

**A Permit Certificate**

**MUNICIPAL WASTEWATER REUSE PERMIT**

**CITY OF LAVA HOT SPRINGS**

**#LA-000034-02**

The City of Lava Hot Springs LOCATED AT PO Box 187, Lava Hot Springs, ID 83246 IN Bannock County IS HEREBY AUTHORIZED TO CONSTRUCT, INSTALL AND OPERATE A WASTEWATER REUSE SYSTEM IN ACCORDANCE WITH THE RECYCLED WATER RULES (IDAPA 58.01.17), THE WATER QUALITY STANDARDS (IDAPA 58.01.02), THE WASTEWATER RULES (58.01.16), THE GROUND WATER QUALITY RULE (IDAPA 58.01.11), AND ACCOMPANYING PERMIT APPENDICES AND ATTACHMENTS. THIS PERMIT IS EFFECTIVE FROM THE DATE OF SIGNATURE AND EXPIRES ON FEBRUARY 28, 2017



BRUCE OLENICK, REGIONAL ADMINISTRATOR  
IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY  
POCATELLO REGIONAL OFFICE

SIGNED THIS 15<sup>TH</sup> DAY OF MARCH, 2012

**DEPARTMENT OF ENVIRONMENTAL QUALITY**

Pocatello Regional Office  
444 Hospital Way, Building #300  
208-236-6160  
Pocatello, ID 83201

**POSTING ON SITE RECOMMENDED**

***B Permit Contents, Appendices, and Attachments***

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*List of Referenced Documents*

1. Plan of Operation
2. Quality Assurance Project Plan
3. Buffer Zone Plan
4. Run Off Management Plan

Reference Documents listed on this page require approval by the Department of Environmental Quality (Department). This permit does not relieve the City of Lava Hot Springs, hereafter referred to as the Permittee, from responsibility for compliance with other applicable federal, state or local laws, rules, standards or ordinances.

## C Abbreviations and Definitions

**Table C-1 Definitions, Terms, and Acronyms**

| TERM OR ACRONYM       | DEFINITION/EXPLANATION   |
|-----------------------|--|
| Ac-in                 | Acre inches = volume of water covering 1 acre of land to a depth of 1 inch = 27,154 gallons  |
| AWC                   | Available water capacity = weighted composite of the available water holding capacity of the soil to a depth of sixty (60) inches or to the bottom of the root zone.   |
| DEQ or the Department | Idaho Department of Environmental Quality  |
| Director              | Director of the Idaho Department of Environmental Quality; or the Director's Designee, i.e. Regional Administrator   |
| ET                    | Evapotranspiration – loss of water from the soil and vegetation by evaporation and by plant uptake (transpiration)   |
| GS                    | Growing Season – April 1 through October 31  |
| GWQR                  | IDAPA 58.01.11 "Ground Water Quality Rule"   |
| Guidance              | Guidance for Wastewater Reclamation and Reuse– available online at:<br><a href="http://www.deq.idaho.gov/media/516329-guidance_reuse_0907.pdf">http://www.deq.idaho.gov/media/516329-guidance_reuse_0907.pdf</a>   |
| HLR <sub>GS</sub>     | Growing Season Hydraulic Loading Rate. Includes any combination of wastewater and supplemental irrigation water applied to land application hydraulic management units during the growing season. The HLR <sub>GS</sub> limit is specified in Section F. Permit Limits and Conditions.   |
| HMU                   | Hydraulic Management Unit (Serial number prefix is MU-)  |
| IDAPA                 | Idaho Administrative Procedures Act  |
| IWR                   | <p>Irrigation Water Requirement – Any combination of wastewater and supplemental irrigation water applied at rates commensurate to meet the moisture requirements of the crop:<br/>IWR calculation methodology can be found in the DEQ “Guidance for Reclamation and Reuse of Municipal and Industrial Wastewater, September 2007,” Section 4.</p> <p>IWR calculation methodology can also be found at:<br/><a href="http://www.kimberly.uidaho.edu/water/appndxet/index.shtml">http://www.kimberly.uidaho.edu/water/appndxet/index.shtml</a></p> <p><math>IWR = P_{def} / E_i</math>    Where :</p> <p><math>P_{def}</math> = precipitation deficit<br/><math>E_i</math> = irrigation system efficiency</p> <p>IWR planning estimates may also incorporate the judgment of experienced filed operators. Whichever method is chosen must be used consistently throughout the application year and the life of the permit unless specific approval for a different methodology is granted by DEQ.</p> |
| lb/ac-d               | Pounds (of constituent) per acre per day   |
| LG                    | Lagoon (Serial number prefix is LG-)   |

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| TERM OR ACRONYM     | DEFINITION/EXPLANATION  |
|---------------------|---|
| MG                  | Million Gallons (1MG = 36.827 acre-inches)  |
| Operating year      | The operating year begins with the non-growing season and extends through the growing season of the following year – November 1 – October 31. For example, the 1999 operating year was November 1, 1999 through October 31, 2000.   |
| PO                  | Plan of Operation – required for all permitted wastewater land application facilities pursuant to IDAPA 58.01.17.300.06   |
| SIW                 | Supplemental irrigation water<br>(Serial number prefix is GW- for ground water sources; SW- for surface water sources)  |
| SMU                 | Soil monitoring unit (Serial number prefix is SU-)  |
| Typical crop uptake | Typical Crop Uptake is defined as the <u>median</u> constituent crop uptake from the three (3) most recent years the crop has been grown (excluding the current harvest year). Typical Crop Uptake is determined for each hydraulic management unit. For new crops having less than three years of on-site crop uptake data, regional crop yield data and typical nutrient content values, or other values approved by DEQ may be used. |
| WW                  | Wastewater (Serial number prefix is WW-)  |

