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STAFF REPORT/SUBSTITUTE ENVIRONMENTAL DOCUMENT FOR AMENDMENTS TO THE WATER QUALITY CONTROL PLAN FOR THE LAHONTAN REGION

Tribal Beneficial Use Designations for the Mono Basin

California Regional Water Quality Control Board, Lahontan Region

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Table of Contents

Table of Figures

1. Introduction to Mono Basin Tribal Beneficial Uses Designation Project

In 2017, the State Water Resources Control Board (State Water Board), adopted definitions for Tribal Beneficial Uses (TBUs) in Final Part 2 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California—Tribal and Subsistence Fishing Beneficial Uses and Mercury Provisions (Resolution No. 2017-0027) ("Mercury Provisions") for use by Regional Water Quality Control Boards (Regional Boards) throughout the state of California. These definitions were incorporated into the Water Quality Control Plan for the Lahontan Region (Lahontan Basin Plan) and are found in Chapter 2, Present and Potential Beneficial Uses. The Mono Basin Tribal Beneficial Uses Designation Project (Mono Basin Project) is an amendment to designate the Tribal Tradition and Culture (CUL) beneficial use to Mono Lake and its tributaries, and to designate Tribal Subsistence Fishing (T-SUB) to Mono Lake.

The Mono Basin Project responds to requests from California Native American Tribes to designate specific waterbodies in the Mono Basin with the Tribal Tradition and Culture (CUL) and Tribal Subsistence Fishing (T-SUB) beneficial uses. The requests from the Tribes were first brought to the Lahontan Regional Water Quality Control Board (Lahontan Water Board) during the 2018 Triennial Review of the Lahontan Basin Plan when several Tribes and other stakeholders submitted comment letters requesting designation of Mono Lake with TBUs (as well as other waterbodies outside the Mono Basin). The Tribes that submitted letters included the Bishop Paiute Tribe, Big Pine Paiute Tribe of Owens Valley, Lone Pine Paiute-Shoshone Tribe, and the Mono Lake Kootzaduka'a Tribe[1], as well as the Owens Valley Indian Water Commission, a consortium of Owens Valley Tribes involved with water issues. The Kootzaduka'a Tribe submitted additional comments during the 2022 Triennial Review that provided supporting information and details regarding Kootzaduka'a Tribal cultural and subsistence practices associated with waterbodies in the Mono Basin (Lange, 2021). California Indian Legal Services also submitted a letter during the 2022 Triennial Review with additional information and supporting references related to Kootzaduka'a Tribal practices in the Mono Basin (California Indian Legal Services, 2021). The Bridgeport Indian Colony submitted a request in February 2023 to designate Bridgeport Canyon Creek, a tributary to Mono Lake, with the CUL use (Glazier, 2023), an action that is included in this project.

Beneficial uses (identified as designated uses under the Clean Water Act) are a component of water quality standards that identify uses of waters of the state that may be protected against water quality degradation. The TBUs were developed with input from Tribes and the public and are the only uses in the Lahontan Basin Plan that specifically mention Native American Tribes.

The definitions for the CUL and T-SUB beneficial uses are the following:

[1] Alternate spellings for the name of the Tribe include Kutsavidokado, Kuzabidikadi, Kucadikadi, Kutzadika'a, or Kuzedika and they have also been identified as Mono Lake Paiute.

Tribal Tradition and Culture (CUL)

Uses of water that support the cultural, spiritual, ceremonial, or traditional rights or lifeways of California Native American Tribes, including, but not limited to: navigation, ceremonies, or fishing, gathering, or consumption of natural aquatic resources, including fish, shellfish, vegetation, and materials.

Tribal Subsistence Fishing (T-SUB)

Uses of water involving the non-commercial catching or gathering of natural aquatic resources, including fish and shellfish, for consumption by individuals, households, or communities of California Native American Tribes to meet needs for sustenance.

Lifeways are defined as any customs, practices, or art of a California Native American Tribe. California Native American Tribe is defined as a federally recognized California tribal government listed on the most recent notice of the Federal Register or a non-federally recognized tribal government on the California Tribal Consultation List maintained by the California Native American Heritage Commission.

State Water Board's 'Final Part 2 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California—Tribal and Subsistence Fishing Beneficial Uses and Mercury Provisions ("Mercury Provisions") state:

"The Tribal Subsistence Fishing and Subsistence Fishing beneficial uses, and the consumption of fish and shellfish component of the Tribal Tradition and Culture beneficial use, relate to the risks to human health from the consumption of noncommercial fish or shellfish. The subsistence fishing beneficial uses (i.e., T-SUB and Subsistence Fishing or SUB) normally involve higher rates of consumption of fish or shellfish than those protected under the Commercial and Sport Fishing (COMM) and the Tribal Tradition and Culture (CUL) beneficial uses. The functions of the CUL, T-SUB and SUB beneficial uses are not to protect or enhance fish populations or aquatic habitats. Fish populations and aquatic habitats are protected and enhanced by other beneficial uses, including but not limited to, Fish Spawning, Migration of Aquatic Organisms, Aquaculture, Warm Freshwater Habitat, and Cold Freshwater Habitat, that are designed to support aquatic habitats for the reproduction or development of fish."

In general, the T-SUB use was established to protect human health against potential exposure to pollutants due to consumption of natural aquatic resources, including fish and shellfish, to meet the needs of sustenance. The T-SUB use normally involves higher rates of consumption of fish or shellfish than those protected under the COMM and CUL beneficial uses. Practices involving consumption at a lesser frequency by Tribes could be included under CUL. The consumption component of the CUL use also relates to risks to human health associated with the consumption of aquatic resources. However, the CUL use includes other components, and protects a broader array of Native American lifeways than simply the risk from such consumption. The focus of the CUL use may often be human health, but unlike the T-SUB use, it can relate to other considerations associated with the protection of that use, such as flow. However, as described in the language adopted by the State Water Board: "The functions of the CUL and T-SUB beneficial

uses are not to protect or enhance fish populations or aquatic habitats. Fish populations and aquatic habitats are protected and enhanced by other beneficial uses, including but not limited to, Fish Spawning, Migration of Aquatic Organisms, Aquaculture, Warm Freshwater Habitat, and Cold Freshwater Habitat, that are designed to support aquatic habitats for the reproduction or development of fish". The CUL and T-SUB uses were not developed to in and of themselves protect aquatic life. The Water Board recognizes the centrality that vital aquatic life has for cultural, spiritual, ceremonial, and traditional rights and lifeways. Reasonable protection of aquatic life will benefit and support cultural practices by Tribes.

In 2020, the Lahontan Water Board adopted a Basin Plan Amendment (BPA) that incorporated the definitions for the TBUs into the Lahontan Basin Plan with Resolution 6RT-2020-0057, however, no waterbodies were designated with those uses at that time. Since then, Lahontan Water Board staff have been conducting outreach to and, in some cases, meeting with Tribes in the Lahontan Region to inform them about the TBUs and the process for designating them. This includes holding a Tribal Summit in June 2022 to share information about the TBUs, receive input, and listen to concerns from Tribes with current or ancestral connections to the Lahontan Region. Staff also solicited requests from Tribes to identify waterbodies for designation with the TBUs. The Mono Basin Project and supporting staff report only address requests for TBU designations for waterbodies in the Mono Basin. Designations for waterbodies in other portions of the Lahontan Region will be addressed in one or more future BPAs.

1.1. Project Description

The Mono Basin Project involves amending the Lahontan Basin Plan to add CUL and T-SUB beneficial use designations to specific waterbodies in the Mono Basin. The T-SUB and CUL designations are proposed for Mono Lake, while CUL designations are proposed for the following waterbodies identified in Lahontan Basin Plan Chapter 2, Table 2.1 within the Mono Hydrologic Unit: Rush Creek (above and below Grant Lake), Grant Lake, Silver Lake, Gull Lake, June Lake, Reversed Creek, Agnew Lake, Gem Lake, Alger Lakes, Mill Creek, Lundy Lake, Blue Lake, Crystal Lake, Oneida Lake, Lee Vining Creek (above and below diversion), Saddlebag Lake, Tioga Lake, Ellery Lake, Gibbs Lake, Kidney Lake, Walker Creek, Walker Lake, Parker Creek, and Mono Lake wetlands and marshes. Additionally, CUL designations are proposed for the following waterbodies not named in the Basin Plan: DeChambeau Creek, Wilson Creek, and Horse Canyon Creek (all are tributary to Mono Lake), and Fern Creek, Yost Creek, Alger Creek, Beartrack Creek, Mine Creek, Spuller Lake, Parker Lake, Sardine Lakes, Greenstone Lake, Conness Lake, Yost Lake, unnamed glacial lakes located on Alger Creek and Rush Creek, and Bridgeport Canyon Creek. The location of the waterbodies proposed for designation are identified by numbers on the maps in Figures 1a and 1b that correspond to the ID numbers associated with the waterbodies listed in Tables 1 and 2 below.

A requirement for designating TBUs by a Regional Board is confirmation from a California Native American Tribe that the designations are appropriate. A California Native American Tribe is defined as: "A federally recognized California tribal government listed on the most recent notice

of the Federal Register or a non-federally recognized California tribal government on the California Tribal Consultation List maintained by the California Native American Heritage Commission (NAHC)". The proposed CUL and T-SUB designations for waterbodies in the Mono Basin have been confirmed as appropriate by Tribes that fit the definition of California Native American Tribes. The Kootzaduka'a Tribe is on the NAHC Tribal Consultation List and has been pursuing federal recognition. The Bridgeport Indian Colony is a federally recognized tribe on the NAHC list that has tribal land near Bridgeport, California. Both Tribes are "California Native American Tribes."

The waterbodies proposed for designation with the CUL and T-SUB uses are based on the written information submitted by the Kootzaduka'a Tribe and on meetings and discussions with Tribal Chairperson Charlotte Lange and Tribal Elder Dean Tonenna. The Bridgeport Indian Colony submitted a request to designate Bridgeport Canyon Creek, a spring-fed tributary that enters Mono Lake from the north. The Bridgeport Indian Colony identified other waterbodies in their request that are not located in the Mono Basin. This current effort to designate TBUs within the Mono Basin is not intended to cover all waterbodies deserving of those designations in the Lahontan Region. Requests from Tribes in the Lahontan Region for waterbodies outside of the Mono Basin will be addressed in the future through a separate project.

Figure 1a and 1b Map of Project Area showing waterbodies proposed for T-SUB and CUL designations. Note that the T-SUB designation is only proposed for Mono Lake (identified as No. 17). Table 1 and 2 provide the names of the waterbodies referenced in the figures by number. Figure 1a depicts the northern portion of the Mono Basin.

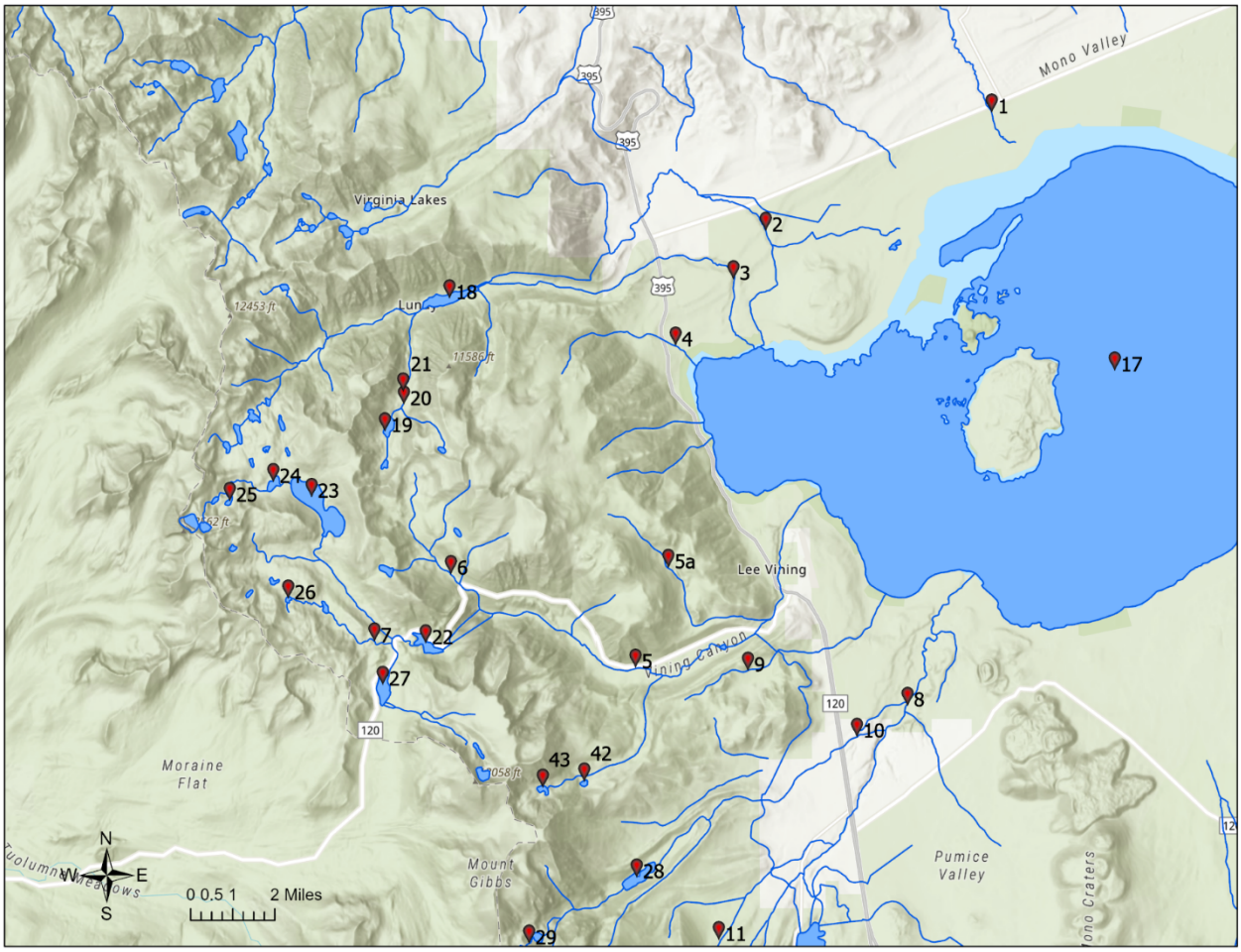


Figure 1b Southern portion of Mono Basin with waterbodies proposed identified by numbers referenced in Table 1 and 2

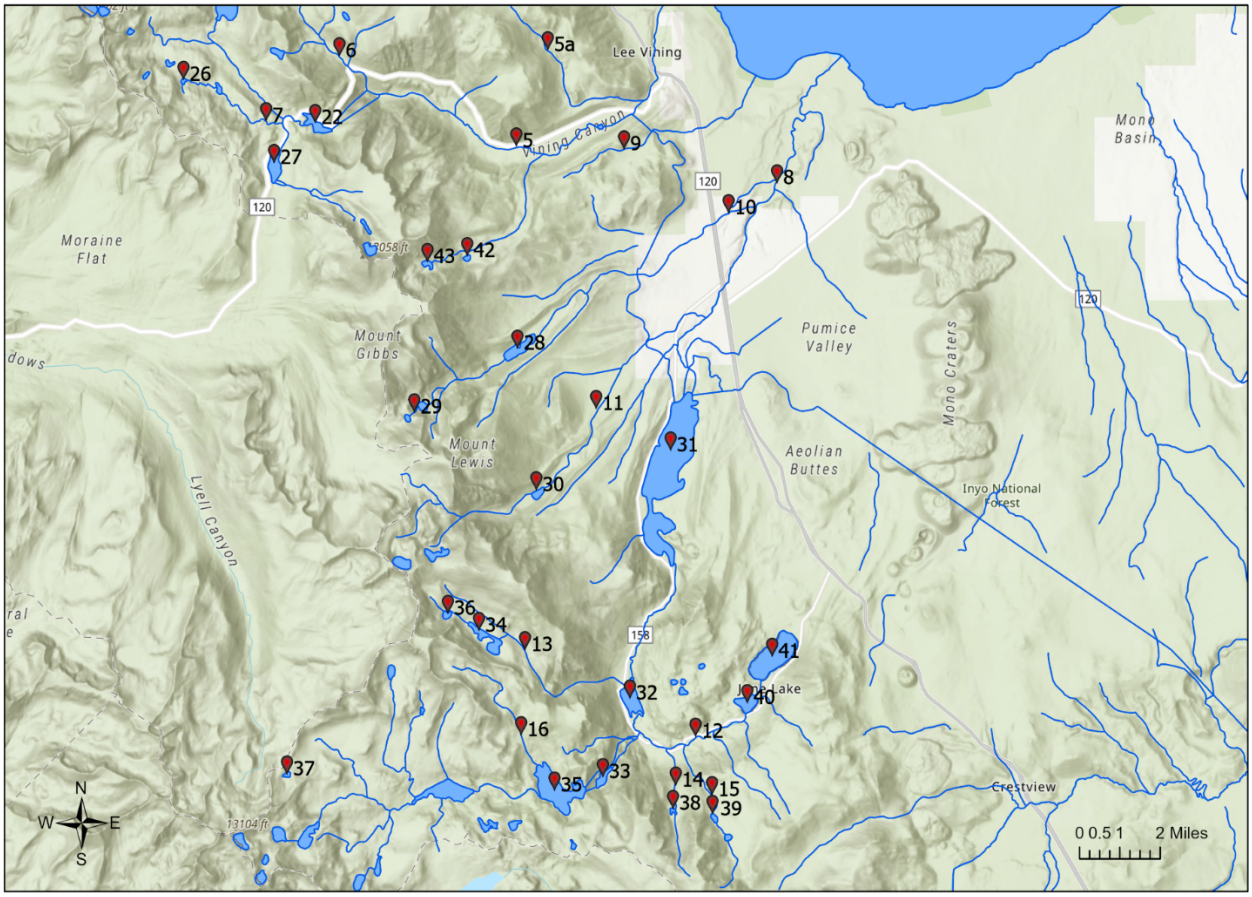


Table 1 Mono Basin streams proposed for designation with CUL

Location ID on Map	Stream Name	Named in Basin Plan	Location in Watershed
1	Bridgeport Canyon Creek	No	Tributary to north side of Mono Lake
2	Wilson Creek	No	Tributary to northwest side of Mono Lake
3	Mill Creek	Yes	Tributary to northwest side of Mono Lake
4	DeChambeau Creek	No	Tributary to west side of Mono Lake
5	Lee Vining Creek	Yes	Tributary to west side of Mono Lake
5a	Beartrack Creek	No	Tributary to Lee Vining Creek
6	Warren Fork, Lee Vining Creek	No	Tributary to Lee Vining Creek
7	Mine Creek	No	Tributary to Lee Vining Creek
8	Rush Creek	Yes	Tributary to southwest side of Mono Lake
9	Horse Canyon Creek	No	Ephemeral tributary to Mono Lake
10	Walker Creek	Yes	Tributary to lower Rush Creek

Location ID on Map	Stream Name	Named in Basin Plan	Location in Watershed
11	Parker Creek	Yes	Tributary to lower Rush Creek
12	Reversed Creek	Yes	Tributary to upper Rush Creek
13	Alger Creek	No	Tributary to Silver Lake
14	Fern Creek	No	Tributary to Reversed Creek
15	Yost Creek	No	Tributary to Reversed Creek
16	Crest Creek	No	Tributary to Gem Lake on upper Rush Creek

Table 2 Mono Basin lakes proposed for designation with CUL and T-SUB (T-SUB designation is only proposed for Mono Lake)

Location ID on Map	Lake Name	Named in Basin Plan	Location in Watershed
17	Mono Lake	Yes	Center of watershed, terminal lake
18	Lundy Lake	Yes	Located on Mill Creek
19	Oneida Lake	Yes	Located on South Fork Mill Creek
20	Crystal Lake	Yes	Located on South Fork Mill Creek
21	Blue Lake	Yes	Located on South Fork Mill Creek
22	Ellery Lake	Yes	Located on Lee Vining Creek
23	Saddlebag Lake	Yes	Above Ellery Lake on Lee Vining Creek
24	Greenstone Lake	No	Above Saddlebag Lake on Lee Vining Creek
25	Conness Lake	No	Above Greenstone Lake on Lee Vining Creek
26	Spuller Lake	No	Above Ellery Lake on Mine Creek
27	Tioga Lake	Yes	Located on tributary to Mine Creek
28	Walker Lake	Yes	Located on Walker Creek
29	Sardine Lakes	No	Above Walker Lake on Walker Creek
30	Parker Lake	No	Located on Parker Creek
31	Grant Lake	Yes	Located on Rush Creek
32	Silver Lake	Yes	Above Grant Lake on Rush Creek
33	Agnew Lake	Yes	Above Silver Lake on Rush Creek
34	Alger Lakes	Yes	Located on Alger Creek, tributary to Silver Lake
35	Gem Lake	Yes	Above Agnew Lake on Rush Creek
36	Unnamed Glacial Lake	No	Located on Alger Creek above Alger Lake (37°48'0.28"N, 119°11'26.43"W)
37	Unnamed Glacial Lake	No	Above Waugh Meadows (37°45'20.14"N, 119°14'54.04"W)
38	Fern Lake	Yes	Located on Fern Creek, tributary to Reversed Creek
39	Yost Lake	No	Located on Yost Creek, tributary to Reversed Creek
40	Gull Lake	Yes	Above Silver Lake on Reversed Creek
41	June Lake	Yes	Above Gull Lake on Reversed Creek

Location ID on Map	Lake Name	Named in Basin Plan	Location in Watershed
42	Gibbs Lake	Yes	Located on tributary to Lee Vining Creek
43	Kidney Lake	Yes	Located above Gibbs Lake

1.2. Content of Proposed Basin Plan Amendment

The BPA would revise Chapter 2, Present and Potential Beneficial Uses, Table 2-1, Beneficial Uses of Surface Waters of the Lahontan Region, to add three new columns for the CUL, T-SUB and SUB uses under the table heading "Beneficial Uses". To designate specific waterbodies with the CUL and T-SUB uses, an **X** under the CUL will be added to Table 2-1 in the Mono Lake Hydrologic Unit (601.00) on Page 2-21 for the waterbodies identified in Table 1 and 2 above. In addition, an **X** under the column for T-SUB will be added for Mono Lake and the traditional name for Mono Lake used by the Kootzaduka'a Tribe, *Kootzabaa'a*, will be added alongside Mono Lake in Table 2-1. No designations are proposed for the SUB beneficial use currently.

