

A. Permit Certificate

**MUNICIPAL
WASTEWATER REUSE PERMIT
LA-000215-02**

The City of Meridian, Meridian City Hall, Suite 200, 33 East Broadway Avenue, Meridian, ID 83642, IS HEREBY AUTHORIZED TO CONSTRUCT, INSTALL, AND OPERATE A WASTEWATER REUSE SYSTEM IN ACCORDANCE WITH THE WASTEWATER REUSE RULES (IDAPA 58.01.17) AND 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 **April 19, 2015**.



Pete Wagner
Boise Regional Office Administrator
Idaho Department of Environmental Quality

4/19/2010

Date

**DEPARTMENT OF ENVIRONMENTAL QUALITY
1445 North Orchard
Boise, Idaho 83706-2239
(208) 373-0550**

POSTING ON SITE RECOMMENDED

B. Permit Contents, Appendices, and Reference Documents

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1. Plan of Operation (required under Compliance Activity No. CA-215-01)
2. Runoff Management Plan (required under Compliance Activity No. CA-215-02)

The Sections, Appendices, and Reference documents listed on this page are all elements of Wastewater Reuse Permit LA-000215-02 and are enforceable as such. This permit does not relieve the City of Meridian, hereafter referred to as the permittee or the City, 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 Practice(s)
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
GW	Ground Water
GWQR	IDAPA 58.01.11 “Ground Water Quality Rule”
Guidance	Guidance for the Reclamation and Reuse of Municipal and Industrial Wastewater, DEQ
HLR _{gs}	Growing Season Hydraulic Loading Rate. Includes any combination of wastewater and supplemental irrigation water applied to land application hydraulic management units during the growing season. The HLR _{gs} limit is specified in Section F. Permit Limits and Conditions.
HLR _{ngs}	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 HLR _{ngs} 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 Reporting Year)
NGS	Non-Growing Season
NVDS	Non-Volatile Dissolved Solids (= Total Dissolved Solids less Volatile Dissolved Solids)
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 January 1 st of each year and extends through December 31 st of each year.
SAR	Sodium Absorption Ratio
SI	Supplemental Irrigation water applied to the land application 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

C. Abbreviations, Definitions

Permittee	City of Meridian, Idaho
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 land application treatment site
WWTP	Wastewater Treatment Plant

D. Facility Information

Legal Name of Permittee	City of Meridian, Idaho
Type of Wastewater	Municipal Wastewater
Method of Treatment	Headworks, primary clarification, activated sludge secondary treatment, tertiary filtration, and disinfection. Effluent can be 1) discharged to Five Mile Creek and/or Boise River under NPDES Permit No. ID-002019-2, 2) discharged to Wastewater Treatment Plant Property as Class D effluent, or 3) further treated to produce Class A effluent.
Type of Facility	Public
Facility Locations	<ul style="list-style-type: none"> • <u>WWTP</u>: 3401 N. Ten Mile Road, Meridian, Idaho • <u>Wastewater Treatment Plant Property (Class D applications)</u>: Located on the west side of WWTP • <u>Class A Reuse Project Area (Class A irrigation applications)</u>: Located in northwest portion of Meridian's Area of City Impact; see map in Appendix A.2
Legal Locations	<ul style="list-style-type: none"> • <u>WWTP</u>: Township 4N, Range 1W, Section 34, N1/2 SE1/4 • <u>Wastewater Treatment Plant Property</u>: Township 4N, Range 1W, Section 34, N1/2 SE1/4 • <u>Class A Reuse Project Area</u>: Township 3N, Range 1W, Sections 1, 2, 3, 4, 9, 10, 11, 12, 13, 14, 15, and 16 Township 4N, Range 1W, Sections 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, and 36 Township 4N, Range 1W, portions of Sections 21, 22, 23, and 24
County	Ada
USGS Quads	Meridian, Star, and Middleton
Soils on Site	57% Purdam silt loam 13% Abo silt loam 30% various, refer to permit application for detailed assessment
Depth to Ground Water	Seasonal; ranges from 5.5 to 11 feet below ground surface
Beneficial Uses of Ground Water	Domestic, agriculture/irrigation
Nearest Surface Waters	Boise River, Five Mile Creek, Nine Mile Creek, and Ten Mile Creek, numerous irrigation canals, drains, and ditches
Beneficial Uses of Surface Waters	Cold water communities, salmonid spawning, seasonal cold water communities, primary and secondary contact recreation, agriculture/irrigation
Facility Contact	Tracy Crane, Wastewater Plant Co-Manager
Mailing Address	Wastewater Department 3401 North Ten Mile Road Meridian, ID 83642
Phone / Fax	(208) 888-2191 / (208) 884-0744