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| Constituent Abbreviations       |                         |                               |                                  |
|---------------------------------|-------------------------|-------------------------------|----------------------------------|
| %OM                             | % Organic Matter        | NVDS                          | Non-volatile Dissolved Solids    |
| Cl <sup>-</sup>                 | Chloride ion            | P                             | Phosphorus                       |
| CO <sub>3</sub> <sup>2-</sup>   | Carbonate ion           | pH                            | Acidity/alkalinity               |
| COD                             | Chemical Oxygen Demand  | SAR                           | Sodium Adsorption Ratio          |
| EC                              | Electrical Conductivity | SO <sub>4</sub> <sup>2-</sup> | Sulfate ion                      |
| Fe                              | Iron                    | TDS                           | Total Dissolved Solids           |
| HCO <sub>3</sub> <sup>-</sup>   | Bicarbonate ion         | TDIS                          | Total Dissolved Inorganic Solids |
| K                               | Potassium               | TKN                           | Total Kjeldahl nitrogen          |
| Mg                              | Magnesium               | TSS                           | Total Suspended Solids           |
| Mn                              | Manganese               | VDS                           | Volatile Dissolved Solids        |
| Na                              | Sodium                  |                               |                                  |
| NH <sub>3</sub> -N              | Ammonia-Nitrogen        |                               |                                  |
| NH <sub>4</sub> <sup>+</sup> -N | Ammonium-Nitrogen       |                               |                                  |
| NO <sub>3</sub> <sup>-</sup> -N | Nitrate-Nitrogen        |                               |                                  |

**D Facility Information**

**Table D-1 Facility Information**

| Facility Information                |   |                                   |         |                 |
|-------------------------------------|---|-----------------------------------|---------|-----------------|
| Legal Name of Permittee             | City of Lava Hot Springs  |                                   |         |                 |
| Land Application Site Location      | 8375 Maughan Rd. Lava Hot Springs, ID. 83246  |                                   |         |                 |
| Legal Location                      | Idaho, Boise Meridian T9S, R38E, sec20, and T9S, R38E, sec30  |                                   |         |                 |
| County                              | Bannock County  |                                   |         |                 |
| Type of Facility                    | Municipal wastewater treatment  |                                   |         |                 |
| Facility Contact Person             | Mayor Marshall Burgin   | Tony Hobson / Wastewater Operator |         |                 |
| Mailing Address<br>Phone/Fax/e-mail | 115 West Elm St. Lava Hot Springs, ID 83246<br>208-776-5820 / 208-776-5130 / lavacity@questoffice.net |                                   |         |                 |
| Type of Wastewater                  | Municipal sewage treatment, Class D   |                                   |         |                 |
| Method of Treatment                 | Slow rate land application (irrigation)   |                                   |         |                 |
| Irrigated Acres                     | 70 irrigated acres for land application, 20 acre winter storage lagoon on site                        |                                   |         |                 |
| Soils on Site                       | Soil Type   | Mapping Unit<br>Symbol            | Slope % | Percent of Area |
|                                     | Bancroft silt-loam  | 9                                 | 4-12%   | 18.0%           |
|                                     |   | 12                                | 12-20%  | 5.9%            |
|                                     | Lanoak silt-loam  | 65                                | 1-4%    | 24.9%           |
|                                     |   | 72                                | 6-20%   | 10.0%           |
|                                     | Rexburg silt loam   | 93                                | 1-4%    | 7.3%            |
| Ririe silt loam                     | 97  | 1-4%                              | 3.9%    |                 |
|                                     | 98  | 4-12%                             | 16.2%   |                 |
| Ririe-Watercanyon<br>complex        | 100   | 4-12%                             | 11.1%   |                 |
|                                     | 101   | 12-20%                            | 2.7%    |                 |
| Depth to Ground Water               | 55 feet at the winter storage lagoon  |                                   |         |                 |
| Beneficial Uses of Ground Water     | Agriculture, industrial, domestic   |                                   |         |                 |
| Nearest Surface Water               | Topaz irrigation canal (seasonal), Portneuf River   |                                   |         |                 |
| Beneficial Uses of Surface Water    | Agriculture, aquatic biota  |                                   |         |                 |

**E Compliance Schedule for Required Activities**

Section E Notes

E-1 Once approved by the Department, the Quality Assurance Project Plan, the Nuisance Odor Management Plan and the Run-off Management Plan shall be incorporated by reference into and enforceable as part of the permit. Once approved, all other plans that are required to be submitted to and approved by the Department pursuant to Section E, Table E-1 shall be implemented by the Permittee, but shall not be enforceable as part of the permit.

E-2 The Permittee may submit revised management plans required in CA-34-01 (Table E-1) as individual documents or as sub-parts incorporated into a comprehensive, system-wide plan of operation.

**Table E-1 Compliance Schedule for Required Activities**

| Compliance Activity Number<br>Completion Date            | Compliance Activity Description   |
|--|---|
| CA-34-01<br>Twelve (12) Months following permit issuance | 1) The Permittee shall prepare the following management plans:<br>a) Plan of Operation (Operations and Maintenance Manual)<br>b) Quality Assurance Project Plan (QAPP) to include;<br>i) a description of environmental sampling and analysis procedures (including those necessary for conducting all sampling and monitoring required in Table G-1),<br>ii) quality control/quality assurance provisions.<br>c) Buffer Zone Plan  |
| CA-34-02<br>Twelve (12) Months following permit issuance | <p style="text-align: center;">Runoff Management Plan</p> The Permittee shall prepare and submit to DEQ for approval a Runoff Management Plan with control structures and other BMP's (e.g. collection basins, berms, etc.) designed to contain runoff from any site or fields used for wastewater reuse to property not owned by the City of Lava Hot Springs except in the event of a 25 year, 24-hour storm event or greater, using Western Regional Climate Center (WRCC) Precipitation Frequency Map, found at <a href="http://www.wrcc.dri.edu/pcpnfreq">http://www.wrcc.dri.edu/pcpnfreq</a> , 'Isopluvials of 25-YR, 24 HR Precipitation in tenths of an inch.'                     For the City of Lava Hot Springs Land Application site, the 25-year, 24-hour event map is 2.4 inches. |
| CA-34-03<br>Twelve (12) Months following permit issuance | The Permittee shall prepare and submit to DEQ for approval, a closure plan for the abandoned land application hydraulic management units. The closure plan shall ensure that the closed facility land application hydraulic management units 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.   |