The waterbodies not currently named in the Basin Plan identified in Table 1 and 2 will be added to the list of waterbodies in the Mono Hydrologic Unit (601.00) in Chapter 2, Table 2-1 and designated with the CUL use. The beneficial uses of these specific waterbodies were previously identified in Table 1 and 2 in the row for "minor surface waters" in the Mono Hydrologic Unit. Each waterbody not currently named in the Basin Plan will be identified with the beneficial uses already designated to it based on the designations for minor surface waters. The Bridgeport Indian Colony's name for Bridgeport Canyon Creek, *Sogohoo*, which means "creek along the trail" will also be added to Table 2-1 alongside the name Bridgeport Canyon Creek.

Additionally, the BPA includes a correction for a typographical error that appears in the Mono Hydrologic Unit. The drainage feature of "Minor Surface Waters" appears twice in Table 2-1. The first row for the "Minor Surface Waters", which is designated for a subset of the beneficial uses designated for the "Minor Surfaces Waters" in the row below, will be deleted.

In addition to the changes to Table 2-1 to identify the CUL and T-SUB designations in the Mono Basin, explanatory language will be added to Chapter 2 at the end of the section titled "Present and Potential Beneficial Uses" on Chapter 2, Page 2-6. The language is intended to provide some background on the origin and intent of the TBUs.

The proposed Mono Basin BPA language is available for review on the Lahontan Water Board's Tribal and Subsistence Fishing Beneficial Uses webpage located here:

https://www.waterboards.ca.gov/lahontan/water_issues/programs/basin_plan/tribal-beneficial-uses.html

1.3. Statement of Necessity for the Basin Plan Amendment

The Tribal Beneficial Use and Subsistence Beneficial Use Designations Project was identified as a high priority basin planning project during the 2022 Triennial Review of the Lahontan Basin Plan. At that time, the scope of a future BPA to designate TBUs had not been identified. On September

22, 2021, during the Triennial Review process, Kootzaduka'a Tribal Chairperson Charlotte Lange submitted a letter requesting CUL and T-SUB designations to waterbodies in the Mono Basin (Lange, 2021). Letters supporting the Kootzaduka'a Tribe's request were also received from the Mono Lake Committee and the California Indian Legal Services. As follow up to Chairperson Lange's letter, Lahontan Water Board staff and executive management met with Chairperson Lange and Kootzaduka'a Tribal Elder Dean Tonenna on a field visit to Mono Lake in August 2022 where they shared information regarding cultural and subsistence uses of Mono Lake and its tributaries.

The necessity for the Mono Basin Project is based on both the high priority given to the TBU designation effort by the Lahontan Board and the requests made by the Kootzaduka'a Tribe and the Bridgeport Indian Colony (submitted in February 2023) to designate the CUL and T-SUB uses to specific waterbodies in the Mono Basin. Completion of a BPA to designate TBUs in the Mono Basin serves to acknowledge and highlight the need to maintain water quality sufficient to protect Tribal cultural and Tribal subsistence uses of waterbodies in the Mono Basin. Additionally, completion of this project will advance efforts towards racial equity as expressed in State Water Board Resolution No. 2021-0050. In that resolution, the State Water Board acknowledges the history of racial inequity associated with water management in California, and highlights the challenges faced by California Native American Tribes that impair or prevent water-related cultural, spiritual, and subsistence traditions that Native American people have practiced since time immemorial.

1.4. Regulatory Overview

The Lahontan Water Board is the primary state agency responsible for setting and enforcing water quality standards in the Lahontan Region, which extends from the border with Oregon south to the Cajon Pass and comprises the lands east of the crest of the Sierra Nevada and Warner mountains to the Nevada border, and south to Antelope Valley and the Mojave River watershed. Water quality standards and control measures for surface waters and groundwaters of the Lahontan Region are identified in the Basin Plan (Lahontan Regional Water Quality Control Board, 2021). Amendments to the Basin Plan, including amendments adopting new or revising existing water quality standards for surface waters, which includes designation of beneficial uses, are subject to a public process with multiple opportunities for public comment. Basin Plan amendments become effective after adoption by the Lahontan Regional Board and approval by the State Water Board, the California Office of Administrative Law, and, if appropriate, approval by the U.S. Environmental Protection Agency, Region IX (US EPA). Approval by US EPA is required for Basin Plan Amendments that revise water quality standards that apply to Waters of the United States.

Water quality standards under the Clean Water Act consist of three components: designated uses for each waterbody or waterbody segment (i.e., beneficial uses), water quality criteria to protect the designated uses, and an antidegradation policy. (40 C.F.R. § 131.6; 40 C.F.R. §131.13). In general, "uses" refer to what a water body is or potentially may be used for (40 C.F.R. §

131.3(f)), with examples such as supporting wildlife and riparian habitat, use of water for industrial production, agricultural supply, or use for recreation due to activities such as fishing and swimming in waterbodies. (40 C.F.R. 131.10(a).) Most, if not all, waterbodies have multiple uses. “Existing uses” are “those uses actually attained in the water body on or after November 28, 1975, whether or not they are included in the water quality standards.” (40 C.F.R. § 131.3(e).) “‘Designated uses are those uses specified in water quality standards for each water body or segment whether or not they are being attained.” (40 C.F.R. § 131(f).) “Water quality criteria” are “expressed as constituent concentrations, levels, or narrative statements, representing a quality of water that supports a particular use.” (40 C.F.R. § 131.3(b).) The Federal Antidegradation policy provides three levels or tiers of water quality protection to maintain and protect existing water uses, high quality waters, and Outstanding National Resource Waters. (40 C.F.R. § 131.12.). The Lahontan Water Board recommended that Mono Lake be designated as an Outstanding National Resource Water with Resolution No. R6-94-79 in 1994. That designation, which provides the highest level of water quality protection under the Clean Water Act, was established by the State Water Board in Water Rights Decision 1631.

In California, Regional Water Boards are required to establish water quality control plans for all areas within their regions (Wat. Code, §13240), and those water quality control plans must designate or establish, in part, beneficial uses within the areas governed by that plan. (Wat. Code § 13050, subd. (j)). California law describes “designated uses” and “water quality criteria,” respectively, as “beneficial uses” and “water quality objectives.” (Wat. Code, § 13050, subds. (f), (h).). Beneficial uses may be designated as existing uses or probable future uses, also known as potential uses within the Lahontan Basin Plan. In the Lahontan Basin Plan, Chapter 2, Present and Potential Beneficial Uses, Table 2-1 identifies the beneficial uses designated to named water bodies in the Lahontan Region. As stated in Chapter 2 on Page 2-3, historical uses have been incorporated into Table 2-1 as potential uses (a use which once existed could potentially exist again). Furthermore, no distinction is made between existing or potential uses for the designations identified in Table 2-1.

The beneficial uses currently designated for the Mono Basin waterbodies are identified below in Table 3. Chapter 2 of the Lahontan Basin Plan acknowledges that Table 2-1 does not specifically name all surface waters of the Lahontan Region. Waters not mentioned by name are included in the categories ‘Minor Surface Waters’ and ‘Minor Wetlands’ within each Hydrologic Unit or Hydrologic Area.

Table 3 Current Beneficial Use Designations for Waterbodies Proposed for Tribal Beneficial Use Designation in the Mono Hydrologic Unit

Beneficial Use	Definition	Waterbodies
Municipal and Domestic Supply (MUN)	Beneficial uses of waters used for community, military, or individual water supply systems including, but not limited to, drinking water supply.	All Waterbodies in Mono Hydrologic Unit except Mono Lake Wetlands and Marshes

Beneficial Use	Definition	Waterbodies
Agricultural Supply (AGR)	Beneficial uses of waters used for farming, horticulture, or ranching, including, but not limited to, irrigation, stock watering, and support of vegetation for range grazing.	Mono Lake, Rush Creek (below Grant Lake), Reversed Creek, Lee Vining Creek (above diversion), Walker Creek, Parker Creek, Mill Creek, Mono HU Minor Surface Waters, Minor Wetlands
Industrial Service Supply (IND)	Beneficial Uses of waters used for industrial activities that do not depend primarily on water quality, including, but not limited to, mining, cooling, water supply, geothermal energy production, hydraulic conveyance, gravel washing, fire protection and oil well repressurization.	Mono Lake
Groundwater Recharge (GWR)	Beneficial uses of waters used for natural or artificial recharge of ground water for purposes of future extraction, maintenance of water quality, or halting of saltwater intrusion into freshwater aquifers.	Rush Creek (below Grant Lake), Mill Creek, Lee Vining Creek (above and below diversion), Walker Creek and Lake, Parker Creek, Mono HU Minor Surface Waters, Minor Wetlands
Freshwater Replenishment (FRSH)	Beneficial uses of waters used for natural or artificial maintenance of surface water quantity or quality (e.g., salinity).	Rush Creek (above and below Grant Lake), Lee Vining Creek (above and below diversion), Mill Creek, Walker Creek and Lake, Parker Creek, Mono HU Minor Surface Waters and Minor Wetlands
Navigation (NAV)	Beneficial uses of water used for shipping, travel, or other transportation by private, military, or commercial vessels	Gull Lake, June Lake, Fern Lake, Lundy Lake. Saddlebag Lake, Tioga Lake, Ellery Lake, Mono Lake
Hydropower Generation (POW)	Beneficial uses of waters used for hydroelectric power generation.	Rush Creek (above Grant Lake), Agnew Lake, Gem Lake, Lundy Lake, Saddlebag Lake, Tioga Lake, Ellery Lake, Kidney Lake, Gibbs Lake, Mill Creek, Lee Vining Creek (above and below diversion)
Water Contact Recreation (REC-1)	Beneficial uses of waters used for recreational activities involving body contact with water where ingestion of water is reasonably possible. These uses include, but are not limited to, swimming, wading, water-skiing, skin and scuba diving, surfing, white water activities, fishing, and use of natural hot springs.	All Waterbodies in Mono Hydrologic Unit
Noncontact Water Recreation (REC-2)	Beneficial uses of waters used for recreational activities involving proximity to water, but not normally involving body contact with water where ingestion of water is reasonably possible. These uses include, but are not limited to, picnicking, sunbathing, hiking, beach-combing, camping, boating, tidepool and marine life study, hunting, sightseeing, and aesthetic enjoyment in conjunction with the above activities.	All Waterbodies in Mono Hydrologic Unit
Commercial and Sport Fishing (COMM)	Beneficial uses of waters used for commercial or recreational collection of fish or other organisms including, but not limited to, uses involving organisms intended for human consumption.	All Waterbodies in Mono Hydrologic Unit except Mono Lake Wetlands and Marshes

Beneficial Use	Definition	Waterbodies
Cold Freshwater Habitat (COLD)	Beneficial uses of waters that support cold water ecosystems including, but not limited to, preservation and enhancement of aquatic habitats, vegetation, fish, and wildlife, including invertebrates.	All Waterbodies in Mono Hydrologic Unit except Mono Lake and Mono Lake Wetlands and Marshes
Inland Saline Water Habitat	Beneficial uses of waters that support inland saline water ecosystems including, but not limited to, preservation and enhancement of aquatic saline habitats, vegetation, fish, and wildlife, including invertebrates.	Mono Lake and Mono Lake Wetlands and Marshes
Wildlife Habitat (WILD)	Beneficial uses of waters that support wildlife habitats including, but not limited to, the preservation and enhancement of vegetation and prey species used by wildlife, such as waterfowl.	All Waterbodies in Mono Hydrologic Unit
Preservation of Biological Habitats of Special Significance (BIOL)	Beneficial uses of waters that support designated areas or habitats, such as established refuges, parks, sanctuaries, ecological reserves, and Areas of Special Biological Significance, where the preservation and enhancement of natural resources requires special protection.	Mono Lake and Mono Lake Wetlands and Marshes
Rare, Threatened, or Endangered Species (RARE)	Beneficial uses of waters that support habitat necessary for the survival and successful maintenance of plant or animal species established under state and/or federal law as rare, threatened, or endangered.	Mono Lake
Spawning, Reproduction, and Development (SPWN)	Beneficial uses of waters that support high quality aquatic habitat necessary for reproduction and early development of fish and wildlife.	All Waterbodies in Mono Hydrologic Unit

Chapter 3 of the Basin Plan identifies the water quality objectives that apply to waterbodies in the Lahontan Region and includes both regionwide objectives and site-specific water quality objectives applicable to certain waterbodies. Statewide water quality objectives also apply to surface waters in the Lahontan Region, including bacteria water quality objectives for the protection of recreation use. These water quality objectives are established in State Board Plans and/or Policies (Plans and Policies | California State Water Resources Control Board). When the CUL and T-SUB beneficial use definitions were adopted by the State Board, new statewide water quality objectives for mercury were also established. The Part 2 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California—Tribal and Subsistence Fishing Beneficial Uses and Mercury Provisions (known as the Mercury Provisions) contain the regulatory language for both of these actions.

The statewide mercury water quality objectives were established for the reasonable protection of people and wildlife that consume fish and apply to all the inland surface waters, enclosed bays and estuaries of the State that have the applicable beneficial uses. As stated in the Mercury Provisions, the water quality objectives that protect people apply to waters with the COMM, CUL, T-SUB and SUB beneficial uses. The water quality objectives that protect wildlife apply to waters with the WILD, MAR (Marine), RARE, WARM, COLD, EST, and SAL beneficial uses. The

Mercury Provisions specify the mercury water quality objectives that apply to waters designated with the CUL use, which is identified as the Sport Fish Water Quality Objective. That objective also applies to waters designated with COMM, WILD and MAR. The mercury objective associated with the T-SUB use, identified as the Tribal Subsistence Fishing Water Quality Objective, is more stringent than the objective associated with CUL.

The California Natural Resources Agency has certified the basin planning process as being in accordance with section 21080.5 of the Public Resources Code. The process is therefore exempt from Chapter 3 of the California Environmental Quality Act (CEQA). The Water Quality Control (Basin) Planning Program of the Regional Boards is a certified regulatory program that utilizes a CEQA-equivalent process. The environmental analysis is contained in substitute environmental documentation (SED). The California Code of Regulations, title 23, chapter 27, contains the Water Boards' regulations for implementing CEQA (Pub. Resources Code, § 21000, et seq.). State Board regulations for the implementation of CEQA (Cal. Code Regs. Tit. 23, § 3777) state that the SED shall contain a written report containing the following:

- A brief description of the proposed project;
- An identification of any significant or potentially significant adverse environmental impacts of the proposed project;
- An analysis of reasonable alternatives to the project and mitigation measures to avoid or reduce any significant or potentially significant adverse environmental impacts; and
- An environmental analysis of the reasonably foreseeable methods of compliance. The environmental analysis shall include, at a minimum, all of the following:
    - An identification of the reasonably foreseeable methods of compliance with the project;
    - An analysis of any reasonably foreseeable significant adverse environmental impacts associated with those methods of compliance;
    - An analysis of reasonably foreseeable alternative methods of compliance that would have less significant adverse environmental impacts; and
    - An analysis of reasonably foreseeable mitigation measures that would minimize any unavoidable significant adverse environmental impacts of the reasonably foreseeable methods of compliance. (Cal. Code Regs., tit. 23, § 3777, subd. (b)).

This Staff Report, which contains the SED, is being used to satisfy this requirement.

2. Historical and Environmental Setting

2.1. Human History of Mono Basin

Human history in the Mono Basin can be separated into pre-contact and post-contact time periods due to the drastic changes that occurred with the arrival of Euro-American explorers and settlers to the Mono Basin in the late 1800's. The earliest archeological evidence of humans in the Mono Basin include stone tools and spear points used for big game hunting and hunting of smaller animals that date back as early as 10,000 to 11,000 years ago (Arkush, 1995). In addition to the hunting of big game (including now extinct megafauna), gathering of marsh plants such as cattail shoots and seeds, and pinyon pines were sources of sustenance at that time. Beginning around 6,000 years ago, an important economic development is the establishment of trans-Sierran trade networks with Tribal people outside of the Great Basin that are evident due to the presence of marine shells in the archeological excavations in the area (Arkush, 1995).

According to the Kootzaduka'a Tribe, who are part of the Numic-speaking people, the language spoken by Great Basin tribes, they have been in the Mono Basin since time immemorial. Other Tribes present in the area include the Miwok on the west slope of the Sierra Nevada and the Western Mono, or Monachi, south of the Miwok. The Kootzaduka'a name indicates reliance on kootzabe, which is the pupae of the Alkali fly, *Ephydra hians*[2], that is a traditional food harvested from Mono Lake. The homelands of the Kootzaduka'a Tribe range from the Bodie Hills north of Mono Lake to the southern portion of the Long Valley Caldera, east to the Benton Range and west into the Sierra Nevada. The Kootzaduka'a are primarily organized by nuclear family groups that then formed camp groups composed of several related families who foraged together and spoke a local dialect of Numu Yadooana (National Park Service, 2019). The family groups moved throughout the year to access various food resources and, at times, resources were scarce. Both resident and migratory birds of Mono Lake were important food resources for the Mono Basin Paiute, even in historic mes. During difficult mes, coopera on among tribal members and other neighboring tribes was impera ve (Na onal Park Service, 2019). In the summer and early fall when the kootzabe harvesting occurs, family groups occupied specific locations along the shore of Mono Lake. The Kootzaduka'a assembled for dancing, gambling, and festivities, which occurred in association with the kootzabe harvest or with other communal food gathering enterprises, such as the pinenut harvests, or rabbit or deer drives. These festivities tended to occur one day before and several days after the communal enterprise (Steward, 1933).

During the winter, larger camp groups formed in the pinyon-juniper woodlands to the east and north of Mono Lake where Tribal members conducted communal hunts for rabbits or pronghorn. At the encampments they built tradi onal winter houses, produced items such as basketry and beadwork, and collected and processed pinyon nuts (Arkush, 1987). The use of these eastside winter camps persisted into the early 20th century as evidenced by the existence of three winter homes that were occupied un l the 1920's and photographed in 1987 (Arkush, 1987). Arkush

[2] Some recent publications identify this species under a new genus with the name *Cirrula hians*

describes how these structures provide insight into both the cultural persistence of the Kootzaduka'a Tribe a half-century a er the arrival of Euro-American se lers and into the accultura on process of the Tribe.

The Kootzaduka'a maintain ties with the Yosemite Miwok, with whom they engaged in an extensive trade network to exchange resources obtained locally, such as kootzabe, salt, obsidian, rabbit skin blankets and pine nuts, for commodities available west of the Sierra Nevada, such as beads, acorns, and other materials (Arkush, 1995). Some Mono Lake Kootzaduka'a Tribal members overwintered with the Miwok in Yosemite and intermarriage between the Tribes was common. In the spring, family groups dispersed into the lower canyons of the Sierra Nevada to harvest greens and bulbs. In the summer, plant-collecting and processing camps were established in the meadows to exploit seed-bearing plants like wild rye and sunflower. Tribal members also harvested the caterpillar of the pandora moth, known as peage, that inhabits Jeffery pine trees in groves located southeast of Mono Lake. Late summer coincided with the kootzabe harvest, which was an important trade item. In the fall, pinyon nuts were harvested (Arkush, 1995).

Native American traditional land use and land management practices over thousands of years influenced environmental conditions and enhanced the abundance and diversity of plant and animal life. Some aspects of the ecosystem in the Sierra Nevada likely evolved in response to human intervention by Native Americans (Anderson & Moratto, 1996). For example, the act of gathering or selective harvesting of plant resources can alter the distribution and abundance of specific plant species that, over time, modify the genetics and character traits of plant communities. The introduction of fire to the landscape as a management tool maintains grasslands and increases seed harvests, enhances plant materials used for basketry in riparian areas and modifies plant species composition.

Accounts of early explorers entering Mono County include Jedediah Smith in 1827 and Joseph Walker in 1833, though it is not clear whether they visited Mono Lake (Cain, 1961). One of the first settlers in the Mono Basin was LeRoy Vining, who arrived in 1853 prospecting for gold and settled in a meadow in what was later called Lee Vining Canyon. Other gold-seekers followed in the mid-1850's, traveling over Sonora pass from gold rush towns in the western Sierra Nevada foothills. Soon, a couple of short-lived towns were established north of Mono Lake, including Monoville, east of Conway Summit, which grew to a population of 700 people before the harsh conditions and unsuccessful mining activity led most to leave by 1859 (Cain, 1961). Mark Twain described his time in Monoville and wrote an account of a boat trip on Mono Lake in 1862 in his book, Roughing It. As gold was discovered in other locations in the area, increased development occurred in the Mono Basin, including road construction and the establishment of farming and ranching operations which led to the degradation of natural resources. More people began to enter the Mono Basin due to the construction of trans-Sierra roads, which included the completion of the road over Sonora Pass in 1868 and over Tioga Pass in 1883.

The arrival of miners and other settlers had a profound impact on the Kootzaduka'a Tribe. At first, Tribal members retreated into remote canyons in the eastern Sierra Nevada, but they later returned to practice their traditional lifeways. However, eventually the influx of settlers occupying lands near the springs and meadows, including locations previously used by the Kootzaduka'a, forced tribal members to marginal lands. There were also incidents of violence towards Kootzaduka'a Tribal members in the 1800's instigated by settlers in the area (Sahagun, 2021). The settlers decimated the food resources used by the Tribe. They collected thousands of gull eggs (Arkush, 1995), cut down pinyon pines, grazed cattle and sheep on native grassland, meadows and near springs, and killed wild game and waterfowl (National Park Service, 2019). As described by the Kootzaduka'a Tribe:

> "The Numu culture was based on cooperation, group identity, and tradition, in contrast to the white settlers who valued individuality, competition, and progress. The clash of cultures created misunderstanding and bloodshed as the Kootzaduka'a fought for their lands." (National Park Service, 2019).

