

ANTIDegradation REVIEW FORM

UTAH DIVISION OF WATER QUALITY

Instructions

The objective of antidegradation rules and policies is to protect existing high quality waters and set forth a process for determining where and how much degradation is allowable for socially and/or economically important reasons. In accordance with Utah Administrative Code (UAC R317-2-3), an antidegradation review (ADR) is a permit requirement for any project that will increase the level of pollutants in waters of the state. The rule outlines requirements for Level I and Level II ADRs, as well as public comment procedures. This review form is intended to assist the applicant and Division of Water Quality (DWQ) staff in complying with the rule but is not a substitute for the complete rule in R317-2-3.5. Additional details can be found in the *Utah Antidegradation Implementation Guidance* and relevant sections of the guidance are cited in this review form.

ADRs should be among the first steps of an application for a UPDES permit because the review helps establish treatment expectations. The level of effort and amount of information required for the ADR depends on the nature of the project and the characteristics of the receiving water. To avoid unnecessary delays in permit issuance, the Division of Water Quality (DWQ) recommends that the process be initiated at least one year prior to the date a final approved permit is required.

DWQ will determine if the project will impair beneficial uses (Level I ADR) using information provided by the applicant and whether a Level II ADR is required. The applicant is responsible for conducting the Level II ADR. For the permit to be approved, the Level II ADR must document that all feasible measures have been undertaken to minimize pollution for socially, environmentally or economically beneficial projects resulting in an increase in pollution to waters of the state.

For permits requiring a Level II ADR, this antidegradation form must be completed and approved by DWQ before any UPDES permit can be issued. Typically, the ADR form is completed in an iterative manner in consultation with DWQ. The applicant should first complete the statement of social, environmental and economic importance (SEEI) in Part C and determine the parameters of concern (POC) in Part D. Once the POCs are agreed upon by DWQ, the alternatives analysis and selection of preferred alternative in Part E can be conducted based on minimizing degradation resulting from discharge of the POCs. Once the applicant and DWQ agree upon the preferred alternative, the review is considered complete, and the form must be signed, dated, and submitted to DWQ.

For additional clarification on the antidegradation review process and procedures, please contact Nicholas von Stackelberg (801-536-4374) or Dave Wham (801-536-4337).

Utah Division of Water Quality Antidegradation Review Form

Part A: Applicant Information

Facility Name: Vobev, LLC

Facility Owner: Dave Niacaris

Facility Location: 5454 West 150 South

Form Prepared By: Integral Consulitng Inc.

Outfall Number: 001

Receiving Water: Brighton Canal

What Are the Designated Uses of the Receiving Water (R317-2-6)?

Domestic Water Supply: None
Recreation: None
Aquatic Life: None
Agricultural Water Supply: None
Great Salt Lake: 5A - Gilbert Bay

Category of Receiving Water (R317-2-3.2, -3.3, and -3.4): Category 3

UPDES Permit Number (if applicable): UT0026247

Effluent Flow Reviewed: 0.1944 MGD

Typically, this should be the maximum daily discharge at the design capacity of the facility. Exceptions should be noted.

What is the application for? (check all that apply)

- A UPDES permit for a new facility, project, or outfall.
- A UPDES permit renewal with an expansion or modification of an existing wastewater treatment works.
- A UPDES permit renewal requiring limits for a pollutant not covered by the previous permit and/or an increase to existing permit limits.
- A UPDES permit renewal with no changes in facility operations.

Part B. Is a Level II ADR required?

This section of the form is intended to help applicants determine if a Level II ADR is required for specific permitted activities. In addition, the Executive Secretary may require a Level II ADR for an activity with the potential for major impact on the quality of waters of the state (R317-2-3.5a.1).

B1. The UPDES permit is new or is being renewed and the proposed effluent concentration and loading limits are higher than the concentration and loading limits in the previous permit and any previous antidegradation review(s).

- Yes** (Proceed to Part B2 of the Form)
- No** No Level II ADR is required and there is no need to proceed further with review questions.

B2. Will any pollutants use assimilative capacity of the receiving water, i.e. do the pollutant concentrations in the effluent exceed those in the receiving waters at critical conditions? For most pollutants, effluent concentrations that are higher than the ambient concentrations require an antidegradation review. For a few pollutants, such as dissolved oxygen, an antidegradation review is required if the effluent concentrations are less than the ambient concentrations in the receiving water. (Refer to Section 3.3 of Implementation Guidance)

- Yes** (Proceed to Part B3 of the Form)
- No** No Level II ADR is required and there is no need to proceed further with review questions.

