to deliver effluent from the lagoons to the different irrigation systems; e) Details on measuring flows to each field; f) Written procedures for soil, plant tissue, groundwater and effluent testing in accordance with the approved Quality Assurance Project Plan (QAPP); g) Procedures to minimize the migration of nuisance odors from the site; h) Procedures to assure that the irrigation of Fields #2 and #4 does not impact Spirit Creek; and g) A revised "Reuse Site Instrumentation Plan" that discusses the following instruments: <ul style="list-style-type: none"> 1. Daily precipitation and temperature instruments; and, 2. Soil moisture instruments. <p>Upon approval, the manual shall be incorporated by reference into this permit and shall be enforceable as a part of this permit.</p>
<p>CA-002-02 Within twelve (12) months of permit issuance</p>	<p>Complete the installation of any instruments as recommended in the DEQ approved "Instrumentation Plan".</p>

E. Compliance Schedule for Required Activities

Compliance Activity Number Completion Date	Compliance Activity Description
<p>CA-002-03 180 Days Prior to Permit Expiration Submit Report Demonstrating Compliance with Applicable Rules</p>	<p>Perform the lagoon seepage testing in accordance with the Idaho Wastewater Rules (IDAPA 58.01.16.493). A report demonstrating compliance with the applicable rules shall be submitted.</p> <p>Prior to performing any seepage testing, submit a seepage testing plan that defines the approach and testing procedures to conduct seepage testing in accordance with methods approved by DEQ on all wastewater storage structures.</p> <p>Upon approval of the plan, conduct the seepage testing of the structures in the approved plan and submit test results to DEQ. If a properly tested lagoon leaks more than the appropriate performance standard, the permittee shall either:</p> <ul style="list-style-type: none"> a) Submit, for DEQ approval, a plan and schedule to either retest, repair or replace and retest, or decommission structures not meeting this standard or b) Develop a plan based on ground water sampling and analyses and/or modeling to determine the effect of the lagoon leakage on the local ground water. If actual or predicted impacts to ground water do not comply with IDAPA 58.01.11 as determined by DEQ, the permittee shall comply with a) above.

F. Permit Limits and Conditions

- 1) The Permittee is allowed to apply wastewater and treat it on a reuse site as prescribed in the tables below and in accordance with all other applicable permit conditions and schedules.