The situation continued to get worse with new arrivals attracted by the mining activity in nearby Bodie. Eventually, the Kootzaduka'a were unable to continue some of their traditional lifeways due to the exploitation of natural resources that accompanied the arrival of the Euro-Americans. The Tribe was not the beneficiary of a reservation through the treaty process and remained without Federal protection from non-Indian encroachment into the Tribe's aboriginal lands. Only a small number of land allotments were granted to Kootzaduka'a Tribal members under the Dawes Act, passed in 1887, which allowed the government to grant land to individual Native Americans (Marks, 2023). As described in a letter submitted by the California Indian Legal Services (California Indian Legal Services, 2021)**:**

> The life sustaining Mono Lake is not the only water relied upon by the Tribe; members also relied on the many creeks (tributaries) that feed the Lake for fishing and, later, for irrigation. The importance of these creeks to members is shown by the location of lands that were allotted to early tribal members. Each of the allotments were located near a creek, which was consistent with tribal members' historical and seasonal "camps." The creeks were the locations of the Tribe's seasonal homes. Allotments were issued and clustered along Rush Creek, Lee Vining Creek, Parker Creek, and one was along Mono Lake itself.

However, despite the challenges to their way of life, within two generations, the Kootzaduka'a had adjusted to the new arrivals and incorporated some elements of Euro-American culture into their own while also retaining traditional practices (Arkush, 1995). They became part of the local economy with both men and women engaging in wage labor, and in some cases, they engaged in trade with the settlers. In the early part of the 20th century, some Kootzaduka'a Tribal members lived in the Rush Creek area (Durant, 1991), an area where several Tribal members had obtained land allotments (Marks, 2023).

By the late 1800's, area residents began to recognize the importance and utility of the water resources in the tributaries to Mono Lake and planning for various water development projects began. The proposed projects addressed various uses of water including water for irriga on, mining, and hydroelectric power. Hydroelectric development in the Mono Basin began in the early 20th century with the construction of facilities on Mill Creek in 1910, followed by construction on Rush Creek in 1915 and on Lee Vining Creek in 1917 (Diamond, 1988). According to a history of hydroelectric development and water management in the Mono Basin (Diamond, 1988), a few community members played important roles in ensuring hydroelectric development of both Rush and Lee Vining creeks, among other projects. The development of these projects was not without challenges and setbacks, including a disastrous avalanche that destroyed the newly built power plant on Mill Creek and killed seven people in 1911 (Diamond, 1988). Several of the natural lakes in the Mono Basin were enlarged with dams during this time to provide greater water storage capacity for the hydroelectric projects. Later, with the advent of automobiles and improvements in road construction, people began to visit the Mono Lake area for tourism, and an annual community celebration known as Mark Twain Days drew hundreds of people in the 1920s and 1930s to watch speedboat races on Mono Lake, bathing beauty contests, baseball games and other events.

2.2. Mono Lake Water Levels

Mono Lake has fluctuated naturally over time in response to climatic change and periods of drought together with episodes of heavy precipitation. According to the Mono Lake Committee's record of estimated and recorded lake levels between 1850 and the present[3], the highest October 1st lake elevation since 1850 occurred in 1918 and 1919 when Mono Lake level reached 6427 feet in both years. Mono Lake's historic low elevation post-1850 occurred in 1981 when it declined to an elevation of 6,372.3 feet. Beginning in the 1920's, the Los Angeles Department of Water and Power (LADWP) began purchasing land to acquire riparian water rights in the Mono Basin. An application to export water to Los Angeles was accepted by the predecessor to the State Water Board on July 27, 1934, and LADWP obtained a permit to begin diverting water on June 1, 1940. At that time, there was no requirement for outreach or consultation with California Native American Tribes, and approving water rights applications was essentially a ministerial act. In 1940, LADWP completed construction of a dam to enlarge Grant Lake on Rush Creek and built a tunnel through the Mono Craters to the southeast of Mono Lake that created a connection between the Mono Basin and the upper Owens River. This provided a means for LADWP to send the water diverted from the Mono Basin south to the Owens Valley and on to Los Angeles via the Los Angeles aqueduct.

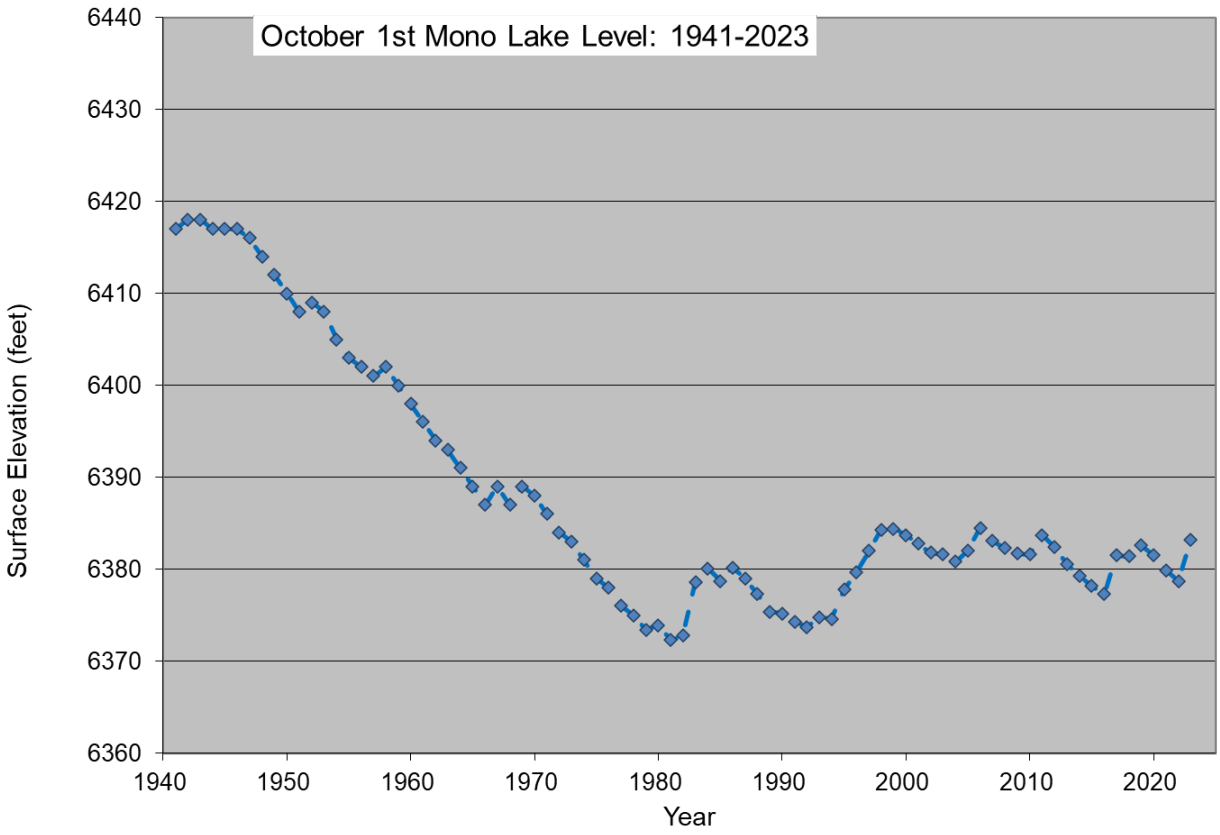
The first water diversion began in 1941 with the water taken from Lee Vining, Parker, Walker, and Rush Creeks, and in 1970 the volume of water diverted from the Mono Basin

[3] See Mono Lake water level record at the following website https://www.monobasinresearch.org/data/levelyearly.php

increased when a second aqueduct was constructed. The State Board issued water right licenses 10191 and 10192 to LADWP in 1974. Water diversion from the Mono Basin averaged 56,900 acre-feet/year between 1941-1970 and 87,200 acre-feet /year between 1970-1986 (Los Angeles Department of Water and Power, 1987). The water diversion led to a precipitous decline in the level of the lake. As a result of litigation by several environmental groups seeking to curtail exports and protect Mono Lake, no water was exported from the Mono Basin between 1990 -1994. Streamflow requirements were established in 1990 when the EI Dorado County Superior Court issued an order which required minimum releases into Rush, Lee Vining, Walker, and Parker Creeks in response to litigation brought by California Trout and the National Audubon Society (Los Angeles Department of Water and Power, 1996).

A series of hearings took place before the State Water Board, and in addition to LADWP, parties to the proceeding included state and federal agencies and environmental groups but did not include representatives from the Kootzaduka'a Tribe. In 1994, the State Water Board adopted Water Rights Decision 1631 (also known as D-1631) (State Water Resources Control Board , 1994) which ordered exports from Mono Basin to Los Angeles to be indexed to lake level with the intent to raise the water level of Mono Lake, and to restore stream and waterfowl ecosystems. To protect Mono Lake, D-1631 requires that water exports be limited until a target lake level elevation of 6,392 feet above mean sea level is reached. At that time, it was estimated it would take approximately 20 to 30 years to achieve the target lake elevation, depending on hydrology (State Water Resources Control Board , 1994). Since the adoption of D-1631 in 1994, the highest October 1st lake level occurred in 2006 with the lake reaching an elevation of 6384.5 feet. During an extended drought between 2012- 2016 Mono Lake dropped almost seven feet, to a low of 6,376.8 feet in October 2016 (Los Angeles Department of Water and Power, 2023), the lowest October 1st level since the adoption of D-1631. More recently, two consecutive dry years in 2021 and 2022 led to a lake elevation of 6,378.7 feet on October 1, 2022. Subsequently, high snowfall occurred in the winter of 2022/2023 and Mono Lake increased to 6,383.2 feet as of October 2023.

Figure 2 Annual October 1st Mono Lake elevation from 1941-2023 based on data compiled by the Mono Lake Committee



Current Anthropogenic Conditions

There are no incorporated municipalities in the Mono Basin and the only incorporated town in Mono County is Mammoth Lakes, which is outside of the Mono Basin. The primary unincorporated communities in the Mono Basin are the following census-designated places: Lee Vining, located adjacent to Mono Lake with a year-round population of 217 (in 2020); Mono City, located north of Mono Lake and east of Hwy 395 with a population of 224 (in 2020); and June Lake, located in the Rush Creek sub-watershed with a year-round population of 611 (in 2020). Over time, the Mono Basin has become a popular location for outdoor recreation that attracts visitors from around the world and throughout the year that number well beyond the number of year-round inhabitants in the area. Popular activities include kayaking and site-seeing at Mono Lake, hiking, backpacking, fishing, and camping at the lakes and streams located on public lands upstream of Mono Lake, along with winter activities like snowshoeing and skiing at the resort at June Lake. Campgrounds are located at many of the lakes and streams and facilities for boating are available at some of the lakes. Pack stations became popular in the 1920's, and while their numbers have declined, they are still used by many people to access the high country (Southern California Edison, 2021).

Southern California Edison (SCE) owns and operates three hydroelectric projects in the Mono Basin that include those on Mill Creek (i.e., Lundy Canyon), Lee Vining Creek and Rush Creek that were constructed in the early 20th century. The current licenses for these projects will expire in a few years and consequently all three projects are undergoing relicensing with the Federal Energy Regulatory Commission (FERC), a process that takes at least five years to complete. The FERC relicensing process includes stakeholder and resource agency involvement to identify the information needed to develop appropriate conditions for new project licenses. Both the Rush Creek (FERC Project No. 1389) and Lee Vining (FERC Project No. 1388) project licenses expire on January 31, 2027, and technical studies to support the relicensing efforts for those projects are currently underway. The license for the Lundy Project (FERC Project NO. 1390) expires on February 28, 2029, and the relicensing process is just starting for that project.

While contemporary Tribal residents of the region have adapted to current social and economic conditions, there is a resurgence in traditional areas of culture and language as well as the continuation of traditional food gathering practices by some Tribal members (Busby, 1979). Members of the Kootzaduka'a Tribe continue to live in the Mono Basin and engage in traditional cultural and subsistence practices, as discussed in more detail in section 3 of this Staff Report. The Tribe currently has 73 enrolled members, though not all current members reside in the area. Important communal activities include the annual trek to Yosemite that the Kootzaduka'a Tribe organizes that includes participants from other tribes. Consequently, it is important to recognize the cultural value that Mono Lake and its tributaries have to other Tribes in the area as well as to the Kootzaduka'a Tribe.

2.3. Geography and Environmental Characteristics of Mono Basin

All the waterbodies identified for designation with the CUL and T-SUB beneficial uses are located in Mono County within the Mono Basin. This area is part of the Great Basin Desert, but it also includes portions in the Sierra Nevada physiographic province. Mono Lake has existed for 730,000 years or more and it is one of the oldest continuously existing lakes in North America. Mono Lake was part of a larger lake known as Lake Russell that was present during the Pleistocene and reached an elevation of 7,180 feet covering 338 square miles (Rieger, 1992). Remnants of tufa deposits from that larger lake are visible north of Lee Vining on the mountainside west of Highway 395 (Rieger, 1992). Volcanic activity played a role in the geologic history of the Mono Basin, which received ashfall from the volcanic eruption that formed the Long Valley Caldera to the south about 760,000 years ago and other subsequent eruptions. Volcanic activity led to the formation of Negit Island and other features in Mono Lake. Small volcanic eruptions occurred in Mono Lake as recently as the mid-1700's and mid-1800's (United States Geological Survey, 2014) and volcanic hot springs continue to flow along the bottom and edges of the lake (National Research Council, 1987).

The Mono Basin watershed encompasses more than 800 square miles with Mono Lake being the main feature in the watershed. The Mono Basin is a closed basin, with all streams draining into Mono Lake, which as a terminal lake has no natural outflow. The watershed ranges in elevation

from about 6,380 feet at the surface of Mono Lake to more than 13,000 feet along the crest of the Sierra Nevada to the west. The large range in elevation results in corresponding changes in climate, soils, and biotic communities. The climate in the Mono Basin is characterized by summers that range from mild to cool, and winters that are cold and snowy. Native vegetation communities include desert scrub and grasslands around Mono Lake, with coniferous forests, including the Jeffrey Pine forests and pinyon-juniper woodland habitats west of Mono Lake in the eastern Sierra Nevada and north in the Bodie Hills.

Physical habitat characteristics in Mono Lake are strongly linked to the chemistry of the lake water, the composition of which is determined by dilution, evaporation, and the dissolution or precipitation of minerals (National Research Council, 1987). As a terminal lake with no outflow, Mono Lake has been subject to hundreds of thousands of years of evaporation which has resulted in the high alkalinity and salinity in the lake. Calcium-dominated tributary waters derived from snowmelt combine with spring waters from within and around the lake that are enriched in sodium and carbonate to add to the mineral content in Mono Lake. When these sources mix with the carbonate rich Mono Lake water, tufa towers are formed by precipitation of a combination of calcite, high-magnesium calcite, and aragonite. Tufa formation generally occurs in proximity to calcium-rich freshwater springs that occur along the lakebed and, in some cases, spring water may flow up the center of the tufa and emerge at the top (Rieger, 1992). The formation of tufa towers is enhanced by the activities of photosynthetic organisms, which take up carbon dioxide resulting in a local increase in carbonate (National Research Council, 1987). Since 1941, the salinity in Mono Lake has increased due to diversion of the tributary streams in combination with periodic droughts. When the salinity rose to a level of 80 g/L in the 1970's, the precipitation of the crystal, gaylussite began to occur. This phenomena represents a new mechanism for the creation of hard substrate in Mono Lake, as gaylussite forms as a mineral crust on hard surfaces such as pumice stones (Bishoff, 1991). As described in more detail in the section on the biological community, the physical structures created by tufa formation and by gaylussite mineral deposits are important for the life cycle of the alkali fly, *Ephydra hians*, which is an important cultural and subsistence food resource for the Kootzaduka'a Tribe. Reductions in lake level decrease the area of hard substrate that is submerged and result in areas where tufa towers become completely exposed, decreasing available habitat for the alkali fly.

Low lake levels also affect human health due to dust generated from the sediment exposed around the edges of Mono Lake. The Mono Basin is classified as a federal non-attainment area for PM-10 particulate material because of the windblown dust and salts that originate from the exposed lakebed. The PM-10 category includes particles less than 10 microns in diameter that are small enough to be inhaled into the lungs. Shoreline areas on the north and east side of Mono Lake are the largest contributors of windblown particulates (Great Basin Unified Air Pollution District , 2018). Clean air was one of the public trust values considered during the water right hearings that resulted in D-1631, and a lake level target of 6,392 feet is intended to meet clean air standards in addition to protecting other resources. At this lake level, the majority of

exposed shoreline areas that contribute to windblown dust will be wetted or submerged (Great Basin Unified Air Pollution District , 2018).

The lower portions of the tributaries to Mono Lake have experienced significant change and degradation due to anthropogenic factors, mainly livestock grazing and irrigation diversions by settlers in the area that began around 1890, followed by the diversion of Rush Creek and Lee Vining Creek by LADWP starting in 1941. Irrigation and hydropower diversions also impacted Mill Creek, and the lower portions of all three streams were completely dewatered for a period of time during the 20th century. Rush Creek below Hwy 395 was diverted for irrigation prior to the export of water by LADWP and both Lee Vining and Rush Creeks were impacted by livestock grazing that damaged stream banks and riparian habitat. Walker and Parker Creeks, tributaries to Rush Creek, also were dewatered at times due to irrigation diversions (Los Angeles Department of Water and Power, 1996). Riparian habitat that had been severely degraded due to the loss of flow and extensive grazing activity was and still is the focus of restoration activities required in D-1631, including planting of riparian vegetation and channel modifications, that have led to improved riparian conditions (Los Angeles Department of Water and Power, 2018). Additionally, in 1991 LADWP established a grazing moratorium on Rush, Lee Vining, Walker, and Parker Creeks, which also helped conditions improve (Los Angeles Department of Water and Power, 1996). D-1631 ordered LADWP to prepare and submit to the State Water Board a stream and stream channel restoration plan and a waterfowl habitat restoration plan, with the objective of restoring, preserving, and protecting the streams and fisheries in Rush Creek, Lee Vining Creek, Walker Creek, and Parker Creek. Incised channels, bank instability and erosion in the lower portion of the primary tributaries during high flow events, has led to flooding such as occurred in the late 1960's and early 1980's, events that were especially damaging (Mono County Community Development Department, 2007).

Current Physical Conditions

The primary tributaries that enter Mono Lake are snowmelt-dominated streams that originate at high elevations in the adjacent Sierra Nevada and enter Mono Lake from the west. Those include Mill Creek, Lee Vining Creek, and Rush Creek with its tributaries Reversed Creek, Parker Creek, and Walker Creek, as well as DeChambeau Creek and Wilson Creek, which are smaller tributaries to Mono Lake. Secondary tributaries include South Fork Mill Creek, Mine Creek (tributary to Lee Vining Creek), Warren Fork, Lee Vining Creek, Fern Creek, and Yost Creek (tributaries to Reversed Creek), Alger Creek (tributary to Silver Lake), and Crest Creek (tributary to Gem Lake on Rush Creek). Horse Creek is an ephemeral stream located between Lee Vining and Walker Creeks that was perennial prior to water diversion by LADWP. Entering Mono Lake from the north, Bridgeport Canyon Creek, a spring-fed ephemeral stream, is also part of this project.

Physical conditions in the upper portions of the Mono Basin tributary streams are characterized by high elevation glacially formed, steep, bedrock dominated sub-basins that are not accessible by roads. Tributary sub-basins are separated by glacial debris that form moraines and ridges. The steepest stream sections have narrow floodplains confined by bedrock with plunge pools and

limited riparian development and are not prone to erosion or bank failure (Southern California Edison, 2021). In addition to the tributary streams, there are numerous high elevation lakes, many of which are formed in glacially sculpted U-shaped valleys surrounded by talus slopes. Some of the upper elevation lakes have had their storage capacity enlarged due to the construction of hydroelectric project dams beginning in the early 1900's. Saddlebag, Tioga, and Ellery Lake were glacially scoured natural lakes prior to construction of dams that are part of SCE's Lee Vining FERC Hydroelectric Project (Southern California Edison, 2021). Agnew Lake and Gem Lake are part of SCE's Rush Creek FERC Hydroelectric Project. Lakes that have not been altered include Parker Lake, Sardine Lakes, Greenstone Lake and Conness Lake, Yost Lake, and the three unnamed glacial lakes proposed for TBU designation located on Mine Creek, Crest Creek, and Rush Creek.

2.4. Water Quality

Mono Lake was designated as an Outstanding National Resource Water (ONWR) in 1994, a designation approved by the State Board in D-1631 in recognition of its outstanding ecological significance. The designation was supported by the Lahontan Water Board with Resolution No. 6-94-79 (Lahontan Regional Water Quality Control Board, 1994). The ONRW designation for Mono Lake is based on its unique ecological system of lake-dwelling invertebrates that supports millions of migrating and nesting birds. As stated in Resolution No. 6-94-79, "Mono Lake is an important, unique, and ecologically sensitive water resource, with the protection of its water quality and beneficial uses vital". The ONRW designation for Mono Lake is one of only two such designations in California (the other is Lake Tahoe). Federal antidegradation regulations (40 CFR § 131.12) state that the water quality of waterbodies designated as ONRWs must be maintained and protected. California may allow activities that result in temporary and short-term changes in the baseline water quality of an ONRW provided those activities do not result in permanent degradation in water quality or result in water quality lower than necessary to protect the existing uses in the ONRW.