E. Compliance Schedule for Required Activities

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

Compliance Activity Number Completion Date	Compliance Activity Description
<p style="text-align: center;">CA-215-01 Plans of Operation</p> <p>1. Plan of Operation for the Class D reuse facilities due 60 days prior to application of effluent</p> <p>2. Updated Plan of Operation due 60 days after one complete year of operation of the Class A reuse facilities</p>	<p>A Plan of Operation 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 shall include sampling and monitoring requirements to insure proper operation of the wastewater treatment and reuse facilities. The Plan of Operation shall specifically include or address the following bullet items.</p> <ul style="list-style-type: none"> • Procedures (operating, reporting, corrective actions, etc.) for upset periods or off-specification effluent. • All sampling, monitoring and reporting requirements of this permit. • A description of approved sample collection methods, appropriate analytical methods, and companion quality control/assurance (QA/QC) protocols. <p>Upon approval, the Plan of Operation shall be incorporated by reference into this permit and shall be enforceable as a part of this permit.</p>
<p style="text-align: center;">CA-215-02 Runoff Management Plans</p> <p>1. Runoff Management Plan for Class D site due 60 days prior to effluent application</p> <p>2. Prior to application of Class A effluent outside of Heroes Park</p>	<ul style="list-style-type: none"> • For the Class D effluent system, submit a Runoff Management Plan outlining measures to be used to satisfy the requirements of the Runoff/Wellhead Protection Requirements in Section F of this permit. • Submit a Runoff Management Plan for irrigation activities within the Class A Reuse Project Area. The plan should generally set forth measures to be implemented by the permittee to prevent and/or mitigate any runoff from sites irrigated with Class A effluent, including visual inspections and procedures for documentation of responses to any runoff-related complaints received by the City.
<p style="text-align: center;">CA-215-03 Permit Modification Application and Revised Ground Water Impact Assessment</p> <p style="text-align: center;">As indicated</p>	<p>Prior to any expansion of the Class A distribution system to irrigate 1) more than a total of 1,213 acres, or 2) outside of the 17,027-acre Class A Reuse Project Area, the permittee shall submit a permit modification application and revised ground water impact assessment demonstrating that such expansion(s) would comply with the requirements of the <i>Ground Water Quality Rule</i>, IDAPA 58.01.11.</p>
<p style="text-align: center;">CA-215-04 Permit Renewal Application</p> <p style="text-align: center;">Six months prior to permit expiration date</p>	<p>Submit an application package to DEQ for permit renewal.</p>

F. Permit Limits and Conditions

The permittee is allowed use wastewater effluent as prescribed in the tables below and in accordance with all other applicable permit conditions and schedules.

