

Idaho Department of Environmental Quality Reuse Permit M-211-03

(Previous Permit No. LA-000211-02)

Avimor Water Reclamation Company (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 (Date, 5 years from date of signature).

DRAFT for Public Comment

Signature

Date

Aaron Scheff

Regional Administrator
Boise Regional Office
Idaho Department of Environmental Quality

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Table of Contents

1. Common Acronyms/Abbreviations and Definitions	5
2. Facility Information	7
3. Compliance Schedule for Required Activities.....	9
4. Permit Limits and Conditions	11
4.1 Hydraulic Management Unit Descriptions	11
4.2 Hydraulic Loading Limits.....	12
4.3 Constituent Loading Limits	12
4.4 Management Unit Buffer Zones	13
4.5 Other Permit Limits and Conditions	13
5. Monitoring Requirements	16
5.1 Recycled Water and Supplemental Irrigation Water Sampling and Analyses	16
5.1.1 Constituent Monitoring.....	16
5.1.2 Management Unit and Other Flow Monitoring.....	17
5.2 Ground Water Monitoring	17
5.2.1 Ground Water Monitoring Point Descriptions	17
5.2.2 Ground Water Monitoring, Sampling, and Analyses	18
5.3 Surface Water Monitoring	19
5.3.1 Surface Water Monitoring Unit Descriptions.....	19
5.3.2 Surface Water Monitoring, Sampling, and Analyses	19
5.4 Soil Monitoring.....	19
5.4.1 Soil Monitoring Unit Descriptions	19
5.4.2 Soil Monitoring, Sampling, and Analyses.....	21
5.5 Crop Monitoring	21
5.5.1 Crop Harvest Monitoring.....	21
5.5.2 Plant Tissue Monitoring	22
6. Reporting Requirements	23
6.1 Annual Report Requirements.....	23
6.1.1 Due Date	23
6.1.2 Required Contents	23
6.1.3 Submittals	25
6.2 Emergency and Noncompliance Reporting	26
7. Reserved.....	28
8. Standard Permit Conditions	28
9. General Permit Conditions.....	30
9.1 Operations.....	30
9.1.1 Backflow Prevention	30
9.1.2 Restricted to Premises	30
9.1.3 Health Hazards, Nuisances, and Odors Prohibited.....	31
9.1.4 Solids Management	31
9.1.5 Temporary Cessation of Operations and Closure (IDAPA 58.01.17.801).....	32
9.1.6 Plan of Operation (IDAPA 58.01.17.300.05).....	32
9.1.7 Seepage Testing Requirements (IDAPA 58.01.16.493.02.c).....	32
9.1.8 Ground Water Quality Rule (IDAPA 58.01.11).....	33

9.2	Administrative.....	33
9.2.1	Permit Modification (IDAPA 58.01.17.700).....	33
9.2.2	Permit Transferable (IDAPA 58.01.17.800)	33
9.2.3	Permit Revocation (IDAPA 58.01.17.920)	33
9.2.4	Violations (IDAPA 58.01.17.930).....	34
9.2.5	Severability	34
10.	Other Applicable Laws	35
10.1	Owner Responsibilities for Well Use and Maintenance	35
10.1.1	Well Use	35
10.1.2	Well Maintenance.....	35
10.1.3	Wells Posing a Threat to Human Health and Safety or Causing Contamination of the Ground Water Resource	35
11.	Site Maps	36
11.1	Vicinity Map	36
11.2	Site Map	37
11.3	Other Figures	38
11.3.1	AWRF Process Flow Diagram	38
11.3.2	Schematic of Irrigation Area (MU-21115) Pressurized Irrigation System.....	39
11.3.3	Plan of Landscaped Common Areas in Irrigation Areas (MU-21115)	40
11.3.4	Cross-Sections of Landscaped Common Areas in Irrigation Areas (MU-21115). 41	

1. Common Acronyms/Abbreviations and Definitions

bgs	Below ground surface (groundwater depth)
cwt	a unit of weight measurement equal to 100 pounds
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
EPA	Environmental Protection Agency
E _i	irrigation efficiency
FM	flow measurement or monitoring description or identifier
GW	prefix for ground water reporting serial number
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
MGD	million gallons per day
mg/kg	milligram per kilogram
mg/L	milligram per liter
MU	prefix for management unit reporting environmental serial number
NPDES	National Pollutant Discharge Elimination System
NTU	nephelometric turbidity unit
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/
PO	plan of operation
QAPP	quality assurance project plan
Responsible Official	is the facility contact person authorized by the permittee to communicate with DEQ on behalf of the permittee on any matter related to the permit, including without limitation, the authority to communicate with and

receive notices from DEQ regarding notices of violation or non-compliance, permit violations, permit enforcement, and permit revocation. The Responsible Official is also responsible for providing written certification of permit application materials, annual report submittals, and other information submitted to DEQ as required by the permit. Any notice to or communication with the Responsible Official is considered a notice to or communication with the permittee. The Responsible Official may designate an Authorized Representative to act as the facility contact person for any of the activities or duties related to the permit, except signing and certifying the permit application, which must be done by the Responsible Official. The Authorized Representative shall act as the Responsible Official and shall bind the permittee as described in this definition. Designation of the Authorized Representative shall follow the requirements specified in Section 6.1.3 of the permit.

SI	prefix for supplemental irrigation water reporting serial number
SU	prefix for soil monitoring unit reporting serial number
SW	prefix for surface water reporting serial number
TMDL	Total Maximum Daily Load
WW	prefix for wastewater reporting serial number

2. Facility Information

Information Type	Information Specific to This Permit
Type(s) of recycled water	Class B Municipal Recycled Water
Method of treatment	Primary screening; conventional activated sludge with biological nutrient removal, chemical phosphorous reduction, and membrane solids separation (i.e., membrane bioreactor [MBR]); chlorination; and slow rate land application and/or rapid infiltration. Aerated sludge tank for storage and treatment of biosolids.
Method of reuse	Slow rate land application during growing season Rapid infiltration during nongrowing season
System classification	Class IV (treatment and collection)
Facility location	<p>18454 N. McLeod Way Boise, Idaho 83714 Ada County Phone: (208) 939-0343</p> <p>Township 5N, Range 1W, Sections 10, 13, 14, 15, 22, 26, and 27 Township 5N, Range 1E, Sections 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 12, 13, 17, 18, 19, 20, and 24 Township 5N, Range 2E, Sections 6, 7, 8, 17, 18, 19, 20, 21, 22, 27, 28, 29, 30</p>
Facility mailing address	18454 N. McLeod Way Boise, Idaho 83714