Category	Permitted Limits and Conditions																																										
Type of Wastewater	Municipal Wastewater																																										
Application Site Area	77 acres total: Field #1 – 44 acres, Field #2 – 13 acres, Field #3 – 9 acres, Field #4 – 11 acres																																										
Application Season	Growing Season Only - May 1 to September 30																																										
Supervision	Certified Operator (minimum certification is “Lagoon” and “Land Application”)																																										
Reporting Period for Loading Rates Presented in Annual Report	May 1 to September 30																																										
Estimated Maximum Hydraulic Loading Rate, Growing Season (includes wastewater and supplemental irrigation water, if used)	<p>Alfalfa (based on 36” consumptive use alfalfa variety)</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>Month</u></th> <th style="text-align: left;"><u>Irrigation Water Requirement (inches)</u></th> <th style="text-align: left;"></th> </tr> </thead> <tbody> <tr> <td>May</td> <td style="text-align: center;">2.79</td> <td>Field #1 – 36 MGA</td> </tr> <tr> <td>June</td> <td style="text-align: center;">5.89</td> <td>Field #2 – 10.6 MGA</td> </tr> <tr> <td>July</td> <td style="text-align: center;">10.16</td> <td>Field #3 – 7.3 MGA</td> </tr> <tr> <td>August</td> <td style="text-align: center;">7.54</td> <td></td> </tr> <tr> <td><u>September</u></td> <td style="text-align: center;"><u>3.69</u></td> <td><u>Total – 54 MGA</u></td> </tr> <tr> <td>Total</td> <td style="text-align: center;">30.07</td> <td></td> </tr> </tbody> </table> <p>Forested Site</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>Month</u></th> <th style="text-align: left;"><u>Irrigation Water Requirement (inches)</u></th> <th style="text-align: left;"></th> </tr> </thead> <tbody> <tr> <td>May</td> <td style="text-align: center;">0.66</td> <td>Field #4 – 15 MGA</td> </tr> <tr> <td>June</td> <td style="text-align: center;">4.96</td> <td></td> </tr> <tr> <td>July</td> <td style="text-align: center;">9.31</td> <td></td> </tr> <tr> <td>August</td> <td style="text-align: center;">6.51</td> <td></td> </tr> <tr> <td><u>September</u></td> <td style="text-align: center;"><u>4.03</u></td> <td></td> </tr> <tr> <td>Total</td> <td style="text-align: center;">25.47</td> <td></td> </tr> </tbody> </table> <p>Soil moisture probes located in each field (HMU) will be used to determine if the HMUs can be irrigated (see Site Instrumentation Plan). If irrigation rates will exceed the estimated maximum hydraulic loading rates listed above by more than 10% in any month, the local DEQ Office must be contacted for approval.</p>	<u>Month</u>	<u>Irrigation Water Requirement (inches)</u>		May	2.79	Field #1 – 36 MGA	June	5.89	Field #2 – 10.6 MGA	July	10.16	Field #3 – 7.3 MGA	August	7.54		<u>September</u>	<u>3.69</u>	<u>Total – 54 MGA</u>	Total	30.07		<u>Month</u>	<u>Irrigation Water Requirement (inches)</u>		May	0.66	Field #4 – 15 MGA	June	4.96		July	9.31		August	6.51		<u>September</u>	<u>4.03</u>		Total	25.47	
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No Runoff	No runoff is allowed from any site or fields used for wastewater land application except after a 25-year, 24-hour storm event or greater using Western Regional Climate Center (WRCC) Precipitation Frequency Map, Figure 28 “Isopluvials of 25-YR, 24-HR Precipitation”. For this site, the 25-year, 24-hour event is 2.6 inches.																																										
Ground Water Quality	Ground Water Quality shall be in compliance with Idaho <i>Ground Water Quality Rule</i> IDAPA 58.01.11.																																										
Maximum Nitrogen Loading Rate, pounds / acre-year, each HMU (from all sources including waste solids and supplemental fertilizers).	150% of typical crop uptake (see definition in Section C), or UI Fertility Guide. In addition, the city and the farmer leasing the field will need to coordinate the amount of nitrogen to be applied (both from the wastewater and supplemental inorganic fertilization). The information to be used will include nitrogen content from harvested plant tissue samples, soil nitrogen concentrations and estimated crop uptake. The goal is to minimize the impacts to groundwater from nitrates leaching past the root zone. A record of this coordination effort will need to be submitted with the annual report.																																										

F. Permit Limits and Conditions

Soil Moisture Probes	Probes will be installed in each HMU, per the approved Site Instrumentation Plan. The soil moisture threshold will be 10 centibars. Daily irrigation rates will be determined based on the soil moisture probe readings and the criteria established in the approved Site Instrumentation Plan.
Construction Plans	Prior to construction or modification of all wastewater facilities associated with the land application system or expansion, detailed plans and specifications shall be reviewed and approved by DEQ. Within 30 days of completion of construction, the permittee shall submit as-built plans for review and approval.
Grazing	Grazing is not allowed
Allowable crops	Crops that are not grown for direct human consumption (those crops that are not processed prior to consumption).
Posting and Fencing	Signs shall be posted every 500 feet and at each corner of the outer perimeter of the buffer zones of the site. The signs should read "Irrigated with Reclaimed Wastewater- Do Not Drink" or equivalent as approved by DEQ. Fencing around the entire land application site needs to be at a minimum three-wire pasture fence or an equivalent level of public protection as approved by DEQ.
Odor Management	The wastewater treatment plant, land application facilities, and other operations associated with the facility shall not create a public health hazard or nuisance conditions, including odors.

