

Idaho Department of Environmental Quality

Reuse Permit

M-154-04

(Previous Permit No. LA-000154-03)

U. S. Air Force, Mountain Home Air Force Base (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 June 27, 2027.



Signature

6/27/17

Date

Aaron Scheff

Regional Administrator
Boise Regional Office
Idaho Department of Environmental Quality

Idaho Department of Environmental Quality
Boise Regional Office
1445 N. Orchard
Boise, ID 83706
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1. Common Acronyms/Abbreviations and Definitions

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
mg/kg	milligram per kilogram
mg/L	milligram per liter
MHAFB	Mountain Home Air Force Base
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.

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
Type(s) of recycled water	Class A Municipal
Method of treatment and reuse	Sequencing Batch Reactors, AquaDisk® OptiFiber® cloth media filtration, chlorine disinfection, slow rate irrigation, limited ground water recharge from Class A recycled water landscape impoundments
System classification	Class III Wastewater Treatment; Class II Collections
Facility location	1030 Liberator Street, Mountain Home, ID 83648
Facility mailing address	366 CES/CEIE 1030 Liberator Street, Mountain Home, ID 83648
Facility responsible official and authorized representative	<p>Responsible Official: Jefferson J. O'Donnell, Colonel, USAF Commander, 366th Fighter Wing 366 Gunfighter Avenue, Suite 331 Mountain Home AFB, ID 83648 Phone: (208) 828-2366; Fax (208) 828-6387</p> <p>Authorized Representative: The authorized representatives for this permit are designated as the following positions in lieu of a specific person:</p> <p>Chief, Installation Management Flight 1030 Liberator Street Mountain Home AFB, ID 83648 Phone: (208) 828-6351; Fax (208) 828-2194 (currently Ms. Paula Jo Brown)</p> <p>and:</p> <p>Deputy, Base Civil Engineer 366 CES/CD 1030 Liberator Street Mountain Home AFB, ID 83648 Phone: (208) 828-6354; Fax (208) 828-2802 (currently Mr. Nathan Rowland)</p> <p>Notify DEQ in writing within 30 days if there is a change in personnel for the Responsible Official. A minor permit modification will be issued by DEQ to confirm the change.</p>

Information Type	Information Specific to This Permit
Ground water	<p><u>Depth</u>: Approximately 375 feet below ground surface</p> <p><u>Type of aquifer</u>: Basalt</p> <p><u>General flow direction</u>: South southwest</p> <p><u>Nitrate Priority Area</u>: Mountain Home AFB, 14.44 square miles</p> <p><u>Nearby Public Water Supply Wells</u>: Mountain Home Air Force Base, PWS ID # ID4200054. Six wells ranging from 0.7 to 2.7 miles NE or ESE from the Rapid Infiltration Basins</p>
Surface water	<p>Unnamed drainage to Canyon Creek, approximately 780 feet south of the WWTP. This drainage is within the Canyon Creek Waterbody Unit SW-21.</p> <p>Canyon Creek, approximately 3.1 miles west</p> <p>This Waterbody Unit (IDAPA 58.01.02.140.01.SW-21) is not designated for aquatic life and/or recreation use. Presumed use protections for cold water aquatic life and contact recreation apply (58.01.02.101.a).</p> <p>Designated beneficial uses – Agricultural water supply, industrial water supply, wildlife habitats, and aesthetics (IDAPA 58.01.02.100.03, 04, and 05).</p> <p>C.J. Strike Reservoir, approximately 3.7 miles south</p> <p>Designated beneficial uses – cold water aquatic life, primary contact recreation, and domestic water supply (IDAPA 58.01.02.140.01.SW-1). Also agricultural water supply, industrial water supply, wildlife habitats, and aesthetics (IDAPA 58.01.02.100.03, 04, and 05).</p>