The Clean Water Act defines baseline water quality as the best quality of the receiving water that has existed since 1968 (or since 1975 under federal antidegradation), unless the relevant objective was adopted at a later date, or degradation was already authorized in a previous board action through an appropriate antidegradation analysis. The ONRW designation requires that the salinity be maintained at or under 85 g/L (the salinity of Mono Lake in November 1975). However, as stated in D-1631, water quality objectives must also protect the designated beneficial uses, even if water quality in 1975 was not adequate to protect those uses. There is a salinity water quality objective for Mono Lake in the Lahontan Basin Plan that is more protective than the ONRW salinity target and is defined as an annual average Total Dissolved Solids (TDS) concentration of 76 g/L and an annual 90^{th} percentile value of 80.7 g/L (Lahontan Regional Water Quality Control Board, 2021). The annual 90^{th} percentile value equates to the salinity concentration at which 90 percent of the measured salinity values in a year are less than the 80.7

g/L TDS Basin Plan objective. Salinity can also be expressed as g/L TDS such that the values for TDS and salinity are functionally interchangeable.

When LADWP water diversions began in 1941, the reduction in freshwater entering the lake dropped lake levels, decreased the volume of the lake and increased salt concentrations. Between 1938-1950, the salinity in Mono Lake was about 50 g/L, however when the lake reached its low point of 6,372 feet in 1982, the salinity had increased to 99.4 g/L (Los Angeles Department of Water and Power, 2022). Water quality in Mono Lake is monitored annually to assess compliance with D-1631. The most current annual report available is for 2021 when the salinity fluctuated between 81.5 - 85.5 g/L (Los Angeles Department of Water and Power, 2022) with an annual average of 83.2 g/L and a 90th percentile value of 84.7 g/L. Both values exceed the Lahontan Basin Plan's site-specific water quality objective for TDS for Mono Lake. Based on data available since 1991, the highest annual average salinity concentration of 95.2 g/L occurred in 1992 and the lowest annual average concentration of 76.2 g/L occurred in 1999. According to D-1631, an elevation of 6,386 feet (which is lower than the D-1631 lake level target of 6,392 feet.) would achieve the Lahontan Basin Plan salinity objective for Mono Lake of 76 g/L.

Mono Lake was first identified as impaired for TDS on the 1988 303(d) List with the cause identified as water diversion reducing water level in the lake. In 1990, the entire Mono Basin watershed was identified as impaired due to water diversion resulting in lowered lake levels and dewatering of tributaries streams and impaired due to non-point sources associated with recreation and grazing. In 1992, the 303(d) List included Mono Lake as impaired for salinity and for nutrients and siltation associated with land development. Lee Vining Creek and Lundy Lake were also on the 1992 303(d) list, though pollutants were not identified for those waterbodies. Mono Lake was delisted in 2002 and subsequently relisted for salinity in 2006. Both Lee Vining Creek and Mill Creek appeared on the 303(d) List in 1996, 1998, and 2002 due to flow alteration, however those waterbodies were not included on any 303(d) list after 2002.

Current Water Quality Conditions

Currently, of the waterbodies proposed for designation with the TBUs, only Mono Lake is listed as impaired on the most recent Clean Water Act Section 303(d) List of Impaired Waters for Salinity/TDS/Chloride. The Mono Lake impairment is assigned to Integrated Report Category 4b, which is for impairments addressed by actions other than an EPA-approved Total Maximum Daily Load. In the case of Mono Lake, the salinity impairment is supposed to be addressed by D-1631, which established a lake level target of 6,392 feet to protect water quality and the public trust resources at Mono Lake (State Water Resources Control Board , 1994). That lake level target has not been met and salinity in Mono Lake continues to exceed the Lahontan Basin Plan's water quality objective of 76 mg/L TDS as an annual average.

In 2022, salinity in the epilimnion (i.e., the upper layer) of Mono Lake increased to 88.8 g/L in November, while in the hypolimnion (i.e., deeper portions of the lake), it reached 89 g/L, also in November 2022 (Los Angeles Department of Water and Power, 2023). Lahontan staff collected

water quality data in September 2023 in Mono Lake in response to concerns regarding radiation that included results for TDS collected from near the surface (< 1 meter depth) at three locations, two sites near Navy Beach and one near Black Point. Those results show TDS concentrations of between 68-69 mg/L, which are below the Basin Plan objective. Due to the high runoff that occurred during the 22/23 water year, with fresher water at the surface of Mono Lake, the TDS results may not reflect conditions in the deeper waters.

Dissolved Oxygen (DO) in Mono Lake varies with time of year and depth, with depletion in DO leading to anoxic conditions in the deeper portions of the lake during summer and early fall due to stratification of the water column. As the summer progresses, grazing of the phytoplankton community by brine shrimp *Artemia monica* also reduces DO in the surface waters. In 2022, DO in the upper three meters of Mono Lake began to drop in June and the lowest value of 4.0 mg/L occurred in July. The DO in the deeper portions of the lake (e.g., below 7 meters) dropped more precipitously and was below 1 mg/L DO in July with some recovery observed in October and November, when the DO at 7 meters depth was 3.6 and 4.2 mg/L, respectively (Los Angeles Department of Water and Power, 2023). Mono Lake is highly alkaline, with pH values of about 10. Nutrient levels in Mono Lake are low and often limit algal productivity, especially when stratification sets in and mixing is reduced. High concentrations of trace elements occur in Mono Lake, including boron, with values among the highest recorded in any lake, magnesium, and calcium (National Research Council, 1987). Volcanic hot springs along the lakebed also discharge sodium, chloride, fluoride, boron, and other minerals.

The Lahontan Basin Plan contains site-specific water quality objectives for nutrients and TDS for Rush Creek above Grant Lake and Rush Creek at the SCE inlet, which is located upstream of Silver Lake (Lahontan Regional Water Quality Control Board, 2021). Water quality data for the Mono Lake tributaries are not collected on a regular basis. Data summarized in a watershed assessment in 2001 showed that streams in the Mono Basin, like other snowmelt streams in the Eastern Sierra, had characteristically low TDS and nutrient concentrations (Inyo National Forest , 2001).

Water quality sampling for a suite of volatile organic compounds, minerals and metals occurred in September 2014 at two sites on Lee Vining Creek as part of an enforcement investigation by Lahontan Water Board staff. The results for the organics and metals (except for iron and manganese) were all non-detect at both locations and the iron and manganese concentrations in the samples did not exceed applicable water quality objectives. Results for the other constituents also did not exceed water quality objectives. More recently, water quality data were collected in August 2018 in the Warren Fork of Lee Vining Creek and in August 2019 in Lee Vining Creek 1.6 miles upstream of Hwy 120 as part of bioassessment sampling. Those data did not reveal any problematic results, and in general, the available water quality data for the tributaries does not indicate exceedance of Lahontan Basin Plan water quality objectives.

The Lahontan Water Board collected fecal indicator bacteria data for several streams in the Mono Basin in 2012 and 2013 including five locations on Lee Vining Creek, three locations each on Mill Creek and Rush Creek, two locations on Parker Creek, and a single location on Reversed

Creek, Walker Creek, and Yost Creek. The site on Reversed Creek above Double Eagle Resort is the only location that had relatively high levels of E. coli at that time, but it did not exceed the statewide water quality objective for the REC-1 beneficial use. Fecal indicator bacteria data were also collected by Lahontan Water Board staff on Wilson Creek in the vicinity of Conway Ranch in spring of 2021. Results from that sampling effort were either non-detect or were very low.

Monitoring for mercury in fish tissue has occurred sporadically in several lakes and in two streams in the Mono Basin and those data are shown in Table 3. These data were collected as part of the Toxic Substances Monitoring Program (1990-2002) and later by the Statewide Sportfish Contamination Study, which is part of the statewide Surface Water Ambient Monitoring Program. The mercury data cannot be directly compared to the statewide mercury objectives due to the trophic level mixture included in the objective, but they do indicate trends in the watershed. Trophic level 3 fish that occur in the tributary lakes and streams in the Mono Basin include Rainbow Trout (*Oncorhynchus mykiss*) and Sacramento Sucker (*Catostomus occidentalis*), while Trophic Level 4 fish include Brown Trout (*Salmo trutta*).[4] There are no trophic level 3 or trophic level 4 finfish in Mono Lake.

Methylmercury is the biologically available form of mercury that enters the food chain. There is a greater tendency for mercury to bioaccumulate in fish inhabiting lakes and reservoirs compared to streams because low DO concentrations in lake bottom waters create conditions that facilitate the transformation of mercury to methylmercury by bacteria in sediments. Methylmercury then enters the aquatic food chain and becomes concentrated in higher trophic level organisms, such as Brown Trout. The discussion that follows examines mercury fish tissue data collected from waterbodies in the Mono Basin. Mercury concentrations in fish tissue collected in Lundy Lake for trophic level 3 and 4 fish in 1990, 2002 and 2007 are shown in Table 4 together with data for lakes in the Rush Creek sub-watershed (i.e., Grant Lake, Silver Lake, Gull Lake, and June Lake). In 2022, fish tissue data for mercury were collected at Ellery Lake, Tioga Lake, and Saddlebag Lake for SCE's Lee Vining FERC Hydroelectric Project license renewal process.

The available data suggests that the tendency for greater mercury bioaccumulation to occur in lakes compared to streams is true for the Mono Basin, where Brown Trout collected in Grant Lake, June Lake and Lundy Lake had higher mercury concentrations than Brown Trout collected in Lee Vining Creek and Rush Creek. Additionally, mercury concentrations in fish collected in Saddlebag and Tioga Lakes, where DO profiles in the spring, summer, and fall of 2022 showed decreasing DO levels in the deeper waters that led to hypoxic or anoxic conditions, were higher than in Ellery Lake, where DO levels remained high throughout the water column into the fall.

[4] Trophic Level 3 Fish are finfish that consume mainly zooplankton, benthic invertebrates, and small, phytoplankton-dependent fish. Examples of species that are trophic level 3 finfish include rainbow and brook trout, blue gill, sunfishes, suckers, and bullhead. Trophic level 4 finfish are that consume trophic level 3 finfish and other aquatic organisms. Examples of species that are trophic 4 finfish include largemouth, smallmouth, spotted, and striped bass; brown and lake trout.

Table 4 Available mercury fish tissue data for waterbodies in the Mono Basin.

Waterbody and Station Location	Date Sampled	Species Sampled		Trophic Level	No. of Samples	Fish per composite	Mercury (mg/kg fish tissue wet weight)
Mono Lake	9/20/1990	Brine Shrimp (Artemia monica)		N/A	1	N/A	0.08
Grant Lake	8/31/1990	Brown Trout		4	1	6	0.06
	7/24/2007	Rainbow Trout		3	2	5	0.025 and 0.025
Silver Lake	9/28/1994	Brown Trout		4	1	6	0.05
	7/24/2007	Brown Trout		4	1	5	0.051
Gull Lake	7/24/1991	Sacramento Sucker		3	1	15	0.17
	9/17/2008	Rainbow Trout		3	2	5	0.018 and 0.023
June Lake	8/25/1992	Brown Trout		4	1	1	0.84
	9/22/1993	Tui Chub		3 (?)	1	1	0.13
	10/9/2001	Rainbow Trout		3	1	1	0.056
	10/9/2001	Sacramento Perch		?	1	1	0.088
	9/16/2008	Rainbow Trout		3	1	5	0.026
Rush Creek	10/8/2001	Brown Trout		4	1	6	0.038
Lee Vining Creek 0.5 mi u/s Mono Lake	9/17/2002	Brown Trout		4	1	6	0.025
Lee Vining Cr, at Moraine Camp	8/10-11/2011	Rainbow Trout		3	9	1	0.02-0.033
Ellery Lake	8/10/2008	Rainbow Trout		3	2	5	0.018 and 0.021
	8/2022	Brook Trout		3	5	1	0.009-0.016 (Mean 0.013)
	8/2022	Brown Trout		4	9	1	0.014-0.022 (Mean 0.017)
	8/2022	Rainbow Trout		3	2	1	0.012 and 0.02
Saddlebag Lake	8/2022	Brook Trout		3	9	1	0.028-0.308 (Mean 0.121)
Tioga Lake	8/11/2008	Rainbow Trout		3	2	5	0.023 and 0.026
	8/2022	Brook Trout		3	9	1	0.034-0.093 (Mean 0.062)
	8/2022	Rainbow Trout		3	8	1	0.041-0.065 (Mean 0.048)
Lundy Lake	8/29/1990	Brown Trout		4	1	6	0.16
	9/18/2002	Brown Trout		4	1	6	0.269
	11/7/2007	Rainbow Trout		3	2	5	0.053 and 0.057

2.5. Biological Community

Due to the high salinity and alkaline conditions in Mono Lake, only a few specially adapted organisms inhabit the lake. There are no finfish that can tolerate the water chemistry in Mono Lake, and prior to introductions of fish to the tributaries, finfish were not known to occur in the Mono Basin tributaries prior to the arrival of Euro-American settlers (Moyle, Yoshiyama, & Knapp, 1996), although there is fossil evidence indicating they were present in the past (Reheis, Stine, & Sarna-Wojcicki, 2002). Even though Mono Lake contains relatively few aquatic species, it is a very productive ecosystem. Phytoplankton are the primary producers and are comprised of green algae, cyanobacteria, and diatoms. Phytoplankton are abundant during the winter but begin to decline in May or June due to reduced nutrient supply caused by stratification in the water column that typically occurs in early spring. During the summer, phytoplankton populations move to deeper water where nutrients are available, and later increase in the upper waters when stratification weakens in the fall. (National Research Council, 1987). The primary consumer species that thrive in Mono Lake are the alkali fly, *Ephydra hians*, and the endemic brine shrimp species, *Artemia monica*, which is only found in Mono Lake. Increases in salinity have led to some changes in the plankton community in Mono Lake. The pre-diversion salinity, estimated at less than 50 g/L, would likely have supported a more diverse phytoplankton community, whereas there is less diversity currently as salinity increased, favoring species with high salinity tolerance (Los Angeles Department of Water and Power, 2022).

The alkali fly, *Ephydra hians*, is an important food resource for the Kootzaduka'a Tribe, who harvest the pupae, known by the Tribe as kootzabe, that accumulate around the shoreline and on the hard surfaces in Mono Lake. The distribution of the fly pupae is limited to shallow water, as they are rarely found in open water or in depths greater than a few meters. They are associated with the hard surfaces provided by the tufa substrates that form in Mono Lake due to precipitation of minerals in the saline waters (Herbst, 1990). Tufas are important for adult feeding and reproduction as the adult flies climb down the surface of the tufa to graze and to lay eggs under water. The hard substrates also provide attachment sites for the pupae and grazing surfaces for larvae. The highest abundance of all life stages of the alkali fly occurs in areas containing submerged tufas (Herbst, 1990). As lake level rises, vegetation that becomes inundated provides additional habitat for the attachment of pupae, although the densities are not as high as for the submerged tufa (Herbst, 1992).

Adult flies are adapted for submerging themselves in the high-density Mono Lake water due to their ability to create air bubbles around their body and wings, which protects them from the salts and alkaline compounds in the lake (van Breugel & Dickinson, 2017). The air bubbles also serve as external lungs that allow adult flies to spend up to 15 minutes underwater at depths of 4–8 m. Productivity of the alkali fly is negatively affected by the increased salinity in Mono Lake. Experimental evidence showed slower growth, smaller size, and reduced survival when salinity is increased from 50 g/L to 100 g/L, which is likely due to the metabolic costs associated with osmoregulation (Herbst, 2023). Microcosm studies conducted over a range of salinities reported

in Auxiliary Report No. 8 to the 1994 Mono Water Rights Environmental Impact Report found that adult emergence occurred first in the lowest salinity 50 g/L microcosm with large and robust adult flies (Herbst, 1992). Reduced survival and smaller body size characterized the population in the next higher 75 g/L salinity microcosm, with even greater impacts on growth and survival in the 100 g/L salinity microcosm (Herbst, 1992). Algal productivity, which serves as the food source for the alkali fly, is also reduced as salinity increases (Herbst, 1992). The author concludes that the pre-diversion salinity of 50 g/L provides optimum conditions for alkali fly productivity.

Habitat conditions and biological communities are very different in the high elevation lakes and freshwater tributaries that flow into Mono Lake. The tributary streams share many of the same characteristics as the lakes in the Mono Basin, including vegetation communities that vary based on elevation and discontinuous riparian vegetation along the steepest sections, which are generally bordered by granitic bedrock. The lower portions of Rush Creek and Lee Vining Creeks were dewatered for a period of time when LADWP diverted most, and sometimes all of the flow from them. Mill Creek was also mostly dewatered at one point due to irrigation diversions. Rush Creek and Lee Vining Creek were later the subject of extensive restoration. Those activities, together with the return of flow to the channels in the lower sections of these waterbodies and the elimination of grazing, have led to improved health of the riparian community, based on an assessment of riparian vegetation conditions between 1929-2017 (Los Angeles Department of Water and Power, 2018).

Current Biological Conditions

Mono Lake and its adjacent wetland and marshy areas provide essen al habitat for migratory birds and serve as an important stopping point along the Pacific Flyway due to the diverse habitat types and abundant invertebrate food resources available. It is es mated that a sizeable propor on of the world's popula on of Eared Grebes, Northern Phalaropes, Wilson's Phalaropes and California Gulls depend on Mono Lake. The number of Eared Grebes present in the fall has been es mated at over a million individuals (Winkler, 1977). Almost 300 species of both resident and migratory birds are known to u lize Mono Lake and its islands, which provide important habitat and refuge from predators. Mono Lake is recognized by the Western Hemisphere Shorebird Reserve Network as an interna onally important site that provides resources for 35 species of migratory shorebirds[5]. Although most of these species are migratory there are some, such as the California gull, that nest on the islands. Freshwater seeps, springs and creek deltas are essen al habitat features for the avian community at Mono Lake. Reduced lake levels can lead to the forma on of land bridges which allow predators to access island habitats, with a resul ng decrease in bird popula ons.

Although the Mono Basin was not known to contain finfish prior to the arrival of European explorers (Moyle, Yoshiyama, & Knapp, 1996), due to introductions of both native and non-

[5] See Western Hemisphere Shorebird Reserve Network website: https://whsrn.org/whsrn_sites/mono-lake/

native fish species, it is now inhabited by many fish species, and most streams large enough to support trout are likely to contain them. All the tributary streams proposed for designation contain sport fish, which are comprised of one or more species of either California native trout including Rainbow Trout, Lahontan Cutthroat Trout (*Oncorhynchus clarkia henshawi*), and Golden Trout (*Oncorhynchus aquabonita*) or non-native Brook Trout (*Salvelinus fontinalis*) and Brown Trout. Rainbow Trout are stocked in some of the lakes and streams in the Mono Basin and since 2013 CDFW have stocked triploid catchable-sized trout that are sterile. Non-native Brown Trout and Brook Trout have established naturally reproducing populations throughout the basin. In addition to introductions of both native and non-native trout into the watershed, several other California native fish species, including Threespine Stickleback (*Gasterosteus aculeatus*), Owens Sucker (*Catostomus fumeiventris*), and Tui Chub (*Siphateles bicolor snyderi*), were introduced into the tributary lakes and streams at some point and are now present in the Mono Basin (Moyle, Yoshiyama, & Knapp, 1996).

Along the tributary streams in the mid to higher elevations, pinyon pine and a riparian corridor characterized by willows, aspens, dogwood, and cottonwood are prevalent (Inyo National Forest , 2001). SCE conducted riparian vegetation surveys along upper Rush Creek and characterized the riparian community as dominated by mountain willow and dogwood, while below Horsetail Falls quaking aspen is present. Upstream of Silver Lake, emergent wetland and forested shrub wetland occurs within the Rush Creek floodplain. Vegetation bordering the lakes in the Mono Basin include rushes, sedges, and grasses, portions of aspen riparian forest, and mixed willow riparian forest that contain a wide variety of understory vegetation including currants, buckwheats, willow herb, mugwort, and thistle, all of which are edible (Southern California Edison, 2021). In the lower elevation segments, the vegetation community shows a lack of diversity due to fire suppression and livestock grazing practices and is dominated by the bitterbrush-rabbit brush complex with some willow species present (Mono County Community Development Department, 2007).

Bioassessment sampling has been conducted periodically in several tributary streams in the Mono Basin and the results indicate that the biotic community is in good condition at most sampling locations. Bioassessment examines the health of the benthic macroinvertebrate community and provides insight into habitat and water quality conditions. Bioassessment results are expressed as a score based on a statewide methodology that assesses whether, and to what degree, the ecology of a stream is altered according to the California Stream Condition Index (CSCI). The CSCI scoring range is divided into four categories of biological condition as follows: ≥0.92 = likely intact condition; 0.91 to 0.80 = possibly altered condition; 0.79 to 0.63 = likely altered condition; ≤0.62 = very likely altered condition. Scores greater than 1 can be interpreted to indicate greater taxonomic richness and more complex ecological function than predicted for a site given its natural environmental setting.

In the Mono Basin, bioassessment took place five times on Lee Vining Creek between 2000 and 2019, twice on the Warren Fork of Lee Vining Creek (2010 and 2018), twice on Rush Creek (2000

and 2011), twice on Parker Creek in (2012 and 2020) and once on Mill Creek below Lundy Lake in 2012. The CSCI results for these sampling events are shown in Table 5 and indicate all but two locations had scores that correspond to likely intact conditions (i.e., above 92). The low scores occurred at the Rush Creek bottomlands site below Grant Lake and at the Lee Vining Creek site 1.6 miles above Hwy 120. For the remaining bioassessment sampling sites, all except two had CSCI scores greater than 1.0, indicating better than expected biological condition at those locations.