Buffer Zone Distances (based on sprinkler irrigation)	Disinfection Level* (total coliform)	Distance to Public Access	Distances to Inhabited Dwellings	Distance to streams¹	Distance to private water sources	Distance to public water sources	Single sample maximum total coliform level
	23/100 ml	50 feet	300 feet	100 feet	500	1000	240/100ml

*Compliance determination method for disinfection requirements is as follows:

- For determining compliance with the 23 / 100 ml disinfection level, the median value of the last five (5) results must not exceed 23 / 100 ml. In addition, no single sample value shall exceed 240 / 100 ml.
1. When Spirit Creek is running or has standing water in the stream bed, a 100' buffer will be maintained between the edge of the creek and any irrigated portion of the field. The operator will need to provide written documentation of his observations on days when Fields #2 (HMU #2) and #4 (HMU are being irrigated (see Section G). The hydraulic loading rate calculations will need to include variations in the acreage applied to within Fields #2 and #4. Wastewater can only being applied to the crops being grown and never applied to the stream bed of Spirit Creek.

G. Monitoring Requirements

- 1) Appropriate analytical methods, as given in the *Guidance for Reclamation and Reuse of Municipal and Industrial Wastewater* or as approved by the Idaho Department of Environmental Quality (hereinafter referred to as DEQ), shall be employed. A description of approved sample collection methods and appropriate analytical methods, in accordance with the approved QAPP shall be included in the Operation and Maintenance Manual.
- 2) The permittee shall monitor and measure parameters and submit information as stated in the Facility Monitoring Table in this section.
- 3) Samples shall be collected at times and locations that represent typical environmental and process parameters being monitored.
- 4) Monitoring locations are described in Appendix 1. Environmental Monitoring Serial Numbers.
- 5) Monitoring is required at the frequency shown in the table below if wastewater is applied anytime during the time period shown. Unless otherwise agreed in writing by the DEQ, data collected and submitted shall include, but not be limited to, the parameters and frequencies in the Facility Monitoring Table as follows.
- 6) If the soil management unit is less than 15 acres, use 5 sub-samples. If the soil management unit is greater than 15 acres, use 10 sub-samples.
- 7) Three (3) soil samples shall be collected at each sample location, one at 0-12 inches, one at 12-24 inches, and one at 24-36 inches. The soil samples collected at 0-12 inches from each sample location shall be composited. Similarly, all soil samples collected at 12-24 inches shall be composited and all soil samples collected at 24-36 inches shall be composited. This method will yield three samples for analysis, one for 0-12 inches, one for 12-24 inches and one for 24-36 inches for each soil management unit.
- 8) Ground Water Monitoring Procedure: Ground Water Monitoring Wells shall be purged a minimum of three casing volumes and/or until field measurements for pH, specific conductance and temperature meet the following conditions: two successive temperature values measured at least five minutes apart are within one degree Celsius of each other, pH values for two successive measurements measured at least five minutes apart are within 0.2 units of each other, and two successive specific conductance values measured at least five minutes apart are within 10% of each other. This procedure will determine when the wells are suitable for sampling for constituents required by the permit. Other procedures, such as low flow sampling, may be considered by DEQ for approval. The static water level shall be measured prior to pumping or sampling for ground water.
- 9) Annual reporting of monitoring requirements is described in Section H, Standard Reporting Requirements.
- 10) Surface water sampling guidance: DEQ to review and approve methods, timing and locations for sampling prior to initial sampling event.

Facility Monitoring Table

Frequency	Monitoring Point	Description and Type of Monitoring	Parameters
Daily (when irrigating)	Flow Meter prior to Discharge Point of Wastewater to Reuse Fields	Volume of Wastewater irrigated	Gallons; Hours each irrigation system ran; Gallons/Month and acre-inches/month applied to each Hydraulic Management Unit
Daily (when irrigating)	Soil Moisture Probes in each HMU	Monitoring soil moisture	Centibars
Daily (when irrigating)	Sample Tap Prior to Discharge of Wastewater to Land Application Fields	Grab sample	Total chlorine residual (mg/L)
Daily	Flow meter into headworks	Influent flow monitoring	Gallons per day