Category	Permit Limits and Conditions	
Type of Wastewater	Class A Municipal Wastewater	Class D Municipal Wastewater
Reporting Year for Annual Reporting Requirement	January 1 through December 31	January 1 through December 31
Growing Season	March 15 to October 31. Based on actual field conditions in any given year, DEQ may approve written requests for consideration of alternate dates.	March 15 to October 31. Based on actual field conditions in any given year, DEQ may approve written requests for consideration of alternate dates.
Non-Growing Season	November 1 to March 14	November 1 to March 14
Application Season	<ul style="list-style-type: none"> • Irrigation only allowed during growing season. • Other uses allowed year-round. 	Irrigation only allowed during growing season.
Allowable Irrigation Sites	HMU-021501	HMU-021502
Allowable Uses	<ul style="list-style-type: none"> • Crop/turf/landscape irrigation, per the terms of this permit. • Dust suppression by personnel directly employed by the City. Non-City personnel may only engage in this use after entering into a Utility User Agreement with the City. • Toilet flushing, where only trained maintenance personnel have access to the plumbing for repair. For purposes of the permit, trained maintenance personnel are City employees or licensed plumbers. • Lined surface water features, subject to DEQ approval prior to construction. • Flushing of sanitary sewers discharging to the City's wastewater treatment plant. • Fire suppression from dedicated, marked hydrants and only by trained fire or City employees, and not to be used in building sprinkler systems. 	<ul style="list-style-type: none"> • Crop/turf irrigation, per the terms of this permit.

F. Permit Limits and Conditions

Category	Permit Limits and Conditions	
Type of Wastewater	Class A Municipal Wastewater	Class D Municipal Wastewater
Wastewater Treatment System Effluent, Total Nitrogen (Total Kjeldahl Nitrogen + Nitrate-N + Nitrite-N) Limit, mg/L	Seasonal average shall not exceed 15.5 mg/L.	Not applicable.
Wastewater Treatment System Effluent, Biological Oxygen Demand (BOD ₅) Limit, mg/L	Monthly average shall not exceed 10.0 mg/L.	Not applicable.
Wastewater Treatment System Effluent, pH Limit	6.0 - 9.0.	Not applicable.
Wastewater Treatment System Effluent, Turbidity Limit, Nephelometric Turbidity Units (NTUs)	<ul style="list-style-type: none"> • Instantaneous maximum shall not exceed 5 NTU. • 24-hour average shall not exceed 2 NTU. 	Not applicable.
Wastewater Treatment System Effluent, Total Coliform Limit, CFU/100 mL	The median number of total coliform organisms shall not exceed 2.2 per 100 milliliters, as determined from the results of the last seven (7) days for which analyses have been completed. In addition, the number of total coliform shall not exceed 23 per 100 milliliters in any confirmed sample.	The median number of total coliform organisms shall not exceed 230 per 100 milliliters, as determined from the results of the last three (3) days for which analyses have been completed. In addition, the number of total coliform shall not exceed 2300 per 100 milliliters in any confirmed sample.
Hydraulic Loading Rate Requirement, per Growing Season NOTE: The hydraulic limit includes treated wastewater <u>and</u> any supplemental irrigation water applied onsite	Not applicable.	Growing Season (GS) Hydraulic Loading Rate shall be substantially equal to the Irrigation Water Requirement (IWR) of the crops onsite throughout the growing season. The IWR shall be estimated using data from the tables of the following University Of Idaho web site: http://www.kimberly.uidaho.edu/water/appndxet/index.shtml . The IWR is equal to the Mean IR data from these tables divided by the irrigation system efficiency.
Maximum Nitrogen Loading Rate Limit, pounds/acre-year NOTE: Includes all nitrogen sources including waste solids and supplemental fertilizers	Not applicable.	150% of typical crop uptake (refer to definition in Section C of this permit).