3. Compliance Schedule for Required Activities

Compliance Activity (CA) Number and Completion Due Date	Compliance Activity Description
CA-154-01 January 31, 2018	<p>Plan of Operation (PO): The permittee shall submit for review and approval an update of the October 2015 Plan of Operation (PO) that reflects current operations as a Class A facility and incorporates the requirements of this permit. The PO shall comply with the applicable requirements stated in IDAPA 58.01.17.300.05 and shall address applicable items in the most current Plan of Operation Checklist available.</p> <p>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. The completed manual shall be incorporated by reference into this permit and shall be enforceable as a part of this permit.</p>
CA-154-02 January 31, 2018	<p>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.</p> <p>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:</p> <ol style="list-style-type: none">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. <p>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.</p> <p>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.</p>

Compliance Activity (CA) Number and Completion Due Date	Compliance Activity Description				
CA-154-03 As specified	<p>Seepage Testing: The following table shows the date by which the permittee shall complete seepage testing on the specified lagoons:</p> <table border="1" data-bbox="435 464 1320 543"> <tr> <td>Lagoon:</td><td>Seepage Test Due Date:</td></tr> <tr> <td>LG-015401 Storage Lagoon</td><td>June 2024</td></tr> </table> <p>Submit to DEQ for review and approval a proposed schedule and procedure for performing the required seepage tests at least 45 days prior to the planned seepage test. Guidance for developing seepage test procedures are available at: http://www.deq.idaho.gov/water-quality/wastewater/lagoon-seepage-testing.aspx</p> <p>The seepage test procedures shall be sealed by the Idaho licensed professional engineer or professional geologist in responsible charge for the test.</p> <p>Seepage tests shall be completed in accordance with the procedures approved by DEQ. The seepage test report shall be sealed by the person in responsible charge and submitted within 90 days after completion of the seepage test.</p> <p>For municipal lagoons, the leakage rate for lagoons constructed after April 15, 2007 shall be no more than zero point one hundred twenty-five (0.125) inches (1/8 inch) per day. The leakage rate for existing lagoons constructed prior to April 15, 2007 shall be no more than zero point twenty-five (0.25) inches (1/4 inch) per day. See IDAPA 58.01.16.493.03. Requirements for lagoons leaking above the allowable amount are outlined in IDAPA 58.01.16.493.04.</p> <p>The Permittee may request a waiver from CA-154-03 if justification is provided demonstrating that Class A storage lagoon LA-015401 has not, and is not expected, to significantly degrade ground water. <u><i>This justification must be submitted to DEQ no later than April 30, 2022 to be considered.</i></u></p>	Lagoon:	Seepage Test Due Date:	LG-015401 Storage Lagoon	June 2024
Lagoon:	Seepage Test Due Date:				
LG-015401 Storage Lagoon	June 2024				
CA-154-04 12 months prior to permit expiration	<p>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.</p>				
CA-154-05 6 months prior to permit expiration	<p>Renewal Permit 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-154-04.</p>				

4. Permit Limits and Conditions

4.1 Hydraulic Management Unit Descriptions

Serial Number	Description	Irrigation System Type	Maximum Acres Allowed
MU-015412	Wastewater Treatment Plant Grounds	Sprinkler system	1.09
MU-015417	Silver Sage Golf Course	Sprinkler system	100.8
MU-015401 MU-015402	Non-Class A Discharge Basin	NA ⁽¹⁾	5.2
MU-015403 MU-015404 MU-015405 MU-015406	Rapid Infiltration Basins for use when LG-015401 is emptied for repairs or maintenance	NA	10.4 (2.6 acres each)
Total Acreage			117.49

Note (1): NA: not applicable.

4.2 Hydraulic Loading Limits

Serial Number	Growing Season Hydraulic Loading	Nongrowing Season Maximum Hydraulic Loading, inches
MU-015412 MU-015417	NA ⁽¹⁾	Not allowed
MU-015401 MU-015402	Allowed during major maintenance operations and emergency upset conditions only. ⁽²⁾	
MU-015403 MU-015404 MU-015405 MU-015406	Allowed during repair and maintenance of LG-015401.	

Note (1): NA: not applicable.

Note (2): Non-Class A effluent generated during routine maintenance shall be returned to the headworks.