## F Permit Limits and Conditions

### Section F Notes

- F-1 The Permittee is allowed to apply wastewater and treat it on the land application site as prescribed in the table below and in accordance with all other applicable permit conditions and schedules.
- F-2 Notwithstanding provisions in Table F-1, the Department reserves the right to seek remedies available under any applicable authority with respect to an exceedance of any primary or secondary constituent standard in Section 200 in IDAPA 58.01.11, Rules of the Department of Environmental Quality, "Ground Water Quality Rule" or any site specific standard established by the Department pursuant to Section 400.05.b. resulting from the Permittee's wastewater land application.
- F-3 Notwithstanding any other provision of this permit, including without limitation the buffer zones set forth in Table F-3;
- 1) Wastewater applied by the Permittee shall be restricted to the premises of the land application site, and
  - 2) The Permittee shall not discharge wastewater to surface waters of the state, without first obtaining all permits and other authorizations required by state and federal law.

**Table F-1 Site Specific Permit Conditions**

| PERMIT CONDITION  | PERMIT REQUIREMENT/DESCRIPTION  |
|---|---|
| Application Site Acreage                                      | 70 irrigated acres  |
| Application Season  | Growing Season only   |
| Growing Season (GS)   | April 1 – October 31  |
| Reporting Period (Operating Year)                             | November 1 through October 31   |
| Method of Treatment and Process Description                   | Preliminary treatment via regulated flow through four (4) cell lagoon system, with an additional cell for winter storage. Final treatment via land application for beneficial re-use  |
| Maximum Wastewater Volume                                     | 66 MG Annually (35 inches of WW distributed evenly over 70 acres)   |
| Growing Season Wastewater Hydraulic Loading (Sum of WW + SIW) | <p>Growing Season (GS) Hydraulic Loading Rate shall be substantially equal to the Irrigation Water Requirement (IWR) based upon the most current crop-specific precipitation deficit (<math>P_{def}</math>) data available from "ETIdaho - Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho" at <a href="http://www.kimberly.uidaho.edu/ETIdaho/">http://www.kimberly.uidaho.edu/ETIdaho/</a>.</p> <p>The IWR shall be calculated by dividing the crop-specific <math>P_{def}</math> value, determined above, by the specific irrigation efficiency (<math>E_i</math>) of each HMU as follows:</p> $IWR = P_{def} / E_i$ <p>(Assume no carryover soil moisture and a leaching rate of zero in calculating the IWR.)</p> |

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| PERMIT CONDITION                    | PERMIT REQUIREMENT/DESCRIPTION  |
|-------------------------------------|---|
| Annual nitrogen loading (HMU Basis) | 150% of typical crop uptake from all sources or University of Idaho Fertilizer Guide for Southeastern Idaho.  |
| Buffer Zones                        | See Table F-2 - Buffer Zone Requirements  |
| Grazing                             | Grazing is allowed only under the provisions of a Grazing Management Plan approved by the Department.   |
| Ground Water Quality                | Ground water quality shall comply with the Ground Water Quality Rule, IDAPA 58.01.11.   |
| Flow Measurement and Calibration    | The Permittee shall measure wastewater and supplemental irrigation water flows to the land application treatment fields and shall certify the accuracy of flow measurement devices annually. Documentation shall be maintained on-site.   |
| Construction Plans & Specifications | Pursuant to IC§39-118, detailed plans and specifications shall be submitted to DEQ for review and approval prior to construction, modification, or expansion of any wastewater treatment, storage or conveyance facilities or structures. Within 30 days of completion of construction, the Permittee shall submit as-built plans for review and approval or a letter from an Idaho registered Professional Engineer certifying that the wastewater facilities or structures were constructed in substantial accordance with the approved plans and specifications. |
| Allowable Crops                     | Crops grown for direct human consumption are not allowed.   |
| Nuisance Management                 | The wastewater treatment plant, reuse facilities, and other operations associated with the facility shall not create a public health hazard or nuisance conditions, including odors. These facilities shall be managed in accordance with a DEQ approved Odor Management Plan.  |
| Class D Disinfection Requirement    | The median number of total coliform organisms does not exceed two hundred thirty (230) per one hundred (100) milliliters, as determined from the bacteriological results of the last three (3) days for which analyses have been completed. No sample shall exceed two thousands three hundred (2300) organisms per one hundred (100) milliliters in any confirmed sample.  |

**Table F-2 Level of Wastewater Disinfection and Resulting Buffer Zones**

| <i>DEGREE OF TREATMENT</i>                             | Primary (Disinfected to <230 CFU/100) ml <sup>(1)</sup> |
|--|---|
| <i>FEATURE OF INTEREST</i>                             | Class D   |
| Inhabited Dwellings (feet)                             | 500   |
| Areas Accessible to Public (feet)                      | 300   |
| Public Water Supply (feet)                             | 1,000   |
| Private Potable Water Supply (feet)                    | 500   |
| Natural Surface Water Bodies                           | 100   |
| Man-made Surface Water (Irrigation canals, reservoirs) | 50  |
| FENCING TYPE   | Three-Wire Pasture Fence                                |
| Required   | Yes   |
| POSTING <sup>(2)</sup>                                 | Class D   |
| Required   | Yes   |

(1) The median number of total coliform organisms does not exceed two hundred thirty (230) per one hundred (100) milliliters, as determined from the bacteriological results of the last three (3) days for which analyses have been completed. No sample shall exceed two thousands three hundred (2300) organisms per one hundred (100) milliliters in any confirmed sample.

