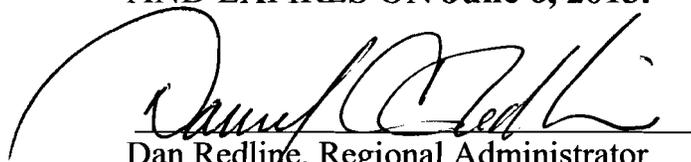


WASTEWATER REUSE PERMIT
LA-000217-01
Silverwood Inc.

Silverwood Inc., (Permittee) operating the Silverwood Theme Park LOCATED AT 27843 N. Highway 95, Athol, ID 83801-9900 and in the NW1/4 of Section 33, Township 53 North, Range 3 West, Boise Meridian 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 **June 6, 2013**.



Dan Redline, Regional Administrator
Idaho Department of Environmental Quality (DEQ)

Signed this 6th day of June, 2008

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

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References

1. Plan of Operation (Operation and Maintenance Manual per CA-217-01)
2. Final Design Report (May 31, 2007)
3. Preliminary Engineering Report (January 2007)
4. Cropping and Reuse Irrigation Plan (May 1, 2008)
5. Draft Wastewater Land Application Monitoring Reports and Recommendations (April 25, 2008)
6. Wastewater Treatment and Reuse Coagulation and Filtration (April 25, 2008)

The Sections, Appendices, and Reference Documents listed on this page are all elements of Wastewater Reuse Permit LA-000217-01 and are enforceable as such. This permit does not relieve Silverwood Inc. hereafter referred to as the permittee, from responsibility for compliance with other applicable federal, state or local laws, rules, standards or ordinances.

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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) Silverwood Inc. LA-000217-01 Growing Season is April 01 through September 30 (183 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> $IWR = (CU - P_e) / E_i$ <p>CU is the monthly consumptive use for a given crop in a given climatic area. CU is synonymous with crop evapotranspiration</p> <p>P_e is the effective precipitation. CU minus P_e is synonymous with the net irrigation requirement (IR)</p> <p>E_i 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)
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	Silverwood Inc.
Type of Wastewater	Sewage and industrial wastewater from water filtration backwash
Method of Treatment	Gravity collection of whole sewage from the Silverwood Theme Park discharging into three completely mixed aerated lagoons and one final settling lagoon. Further treatment is achieved by coagulation with polymer and filtration using a moving bed up-flow sand filter. Disinfection with chlorine and 30-minutes of contact is done prior to slow rate irrigation of the wastewater during the growing season onto a specific landscaped area at Silverwood Theme Park or onto a grass/nursery site near the treatment site.
Type of Facility	Wastewater from a recreational theme park consisting of sanitary sewage and backwash wastewater from water filters serving water slide amenities. Two-thirds of the wastewater is expected to be sanitary sewage and one-third of the wastewater is expected to be from backwash of filters associated with the water slide park.
Site Acres	Primary Area (grass/nursery site) – approximately 10 acres Boulder Beach – approximately 8 acres See map in Appendix 2
Facility Location	Kootenai County, Idaho 16 miles north of Coeur d'Alene on Highway 95.
Legal Location	The 95-acre treatment site including the Primary Area is in the NW1/4 of Section 33, Township 53 North, Range 3 West, Boise Meridian. The 380-acre theme park including Boulder Beach site is located immediately north of the treatment site in the E1/2 of Section 28, T53N, R3W.
County	Kootenai
USGS Quad	Athol