4.3 Constituent Loading Limits

None

4.4 Management Unit Buffer Zones

Serial Number	Buffer Distances ⁽¹⁾ from Hydraulic Management Units (in feet)					
	Public Water Supplies	Private Water Supplies	Inhabited Dwellings	Permanent and Intermittent Surface Water	Irrigation Ditches and Canals	Areas Accessible to the Public
MU-015412 and MU-015417	50	50	0 ⁽²⁾	NA ⁽³⁾	NA	0
MU-015401 MU-015402 MU-015403 MU-015404 MU-015405 MU-015406	1000	500	300	NA	NA	50

Note (1): Recycled water shall not be applied within 100 feet of areas where food is prepared or served, or where drinking fountains are located.

Note (2): In areas where dwellings are closer than 300 feet from MU-015417, the irrigation system shall shut off when wind speeds are greater than 15 mph.

Note (3): NA: not applicable.

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	November 1 through October 31
Operator certification and endorsement	The wastewater treatment facility shall be operated by personnel certified and licensed in the State of Idaho wastewater operator training program at the operator class level specified in IDAPA 58.01.16.203 and properly trained to operate and maintain the system.
Disinfection limits in recycled water	<p>Class A: The median number of total coliform organisms does 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. If the median requirement is not met, diversion to the DEQ accepted redundancy back-up systems shall be activated.</p> <p>The concentration/contact time (CT) of total chlorine shall not be less than 450 mg-min/L, measured at the end of the contact time, with a modal contact time of not less than 90 minutes.</p> <p>If the total chlorine residual drops below the instantaneous required value for more than five (5) minutes, diversion to the DEQ accepted redundancy back-up system shall be automatically activated.</p>

Category	Permit Limits and Conditions
Filter Operation and Turbidity Limits	<p>An in-line, continuously monitoring and recording turbidimeter is required following filtration and prior to disinfection.</p> <ul style="list-style-type: none"> Effluent turbidity shall not exceed two (2) NTU based on the daily arithmetic mean of all daily measurements. Effluent turbidity shall not exceed five (5) NTU at any time. <p>If the instantaneous effluent turbidity exceeds 5 NTU for more than five (5) minutes, diversion to the DEQ accepted redundancy back-up system shall be automatically activated.</p>
Redundancy Back-up System	Non-Class A Discharge Basins: MU-015401 and MU-015402.
Maximum Total Nitrogen	Total Nitrogen shall not exceed ten (10) mg/L as a monthly arithmetic mean from weekly composite samples
BOD ₅	BOD ₅ shall not exceed 5 mg/L as a monthly arithmetic mean from weekly composite samples
pH	pH shall be between 6.0 and 9.0
Crop or vegetation allowed	<p>MU-015412: grass - landscape turf</p> <p>MU-015417: grass - golf course turf</p> <p>MU-015401, MU-015402, MU-015403, MU-015404, MU-015405, MU-015406: weedy and native species removed periodically when infiltrative surface is disked or otherwise maintained.</p>
Other allowed uses	Dust suppression; fire suppression; sewer line flushing; non-potable water uses at the WWTP
Grazing	Grazing is not allowed.
Posting	<p>Class A: 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.</p> <p>Signs shall be posted at each Golf Course Storage Ponds LG-015402 and LG-015403 and must state "Caution: Recycled Water—Do Not Drink," or equivalent signage both in English and Spanish. Signs shall be posted at least every 500 feet around the outer perimeter of the ponds.</p> <p>At the WWTP effluent reuse hose bib faucets and at the belt filter press, notification that the water is recycled water and is not safe for drinking or human contact is required. Signs shall be posted and must state "Caution: Recycled Water – Do Not Drink", or equivalent language.</p> <p>Non-Class A Discharge Basins: signs must be posted around the perimeter of the site stating that recycled water is used and is not safe for drinking or human contact. Signs shall be posted every 250 feet around the perimeter of the reuse area(s) and at any points of access into the reuse area(s) and must state "Warning: Recycled Water - Do Not Enter", or equivalent signage both in English and Spanish.</p>