(2) When using Class D recycled water for irrigation, the personnel at the use area must be notified that the water used is recycled water and is not safe for drinking. For the public, signs must be posted around the perimeter of the irrigation site stating that recycled water is used and is not safe for drinking or human contact. Signs shall be posted and must state "Warning: Recycled Water - Do Not Enter", or equivalent signage both in English and in Spanish, posted every 500 feet and at every corner of the outer perimeter of the site.

## **G Monitoring Requirements**

### Section G Notes

- G-1 The Permittee shall monitor the operation and efficiency of all treatment facilities. The Permittee shall monitor and measure parameters as stated in the Facility Monitoring Table in this section.
- G-2 Samples shall be collected at times and locations that represent typical environmental and process parameters being monitored.
- G-3 Wastewater samples shall consist of 24-hour composites collected using an automated sampler, or as an alternative, a minimum of four (4) individual aliquots evenly distributed by volume and over time.
- G-4 The Permittee shall employ approved analytical methods.
- G-5 Ground Water Monitoring Procedure: Ground water monitoring wells shall be purged a minimum of three (3) casing volumes and/or until field measurements of at least two of pH, specific conductance and temperature meet the following conditions: successive temperature values measured at least five minutes apart are within one degree Celsius of each other, pH values for two successive measurements measured at least five minutes apart are within 0.2 units of each other, and two successive specific conductance values measured at least five minutes apart are within 10% of each other. This procedure will determine when the wells are suitable for sampling for constituents required by the permit. Other procedures, such as low flow sampling, may be considered by DEQ for approval. The depth to water (static water level) shall be measured prior to purging the well.
- G-6 For fields >15 acres, the Permittee shall collect soil samples within each SMU at a minimum of ten random (10) locations. At each sample location, individual samples must be taken at three depths, 0-12 inches, 12-24 inches, and 24-36 inches (or refusal). Samples from the same depth within a single SMU may be composited by depth to yield a minimum of three (3) samples per SMU for analysis. Sample locations must be spatially representative of the unit; must consider site-specific characteristics such as topography and drainage; and must exclude unusual areas such as erosion channels, dead furrows and fence lines.
- G-7 Data collected and submitted shall include, but not be limited to, the parameters and frequencies in the following table.
- G-8 Monitoring locations are defined in Appendix 1, "Environmental Monitoring Serial Numbers".

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**Table G-1 Facility Monitoring Table**

| FREQUENCY  | MONITORING POINT   | DESCRIPTION AND TYPE OF MONITORING                            | PARAMETERS  |
|--|--|---|---|
| <b>Wastewater Monitoring</b>                               |  |   |   |
| Daily  | Flow meter or other DEQ approved method for each HMU               | Volume applied to each HMU                                    | MG and ac-in recorded daily and reported monthly  |
| Monthly  | Process wastewater - Active WW Sampling Point in Table K-2         | WW Quality, 24 hour composite sample (see note G-3)           | TKN, NO <sub>3</sub> -N (nitrate nitrogen), NO <sub>2</sub> <sup>-</sup> -N (nitrite nitrogen), Total-P, EC, pH, TDS, Total Coliform                              |
| <b>Supplemental Irrigation Water Monitoring</b>            |  |   |   |
| Daily  | Flow meter or other DEQ approved method for each HMU               | Volume applied  | MG and ac-in  |
| Twice Spring and Fall (first year of permit issuance only) | SIW sampling point in Table K-3                                    | Composite or grab sample                                      | TKN, NO <sub>3</sub> -N (nitrate nitrogen), NO <sub>2</sub> <sup>-</sup> -N (nitrite nitrogen), Total-P, EC, pH, TDS  |
| <b>Groundwater Monitoring</b>                              |  |   |   |
| Twice Annually Spring and Fall <sup>1</sup>                | Active GW monitoring well sampling points in Table K-6             | Grab sample of groundwater                                    | Na, K, Ca, Mn, Total coliform, CO <sub>3</sub> <sup>2-</sup> (carbonate), HCO <sub>3</sub> <sup>-</sup> (bicarbonate), NO <sub>3</sub> -N (nitrate nitrogen), TDS |
| Annually   | Domestic wells within ¼ mile of land application site <sup>2</sup> | Grab Sample See Section note G-5                              | NO <sub>3</sub> -N, Total-P, SO <sub>4</sub> <sup>-</sup> , Cl <sup>-</sup> , total and dissolved Fe, total and dissolved Mn, TDS                                 |
| <b>Irrigation Management</b>                               |  |   |   |
| Annually – prior to GS                                     | Each HMU   | Calculate IWR for each crop type for each month during the GS | Volume (MG & inches) - each HMU   |
| <b>Soil Monitoring</b>                                     |  |   |   |
| Annually prior to the growing season                       | Each Soil Management Unit listed as active in Table K-4            | See Section Note G-6  | pH, plant available P (Olsen Method), NO <sub>3</sub> -N (nitrate nitrogen), NH <sub>4</sub> <sup>+</sup> -N (ammonium nitrogen), EC, %OM                         |
| First year of permit only                                  | Each Soil Monitoring Unit  | See Section Note G-6  | SAR, DTPA-Fe, DTPA-Mn   |

<sup>1</sup> Sampling month not specified to allow flexibility to sample at times when water is present and when the wells are accessible.

<sup>2</sup> Annual domestic well sampling is recommended but is not required and is applicable only where permission is obtained from the owner.