<p>Facility responsible official and authorized representative</p>	<p>Responsible Official: Dan Richter President Avimor Water Reclamation Company 18454 N. McLeod Way Boise, Idaho 83714 Phone: (208) 939-0343 Email: DanR@Avimor.com</p> <p>Authorized Representative: Bill Duncan OMCS, LLC c/o Avimor Water Reclamation Company 18454 N. McLeod Way Boise, Idaho 83714 Phone: (208) 860-5075 Email: omcsllc@yahoo.com</p> <p>Notify DEQ within 30 days if there is a change in personnel for any of the above facility contacts. A minor permit modification will be issued by DEQ to confirm the change.</p>
<p>Ground water</p>	<p>Spring Valley Aquifer: Depth: 6 ft to 90 ft bgs General flow direction: Northeast to southwest</p>
<p>Surface water</p>	<p>Spring Valley Creek, adjacent to western property boundary. North Fork of Spring Valley Creek, which crosses the site from east to west where it drains into the main channel of Spring Valley Creek. An ephemeral tributary south of North Fork of Spring Valley Creek, roughly parallel to the North Fork channel and also draining into the main channel on the western side of the site. Nondesignated surface waters. Beneficial uses: Cold water aquatic life, secondary recreation, and agricultural and industrial water supplies.</p>

3. Compliance Schedule for Required Activities

<p>Compliance Activity (CA) Number and Completion Due Date</p>	<p>Compliance Activity Description</p>
<p>CA-211-01</p> <ul style="list-style-type: none"> • Updated O&M Manual is due 90 days after the issuance date of the reuse permit • Crop management plan: As specified. • Irrigation management and scheduling plan: MU-21115: Due 180 days after the issuance date of the reuse permit MU-21101-21113: Due 60 days prior to application of recycled water on any of these management units • Updated Runoff management plan – Due 180 days after the issuance date of the reuse permit 	<p>Plan of Operation: The Plan of Operation (PO) for the wastewater treatment and reuse facilities, incorporating the requirements of this permit, shall include the following site management and operation plans:</p> <ol style="list-style-type: none"> 1. Updated Operation and Maintenance Manual (O&M Manual). 2. Crop management plan (MU-21101 through 21113). A crop management plan shall be developed and submitted to DEQ for review and approval at least 60 days prior to application of recycled water on any of these management units. 3. Irrigation management and scheduling plan (MU-21101 through 21113 and MU-21115). 4. Runoff management plan. <p>The PO shall comply with the applicable requirements stated in IDAPA 58.01.17.300.05 and shall address applicable items in the Plan of Operation Checklist in the DEQ Guidance.</p> <p>The permittee, at its discretion, may incorporate the site management and operation plans into a single PO document, or each site management and operation plan may be submitted as a separate document.</p> <p>The PO (site management and operation plans) 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.</p>
<p>CA-211-02</p> <p>Updated QAPP is due 180 days after the issuance date of the reuse permit</p>	<p>Quality Assurance Project Plan (QAPP): The permittee shall amend and implement a QAPP that incorporates all monitoring and reporting required by this permit. The permittee shall also amend the QAPP whenever there is a modification in sample collection, sample analysis, or other procedure addressed by the QAPP. A copy of the QAPP along with written notice that the permittee has implemented the QAPP shall be provided to DEQ.</p> <p>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.</p>

Compliance Activity (CA) Number and Completion Due Date	Compliance Activity Description
CA-211-03 As specified	Agricultural Areas Reuse System Plans and Specifications: The permittee shall submit plans and specifications for the slow rate land application to the Agricultural Areas (MU-21101 through MU-21113) for DEQ review and approval prior to construction and application of any recycled water. The plans for the reuse systems shall clearly delineate the locations of all potable water lines, existing and proposed wells, and surface waters, sufficient to assess/establish compliance with the buffer zone requirements of this permit.
CA-211-04 Six (6) months prior to construction of slow rate land application facilities for any of the Agricultural Areas (MU-21101 through MU-21113)	Ground Water Monitoring Plan for the Agricultural Areas: Prior to construction of slow rate land application facilities for any of the Agricultural Area (MU-21101 through MU-21113), the permittee shall submit a Ground Water Monitoring Plan. The Ground Water Monitoring Plan shall be prepared by a qualified, registered professional in the State of Idaho, and shall address how ground water will be monitored to assure compliance with IDAPA 58.01.11, <i>Ground Water Quality Rule</i> , for these MUs. The plan must include at least an assessment of groundwater monitoring needs; plans for a monitoring well network; and construction plans and specifications for the existing wells, and any proposed wells, including top-of-casing elevations for the monitoring wells. The plan must be implemented prior to construction of any of these land application facilities to collect baseline data. This must include obtaining any necessary permits from the Department of Water Resources (IDWR).
CA-211-05 Twelve (12) months prior to the reuse permit expiration date	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-211-06 Six (6) months prior to the reuse permit expiration date	Renewal Permit Application: If the permittee intends to continue operating the reuse facility beyond the expiration date of this permit, 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-211-05.

4. Permit Limits and Conditions

4.1 Hydraulic Management Unit Descriptions

Serial Number	Description	Irrigation System Type and Irrigation Efficiency	Maximum Acres ^a Allowed
MU-21101	Agricultural Area 1	Irrigation System Type and Irrigation Efficiency shall be specified in the Irrigation Management and Scheduling Plan in the PO approved by DEQ (see CA-211-01)	23.4
MU-21102	Agricultural Area 2		27.9
MU-21103	Agricultural Area 3		28.9
MU-21104	Agricultural Area 4		6.8
MU-21105	Agricultural Area 5		10.2
MU-21106	Agricultural Area 6		6.5
MU-21107	Agricultural Area 7		2.9
MU-21108	Agricultural Area 8		1.6
MU-21109	Agricultural Area 9		1.9
MU-21110	Agricultural Area 10		3.3
MU-21111	Agricultural Area 11		7.1
MU-21112	Agricultural Area 12		16.2
MU-21113	Agricultural Area 13		11.4
MU-21114	Rapid Infiltration Basins	Not applicable	0.68
MU-21115	Irrigation Areas	Irrigation System Type and Irrigation Efficiency shall be specified in the Irrigation Management and Scheduling Plan in the PO approved by DEQ (see CA-211-01)	16.2
Total irrigation acreage (excludes RI Basin area)			164.3

