Idaho Department of Environmental Quality

Reuse Permit

M-088-04

(Previous Permit No. LA-000088-03)

Idaho Department of Correction, for the Correctional Facility Complex consisting of the Idaho State Correctional Institution (ISCI), Idaho Maximum Security Institution (IMSI), Southern Idaho Correctional Institution (SICI), and the South Boise Women's Correctional Center (SBWCC), (hereafter "permittee") is hereby authorized to construct, install, and operate a reuse facility in accordance with (1) this permit; (2) IDAPA 58.01.17 "Recycled Water Rules"; (3) an approved plan of operation; and (4) all other applicable federal, state, and local laws, statutes, and rules. This permit is effective from the date of signature and expires on (up to 120 months from issue date).

Signature | Date

Pete Wagner
Regional Administrator
Boise Regional Office
Idaho Department of Environmental Quality

Idaho Department of Environmental Quality
Boise Regional Office
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1. Commonly Used Acronyms and Abbreviations

cwt	a unit of weight measurement equal to 100 pounds
COD	chemical oxygen demand
DEQ	Idaho Department of Environmental Quality
DEQ Guidance	DEQ Guidance for Reclamation and Reuse of Municipal and Industrial Wastewater, latest revision
Director	Director of the Idaho Department of Environmental Quality or designee unless otherwise specified
Ei	irrigation efficiency
FM	flow measurement or monitoring description or identifier
GW	ground water
IDAPA	Idaho Administrative Procedures Act
IDWR	Idaho Department of Water Resources
IWR	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). The equation used to calculate the IWR is: $IWR = P_{def} / E_i$
LG	prefix for lagoon reporting serial number
MG	million gallons
mg/kg	milligram per kilogram
mg/L	milligram per liter
MU	prefix for management unit reporting environmental serial number
P_{def}	precipitation deficit - is synonymous with the net irrigation water requirement of the crop and for the purposes of this permit can be found at the following website http://data.kimberly.uidaho.edu/ETIdaho/
NVDS	nonvolatile (fixed) dissolved solids
PO	plan of operation
QAPP	quality assurance project plan
SU	prefix for soil monitoring unit reporting serial number
SW	prefix for supplemental irrigation water reporting serial number
WW	prefix for wastewater reporting serial number

2. Facility Information

Information Type	Information Specific to This Permit
Class of municipal recycled water	Class D
Method of treatment and reuse	Anaerobic and aerobic lagoon treatment, chlorine disinfection, and slow-rate land application
System Classification	Class I for Collection and Treatment Systems
Facility location address	13400 South Pleasant Valley Road Kuna, Idaho 83634
Facility geographic location	Township 2N, Range 2E, and Sections 21, 27, 28, and 34
Facility mailing address	Idaho Department of Correction 1299 N Orchard St Suite 110 Boise, ID 83706
Facility phone and fax numbers	Telephone 208-336-1260; Fax 208-334-3239
Facility contact(s) information	Mr. Troy Crane Wastewater Foreman Idaho State Correctional Institution P.O. Box 14 Boise, ID 83707
Facility responsible official or authorized agent	Mike McCarthy Maintenance Supervisor P.O. Box 14 Boise, ID 83707
Ground water	Valley Site: 10 feet below ground surface, flowing from the southeast to the northwest. East Site and Valley Site: 368 to 496 feet below the ground surface is a regional aquifer, flowing from the north/northeast to the south/southeast. Beneficial uses: Agriculture and drinking water Nearby Public Water Supply wells: Boise Gun Club Well (~4743 feet SSW of East Site), Idaho Correctional Center CCA Wells #1 and #2, IDOC Idaho St Correctional Institute IMSI Wells #3-A, #3-B, and #4 (Shown on Site Map 1)
Surface Water	Tenmile Creek, ephemeral, crossing through the Valley Site. Beneficial uses: cold water biota and primary contact recreation

3. Compliance Schedule for Required Activities

Compliance Activity (CA) Number and Completion Due Date	Compliance Activity Description
CA-088-01 Twenty-four (24) months after permit issuance Twelve (12) months after plan is approved by DEQ, wells must be sampled and reported	**Ground Water Study – Valley Site** Submit a plan to assess potential receptors (i.e. potable water supply wells) that are adjacent to the Tenmile Creek drainageway for a distance of 1 mile downstream from the treatment and reuse site. The plan shall include the following: 1) Identify the wells to be assessed, which shall include wells in both shallow ground water or in the regional system. At a minimum, the wells located in the area bounded by the red lines in Section 9, Figure 3 shall be sampled in both summer and winter (July and January), along with GW-008801, GW-008802, and the wastewater effluent[1]. 2) A Quality Assurance Project Plan for sampling procedures (see CA-088-03). 3) An analysis plan, which shall include, at a minimum, analyses for common ions[2], nitrate-N, TDS, total and dissolved Fe, and total and dissolved Mn. 4) Identify the objectives of the study, which shall include determination of whether downgradient users are or are likely to be effected by the wastewater treatment and reuse operations at this site. Identify how the objectives of the study will be met, which shall include sampling as many downgradient wells as necessary and plotting common ion results on trilinear diagram(s) and evaluating whether wastewater treatment and reuse operations are affecting the wells sampled. Twelve months after the plan is approved by DEQ, submit a report with a discussion of the findings of the study and whether operations are impacting, or likely to impact, downgradient users. Propose any further actions that may be necessary, such as a thorough management plan, utilization of all permitted land, reduction in the use of the Valley site, or treatment upgrades, and include a timeline for completion. The timeline shall be subject to DEQ review and approval, and the permittee shall implement the actions in accordance with the approved timeline. [1]Wastewater sample should not include supplemental irrigation water. Samples of individual lagoons may be useful. [2]Common ion analysis would measure the concentrations of Ca^{2+}, Mg^{2+}, Na^{+}, K^{+}, HCO_3^-, CO_3^{2-}, SO_4^{2-}, and Cl^- in meq/L.