G. Monitoring Requirements

Frequency	Monitoring Point	Description and Type of Monitoring	Parameters
Daily, when irrigating and Spirit Creek is running or has standing water in the stream bed,	Fields #2 (HMU #2) and #4 (HMU #4)	Observation and documentation.	A 100' buffer will be maintained between the edge of the creek and any irrigated portion of the field. The operator will need to provide written documentation of his observations on days when Fields #2 (HMU #2) and #4 (HMU are being irrigated. The hydraulic loading rate calculations will need to include variations in the acreage applied to within Fields #2 and #4. Wastewater can only being applied to the crops being grown and never applied to the stream bed of Spirit Creek.
Weekly (<u>when irrigating</u>)	Sample Tap Prior to Discharge of Wastewater to Land Application Fields	grab sample	Total Coliform
Monthly (when irrigating)	Sample Tap Prior to Discharge of Wastewater to Land Application Fields	grab sample	Total Kjeldahl nitrogen (TKN), nitrate+nitrite-nitrogen, TDS, pH, total phosphorus
Monthly	Each storage lagoon	Volume of wastewater in each storage lagoon	Gallons
Annually	Hydraulic management unit	Acres used for land application	Acres
Annually	Hydraulic management unit	Report total nitrogen and phosphorus load from fertilizer or all other non-wastewater application.	Nitrogen and phosphorus applied in lbs/acre-year
Annually	Hydraulic management unit	Calculate and report total nitrogen and phosphorus loading calculation from wastewater	Nitrogen and phosphorus applied in lbs/acre-year
Annually	Hydraulic management unit	Crop Yield Calculation and Crop Type	tons/acre, lbs/acre, or bushels/acre

G. Monitoring Requirements

Frequency	Monitoring Point	Description and Type of Monitoring	Parameters
Twice per year (in April before fertilizing and in October after the last harvest)	Soil monitoring unit	Composite soil sample	Electrical conductivity; nitrate-N; ammonium-N; pH; % organic matter; plant available phosphorous – (use Olsen method for soils with pH 6.5 or greater, use Bray method if soil pH is less than 6.5)
Prior to each harvest	Hydraulic management unit	Crop Nutrient Uptake from Crop Tissue Analysis (sample only the portion of the crop removed from the field)	Total Kjeldahl Nitrogen (TKN), nitrate-N(report in lbs/acre-year)
Annually	Hydraulic management unit	Calculate Irrigation Water Requirement for Crop Grown	Volume (inches / acre and total gallons) for each month for GS.
Annually	All flow measurement locations.	Flow measurement calibration of all flows to land application.	Document the flow measurement calibration of all flow meters and pumps used directly or indirectly measure all wastewater, tail water, flushing water, and supplemental irrigation water flows applied to each HMU.

H. Standard Reporting Requirements

1. The permittee shall submit an Annual Wastewater Reuse Site Performance Report ("Annual Report") prepared by a competent environmental professional no later than January 31 of each year which shall cover the previous year (see section F for reuse reporting period). The Annual Report shall include results for monitoring required in Section G, status of compliance activities, and an interpretive discussion of monitoring data (ground water, vadose zone, hydraulic loading, wastewater etc.) with particular respect to environmental impacts by the facility.
2. The annual report shall contain the results of the required monitoring as described in Section G. Monitoring Requirements. If the permittee monitors any parameter more frequently than required by this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the annual report.
3. The annual report shall be submitted to the Engineering Manager in the applicable Regional DEQ Office.

Boise Regional Office
1445 N. Orchard
Boise, ID 83706-2239
208-373-550

Coeur d'Alene Regional Office
2110 Ironwood Parkway
Coeur d'Alene, ID 83814
208-769-1422

Idaho Falls Regional Office
900 N. Skyline, Suite B
Idaho Falls, ID 83402
208-528-2650

Lewiston Regional Office
1118 "F" Street
Lewiston, ID 83501
208-799-4370

Pocatello Regional Office
444 Hospital Way, #300
Pocatello, ID 83201
208-236-6160

Twin Falls Regional Office
1363 Fillmore St.
Twin Falls, ID 83301
208-736-2190

A copy of the annual report shall also be mailed to:

Richard Huddleston, P.E.
Wastewater Program Manager
1410 N. Hilton
Boise, ID 83706
208-373-0561

4. Notice of completion of any work described in Section E. Compliance Schedule for Required Activities shall be submitted to the Department within 30 days of activity completion. The status of all other work described in Section E shall be submitted with the Annual Report.
5. All laboratory reports containing the sample results for monitoring required by Section G. Monitoring Requirements of this permit shall be submitted with the Annual Report.