Soils on Site	Soils are described as Avonville and Bonner gravelly silt loams typical for soils encountered over the Spokane Valley-Rathdrum Prairie Aquifer.
Depth to Ground Water	Approximately 300 feet. Test well D0051778 located about 1000 feet southeast of the Primary Site showed static water elevation at 294 feet below ground surface.
Beneficial Uses of Ground Water	Domestic, industrial, and agricultural
Nearest Surface Water	Pend Oreille Lake – approximately 8 miles east. Applied wastewater recharges the Spokane Valley - Rathdrum prairie Aquifer.
Beneficial Uses of Surface Water	Agricultural, recreation, aquatic habitat
Facility Contact Persons Mailing Address Phone/Fax Number	<p>Responsible Official/Owner: Lane Hubbard, General Manager Silverwood Inc. 27843 N. Highway 95 Athol, ID 83801-9900 208-683-3400</p> <p>Design Engineer: James Coleman, P.E. Coleman Engineering E. 1677 Miles Avenue, Suite 200 Hayden Lake, ID 83835 (208) 762-4704 (208) 762-4620 (fax)</p> <p>Operations: Tom Daugherty, President Blue Water Technologies, Inc. 10450 Airport Drive Hayden, ID 83835 (208)209-0391 (208) 209-0396 (fax)</p>

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 DEQ in writing.

Compliance Activity Number Completion Date	Compliance Activity Description
<p>CA-217-01 Plan of Operation</p> <p>September 1, 2008</p>	<p>A Plan of Operation (Operation and Maintenance Manual or O&M Manual) for the wastewater treatment and reuse facilities, incorporating the requirements of this permit, shall be submitted 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 ensure proper operation of the wastewater treatment and reuse facility.</p> <p>Refer to Appendix A.12 of the Guidance for Reclamation and Reuse of Municipal and Industrial Wastewater for a Plan of Operation checklist, and address all relevant items in the checklist.</p> <p>At a minimum, the Plan of Operation shall specifically address the following items: All sampling, monitoring and reporting requirements of this permit. Certified operators responsible for system performance and reporting. A Ground Water Sampling and Monitoring Plan, that shall address the description of approved sample collection methods, appropriate analytical methods, and the companion quality assurance/control (QA/QC) protocols. Operating procedures for periods of shutdown. Odor Management Plan - Specific design considerations, operation and maintenance procedures, and management practices to be employed to minimize the potential for and limit odors. The Plan shall also include procedures to respond to an odor incident if one occurs, including notification procedures. Waste Solids Management Plan - The plan shall describe how waste solids generated at the facility will be handled and disposed of to meet the requirements of Section I, No. 5 of this permit. Runoff Management Plan – The Plan shall describe control structures and other Best Management Practices (BMPs) (e.g. collection basins, berms, etc.) designed to prevent runoff from any site or fields used for wastewater reuse to property not owned by Silverwood Inc. except in the event of 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'.</p>
<p>CA-217-02</p> <p>September 1, 2008</p>	<p>Ownership: Provide copy of the recorded deed for the title transfer to Silverwood Inc. of the 95-acre wastewater treatment site described as Kootenai County parcel number 53N03W-33-0750.</p>
<p>CA-217-03</p> <p>September 1, 2008</p>	<p>Pilot Testing Plan: Submit to DEQ for review and approval a pilot testing plan, prepared by a professional engineer, for the Class B treatment system. The plan needs to detail routine monitoring efforts, performance testing, and reporting to demonstrate the ability of the installed treatment system to consistently achieve Class B wastewater reuse standards. The duration of the pilot testing period shall be no less than the end of the 2009 growing season.</p>