Compliance Activity (CA) Number and Completion Due Date	Compliance Activity Description
CA-088-02 Six (6) months after permit issuance	**Updated Plan of Operations:** Updated Plans of Operations shall be submitted to DEQ for review and approval for the Valley Site and East Site that reflect current operations and incorporate the requirements of this permit. The Plans shall comply with the applicable requirements stated in IDAPA 58.01.17.300.05 and shall address applicable items in the latest revision of the Plan of Operations Checklist as well as the following items: 1. The Plans shall include a Crop Management Plan for each site. The plan shall include the crops grown on each MU, and for each crop, the plan shall include typical planting and harvest times, typical production for the area, irrigation water requirement, and typical nutrient uptake. A discussion of crop rotation and any fertilizer recommendations shall also be included. Irrigation efficiency for the site irrigation systems shall be included. 2. The Plans shall include a discussion on how operations affect ground water, and discuss operational practices to minimize nitrate and TDS concentration increases in ground water. 3. The Plans shall include record keeping sheets specific to irrigation, including a daily log of time length of irrigation, MU utilized, and supplemental irrigation water use. 4. The Plan of Operations for the Valley Site shall describe in detail the operation of the Valley Site irrigation system, both mechanically and agronomically. Since a portion of the total flow being pumped to the irrigation system is returned to the Valley System's lagoons unmeasured, a discussion shall be included on how to match hydraulic and nutrient loading to agronomic rates. The PO shall be updated as needed to reflect current operations. The permittee shall notify DEQ of material changes to the PO and copies shall be kept on site and made available to DEQ upon request.

Compliance Activity (CA) Number and Completion Due Date	Compliance Activity Description
CA-088-03 Six (6) months after permit issuance	**Quality Assurance Project Plan (QAPP):** The permittee shall prepare and implement a QAPP that incorporates all monitoring and reporting required by this permit. A copy of the QAPP along with written notice that the permittee has implemented the QAPP shall be provided to DEQ. The QAPP shall be designed to assist in planning for the collection, analysis, and reporting of all monitoring in support of this permit and in explaining data anomalies when they occur. At a minimum, the QAPP must include the following: 1. Details on the number of measurements, number of samples, type of sample containers, preservation of samples, holding times, analytical methods, analytical detection, and quantitation limits for each target compound, type and number of quality assurance field samples, precision and accuracy requirements, sample preparation requirements, sample shipping methods, and laboratory data delivery requirements. 2. Maps indicating the location of each monitoring, and sampling point. 3. Qualification and training of personnel. 4. Names, addresses, and telephone numbers of the laboratories used by or proposed to be used by the permittee. 5. Example formats and tables that will be used by the permittee to summarize and present all data in the annual report. The format and content of the QAPP should adhere to the recommendations and references in the Quality Assurance and Data Processing sections of the DEQ Guidance. The permittee shall amend the QAPP whenever there is a modification in sample collection, sample analysis, or other procedure addressed by the QAPP. The permittee shall notify DEQ of material changes to the QAPP and copies shall be kept on site and made available to DEQ upon request.
CA-088-04 Twenty-four (24) months after permit issuance	**Non-Volatile Dissolved Solids (NVDS) Source Analysis:** The permittee shall sample each influent stream to the Valley and East sites (including individual buildings and any unique streams within these buildings) for the following constituents: Total Dissolved Solids (TDS), Volatile Dissolved Solids (VDS), Sodium. Each influent stream shall be described and the major sources of the non-volatile dissolved solids (TDS minus VDS) for each stream shall be identified. A quantitative estimate of the contribution of each source to the total loading shall be determined. The permittee shall identify NVDS source reduction strategies for these streams, evaluate the technical and economic feasibility of isolation or removal of NVDS in these streams, calculate by what amount the total NVDS loading will be reduced by the source elimination or reduction, and propose a schedule for implementation of the elimination or reduction of these sources. The permittee shall submit a report containing the results of the sampling, the analysis, and the proposed schedule to DEQ for review within 12 months of permit issuance. The report and schedule is subject to DEQ review and approval, and the elimination or reduction of non-volatile dissolved solids sources shall be implemented in accordance with the approved schedule.

Compliance Activity (CA) Number and Completion Due Date	Compliance Activity Description
CA-088-05 Six (6) month before completion of construction on the Idaho Mental Health Facility	Contingent on whether the construction of the Idaho Mental Health Facility proceeds, an addendum to the new Plans of Operation shall be submitted to DEQ for review and approval. This addendum shall describe how the treatment systems will accommodate the additional volume of influent and procedures for putting additional acreage into production at the facility.
CA-088-06 January 31, 2019	**Midterm Review:** Permittee shall include within the 2018 Annual Report a review of all permitted activities conducted during the first five years of the permit term, as allowed in accordance with IDAPA 58.01.17.500.04. The review shall include the following: 1. A compilation of the results of all monitoring required in Section 4 collected thus far during this permit term, 2. a summary and written status of all work described in Section 2 of this permit, 3. a summary of all noncompliance events that have occurred during this permit term, and 4. a review of the environmental data and an interpretive discussion of facility environmental impacts, if any. A review of this submittal will be conducted by DEQ, and based on this and any other information deemed relevant, DEQ will determine if cause exists for modifying, revoking, re-issuing or terminating the permit, and will determine compliance with the permit and the *Recycled Water Rules*. If it is determined that cause exists to proceed with one of the aforementioned actions, DEQ will notify the permittee of its intent and will proceed following the procedures for permit issuance as laid out in the *Recycled Water Rules*, Application Processing Procedures, IDAPA 58.01.17.400, as applicable. If the comprehensive review determines substantial compliance, the permittee will be notified that the current permit expiration date will remain in effect.
CA-088-07 One year prior to permit expiration	**Pre-Application Workshop:** If the permittee intends to continue operating the reuse facility beyond the expiration date of this permit, the permittee shall contact DEQ and schedule a pre-application workshop to discuss the compliance status of the facility and the content required for the reuse permit application package.
CA-088-08 180 days prior to permit expiration	**Permit Renewal Application:** The permittee shall submit to DEQ a complete permit renewal application package, which fulfills the requirements specified at the pre-application workshop identified in CA-088-07.

4. Permit Limits and Conditions

4.1 Hydraulic Management Unit Descriptions

Serial Number	Description	Irrigation System Type and Irrigation Efficiency (E_i)	Maximum Acres[a] Allowed
MU-008801	Valley Site, segments I-III and XI through XV	Wheel-line: (E_i=0.75)	80.6
MU-008802	Valley Site, segments IV through X	Wheel-line: (E_i=0.75)	25.8
MU-008803	East Site, North Field	Wheel-line: (E_i=0.75)	45
MU-008804	East Site, South Field	Wheel-line: (E_i=0.75)	30
		Total acreage	181.4

a. Maximum acres represent the total permitted acreage of the MU as provided by the permittee. If the permittee uses less acreage in any season or year, then loading rates shall be presented and compliance shall be determined based on the actual acreage utilized during each season or year.