F. Permit Limits and Conditions

Category	Permit Limits and Conditions	
Type of Wastewater	Class A Municipal Wastewater	Class D Municipal Wastewater
Posting/Labeling Requirements	<ul style="list-style-type: none"> • For irrigated public areas, warning signs shall be installed. The signs shall read “Warning: Reclaimed Wastewater - Do Not Drink”, or equivalent. • For storage impoundments, warning signs shall be installed. The signs shall read “Warning: Reclaimed Wastewater - Do Not Drink”, or equivalent. Signs shall be posted at minimum five hundred (500) foot intervals and at the entrance of each facility. If there is no fence, signs shall be located at a minimum on each side of the facility or at minimum two hundred fifty (250) foot intervals or at all accessible points. • For pumping facilities, all exposed and above ground piping, risers, fittings, pumps, valves, etc., shall be painted purple, Pantone 512. All piping shall be identified using an accepted means of labeling reading “Warning: Reclaimed Wastewater - Do Not Drink”, or equivalent. In a fenced pump station area, signs shall be posted on the fence on all sides. • Warning labels reading “Warning: Reclaimed Wastewater - Do Not Drink”, or equivalent, shall be installed on designated facilities such as, but not limited to, controller panels and washdown or blow-off hydrants on water trucks, hose bibs, and temporary construction services. • All new buried pipe, including service lines, valves, and other appurtenances, shall be colored purple, Pantone 512 or equivalent. • All valves shall have locking valve covers that are non-interchangeable with potable water valve covers, and shall have an inscription cast on the top surface stating “Reclaimed Wastewater”, or equivalent. Valve boxes shall meet the requirements of IDAPA 58.01.08.542 of the <i>Idaho Rules for Public Drinking Water Systems</i>. All above ground pipes and pumps shall be colored purple, Pantone 512 or equivalent. 	<p>Signs shall be posted every 500 feet designating the fields as wastewater reuse areas or equivalent. A three-wire pasture fence, or other fencing approved by DEQ, shall enclose the treatment facilities and land application site acreage.</p>

F. Permit Limits and Conditions

Category	Permit Limits and Conditions	
Type of Wastewater	Class A Municipal Wastewater	Class D Municipal Wastewater
Runoff/Wellhead Protection Requirements	The permittee shall manage the reuse sites in accordance with an approved Runoff Management Plan, required by Compliance Activity No. CA-215-02.	No runoff of wastewater allowed. To prevent runoff from the reuse sites, BMPs shall be used around all areas where runoff may potentially occur. Berms and other BMPs shall be used to protect the wellhead of on-site wells. New BMPs shall be reviewed and approved by DEQ prior to implementation.
Buffer Zones	<ul style="list-style-type: none"> • No application to surface waters. • 100 feet from application sites to drinking water wells. • Drinking fountains, picnic tables, food establishments, and other public eating facilities shall be placed out of any spray irrigation area in which effluent is used, or shall be otherwise protected from contact with the effluent, to the maximum extent practical. 	<ul style="list-style-type: none"> • 50 feet to irrigation ditches and canals. • 100 feet to surface waters. • 300 feet to areas of public access. • 500 feet to inhabited dwellings. • 500 feet to private water supply wells. • 1000 feet to public water supply wells.
Allowable Crops / Grazing Restrictions	Not applicable.	<ul style="list-style-type: none"> • No grazing is allowed, and crops from these sites cannot be fed to animals for two weeks following any effluent application. • Crops grown for direct human consumption (those crops that are not processed prior to consumption) are not allowed.
Class A Filtration Units, Operational Requirements NOTE: Not applicable to Class D effluent	<u>Aqua-Aerobic Systems Cloth-Media Disk Filter or Kruger Hydrotech Cloth Media Disk Filter</u> : Influent shall be coagulated and loading rates shall not exceed 6 gallons per minute per square foot. Influent turbidity shall not exceed 10 NTU more than 5-percent of the time within a 24-hour period, and shall never exceed 15 NTU. Coagulation is not required if all of following are met: the filter effluent does not exceed 2 NTU, the filter influent is continuously measured, the filter influent turbidity does not exceed 5 NTU, and automatically activated chemical addition or diversion facilities are provided in the event filter effluent turbidity exceeds 5 NTU.	
Class A Disinfection Requirements NOTE: Not applicable to Class D effluent	<ul style="list-style-type: none"> • Chlorine disinfection with a minimum concentration/contact time (CT) of 450 mg-min/L, measured at the end of the contact time with 1) a modal contact time of not less than 90 minutes based on peak flow, and 2) a total residual chlorine concentration of 1 mg/L or greater, <u>or</u> • A disinfection process that, when combined with filtration, has been demonstrated to achieve 5-log inactivation of virus. 	