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| <b>Crop Monitoring</b>                 |  |  |  |
|--|--|--|--|
| GS – each harvest                      | Each Crop type, each HMU   | Crop yield (crop tissue mass removal)  | Tons/acre, Bu/acre, etc. as appropriate and total yield per HMU reported on a dry basis  |
| GS – each harvest                      | Each Crop type, each HMU   | Crop tissue analysis (composited sample of harvested portion, each crop per harvest)<br><u>or</u> crop nutrient concentration values from standard tables <sup>3</sup><br>Calculate nitrogen/ash removal | Nitrogen (nitrate, protein), total-P, and ash removed (lbs/acre-yr), reported on a dry basis   |
| <b>Site &amp; Equipment Monitoring</b> |  |  |  |
| Annually                               | Flow measuring devices   | Assess function and accuracy   | Document accuracy of flow meters annually or as recommended by manufacturer  |
| Annually                               | Mechanical cross-connection control devices at all points of interconnection between WW and potable or surface water sources | Testing of backflow prevention devices   | Document testing of devices. Report date(s) and results of the test (pass or fail). Report failed tests and the date of repair or replacement. |
| <b>Calculations &amp; Reporting</b>    |  |  |  |
| Annually                               | Each HMU   | Report nitrogen removal for three prior reporting years  | Lb/acre-year   |
| Annually                               | Each HMU   | Calculate and report typical (median) nitrogen removal   | Lb/acre-year   |
|  |  | Calculate and report permit limit (150% of typical crop uptake – See Definition C)   | Lb/acre-year   |
|  |  | Calculate crop nitrogen, phosphorus, and ash removal   | Total lbs removed and Lb/acre-year   |
|  |  | Calculate wastewater loading   | MG and inches  |
|  |  | Calculate nitrogen loading from wastewater   | Lb/acre-year   |
|  |  | Report nitrogen loading from supplemental fertilizer (if any)  | Lb/acre-year   |
|  |  | Calculate sum of nitrogen loading from all sources   | Lb/acre-year   |

<sup>3</sup> The Permittee may choose to use values from standard tables for crop nutrient concentration values so long as the published moisture content can be used from the table.

## ***H Standard Reporting Requirements***

- H-1. The Permittee shall submit an annual wastewater-land application site performance report (“Annual Report”) no later than January 31 of each year, which shall cover the previous operating year (November 1 through October 31). The annual report shall include an interpretive discussion of monitoring data (ground water, soils, hydraulic loading, wastewater etc.) with particular respect to environmental impacts by the facility and shall be prepared by a competent environmental professional.
- H-2. The annual report shall include all laboratory analytical results for environmental sampling required or recommended by Table G-1 Facility Monitoring Table (including analytical results from sampling conducted at frequencies greater than those prescribed).
- H-3. The annual report shall include all results from system monitoring and calculations required by Table G-1 Facility Monitoring Table.
- H-4. Notice of completion of any work required in Section E shall be submitted to the Department within 30 days of completion. The status of all other work described in Table E-1 shall be submitted with the annual report.
- H-5. The annual report shall be submitted to the Engineering Manager in the DEQ regional Office listed below

Pocatello Regional Office  
444 Hospital Way, #300  
Pocatello, ID 83201  
208-236-6160

## ***I Standard Permit Conditions: Procedures and Reporting***

- I-1. The Permittee shall at all times properly maintain and operate all structures, systems, and equipment for treatment, operational controls and monitoring, which are installed or used by the Permittee to comply with all conditions of the permit or the Idaho Department of Environmental Quality Rules, IDAPA 58.01.17, "Recycled Water Rules," in conformance with a DEQ approved, current Plan of Operations (Operations and Maintenance Manual) which describes in detail the operation, maintenance, and management of the wastewater treatment system. This Plan of Operations shall be updated as necessary to reflect current operations.
- I-2. Wastewater(s) or recharge waters applied to the land surface must be restricted to the premises of the application site unless permission has been obtained from the DEQ authorizing a discharge into the waters of the State as stated in IDAPA 58.01.02.600.02.
- I-3. Wastewater must not create a public health hazard or nuisance condition as stated in IDAPA 58.01.02.600.03. In order to prevent public health hazards and nuisance conditions the Permittee shall:
- Apply wastewater as evenly as practicable to the treatment area;
  - Prevent organic solids (contained in the wastewater) from accumulating on the ground surface to the point where the solids putrefy or support vectors or insects; and
  - Prevent wastewater from ponding in the fields to the point where the ponded wastewater putrefies or supports vectors or insects.
- I-4. The Permittee shall:
- Manage the wastewater land application treatment site as an agronomic operation where vegetative cover is grown and harvested or grazed to utilize the nutrients and minerals in the wastewater, and,
  - Not hydraulically overload any particular areas of the wastewater land application treatment site.
- I-5. All waste solids, including dredge and sludge wastes, shall be utilized or disposed in a manner which will prevent their entry, or the entry of contaminated drainage or leachate therefrom, into the waters of the state such that health hazards and nuisance conditions are not created; and to prevent impacts on designated beneficial uses of the ground water and surface water. The Permittee's management of waste solids shall be governed by the terms of the DEQ approved Waste Solids Management Plan, which upon approval shall be an enforceable portion of this permit.
- I-6. If the Permittee intends to continue operation of the permitted facility after the expiration of an existing permit, the Permittee shall apply for a new permit at least six months prior to the expiration date of the existing permit in accordance with the Idaho Department of Environmental Quality Rules, IDAPA 58.01.17, "Recycled Water Rules" and include seepage tests on all lagoons per latest DEQ procedures.
- I-7. The Permittee shall allow the Director of the Idaho Department of Environmental Quality or the Director's designee (hereinafter referred to as Director), consistent with Title 39, Chapter 1, Idaho Code, to:
- Enter the permitted facility,
  - Inspect any records that must be kept under the conditions of the permit.
  - Inspect any facility, equipment, practice, or operation permitted or required by the permit.
  - Sample or monitor for the purpose of assuring permit compliance, any substance or any parameter at the facility.
- I-8. The Permittee shall report to the Director under the circumstances and in the manner specified in this section:
- In writing thirty (30) days before any planned physical alteration or addition to the permitted facility or activity if that alteration or addition would result in any significant change in information that was submitted during the permit application process.
  - In writing thirty (30) days before any anticipated change which would result in non-compliance with any permit condition or these regulations.
  - Orally within twenty-four (24) hours from the time the Permittee became aware of any non-compliance which may endanger the public health or the environment at telephone numbers provided in the permit by the Director (see below)
    - Pocatello Regional Office: 236-6160 Emergency 24 Hour Number: 1-800-632-8000