Table 5 Bioassessment scores for waterbodies in the Mono Basin

Waterbody	Station Name	Date	CSCI Score
Lee Vining Creek	Lee Vining Cr lower/central channel	07/02/03	**0.95**
		08/23/18	**0.96**
	Lee Vining Cr, at Moraine Camp	08/03/00	**1.09**
	Lee Vining Creek, 0.9mi below Warren Fork	09/01/11	**1.17**
	Lee Vining Creek , 1.6mi above Hwy 120	08/27/19	**0.91**
Warren Fork, Lee Vining Creek	Warren Fork (Lee Vining Cr) Mid Valley	07/27/06	**1.07**
		07/27/06	**1.14**
		07/27/06	**1.11**
		07/27/06	**1.13**
		07/27/06	**1.04**
		07/27/06	**1.13**
		08/15/18	**1.17**
Mill Creek	Mill Creek, 2.2mi below Lundy Lake	08/07/12	**1.15**
Parker Creek	Parker Cr, Parker Bench below Parker Lake	08/02/12	**1.18**
	Parker Creek ~2mi below Parker Lake	07/01/14	**1.09**
		08/16/17	**1.03**
		08/16/17	**1.10**
		08/26/20	**1.13**
Rush Creek	Rush Cr, bottomlands	08/02/00	**0.83**
	Rush Creek, 0.4mi below Walker Creek	09/14/11	**1.06**

3. Tribal Uses of Water in the Mono Basin

The State Water Board emphasized its commitment to Tribal communities in Resolution 2021-0050, which acknowledges the history of displacement and genocide suffered by Native American people and the loss of water management practices that supported their traditional ways of life. As stated in that Resolution, the loss of natural resources and associated water rights has led to the loss of cultural, spiritual, and subsistence traditions practiced by Native American people since time immemorial, including unavailability of traditional foods. Designating Tribal Beneficial Uses to waterbodies in the Mono Basin is an opportunity to recognize and support Tribal cultural, spiritual, and subsistence uses of water.

As a preface to the information below specific to the Mono Lake Kootzaduka'a Tribe's traditional uses of water in the Mono Basin and the uses of Bridgeport Canyon Creek by the Bridgeport Indian Colony, it is important to recognize Native American concepts regarding their relationship with the natural world and with water. As stated by Dr. Karletta Chief, a professor at the University of Arizona who is a member of the Diné Tribe, "To Indigenous peoples, water is sacred. Water is the lifeline of Indigenous cultures, ceremonies, livelihood, and beliefs" (Chief, 2020). Dr. Chief emphasizes the role that Indigenous people play as water protectors and how water can often define an Indigenous community. Another author on this topic emphasizes how for Native Americans, water retains an honored and indispensable place and should be encountered with humility, respect, joy, and caution. Water represents a sacred power that is both a source of life but that also possesses a relentless force that can be both awe-inspiring and potentially destructive and can serve as an instrument of cleansing and renewal (Greeley, 2017).

Dean Tonnena, a Kootzaduka'a Tribal Elder, shared how it is difficult for the Tribe to communicate their concerns in a way that is familiar to the Water Board as they do not present them using numerical data. He emphasized that Tribal members are spiritually attuned to the landscape and how that may be difficult to communicate in conventional terms. Moreover, though the Tribes have identified specific streams and lakes for designation with the CUL use, the Bridgeport Indian Colony emphasizes the relationship between the Paiute and the entire landscape: "Every stream, every rock, every tree holds a memory of the people that once dwelt in their midst" (National Park Service, 2019) .

Equally important is the unifying land use ethic characteristic of Tribal communities, which is to interact with nature respectfully and in ways allowing all life forms to co-exist (Anderson & Moratto, 1996). That the abundance and diversity of plant and animal life can be associated with human activity is an ancient idea in the minds of native people that very likely has an ecological as well as spiritual basis (Anderson & Moratto, 1996).

According to the Clean Water Act, existing uses are those uses that have been attained on or after November 28, 1975, whether or not they are included in water quality standards (40 C.F.R. § 131.3(e).) Nevertheless, the US EPA recognizes that it may not be possible to obtain all the data necessary to establish whether a beneficial use is an existing use (80 Fed. Reg. 51027 (Aug. 21,

2015)). As stated in its summary to the revised water quality standards regulations: "When determining an existing use, the U.S. EPA provides substantial flexibility to states and authorized tribes to evaluate the strength of the available data and information where data may be limited, inconclusive, or insufficient regarding whether the use has occurred. In this instance, states and authorized tribes may decide that based on such information, the use is indeed existing" (80 Fed. Reg. 51027 (Aug. 21, 2015)). Documentation obtained during discussions with Kootzaduka'a Tribal members and other information presented below confirms that Kootzaduka'a Tribal members have engaged in traditional cultural practices at Mono Lake, its tributaries and high elevation lakes, and subsistence practices at Mono Lake after that date.

Potential beneficial uses are those uses which could potentially exist. (Lahontan Basin Plan, p. 2-2—2-4). Potential uses can be "established because (1) plans already exist to put the water to those uses, (2) conditions (location, demand) make such future use likely, (3) the water has been identified as a potential source of drinking water based on the quality and quantity available (see Sources of Drinking Water Policy, in Appendix B), and/or (4) existing water quality does not support these uses, but remedial measures may lead to attainment in the future." (Lahontan Basin Plan, p. 2-4).

In the Lahontan Basin Plan, no distinction is made between existing, and potential (i.e. probable future) beneficial uses identified for specific waterbodies in Chapter 2 Present and Potential Beneficial Uses, Table 2-1. Regardless of whether a use is existing or potential uses, Table 2-1 uses an **X** to denote uses that have been designated for a particular waterbody. The Basin Plan states in Chapter 2, Page 2-1 that historical uses (i.e. designations from earlier interstate water policies and "interim" final Basin Plans) are included in Table 2-1 as potential uses (a use which once existed could potentially exist again). Consequently, an **X** in Table 2-1 for a certain waterbody-CUL or T-SUB beneficial use combination is best thought of as a designated use, rather than directly classifying that use as either an existing or potential use. The information below documents both existing uses (i.e., uses that have occurred since November 28, 1975) and potential uses in the Mono Lake Basin. Therefore, further distinction between existing, and probable future uses is not made in this Staff Report. The Kootzaduka'a Tribe and Bridgeport Indian Community have confirmed that the proposed CUL and T-SUB designations for Mono Lake and the CUL designations for the tributary lakes and streams listed in Table 1 and 2 above are appropriate for the waterbodies identified in this staff report and that existing information supports those designations.

The following discussion summarizes information submitted in written form or shared in conversations with the Kootzaduka'a and Bridgeport Indian Colony along with other supporting documentation. Together, this information supports the proposed CUL designations for Mono Lake and specific lakes and streams in the Mono Basin, and the T-SUB designation for Mono Lake. Because of confidentiality concerns, the Kootzaduka'a Tribe have not shared details regarding all culturally important locations and spiritual practices associated with waterbodies in the Mono Basin.

3.1. Tribal Uses of Mono Lake

Tribal Tradition and Culture (CUL) Use in Mono Lake

Mono Lake is proposed for designation with CUL in response to requests from the Mono Lake Kootzaduka'a Tribe and several Tribes in the Owens Valley that include the Bishop Paiute Tribe, Big Pine Paiute Tribe of Owens Valley, and the Lone Pine Paiute-Shoshone Tribe. The letter submitted to the Lahontan Water Board in September 2021 by Honorable Chairperson Charlotte Lange of the Kootzaduka'a Tribe (Lange, 2021) describes the essential role that Mono Lake occupies in the Tribe's culture and provides information that supports the proposed designation for the CUL use in Mono Lake. Mono Lake is known by the Tribe as *Kootzabaa'a* and is the physical, cultural, and spiritual center of the Kootzaduka'a people. The information and testimony provided by the Tribe highlights how Mono Lake serves both as a sacred location and a place for healing as well as an important source of nutritional food that provides sustenance to members of the Tribe. To the Kootzaduka'a Tribe, the islands in Mono Lake are the place of their origin and Mono Lake is the heartland of the Tribe's territory. It is a place to conduct observances to keep the body, mind, and spirit at balance with the Creator and all of Creation and a place for prayers, blessings, and anointings to ensure a well-balanced life with the environment and within the community. Mono Lake is embedded with meaning in the Tribe's stories, history, songs, and memories that ensures the continuity of traditional memory. The Tribe explains how the Kootzaduka'a are bound to Mono Lake, such that they see themselves when they see Mono Lake. Their Elders have cautioned that if Mono Lake dies, their culture also dies.

An origin story recounted by the Kootzaduka'a describes how long ago there was a giant fish inhabiting the Owens River that moved north to Convict Lake, then to June Lake, Silver Lake, and Grant Lake (National Park Service, 2019). Everywhere the giant fish went, his presence led to an abundance of fish. When the giant fish reached Mono Lake, the Numu, as the Kootzaduka'a call themselves, decided to create a rock barrier to prevent him from leaving. This angered the giant fish, who broke through the barrier and scraped itself on the rocks causing its scales to float away, which turned into brine shrimp. The giant fish told the Numu that they would never have any fish in their lake and swam away. As the giant fish was leaving, he turned and saw how bad the Numu felt, and said, I will not give you fish, but I will give you kootzabe to eat. Even though there are no finfish in *Kootzabaa'a*, ever since then the Kootzaduka'a have had an abundant supply of kootzabe to sustain them[6]. Access to and availability of this traditional food source that is found in Mono Lake is critically important to the Kootzaduka'a both as a subsistence food source and for cultural reasons. As explained by a Kootzaduka'a Tribal Elder and documented by anthropologists, the name of the Tribe originates from kootzabe[7], which refers to the pupae of the alkali fly, *Ephydra hians*, that inhabits Mono Lake, and the suffix "duka" which means eater in the Paiute Numu language (Steward, 1933).

[6] A modified version of this story is recounted in a video available here: The Kuzedika Nation of Mono Lake, California - YouTube

[7] Alternative spellings include kootzabe, ko-cha-bee, ke-chah-re and ka-cha'-vee

The Kootzaduka'a describe how Mono Lake provides both food for sustenance and other culturally important resources:

> The aquatic invertebrates within Mono Lake's saline waters are not commonly found elsewhere. The unique and balanced chemistry of Mono Lake allowed aquatic invertebrates to thrive, reaching populations year-round numbering in the trillions. The aquatic invertebrates were also a nutritious food source for migratory birds and waterfowl who, by the millions, visited Mono Lake seasonally each year. The waterfowl were hunted for food. Nothing was wasted; the feathers and down were used in making insulating blankets. Bones were used to make whistles and beads. Even the sharp bills of some water birds were fashioned into awls for basket weaving. Waterfowl eggs were harvested along the shoreline and, during breeding season, the Kootzaduka'a rafted out to the islands on tule boats or on bundled log rafts to harvest gull eggs for food.
>
> Numerous freshwater springs surface along the shoreline of Mono Lake. These springs and the saline groundwater supported diverse vegetation communities that were tolerant of saline groundwater. The vegetation was an abundant food supply for our people, with grass seed that was ground into flour, bulbs and roots which were roasted and eaten. Berries and seeds from shrubs and shrubby trees were harvested seasonally (Lange, 2021).

Fresh water deltas that form at the edge of the lake where tributary streams enter Mono Lake are locations for gathering tubers and greens. Plant resources around the edges of Mono Lake in marshy areas include stinging nettles that can be used both as a food source and for fiber, and willows found near freshwater springs and where tributary streams enter the lake that are used in basketry, and the construction of rafts and dwellings. Tribal Elder Jessie Durant recounted in an interview how rafts were constructed of willows to gather seagull eggs on the islands in Mono Lake (Durant, 1991). On a recent site visit to Mono Lake, Tribal Elder Dean Tonenna described how tule that occur in marshy areas around the lake were historically used to produce soft baskets for the collection of gull eggs, which the Tribe no longer collects. Tribal members continue to visit the islands in Mono Lake, though not in rafts, and the Tribe no longer collects gull eggs.

The Kootzaduka'a describe the many traditional uses of the water in Mono Lake. The waters of Mono Lake allow Tribal members to maintain optimal health and the Tribe has adapted to the balanced chemistry of the lake water. When water from Mono Lake is consumed in the correct amount, lake water provides them with an abundant supply of minerals and nutrients. Consumption of Mono Lake water by the Tribe is used to treat stomach ailments, and when used externally for washing and treating wounds, bites, rashes, and skin infections, the lake water leads to rapid and scar-free healing. The alkaline waters of Mono Lake are also used for cleansing both the body and clothing, followed by rinsing in fresh water from the springs along the shoreline. Tribal Elder Jessie Durant recounted how Mono Lake was and still is used for swimming, bathing, and washing, and that Mono Lake water is used as medicine (Durant, 1991).

In addition to information from the Kootzaduka'a Tribe, numerous bibliographic sources and historical accounts are available that document the Tribe's use of resources from Mono Lake. One of the earliest references to kootzabe is that of Zenas Leonard in 1833 who describes how wind pushes the kootzabe to the edges of the lake in large numbers that are then scooped up in baskets by women (Heizer, 1950). An historical account by W.H. Brewer, who visited the area in 1865, estimated there could be hundreds or thousands of tons of insects along the margins of Mono Lake (Heizer, 1950). In another account by W.H. Brewer of his visit to Mono Lake, he describes how the number and quantities of these flies and larvae are incredible, how they drift up in heaps along the shore and how hundreds of bushels could be collected. He described kootzabe as being very nutritious and considered it to be a very important food for the local inhabitants (Williston, 1883). A 1941 edition of Yosemite Nature Notes mentions the importance of kootzabe as an article of trade between the Kootzaduka'a and tribes around Yosemite and describes the great windrows of insect pupae that form along the shore of Mono Lake (Godfrey, 1941). An account of early Mono County published in 1961 by Ella Cain, a resident in the area, reinforces the cultural importance of Mono Lake to the Kootzaduka'a Tribe and the food resources relied upon by the Tribe (Cain, 1961). Kootzabe (called ko-cha-bee in this book) is described as the greatest delicacy for the Tribe. For the Kootzaduka'a Tribe, kootzabe represents a reliable and nutrient-rich food source that was also used for trade with other Tribes. Information about the life cycle and habitat needs of the alkali fly, *Ephydra hians,* is provided above in the section on the Biological Community.

In 1978, as part of an effort by the Bureau of Land Management (BLM) to document cultural resources in the area, the consultant, Basin Research Associates, met with Owens Valley Paiute Shoshone Tribal members to discuss Tribal concerns related to resource management (Busby, 1979). One area of concern was the protection of kootzabe as a traditional tribal food source, which was described as still being harvested from Mono Lake at that time. The discussion of the decreasing supply of kootzabe in the BLM document highlighted impacts to traditional food resources that were occurring at the time:

> The predicted extinction of a portion of the traditional Native America subsistence base must be taken into any future account when dealing with the ecological and cultural impacts associated with the continuing water withdrawals by Los Angeles Water and Power from the Mono Lake area. This resource, now used only by a small number of Native Americans as a supplement to a largely Anglo-based diet, can and must be considered as a spiritual and significant link with their past. Its disappearance from the Native American food chain should be considered as a significant cultural factor in any future planning concerning Mono Lake (Busby, 1979).

A video titled "Of Ice and Fire: A Portrait of the Mono Basin" that was produced for the Mono Basin National Forest Scenic Area Visitor Center includes a portion of the video narrated by Jessie Durant, a Kootzaduka'a elder. The video shows Kootzaduka'a Tribal members gathering kootzabe

in the water along the shore of Mono Lake[8], which involves partial immersion in the water. Although it does not identify when the video was recorded, it was first published in 1992.

During an August 2022 site visit and meeting between Lahontan Water Board staff and Kootzaduka'a Tribal Chairperson Charlotte Lange and Tribal Elder Dean Tonenna, Tribal Elder Tonenna mentioned the importance of maintaining access to traditional food resources into the future, as they represent important sources of nutrition for future generations. They also shared that certain areas around Mono Lake used for subsistence practices associated with gathering and processing the kootzabe are no longer available for those activities. The Tribe has repeatedly emphasized the nexus between the level of Mono Lake and their ability to perform their traditional cultural and subsistence practices. Family groups had specific locations along the edge of Mono Lake where they harvested kootzabe. During the visit in August 2022, Tribal Elder Tonenna pointed to how the current level of Mono Lake left a large proportion of the tufas out of the water in a culturally significant area along the north side of the lake near Black Point. Submerged tufas are an essential habitat feature in the life cycle of the alkali fly, an organism which forms the basis for many of the tribe's cultural and subsistence practices. Areas with submerged tufas are associated with higher productivity and greater abundance of kootzabe (Herbst, 1990).

Tribal Subsistence Fishing (T-SUB) Use in Mono Lake

As described in section 3.1.1, the Kootzaduka'a Tribe consume kootzabe for sustenance and as a key component of their cultural lifeways. The kootzabe is a reliable and nutrient-rich subsistence food source. The Tribe's consumption of kootzabe is at a higher rate of consumption than the general population and so this represents a T-SUB use as described below.

The T-SUB use involves the "gathering of natural aquatic resources, including fish and shellfish, for consumption." Nothing in the Mercury Provisions, or its staff report, indicate that the State Water Board intended fishing and shellfish to be an exhaustive list of "natural aquatic resources" that could be consumed and be considered as part of the T-SUB use. Furthermore, the term "fish" as used in California statutes, includes invertebrate species. (Cal. Fish & Game Code § 45; see also *Almond Alliance of California et al., v. Fish & Game Commission et al*. (2022), 79 Cal.App.5th 337 [the term "fish" includes terrestrial invertebrates].) While there are no finfish within Mono Lake, the alkali fly and its pupae are natural aquatic resources that are a key component of the Tribe's diet. Consumption of this natural aquatic resource can be considered part of the T-SUB use.

In the Mercury Provisions, State Board indicated that "[t]he Tribal Subsistence Fishing and Subsistence Fishing beneficial uses, and the consumption of fish and shellfish component of the Tribal Tradition and Culture beneficial use, relate to the risks to human health from the

[8] Link to Mono Historical Society webpage with video about the Kootzaduka'a: https://www.monobasinhistory.org/videos or link to youtube: https://www.youtube.com/watch?v=9nM05ca3D9o

consumption of noncommercial fish or shellfish. The two-subsistence fishing beneficial uses normally involve higher rates of consumption of fish or shellfish than those protected under the Commercial and Sport Fishing and the Tribal Tradition and Culture beneficial uses."

While Mono Lake is already designated for the "Commercial and Sport Fishing" (COMM) use which identifies the consumption of aquatic species collected for commercial or recreation purposes, that use does not recognize the consumption levels of the Tribe. There is no evidence to indicate that the general population consumes kootzabe at any regular frequency or quantity that would constitute a meal. In contrast, the Tribe consumes kootzabe during the summer months, at a consumption rate greater than the general population, to meet the needs for sustenance. In addition to the 1978 BLM account of subsistence harvesting occurring at Mono Lake since 1975, the practice of subsistence harvesting is expected to occur in the future. As water levels increase to coincide with D-1631, achieving lake elevation is expected to increase kootzabe productivity over current conditions (Herbst, 2023). The abundance of kootzabe is directly tied to water levels and it is unclear whether "optimum" levels for kootzabe production would occur in the future. Nonetheless, the kootzabe is an available natural aquatic resource for subsistence uses presently and into the future. The information in the letters submitted to the Lahontan Water Board by and on behalf of the Kootzaduka'a Tribe support the proposed designation for the T-SUB use in Mono Lake.

3.2. Tribal Tradition and Culture (CUL) Use of Tributaries to Mono Lake

The tributary streams proposed for designation with CUL include Rush Creek, Lee Vining Creek, Mill Creek, DeChambeau Creek, Wilson Creek, Parker Creek, Reversed Creek, Fern Creek, Yost Creek, Alger Creek, South Fork Mill Creek, and Mine Creek. Additionally, the CUL designation is proposed for Bridgeport Canyon Creek based on documentation provided by the Bridgeport Indian Community. The tributary streams provide both fresh water, aquatic resources, and food sources for cultural practices by the Kootzaduka'a Tribe and Bridgeport Indian Community.

During discussions between staff and a Tribal Elder from the Kootzaduka'a Tribe, the Elder described how traditional cultural uses occurred in all these streams and some, such as plant gathering within streams and along stream margins, are still practiced by Tribal members today (Watts, 2023; Watts, 2023). Tribal members historically utilized resources from tributary streams along the entire range in elevation that occurs within the Mono Basin. A Tribal Elder described how plant communities vary with elevation, such that certain plant species are only available in the high elevation portions of the tributary streams (Watts, 2023; Watts, 2023). Written information submitted by Kootzaduka'a Tribal Chairperson Charlotte Lange highlights how riparian vegetation collected within the stream channel and along the margins of the tributary streams serve both as food resources and for materials that are culturally important (Lange, 2021).

> The creeks are bounded on either side by a diverse assemblage of riparian plants such as aspens, various willows, buffalo berries, grasses, and forbs, together forming a green

ribbon of verdant growth which contrasted sharply with the mellow hues of the sagebrush hills and valleys through which these riparian areas traverse.

The Kootzaduka'a Tribe recognizes the importance of how the tributary streams provide clean, cold water that makes its way to Mono Lake and serves to maintain the balanced chemistry of the lake. Water in the tributaries is also utilized for drinking during journeys by Tribal members into the higher elevations for the purpose of gathering plant resources or for trips to the west side of the Sierra Nevada. The availability of water for drinking allows Tribal members to travel further or gather greater quantities of plant material because they do not have to carry water with them. A Tribal Elder also described how water in Wilson Creek was used to process acorns obtained from the west side of the Sierra Nevada (Watts, 2023; Watts, 2023). Additionally, the tributary creeks were where allotment lands were granted by the federal government to some Kootzaduka'a Tribal members under the Dawes Act of 1887 (Marks, 2023). Those allotments were mostly clustered along Rush Creek and there was one on Lee Vining Creek. Each of the allotments located near a creek was associated with tribal members' historical and seasonal camps.