Compliance Activity Number Completion Date	Compliance Activity Description
CA-217-04 November 1, 2009	Pilot Test Summary Report: Submit to DEQ for review a Pilot Test Summary Report prepared by a professional engineer documenting treatment operation and performance of the Class B treatment system. If Class B effluent can not be achieved on a continuous/consistent basis after the second operating season of irrigation (ending on September 30, 2009), then additional pilot testing shall be performed until performance is fully demonstrated. During the pilot testing period, the effluent irrigation will be restricted to the Primary Area, if it meets the Class C effluent criteria.
CA-217-05 June 1, 2009	Boulder Beach Wastewater Reuse System: Submit to DEQ for review and approval plans and specifications prepared by a professional engineer for construction of the Class B wastewater irrigation system to be installed at the Boulder Beach area. Prior to application of any Class B wastewater at Boulder Beach, submit record drawings to DEQ for the completed irrigation system and secure DEQ approval of the Boulder Beach reuse activity.
CA-217-06 September 1, 2008	Primary Area Cropping Area: Submit to DEQ a report describing implementation of the Cropping and Reuse Irrigation Plan (May 1, 2008). This report needs to describe efforts to establish the recommended Alfalfa Hay and nursery trees crops in the Primary Area and update the plan to reflect 2008 activities.
CA-217-07 September 1, 2008	Notice of Abandonment: Provide to DEQ and Panhandle Health District notification of the specific septic tanks and drainfield systems that have been properly abandoned as required by the Individual and Subsurface Sewage Disposal Rules (IDAPA 58. 01.03). Describe remaining systems to be abandoned after seasonal park closure in 2008.
CA-217-08 September 1, 2008 and yearly included with the annual report hereafter	Operator Licensure: A Class III wastewater collection and treatment license and a Land Application license have been determined as necessary for the Silverwood wastewater system. Identification of the primary and backup operators retained by Silverwood Inc. with copies of their operator licenses must be provided. Each Annual Wastewater Reuse Site Performance Report, required in Section H of this permit, shall also include this information.
CA-217-09 September 1, 2008	Submit to DEQ for review and approval the record drawings for the wastewater collection, treatment, and reuse system serving the Silverwood Theme Park within 30 days of completion of construction.

F. Permit Limits and Conditions

The Permittee is allowed to discharge wastewater onto designated applications areas as prescribed in the table below and in accordance with all other applicable permit conditions and schedules.

Category	Permitted Limits and Conditions	
	Class B effluent	Class C effluent
Treatment	Oxidized, coagulated, clarified, filtered, (or treated to an equivalent process) and disinfected.	Oxidized and disinfected
Application Site Areas and timing See map in Appendix 2.	Primary Area - approximately 10 acres within the nursery/grass field near the treatment lagoons Boulder Beach - approximately 8 acres of designated landscaped areas at the theme park. Effluent may be irrigated each year between May 1 and September 30 th or as otherwise allowed in writing by DEQ prior to reuse. Boulder Beach area may be irrigated only during periods of non-use of the park by the public.	Primary Area only – approximately 10 acres within the nursery/grass field near the treatment lagoons Effluent may be irrigated each year between May 1 and September 30 th or as otherwise allowed in writing by DEQ prior to reuse.
Turbidity	The daily arithmetic mean of all daily measurements of turbidity shall not exceed two (2) NTU, and turbidity shall not exceed five (5) NTU at any time. Turbidity shall be measured and recorded continuously when producing Class B wastewater. The turbidity shall be monitored prior to disinfection. When continuous turbidity monitoring indicates turbidity is consistently greater than 2 NTU for any five minute period or exceeds 5 NTU at any one measurement, wastewater shall be automatically diverted to the Primary Area or returned into the wastewater storage lagoon. When diverted wastewater shows 30 minutes or more of less than 2 NTU turbidity, Class B reuse can be begun. All episode of turbidity non-compliance shall be recorded and reported in the Annual Report.	No requirement.
Allowable crops	Primary Area: Nursery plants and grass harvested as a hay crop. Boulder Beach: Existing park vegetation consisting of lawns, shrubs, and trees.	Primary Area: Nursery plants and grass harvested as a hay crop.

