

Official Draft Public Notice Version **June 1, 2026**

The findings, determinations, and assertions contained in this document are not final and subject to change following the public comment period.

**STATE OF UTAH
DIVISION OF WATER QUALITY
DEPARTMENT OF ENVIRONMENTAL QUALITY
SALT LAKE CITY, UTAH**

Permit Order
Great Salt Lake Mineral Extraction Facility
Operator Certification Decision No. UTGSL-OCD-001

Operator: Waterleaf Resources, LLC

Facility: Great Salt Lake Lithium Project Commercial Plant

Location: Western Slope Promontory Mountains
Unincorporated Box Elder County
Discharge located at latitude 41° 26' 44.47" and longitude
112° 42' 25.25"

Effective Date: TBD

Expiration Date: TBD

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I. Definitions

- A. "Application for Operator Certification Approval" or "Application" means a request for approval of an operator's certification that its operations will not negatively impact biota or chemistry of Great Salt Lake, and includes the specific information detailed in Utah Admin. Code R317-16-3 and R317-16-5.
- B. "Certification Decision" includes the following:
 - 1. "Operator Certification Approval" means a permit order, as defined in Utah Code 19-1-301.5(1)(f)(i), indicating the director's approval of an operator's certification.
 - 2. "Operator Certification Denial" means a permit order, as defined in Utah Code 19-1-301.5(1)(f)(i), indicating the director's denial of an operator's certification.
- C. "Director" means the director of the Utah Division of Water Quality.
- D. "Discharge" means any water, substance, or pollution placed into a receiving water; which may include any combination of treated, processed, or returned waters.
- E. "Division" means the Utah Division of Water Quality.
- F. "Feasibility Assessment" means the same as that term defined in Title R652.
- G. "FFSL" means the Utah Department of Natural Resources, Division of Forestry, Fire, and State Lands.
- H. "GSL" means Great Salt Lake.
- I. "Negative Impact" includes any activity or action that:
 - 1. causes pollution, or negatively alters the salinity or other aspects of water chemistry in Great Salt Lake;
 - 2. negatively alters the volume or timing of water flows to Great Salt Lake, or water levels in Great Salt Lake or Great Salt Lake wetlands;
 - 3. reduces, degrades, or otherwise negatively alters habitat in and around Great Salt Lake; or
 - 4. results in harmful physiological impacts to Great Salt Lake biota, including disruptions to survival, reproduction, or growth.

- J. "Operator" means a person submitting an application for operator certification approval to pursue extraction of Great Salt Lake elements or minerals to the Division of Water Quality.
- K. "Operator Certification" means a statement by an operator that its operation will not negatively impact the biota or chemistry of Great Salt Lake.
- L. "UPDES" means Utah Pollutant Discharge Elimination System.

II. Executive Summary

Pursuant to Utah Code 65A-6-4 and Utah Admin. Code R317-16, the Director grants Approval of Waterleaf Resources, LLC's (Operator) Application for Operator Certification Approval (See DWQ-2026-002910). Operator Certification Approval is subject to the conditions outlined in this permit order and Utah Admin. Code R317-16. The Director's decision is based on the information provided in the Application, which included the necessary requirements listed in Utah Admin. Code R317-16-5.

Operator was issued a feasibility assessment approval by rule on February 4, 2025. Operator discharged from February 6, 2025 to August 12, 2025. As required by Utah Admin. Code R317-16-3(1), the Operator requested a joint pre-filing meeting with FFSL and the Division which was held on September 5, 2025. Operator submitted an Application for Operator Certification Approval on November 4, 2025 and the Division sent a letter notifying Operator that the Application was incomplete on December 24, 2025 (See DWQ-2025-009997). The Division received the additional application requirements on April 2, 2026. Finally, the Division received the completed application—with accepted redactions—(See DWQ-2026-002910) effective April 2, 2026. Utah Admin. Code R317-16-6(1) requires the Director to issue a Draft Certification Decision within 60 days of a complete application. The Draft Certification Decision was Public Noticed on June 1, 2026, meeting the 60 day requirement.

III. Background

Operator intends to extract lithium from Gunnison Bay, Great Salt Lake, at its Great Salt Lake Lithium Project Commercial Plant (Facility). The Facility was designed and constructed based on the information gathered from the Demonstration Plant and has a flow rate of 20 MGD (millions of gallons per day). This Facility will utilize non-

evaporative ion-exchange (IX) direct lithium extraction (DLE) technology to produce battery-grade lithium products. The Facility will be located along the western slope of the Promontory Mountains, Box Elder County, Utah, and will include an intake and discharge located in Gunnison Bay. The product (Lithium Carbonate Extract) will be shipped off-site for further processing and sale.

A small percentage of freshwater will be added to the process. This water will come from an on-site groundwater well. The Facility utilizes the proprietary Lilac IX DLE technology. The process has three main stages: Intake and Prefiltration, the IX DLE Process, and Eluate Post-Processing.

IV. Monitoring and Reporting

In order to evaluate the potential impact of the operation phase of the project, this Operator Certification Decision includes mandatory monitoring and reporting requirements.