B3. Are water quality impacts of the proposed project temporary and limited (Section 3.3.3 of Implementation Guidance)? Proposed projects that will have temporary and limited effects on water quality can be exempted from a Level II ADR.

- Yes** Identify the reasons used to justify this determination in Part B3.1 and proceed to Part G. No Level II ADR is required.
- No** A Level II ADR is required (Proceed to Part C)

B3.1 Complete this question only if the applicant is requesting a Level II review exclusion for temporary and limited projects (see R317-2-3.5(b)(3) and R317-2-3.5(b)(4)). For projects requesting a temporary and limited exclusion please indicate the factor(s) used to justify this determination (check all that apply and provide details as appropriate) (Section 3.3.3 of Implementation Guidance):

- Water quality impacts will be temporary and related exclusively to sediment or turbidity and fish spawning will not be impaired.

Factors to be considered in determining whether water quality impacts will be temporary and limited:

- a) The length of time during which water quality will be lowered:
- b) The percent change in ambient concentrations of pollutants:
- c) Pollutants affected:
- d) Likelihood for long-term water quality benefits:
- e) Potential for any residual long-term influences on existing uses:
- f) Impairment of fish spawning, survival and development of aquatic fauna excluding fish removal efforts:

Additional justification, as needed:

Level II ADR

Part C, D, E, and F of the form constitute the Level II ADR Review. The applicant must provide as much detail as necessary for DWQ to perform the antidegradation review. Questions are provided for the convenience of applicants; however, for more complex permits it may be more effective to provide the required information in a separate report. Applicants that prefer a separate report should record the report name here and proceed to Part G of the form.

Optional Report Name:

Part C. Is the degradation from the project socially and economically necessary to accommodate important social or economic development in the area in which the waters are located? *The applicant must provide as much detail as necessary for DWQ to concur that the project is socially and economically necessary when answering the questions in this section. More information is available in Section 6.2 of the Implementation Guidance.*

C1. Describe the social and economic benefits that would be realized through the proposed project, including the number and nature of jobs created and anticipated tax revenues.

C2. Describe any environmental benefits to be realized through implementation of the proposed project.

C3. Describe any social and economic losses that may result from the project, including impacts to recreation or commercial development.

C4. Summarize any supporting information from the affected communities on preserving assimilative capacity to support future growth and development.

C5. Please describe any structures or equipment associated with the project that will be placed within or adjacent to the receiving water.

Part D. Identify and rank (from increasing to decreasing potential threat to designated uses) the parameters of concern. *Parameters of concern are parameters in the effluent at concentrations greater than ambient concentrations in the receiving water. The applicant is responsible for identifying parameter concentrations in the effluent and DWQ will provide parameter concentrations for the receiving water. More information is available in Section 3.3.3 of the Implementation Guidance.*

Parameters of Concern:

| Rank | Pollutant | Ambient | | Effluent | |
|------|-----------|-----------------------|-------|-----------------------|-------|
| | | Concentration / Units | Basis | Concentration / Units | Basis |
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

Pollutants Evaluated that are not Considered Parameters of Concern:

| Pollutant | Ambient Concentration | Effluent Concentration | Justification |
|-----------|-----------------------|------------------------|---------------|
| | | | |
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Part E. Alternative Analysis Requirements of a Level II

Antidegradation Review. *Level II ADRs require the applicant to determine whether there are feasible less-degrading alternatives to the proposed project. For new and expanded discharges, the Alternatives Analysis must be prepared under the supervision of and stamped by a Professional Engineer registered with the State of Utah. DWQ may grant an exception from this requirement under certain circumstances, such as the alternatives considered potentially feasible do not include engineered treatment alternatives. More information regarding the requirements for the Alternatives Analysis is available in Section 5 of the Implementation Guidance.*

E1. The UPDES permit is being renewed without any changes to flow or concentrations. Alternative treatment and discharge options including changes to operations and maintenance were considered and compared to the current processes. No economically feasible treatment or discharge alternatives were identified that were not previously considered for any previous antidegradation review(s).

Yes (Proceed to Part F)

No or Does Not Apply (Proceed to E2)

E2. Attach as an appendix to this form a report that describes the following factors for all alternative treatment options 1) a technical description of the treatment process, including construction costs and continued operation and maintenance expenses, 2) the mass and concentration of discharge constituents, and 3) a description of the reliability of the system, including the frequency where recurring operation and maintenance may lead to temporary increases in discharged pollutants. Most of this information is typically available from a Facility Plan, if available.

Report Name:

E3. Describe the proposed method and cost of the baseline treatment alternative. The baseline treatment alternative is the minimum treatment required to meet water quality based effluent limits (WQBEL) as determined by the preliminary or final wasteload analysis (WLA) and any secondary or categorical effluent limits.