- d. In writing as soon as possible but within five (5) days of the date the Permittee knows or should know of any non-compliance unless extended by the DEQ. This report shall contain:
    - i) A description of the non-compliance and its cause;
    - ii) The period of non-compliance including to the extent possible, times and dates and, if the non-compliance has not been corrected, the anticipated time it is expected to continue; and
    - iii) Steps taken or planned to reduce or eliminate reoccurrence of the non-compliance.
  - e. In writing as soon as possible after the Permittee becomes aware of relevant facts not submitted or incorrect information submitted, in a permit application or any report to the Director. Those facts or the correct information shall be included as a part of this report.
- I-9. The Permittee shall take all necessary actions to prevent or eliminate any adverse impact on the public health or the environment resulting from permit noncompliance.
- I-10. The Permittee shall determine (on an on-going basis) if any noxious weed problems relate to the permitted sites. If problems are present, coordinate with the Idaho Department of Agriculture or the local County authority regarding their requirements for noxious weed control. Also address these control operations in an update to the Plan of Operation / Operations and Maintenance Manual.

## **J Standard Permit Conditions: Modifications, Violation, and Revocation**

- J-1 The Permittee shall furnish to the Director within reasonable time, any information including copies of records, which may be requested by the Director to determine whether cause exists for modifying, revoking, re-issuing, or terminating the permit, or to determine compliance with the permit or these regulations.
- J-2 Both minor and major modifications may be made to this permit as stated in IDAPA 58.01.17.700.01 and 02 with respect to any conditions stated in this permit upon review and approval of the DEQ.
- J-3 Whenever a facility expansion, production increase or process modification is anticipated which will result in a change in the character of pollutants to be discharged or which will result in a new or increased discharge that will exceed the conditions of this permit, or if it is determined by the DEQ that the terms or conditions of the permit must be modified in order to adequately protect the public health or environment, a request for either major or minor modifications must be submitted together with the reports as described in Section H. *Standard Reporting Requirements*, and plans and specifications for the proposed changes. No such facility expansion, production increase or process modification shall be made until plans have been reviewed and approved by the DEQ and a new permit or permit modification has been issued.
- J-4 Permits shall be transferable to a new owner or operator provided that the Permittee notifies the Director by requesting a minor modification of the permit before the date of transfer.
- J-5 Any person violating any provision of the Idaho Department of Environmental Quality Rules, IDAPA 58.01.17, "Recycled Water Rules", or any permit or order issued there under 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.
- J-6 The Director may revoke a permit if the Permittee violates any permit condition or the Idaho Department of Environmental Quality Rules, IDAPA 58.01.17, "Recycled Water Rules".
- J-7 Except in cases of emergency, the Director shall issue a written notice of intent to revoke to the Permittee prior to final revocation. Revocation shall become final within thirty-five (35) days of receipt of the notice by the Permittee, unless within that time the Permittee request an administrative hearing in writing to the Board of Environmental Quality pursuant to the Rules of Administrative Procedures contained in IDAPA 58.01.23.
- J-8 If, pursuant to Idaho Code § 67-5247, the Director finds the public health, safety or welfare requires emergency action, the Director shall incorporate findings in support of such action in a written notice of emergency revocation issued to the Permittee. Emergency revocation shall be effective upon receipt by the Permittee. Thereafter, if requested by the Permittee in writing, a revocation hearing before the Board of Environmental Quality shall be provided. Such hearings shall be conducted in accordance with the Rules of Administrative Procedures contained in IDAPA 58.01.23.
- J-9 The provisions of this permit are severable and if a provision or its application is declared invalid or unenforceable for any reason, that declaration will not affect the validity or enforceability of the remaining provisions.
- J-10 The Permittee shall notify the DEQ at least six (6) months prior to permanently removing any permitted land application facility from service, including any treatment, storage, or other facilities or equipment associated with the land application site. Prior to commencing closure activities, the Permittee shall: a) participate in a pre-site closure meeting with the DEQ; b) develop a site closure plan that identifies specific closure, site characterization, or cleanup tasks with scheduled task completion dates in accordance with agreements made at the pre-site closure meeting; and c) submit the completed site closure plan to the DEQ for review and approval within forty-five (45) days of the pre-site closure meeting. The Permittee must complete the DEQ approved site closure plan.

## K Appendices

### Environmental Monitoring Serial Numbers

Table K-1 Hydraulic Management Units

| Serial Number                              | Hydraulic Management Unit Description<br>(Common Name) | Acres | Active HMU?                         |
|--|--|-------|-------------------------------------|
| Field Number 1<br>(MU-003401) <sup>4</sup> | Management Unit<br>(Primary Land Application Use)      | 40    | <input type="checkbox"/>            |
| Field Number 2<br>(MU-003402) <sup>4</sup> | Management Unit<br>(Occasional Use Site)               | 20    | <input type="checkbox"/>            |
| MU-003403                                  | Hydraulic Management Unit                              | 70    | <input checked="" type="checkbox"/> |