I. Standard Permit Conditions: Procedures and Reporting

1. The permittee shall at all times properly maintain and operate all structures, systems, and equipment for treatment, operational controls and monitoring, which are installed or used by the permittee to comply with all conditions of the permit or the Wastewater Reuse Permit Regulations, in conformance with a DEQ approved, current Plan of Operations (Operations and Maintenance Manual) which describes in detail the operation, maintenance, and management of the wastewater treatment system. This Plan of Operations shall be updated as necessary to reflect current operations.
2. Wastewater(s) or recharge waters applied to the land surface must be restricted to the premises of the application site. Wastewater discharges to surface water that require a permit under the Clean Water Act must be authorized by the U.S. Environmental Protection Agency.
3. Wastewater must not create a public health hazard or nuisance condition as stated in IDAPA 58.01.16.600.03. In order to prevent public health hazards and nuisance conditions the permittee shall:
 - a. Apply wastewater as evenly as practicable to the treatment area;
 - b. Prevent 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
 - c. Prevent wastewater from ponding in the fields to the point where the ponded wastewater putrefies or supports vectors or insects.
4. The permittee shall:
 - a. Manage the wastewater reuse treatment site as an agronomic operation where vegetative cover is grown and harvested or grazed to utilize the nutrients and minerals in the wastewater, and,
 - b. Not hydraulically overload any particular areas of the wastewater reuse treatment site.
5. 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; and to prevent impacts on designated beneficial uses of the ground water and surface water. The permittee's management of waste solids shall be governed by the terms of the DEQ approved Waste Solids Management Plan, which upon approval shall be an enforceable portion of this permit.
6. If the permittee intends to continue operation of the permitted facility after the expiration of an existing permit, the permittee shall apply for a new permit at least six months prior to the expiration date of the existing permit in accordance with the Wastewater Reuse Permit Regulations and include seepage tests on all lagoons per latest DEQ procedures.
7. The permittee shall allow the Director of the Idaho Department of Environmental Quality or the Director's designee (hereinafter referred to as Director), consistent with Title 39, Chapter 1, Idaho Code, to:
 - a. Enter the permitted facility,
 - b. Inspect any records that must be kept under the conditions of the permit.
 - c. Inspect any facility, equipment, practice, or operation permitted or required by the permit.
 - d. Sample or monitor for the purpose of assuring permit compliance, any substance or any parameter at the facility.
8. The permittee shall report to the Director under the circumstances and in the manner specified in this section:
 - a. In writing thirty (30) days before any planned physical alteration or addition to the permitted facility or activity if that alteration or addition would result in any significant change in information that was submitted during the permit application process.
 - b. In writing thirty (30) days before any anticipated change which would result in non-compliance with any permit condition or these regulations.
 - c. Orally within twenty-four (24) hours from the time the permittee became aware of any non-compliance which may endanger the public health or the environment at telephone numbers provided in the permit by the Director (see below)

DEQ Regional Office: see Permit Certification Page
Emergency 24 Hour Number 1-800-632-8000

- d. In writing as soon as possible but within five (5) days of the date the permittee knows or should know of any non-compliance unless extended by the DEQ. This report shall contain:
 - i. A description of the non-compliance and its cause;

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I. Standard Permit Conditions: Procedures and Reporting

- ii. The period of non-compliance including to the extent possible, times and dates and, if the non-compliance has not been corrected, the anticipated time it is expected to continue; and
 - iii. Steps taken or planned to reduce or eliminate reoccurrence of the non-compliance.
- e. In writing as soon as possible after the permittee becomes aware of relevant facts not submitted or incorrect information submitted, in a permit application or any report to the Director. Those facts or the correct information shall be included as a part of this report.
9. The permittee shall take all necessary actions to prevent or eliminate any adverse impact on the public health or the environment resulting from permit noncompliance.
10. The permittee shall determine (on an on-going basis) if any noxious weed problems relate to the permitted sites. If problems are present, coordinate with the Idaho Department of Agriculture or the local County authority regarding their requirements for noxious weed control. Also address these control operations in an update to the Operations and Maintenance Manual.