E4. Were any of the following alternatives feasible and affordable?

| Alternative | Feasible | Reason Not Feasible/Affordable |
|----------------------------------|-----------------|---------------------------------------|
| Pollutant Trading | Not Applicable | |
| Water Recycling/Reuse | Not Applicable | |
| Land Application | Not Applicable | |
| Connection to Other Facilities | Not Applicable | |
| Upgrade to Existing Facility | Not Applicable | |
| Total Containment | Not Applicable | |
| Improved O&M of Existing Systems | Not Applicable | |
| Seasonal or Controlled Discharge | Not Applicable | |
| New Construction | Not Applicable | |
| No Discharge | No | |

E5. From the applicant's perspective, what is the preferred treatment option?

E6. Is the preferred option also the least polluting feasible alternative?

Yes

No

If no, what were less degrading feasible alternative(s)?

If no, provide a summary of the justification for not selecting the least polluting feasible alternative and if appropriate, provide a more detailed justification as an attachment.

Part F. Optional Information

F1. Does the applicant want to conduct optional public review(s) in addition to the mandatory public review? Level II ADRs are public noticed for a thirty day comment period. More information is available in Section 3.7.1 of the Implementation Guidance.

No

Yes

F2. Does the project include an optional mitigation plan to compensate for the proposed water quality degradation?

No

Yes

Report Name:

Part G. Certification of Antidegradation Review

G1. Applicant Certification

The form should be signed by the same responsible person who signed the accompanying permit application or certification.

Based on my inquiry of the person(s) who manage the system or those persons directly responsible for gathering the information, the information in this form and associated documents is, to the best of my knowledge and belief, true, accurate, and complete.

Print Name: _____

Signature: _____

Date: _____

G2. DWQ Approval

To the best of my knowledge, the ADR was conducted in accordance with the rules and regulations outlined in UAC R-317-2-3.

Print Name: _____

Signature: _____

Date: _____

Supplement to the Antidegradation Review Form

Prepared for
Vobev, LLC
5454 West 150 South
Salt Lake City, UT 84104

Prepared by
The logo for Integral Consulting Inc. features the word "integral" in a bold, lowercase, sans-serif font. A thin, curved line starts from the bottom of the letter 'l' and sweeps upwards and to the right, ending under the letter 'a'. Below the word "integral", the words "consulting inc." are written in a smaller, lowercase, sans-serif font.
2231 E. Murray Holladay Road
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April 3, 2023

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E2. ATTACH AS AN APPENDIX TO THIS FORM A REPORT THAT DESCRIBES THAT FOLLOWING FACTORS FOR ALL ALTERNATIVE TREATMENT OPTIONS 1) A TECHNICAL DESCRIPTIONS OF THE TREATMENT PROCESS, INCLUDING CONSTRUCTION COSTS AND CONTINUED OPERATION AND MAINTENANCE EXPENSES, 2) THE MASS AND CONCENTRATION OF DISCHARGE CONSTITUENTS, AND 3) A DESCRIPTION OF THE RELIABILITY OF THE SYSTEM, INCLUDING THE FREQUENCY WHERE RECURRING OPERATION AND MAINTENANCE MAY LEAD TO TEMPORARY INCREASES IN DISCHARGED POLLUTANTS. 1

E3. DESCRIBE THE PROPOSED METHOD AND COST OF THE BASELINE TREATMENT ALTERNATIVE. THE BASELINE TREATMENT ALTERNATIVE IS THE MINIMUM TREATMENT REQUIRED TO MEET WATER QUALITY BASED EFFLUENT LIMITS (WQBEL) AS DETERMINED BY THE PRELIMINARY OR FINAL WASTELOAD ANALYSIS (WLC) AND ANY SECONDARY OR CATEGORICAL EFFLUENT LIMITS. 1

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Table 1. Pollutants Evaluated That Are Not Considered Parameters of Concern

ACRONYMS AND ABBREVIATIONS

| | |
|-----|---------------------------|
| ADR | Antidegradation Review |
| DWQ | Division of Water Quality |

INTRODUCTION

This document is a supplement to the Utah Division of Water Quality's (DWQ) Antidegradation Review (ADR) Permit. The headings within this document correspond to questions in Part C through Part F of the permit form.

Vobev, LLC, manufactures, fills, stores, and distributes aluminum beverage cans. As described in proceeding sections of the Antidegradation Review Permit, Vobev, LLC, is requesting a discharge of 200,000 gal/day to the Brighton and North Point Canal (Figure 1). This reject water is a result of reverse osmosis concentrate that does not meet canning standards.