Various types of berries, including elderberry, golden currant and buffalo berry that occur in the riparian corridor serve as food resources that are culturally important for the Tribe. Culturally significant plants that are available seasonally in wet meadows alongside lakes and streams in subalpine and alpine habitats (e.g., 8,000 to 12,000 ft) include wild onion (*Allium* sp.), lupine beans (*Lupinus latifolius*), and grasses serve as important food resources for Tribal communities (Southern California Edison, 2021). Tribal members continue to gather certain plant species like wild onions as a food resources ((Watts, 2023; Watts, 2023). An ethnographic account describes the use of tubers, roots, and greens that were collected from early spring to fall and were critically important in the spring when the winter food stores were nearly exhausted (Busby, 1979). An ethnobiological study of plant uses documented in oral histories of Great Basin tribes mentions chokeberry, willow, and ryegrass as some of the riparian plant species used by Northern Paiute tribes, which includes the Kootzaduka'a Tribe (Sutton, 1989). More recently, in a 1991 interview with Tribal Elder Jessie Durant, she recounts how she gathered wild onions, greens, such as watercress, and other edible plants, roots and bulbs along Rush Creek for consumption (Durant, 1991).

The Kootzaduka'a also use certain plants collected along tributary streams as medicines to treat ailments and for use in preventative health care. Additionally, wild tobacco is gathered and utilized by Tribal members for ceremonial purposes, an activity that has occurred recently (Watts, 2023; Watts, 2023). Similarly, as stated in the submittal from the Bridgeport Indian Colony (Glazier, 2023), Tribal members continue to gather medicinal plants and willow at Coyote Spring and Bridgeport Canyon Creek. These practices provide evidence to support the CUL designation for waterbodies in the Mono Basin.

The Environmental Impact Report (EIR) for D-1631 published in 1993 includes in Chapter 3K an assessment of cultural resources in the Mono Basin that examined both past and existing

Kootzaduka'a Tribal practices (Jones and Stokes Associates, 1993). It describes the importance to Native Americans of the streams and springs in the Mono Basin as sources of freshwater and the riparian corridors that provided diverse plant foods. Additionally, the discussion of cultural resources in D-1631 on P. 188 acknowledges the extensive use of the riparian corridors along the Mono Lake tributaries by Native Americans. A review of archeological literature included in Chapter 3K identified the existence of prehistoric sites located along tributary streams where water was available. The EIR acknowledged that Kootzaduka'a Tribal members continued to reside in the Mono Basin into the 20th century, especially along Rush Creek due its lush vegetation and good fishing, and to a lesser extent, along Lee Vining Creek. It also recognized that Native Americans continued to use traditional resources and practice cultural activities and religious ceremonies in the Mono Basin at the time of its publication in 1993, although it did not specify the type of resource use or cultural practice (Jones and Stokes Associates, 1993).

Written information submitted by the Kootzaduka'a Tribal Chairwoman describes how Tribal members fished in the tributaries using basketry traps, specially made spears, and dip nets made from stinging nettle fiber attached to frames made of willow or currant bushes (Lange, 2021). While scientists believe that fish were not known to inhabit the tributaries to Mono Lake when Europeans arrived (Moyle, Yoshiyama, & Knapp, 1996), there is fossil evidence indicating their presence (Smith, et al., 2002). Moreover, beginning in the mid-1800's, several trout species, among them Lahontan cutthroat trout, brown trout, and eastern brook trout, were introduced into the watershed. Over time, these species became established as wild populations and by 1900 had developed into an abundant fishery. In addition to introductions of trout into the watershed, several other California native fish species, including threespine stickleback, Owens sucker, and tui chub, were introduced into the tributary lakes and streams at some point and are now present in the Mono Basin (Moyle, Yoshiyama, & Knapp, 1996).

Kootzaduka'a Tribal members harvested fish from the tributary streams for consumption once they became established in the Mono Basin and those fish continue to be a resource used by the Tribe today. Interviews of Tribal Elder Jessie Durant and John Dondero in 1991 and 1992 contain accounts of how Tribal members fished in the tributary streams often. Jessie Durant describes fishing in Rush Creek with willow poles and roasting fish outdoors during the summer (Durant, 1991). In an interview with John Dondero, he reiterated the importance of fishing and the abundance of fish available in Parker Creek, Lee Vining Creek, and Rush Creek, where up to 25 fish were caught at a time (Dondero, 1992). Kootzaduka'a Tribal Elder Dean Tonenna confirmed that Tribal members continue to fish in the tributary lakes and streams every summer. He explained that should the Tribe obtain federal recognition in the future (something they have been working towards diligently) and are provided with Tribal land, he expects fishing activity by Tribal members would increase in the Mono Basin due to greater numbers of Tribal members residing in the area. The Mono Lake Kootzaduka'a Indian Community Cultural Preservation Associated, a 501(c)(3) non-profit organization run by Tribal members, is in the process of acquiring 160 acres of private land off Tioga Pass Road that will be used to promote activities that preserve the Tribe's cultural heritage. The land is located not far from Lee Vining Creek, so it

is reasonable to expect activities may involve increased fishing in the area. In addition to fish, the Bridgeport Indian Colony recount how frogs were collected by Tribal members in Bridgeport Canyon Creek as a food resource and later for trade with settlers in the area.

The tributary streams provide essential resources used for basketry, both historically and by Tribal members today. Willows, dogwood, and tule used in basketry are collected along the creeks and processed to produce baskets for food gathering, food storage and preparation, cooking, transporting food, babies, and other items, and as hats (Steward, 1933). Dogwood is used to create the rim of baskets due to its strength (Watts, 2023; Watts, 2023). A Tribal Elder explained that tule occur in wetland areas along tributary streams and were more abundant prior to the depletion of flows that occurred after water diversion began. The tributary streams provide essential resources used both historically and by Tribal members today for cultural practices that supports the CUL designation for those waterbodies.

During a meeting with Lahontan staff in November 2022, Tribal Elder Dean Tonenna demonstrated how willow boughs are prepared for basketry. This involves holding the willow bough in one's mouth while splitting it with the hands. He also explained that willow boughs must be gathered before the leaves emerge. Since plant development is influenced by elevation, willow gathering activities first focus on lower elevations early in the year, followed by willow gathering at progressively higher elevations where plants develop later. In this way, the Tribe makes use of tributary streams and lakes throughout the range in elevation found in the Mono Basin for gathering materials for traditional crafts. Moreover, basketry production requires large amounts of materials, most of which cannot be used immediately and require a period of storage, which emphasizes the importance of gathering throughout the watershed for later use. Traditional burning, which is practiced by the Kootzaduka'a Tribe, increases availability of willow shoots by maintaining plants at a young age and enhances plant health by reducing insect pests and pathogens (Anderson & Moratto, 1996).

In addition to utilitarian purposes, creating baskets became an important art form and source of income as well as a cultural activity for Kootzaduka'a Tribal members. Kootzaduka'a baskets are sometimes adorned with designs made of beads woven over the baskets. Baskets were produced for sale and for display at the annual Yosemite Indian Fields Days in the early 1900's, which included a basketry competition. As recounted in a 1991 interview with Tribal Elder Mrs. Jessie Durant (Durant, 1991):

> It is well known that the Mono Lake Paiutes used the willows which grew nearby and along Rush Creek as the natural source of material for basket making. Some of the woven baskets were the finest made. The women were creative and artistic. Many of the baskets were prize winners at the Yosemite Indian Field Days.

Mono Lake Kootzaduka'a basket makers are some of the best in the world. Today, examples of Mono Lake Paiute (Kootzaduka'a) basketry are found in museums throughout the United States and one of the prize-winning baskets made by Carrie Bethel (who died in Lee Vining in 1974) sold

at auction for over $200,000[9], while in 2006, a basket made by Wutoni (Tina Charlie) a Kootzaduka'a artist, sold for $336,250 at an auction in San Francisco, California[10]. The cultural tradition of gathering materials along Mono Basin waterways and using them to create baskets continues today, which was confirmed by Tribal Elder Dean Tonenna who practices this tradition himself.

The Kootzaduka'a Tribe also emphasize the role tributary streams play as travel corridors for journeys by Tribal members over the Sierra Nevada crest to fish for salmon in the tributaries to the San Joaquin River and to gather acorns. While some may see the Sierra Nevada as a barrier, the tributary corridors actually serve as conduits between peoples. These stream corridors facilitate both trade and inter-Tribal gatherings with communities on the western slope, like the Miwok, and reunions with other Kootzaduka'a tribal members who at times resided in Yosemite and Hetch Hetchy valleys. The Kootzaduka'a traveled frequently, such that travel corridors along tributary streams are an important cultural resource (Southern California Edison, 2021). Several trails were and continue to be used for travel over the Sierra Nevada, with the easiest route being the Mono Trail that passes through Bloody Canyon along Walker Creek, Mono Pass and Tuolumne Meadows. Kootzaduka'a Tribal members together with Miwuk from the western slope and other local Tribes continue to make annual treks along the Mono Trail from Mono Lake to Yosemite or vice versa when conditions allow. A traditional walk took place in 2023 from July 30 to August 5 despite the record snowfall that occurred during the past winter[11]. This shared use of these travel corridors emphasizes their cultural importance to multiple Tribes, not just the Kootzaduka'a Tribe. The Bridgeport Indian Community describes the cultural significance of Bridgeport Canyon Creek as a travel corridor. They state that "trails are culturally significant to us because they direct the flow of life, or they lead to places of spiritual power, or they change the people walking them by restoring healing balance".

Anthropological sources document the cultural and subsistence uses associated with travel corridors along streams. One investigator examined the presence of bedrock mortars in the Mono Basin to assess the importance of acorn gathering (Haney, 1992). He describes annual journeys that were made from the Mono Basin to Yosemite to gather acorns, which included hunting along the way, and facilitated trade and the maintenance of social ties with Tribes from the western Sierra Nevada. Such interactions are important to Tribal members for information gathering and access to shared resources. Upon their return to the Mono Basin in the fall, a large festival took place along the shores of Mono Lake (Haney, 1992). Steward (1933) describes how, of the Tribes east of the Sierra Nevada, the Kootzaduka'a maintained the most direct ties with communities that are part of a trans-Sierra network and confirms Kootzaduka'a seasonal use of

[9] Source is 2017 article by Phyllis Doyle Burns regarding Northern Paiute Basket Makers: https://discover.hubpages.com/education/Northern-Paiute-Basket-Makers

[10] Source is article in Antiques and the Arts Weekly accessed at https://www.antiquesandthearts.com/native-american-art-auction-sets-records-tops-2-8-million/

[11] See Kootzaduka'a Tribal website with information about 2023 Traditional Walk: https://sogomea.monolaketribe.us/mono-lake-to-yosemite-valley-traditional-walk/

the high elevation portions of the Mono Basin. As mentioned previously, Kootzaduka'a Tribal members continue to utilize trans-Sierra trails that occur along tributary streams as a way to connect with their past and to maintain relationships with other Tribes.

3.3. Tribal Tradition and Culture (CUL) Use of Lakes Upstream of Mono Lake

As stated in the September 2021 letter from the Kootzaduka'a Tribe, Tribal members visited the lakes situated upstream of Mono Lake for spiritual practices and during travel in high elevation portions of the Mono Basin (Lange, 2021). Although some of these lakes have been dammed for hydropower operations to enlarge their storage capacity, smaller natural lakes existed at those locations previously (Diamond, 1988). The natural lakes that have been enlarged include Lundy Lake, Agnew Lake, Gem Lake, Saddlebag Lake, Tioga Lake, and Ellery Lake. Additionally, the Tribe has requested that the following lakes be designated with the CUL beneficial use: Alger Lakes, Blue Lake, Crystal Lake, Oneida Lake, Walker Lake, Parker Lake, Sardine Lakes, Greenstone Lake, Conness Lake, Yost Lake and three unnamed glacial lakes located on Mine Creek, Crest Creek, and Rush Creek. A Kootzaduka'a Tribal Elder emphasized how resources used by the Tribe vary with elevation. Some edible plant species used by Tribal members only occur in riparian zones along margins of streams and lakes in the high elevation portions of the Mono Basin, while other species occur in lower portion of the watershed (Watts, 2023; Watts, 2023). Tribal members harvest fish from the tributary lakes, which is an activity, along with plant gathering, that provides sustenance along the way while traveling through the area or while conducting spiritual practices. These resources are still available in the watershed and Tribal members continue to utilize them. The information provided by the Tribe recounts how journeys are made to certain high elevation water bodies for religious purposes with offerings placed along the edge of the water. Due to concerns about confidentiality, the Tribe has not shared details about specific practices or locations, as looting has occurred in the past.

As discussed in the section on biological communities, vegetation in riparian areas along the margins of the lakes in the basin includes edible plant species such as wild onions, rushes, sedges, and grasses along with portions of aspen riparian forest and mixed willow riparian forest that contain a wide variety of understory edible vegetation including currants, buckwheats, willow herb, mugwort, and thistle (Southern California Edison, 2021). A Tribal Elder described how wild tobacco is currently gathered and used for ceremonial purposes. He explained how it tends to thrive in locations affected by disturbance and that it can be found around Grant Lake, where the fluctuation in lake level provides the appropriate habitat conditions (Watts, 2023; Watts, 2023). Although thought to be fishless when Europeans arrived in the Mono Basin, the establishment of trout populations in lakes in the Mono Basin provide a food source to Tribal members during trans-Sierra travel along stream corridors by providing fish and plant resources during their journeys. Such resources currently provide a food source to Tribal members as they continue to fish in the Mono Basin lakes during the fishing season in late spring, summer, and early fall (Watts, 2023; Watts, 2023)

4. Beneficial Use Designations for Waterbodies to Be Named in Basin Plan

The waterbodies not named in Basin Plan Chapter 2, Table 2-1, Beneficial Uses of Surface Waters of the Lahontan Region, will be added to Table 2-1 and designated with the CUL beneficial use. Those waterbodies include the following: Horse Canyon Creek, DeChambeau Creek, Wilson Creek, Bridgeport Canyon Creek, Warren Fork, Lee Vining Creek, Fern Creek, Yost Creek, Alger Creek, Mine Creek, Parker Lake, Sardine Lakes, Greenstone Lake, Conness Lake, and Yost Lake. In addition to the CUL designations, the beneficial uses identified for minor surface waters in the Mono Hydrologic Unit will be designated to the waterbodies added to Table 2-1. Table 5, below, shows the beneficial uses that will be designated for the waterbodies not named in the Basin Plan.

Table 6 Beneficial Use Designations Proposed for Waterbodies Added to Table 2-1

Water Body	Downstream Named Waterbody	Beneficial Uses
STREAMS NOT NAMED IN BASIN PLAN		
Bridgeport Canyon Creek	Mono Lake, Use Minor Surface Waters	MUN, AGR, GWR, FR, REC-1, REC-2, COMM, COLD, WILD, SPWN, CUL
Wilson Creek	Mono Lake, Use Minor Surface Waters	MUN, AGR, GWR, FR, REC-1, REC-2, COMM, COLD, WILD, SPWN, CUL
DeChambeau Creek	Mono Lake, Use Minor Surface Waters	MUN, AGR, GWR, FR, REC-1, REC-2, COMM, COLD, WILD, SPWN, CUL
Warren Fork, Lee Vining Creek	Lee Vining Creek	MUN, AGR, GWR, FRSH, POW, REC-1, REC-2, COMM, COLD, WILD, SPWN , CUL
Mine Creek	Lee Vining Creek	MUN, AGR, GWR, FRSH, POW, REC-1, REC-2, COMM, COLD, WILD, SPWN, CUL
Beartrack Creek	Lee Vining Creek	MUN, AGR, GWR, FRSH, POW, REC-1, REC-2, COMM, COLD, WILD, SPWN, CUL
Horse Canyon Creek	Mono Lake, Use Minor Surface Waters	MUN, AGR, GWR, FR, REC-1, REC-2, COMM, COLD, WILD, SPWN , CUL
Fern Creek	Reversed Creek	MUN, REC-1, REC-2, COMM, COLD, WILD, SPWN, CUL
Alger Creek	Silver Lake	MUN, REC-1, REC-2, COMM, COLD, WILD, SPWN, CUL
Yost Creek	Reversed Creek	MUN, REC-1, REC-2, COMM, COLD, WILD, SPWN , CUL
Crest Creek	Gem Lake	MUN, POW, REC-1, REC-2, COMM, COLD, WILD, SPWN, CUL
LAKES NOT NAMED IN BASIN PLAN		
Greenstone Lake	Lee Vining Creek above Saddlebag Lake	MUN, AGR, GWR, FR, CUL, T-SUB SH, POW, REC-1, REC-2, COMM, COLD, WILD, SPWN, CUL
Conness Lake	Lee Vining Creek above Conness Lake	MUN, AGR, GWR, FRSH, POW, REC-1, REC-2, COMM, COLD, WILD, SPWN, CUL
Sardine Lakes	Walker Creek above Walker Lake	MUN, AGR, GWR, FRSH, REC-1, REC-2, COMM, COLD, WILD, SPWN, CUL
Parker Lake	Parker Creek	MUN, AGR, GWR, FRSH, REC-1, REC-2, COMM, COLD, WILD, SPWN, CUL
Yost Lake	Reversed Creek	MUN, REC-1, REC-2, COMM, COLD, WILD, SPWN, CUL
Unnamed Lake on Alger Creek	Silver Lake	MUN, POW, REC-1, REC-2, COMM, COLD, WILD, SPWN, CUL

Water Body	Downstream Named Waterbody	Beneficial Uses
Unnamed Lake above Waugh Meadows	Gem Lake	MUN, POW, REC-1, REC-2, COMM, COLD, WILD, SPWN, CUL
Spuller Lake	Lee Vining Creek	MUN, AGR, GWR, FRSH, POW, REC-1, REC-2, COMM, COLD, WILD, SPWN, CUL

5. Reasonably Foreseeable Methods of Compliance

An SED for a proposed project is required to include an analysis of the reasonably foreseeable methods of compliance with the project (see Cal. Code Regs., tit. 23, §3777(c); Pub. Res. Code, § 21159(d)). This section provides a description of why there are no reasonably foreseeable methods of compliance for the designation of TBUs in the Mono Basin.

5.1. Scope of Reasonably Foreseeable Methods of Compliance Analysis

The Mono Basin Project is limited to the designation of CUL and T-SUB uses to Mono Basin waterbodies and does not include development and adoption of new water quality objectives to protect those uses. However, to conduct a thorough environmental analysis pursuant to CEQA, it is necessary to consider whether the existing water quality objectives and protections in the Lahontan Basin Plan adequately protect the CUL and T-SUB uses or if new objectives are likely to be needed. This would inform whether additional measures or reasonably foreseeable methods of compliance might be needed to maintain water quality that is protective of the CUL and T-SUB uses.

In determining whether there are any reasonably foreseeable methods of compliance, the following were considered: the potential exposure pathways associated with the CUL and T-SUB uses in the Mono Lake Basin, the constituents, and characteristics of concern in the waterbodies, existing protections, and whether additional protections are likely to be established to protect CUL and T-SUB uses.

While there is continued discussion regarding whether the TDS objectives and water levels in Mono Lake reasonably protect kootzabe, any actions to protect aquatic life health or population would be associated with protecting the SAL and WILD beneficial uses, and not CUL and T-SUB. State Water Board's 'Final Part 2 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California—Tribal and Subsistence Fishing Beneficial Uses and Mercury Provisions ("Mercury Provisions") state: "The functions of the Tribal Tradition and Culture, Tribal Subsistence Fishing, and Subsistence Fishing beneficial uses are not to protect or enhance fish populations or aquatic habitats. Fish populations and aquatic habitats are protected and enhanced by other beneficial uses, including but not limited to, Fish Spawning, Migration of Aquatic Organisms, Aquaculture, Warm Freshwater Habitat, and Cold Freshwater Habitat, that are designed to support aquatic habitats for the reproduction or development of fish." However, the Lahontan Water Board acknowledges the importance of the kootzabe as the traditional food resource used by the Kootzaduka'a Tribe. Reduced access or availability of kootzabe from Mono

Lake, an important subsistence food source for the Kootzaduka'a, can negatively impact both the spiritual and physical health of Tribal members. Determining whether revisions to the salinity water quality objectives would be needed to protect SAL and WILD is outside the scope of this project. As the function of the T-SUB and CUL use is not for the protection of aquatic life, any revisions to the salinity objective or establishment of other standards or actions to protect the health or populations of aquatic life are not a direct result of this project and will not be discussed further in this environmental analysis.

5.2. Exposure Pathways and Conditions that Support the Tribal Beneficial Uses

As described in the State Water Board's staff report for the establishment of the TBUs and demonstrated in this Staff Report, tribal uses of water for cultural, spiritual, ceremonial, or traditional practices or lifeways of California tribes take many forms. Those activities are described in more detail in Section 3 of this Staff Report. Persons may become exposed to contaminants in water or conditions that impede their ability to practice the TBUs. These possible "exposure pathways" and conditions are described below.

Uses Involving Contact with Water

For both the Kootzaduka'a and the Bridgeport Indian Colony Tribal members, streams and lakes in the Mono Basin serve as sources of materials for basketry and other craft items, as sources of food and medicine as well as locations with spiritual and cultural significance where religious practices or traditional gatherings may occur. Additionally, stream corridors and lakes are used to provide food and drinking water during travel. Water consumed while traveling along lakes and stream corridors is typically filtered prior to consumption as evidenced by information from the Tribe provided to participants of a traditional walk between Mono Lake and Yosemite instructing them to bring water filters.

The pathways to potential exposure to contaminants in waterbodies used by Tribal members engaging in these traditional practices include drinking, immersion and contact with the water when collecting kootzabe and other aquatic resources and contact with water when collecting aquatic resources in or along the margins of streams and lakes. Potential exposure may also occur when water from Mono Lake is consumed. Only small quantities of water are consumed for medicinal purposes from Mono Lake. Incidental exposure to contaminants in water can also occur during the process of preparing plant materials for use, such as when basketry materials are repeatedly held in the mouth or when water is used to process acorns prior to consumption.

Exposure to contaminants in water from harvesting, fishing, and collection of aquatic plants and contacting water would likely be a similar exposure to that which would occur for activities that are part of the REC-1 use.

Exposure to contaminants in water from digesting untreated water during basket weaving and food preparation could be at a similar rate and frequency than activities covered under REC-1.