- 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 ^a
MU-21101 MU-21102 MU-21103 MU-21104 MU-21105 MU-21106 MU-21107 MU-21108 MU-21109 MU-21110 MU-21111 MU-21112 MU-21113 MU-21115	Substantially at the irrigation water requirement (IWR) ^b	Not allowed
MU-21114	0.19 MGD	0.19 MGD

- Record daily, as necessary, abnormal conditions as a result of nongrowing season application including ponding, excessive ice buildup, or runoff from the permitted site.
- For compliance purposes, the source of P_{def} data used to calculate the IWR shall be specified in the Crop Management Plan in the PO approved by DEQ (see CA-211-01).

4.3 Constituent Loading Limits

Serial Number	Constituent Loading (from all sources ^a)
	Nitrogen (lb/acre)
MU-21101 MU-21108 MU-21102 MU-21109 MU-21103 MU-21110 MU-21104 MU-21111 MU-21105 MU-21112 MU-21106 MU-21113 MU-21107	150% of typical crop nitrogen uptake ^b
MU-21115	330

- Includes all supplemental fertilizers.
- 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					
	Public Water Supply Wells	Private Water Supply Wells	Irrigation Wells	Inhabited Dwellings	Permanent and Intermittent Surface Water (including wetlands)	Areas Accessible to the Public
MU-21101 MU-21102 MU-21103 MU-21104 MU-21105 MU-21106 MU-21107 MU-21108 MU-21109 MU-21110 MU-21111 MU-21112 MU-21113 MU-21114	Site Specific (requires DEQ plan and specification review and approval prior to construction)	500	100	100	10 (mitigation measures to prevent runoff to surface waters shall be employed)	0
MU-21115	Site Specific (requires DEQ plan and specification review and approval prior to construction)	500	100	As specified on Figures 11.3.3 and 11.3.4	10 (mitigation measures to prevent runoff to surface waters shall be employed)	0

4.5 Other Permit Limits and Conditions

Category	Permit Limits and Conditions
Growing season	April 1 through October 31 (214 days)
Nongrowing season	November 1 through March 31 (151 days)
Reporting year for annual loading rates	January 1 through December 31
Operator certification and endorsement	The wastewater treatment facility and 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 and properly trained to operate and maintain the system.
Turbidity limits of the filtered wastewater effluent, prior to disinfection	<ul style="list-style-type: none"> Daily arithmetic mean of all measurements of turbidity shall not exceed 2 NTU. Turbidity shall not exceed 5 NTU at any time.

Category	Permit Limits and Conditions
Total coliform limit in recycled water	The median number of total coliform organisms shall not exceed 2.2 total coliform organisms/100 mL, as determined from the bacteriological results of the last 7 days for which analyses have been completed. No sample shall exceed 23 total coliform organisms/100 mL in any confirmed sample.
Disinfection Requirements	A chlorine disinfection process that provides a total chlorine residual at the point of compliance (WW-21104) of not less than one (1) mg/L after a minimum contact time of 30 minutes at peak flow.
5-day Biological Oxygen Demand (BOD ₅) limit in recycled water when discharging to MU-21114 (rapid infiltration basins)	Monthly arithmetic mean of all measurements of BOD ₅ shall not exceed 5.0 mg/L, as determined from monthly 24-hour composite samples.
Total nitrogen limit in recycled water when discharging to MU-21114 (rapid infiltration basins)	Monthly arithmetic mean of all measurements of total nitrogen shall not exceed 8.0 mg/L, as determined from monthly 24-hour composite samples.
Total phosphorus limit in recycled water to MU-21114 (rapid infiltration basins)	Monthly arithmetic mean of all measurements of total phosphorus shall not exceed 0.35 mg/L, as determined from monthly 24-hour composite samples.
Nuisance odor management	The wastewater treatment and reuse facilities shall not create a public health hazard or nuisance conditions, including odors. If nuisance odors become a problem, the permittee shall be required to prepare a Nuisance Odor Management Plan and incorporate it into the PO.
Crop or vegetation allowed	Refer to the Crop Management Plan in the PO approved by DEQ (see CA-211-01). Grass clippings generated during mowing events on MU-021115 shall be immediately collected and removed.
Irrigation of MU-21115	Irrigation shall occur only during periods of non-use by the public. These irrigation periods shall be described in the Irrigation Management and Scheduling Plan.
Grazing	Prior to grazing, the permittee shall submit a grazing management plan and receive written approval from DEQ. The grazing management plan shall be included in the PO. Grazing is not allowed on MU-21115.
Posting	Signs shall read "Caution: Recycled Water—Do Not Drink," or equivalent signage both in English and Spanish. Signs to be posted every 500 feet and at each corner of the outer perimeter of the irrigated site. Signs are required where management unit border areas are accessible to the public.

Category	Permit Limits and Conditions
Fencing	<p>MU-21101, MU-21102, MU-21103, MU-21104, MU-21105, MU-21106, MU-21107, MU-21108, MU-21109, MU-21110, MU-21111, MU-21112, MU-21113 (Agricultural Areas): Three wire fencing shall be required around the perimeter of each management unit prior to the application of recycled water if the management unit is near any residence. The fencing requirement will be determined during review of plans and specifications by DEQ (see CA-211-03).</p> <p>MU-21114: Three-wire fencing is required around the perimeter of the rapid infiltration basins site.</p> <p>MU-21115: No fencing required.</p>
Construction plans	<p>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, ground water monitoring wells, 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.</p>
Flow measurement calibration/verification	<p>Flow measurement devices used to directly or indirectly measure wastewater and supplemental irrigation water flows applied to each management unit shall be calibrated or verified in accordance with the device manufacturer's specifications and with the permittee's QAPP or PO.</p>
Backflow prevention and testing requirements	<p>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.</p>
Records retention requirements	<p>Keep records generated to meet the requirements of this permit for the duration of permit, including administrative extensions, plus 2 years.</p>