PART C

C1. DESCRIBE THE SOCIAL AND ECONOMIC BENEFITS THAT WOULD BE REALIZED THROUGH THE PROPOSED PROJECT, INCLUDING THE NUMBER AND NATURE OF JOBS CREATED AND ANTICIPATED TAX REVENUES.

Economic benefits of the proposed project would help facilitate company growth and production. Currently, Vobev has 247 full time employees and 65 temp-to-hire employees with plans to grow to 394 full time employees in the next 24 months. The proposed project would contribute to this growth by facilitating efficiency in the manufacturing process, allowing the business to focus on canning. Furthermore, hundreds of indirect employees will be created through construction contractors supporting the project. Vobev's expected growth will bolster the local community and positively impact Salt Lake City's economy with estimated tax revenue of \$850,000 for 2023 and \$1.6 million in 2024.

Social benefits of the proposed project would stem from reduced air pollution. Great Salt Lake shrinkage causes low water levels and unearths contaminated dust and pollution found in lakebed sediments. The proposed project discharge (200,000 gallons/day) would flow from Brighton Canal into the Great Salt Lake and supplement water levels, ultimately mitigating air pollution. See response in C2 for an expanded response on this topic.

C2. DESCRIBE ANY ENVIRONMENTAL BENEFITS TO BE REALIZED THROUGH IMPLEMENTATION OF THE PROPOSED PROJECT.

Discharge of water would provide an important supplement to natural ditch flow and increasing water levels in the Great Salt Lake. The Great Salt Lake is a unique ecosystem that provides habitat for 10 million migratory birds, increases precipitation, and supports 80 percent of Utah's wetlands (Baxter and Butler 2020; Wurtsbaugh et al. 2016, 2017; Tavernia et al. 2021; Skiles et al. 2018; Alcott et al. 2012). Low water levels exacerbated by recurring drought, water diversion, and economic use have reduced the size of the lake to a record elevation of 4,188 ft and increased salinity by ~19 percent (GSLAC 2019; Gaddis et al. 2012; UDNR 2022). This has resulted in a loss of biodiversity through ecological degradation. Extra water that can be diverted into the lake would positively impact its ecology, which is why the proposed project fits well with state environmental conservation goals (Utah.gov, no date). Providing supplemental water for the Great Salt Lake would have a positive impact on lake water levels and help facilitate biodiversity growth and resilience.

C3. DESCRIBE ANY SOCIAL AND ECONOMIC LOSSES THAT MAY RESULT FROM THE PROJECT, INCLUDING IMPACTS TO RECREATION OR COMMERCIAL DEVELOPMENT.

There are no expected social or economic losses that will result from the project. No adverse flooding or impacts to wildlife or wetlands are expected. Commercial development will not be impacted by the proposed project.

C4. SUMMARIZE ANY SUPPORTING INFORMATION FROM THE AFFECTED COMMUNITIES ON PRESERVING ASSIMILATIVE CAPACITY TO SUPPORT FUTURE GROWTH AND DEVELOPMENT.

No impacts are projected. The proposed discharge would supplement water levels, which ultimately supports future community growth and development at a large scale across the Salt Lake Valley. If lake levels continue to decline, environmental health factors will stunt Salt Lake Valley's future growth and development (Wurtsbaugh et al. 2016; Wang et al. 2000; Lu et al. 2022). Lake shrinkage can expose lakebed sediment, unearthing heavy metals and organic pollutants that will increase diseases associated with air pollution (Wurtsbaugh et al. 2016; Hassani et al. 2020). In addition, the lake provides ~\$2.5 billion in economic productivity each year and supports 9,000 jobs locally (Bioeconomics 2012). Discharging water into the Brighton Canal system, which supports the lake, could help mitigate health impacts from contaminated sediment and economic losses. The proposed project also aligns with current water conservation ideals and community sentiment surrounding water conservation.

Currently, conservationists, lobbyists, and concerned citizens have implored law makers to supplement low lake water levels. On December 27, 2022, President Joe Biden signed the Saline Lake Ecosystems in the Great Basin States Program Act, which establishes monitoring and assessment programs for the Great Salt Lake (Moore 2022). Other pieces of conservation legislation have been unveiled in 2022, such as HB 33, HB 410, HB 429, HB 242, SB 89, SB110, HB 381, and HB 121. All of these bills promote water conservation and create appropriations near \$500 million (Utah.gov, no date). Supporting healthy water levels is a priority for Utah's environmental health based on the 2022 legislative session. The proposed project will discharge 200,000 gallons of water per day into the Brighton Canal, which flows into the Great Salt Lake. This water will supplement lake levels and, therefore, support future development and community health, and align with Utah State's environmental health goals.