F. Permit Limits and Conditions

Category	Permit Limits and Conditions
<p>Class A Utility User Agreement and Public Education Program Requirements</p> <p>NOTE: Not applicable to Class D effluent</p>	<p>All operators of Class A effluent distribution systems who are not employed by the City, including operators of distribution systems that utilize a combination of Class A effluent and other irrigation waters, operators of the distribution system from the wastewater treatment plant to the point of compliance or point of use or point of sale, as applicable, and those operators that are employed by buyers of the Class A effluent for subsequent use, including home occupants, shall be required to sign a utility user agreement provided by the utility providing the Class A effluent that states that the user acknowledges that the user understands the origin of the effluent and the concept of agronomic rate for applying the Class A effluent. Contracts for sale of Class A effluent for subsequent use shall also include these requirements. Individual homeowners are allowed to operate or maintain Class A effluent distribution systems. Providers of the Class A effluent shall undertake a public education program within its service area to teach potential customers the benefits and responsibilities of using Class A effluent.</p> <p>Executed utility user agreements shall be retained by the City until such time as Class A effluent is no longer provided or available to the user.</p>
<p>Class A Irrigation Scheduling</p> <p>NOTE: Not applicable to Class D effluent</p>	<p>Irrigation shall occur during periods of non-use by the public.</p>
<p>Wastewater Treatment and Reuse System Operation</p>	<p>The wastewater treatment facility and Class D reuse system 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.</p>
<p>Ground Water Quality</p>	<p>Wastewater reuse activities conducted by the permittee shall not cause a violation of the <i>Ground Water Quality Rule</i>, IDAPA 58.01.11.</p>
<p>Construction Plans</p>	<p>Prior to construction, modification, or expansion of any wastewater facilities associated with the reuse systems, detailed plans and specifications shall be submitted and approved by DEQ. Within 30 days of completion of construction, the permittee shall submit record plans and specifications to DEQ.</p>
<p>Supplemental Irrigation Water Protection</p>	<p>For systems with wastewater and fresh irrigation water interconnections, DEQ-approved backflow prevention devices are required for protection of fresh irrigation water sources.</p>

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 DEQ, shall be employed. A description of approved sample collection methods, appropriate analytical methods and companion QA/QC protocol shall be included in the Plan of Operation, as required by Compliance Activity No. CA-215-01 in Section E of this permit.
2. The permittee shall monitor and measure parameters as stated in the Facility Monitoring Tables 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.
5. Unless otherwise agreed to in writing by the DEQ, data collected and submitted shall include, but not be limited to, the parameters and frequencies in the Facility Monitoring Tables on the following pages. Monitoring is required at the frequency show in the tables below if wastewater is applied anytime during the time period shown.
6. 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
Continuously, when Class A effluent is produced	Influent to Class A filtration, WW-1 ^a	Loading rate ^b and turbidity	Gallons/minute·ft ² , NTU
Continuously, when Class A effluent is produced	Class A filtration effluent, WW-2 ^a	In-line continuously monitoring and recording turbidimeter	NTU
Continuously, when Class A effluent is produced	Class A effluent, post-disinfection, WW-5 ^a	Chlorine residual	mg/L
Continuously, when Class A effluent is produced	Reclaimed Water Pumping Station, reclaimed wastewater pump, WW-4 ^a	Volume ^c of effluent discharged	Gallons/minute, Gallons/day
Daily, when Class D effluent is produced	Effluent discharged to Wastewater Treatment Plant Property, WW-3 ^a	Volume ^c of effluent discharged	Gallons/day
Daily, any day Class A effluent is produced	Class A effluent, post-disinfection, WW-5 ^a	Grab sample	Total coliform
Daily, any day Class A effluent is produced	Class A effluent, post-disinfection, WW-5 ^a	Grab sample or continuous monitoring	pH
Weekly, any week Class A effluent is produced	Class A filtration effluent, WW-2 ^a	24-hr composite sample	Total nitrogen (TKN+nitrite+nitrate), BOD ₅

^aSampling point locations are defined in Appendix 1 of this permit.

^bInfluent flow rate monitoring may be accomplished by calculation, based on effluent and backwash flow rates.

^cPump runtime and pump curves may be used to monitor discharge flow rate. Annual calibration is required.