Category	Permit Limits and Conditions
Fencing	MU-015412: none required MU-015417: none required MU-015401, MU-015402, MU-015403, MU-015404, MU-015405, and MU-015406: MHAFB perimeter fence
Construction plans	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, 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.
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-015406 Sampling port in the Filter Building	Recycled water after filtration and prior to disinfection.	Continuous	- Turbidity (NTU)
WW-015403 Sampling port on exit line after Discharge Pump P-542	Recycled water after discharge from the chlorine contact basin to MU-015412, MU-015417, LG-015401, LG-015402, LG-015403	Composite/weekly	- Total nitrogen
		Composite/weekly	- BOD ₅
		Grab/daily (Monday through Friday)	- Total coliform (CFU/100 mL)
		Grab/daily or continuous	- pH (SU)
		April and October 2018, and April and October 2025	- Chloride - Sulfate - Sodium - Potassium - Calcium - Magnesium - Carbonate + bicarbonate (alkalinity)
WW-015408 Chlorine analyzer on chlorine contact chamber wall	Recycled water after chlorination to MU-015412, MU-015417, LG-015401, LG-015402, LG-015403	Continuous	- Total chlorine residual

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 or FM
FM-015401: Census magnetic / rotary piston flow meter in the grass area of the WWTP	Measuring recycled water flow to Zone 1 of MU-015412	- Daily meter reading - Monthly compilation of data	- gallons/day - MG/month - inches/acre-month
FM-015402: Census magnetic / rotary piston flow meter in the grass area of the WWTP	Measuring recycled water flow to Zone 2 of MU-015412	- Daily meter reading - Monthly compilation of data	- gallons/day - MG/month - inches/acre-month
FM-015403: Census magnetic / rotary piston flow meter in the grass area of the WWTP	Measuring recycled water flow to Zone 3 of MU-015412	- Daily meter reading - Monthly compilation of data	- gallons/day - MG/month - inches/acre-month
FM-015404: Flowtron magnetic flow meter at Silver Sage Pump Station	Measuring flow of recycled water and supplemental irrigation water pumped from Silver Sage Pump Station wet well to MU-015417 ⁽¹⁾	- Daily meter reading - Monthly compilation of data	- gallons/day - MG/month - inches/acre-month
FM-015405: Badger M-Series magnetic flow meter between the disinfection shack and storage lagoon influent line	Measuring recycled water after the chlorine contact basin to MU-015401, MU-015402	- Daily meter reading - Monthly compilation of data	- gallons/day - MG/month - inches/acre-month
	Measuring recycled water after the chlorine contact basin to MU-015403, MU-015404, MU-015405 MU-015406; in the event the storage lagoon must be emptied for maintenance or repairs	- Daily meter reading - Monthly compilation of data	- gallons/day - MG/month - inches/acre-month
FM-015406: McCrometer magnetic flow meter in the vault adjacent to the disinfection shack	Measuring recycled water from the Storage lagoon to the Silver Sage Pump Station	- Daily meter reading - Monthly compilation of data	- gallons/day - MG/month - inches/acre-month

Management Unit or Flow Measurement Serial Number and Location	Sample Description	Sample Type and Frequency	Measured Parameters, each MU or FM
FM-015407: McCrometer magnetic flow meter at the SSPS; (a redundant flow meter to FM-015406; to be used temporarily in the event of FM-015406 malfunction)	Measuring recycled water from the Storage lagoon to the Silver Sage Pump Station	- Daily meter reading - Monthly compilation of data	- gallons/day - MG/month - inches/acre-month

Note: (1) Supplemental irrigation water flow from BPW-8 is the difference between FM-015404 and FM-015406.