C5. PLEASE DESCRIBE ANY STRUCTURES OR EQUIPMENT ASSOCIATED WITH THE PROJECT THAT WILL BE PLACED WITHIN OR ADJACENT TO THE RECEIVING WATER.

An outfall was placed on the eastern slope of the Brighton and North Point canals for sampling purposes (Outfall 001). The outfall is adjacent to the Vobev facility. At the canal owner's request, Vobev terminated Outfall 001 in a concrete box in the stream bed to minimize damage to the stream bed and provide freeze protection in colder months.

C6. WILL THE DISCHARGE POTENTIALLY IMPACT A DRINKING WATER SOURCE, E.G., CLASS 1C WATERS?

No.

PART D

IDENTIFY AND RANK (FROM INCREASING TO DECREASING POTENTIAL THREAT TO DESIGNATED USES) THE PARAMETERS OF CONCERN.

The ambient water of Brighton Canal is an ephemeral stream that is controlled by well water discharge. Currently, the canal is dry and could not be sampled. Instead, historical records (one sampling event in 1996 for two wells) were used for evaluating pollutants as they present the best available data for current water sources of the Brighton Canal.

No pollutants of concern were identified when comparing ambient water quality data and current reverse osmosis discharge quality. All pollutants are listed in Table 1 with justification as to why they are not considered parameters of concern.

PART E

E1. THE UPDES PERMIT IS BEING RENEWED WITHOUT ANY CHANGES TO FLOW OR CONCENTRATIONS. ALTERNATIVE TREATMENT AND DISCHARGE OPTIONS INCLUDING CHANGES TO OPERATIONS AND MAINTENANCE WERE CONSIDERED AND COMPARED TO THE CURRENT PROCESSES. NO ECONOMICALLY FEASIBLE TREATMENT OR DISCHARGE ALTERNATIVES WERE IDENTIFIED THAT WERE NOT PREVIOUSLY CONSIDERED FOR ANY PREVIOUS ANTIGRADATION REVIEW(S).

Does not apply.

E2. ATTACH AS AN APPENDIX TO THIS FORM A REPORT THAT DESCRIBES THAT FOLLOWING FACTORS FOR ALL ALTERNATIVE TREATMENT OPTIONS 1) A TECHNICAL DESCRIPTIONS OF THE TREATMENT PROCESS, INCLUDING CONSTRUCTION COSTS AND CONTINUED OPERATION AND MAINTENANCE EXPENSES, 2) THE MASS AND CONCENTRATION OF DISCHARGE CONSTITUENTS, AND 3) A DESCRIPTION OF THE RELIABILITY OF THE SYSTEM, INCLUDING THE FREQUENCY WHERE RECURRING OPERATION AND MAINTENANCE MAY LEAD TO TEMPORARY INCREASES IN DISCHARGED POLLUTANTS.

Reject water generated during reverse osmosis for can filing does not require any additional treatment prior to discharge. As shown in Table 1, no pollutants of concern were identified in sampling of reverse osmosis reject water.

Outside of alternative treatment options, one alternative to discharging in the Brighton Canal was assess, but ultimately determined infeasible. Under the direction of the Utah Department of Environmental Quality, Vobev assessed the feasibility of transporting the reverse osmosis reject water to a Salt Lake City wastewater treatment facility. However, given the volume of water (approximately 200,000 gal/day) and the capacity of the wastewater streams currently at the Vobev Facility, the water would need to be containerized and trucked to the wastewater treatment facility. Given the capacity of most water trucks to carry at most 4,000 gallons at a time, there would need to be fifty truckloads of water transported each day to keep up with the reject volume.

E3. DESCRIBE THE PROPOSED METHOD AND COST OF THE BASELINE TREATMENT ALTERNATIVE. THE BASELINE TREATMENT

ALTERNATIVE IS THE MINIMUM TREATMENT REQUIRED TO MEET WATER QUALITY BASED EFFLUENT LIMITS (WQBEL) AS DETERMINED BY THE PRELIMINARY OR FINAL WASTELOAD ANALYSIS (WLC) AND ANY SECONDARY OR CATEGORICAL EFFLUENT LIMITS.

E4. WERE ANY OF THE FOLLOWING ALTERNATIVES FEASIBLE AND AFFORDABLE?

As described in E2, no alternatives were determined feasible and affordable.

E5. FROM THE APPLICANT'S PERSPECTIVE, WHAT IS THE PREFERRED TREATMENT OPTION?