4.2 Hydraulic Loading Limits

Serial Number	Growing Season Hydraulic Loading	Nongrowing Season Maximum Hydraulic Loading
MU-008801 MU-008802 MU-008803 MU-008804	Substantially at the irrigation water requirement (IWR)[a]	Not allowed

a. For compliance purposes, the source of P_{def} data used to calculate the IWR shall be specified in the PO.

4.3 Constituent Loading Limits

Serial Number	Constituent Loading (from all sources)			
	Nitrogen (lb/acre)	**Phosphorus (lb/acre)**	**Salt (NVDS) (lb/acre)**	**COD growing season/nongrowing season (lb/acre-day)[a]**
MU-008801 MU-008802 MU-008803 MU-008804	150% of typical crop uptake[b]	Not Applicable	Not Applicable	50/0

a. COD Limit expressed in pounds per acre per day (lb/acre-day) on a seasonal average.
b. Typical crop uptake is the median constituent crop uptake from the 3 most recent years the crop has been grown. For crops having less than 3 years of on-site crop uptake data, other crop yield data or nutrient content values may only be used if approved in writing by DEQ in advance of use. If written approval is not provided by DEQ, compliance with the 150% nitrogen loading limit shall be determined by comparing the current year nitrogen loading to the current year nitrogen uptake.

4.4 Management Unit Buffer Zones

Serial Number	Buffer Distances (in feet) from Hydraulic Management Units					
	Inhabited Dwellings	**Areas Accessible to the Public**	**Permanent and Intermittent Surface Water**	**Irrigation Ditches and Canals**	**Private Water Supplies**	**Public Water Supplies[a]**
MU-008801 MU-008802 MU-008803 MU-008804	1,000	500	90[b]	50	500	1,000

a. With the exception of ISCI Well No. 4 which has an approved buffer distance of 500 ft.
b. Irrigation will not be allowed within 100 feet when water flows through Tenmile Creek.

4.5 Other Permit Limits and Conditions

Category	Permit Limits and Conditions
Growing season	March 15 through October 31 (229 days)
Nongrowing season	November 1 through March 14 (136 days)
Reporting year for annual loading rates	November 1 through October 31
Disinfection limits in recycled water	Class D: The median number of total coliform organisms does not exceed 230 total coliform organisms/100 mL, as determined from the bacteriological results of the last 3 days for which analyses have been completed. No sample shall exceed 2,300 total coliform organisms/100 mL in any confirmed sample.
Grazing	Prior to grazing, the permittee shall submit a grazing management plan and receive written approval from DEQ.
Posting	Signs shall read “Warning: Recycled Water—Do Not Enter,” or equivalent in both English and Spanish. Signs to be posted as specified in the DEQ approved plans and specifications. Fencing requirements as specified in the DEQ approved plans and specifications.
Fencing	Three-wire or woven pasture fencing or equivalent required.
Construction plans and specifications	Pursuant to Idaho Code §39-118, IDAPA 58.01.16, and IDAPA 58.01.17, detailed plans and specifications shall be submitted to DEQ for review and approval prior to construction, modification, or expansion of any wastewater treatment, storage, conveyance structures, or reuse facility. Inspection requirements shall be satisfied and within 30 days of completion of construction and the permittee shall submit as-built plans or a letter from an Idaho Professional Engineer certifying the facilities or structures were constructed in substantial accordance with the approved plans and specifications.
Backflow prevention and testing requirements	Backflow prevention is required to protect surface water and ground water from an unauthorized discharge of recycled water or wastewater. Refer to section 9.1.1 of this permit.
Records retention requirements	Keep records generated to meet the requirements of this permit for the duration of permit, including administrative extensions, plus 2 years.

5. Monitoring Requirements

5.1 Recycled Water and Supplemental Irrigation Water Sampling, and Analyses

5.1.1 Constituent Monitoring

Monitoring Point Serial Number and Location	Sample Description	Sample Type and Frequency	Constituents (Units in mg/L Unless Otherwise Specified)
WW-008801 Disinfected effluent at irrigation pump station, Valley Site	Recycled water to MU-008801 or MU-008802	Grab/monthly (during periods of use)	• Total Coliform (MPN/100mL) • Chemical Oxygen Demand • Total Kjeldahl Nitrogen • Nitrate+Nitrite Nitrogen • Total Phosphorus • Total Dissolved Solids • Volatile Dissolved Solids
WW-008802 Disinfected effluent at irrigation pump station, East Site	Recycled water to MU-008803 or MU-008804	Grab/monthly (during periods of use)	• Total Coliform (MPN/100mL) • Chemical Oxygen Demand • Total Kjeldahl Nitrogen • Nitrate+Nitrite Nitrogen • Total Phosphorus • Total Dissolved Solids • Volatile Dissolved Solids
SW-008801 Valley Site Supplemental Irrigation Water	Irrigation water for MU-008801 and MU-008802	Grab/July of first permit year	• Chlorine • Chemical Oxygen Demand • Nitrate-Nitrogen • Total Phosphorus • Total Dissolved Solids
SW-008802 East Site Supplemental Irrigation Water	Irrigation water for MU-008803 and MU-008804	Grab/July of first permit year	• Chlorine • Chemical Oxygen Demand • Nitrate-Nitrogen • Total Phosphorus • Total Dissolved Solids

5.1.2 Flow Monitoring

Monitoring Point Serial Number and Location	Sample Description	Sample Type and Frequency	Measured Parameter, each MU
FM-008801 Totalizing flow meter at Valley Site pump house	Flow from LG-008805 to MU-008801 and MU-008802	• Daily meter reading • Monthly compilation of data	Flow (MG/month)
FM-008802 Totalizing flow meter at East Site pump house	Flow from LG-008804 to MU-008803 and MU-008804	• Daily meter reading • Monthly compilation of data	Flow (MG/month)
FM-008803 Valley Site Supplemental Irrigation Water Pump	Flow to LG-008805	• Daily pump run times • Monthly compilation of data	Flow (MG/month)
FM-008804 East Site Supplemental Irrigation Water Pump	Flow to LG-008804	• Daily pump run times • Monthly compilation of data	Flow (MG/month)

5.2 Ground Water Monitoring

5.2.1 Ground Water Monitoring Point Descriptions

Monitoring Point Serial Number	Common Designation	Well Type	Gradient Location
GW-008801	MW 1	Monitoring well	Upgradient
GW-008802	MW 3	Monitoring well	Downgradient

5.2.2 Ground Water Monitoring, Sampling, and Analyses

Monitoring Point Serial Number	Sampling Point Description	Sample Type and Frequency	Constituents (Units in mg/L Unless Otherwise Specified)
GW-008801 GW-008802	Monitoring wells	Grab sample/quarterly: January, April, July, and October (a reduction in frequency may be allowed pending completion of CA-088-01)	• Water table elevation (feet) • Water table depth (feet) • Nitrate-nitrogen • pH (Standard Units) • Specific conductance/electrical conductivity (µmhos/cm) • Temperature (ºC) • Total Dissolved Solids • Total Iron • Total Manganese • Dissolved Iron[a] • Dissolved Manganese[a]

a. Analytical results are required for dissolved iron and/or manganese only if the results for total iron and/or manganese exceed the standards in IDAPA 58.01.11.200.01.b.