5.2 Ground Water Monitoring

5.2.1 Ground Water Monitoring Point Descriptions (locations in reference to MU's)

Monitoring Point Serial Number	Common Designation	Well Type	Gradient Location ⁽¹⁾
GW-015404	MW-3-2	Monitoring well	Upgradient of WWTP, lagoon and RIBs
GW-015405	MW-6-2	Monitoring well	Crossgradient of WWTP Upgradient of RIBs
GW-015406	MW-7-2	Monitoring well	Crossgradient of lagoon Upgradient of RIBs
GW-015407	MW-17-2	Monitoring well	Downgradient of WWTP, lagoon, and RIBs
GW-015408	MW-21	Monitoring well	Upgradient of RIBs Downgradient of lagoon
GW-015409	MW-22	Monitoring well	Crossgradient of RIBs
GW-015410	MW-23	Monitoring well	Downgradient of RIBs

Note (1): Well gradient locations are highly variable depending both upon the season, as well as the reuse area referred to: whether the treatment plant or rapid infiltration basins. To avoid complexity of explanation in the limited table space provided, a generalized flow direction SSE to SSW towards the Snake River is assumed here.

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)
Monitoring Point Serial numbers listed in Section 5.2.1	Monitoring wells	Unfiltered grab sample/twice annually: April and October	<ul style="list-style-type: none"> - Water table elevation (feet) - Water table depth (feet below Measuring Point) - Nitrate-nitrogen - Total dissolved solids - pH (Standard Units) - Specific conductance/electrical conductivity (µmhos/cm) - Temperature (°C)
Monitoring Point Serial numbers listed in Section 5.2.1	Monitoring wells	Unfiltered grab sample: April and October 2018, and April and October 2025	<ul style="list-style-type: none"> - Chloride - Sulfate - Sodium - Potassium - Calcium - Magnesium - Carbonate + bicarbonate (alkalinity)

5.3 Soil Monitoring

Not Required

5.4 Crop Monitoring

Not Required

5.5 Lagoon Information

Serial number	Description	Surface Area, acres	Maximum Operating Volume, MG	Liner Type
LG-015401	Recycled water storage lagoon	19.4	76	80 mil HDPE
LG-015402	Pond 2: Golf course lower storage pond ⁽¹⁾ (landscape impoundment)	1.33	4	Bentonite
LG-015403	Pond 1: Golf course upper storage pond ⁽¹⁾ (landscape impoundment)	1.39	3	Bentonite

Note (1): This is a landscape impoundment for the storage of Class A recycled water and irrigation water, which impoundment allows for limited ground water recharge. No seepage testing is required.

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 3 of this permit.
4. Results of all backflow testing, repairs, and replacements required by Section 9.1.1 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. Laboratory analytical reports for monitoring specified in Section 5 of the permit. Chain of custody forms, supporting information for laboratory analytical reports, and quality assurance documentation shall be available for review upon request by DEQ.
9. The parameters in the following table:

Monitoring Point Serial Number	Parameter (Calculate for each MU)	Units
All monitoring point serial numbers listed in Section 4.1	Recycled water loading rate Supplemental irrigation water loading rate Total water loading rate	Million gallons/month Inches/month
Other Reporting Requirements: 1. None		

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, ranking elected official, or a person of decision-making authority who can legally bind the permittee with respect to the permit.
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

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-0154-04, 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 regional office at 208-373-0550, or 888-800-3480 toll free.

In case of emergencies, call the emergency 24-hour number at 1-800-632-8000 and DEQ's 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: (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 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 “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