J. Standard Permit Conditions: Modifications, Violations, and Revocations

1. The permittee shall furnish to the Director within reasonable time, any information including copies of records, which may be requested by the Director to determine whether cause exists for modifying, revoking, re-issuing, or terminating the permit, or to determine compliance with the permit or these regulations.
2. Both minor and major modifications may be made to this permit as stated in IDAPA 58.01.17.700.01 and 02 with respect to any conditions stated in this permit upon review and approval of the DEQ.
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, or if it is determined by the DEQ that the terms or conditions of the permit must be modified in order to adequately protect the public health or environment, a request for either major or minor modifications must be submitted together with the reports as described in I. *Standard Reporting Requirements*, and plans and specifications for the proposed changes. No such facility expansion, production increase or process modification shall be made until plans have been reviewed and approved by the DEQ and a new permit or permit modification has been issued.
4. Permits shall be transferable to a new owner or operator provided that the permittee notifies the Director by requesting a minor modification of the permit before the date of transfer.
5. Any person violating any provision of the Waste Water Reuse Permit Regulations, or any permit or order issued thereunder shall be liable for a civil penalty not to exceed ten thousand dollars (\$10,000) or one thousand dollars (\$1,000) for each day of a continuing violation, whichever is greater. In addition, pursuant to Title 39, Chapter 1, Idaho Code, any willful or negligent violation may constitute a misdemeanor.
6. The Director may revoke a permit if the permittee violates any permit condition or the Wastewater Reuse Permit Regulations.
7. Except in cases of emergency, the Director shall issue a written notice of intent to revoke to the permittee prior to final revocation. Revocation shall become final within thirty-five (35) days of receipt of the notice by the permittee, unless within that time the permittee request an administrative hearing in writing to the Board of the Department of Environmental Quality pursuant to the Rules of Administrative Procedures contained in IDAPA 58.01.23.
8. If, pursuant to Idaho Code § 67-5247, the Director finds the public health, safety or welfare requires emergency action, the Director shall incorporate findings in support of such action in a written notice of emergency revocation issued to the permittee. Emergency revocation shall be effective upon receipt by the permittee. Thereafter, if requested by the permittee in writing, a revocation hearing before the Board of the Department of Environmental Quality shall be provided. Such hearings shall be conducted in accordance with the Rules of Administrative Procedures contained in IDAPA 58.01.23.
9. The provisions of this permit are severable and if a provision or its application is declared invalid or unenforceable for any reason, that declaration will not affect the validity or enforceability of the remaining provisions.
10. The permittee shall notify the DEQ at least six (6) months prior to permanently removing any permitted reuse facility from service, including any treatment, storage, or other facilities or equipment associated with the reuse site. Prior to commencing closure activities, the permittee shall: a) participate in a pre-site closure meeting with the DEQ; b) develop a site closure plan that identifies specific closure, site characterization, or cleanup tasks with scheduled task completion dates in accordance with agreements made at the pre-site closure meeting; and c) submit the completed site closure plan to the DEQ for review and approval within forty-five (45) days of the pre-site closure meeting. The permittee must complete the DEQ approved site closure plan.

Appendix 1
Environmental Monitoring Serial Numbers

HYDRAULIC MANAGEMENT UNITS

Serial Number	Description	Acres
HMU-0002-01	Field #1 (Center Pivot #1)	44
HMU-0002-02	Field #2 (Center Pivot #2)	13
HMU-0002-03	Field #3 (Wheel line irrigation)	9
HMU-0002-04	Field #4 (Stand pipes from above-ground aluminum pipe)	11

WASTEWATER SAMPLING POINT

Serial Number	Description
WW-0002-01	Sample tap located prior to Center Pivot #1

PLANT TISSUE SAMPLING POINTS

Serial Number	Description
PT-0002-01	Samples taken from the crop removed from Field #1
PT-0002-02	Samples taken from the crop removed from Field #2
PT-0002-03	Samples taken from the crop removed from Field #3