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-21102 Equalization Basin effluent	Influent wastewater	24-hr Composite/Monthly	BOD ₅
WW-21103 MBR Permeate Pumps discharge, prior to disinfection	MBR effluent, prior to disinfection	Continuously reading turbidimeter	Turbidity
WW-21104 Reuse Pump Station discharge	Recycled water	24-hr Composite/Monthly	- Total phosphorus, as P
WW-21104 Reuse Pump Station discharge	Recycled water	24-hr Composite/Monthly	- BOD ₅ - Total Kjeldahl nitrogen, as N - Nitrate+nitrite-nitrogen, as N - Ammonia-nitrogen, as N
WW-21104 Reuse Pump Station discharge	Recycled water	Daily grab sample	- Total coliform (total coliform organisms/100 mL) - Total chlorine residual - pH (standard units)
WW-21105 Town Lake Pressurized Irrigation Pump Station discharge piping	Supplemental irrigation water	Monthly grab sample, when irrigating	- Total Kjeldahl nitrogen, as N - Nitrate-nitrogen, as N - Total phosphorus, as P

5.1.2 Management Unit and Other Flow Monitoring

Management Unit or Flow Measurement Serial Number and Location	Sample Description	Sample Type and Frequency	Measured Parameters, each MU
FM-21101 Raw Influent Pump Station flowmeter	Influent wastewater flow	- Continuously reading flowmeter - Daily compilation of data	- Volume (MGD, MG/month, and MG/annual)
FM-21104 Reuse Pump Station flowmeter	Recycled water flow	- Continuously reading flowmeter - Daily compilation of data	- Volume (MGD, MG/month, and MG/annual)
FM-21105 Town Lake Pressurized Irrigation Pump Station pump run time meter or flowmeter	Supplemental irrigation water flow from Town Lake (potable water system) and Spring Valley Creek water	- Pump run times or continuously reading flowmeter, when irrigating MU-21115 - Daily compilation of data, when irrigating MU-21115	- Volume (MGD, MG/month, and MG/annual)
FM-21106 Potable water system pipe discharge into Town Lake flowmeter	Supplemental irrigation water flow from potable water system	- Continuously reading flowmeter, when irrigating MU-21115 - Daily compilation of data, when irrigating MU-21115	- Volume (MGD, MG/month, and MG/annual)

5.2 Ground Water Monitoring

5.2.1 Ground Water Monitoring Point Descriptions

Monitoring Point Serial Number	Common Designation	Well Type	Ground Water Flow Gradient	Location / Latitude – Longitude (approximate)
GW-21101	MW-1	Monitoring well	Downgradient	West of Spring Valley Creek, near Avimor Planned Community entrance / N43° 46' 23.18" – W116° 15' 56.79"

Monitoring Point Serial Number	Common Designation	Well Type	Ground Water Flow Gradient	Location / Latitude – Longitude (approximate)
GW-21102	MW-6r	Monitoring well	Downgradient	East of Spring Valley Creek, south of stormwater pond, lower section of Spring Valley Creek / N43° 45' 55.72" – W116° 15' 52.84"
GW-21103	RAMW-7	Monitoring well	Downgradient of MU-21114	North of MU-21114 / N43° 46' 05.51" – W116° 15' 23.69"
GW-21104	RAMW-8	Monitoring well	Upgradient of MU-21114	East of MU-21114 / N43° 46' 03.54" – W116° 15' 14.28"
GW-21105	RAMW-9	Monitoring well	Crossgradient of MU-21114	South of MU-21114 / N43° 46' 01.23" – W116° 15' 22.53"
GW-21106	RAMW-10	Monitoring well	Downgradient of MU-21114	West of MU-21114 / N43° 46' 04" – W116° 15' 26"
GW-21107	RAMW-11	Monitoring well	Downgradient of MU-21114	Below (west of) the intermittent spring / N43° 46' 04.26" – W116° 15' 36.43"

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-21101 GW-21102 GW-21103 GW-21104 GW-21105 GW-21106 GW-21107	Monitoring wells	Unfiltered grab sample/twice annually, April and October	<ul style="list-style-type: none"> - Water table elevation (feet) - Water table depth (feet) - Total Kjeldahl nitrogen, as N - Nitrate-nitrogen, as N - Ammonia-nitrogen, as N - Total phosphorus, as P - Total dissolved solids (TDS) - Chloride - Total coliform (total coliform organisms/100 mL) - pH (Standard Units) - Specific conductance/electrical conductivity (µmhos/cm) - Temperature (°C)

5.3 Surface Water Monitoring

5.3.1 Surface Water Monitoring Unit Descriptions

Monitoring Point Serial Number	Common Designation	Location	Approximate Latitude / Longitude
SW-21101	WQ-1	Spring Valley Creek below Highway 55, downstream of Avimor Planned Community	N43° 45' 50" / W116° 15' 56"
SW-21102	WQ-2	Spring Valley Creek upstream of Avimor Planned Community Phase 1, below weir upstream of McLeod Way	N43° 46' 38" / W116° 15' 41"
SW-21103	WQ-3	Ephemeral drainage along Burnt Car Draw, downstream of Broken Horn Draw east of intersection of Avimor Drive and McQuarrie Way	N43° 46' 24" / W116° 15' 36"
SW-21104	WQ-4	Intermittent spring west of MU-21114 (rapid infiltration basins)	N43° 46' 05" / W116° 15' 32"

5.3.2 Surface Water Monitoring, Sampling, and Analyses

Monitoring Point Serial Number	Sample Type	Sample Frequency	Constituents (Units in mg/L Unless Otherwise Specified)
SW-21101 SW-21102 SW-21103 SW-21104	Grab Sample	Twice annually, April and October	<ul style="list-style-type: none"> - Total Kjeldahl nitrogen, as N - Nitrate+nitrite-nitrogen, as N - Ammonia-nitrogen, as N - Total phosphorus, as P - Dissolved orthophosphorus - Chloride - pH (Standard Units) - Temperature (°C) - Dissolved oxygen

5.4 Soil Monitoring

5.4.1 Soil Monitoring Unit Descriptions

Monitoring Point Serial Number ^a	Description	Associated Hydraulic Management Unit
SU-21101	Agricultural Area 1	MU-21101
SU-21102	Agricultural Area 2	MU-21102

Monitoring Point Serial Number^a	Description	Associated Hydraulic Management Unit
SU-21103	Agricultural Area 3	MU-21103
SU-21104	Agricultural Area 4	MU-21104
SU-21105	Agricultural Area 5	MU-21105
SU-21106	Agricultural Area 6	MU-21106
SU-21107	Agricultural Area 7	MU-21107
SU-21108	Agricultural Area 8	MU-21108
SU-21109	Agricultural Area 9	MU-21109
SU-21110	Agricultural Area 10	MU-21110
SU-21111	Agricultural Area 11	MU-21111
SU-21112	Agricultural Area 12	MU-21112
SU-21113	Agricultural Area 13	MU-21113
SU-21115	Irrigation Areas	MU-21115

a. SU-21101 through SU-21113 shall be monitored if, and when, recycled water is applied to the associated MUs.