G. Monitoring Requirements

Frequency	Monitoring Point	Description and Type of Monitoring	Parameters
Monthly, any month Class A effluent is produced	Class A filtration effluent, WW-2 ^a	24-hr composite sample	Total phosphorus
Monthly, any month Class D effluent is produced	Effluent discharged to Wastewater Treatment Plant Property, WW-3 ^a	Grab sample or 24-hr composite sample	Total coliform, total phosphorus, total nitrogen (TKN+nitrite+nitrate)
Annually	HMU-021501	Identify all Class A irrigation sites and associated acreages, with map(s) delineating site locations and any drinking water wells within 100 feet	Class A irrigation site locations and acreages
Annually	HMU-021502	Calculate and report total nitrogen and total phosphorus loading from reclaimed effluent and fertilizer applications	Nitrogen and phosphorus applied in lbs/acre-year
Annually	HMU-021502	Calculate and report crop nitrogen and phosphorus removal	Nitrogen and phosphorus removed in lbs/acre-year and provide basis for calculations
Annually	All flow measurement locations	Flow measurement calibration of all flows.	Document the flow measurement calibration of all flow meters and pumps used directly or indirectly to measure wastewater or supplemental irrigation water flow rates, when such devices are used to assess or demonstrate compliance with the terms of this permit
Annually	All supplemental irrigation pumps directly connected to the wastewater distribution system	Backflow testing	Document the testing of all backflow prevention devices for all supplemental irrigation pumps directly connected to the wastewater distribution system(s). Report the testing date(s) and results of the test (pass or fail). If any test failed, report the date of repair or replacement of backflow prevention device, and if the repaired/replaced device is operating correctly.

^aSampling point locations are defined in Appendix 1 of this permit.

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 March 1 of each year which shall cover the previous year (see section C for definition/dates of the Reuse Reporting Year). 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 at the following address:

Boise Regional Office
1445 N. Orchard
Boise, ID 83706-2239
4. Notice of completion of any work described in Section E. Compliance Schedule for Required Activities shall be submitted to DEQ 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 Rules for the Reclamation and Reuse of Municipal and Industrial Wastewater, in conformance with a DEQ approved, current Plan of Operations 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 unless permission has been obtained from the DEQ authorizing a discharge into the waters of the State as stated in IDAPA 58.01.02.600.02.
3. Wastewater must not create a public health hazard or nuisance condition as stated in IDAPA 58.01.02.600.03. 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. For Class D effluent, manage the wastewater reuse 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 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.
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 Rules for the Reclamation and Reuse of Municipal and Industrial Wastewater and include seepage tests on all lagoons per latest DEQ procedures.
7. The permittee shall allow the Director of DEQ, 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)

I. Standard Permit Conditions: Procedures and Reporting

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;
 - 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 any public properties where reclaimed effluent is used for irrigation under the terms of this permit. 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 Plan of Operations.

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 Rules for the Reclamation and Reuse of Municipal and Industrial Wastewater, 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 Rules for the Reclamation and Reuse of Municipal and Industrial Wastewater.
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 wastewater reuse facility from service, including any treatment, storage, or other facilities or equipment associated with the wastewater 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
MU-021501	Total Allowable Acreage within Reuse Project Area (includes Heroes Park)	1,213
MU-021502	West Wastewater Treatment Plant Property	16.3

SOIL MONITORING UNITS

Serial Number	Description	Associated MU
SU-021502	West Wastewater Treatment Plant Property	MU-021502

WASTEWATER SAMPLING POINTS

Serial Number	Description
WW-021501	Influent to Class A filtration
WW-021502	Effluent from Class A filtration
WW-021503	Effluent discharged to Wastewater Treatment Plant Property
WW-021504	Reclaimed Water Pumping Station, reclaimed wastewater pump
WW-021505	Class A effluent, post-disinfection