Category	Permitted Limits and Conditions	
	Class B effluent	Class C effluent
Disinfection	<p>At the point of compliance, the median number of total coliform organisms shall not exceed two and two-tenths (2.2) per one hundred (100) milliliters, and shall not exceed twenty-three (23) per one hundred (100) milliliters in any confirmed sample, as determined from the bacteriological results of the last seven (7) days for which analyses have been completed. Analysis shall be based on daily sampling during periods of application. The point of compliance for total coliform shall be at any point in the system following final treatment and disinfection contact time.</p> <p>See Appendix 1 for sampling points description.</p>	<p>At the point of compliance, the median number of total coliform organisms shall not exceed twenty-three (23) per one hundred (100) milliliters, and shall not exceed two hundred thirty (230) per one hundred (100) milliliters in any confirmed sample, as determined from the bacteriological results of the last five (5) days for which analyses have been completed. Analysis shall be based on daily sampling during periods of application. The point of compliance for total coliform shall be at any point in the system following final treatment and disinfection contact time.</p> <p>See Appendix 1 for sampling points description.</p>
Buffer Zones	<p>All buffer zones must comply with, at minimum, local zoning ordinances. Other minimum buffer zones are as follows:</p> <ul style="list-style-type: none"> • 100 ft from reuse site and inhabited dwellings • 0 ft from reuse site and areas accessible by the public • 100 ft from reuse site and permanent and intermittent surface water • 50 feet from reuse site and irrigation ditches and canals • 500 feet from reuse site and private water supply wells¹ • 1000 feet from reuse site and public water supply wells¹ • Berms and other BMPs shall be used to protect the well head of on-site wells. 	<p>All buffer zones must comply with, at minimum, local zoning ordinances. Other minimum buffer zones are as follows:</p> <ul style="list-style-type: none"> • 300 ft from reuse site and inhabited dwellings • 50 ft from reuse site and areas accessible by the public • 100 ft from reuse site and permanent and intermittent surface water • 50 feet from reuse site and irrigation ditches and canals • 500 feet from reuse site and private water supply wells¹ • 1000 feet from reuse site and public water supply wells¹ • Berms and other BMPs shall be used to protect the well head of on-site wells.
Residual Free Chlorine	<p>Measured by a Continuous Recording Turbidimeter at the point of compliance shall not at any time be less than one (1) mg/L after a 30 minute contact time at peak flow.</p> <p>Irrigation pump station shutdown or diversion of wastewater to Class C reuse shall be automatically done if the measured free chlorine drops below 1.0 mg/L.</p> <p>See Appendix 1 for sampling point.</p>	No requirement.

Category	Permitted Limits and Conditions	
	Class B effluent	Class C effluent
Fencing and Posting	<p>Primary Area: This site shall be fenced and warning signs posted every 500 feet along the perimeter and at each corner indicating "Warning: Irrigated With Reclaimed Wastewater –Do not Drink"</p> <p>Boulder Beach: Irrigation piping shall be installed using purple (pantone 512) wastewater reuse piping. At all irrigation outlets warning signs and labels indicating "Warning: Irrigated With Reclaimed Wastewater –Do not Drink" shall be posted.</p> <p>All exposed and above ground piping, risers, fittings, pumps, valves, etc. used for reuse water shall be painted purple, Pantone 512 and piping shall be identified using an accepted means of labeling reading "Warning: Reclaimed Water – Do Not Drink".</p>	<p>Primary Area: This site shall be fenced and warning signs posted every 500 feet along the perimeter and at each corner indicating "Warning: Irrigated With Reclaimed Wastewater –Do not Drink"</p> <p>All exposed and above ground piping, risers, fittings, pumps, valves, etc. used for reuse water shall be painted purple, Pantone 512 and piping shall be identified using an accepted means of labeling reading "Warning: Reclaimed Water – Do Not Drink".</p>
Maximum Hydraulic Loading Rate, Growing Season (includes wastewater and supplemental irrigation water)	Annual application shall not exceed 22-inches. Weekly application shall not exceed a total of 2.0 inches applied at no more than 1.0-inch per application at 72-hour intervals. Weekly amounts shall be reduced for precipitation in excess of ¼-inch during any 12-hour period as measured and recorded by an on-site rain gauge.	
Groundwater Protection	Ground Water Quality shall be maintained in compliance with Sensitive Resource aquifer requirements in the Idaho <i>Ground Water Quality Rule</i> IDAPA 58.01.11.	
Grazing	Grazing is not allowed.	
Supplemental Fertilization or Irrigation Water	All supplemental fertilization shall be recorded and included in the Annual Report calculation of applied nitrogen and phosphorous loadings. Supplemental irrigation is not allowed unless approved in advance by the Department; recorded in amount, time, and location; and included in each Annual Report	
Wastewater Treatment Facility and Reuse Operator	The wastewater treatment facility shall be operated by personnel certified and licensed in the State of Idaho wastewater operator training program at the operator class level specified in IDAPA 58.01.16.203 of the <i>Wastewater Rules</i> , and properly trained to operate and maintain the system. Operation of the wastewater treatment system shall be monitored on a 24-hour basis for alarm conditions, including notification of the qualified operating personnel under alarm conditions.	