5.4.2 Soil Monitoring, Sampling, and Analyses

Monitoring Point Serial Number	Sample Type	Sample Frequency	Constituents (Units in mg/kg Soil Unless Otherwise Specified)
SU-21101 SU-21102 SU-21103 SU-21104 SU-21105 SU-21106	Composite samples ^a	Once annually, March	- Electrical conductivity (µmhos/cm in saturated paste extract) - Nitrate-nitrogen - Ammonium nitrogen - Plant available phosphorus - pH (standard units)
SU-21107 SU-21108 SU-21109 SU-21110 SU-21111 SU-21112		2017 and 2019 for active MUs and prior to the commencement of irrigation for MUs, March	- DTPA extractable iron - DTPA manganese - Sodium Adsorption Ratio (SAR) - % Organic matter
SU-21113 SU-21115		2017 for active MUs and prior to the commencement of irrigation for MUs, March	Cation Exchange Capacity (CEC)

a. The number of sample locations specified in the PO or QAPP for each SU shall be sampled when recycled water is applied to the associated MUs. 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 three composite samples for each soil monitoring unit; one composite sample for each depth.

5.5 Crop Monitoring

5.5.1 Crop Harvest Monitoring

Associated Hydraulic Management Units	Sample Type	Sample Frequency	Parameters ^a
MU-21101 MU-21102 MU-21103 MU-21104 MU-21105 MU-21106 MU-21107 MU-21108 MU-21109 MU-21110 MU-21111 MU-21112 MU-21113	Harvested portion, each crop, each MU	Each harvest	- Crop type - Harvest date - Sample collection date - Harvested acreage (acres) - 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.

5.5.2 Plant Tissue Monitoring

Associated Hydraulic Management Units	Sample Type	Sample Frequency	Parameters ^a
MU-21101 MU-21102 MU-21103 MU-21104 MU-21105 MU-21106 MU-21107 MU-21108 MU-21109 MU-21110 MU-21111 MU-21112 MU-21113	Harvested portion, each crop, each harvest	Each harvest	- Moisture content (%) - Total Kjeldahl nitrogen (%) - Nitrate nitrogen, as N (ppm) - Phosphorus, as P (ppm)

a. Report dry-basis results for all parameters except lab moisture content.

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 March 1 of each year, which shall cover the preceding 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 3 of this permit.
4. Results of all backflow testing, repairs, and replacements required by Section 9.1.1 of this permit.
5. Results of the annual calibration or flow verification of the flow measurement devices used to measure wastewater, recycled water, and supplemental irrigation water flows.
6. Discussion of major maintenance activities such as major equipment replacement, lagoon liner maintenance, and wastewater treatment and reuse facility maintenance.
7. 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: exceedance of permit limits, 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.
8. Laboratory analytical reports for monitoring specified in Section 5 of this permit and and crop yield documentation. Chain of custody forms, supporting information for laboratory analytical reports, and quality assurance documentation shall be available for review upon request by DEQ.
9. Submittal of the calculations and observations for the monitoring points and management units specified in the table below:

Monitoring Point Serial Number	Parameter (Calculate for each MU)	Units
MU-21101 MU-21102 MU-21103 MU-21104 MU-21105 MU-21106 MU-21107 MU-21108 MU-21109 MU-21110 MU-21111 MU-21112 MU-21113	Recycled water hydraulic loading rate at each MU	inches/month (excluding MU-21114) inches/ac-month (excluding MU-21114) inches/growing season (excluding MU-21114) inches/ac-growing season (excluding MU-21114) mgal/month mgal/ac-month mgal/growing season (or application period (MU-21114)) mgal/ac-growing season (or application period (MU-21114))
MU-21114 MU-21115	Supplemental irrigation water hydraulic loading rate at each MU (excluding MU-2114)	inches/month inches/ac-month inches/growing season inches/ac-growing season mgal/month mgal/ac-month mgal/growing season mgal/ac-growing season
	Irrigation water requirement (IWR) for the crop at each MU (excluding MU-21114)	inches/month inches/ac-month inches/growing season inches/ac-growing season mgal/month mgal/ac-month mgal/growing season mgal/ac-growing season
	Recycled water loading rate for nitrogen and phosphorus at each MU	lb/month lb/ac-month lb/growing season (or application period (MU-21114)) lb/ac- growing season (or application period (MU-21114))
	Recycled water loading rate for nitrogen and phosphorus (total)	lb/month lb/ac-month lb/year lb/ac-year
	Supplemental Irrigation water loading rate for nitrogen and phosphorus at each MU (excluding MU-21114)	lb/month lb/ac-month lb/growing season lb/ac-growing season
	Supplemental Irrigation water loading rate for nitrogen and phosphorus (total) (excluding MU-21114)	lb/month lb/ac-month lb/growing season lb/ac-growing season

Monitoring Point Serial Number	Parameter (Calculate for each MU)	Units
	Fertilizer nitrogen application rate (as elemental N) (excluding MU-21114)	lb/month lb/ac-month lb/growing season lb/ac-growing season
	Crop harvest and yield for each harvest and annual total for each MU (excluding MU-21114 and MU-21115)	Total 'wet' yield lb/harvest lb/acre-harvest lb/growing season lb/ac-growing season Total 'dry' yield lb/harvest lb/acre-harvest lb/growing season lb/ac-growing season
	Crop nitrogen and phosphorus uptake (removal) rates for each harvest and annual total (dry-basis) for each MU (excluding MU-21114 and MU-21115)	lb/harvest lb/acre-harvest lb/growing season lb/ac-growing season

6.1.3 Submittals

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 by the Responsible Official 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 North Orchard
Boise, ID 83706

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

"I certify that the information provided in this submittal was prepared in conformance with the Quality Assurance Project Plan required by permit M-211-03, and 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."