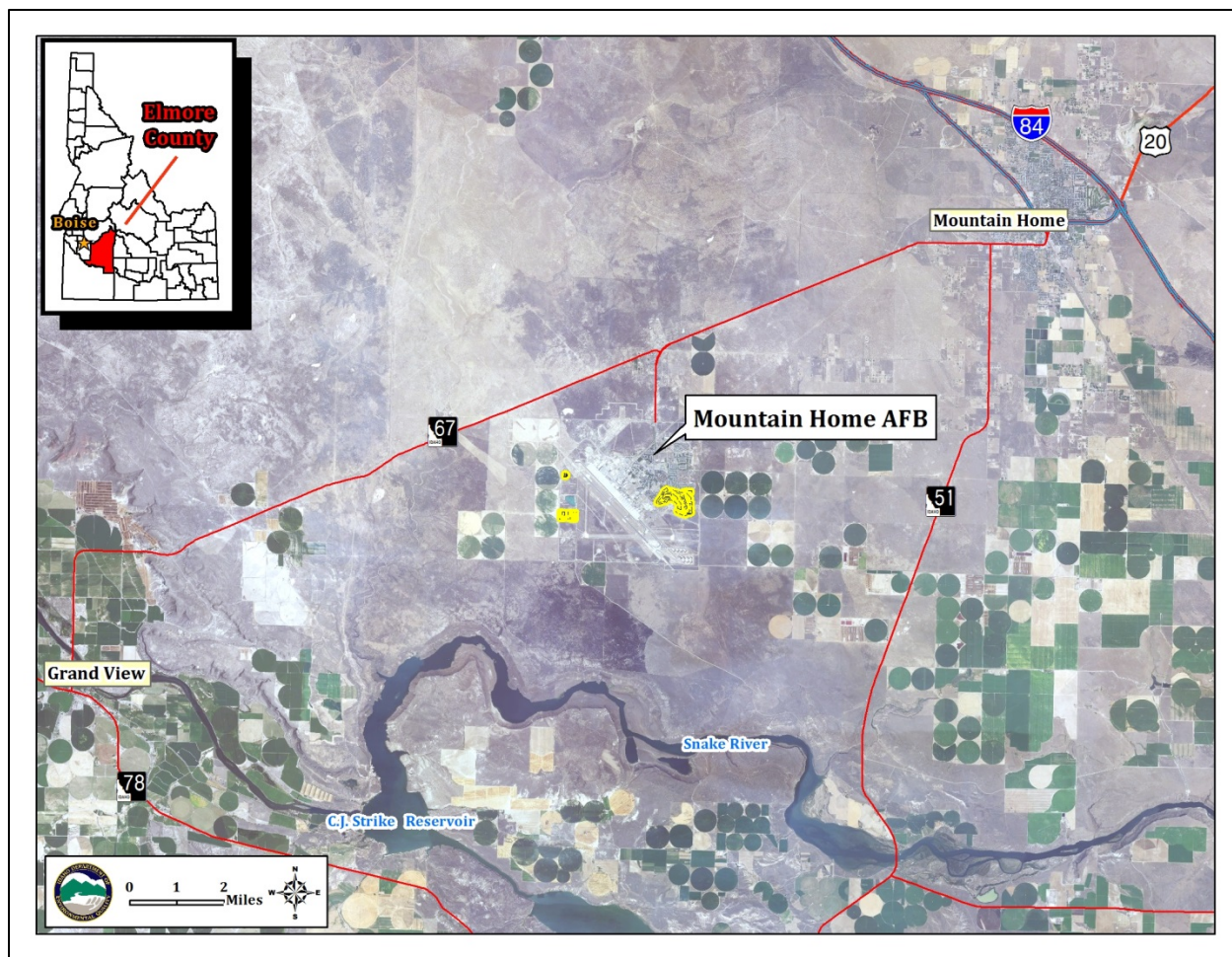
The well owner must maintain the well to prevent waste or contamination of ground waters through leaky casings, pipes, fittings, valves, pumps, seals, or through leakage around the outside of the casings, whether the leakage is above or below the land surface. Any person owning or controlling a noncompliant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