5.3 Soil Monitoring

5.3.1 Soil Monitoring Unit Descriptions

Monitoring Point Serial Number	Description	Associated Hydraulic Management Unit
SU-008801	Valley Site, segments I through III and XI through XV	MU-008801
SU-008802	Valley Site, segments IV through X	MU-008802
SU-008803	East Site, North and South fields	MU-008803 and MU-008804

5.3.2 Soil Monitoring, Sampling, and Analyses

Monitoring Point Serial Number	Sample Type	Sample Frequency	Constituents (Units in mg/kg Soil Unless Otherwise Specified)
SU-008801 SU-008802 SU-008803	Composite samples[a]	Annually - March	• Electrical conductivity (µmhos/cm in saturated paste extract) • Ammonium-Nitrogen • Nitrate-Nitrogen • pH • Plant available phosphorus
		March of 2014 and 2022	• Sodium Adsorption Ratio

a. The number of sampling locations specified in the PO or QAPP for each SU shall be sampled. At each location, samples shall be obtained from three depths: 0–12 inches, 12–24 inches, and 24–36 inches or refusal. The samples obtained from each depth shall be composited by depth to yield two composite samples for each soil monitoring unit; one composite sample for each depth.

5.4 Plant Tissue Monitoring

5.4.1 Crop Harvest Monitoring

Associated Hydraulic Management Units	Sample Type	Sample Frequency	Reporting Parameters[a]
MU-008801 MU-008802	Harvested portion, each crop, Valley Site	Each harvest	• Crop type • Harvest date • Sample collection date • As-harvested ('wet') yield in customary harvested units (tons, bushels, cwt, etc.) • As-harvested (field) moisture content (%) • Dry yield (lb)
MU-008803 MU-008804	Harvested portion, each crop, East Site	Each harvest	• Crop type • Harvest date • Sample collection date • As-harvested ('wet') yield in customary harvested units (tons, bushels, cwt, etc.) • As-harvested (field) moisture content (%) • Dry yield (lb)

a. Documentation of reported yields shall be provided for each harvest from each MU.

5.4.2 Plant Tissue Monitoring

Associated Hydraulic Management Units	Sample Type	Sample Frequency	Parameters[a]
MU-008801 MU-008802	Harvested portion, each crop, Valley Site	Each harvest[b]	• moisture content (%) • ash (%) • Total Kjeldahl nitrogen (mg/kg) • NO_3-N + NO_2-N (mg/kg)
MU-008803 MU-008804	Harvested portion, each crop, East Site	Each harvest[b]	• moisture content (%) • ash (%) • Total Kjeldahl nitrogen (mg/kg) • NO_3-N + NO_2-N (mg/kg)

a. Report dry-basis results for all parameters except lab moisture content.
b. If consecutive harvests are within 0.5 lbs/acre of the USDA National Agricultural Statistics Service Ada County average yield, crop sampling will not be required and standard values for crop nutrient content may be used to calculate nutrient loading limits.

5.5 Lagoon Information

Serial number	Description	Volume (MG)	Liner Type
LG-008801	Cell 1- Treatment Lagoon, East Site	7.8	HDPE
LG-008802	Cell 2- Treatment Lagoon, East Site		HDPE
LG-008803	Cell 3- Treatment Lagoon, East Site		HDPE
LG-008804	Storage Pond, East Site	38.1	HDPE
LG-008805	Storage Pond, Valley Site	43.8	PVC
LG-008806	Cell 1- Treatment Lagoon, Valley Site	3.00	Earth/Clay
LG-008807	Cell 2- Treatment Lagoon, Valley Site	2.47	Earth/Clay
LG-008808	Cell 3- Treatment Lagoon, Valley Site	0.44	Earth/Clay
LG-008809	Cell 4- Treatment Lagoon, Valley Site	0.44	Earth/Clay
LG-008810	Cell 5- Treatment Lagoon, Valley Site	0.44	Earth/Clay
LG-008811	Cell 6- Treatment Lagoon, Valley Site	6.44	Earth/Clay

6. Reporting Requirements

6.1 Annual Report Requirements

The permittee shall submit to DEQ an Annual Report prepared by a competent environmental professional covering the previous reporting year.

6.1.1 Due Date

The Annual Report is due no later than January 31 of each year, which shall cover the previous reporting year.

6.1.2 Required Contents

The Annual Report shall include the following:

1. A brief interpretive discussion of all required monitoring data. The discussion shall address data quality objectives, validation, and verification; permit compliance; and reuse facility environmental impacts. The reporting year for this permit is specified in section 4.5.
2. Results of the required monitoring as described in section 5 of this permit. If the permittee monitors any parameter for compliance purposes 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. The report shall present all monitoring data in organized data summary tables to expedite review.
3. Status of all work described in section **Error! Reference source not found.** of this permit.
4. Results of all backflow testing, repairs, and replacements required by Section **Error!**

4. Results of all backflow testing, repairs, and replacements required by Section **Error! Reference source not found.** of this permit.
5. Discussion of major maintenance activities such as major equipment replacement, lagoon liner maintenance, and wastewater treatment and reuse facility maintenance.
6. A summary of all noncompliance events that occurred during the reporting year. Examples of noncompliance events that must be discussed include, but are not limited to: complaints, missed monitoring events, incorrect monitoring dates or frequencies, dry monitoring wells, uncontained spills causing runoff, construction without DEQ engineering plan approval, construction without engineering inspection, and reporting incorrect acreage.
7. Submittal of the calculations and observations for hydraulic management units specified in the table below.
8. All laboratory analytical reports, chain of custody forms, and crop yield documentation.
9. The parameters in the following table:

Monitoring Point Serial Number	Parameter (Calculate for each MU)	Units
MU-008801 MU-008802 MU-008803 MU-008804	Recycled water loading rate	Million gallons/month Inches/month
	Irrigation water loading rate	Million gallons/month Inches/month
	Irrigation Water Requirement (IWR) for each crop grown	Inches/month Inches/GS
	COD loading rate for growing season	Pounds/acre-day
	Recycled water nitrogen, phosphorus and NVDS loading rates	Pounds/acre-year
	Fertilizer nitrogen and phosphorus application rates, reported as elemental N and P	Pounds/acre-year
	Waste solids nitrogen and phosphorus application rates	Pounds/acre-year
	Crop harvest and yield	Crop types harvested Total harvested area (acres) Total ‘wet’ yield (lb/yr, lb/acre-yr) Total ‘dry’ yield (lb/yr, lb/acre-yr)
	Crop nitrogen, phosphorus, and ash removal rates (dry-basis) Report each harvest and the annual totals for each MU.	Pounds-N/acre-year Pounds-P/acre-year Pounds Ash/acre-year

Monitoring Point Serial Number	Parameter (Calculate for each MU)	Units
Other Reporting Requirements a. Document the flow measurement calibration of all flow meters and pumps used directly or indirectly to measure all reclaimed wastewater and supplemental irrigation water flows applied to reuse areas at all flow measurement locations, every two years, starting with the first year of permit. b. Visual observation of field conditions: areas of ponding, ice, and unusual conditions. c. Record daily as necessary when land applying, compile monthly. d. Keep records at the facility and have records available for DEQ inspection.		

6.1.3 Submittal

All applications, annual reports, or information submitted to DEQ as required by this permit shall be signed and certified as follows:

1. Permit applications shall be signed as follows:
   a. For a corporation: by a responsible corporate officer;
   b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively;
   c. For a municipality, state, federal, Indian tribe, or other public agency: by either the principal executive officer or ranking elected official.
2. Annual reports and other information requested by DEQ shall be signed by the responsible official or by a duly authorized representative of that person. A person is a duly authorized representative only if:
   a. The authorization is made in writing by the responsible official;
   b. The authorization specifies either an individual or position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual having overall responsibility for environmental matters for the company; and
   c. The written authorization is submitted to DEQ.

Submit the annual report to the following DEQ regional office at this address:

Engineering Manager
Idaho Department of Environmental Quality
Boise Regional Office
1445 N. Orchard
Boise, ID 83706
(208) 373-0550/(208) 373-0287

The annual report shall include the following certification statement and be signed, dated, and certified by the permittee's Responsible Official or Authorized Representative:

> "*I certify under penalty of law that this report and all attachments were prepared under my direction or supervision and the data and information presented in this report was collected, evaluated and prepared in conformance with the Quality Assurance Project Plan required by the permit. I also certify that the information provided in this submission is, to the best of my knowledge, true, accurate and complete and I acknowledge that knowing submission of false or incomplete information may result in permit revocation as provided for in IDAPA 58.01.17.920.01 or other enforcement action as provided for under Idaho law.*"

6.2 Emergency and Noncompliance Reporting

Report noncompliance incidents to DEQ's regional office at (208) 373-0550/1-888-800-3480.

In case of emergencies, call the emergency 24-hour number at 1-800-632-8000 and DEQ's regional office.

See Section 7, "Standard Permit Conditions," and IDAPA 58.01.17.500.06 for reporting requirements for facilities.

All instances of unpermitted discharges of wastewater to Surface Waters of the United States shall also be reported to the Environmental Protection Agency by telephone within 24 hours from the time the permittee becomes aware of the discharge and in writing within five days at this address:

NPDES/Stormwater Coordinator, USEPA Idaho Operations Office
950 W. Bannock, Suite 900
Boise, ID 83702
(208) 378-5746 / (208) 378-5744 and EPA Hot Line (206) 553-1846

7. Reserved

8. Standard Permit Conditions

The following standard permit conditions are included as terms of this permit as required by the "Recycled Water Rules," (IDAPA 58.01.17.500).

500. STANDARD PERMIT CONDITIONS.
The following conditions shall apply to and be included in all permits. (4-1-88)

01. Compliance Required. The permittee shall comply with all conditions of the permit. (4-1-88)

02. Renewal Responsibilities. 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 in accordance with these rules. (4-1-88)

03. Operation of Facilities. The permittee shall at all times properly maintain and operate all structures, systems, and equipment for treatment, control and monitoring, which are installed or used by the permittee to achieve compliance with the permit or these rules. (4-1-88)

04. Provide Information. The permittee shall furnish to the Director within a 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 rules. (4-1-88)

05. Entry and Access. The permittee shall allow the Director, consistent with Title 39, Chapter 1, Idaho Code, to: (4-1-88)

a. Enter the permitted facility. (4-1-88)

b. Inspect any records that must be kept under the conditions of the permit. (4-1-88)

c. Inspect any facility, equipment, practice, or operation permitted or required by the permit. (4-1-88)

d. Sample or monitor for the purpose of assuring permit compliance, any substance or any parameter at the facility. (4-1-88)

06. Reporting. The permittee shall report to the Director under the circumstances and in the manner specified in this section: (4-1-88)

a. In writing at least 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. When the alteration or addition results in a need for a major modification, such alteration or addition shall not be made prior to Department approval issued in accordance with these rules. (4-7-11)

b. In writing thirty (30) days before any anticipated change which would result in noncompliance with any permit condition or these rules. (4-1-88)

c. Orally within twenty-four (24) hours from the time the permittee became aware of any noncompliance which may endanger the public health or the environment at telephone numbers provided in the permit by the Director. (4-1-88)

d. In writing as soon as possible but within five (5) days of the date the permittee knows or should know of any noncompliance unless extended by the Department. This report shall contain: (4-1-88)

i. A description of the noncompliance and its cause; (4-1-88)

ii. The period of noncompliance including to the extent possible, times and dates and, if the noncompliance has not been corrected, the anticipated length of time it is expected to continue; and (4-7-11)

iii. Steps taken or planned, including timelines, to reduce or eliminate the continuance or reoccurrence of the noncompliance. (4-7-11)

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. (4-1-88)

07. Minimize Impacts. The permittee shall take all necessary actions to eliminate and correct any adverse impact on the public health or the environment resulting from permit noncompliance. (4-1-88)

08. Compliance with "Ground Water Quality Rule." Permits issued pursuant to these rules shall require compliance with IDAPA 58.01.11, "Ground Water Quality Rule." (4-7-11)

9. General Permit Conditions

The following general permit conditions are identical to the cited rules at the time of issuance and are enforceable as part of this permit. Note that the rules cited in this section, and elsewhere in this permit, are supplemented by the rules themselves. Rules applicable to your facility are enforceable whether or not they appear in this permit.