Permit applications shall include the following certification statement and be signed, dated, and certified by the permittee's Responsible Official:

"I certify that the information provided in this submittal 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, non-issuance of the permit, or other enforcement action as provided for under Idaho law."

Other information submitted to DEQ as required by the permit shall include the above certification statement and be signed, dated, and certified by the permittee's Responsible Official or duly Authorized Representative.

6.2 Emergency and Noncompliance Reporting

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

In case of emergencies, call the Idaho State Communication Center emergency 24-hour number at 1-800-632-8000 or (208) 846 7610, and the DEQ Boise Regional Office.

See Section 8, "Standard Permit Conditions," and IDAPA 58.01.17.500.06 for reporting requirements for facilities.

All instances of 1) permit non-compliance which may endanger public health or the environment and 2) unauthorized discharges to surface waters of the State of Idaho shall be reported to DEQ's regional office by telephone within 24 hours from the time the permittee becomes aware of the discharge at the phone numbers provided in this section.

A written follow-up shall be provided to the DEQ regional office within 5 days from the time the permittee became aware of the permit non-compliance or unauthorized discharge.

Reporting of unauthorized discharges to surface waters of the United States to the Environmental Protection Agency (EPA) may also be required. Contact information for EPA is provided below:

EPA Contact Information:

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:
 - 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 based on 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 regulated 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 may be generated by wastewater treatment processes at municipal and industrial facilities. A DEQ-approved sludge disposal plan, as outlined in IDAPA 58.01.16.650, may be required.

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 IDAPA 58.01.06, "Solid Waste Management Rules". 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 solid wastes that are likely to retain their physical and chemical structure and have a de minimis 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 Seepage Testing Requirements (IDAPA 58.01.16.493.02.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 Rule (IDAPA 58.01.11)

The permittee shall comply with the requirements of the “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 Transferable (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. Compliance with this permit does not relieve the permittee from applicable requirements in other 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

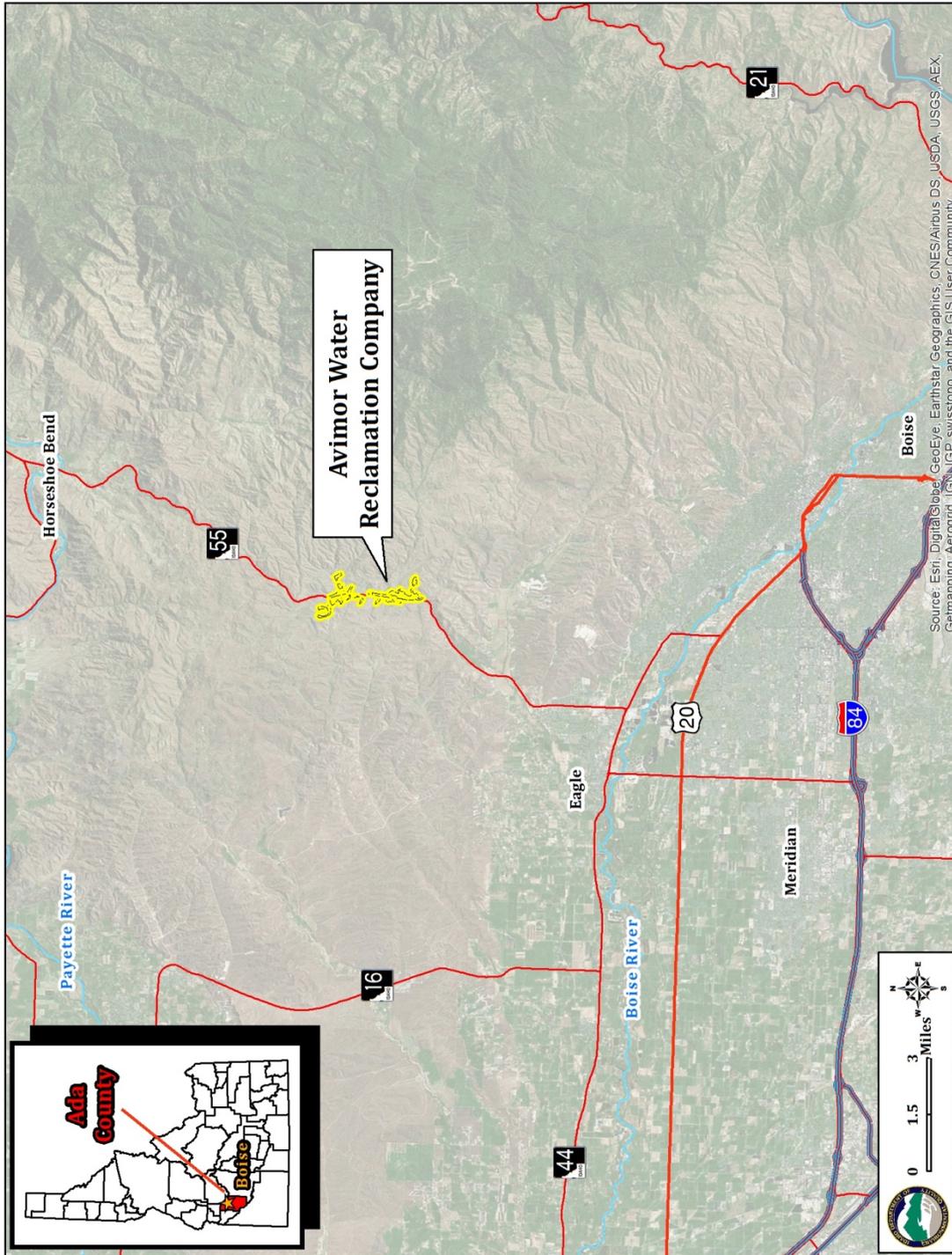
The well owner must maintain the well to prevent waste or contamination of ground waters through leaky casings, pipes, fittings, valves, pumps, seals, or through leakage around the outside of the casings, whether the leakage is above or below the land surface. Any person owning or controlling a noncompliant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