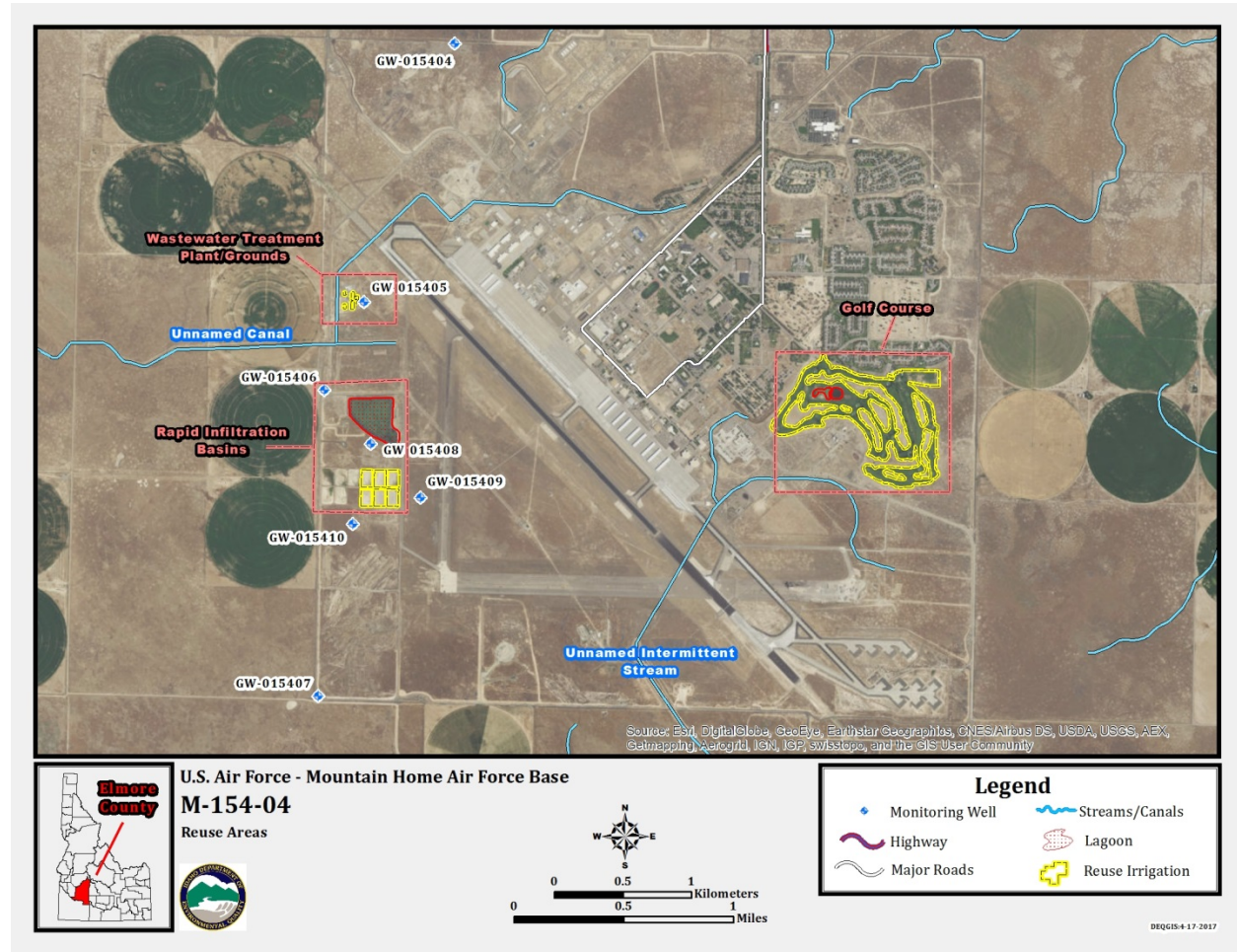
The well owner must have any well shown to pose a threat to human health and safety or cause contamination of the ground water resource immediately repaired or decommissioned (abandoned) by a licensed well driller under a permit issued by the IDWR director in accordance with the applicable rules. See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