As described in E2, no additional treatment of the reject reverse osmosis water is needed.

E6. IS THE PREFERRED OPTION ALSO THE LEAST POLLUTING FEASIBLE ALTERNATIVE?

The preferred alternative is to discharge the reverse osmosis reject water into the Brighton Canal.

PART F. OPTIONAL INFORMATION

F1. DOES THE APPLICANT WANT TO CONDUCT OPTIONAL PUBLIC REVIEW(S) IN ADDITION TO THE MANDATORY PUBLIC REVIEW? LEVEL II ADRS ARE PUBLIC NOTICED FOR A THIRTY DAY COMMENT PERIOD. MORE INFORMATION IS AVAILABLE IN SECTION 3.7.1 OF THE IMPLEMENTATION GUIDANCE.

No.

F2. DOES THE PROJECT INCLUDE AN OPTIONAL MITIGATION PLAN TO COMPENSATE FOR THE PROPOSED WATER QUALITY DEGRADATION?

No.

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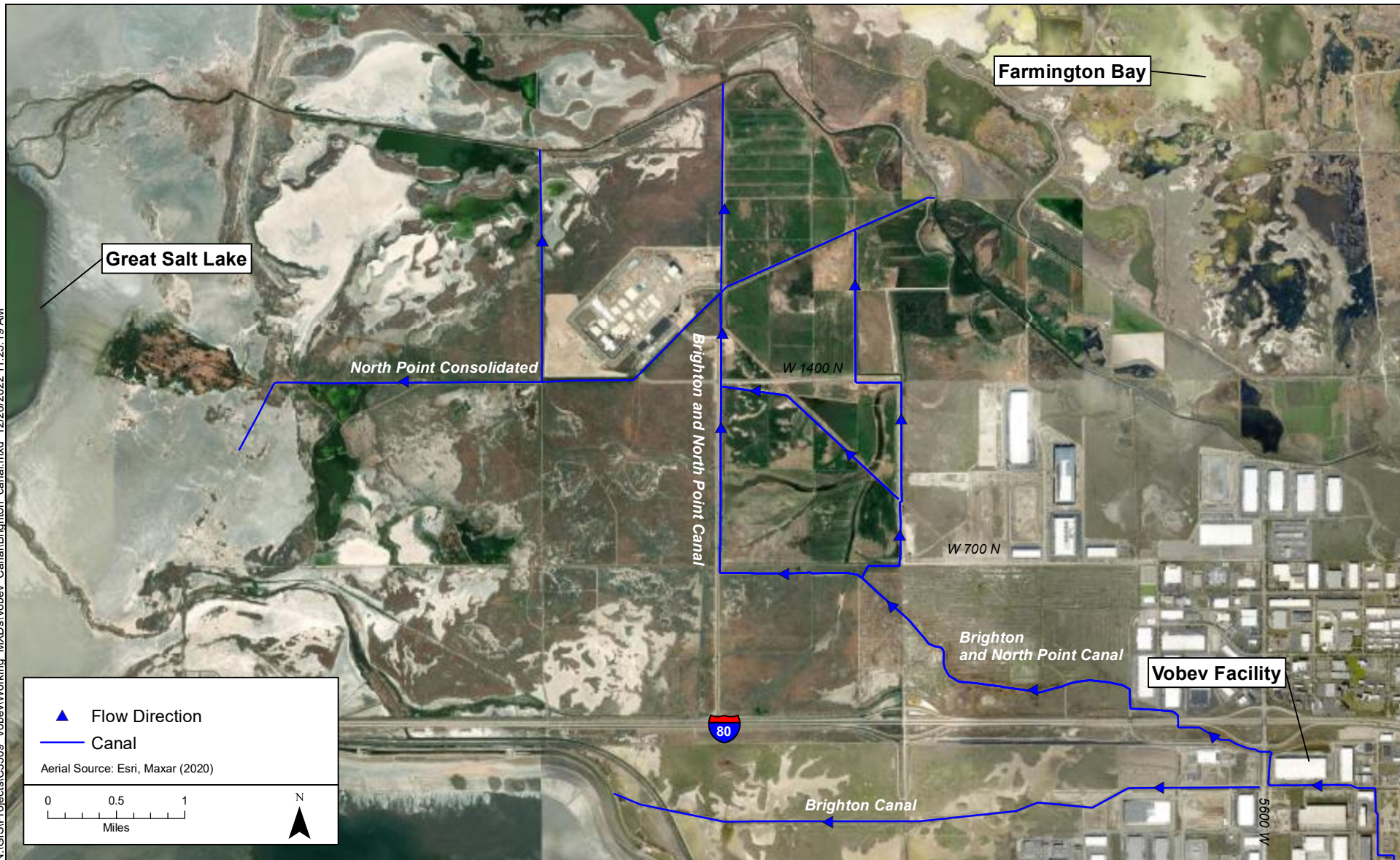