- A. UPDES Permit Monitoring: The associated UPDES Permit UT0026352 will include monitoring of influent and effluent with weekly monitoring and monthly reporting for the parameters listed in Utah Admin. Code R317-16-3(4)(c); Total Residual Chlorine; and Manganese. *See* UPDES Permit No. UT0026352. The monitoring will support the reports required by this Operator Certification Decision in Part IV.(B)(2).
- B. Operator Certification Approval Monitoring and Reporting Requirements: In conjunction with the monitoring and reporting required in the UPDES Permit, the Operator shall ensure that discharges will not contribute to a negative impact on the biota or chemistry of Great Salt Lake (per R317-16-9), the following is required:
 1. Chemical and biological monitoring
 - a. *Sampling and Analysis Plan*: Operator shall be required to submit a Sampling and Analysis Plan (SAP) to the Division for approval within 60 days from issuance of this Operator Certification Approval outlining Operator's proposal to complete all monitoring and reporting.
 - b. *Chemical Monitoring*: Semiannual data summaries of weekly sampling, including detailed comparisons of influent and effluent concentrations, flow rates, and loading for all constituents outlined in Part IV.A above.
 - c. *Biological Monitoring*: Operator is required to conduct quarterly biological monitoring because the feasibility study did not investigate the performance of the operation during all seasons of the year; and did not include the addition of chlorine, which could create compounds that impact biota. The requirement to complete biological monitoring in accordance with an

approved SAP on a quarterly basis is immediately effective upon the Facility initiating discharge.

1. *Reporting:* Operator shall be required to submit the following reporting as part of this Operator Certification Decision:

- a. Semi-Annual Data Summaries: Submit Semi-Annual Data Summaries to the Division within **60 days** of the completion of 6 months of monitoring. The summaries shall include at a minimum: detailed comparisons of influent and effluent concentrations; flow rates; and loading. If, after review of Data Summaries, the Director determines that additional information, data, or comparisons are required, the Director shall notify Waterleaf of the additional requirements in writing. Any written notification shall specify the additional data or reporting required and any expiration date of the additional requirements, if applicable.
- b. Final Report: Operator shall be required to submit a Final Report to the Division within 90 days of completion of 18 months of operation, and for every 18 months thereafter, unless the Director relieves the Operator of monitoring and reporting requirements under this section. The Final Report shall include at a minimum: ongoing demonstration of no negative impacts to GSL, detailed comparisons of influent and effluent concentrations; rationale for any net increase of any parameter; flow rates, loading, and results of quarterly biological monitoring.

4. *Monitoring and Reporting Requirements; Termination:* Operator shall continue to comply with monitoring and reporting requirements under this section (IV.(B)) unless the Director relieves Operator of any or all of these requirements in writing. The Director may relieve the Operator of any of the requirements in subsection IV.(B) after the first 18 month Final Report has been submitted. The Director may grant the relief from monitoring or reporting *sua sponte*, or after written request from operator for relief, suspension or termination of any of all of the requirements. Any request from the Operator to relieve any of the requirements in this section shall be made in writing and contain an explanation and justification as to why the termination of the requirements is appropriate, justifiable, and will not negatively impact GSL.

V. Term of Operator Certification Approval

- A. Term: An Operator Certification Approval shall be effective for a term of ten years from issuance.

- B. Duty to Reapply: Operator shall submit an application for Operator Certification Approval to renew its Operator Certification Approval no later than 180 days before the expiration of the current Operator Certification Approval.

VI. Reevaluation of Operator Certification Approval

- A. Director Notification: If any of the following occur, the Director may notify Operator that it must resubmit, within 60 days, an application for operator certification approval for reevaluation:
1. Operator's failure to fully disclose all relevant facts in the application;
 2. Operator's misrepresentation of any relevant fact at any time;
 3. existence of evidence that the operation is negatively impacting the biota or chemistry of GSL;
 4. request for a major modification in the operator's UPDES permit as defined by Subsection R317-8-5(6);
 5. lapse of the operator's certification approval; or
 6. the emergency trigger as defined in Subsection 65A-17-101(5).
- B. Reevaluation Procedures: The reevaluation will follow all procedures specified in Utah Admin. Code R317-16.

VII. Effect of Operator Certification Approval

- A. Other Permits: Operator Certification Approval does not exempt the Operator from complying with or obtaining any other permits required by federal, state, or local law.
- B. Utah Pollutant Discharge Elimination System (UPDES) Permit: An Operator Certification Approval is required in addition to a UPDES permit for facilities subject to this rule; however, reporting required by the Operator Certification Approval may also be required through the UPDES permit, at the Director's discretion.

VIII. Disclaimers

- A. Discharge Approval: This Operator Certification Decision does not authorize any discharge into GSL, a separate UPDES Permit is required to discharge to waters of the state.

- B. FFSL Approval: This Operator Certification Decision does not constitute or imply approval of any activities that require the approval of the Division of Forestry, Fire and State Lands

IX. Public Notice and Comments

As provided for in Utah Admin. Code R317-16-6(2) this Operator Certification Decision is subject to a minimum of 30 day public notice period. The Director shall consider the comments received during the public notice and comment period in finalizing the Operator Certification Decision, as allowed for in Utah Admin. Code R317-16-6(6).

A. Public Notice Dates:

B. Summary of Public Notice Comments Received:

C. Description of Changes:

X. Operator Certification Approval

The Director approves Operator's Application for Operator Certification Approval and Operator Certification (*See* DWQ-2026-003160) finding that its operations will not negatively impact biota or chemistry of Great Salt Lake. This approval constitutes a final Permit Order as defined in Utah Code 19-1-301.5(1)(f)(i). Operator is required to adhere to the conditions and requirements outlined in this Certification Decision and Utah Admin. Code R317-16.

Candice A. Hasenyager, P.E., Director

Date