9.1 Operations

9.1.1 Backflow Prevention

Reuse facilities with existing or planned cross-connections or interconnections between the recycled water system and any water supply (potable or nonpotable) or surface water, shall have backflow prevention assemblies, devices, or methods as required by applicable rule or as specified in this permit and approved by DEQ.

For public water systems, backflow assemblies shall meet the requirements of IDAPA 58.01.08.543. Assemblies shall be adequately maintained and shall be tested annually by a certified backflow assembly tester, and repaired or replaced as necessary to maintain operational status.

For domestic water supply wells, backflow prevention devices shall meet the requirements of IDAPA 07.02.04 and shall be adequately operated and maintained.

Irrigation water supply wells shall meet the requirements of IDAPA 37.03.09.36 for preventing any waste or contamination of the ground water resource. Backflow prevention assemblies or devices used to protect the ground water shall be adequately operated and maintained.

Discharge of recycled water to surface water is authorized by the EPA NPDES program. An NPDES permit is required for any discharge to surface water and backflow prevention shall be implemented to prevent any unauthorized discharge. Backflow prevention assemblies or devices used to protect surface water shall be adequately operated and maintained.

Records of all testable backflow assembly test results, repairs, and replacements shall be kept at the reuse facility along with other operational records, and shall be discussed in the Annual Report and made available for inspection by DEQ. Other approved means of backflow prevention, such as siphons and air-gap structures that cannot be tested, shall be maintained in operable order.

9.1.2 Restricted to Premises

Wastewaters 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 United States Environmental Protection Agency (IDAPA 58.01.16.600.02).

9.1.3 Health Hazards, Nuisances, and Odors Prohibited

Health hazards, nuisances, and odors are prohibited as follows:

- Wastewater must not create a public health hazard or nuisance condition (IDAPA 58.01.16.600.03).
- No person shall allow, suffer, cause or permit the emission of odorous gases, liquids, or solids into the atmosphere in such quantities as to cause air pollution (IDAPA 58.01.01.776.01).
- Air Pollution. The presence in the outdoor atmosphere of any air pollutant or combination thereof in such quantity of such nature and duration and under such conditions as would be injurious to human health or welfare, to animal or plant life, or to property, or to interfere unreasonably with the enjoyment of life or property (IDAPA 58.01.01.006.06).

9.1.4 Solids Management

Biosolids are the nutrient-rich organic materials resulting from the treatment of sewage sludge. When treated and processed, sewage sludge becomes biosolids which can be safely recycled and applied as fertilizer to sustainably improve and maintain productive soils and stimulate plant growth.

Biosolids generated from sewage sludge are regulated by EPA under 40 CFR Part 503 and require a DEQ approved sludge disposal plan as outlined in IDAPA 58.01.16.650. Contact DEQ prior to application of biosolids at any permitted reuse facility.

Sludge is the semi-liquid mass produced and removed by wastewater treatment processes. This does not include grit, garbage, and large solids.

Sludge is generated by wastewater treatment processes at municipal and industrial facilities.

Solid Waste is any garbage or refuse, sludge from a waste water treatment plant, water supply treatment plant, or air pollution control facility and other discarded material including solid, liquid, semi-solid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations and from community activities, but does not include solid or dissolved materials in domestic sewage, or solid or dissolved material in irrigation return flows or industrial discharges which are point sources subject to permits under Section 402 of the Federal Water Pollution Control Act, as amended or source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended.

Solid waste does not include inert wastes, manures and crop residues ultimately returned to the soils at agronomic rates, and any agricultural solid waste which is managed and regulated pursuant to rules adopted by the Idaho Department of Agriculture. DEQ reserves the right to use existing authorities to regulate agricultural waste that impacts human health or the environment.

Solid waste is regulated under “Solid Waste Management Rules”, IDAPA 58.01.06. Wastes otherwise regulated by DEQ (i.e. this permit) are not regulated under 58.01.06.

Waste Solids include sludge and wastes otherwise regulated by DEQ in accordance with IDAPA 58.01.06.001.03.a.xii. Waste solids may include vegetative waste, silt and mud containing organic matter, and other non-inert solid wastes.

Inert wastes are defined as non-combustible, nonhazardous, and non-putrescible solids wastes that are likely to retain their physical and chemical structure and have a deminimis potential to generate leachate under expected conditions of disposal, which includes resistance to biological attack.

Waste solids require a DEQ approved sludge disposal plan as outlined in IDAPA 58.01.16.650.

9.1.5 Temporary Cessation of Operations and Closure (IDAPA 58.01.17.801)

Temporary cessation of operations and closure must be addressed as follows:

01. Temporary Cessation. A permittee shall implement any applicable conditions specified in the permit for temporary cessation of operations. When the permit does not specify applicable temporary cessation conditions, the permittee shall notify the Director prior to a temporary cessation of operations at the facility greater than sixty (60) days in duration and any cessation not for regular maintenance or repair. Cessation of operations necessary for regular maintenance or repair of a duration of sixty (60) days or less are not required to notify the Department under this section. All notifications required under this section shall include a proposed temporary cessation plan that will ensure the cessation of operations will not pose a threat to human health or the environment. (4-7-11)

02. Closure. A closure plan shall be required when a facility is closed voluntarily and when a permit is revoked or expires. A permittee shall implement any applicable conditions specified in the permit for closure of the facility. Unless otherwise directed by the terms of the permit or by the Director, the permittee shall submit a closure plan to the Director for approval at least ninety (90) days prior to ceasing operations. The closure plan shall ensure that the closed facility will not pose a threat to human health and the environment. Closure plan approval may be conditioned upon a permittee's agreement to complete such site investigations, monitoring, and any necessary remediation activities that may be required. (4-7-11)

9.1.6 Plan of Operation (IDAPA 58.01.17.300.05)

The PO must comply with the following:

05. Reuse Facility Operation and Maintenance Manual or Plan of Operations. A facility's operation and maintenance manual must contain all system components relating to the reuse facility in order to comply with IDAPA 58.01.16 "Wastewater Rules," Section 425. Manuals and manual amendments are subject to the review and approval provision therein. In addition to the content required by IDAPA 58.01.16.425, manuals for reuse facilities shall include, if applicable: operation and management responsibility, permits and standards, general plant description, operation and control of unit operations, land application site maps, wastewater characterization, cropping plan, hydraulic loading rate, constituent loading rates, compliance activities, seepage rate testing, site management plans, monitoring, site operations and maintenance, solids handling and processing, laboratory testing, general maintenance, records and reports, store room and inventory, personnel, an emergency operating plan, and any other information required by the Department. (4-7-11)

9.1.7 Ten-Year Lagoon Seepage Testing (IDAPA 58.01.16.493.02.c)

c. Subsequent Tests. All lagoons covered under these rules must be seepage tested by an Idaho licensed professional engineer, an Idaho licensed professional geologist, or by individuals under their supervision every ten (10) years after the initial testing. (5-8-09)

9.1.8 Ground Water Quality (IDAPA 58.01.11)

The permittee shall comply with the requirements of "Ground Water Quality Rule" (IDAPA 58.01.11).