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, appropriate analytical methods and companion QA/QC protocol 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) Ground Water Monitoring Procedure (to be used prior to the Ground Water Well Sampling and Monitoring Plan is completed): 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.
- 7) Annual reporting of monitoring requirements is described in Section H, Standard Reporting Requirements.

Facility Monitoring Table

Frequency	Monitoring Point	Description and Type of Monitoring	Parameters
Daily during park operating season (May1-Sept30) Weekly during other times.	Lagoon Inlet Flow Monitoring	Trapezoidal Flume with Ultrasonic Level Sensor. Signal Recorded by Local Control Panel in Filter Building.	Record Total Gallons per day during park operations. Record Total Gallons per week during other times. Report Total Monthly and Total Annual Gallons.
Daily whenever irrigating.	Effluent Flow Meter	McCrometer 2.5" Propeller-Type In-line Flow Meter with signal to Local Control Panel in Filter Building	Record Total Gallons per day to each management unit and returned to the storage lagoon. Report Total Monthly and Total Annual Gallons.
Daily whenever irrigating.	Effluent from upflow sand filters & before disinfection. Point of Compliance: WW-0217-01	Continuous Recording Turbidimeter	Daily arithmetic mean and maximum recorded instantaneous value in Nephelometric Turbidity Units (NTU)
Daily whenever irrigating.	Effluent after the 24" Chlorine Contact Pipeline. Point of Compliance: WW-0217-02	Total Coliform Bacteria	organisms/100 ml

Frequency	Monitoring Point	Description and Type of Monitoring	Parameters
Daily whenever irrigating.	Effluent after the 24" Chlorine Contact Pipeline. Point of Compliance: WW-0217-02	Continuous Recording Free Chlorine Residual	mg/l
Weekly whenever irrigating	Any location following treatment Point of Compliance: WW-0217-01 or WW-0217-02	Weekly composite sampling for total nitrogen, Nitrate Nitrogen, Biological Oxygen Demand (BOD5), and total Phosphorus.	mg/l
Quarterly	Ground Water Monitoring: Upgradient: Silverwood public drinking water well along Bunco Road east of Highway 95 (IDWR No. D0028533) Downgradient: Silverwood test well (IDWR No.D0051778)	From each well: Total Dissolved Solids, Nitrate Nitrogen and Total Coliform bacteria. Discussion of the results and water quality implications of the data in the Annual Report.	mg/l and organisms/100 ml.
Annually	All flow measurement locations.	Flow measurement calibration of all flows.	Document calibration of all flow meters and pumps used directly or indirectly measure all wastewater flows applied to each HMU.
Annually	Annual Report	Calculation of phosphorous and nitrogen loadings for each management unit from wastewater and from supplemental fertilization.	Pounds/acre/year

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.

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

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.

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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

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- 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;
 - 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.

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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 \textsection 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

Computerized Data Reporting Serial Number Key

HYDRAULIC MANAGEMENT UNITS		
Description	Acres	Serial No.
Primary Area	10	MU-0217-01
Boulder Beach	8	MU-0217-02

WASTEWATER SAMPLING POINTS	
Description	Serial No.
Wastewater following filtration, Filter Building (Point of turbidity compliance)	WW-0217-01
Wastewater following 30 minutes of chlorine contact – Reuse Pumping Station (Point of disinfection/total coliform compliance)	WW-0217-02

WASTEWATER STORAGE FACILITIES		
Description	Location	Serial No.
Lagoon Cell #1 (60,000 ft. ³)	Wastewater Treatment Plant (WWTP)	LG-0217-01
Lagoon Cell #2 (15,000 ft. ³)	WWTP	LG-0217-02
Lagoon Cell #3 (15,000 ft. ³)	WWTP	LG-0217-03
Lagoon Cell #4 (15,000 ft. ³)	WWTP	LG-0217-04
Boulder Beach Irrigation Storage	Silverwood Theme Park	LG-0217-05