Table K-2 Wastewater Sampling Points

| Serial Number  | Description of Wastewater Sampling Location                               | Active Monitoring Point?            |
|--|---|-------------------------------------|
| No Assigned<br>Serial Number<br>(WW-003401) <sup>4</sup> | Wastewater Sampling Point<br>(Chlorination Building)                      | <input type="checkbox"/>            |
| WW-003402  | Wastewater Sampling Point<br>(Pump Building at the Winter Storage Lagoon) | <input checked="" type="checkbox"/> |

Table K-3 Supplemental Irrigation Water Sampling Points

| Serial Number  | Surface Water Sampling Points<br>Description of Location | Active Monitoring Point?            |
|--|--|-------------------------------------|
| No Assigned<br>Serial Number<br>(SW-003401) <sup>4</sup> | Unnamed Irrigation Canal                                 | <input type="checkbox"/>            |
| SW-003402  | Topaz Irrigation Canal                                   | <input checked="" type="checkbox"/> |

<sup>4</sup> The Serial Numbers in parentheses are assigned here to denote that the new serial numbers are the second in the series. The first numbers in the series, had they been assigned, would have been the numbers ending in 1. Information associated with the previous permit will be associated with serial numbers ending in 1 even if those numbers were not officially assigned in the previous permit.

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Table K-4 Soil Monitoring Units

| Serial Number                              | Soil Monitoring Units Description of Location | Associated Hydraulic Management Unit | Acres | Active Monitoring Point?            |
|--|---|--------------------------------------|-------|-------------------------------------|
| Field Number 1<br>(SU-003401) <sup>4</sup> | Land Application Field                        | (MU-003401) <sup>4</sup>             | 40    | <input type="checkbox"/>            |
| Field Number 2<br>(SU-003402) <sup>4</sup> | Land Application Field                        | (MU-003402) <sup>4</sup>             | 20    | <input type="checkbox"/>            |
| SU-003403                                  | Land Application Field                        | MU-003403                            | 70    | <input checked="" type="checkbox"/> |

Table K-5 Wastewater Lagoons

| Serial Number | Wastewater Lagoon Description of Location | Design Capacity Million Gallons       | Active Monitoring Point?            |
|---------------|---|---------------------------------------|-------------------------------------|
| LG-003401     | Cell 1                                    | 2.8                                   | <input checked="" type="checkbox"/> |
| LG-003402     | Cell 2                                    | 3.9                                   | <input checked="" type="checkbox"/> |
| LG-003403     | Cell 3                                    | 1.7                                   | <input checked="" type="checkbox"/> |
| LG-003404     | Cell 4                                    | 7.1 (6ft. depth)<br>10.7 (9ft. depth) | <input checked="" type="checkbox"/> |
| LG-003405     | Storage Lagoon                            | 33                                    | <input checked="" type="checkbox"/> |

Table K-6 Monitoring Well Sampling Points

| Serial Number | Monitoring Well Description of Location | Position: Upgradient or Downgradient | Active Monitoring Point? |
|---------------|---|--------------------------------------|--------------------------|
| GW-003401     | Roberts Well                            | D                                    | <input type="checkbox"/> |
| GW-003402     | Flick Well                              | D                                    | <input type="checkbox"/> |
| GW-003403     | Community Well                          | D                                    | <input type="checkbox"/> |

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| Serial Number | Monitoring Well Description of Location | Position: Upgradient or Downgradient | Active Monitoring Point?            |
|---------------|---|--------------------------------------|-------------------------------------|
| GW-003404     | Supply Well at the Chlorinator Building | Downgradient from treatment lagoons  | <input checked="" type="checkbox"/> |
| GW-003405     | Monitoring Well 1                       | U                                    | <input checked="" type="checkbox"/> |
| GW-003406     | Monitoring Well 2                       | D                                    | <input checked="" type="checkbox"/> |
| GW-003407     | Monitoring Well 3                       | D                                    | <input checked="" type="checkbox"/> |