Uses Involving Consumption of Aquatic Resources

Exposure to contaminants can result from the consumption of aquatic resources by the Kootzaduka'a Tribe. This includes consumption of the kootzabe harvested from Mono Lake, fish obtained from the tributary lakes and streams, and consumption of aquatic plant species harvested in or along the margins of waterbodies. Medicinal uses of plants can result in exposure pathways through direct consumption, consumption of teas or topical application of plant materials.

Due to the annual and routine harvesting, collection and consumption of kootzabe at Mono Lake by the Tribe, as part of CUL and T-SUB uses, is at a greater rate and frequency than those same activities conducted by the general population as part of the COMM beneficial use.

Consumption of fish in the tributaries of Mono lake as part of CUL are at a similar quantity and frequency as those same activities conducted by the general population as part of the COMM beneficial use.

Uses Involving Water levels or Other Characteristics of the Water

The practice of Tribal members engaging in traditional kootzabe gathering practices and the associated cultural activities, such as seasonal celebrations and family reunions that occur around the lake, may require water levels at specific locations. Families were assigned specific areas of tufas and preparation locations near certain submerged tufa areas, for the gathering of the kootzabe and other seasonal celebrations. Low lake levels reduce the areal extent of this important habitat feature and impact traditional food gathering practices when the locations around the lake where Tribal families historically gathered kootzabe are no longer inundated. When tufas are no longer submerged in the familial areas traditionally used by a family group to gather kootzabe, then families are either unable to gather or must alter their cultural practices by sharing gathering locations with other families.

The Tribes also engage in ceremonies at Mono Lake and the tributary lakes and streams that require that the waterbody exist for prayers, blessings, and anointings to ensure a well-balanced life with the environment and within the community.

5.3. Constituents of Concern and Characteristics that that Could Impact Water Quality in the Mono Basin

The majority of the lands in Mono Basin are federal or state public lands. A small proportion of land is owned by LADWP, with the remainder in private hands. There are no industrial dischargers and the primary economic activities in the area are tourism and outdoor recreation. There are no permitted surface water discharges in the Mono Basin that contain toxic substances and future discharges are not expected. The Mono County General Plan emphasizes the importance of maintaining open space and the conservation of natural resources and promotes low intensity uses. It also seeks to encourage development to occur in existing community

centers. New discharges in the Mono Basin are not likely. Due to the rural nature and minimal industrial sources in the area, any constituents of concern or characteristics that could impact water quality are limited to a few key sources: recreation, population centers, livestock grazing and wild horse management, historic mining, highways and roads, historic military operations, and water diversions. As described below, constituents of concern associated with these activities include bacteria, nutrients, mercury, sediment, and salinity.

Recreational activities occur throughout the Mono Lake Basin, and recreational facilities such as bathrooms, campgrounds, and trails are located along the tributary lakes and streams. Recreation activity along the tributary streams and lakes can degrade water quality if not managed appropriately. An area of concern highlighted in a watershed assessment for the Mono Basin conducted by Mono County is microbial contamination of streams that can be due to poor waste disposal practices of humans and their pets associated with recreation (Mono County Community Development Department, 2007). Constituents of concern associated with these activities are bacteria and nutrients.

Several communities are located in the Mono Lake basin, including the town of Lee Vining and the community of Mono City. Although the major population centers in the Mono Basin in Lee Vining and the June Lake area are served by community sewer systems, residences outside of these locations depend on onsite wastewater treatment systems, known as OWTS. Ineffective household septic systems can be a source of contaminants to groundwater that can then affect surface water quality. Constituents of concern associated with these activities are bacteria and nutrients.

Livestock grazing is an activity that occurs in the Mono Basin that can impact water quality. However, the Mono County general plan states that while cow and sheep grazing was common in the past, it is now greatly reduced or does not exist in some locations. Although sheep grazing was prohibited by Mono County in 2017 due to concerns about impacts on Sierra Nevada bighorn sheep populations, there are still cattle grazing operations in the lower elevation portion of the Mono Basin, including on 800 acres of lands owned by the county at the Conway Ranch and Mattly Ranch. Cattle grazing can lead to sediment discharge to surface waters due to trampling of stream banks and can lead to bacteria contamination associated with cattle manure. LADWP owns land in the Mono Basin, primarily between Grant Lake and Mono Lake and a few smaller parcels along the north and west shores of Mono Lake, but it is not leased for grazing.

Wild horses have been causing environmental damage in the Mono Basin with the potential for adverse impacts to water quality. Whereas the herd, known as the Montgomery Pass herd, originally inhabited lands east of Mono Lake, it has encroached into the shoreline areas on the east and south side of Mono Lake. The herd is managed by BLM and the United States Forest Service (USFS), however currently the agencies do not actively manage the size of the herd, and instead rely on natural predation by mountain lions to keep the population in check. Wild horses can damage freshwater springs, tufa, and alkali meadows around the lake. During the 2022-2023 winter season, horses remained in the South Tufa and Navy Beach areas of Mono Lake and

deposited large amounts of manure in this area. Volunteers and staff with the Mono Lake Committee and USFS staff worked to clean up the manure around the shores of Mono Lake and along the access trails. Constituents of concern associated with these activities are bacteria and nutrients.

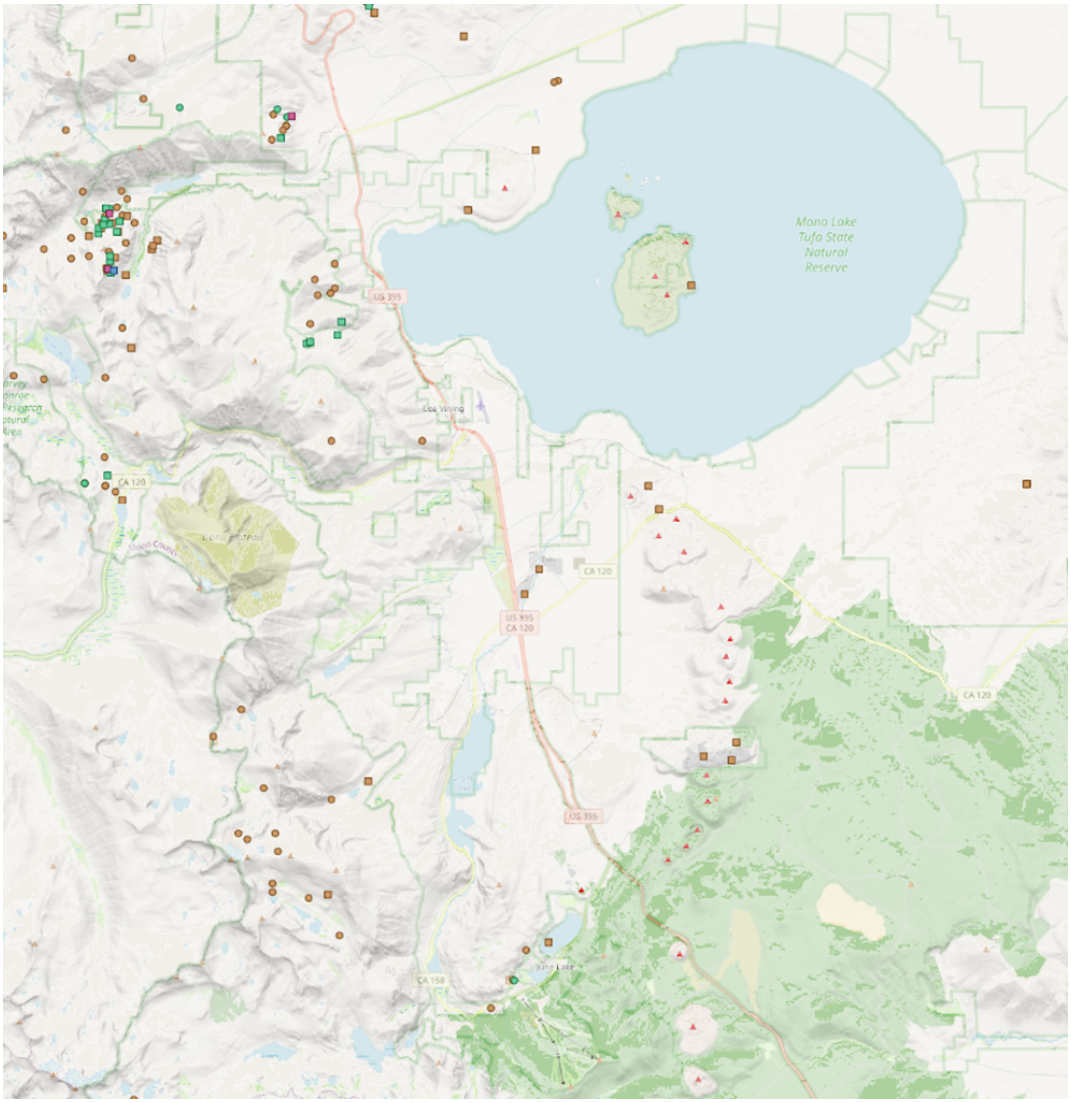
Activities that contribute nutrient inputs could also contribute to freshwater harmful algal bloom (FHAB) incidences. According to information from State Board's Freshwater HAB database, FHAB incidents have been reported in the Mono Basin. In 2021, incidents were reported for Silver Lake, Gull Lake, and June Lake and water samples were collected and analyzed for the presence of cyanotoxins. At that time, cyanobacteria (i.e., blue-green algae) were present, but cyanotoxins (toxic compounds produced by FHABs) were not found.

Mining activity began in the Mono Basin in the mid-1800's and there are numerous abandoned mine sites located in the Mono Basin, based on search results obtained from the USGS Mineral Resources Data System[12]. Figure 2 shows results from the United States Geological Survey (USGS) database in the vicinity of Mono Lake. The highest concentration of mining sites is located in the Lundy Canyon/Mill Creek watershed. Information from the USGS database documents the use of mercury for the recovery of gold and silver from the May Lundy Mine upstream of Lundy Lake at mill sites near Lundy Lake and potential mercury accumulation in Mill Creek, Lundy Lake, and other small lakes in the vicinity[13]. Details about the use of mercury are not available for other mine sites in the area.

In partnership with the Sierra Nevada Conservancy and the Eastern Sierra Land Trust, the Kootzaduka'a Tribe is acquiring ownership of 160 acres of private land above Lee Vining. Kootzaduka'a Chairwoman Lange expressed concerns about the legacy impacts to water quality associated with historic mining activity. There is an historic mine, the Log Cabin Mine, located about three miles up the road from the property being acquired by the Tribe that is potentially affected by legacy uses of mercury and other metals associated with mining activity. Addressing these impacts is challenging due to the diffuse nature of the contamination. The USFS is the land manager for most of the abandoned mine sites in the Mono Basin. In the case of the Log Cabin Mine, USFS funded a site assessment and engineering analysis to determine what future actions may be needed to reduce safety hazards and risks to public health (ECM Consultants, 2015).

[12] Searchable spatial data on mining activity available at: https://mrdata.usgs.gov/mrds/map-graded.html
[13] Information on May Lundy Mine available at: May Lundy Mine (MRDS #10310710) AU, AG (usgs.gov)

Figure 3 USGS Mineral Resources Data System map identifying locations in the Mono Basin where mining activity occurred. Squares indicate mining sites and circles indicate prospecting sites. Colors indicate quality of records with blue highest quality, pink, next highest, followed by green and brown.



Highways and other roadways within the Mono Basin can be sources of pollutants to surface waters, especially during stormwater discharge events. Locations where Highway 395 crosses over tributary streams can be sources of sediment, salts, and other contaminants, especially in the winter when materials are deposited on the roadway to improve traction. Dirt roads on USFS can be sources of sediment. Low lake elevations in Mono Lake can concentrate salts and other minerals in the lake water.

Kootzaduka'a Tribal members have raised concerns about whether military activities that took place in the 1950's and 1960's on the south shore of Mono Lake near Navy Beach may have led to radiological hazards. The Kootzaduka'a Tribe submitted a complaint to the Lahontan Water Board expressing their concern that exposure to water or consumption of resources from Mono

Lake could affect human health due to potential radiological contamination. The military activities were conducted by the Navy in the 1950's and by the Army Corps of Engineers in the 1960's and involved detonating underwater bombs in Mono Lake to collect information on the generation and propagation of both seismic waves and water waves from the explosions. It is unknown whether any outreach occurred to the surrounding community, including to members of the Kootzaduka'a Tribe living in the area at the time, to explain what was happening. Additionally, a scientific paper published in 1988 documented abnormally high levels of C-14 in Mono Lake and suggested that a possible source may have been clandestine disposal of radioactive material in Mono Lake (Broecker, et al., 1988). There is no evidence that disposal of radioactive material has occurred, and other investigators have offered alternative explanations to account for the C-14. In response to the complaint, Lahontan Water Board staff collected sediment, water, and kootzabe samples for radiological analysis and will share the results with the Tribe once they are available. Those results will be compared with the water quality objectives for radiation in the Lahontan Basin Plan, which are expressed as "Gross Beta particle activity" (CCR Title 22, §64443).

Impacts associated with the diversion and export of surface water from Parker Creek, Walker Creek, Lee Vining Creek, and Rush Creek by LADWP, which are tributaries to Mono Lake, affect not only the water levels in the lake but also the water quality. By reducing the freshwater flows into Mono Lake, salts and other minerals that are already naturally high due to evaporation become even more concentrated than would occur otherwise due to the reduced volume of the lake. The relationship between the level of Mono Lake, water quality and the export of water out of the Mono Basin are discussed in Sections 2.2 and 2.3 above.

5.4. Protections for TBUs

The Lahontan Basin Plan contains water quality objectives and prohibitions that apply either regionwide for the protection of beneficial uses or are specific to the Mono Basin. There also exist water quality objectives that apply statewide to inland surface waters for specific beneficial uses. As explained above, the constituents of concern in the Mono Lake Basin are bacteria, nutrients, mercury, sediment, and salinity, and new surface water discharges are unlikely to occur in the Basin. The characteristic of concern in Mono Lake is the water level. Given the exposure pathways and constituents of concern, this section describes the existing protections and whether additional protections are likely to be implemented to protect TBUs in the Mono Lake Basin.

Protections for TBUs uses that involve Contact with Water

The Lahontan Basin Plan contains water quality objectives that apply regionwide for the protection of beneficial uses. Those include objectives for chemicals and metals to protect sources of drinking water, the consumption of aquatic resources and to protect aquatic life, objectives regarding undesirable tastes and odors in edible aquatic resources, and objectives that

address toxic substances in surface waters that produce detrimental physiological responses in humans or wildlife.

The state-wide water quality objectives for bacteria and pathogens applicable to the Lahontan Region are at levels meant to reduce the risk of illness associated with recreational uses of water. Those uses include water contact recreation, such as swimming or bathing, and includes incidental ingestion of water. The state-wide water quality objectives for pathogens that apply in the Lahontan Region are meant to reduce the risk of illness associated with recreational uses of water. It is likely that the pathogen water quality objectives are sufficiently protective to cover the activities associated with the CUL use, which include bathing and immersion in water, however, if information is provided in the future that suggests exposure rates are higher than REC-1 in the waterbodies that are addressed by the current objectives, it may be necessary to consider the development of site-specific objectives for pathogens. There are currently no waterbodies identified as impaired for pathogens in the Mono Basin.

Sediment or other suspended materials discharged to surface waters can be a source of pathogens, nutrients, and other contaminants, especially when it originates from stormwater runoff. It can also be the cause of high turbidity in the water, which can impact activities associated with the CUL beneficial use, such as bathing, swimming, or incidental ingestion of water. The Lahontan Basin Plan contains a region-wide narrative water quality objective for sediment which states that suspended sediment discharge to surface waters shall not be altered in such a manner as to cause nuisance or adversely affect the water for beneficial uses. Similarly, the region-wide narrative objective for turbidity requires that water be free of changes in turbidity that cause nuisance or adversely affect the water for beneficial uses. There are relatively few data available for suspended sediment or turbidity in the Mono Basin, however the available data for Lee Vining and Rush Creek do not indicate high values for either. The Caltrans stormwater permit contains measures to control sediment discharge and any future activity that involves soil disturbance would be subject to permit conditions to control sediment. It is unlikely that new or more stringent water quality objectives for sediment or other suspended materials are needed to protect the CUL use.

The Lahontan Basin Plan contains site-specific objectives for TDS and nutrients (Nitrate-N, Total N and Phosphate) for waterbodies in the Rush Creek sub-watershed. Those objectives apply to June Lake, Reversed Creek, Gull Lake, Rush Creek, Silver Lake, and Grant Lake. There are also site-specific objectives for Mono Lake for TDS, chloride, sulfate, fluoride, boron, Nitrate-N, and phosphate. The site-specific water quality objectives in the Lahontan Basin Plan were developed based on water quality data collected prior to 1975, when the objectives were established, and are meant to protect ambient water quality. They are not explicitly tied to specific beneficial uses, and in most cases, they tend to be more stringent than needed to protect some of the beneficial uses designated in the Lahontan Basin Plan.

The objectives for TDS and nutrients applicable to waterbodies described above are likely to be protective of human contact with water when conducting the CUL use because they are

protective of REC-1. Those uses include water contact recreation, such as swimming or bathing, and includes incidental ingestion of water. It is likely that the water quality objectives are sufficiently protective to cover the water contact activities associated with the CUL uses, which include bathing and immersion in water, however, if information is provided in the future that suggests exposure rates are higher than REC-1, it may be necessary to consider the development of site-specific objectives for TDS and nutrients to protect human health risk associated with water contact and the CUL use.

The TDS objective for Mono Lake is 76 g/L TDS applied as an annual average and was first established in the Water Quality Control Plan for the South Lahontan Basin and approved by the State Water Board in 1975. At that time, the beneficial uses for Mono Lake designated by the plan included saline water habitat, wildlife habitat, and water contact recreation. In Water Rights Decision 1631, the State Water Board indicated that the water quality objective of 76 g/L would correspond to a lake level of approximately 6,386 feet. Tribal members have described adverse health outcomes, such as skin irritation, after immersion in Mono Lake that they say had not occurred in the past. The lake elevation estimated to achieve the Lahontan Basin Plan water quality objective for salinity identified in D-1631 (i.e., 6,386 feet) was designed to be protective of SAL, WILD, and REC-1. Therefore, the water quality objective should be adequate to allow traditional practices performed by Kootzaduka'a Tribal members with similar exposure pathways to REC-1, such as bathing or cleansing and entering the water for harvesting, without adverse human health outcomes associated with high concentration of salts in the water.

Toxic compounds produced by Freshwater Harmful Algae Blooms (FHABs) known as cyanotoxins could potentially impair Tribal uses of water in the Mono Basin. Exposure pathways to cyanotoxins associated with Tribal practices include skin contact, ingestion of water, breathing in water droplets that contain toxins or eating fish or shellfish that contain toxins, all of which can lead to adverse health effects in humans. According to information from State Board's FHAB database, FHAB incidents have been reported in the Mono Basin, but not in Mono Lake, where FHAB incidents don't occur due to high salinity conditions. In 2021, incidents were reported for Silver Lake, Gull Lake, and June Lake and water samples were collected and analyzed for the presence of cyanotoxins. At that time, cyanobacteria (i.e., blue-green algae) were present, but cyanotoxins were not found. While there are guidelines available that identify thresholds of cyanotoxins associated with adverse health impacts, there are no specific water quality objectives for these compounds. However, the Lahontan Basin Plan does have a water quality objective for biostimulatory substances that prohibits concentrations that promote aquatic growth to the extent that such growth adversely affects beneficial uses. This would apply to growth of cyanobacteria. As the CUL uses have similar exposure rates to cyanotoxins as REC-1, any water quality objectives or implementation of the narrative objective that would be developed in the future for cyanotoxins are not necessarily the result of this project. The State Board is currently engaged in developing a regulatory framework to establish statewide water quality objectives for nutrients and cyanotoxins.

Requirements to protect the REC-1 use are already included in permits issued by the Lahontan Water Board, and therefore, no revisions or more stringent requirements would likely be included. Existing permits include Waste Discharge Requirements (WDRs) issued to June Mountain Ski Area, June Lake Public Utility District, and Lee Vining Public Utility District. Requirements in these WDRs include prohibitions against the discharge of sewage or sewage effluent to surface water and the discharge of pollutants or contaminants that are harmful to humans or to aquatic or terrestrial plant or animal life. Additionally, no discharge of coliform organisms attributable to human waste is allowed for permittees of the above mentioned WDRs. There are limited pollutant sources in the Mono Lake Basin due to the lack of development in the area and existing protections that include prohibitions in the Lahontan Basin Plan and County requirements, as explained in more detail below.

The measures in the Mono County Plan that address maintenance and improvement of riparian habitat include removing nonessential stream crossings, removing campgrounds and other facilities from riparian zones, restoring degraded riparian areas and continuation of LADWP's stream restoration plan. The plan also acknowledges potential impacts on water quality from excessive use of chemical fertilizers but states there is no evidence to indicate this is a problem. Although stormwater runoff is not addressed in the Mono County Plan, the Mono County general plan encourages the use of low-impact development to keep polluted runoff out of streams and lakes by using appropriate design methods that utilize the chemical properties of soil and plants to remove pollutants. The statewide Caltrans stormwater permit also contains requirements to maintain roadway infrastructure and utilize BMPs to reduce or prevent discharge of sediment and/or other pollutants into surface waters.

Mono County developed and implemented a Local Area Management Program that was approved by the Lahontan Water Board in 2018 that contains requirements for septic systems, known as Onsite Wastewater Treatment Systems (OWTS). Those requirements are designed to protect public health and water quality through the proper design, placement, installation, maintenance, and assessment of OWTS in Mono County that are expected to prevent. Other measures in the Mono County Plan are to construct more restrooms at trailheads and more recreational vehicle dump stations, although the county acknowledged that funding to accomplish these measures needs to be identified. Efforts to educate the public regarding proper waste disposal while recreating in the Mono Basin can also reduce or prevent microbial contamination of lakes and streams.