9.2 Administrative

Requirements for administration of the permit are defined as follows.

9.2.1 Permit Modification (IDAPA 58.01.17.700)

01. **Modification of Permits**. A permit modification may be initiated by the receipt of a request for modification from the permittee, or may be initiated by the Department if one (1) or more of the following causes for modification exist: (4-7-11)

a. Alterations. There are material and substantial alterations or additions to the permitted facility or activity which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit. (4-7-11)

b. New standards or regulations. The standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued. (4-7-11)

c. Compliance schedules. The Department determines good cause exists for modification of a compliance schedule or terms and conditions of a permit. (4-7-11)

d. Non-limited pollutants. When the level of discharge of any pollutant which is not limited in the permit exceeds the level which may cause an adverse impact to surface or ground waters. (4-7-11)

e. To correct technical mistakes, such as errors in calculation, or mistaken interpretations of law made in determining permit conditions. (4-7-11)

f. When a treatment technology proposed, installed, and properly operated and maintained by the permittee fails to achieve the requirements of the permit. (4-7-11)

9.2.2 Permit Transfer (IDAPA 58.01.17.800)

01. **General**. A permit may be transferred only upon approval of the Department. No transfer is required for a corporate name change as long as the secretary of state can verify that a change in name alone has occurred. An attempted transfer is not effective for any purpose until approved in writing by the Department. (4-7-11)

9.2.3 Permit Revocation (IDAPA 58.01.17.920)

01. **Conditions for Revocation**. The Director may revoke a permit if the permittee violates any permit condition or these rules, or the Director becomes aware of any omission or misrepresentation of condition or information relied upon when issuing the permit. (4-7-11)

02. **Notice of Revocation**. 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 requests an administrative hearing in writing. The hearing shall be conducted in accordance with IDAPA 58.01.23, Rules of Administrative Procedure

Before the Board of Environmental Quality." (5-3-03)

03. Emergency Action. If 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, the Director shall provide the permittee a revocation hearing and prior notice thereof. Such hearings shall be conducted in accordance with IDAPA 58.01.23, Rules of Administrative Procedure Before the Board of Environmental Quality." (3-15-02)

04. Revocation and Closure. A permittee shall perform the closure requirements in a permit, the closure requirements of these rules, and complete all closure plan activities notwithstanding the revocation of the permit. (4-7-11)

9.2.4 Violations (IDAPA 58.01.17.930)

Any person violating any provision of these rules 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. (4-1-88)

9.2.5 Severability

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. Other Applicable Laws

DEQ may refer enforcement of the following provisions to the state agency authorized to enforce that rule. The permittee shall comply with all applicable provisions identified in this section, as well as all other applicable federal, state, and local laws, statutes, and rules.

10.1 Owner Responsibilities for Well Use and Maintenance

10.1.1 Well Use

The well owner must not operate any well in a manner that causes waste or contamination of the ground water resource. Failure to operate, maintain, knowingly allow the construction of any well in a manner that violates these rules, or failure to repair or properly decommission (abandon) any well as herein required will subject the well owner to civil penalties as provided by statute. See IDAPA 37.03.09.036.01 and consult the Idaho Department of Water Resources (IDWR) for more information.

10.1.2 Well Maintenance

The well owner must maintain the well to prevent waste or contamination of ground waters through leaky casings, pipes, fittings, valves, pumps, seals, or through leakage around the outside of the casings, whether the leakage is above or below the land surface. Any person owning or controlling a noncompliant well must have the well repaired by a licensed well driller under a

permit issued by the IDWR director in accordance with the applicable rules. See IDAPA 37.03.09.036.02 and consult IDWR for more information.

10.1.3 Wells Posing a Threat to Human Health and Safety or Causing Contamination of the Ground Water Resource

The well owner must have any well shown to pose a threat to human health and safety or cause contamination of the ground water resource immediately repaired or decommissioned (abandoned) by a licensed well driller under a permit issued by the IDWR director in accordance with the applicable rules. See IDAPA 37.03.09.036.06 and consult the IDWR for more information.

11. Site Maps

Figure 1: Site View
Figure 2: Regional View
Figure 3: Map of Wells to be Included in CA-088-01 Monitoring