Figure 1.
Brighton Canal
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Table 1. Pollutants Evaluated That Are Not Considered Parameters of Concern

| Pollutant | Sampling Date | Ambient Concentration | Effluent Concentration (mg/L) | Qualifier | Justification |
|----------------------|---------------|-----------------------|-------------------------------|-----------|--|
| Dissolved Oxygen | 2/4/2023 | - | 10.9 at 13.2c | T8 | Pollutant was not evaluated in ambient water. Effluent concentrations are within a supportive, healthy range of dissolved oxygen. ^a |
| | 2/14/2023 | | 9.1 at 19.3c | T8 | |
| Calcium, Dissolved | 2/4/2023 | 86.4 | 148 | | All effluent concentrations are greater than the average ambient concentration, however the overall hardness is very similar in the effluent water and the ambient water. |
| | 2/14/2023 | | 148 | V | |
| | 2/28/2023 | | 187 | | |
| Magnesium, Dissolved | 2/4/2023 | 52.5 | 39.1 | | Average effluent concentration is lower than average ambient concentration. |
| | 2/14/2023 | | 41.1 | V | |
| | 2/28/2023 | | 50.8 | | |
| Hardness | 2/4/2023 | 432 | 532 | | Both ambient and effluent concentrations are considered very hard water. |
| | 2/14/2023 | | 538 | | |
| | 2/28/2023 | | 675 | | |
| Dissolved Solids | 2/14/2023 | 1274 | 699 | | All effluent concentrations are below the average ambient concentration and below the Utah Numeric Criteria for Domestic, Recreation, and Agricultural Uses of 1200 mg/L. ^b |
| | 2/28/2023 | | 953 | | |
| Hexavalent Chromium | 2/14/2023 | - | 0.000237 | J | Pollutant was not evaluated in ambient water. Effluent concentrations are below the national recommended freshwater aquatic life CMC of 0.016 mg/L. ^a |
| | 2/28/2023 | | 0.000578 | | |
| Arsenic, Dissolved | 2/14/2023 | - | 0.00214 | B | Pollutant was not evaluated in ambient water. Effluent concentrations are below the national recommended freshwater aquatic life CMC of 0.34 mg/L. ^a |
| | 2/28/2023 | | 0.00185 | | |
| Barium, Dissolved | 2/14/2023 | - | 0.164 | J O1 | Pollutant was not evaluated in ambient water. Effluent concentrations are below the Utah Numeric Criteria for Domestic, Recreation, and Agricultural Uses of 1.0 mg/L. ^b |
| | 2/28/2023 | | 0.228 | | |

Table 1. Pollutants Evaluated That Are Not Considered Parameters of Concern

| Pollutant | Sampling Date | Ambient Concentration | Effluent Concentration (mg/L) | Qualifier | Justification |
|---------------------|---------------|-----------------------|-------------------------------|------------|---|
| Boron, Dissolved | 2/14/2023 | - | 0.0177 | <i>U</i> | Pollutant was not evaluated in ambient water. Effluent concentrations are below the Utah Numeric Criteria for Domestic, Recreation and Agricultural Uses of 0.75 mg/L. ^b |
| | 2/28/2023 | - | 0.0184 | <i>B J</i> | |
| Copper, Dissolved | 2/14/2023 | - | 0.0011 | | Pollutant was not evaluated in ambient water. Effluent concentrations are below the Utah Numeric Criteria for Domestic, Recreation and Agricultural Uses of 0.2 mg/L. ^b |
| | 2/28/2023 | - | 0.00183 | | |
| Nickel, Dissolved | 2/14/2023 | - | 0.0011 | <i>J</i> | Pollutant was not evaluated in ambient water. Effluent concentrations are below the national recommended freshwater aquatic life chronic CMC of 0.052 mg/L. ^a |
| | 2/28/2023 | - | 0.00123 | <i>J</i> | |
| Selenium, Dissolved | 2/14/2023 | - | 0.0012 | <i>J</i> | Pollutant was not evaluated in ambient water. Effluent concentrations are below the Utah Numeric Criteria for Domestic, Recreation and Agricultural Uses of 0.05 mg/L. ^b |
| | 2/28/2023 | - | 0.00131 | <i>J</i> | |
| Zinc, Dissolved | 2/14/2023 | - | 0.0305 | <i>B</i> | Pollutant was not evaluated in ambient water. Effluent is below the national recommended freshwater aquatic life chronic CMC of 0.12 mg/L. ^a |
| | 2/28/2023 | - | 0.01 | <i>J</i> | |
| Chromium, Trivalent | 2/14/2023 | - | 0.00015 | <i>U</i> | Pollutant was not evaluated in ambient water and the pollutant was not detected in the effluent samples. The method detection limit is below the national recommended freshwater aquatic life chronic CMC of 0.074 mg/L. ^a |
| | 2/28/2023 | - | 0.00015 | <i>U</i> | |
| Mercury, Dissolved | 2/14/2023 | - | 0.0001 | <i>U</i> | Pollutant was not evaluated in ambient water and the pollutant was not detected in the effluent samples. The method detection limit is below the national recommended freshwater aquatic life chronic CMC of 0.00074 mg/L. ^a |
| | 2/28/2023 | - | 0.0001 | <i>U</i> | |