SOIL MOISTURE PROBES

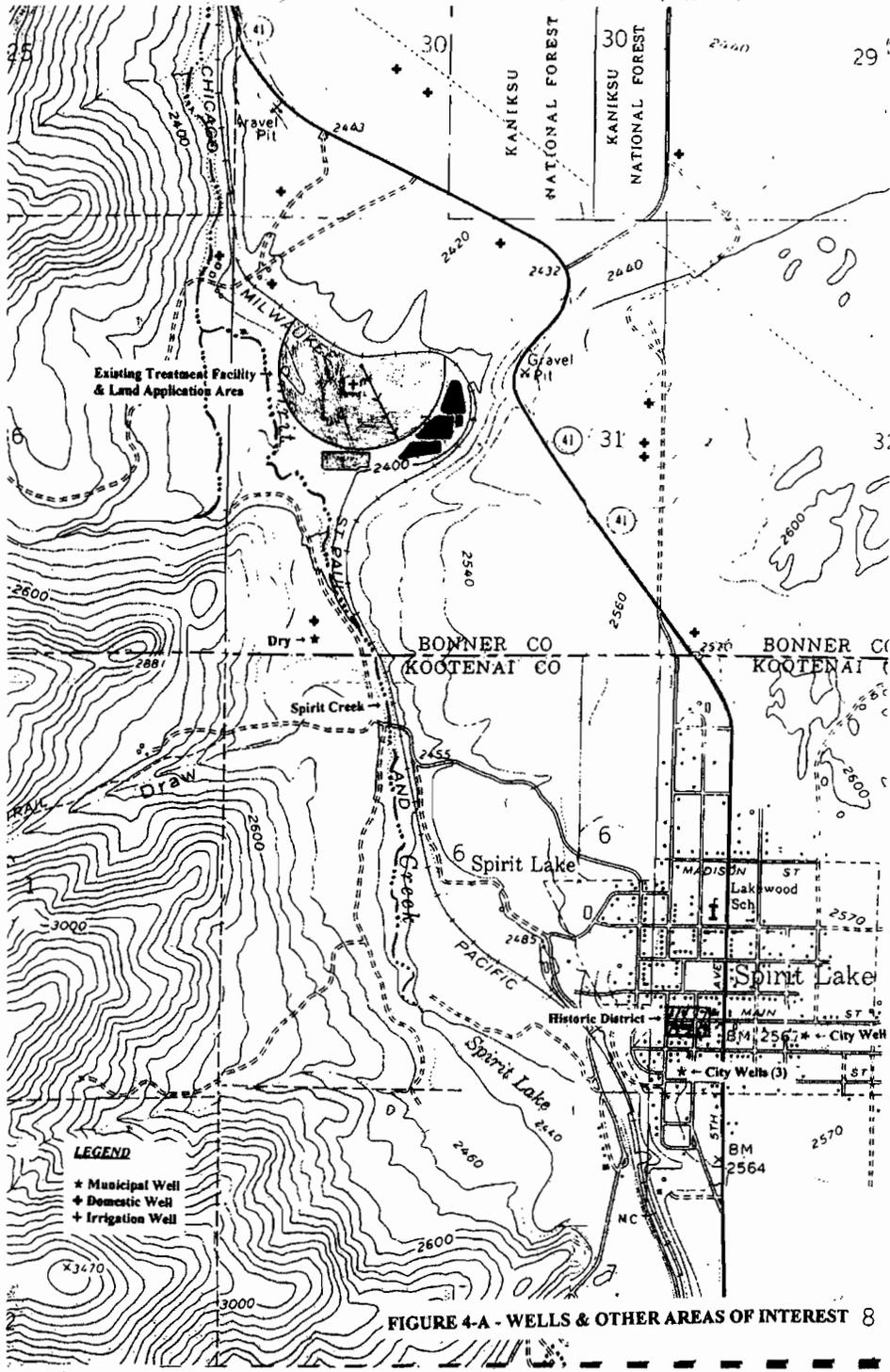
Serial Number	Description
SMP-0002-01	Field #1
SMP-0002-02	Field #2
SMP-0002-03	Field #3
SMP-0002-04	Field #4