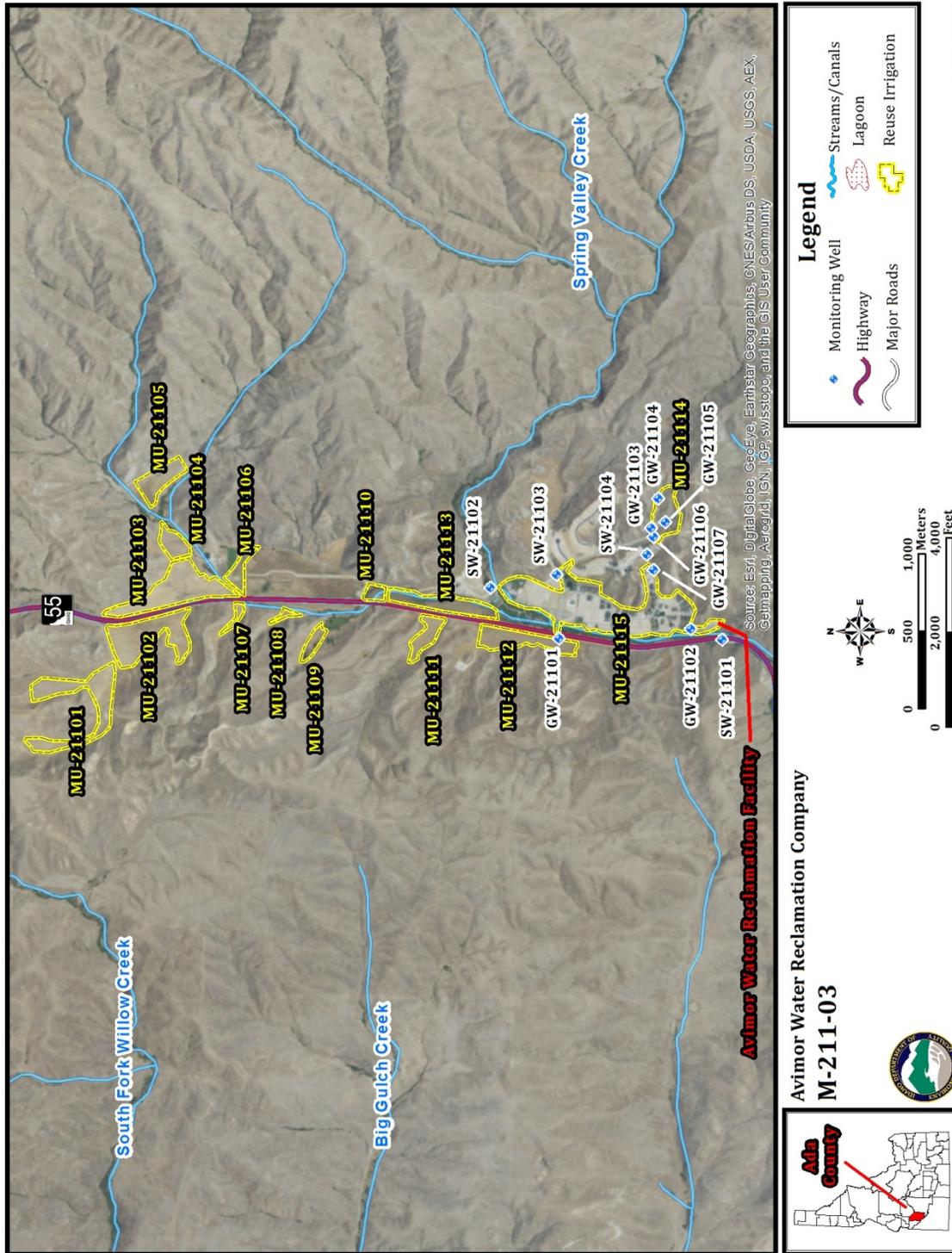
The well owner must have any well shown to pose a threat to human health and safety or cause contamination of the ground water resource immediately repaired or decommissioned (abandoned) by a licensed well driller under a permit issued by the IDWR director in accordance with the applicable rules. See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