11. Site Maps

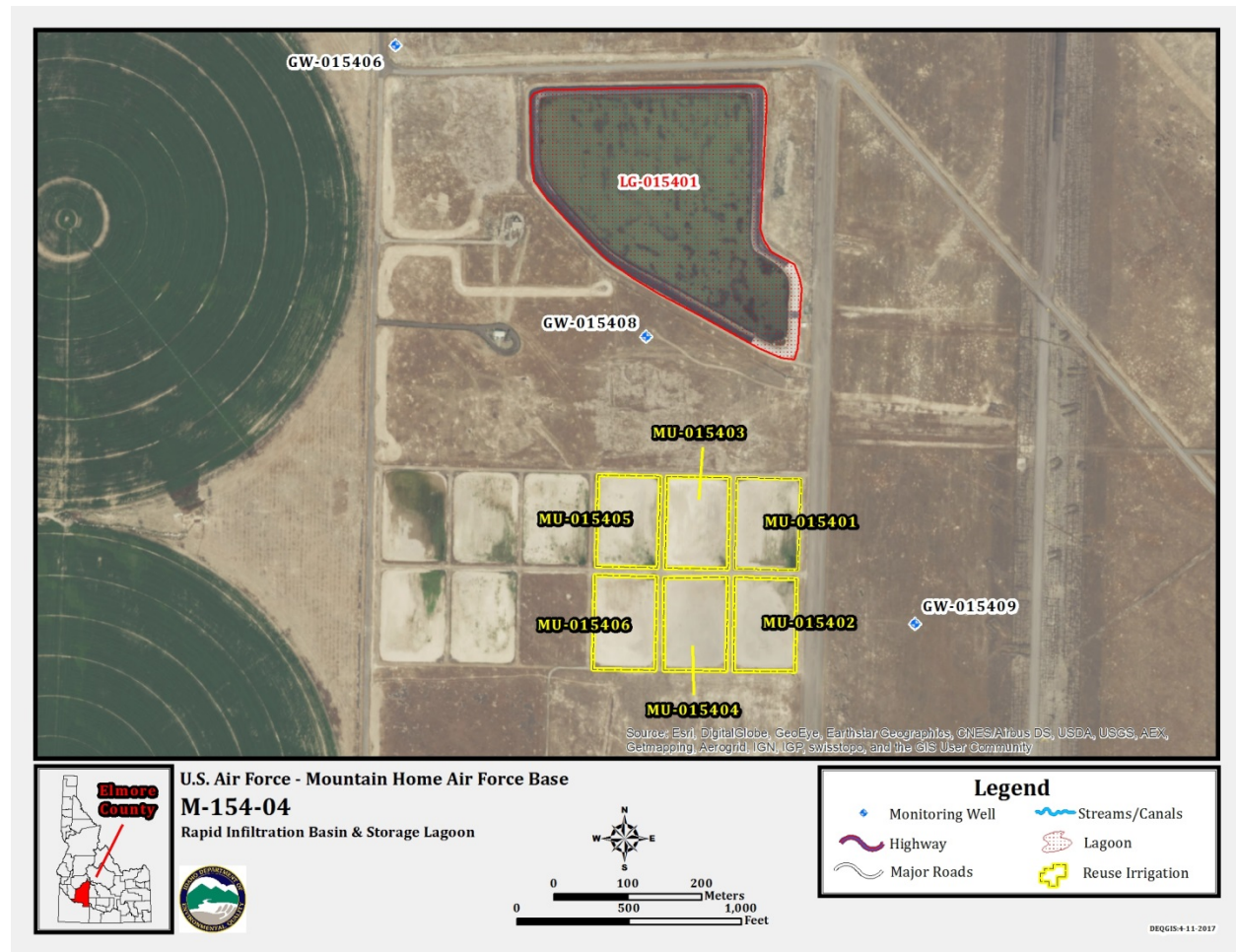
11.1 General Vicinity Map: Mountain Home Air Force Base



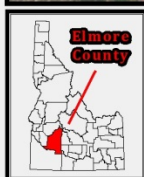
11.2 Mountain Home Air Force Base Reuse Areas and Monitoring Well Locations



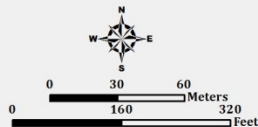
11.3 Rapid Infiltration Basins and Storage Lagoon



11.4 Wastewater Treatment Plant Reuse Area



U.S. Air Force - Mountain Home Air Force Base
M-154-04
Wastewater Treatment Plant/Reuse Area



Legend	
Monitoring Well	Streams/Canals
Highway	Lagoon
Major Roads	Reuse Irrigation

DEQGIS-4-17-2017

11.5 Silver Sage Golf Course Reuse Area