# Appendix A

## Facility Maps

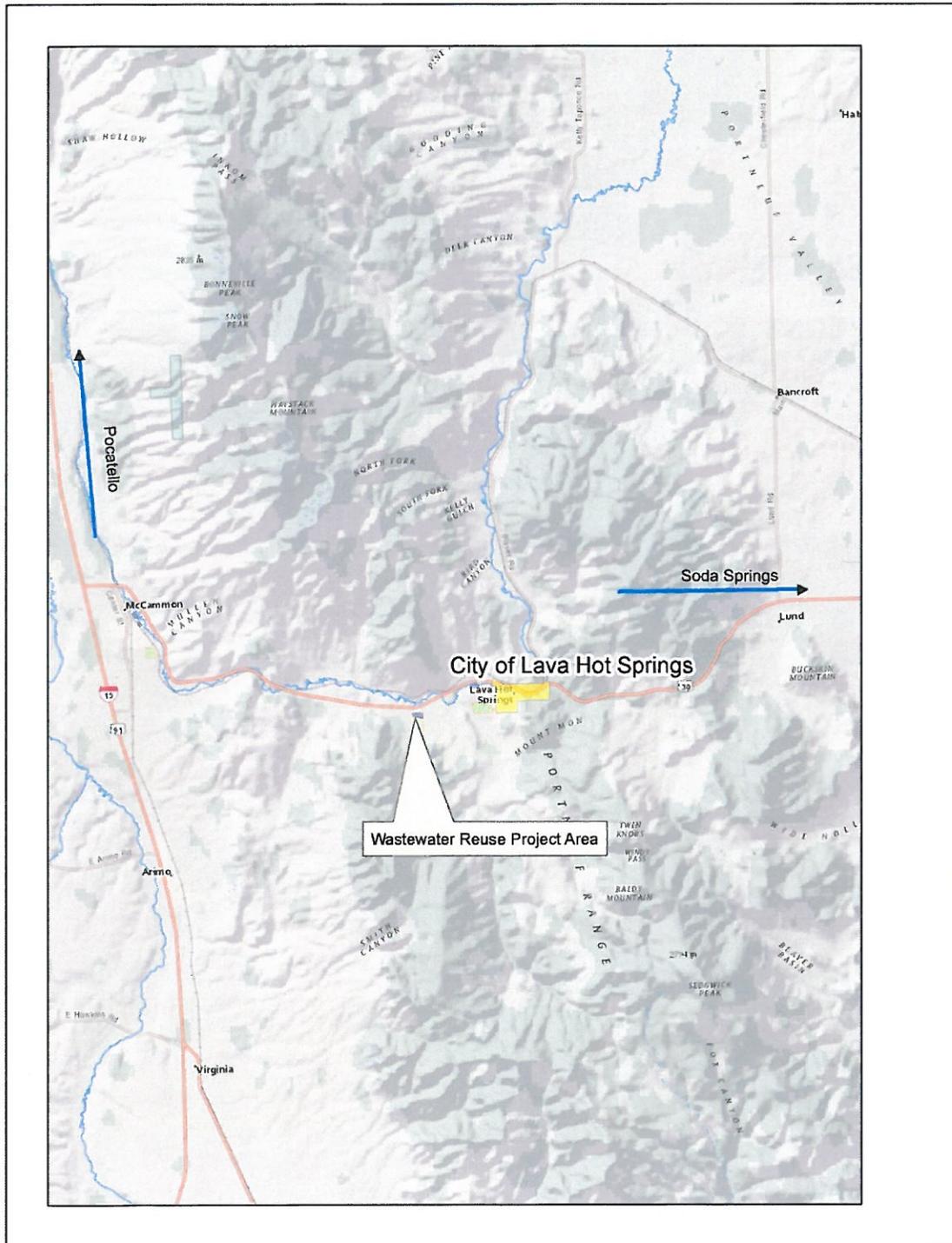


Figure A-1. City of Lava Hot Springs land application vicinity map

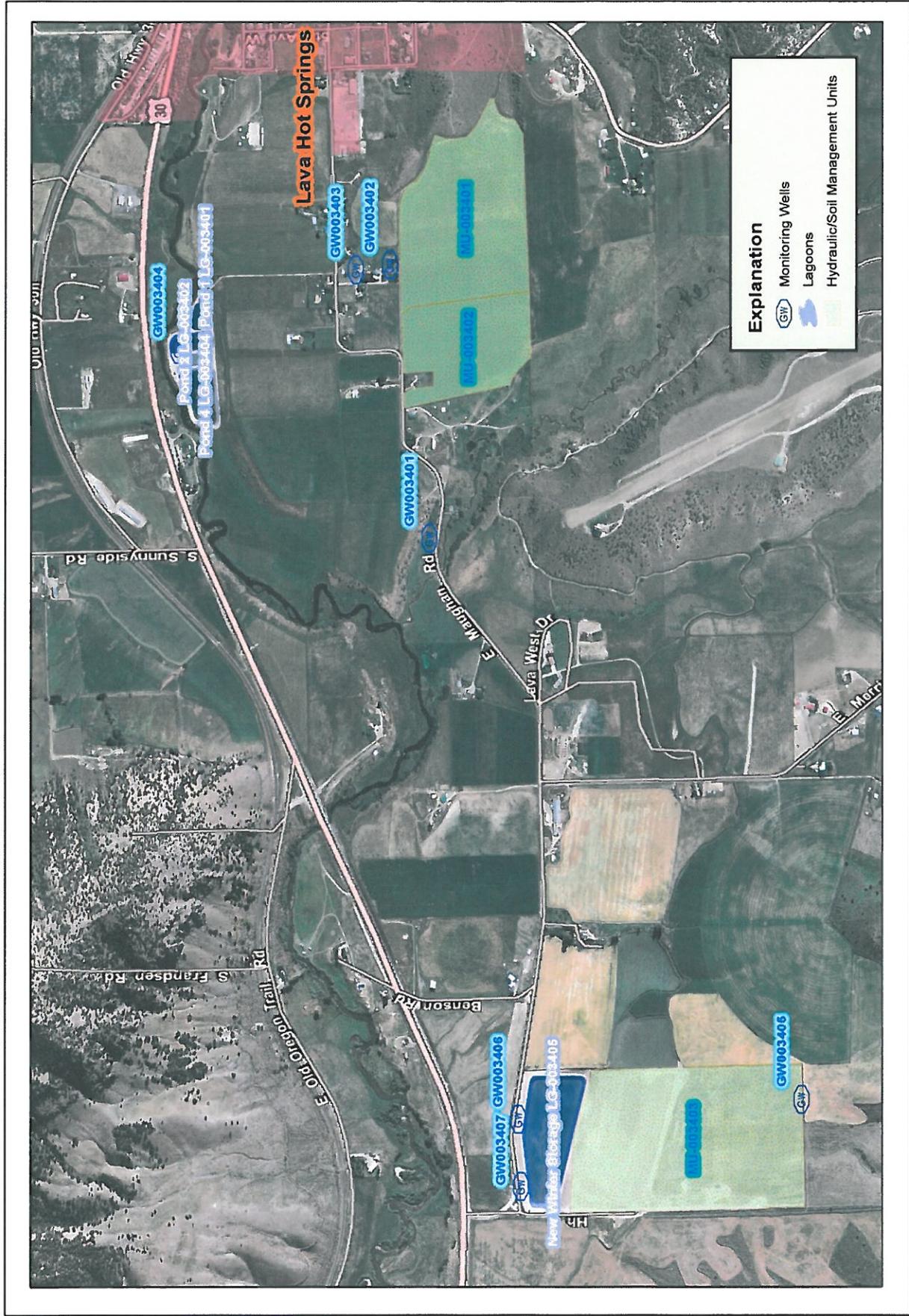


Figure A-2. City of Lava Hot Springs area map showing the former land application sites, the new land application site, lagoons, and monitoring well locations.