Appendix 1
Environmental Monitoring Serial Numbers

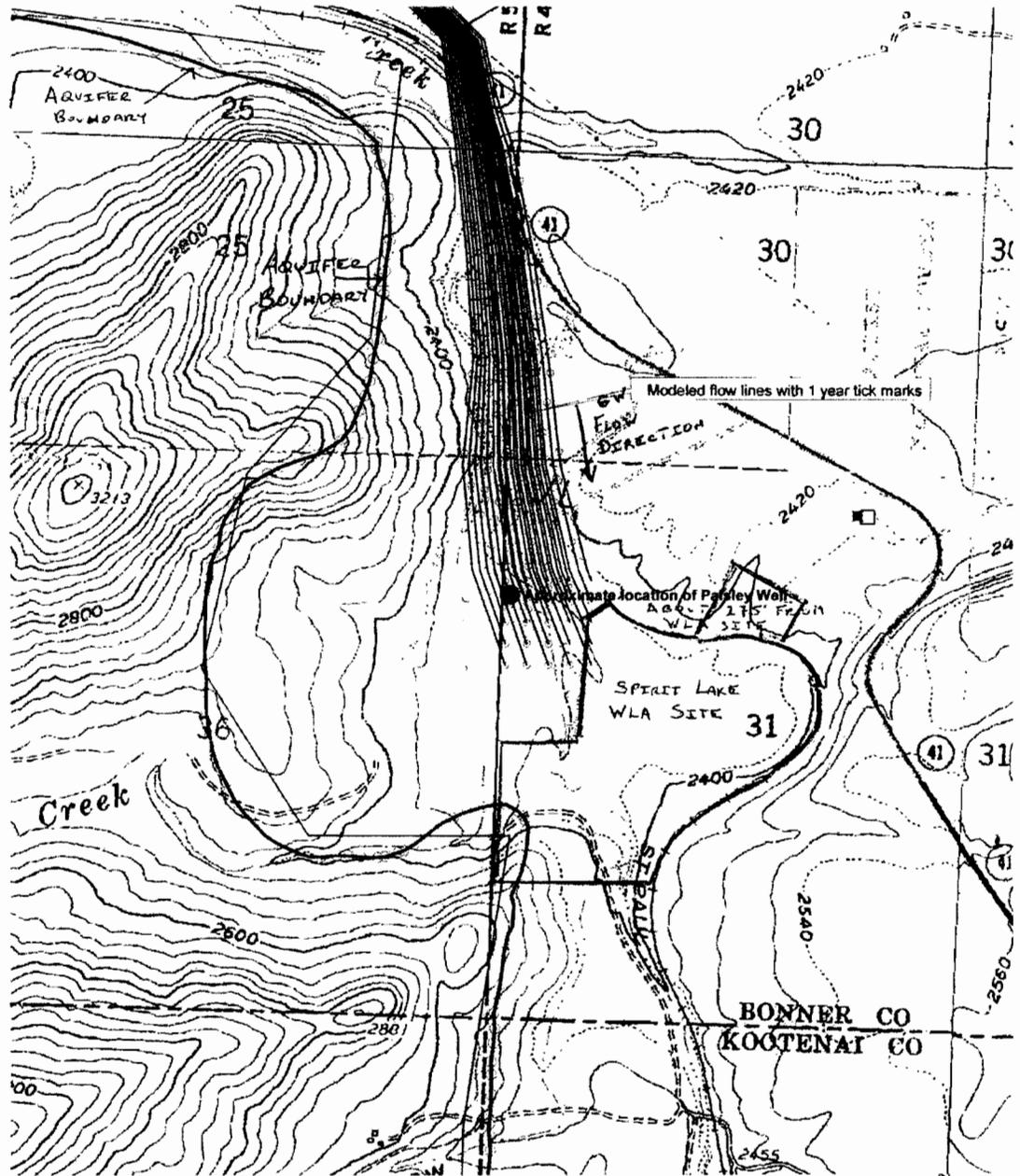
SOIL MONITORING UNITS

Serial Number	Description	Associated MU
SU-0002-01	Field #1	MU-0002-01
SU-0002-02	Field #2	MU-0002-02
SU-0002-03	Field #3	MU-0002-03
SU-0002-04	Field #4	MU-0002-04

Appendix 2 Site Maps



Appendix 2
Site Maps



Spirit Lake WLAP Project Idaho DEQ
March 2002