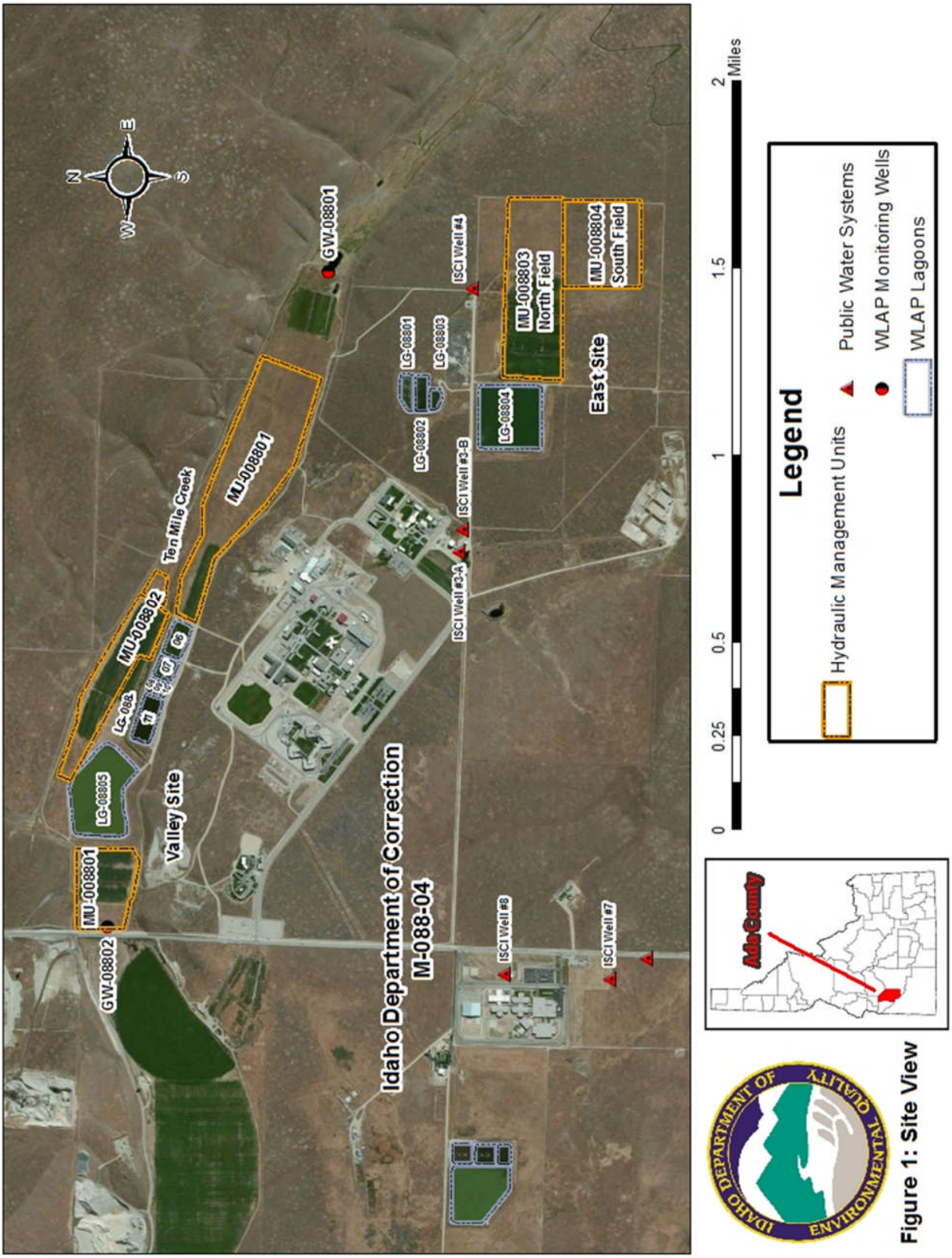

Figure 1: Site View

0 0.5 1 2 3 4 Miles

Legend

- Hydraulic Management Units
- NHD Waterbodies (100k)
- WLAP Lagoons

Figure 2: Regional View

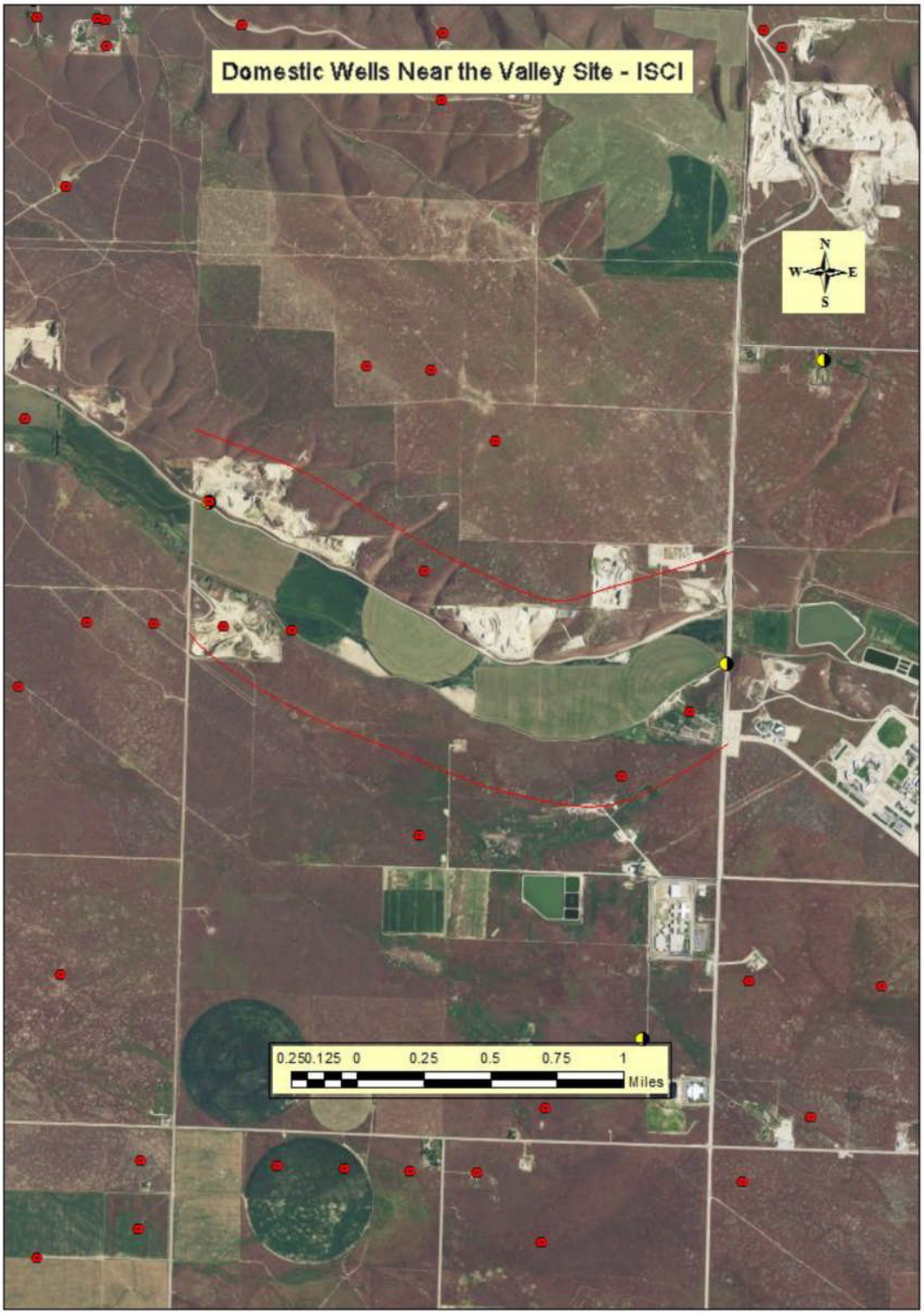

Figure 3: Map of Wells to be Included in CA-088-01 Monitoring