Table 1. Pollutants Evaluated That Are Not Considered Parameters of Concern

| Pollutant | Sampling Date | Ambient Concentration | Effluent Concentration (mg/L) | Qualifier | Justification |
|---------------------|---------------|-----------------------|-------------------------------|-----------|--|
| Aluminum, Dissolved | 2/14/2023 | - | 0.047 | U | Pollutant was not evaluated in ambient water and the pollutant was not detected in the effluent samples. |
| | 2/28/2023 | - | 0.047 | U | |
| Turbidity | 2/14/2023 | -- | 0.431 | | Pollutant was not evaluated in ambient water. Effluent concentrations are below the Utah Numeric Criteria for Domestic, Recreation and Agricultural Uses of 10 mg/L. ^b |
| | 2/28/2023 | - | 0.2 | U | |
| Cadmium | 2/14/2023 | - | 0.00016 | U | Pollutant was not evaluated in ambient water and the pollutant was not detected in the effluent samples. The method detection limit is below the national recommended freshwater aquatic life chronic CMC of 0.00072 mg/L. ^a |
| | 2/28/2023 | - | 0.00016 | U | |
| Chromium | 2/14/2023 | - | 0.0056 | U | Pollutant was not evaluated in ambient water and the pollutant was not detected in the effluent samples. The method detection limit is below the Utah Numeric Criteria for Domestic, Recreation and Agricultural Uses of 0.05 mg/L. ^b |
| | 2/28/2023 | - | 0.0056 | U | |
| Iron, Dissolved | 2/14/2023 | - | 0.0447 | U | Pollutant was not evaluated in ambient water and the pollutant was not detected in the effluent samples. The method detection limit is below the national recommended freshwater aquatic life chronic CMC of 1.0 mg/L. ^b |
| | 2/28/2023 | - | 0.0447 | U | |
| Lead, Dissolved | 2/14/2023 | - | 0.000513 | U | Pollutant was not evaluated in ambient water and the pollutant was not detected in the effluent samples. The method detection limit is below the national recommended freshwater aquatic life chronic CMC of 0.0025 mg/L. ^b |
| | 2/28/2023 | - | 0.000513 | U | |

Table 1. Pollutants Evaluated That Are Not Considered Parameters of Concern

| Pollutant | Sampling Date | Ambient Concentration | Effluent Concentration (mg/L) | Qualifier | Justification |
|-------------------|---------------|-----------------------|-------------------------------|-----------|---|
| Silver, Dissolved | 2/14/2023 | - | 0.000144 | <i>U</i> | Pollutant was not evaluated in ambient water and the pollutant was not detected in the effluent samples. The method detection limit is below the national recommended freshwater aquatic life acute CMC of 0.0032 mg/L. ^a No chronic CMC was listed. |
| | 2/28/2023 | - | 0.000144 | <i>U</i> | |

Notes:

Concentrations measured below the method detection limit are reported as the method detection limit.

Ambient concentrations are reported as an average concentration of Well No. 1 and Well No. 2 (sampled in 1996) which represent the water sources for Brighton Canal.

-- = data not available

CMC = criteria maximum concentration

J = value is estimated

B = sample also found in blank

T8 = sample received too close to holding time expiration

O1 = matrix interference

V = sample concentration too high to evaluate accurate spike recoveries

U = non-detect

^a National Recommended Aquatic Life Criteria Table. <https://www.epa.gov/wqc/national-recommended-water-quality-criteria-aquatic-life-criteria-table>

^b Utah Rule 2: Standards of Quality for Waters of the State. <https://adminrules.utah.gov/public/rule/R317-2/Current%20Rules#>