11. Site Maps

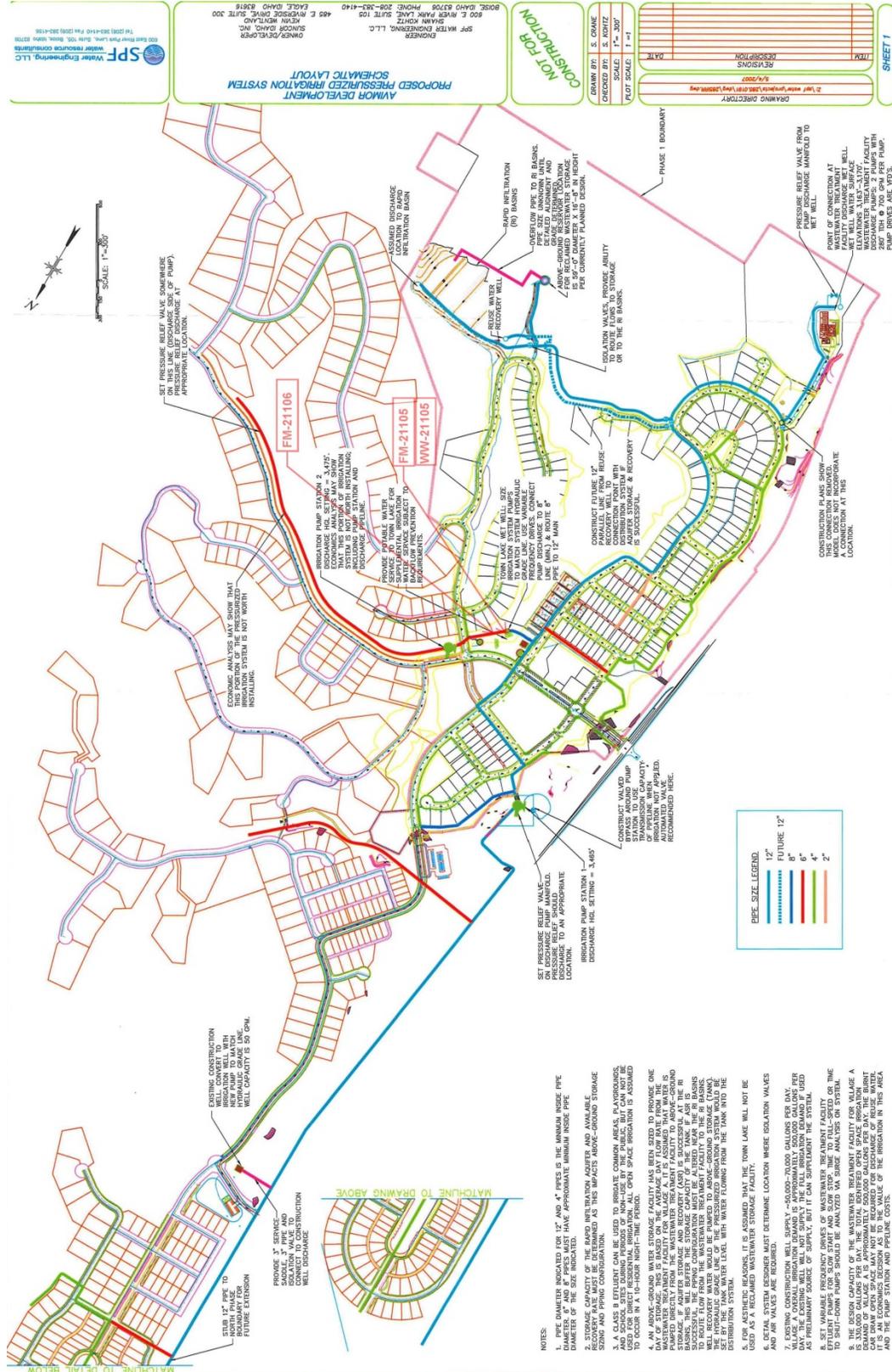
11.1 Vicinity Map



11.2 Site Map



11.3.2 Schematic of Irrigation Area (MU-21115) Pressurized Irrigation System



SFP Water Engineering, LLC
 500 East 10th Street, Suite 100, Des Moines, IA 50319
 515.281.4141 Fax 515.281.2618
 www.sfpwater.com

AVIMOR DEVELOPMENT PROPOSED PRESSURIZED IRRIGATION SYSTEM SCHEMATIC LAYOUT

OWNER: AVIMOR DEVELOPMENT
 485 E. MYERS DRIVE, SUITE 200
 WEST DES MOINES, IA 50319
 PHONE: 202-383-4140
 BOISE, IDAHO 83705

DESIGNER: SPF WATER ENGINEERING, L.L.C.
 600 E. MYERS DRIVE, SUITE 105
 WEST DES MOINES, IA 50319
 PHONE: 202-383-4140
 BOISE, IDAHO 83705

NOT FOR CONSTRUCTION

DRAWN BY: S. O'NEAL
 CHECKED BY: S. KOPITZ
 SCALE: 1" = 300'
 PROJECT NO: 11-211

NO.	DATE	DESCRIPTION

2. Visit www.sfpwater.com/irrigation.asp

DESIGNED BY: S. O'NEAL

DRAWING DIRECTORY

SHEET 71

- NOTES:**
- PIPE DIAMETER INDICATED FOR 12" AND 4" PRESS IS THE MINIMUM INSIDE PIPE DIAMETER. 6" AND 8" PRESS MUST HAVE APPROXIMATE MINIMUM INSIDE PIPE DIAMETER OF 6.5" AND 8.5" RESPECTIVELY.
 - STORAGE CAPACITY OF THE ABOVE-GROUND STORAGE TANKS, IN VARIOUS AREAS AND SITES DURING PERIODS OF NON-USE BY THE PUBLIC, BUT CAN NOT BE USED FOR STORAGE DURING PERIODS OF USE. ALL OPEN SPACE IRRIGATION IS ASSUMED TO OCCUR IN A 10-HOUR NIGHT-TIME PERIOD.
 - AN ABOVE-GROUND WATER STORAGE FACILITY HAS BEEN SIZED TO PROVIDE ONE (1) HOUR OF STORAGE CAPACITY FOR VILLAGE A. IT IS ASSUMED THAT WATER IS STORED OFF-PREMISES AND REDESIGN (AS APPLICABLE) IS SELECTED TO PROVIDE STORAGE CAPACITY FOR THE TOWN LAKE WET WELL. THE STORAGE CAPACITY OF THE TOWN LAKE WET WELL FROM THE WASTEWATER TREATMENT FACILITY TO THE 8" BASINS TO ROUTE FLOW FROM THE WASTEWATER TREATMENT FACILITY TO THE 8" BASINS IS APPROXIMATELY 50,000 GALLONS PER DAY. THE PRESSURIZED IRRIGATION SYSTEM WOULD BE THE HYDRAULIC GRADE LINE WITH WATER FLOWING FROM THE TANK INTO THE DISTRIBUTION SYSTEM.
 - FOR AESTHETIC REASONS, IT IS ASSUMED THAT THE TOWN LAKE WILL NOT BE USED AS A RECLAIMED WASTEWATER STORAGE FACILITY.
 - EXISTING CONSTRUCTION WELL SUPPLY ~50,000-70,000 GALLONS PER DAY. VILLAGE A CURRENT DEMAND IS APPROXIMATELY 50,000 GALLONS PER DAY. AS A PRELIMINARY SOURCE OF SUPPLY, BUT IT CAN SUPPLEMENT THE SYSTEM.
 - SET VARIABLE FREQUENCY DRIVES OF WASTEWATER TREATMENT FACILITY ON THE 8" AND 12" PUMPS SHOULD BE ANALYZED VIA SURGE ANALYSIS ON SYSTEM.
 - THE DESIGN CAPACITY OF THE WASTEWATER TREATMENT FACILITY FOR VILLAGE A IS APPROXIMATELY 50,000 GALLONS PER DAY. THE DESIGN CAPACITY OF VILLAGE A IS APPROXIMATELY 50,000 GALLONS PER DAY. THE DESIGN CAPACITY OF VILLAGE A IS APPROXIMATELY 50,000 GALLONS PER DAY. THE DESIGN CAPACITY OF VILLAGE A IS APPROXIMATELY 50,000 GALLONS PER DAY. THE DESIGN CAPACITY OF VILLAGE A IS APPROXIMATELY 50,000 GALLONS PER DAY. IT IS AN ECONOMICS DECISION AS TO THE VALUE OF THE IRRIGATION IN THIS AREA, AND THE PUMP STATION AND PIPELINE COSTS.

11.3.3 Plan of Landscaped Common Areas in Irrigation Areas (MU-21115)