LAGOONS

Serial Number	Description
LG-021501	Heroes Park Holding Pond

Appendix 2 Site Maps

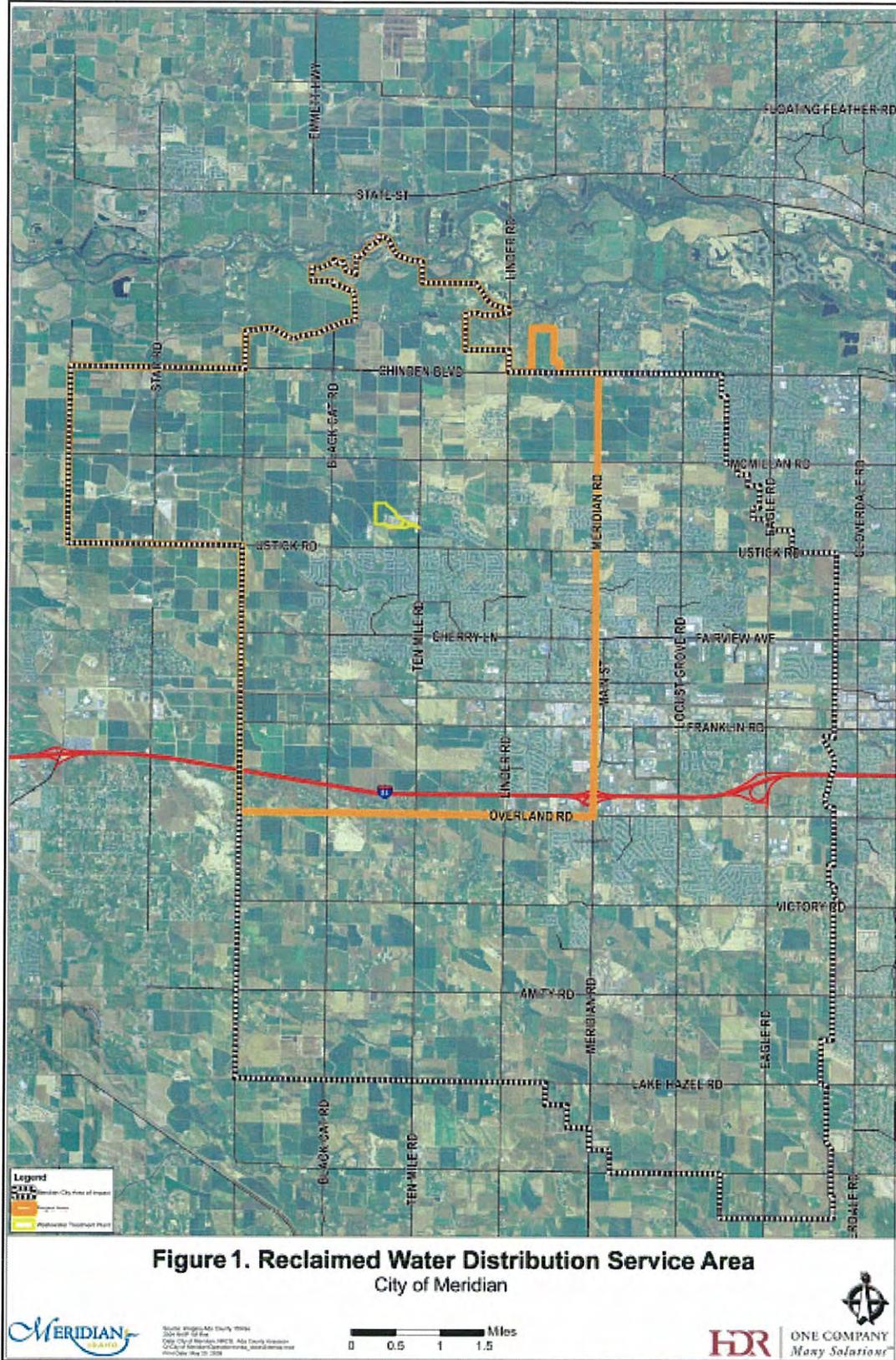


Figure A.1: Class A Reuse Project Area (Orange boundary line)