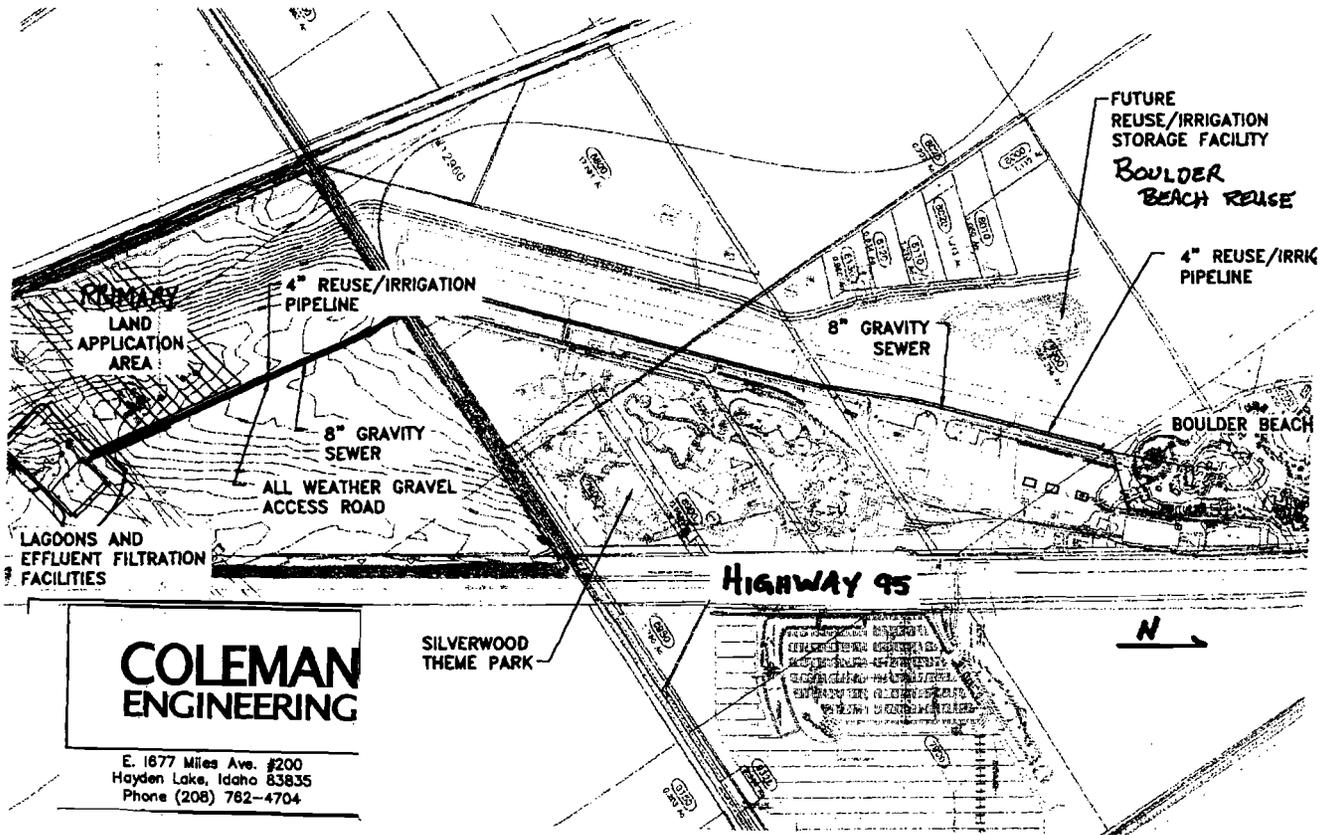
Appendix 2 –Site Maps

Silverwood Treatment
and Reuse Facility



Figure 2
Aerial View of Site

Map of Primary Irrigation Area and Boulder Beach Irrigation Area.



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