Appendix 2
Site Maps

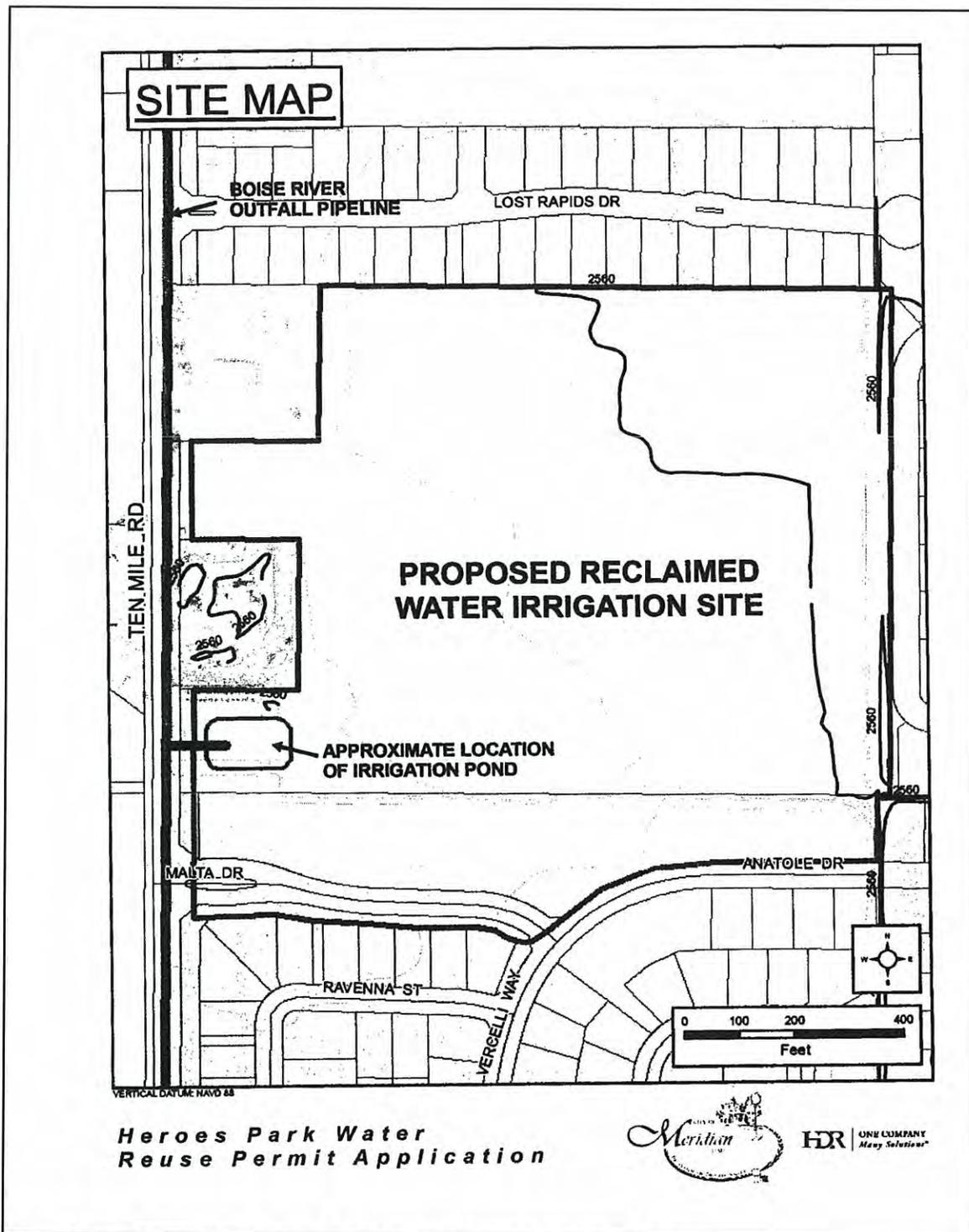


Figure A.2: Heroes Park Site Map (Initial Class A Irrigation Site)

Appendix 2
Site Maps



Figure A.3: West Wastewater Treatment Plant Property (Class D Site)