Chapter 4 (Implementation), Section 4.1 of the Lahontan Basin Plan contains region-wide waste discharge prohibitions that apply throughout the Lahontan Region as well as site-specific prohibitions that apply to the Mono Basin. The region-wide prohibitions prohibit any discharge of waste that violates narrative or numeric water quality objectives in the Lahontan Basin Plan, the discharge of pesticides to any surface or groundwater, and any unauthorized discharge of waste. Exemptions to the region-wide prohibitions can only be granted if all of the following are true:

- the discharge will not adversely affect beneficial uses

- there is no reasonable alternative to the waste discharge
- all applicable control and mitigation measures are incorporated to minimize adverse impacts to water quality and beneficial uses

Watershed-specific discharge prohibitions that are more stringent than the region-wide prohibitions apply to the Mill Creek watershed (i.e., Lundy Canyon), Lee Vining Creek watershed and the Rush Creek watershed upstream of Grant Lake (which includes the June Lake loop). All discharge of waste to surface water is prohibited in these areas and an exemption to the prohibition can only be granted if the Lahontan Water Board finds that the discharge will not adversely affect water quality or beneficial uses based on evidence presented by the proposed discharger. Additionally, the discharge of waste from existing leaching or percolation systems is prohibited in the Rush Creek watershed upstream of Grant Lake. An exemption to this prohibition can only be granted if the Executive Officer finds (based on geologic and hydrologic evidence presented by the proposed discharger) that the continued operation of septic tanks or other means of waste disposal in a specific area will not adversely affect water quality or beneficial uses, and that installation of a sewer systems would have a damaging effect upon the environment. These prohibitions apply to almost all of the Mono Basin except for the following waterbodies proposed for TBU designation: DeChambeau Creek, Bridgeport Canyon Creek and Horse Canyon Creek, Rush Creek below Grant Lake, and tributaries that enter Rush Creek downstream of Grant Lake (i.e., Parker Creek and Walker Creek).

Therefore, it is unlikely that any additional protections would be required or established to protect the CUL use, as existing protections for REC-1 and prohibitions already protect the use.

Protections for TBUs uses that involve Consumption of Aquatic Life

While there are guidelines available that identify thresholds of cyanotoxins associated with adverse health impacts, there are no specific water quality objectives for these compounds to protect human health when consuming fish or shellfish. However, the Lahontan Basin Plan does have a water quality objective for biostimulatory substances that prohibits concentrations that promote aquatic growth to the extent that such growth adversely affects beneficial uses. This includes protection of any accumulation of toxins in aquatic life consumed by the Tribe as part of CUL or T-SUB use, and through other consumption beneficial uses such as COMM. Fish consumed in tribal activities as part of the CUL use are at rates similar or less than those conducted in the COMM. Therefore, any controls associated with cyanotoxins that would be developed in the future are not necessarily the result of this project. Furthermore, to date, there is no information to suggest that cyanotoxins bioaccumulate in plants and invertebrates consumed as part of CUL. Kootzabe consumed as part of T-SUB would be at a rate greater than the general population. However, to date, there is no information to suggest that kootzabe in the Mono Lake Basin can bioaccumulate cyanotoxins, especially considering that hazardous algal blooms are not likely to occur in Mono Lake due to high salinity conditions. Therefore, additional protections, such as a water quality objective, are unlikely to be needed for T-SUB in Mono Lake.

Existing permit requirements control certain biostimulatory substances, such as nutrients. Existing permits include Waste Discharge Requirements (WDRs) issued to June Mountain Ski Area, June Lake Public Utility District, and Lee Vining Public Utility District. Requirements in these WDRs include prohibitions against the discharge of sewage or sewage effluent to surface water and the discharge of pollutants or contaminants that are harmful to humans or to aquatic or terrestrial plant or animal life. There are limited pollutant sources in the Mono Lake Basin due to the lack of development in the area and existing protections that include prohibitions in the Lahontan Basin Plan and County requirements, as explained in more detail above.

There are several existing statewide mercury objectives that provide reasonable protection to people that consume fish. The Sport Fish Water Quality Objective for mercury applies to waters with the beneficial uses of COMM, CUL, WILD, or MAR. The Tribal Subsistence Fishing Mercury Water quality objective for mercury applies to waters with the beneficial use of T-SUB. Both objectives apply to waterbodies that have trophic level 3 fish. All of the waterbodies proposed for CUL designation identified in the Project Description above are also designated with the WILD beneficial use, so the mercury objective associated with CUL already applies to those waterbodies. Therefore, additional protections, such as a water quality objective, are unlikely to be needed for the CUL use. As discussed above, no vertebrates, including vertebrate fish, exist in Mono Lake. While the Tribal Subsistence Fishing Mercury Water quality objective would not apply to Mono Lake, development of a water quality objective for Mercury is unlikely because, to date, there is no information to suggest that kootzabe in the Mono Lake Basin can bioaccumulate mercury. Additionally, several of the constituents of concern described in Section 5.3 do not bioaccumulate in aquatic life, such as bacteria, nutrients, sediment, and salinity.

Protections for Uses Involving Water levels or Other Characteristics of the Water

The Kootzaduka'a Tribe has repeatedly shared their concerns regarding the level of Mono Lake and the need to have higher lake levels than have occurred recently to support their cultural and subsistence practices. The primary driver of lake levels aside from precipitation and evaporation is diversions from tributaries to Mono Lake pursuant to water right licenses issued to LADWP by the State Water Board. As pointed out earlier, the State Water Board's D-1631 revised LADWP's water right licenses 10191 and 10192 and, among other things, established a target lake level for Mono Lake of 6,392 feet above mean sea level for the protection of Mono Lake and the protection and restoration of waterfowl habitat. However, the Kootzaduka'a Tribe were not consulted and were not participants in the proceedings that led to D-1631, and while there may be overlap between protection of resources identified in D-1631 and Tribal Cultural Resources, that decision did not include express consideration of what may be needed to protect the Tribe's cultural heritage. For example, while the State Water Board considered the interaction between the level of Mono Lake, salinity in the lake, and productivity of the alkali fly, *Ephydra hians,* it was in the context of the alkali fly's role as food for birds at Mono Lake. It did not consider the importance of the alkali fly pupae or kootzabe as a traditional food source for the Kootzaduka'a Tribe. It also did not consider other ways that the level of Mono Lake intersects with other

Kootzaduka'a traditional practices, such as the significance of water levels at specific locations for harvesting kootzabe.

In addition to the State Water Board taking into consideration public trust needs when issuing water rights permits and licenses, the State Water Board considers applicable water quality control plans (Basin Plans) when acting on applications to appropriate water and may include conditions deemed necessary to carry out those plans. (Wat. Code, § 1258.) D-1631 recognized the need to protect water quality beneficial uses designated to Mono Lake in the Lahontan Basin Plan. The uses identified in D-1631 include saline water habitat, which is an aquatic life use applicable to saline lakes, wildlife habitat and water contact recreation (see D-1631 page 153) (State Water Resources Control Board , 1994). Moreover, D-1631 acknowledged the need to meet the salinity water quality objective of 76 g/l in the Lahontan Basin Plan that is meant to protect those uses. As stated in D-1631: "The reasonableness and public trust doctrines provide the [State Water Board] with continuing authority to reopen previous water allocation decisions to consider impacts on water quality and enforce water quality standards." The decision goes on to state that "enforcement of the objective under the [State Water Board's] water right authority is the only feasible means of attaining that objective." To achieve the 76 g/l salinity level, the corresponding Mono Lake level that was identified at the time to meet this objective is 6,386 feet, a level that has not been met since before 1972.

LADWP's water right Licenses 10191 and 10192, as amended, state that if Mono Lake has not reached the target level of 6,392 feet by September 28, 2020, the State Water Board will hold a hearing to consider the condition of the lake and the surrounding area and will determine if any further revisions to the licenses are appropriate. In December 2022, the Mono Lake Committee submitted a request to the State Water Board to take a drought emergency action to protect Mono Lake and its public trust resources. At that time, during drought conditions, the level of Mono Lake was 6,378.4 feet. In response to that request, State Water Board staff held a workshop on February 15, 2023, to receive public comments on this issue and accepted written comments after the workshop. Participants from around the world called into the workshop to encourage the State Water Board to act. Record precipitation in winter 2023 relieved the emergency conditions at Mono Lake, causing the lake level to rise several feet although it did not reach the lake level target of 6,392 feet. However, a lake level hearing as described in D-1631 and the amended licenses has been triggered.

Currently, planning for the hearing described in Licenses 10191 and 10192 is underway at the State Water Board, and additional parties that were not included in the 1995 proceeding, including the Kootzaduka'a Tribe, will have the opportunity to participate. Water right hearings are quasi-adjudicative proceedings that involve a formalized procedure to ensure due process for all participating parties. The first step in the hearing process is for the State Water Board to issue a hearing notice that identifies the subject of the hearing and contains information regarding participation, such as the date, time and place of the hearing, the issues that will be addressed, the procedural rules for submittal of testimony and evidence, applicable deadlines, and contact

information for State Water Board staff involved in the proceeding. Hearings are usually conducted by a Hearing Officer, who may be from the State Water Board's Administrative Hearings Office or may be a Board member. The Hearing Officer presides over the hearing and ensures that the hearing proceeds in an orderly fashion.[14]

The State Water Board is responsible for the protection of resources, such as fisheries, wildlife, aesthetics, and navigation, which are held in trust for the public. The State Water Board considers these responsibilities when planning and allocating water resources and is charged with protecting public trust uses whenever feasible. (*Natl. Audubon Society v. Superior Court* (1983) 33 Cal.3d 419.) California Code of Regulations, title 23, sections 659-672 define beneficial uses, in the context of water rights permitting, to include: domestic; irrigation; power; municipal; mining; industrial; fish and wildlife preservation and enhancement; aquaculture; recreational; stockwatering; water quality; frost protection; and heat control. Beneficial uses, in the context of the declaration in the California Constitution that "the water resources of the State be put to beneficial use to the fullest extent of which they are capable" (Cal. Const., Art. X, § 2), are distinct but not necessarily different from designated beneficial uses in the context of water quality control planning under the federal Clean Water Act and the Porter Cologne Water Quality Control Act. Public trust balancing was conducted in D-1631 to set the target lake level of 6,392 feet. In addition, as noted previously, when considering a water rights decision, the State Water Board considers water quality standards and the reasonable protection of water quality beneficial uses. (Wat. Code, § 1258.)

As discussed above, the function of the T-SUB and CUL use is not for the protection of aquatic life. Accordingly, changes to target water levels by the State Water Board, even to the extent higher lake levels (or reduced diversions to raise lake levels more quickly) are needed to protect SAL or WILD, those would not be a direct result of this project. It is speculative and out of scope of this project to determine how State Water Board may choose to consider kootzabe and how the State Water Board may take existing and future information into account to determine "reasonable protection." Likewise, it is speculative to presume how the State Water Board may consider cultural practices that may have a relationship to water levels at specific locations when considering different lake levels.

Considering that any future water right hearing regarding Mono Lake is only in the planning phase and a hearing notice has not been released, it is too speculative to predict what the scope of that hearing will be or what might be a likely outcome. Likewise, even if the scope of the hearing were known, it would be inappropriate to speculate, prior to the hearing, how the State Water Board will balance public trust uses, LADWP's water use and needs, consider water quality standards, and consider other factors such as climate change when and if it considers imposing different lake level requirements and/or diversion limits on LADWP. This is especially true when

[14] Additional details regarding the rules for conducting water rights hearing are available on the State Board's website here: https://www.waterboards.ca.gov/waterrights/water_issues/programs/hearings/faqs.html#Water_Right_Hearing

considering the adjudicative nature of that proceeding, and the additional participants that might be involved.

Whether or how future action by the State Water Board based on its authority over LADWP's water rights might impact the water supply for Los Angeles is currently unknown and will be informed by a quasi-adjudicatory proceeding by the State Water Board. Measures required as a result of any new water rights decision regarding Mono Lake would not be considered reasonably foreseeable methods of compliance for the Tribal Beneficial Use designations for the reasons stated above and do not need to be analyzed in this document.

No Reasonably Foreseeable Methods of Compliance with the Project

As explained in more detail above, for activities involving contact with water in the CUL use, existing protections for REC-1 provide similar or more protections from the constituents of concern in the Mono Lake basin than that which would reasonably protect the CUL use. For CUL uses involving consumption of fish, those activities are protected by existing protections for COMM. Therefore, new water quality objectives for the constituents of concerns are unlikely to be developed, and there are no reasonably foreseeable methods of compliance from the project to protect those activities. Impacts associated with application of the applicable water quality objectives in permits, such as the mercury water quality objective, to protect CUL are not a result of this project, as those water quality objectives already apply to the waterbodies to protect other beneficial uses. In the case of the mercury water quality objectives, the mercury water quality objectives associated with CUL also apply to waterbodies with COMM, COLD and WILD designations. All the waterbodies in the Mono Basin are designated with WILD, so adding the CUL designation does not change the water quality objectives for mercury applicable to those waterbodies. Similarly, waterbodies designated with WILD are subject to the prey fish water quality objective for mercury in fish tissue that applies to small-sized fish between 50-150 mm in length. Adding the CUL use does not change applicability of the prey fish water quality objective.

For T-SUB use involving consumption of kootzabe, there is little information regarding the bioaccumulation of the constituents of concern in the Mono Lake Basin, and therefore any additional protections needed are speculative at this time. For the CUL use involving consumption of aquatic plants as medicines, there is little information regarding the bioaccumulation of the constituents of concern in the Mono Lake basin, and therefore any additional protection needed are speculative at this time.

For activities involving levels of water, future water rights actions by the State Water Board are speculative and therefore there are no reasonably foreseeable methods of compliance associated with CUL use.

5.5. Environmental Effects

Amending the Basin Plan to add the CUL and T-SUB beneficial use designations for waterbodies in the Mono Lake Basin does not involve direct or indirect physical change to the environment.

No physical changes, such as construction projects or other activities, are associated with the proposed amendment. Any changes would instead only result when requirements are included in an applicable permit, or other Water Board action. As explained in section 5.4 of this Staff Report, there are no reasonably foreseeable methods of compliance with the project, and therefore there are no potential impacts to analyze from the reasonably foreseeable methods of compliance.

Therefore, there are no impacts from the project and there are no potential impacts to analyze from any reasonably foreseeable methods of compliance.

Project Alternatives

The Substitute Environmental Documentation must contain an analysis of a range of reasonable alternatives to the project and reasonably foreseeable methods of compliance that would avoid or substantially reduce any potentially significant adverse environmental impact and still meet project objectives. (Cal. Code Regs., tit. 23, §3777, subd. (b)(3).). As no potentially significant effects were identified from the reasonably foreseeable methods of compliance or the project, project alternatives capable of avoiding or substantially lessening significant environmental impacts of the project were not identified.

6. Additional Considerations

6.1. Antidegradation

The proposed Basin Plan amendment must comply with the requirements of the "Statement of Policy with Respect to Maintaining High Quality of Waters in California" (state Antidegradation Policy) (State Water Board Resolution No. 68-16) and federal antidegradation regulations at Code of Federal Regulations, title 40, section 131.12. Under the state Antidegradation Policy, whenever the existing quality of the waters of the state (which includes both surface water and groundwater) is better than the quality established by adopted policies or plans, those high-quality waters should be maintained unless it can be demonstrated that any change in water quality will (1) be consistent with the maximum benefit to the people of the state, (2) not unreasonably affect present and anticipated beneficial uses of such water, and (3) not result in water quality less than that prescribed in applicable water quality control policies or plans. Further, any activity that results in a discharge to high quality waters must use the best practicable treatment or control necessary to avoid a pollution or nuisance and to maintain the highest water quality consistent with the maximum benefit to the people of the state (State Water Board Resolution No. 68-16).

The federal Antidegradation Policy is incorporated into the state policy and applies to surface water, regardless of the quality of the water. (40 C.F.R. § 131.12.). Under the federal policy, "existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected." (40 C.F.R. § 131.12(a)(1).). In addition, where the quality of waters exceeds levels necessary to support the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality of water must be maintained and protected unless the state finds that (1) allowing lower quality is necessary to accommodate important economic or social development in the area in which the waters are located; (2) water quality is adequate to protect existing beneficial uses fully; and (3) the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control are achieved. (40 C.F.R. § 131.12(a)(2).) The federal Antidegradation Policy also establishes additional protections for Outstanding National Resource Waters, or Tier III Waters, and requires that water quality shall be maintained and protected for those waterbodies. Mono Lake is an Outstanding National Resource Water (ONRW) in recognition of its outstanding ecological significance.

The proposed Basin Plan amendment designating the CUL and T-SUB beneficial uses to waterbodies in the Mono Basin will not result in a lowering of water quality. When considering permit issuance and reissuances, the Regional Board will consider the reasonable protection of the beneficial uses. Designation would not lead to implementation of requirements that are less stringent than existing requirements. The Mercury Provisions' Staff Report describe two possible instances in which implementation of the Mercury Provisions may lead to less stringent requirement than existing requirements, neither of which apply to the Mono Lake Basin as it

does not have municipal or industrial wastewater NPDES dischargers. The designation of the CUL and T-SUB to Mono Lake and CUL to Mono Basin tributary lakes and streams would not create less stringent protection for beneficial uses, in part because the proposed designations are meant to provide similar or additional protection for the water quality in these waterbodies. Designating the CUL and T-SUB uses to Mono Lake and the CUL use to certain tributary streams and lakes would not lead to changes in water quality that would conflict with the requirements of either the state or federal Antidegradation Policy.

6.2. Need for Peer Review

The California Code of Regulations Health and Safety Code, Division 37, Section 57004 requires the external scientific peer review of the scientific basis for any rule proposed by any board, office, or department within the California Environmental Protection Agency. The "scientific basis" is defined as "those foundations of a rule that are premised upon, or derived from, empirical data or other scientific findings, conclusions, or assumptions establishing a regulatory level, standard, or other requirement for the protection of public health or the environment."

The Basin Plan Amendment to add the CUL and T-SUB beneficial use designations to Mono Lake and CUL to its tributary lakes and streams does not involve scientific elements and is not based in science. Designation of the uses relies on documentation obtained from Tribes and other sources regarding Tribal uses of water in the Mono Basin that does not involve scientific elements. The definitions for the TBUs were established by the State Water Board and have already been incorporated in the Lahontan Basin Plan. No scientific analysis is required for the proposed action to designate the beneficial uses to waterbodies in the Lahontan Region. No peer review is required for this action.

The water quality objectives for mercury in fish tissue associated with the CUL and T-SUB uses were developed and adopted by the State Water Board. Those objectives underwent peer review prior to adoption and the peer reviewer's comments and staff responses to the comments are included as Appendix S in the final staff report for the Mercury Provisions (State Water Resources Control Board, 2017). The proposed action by the Lahontan Water Board to designate CUL and T-SUB to Mono Lake and CUL to the tributary lakes and streams in the Mono Basin does not involve modifying the mercury objectives adopted by the State Water Board, therefore no additional peer review is needed due to the application of those objectives. There are no trophic level 3 or trophic level 4 finfish in Mono Lake, therefore the mercury objective for T-SUB would not apply. But likewise, the State Water Board has already conducted a peer review for the mercury objective for T-SUB, and no additional peer review of that objective is needed as part of this project.

6.3. Tribal Consultation and Outreach for the Tribal Beneficial Uses

The Lahontan Water Board began the effort to designate waterbodies with the TBUs by initiating outreach to Tribes with current or ancestral connections to the Lahontan Region. A region-wide

list that contained 79 California Native American Tribes associated with the Lahontan Region was obtained from the California Native American Heritage Commission (CA NAHC). A California Native American Tribe is defined as a federally recognized California tribal government listed on the most recent notice of the Federal Register or a non-federally recognized California tribal government on the California Tribal Consultation List maintained by the CA NAHC. To introduce the Tribes to the TBUs, the process for designating those uses and to solicit input, all Tribes on the NAHC list were invited to a Tribal Summit that took place in June 2022. Attendance at the Tribal Summit was limited to Tribal leaders, Tribal government representatives or individuals invited by Tribes to attend. Representatives from ten Tribes attended the Tribal Summit. A summary of the discussion from the Tribal Summit and information on the proposed process and timeline were subsequently shared with all Tribes on the CA NAHC list.

Lahontan Water Board staff held an in-person and online Tribal Listening Session in December 2023 at the Owens Valley Paiute Shoshone Cultural Center in Bishop for California Native American Tribes from the surrounding area. Attendees included the Bishop Paiute Tribal Chairperson and other representatives from the Bishop Paiute Tribe, who served as the host for the meeting, the Tribal Chairperson and representatives from the Mono Lake Kootzaduka'a Tribe, and representatives from the Big Pine Paiute Tribe and Lone Pine Paiute Shoshone Tribe. The Listening Session served as an opportunity to update the Tribes about the status of the Mono Basin Project and to answer questions and hear concerns from Tribes about the TBU designation process.

Tribal Consultation

Executive Order B-10-11 provides that it is the policy of the administration of the Governor of the State of California that every state agency encourages consultation and communication with California Indian Tribes and permit tribal governments to provide meaningful input in the development of regulations, rules, and policies that may affect tribes. In addition, California State Assembly Bill (AB) 52 (Gatto 2014) established a new category of resources in CEQA called Tribal Cultural Resources and a new consultation process with California Native American tribes ("AB 52 tribal consultation"). Consultation with a California Native American tribe that has requested such consultation may assist a lead agency in determining whether the project may adversely affect tribal cultural resources, and if so, how such effects may be avoided or mitigated. The Public Resources Code requires formal notice to California tribes of an opportunity to consult with the lead agency prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report if the tribe is traditionally and culturally affiliated with the geographic area of the proposed project. The requirements to consider tribal cultural resources and to consult with California tribes apply to CEQA projects for which the lead agency issues a notice of preparation or a notice of intent to adopt a negative declaration or mitigated negative declaration, or Environmental Impact Report (EIR) on or after July 1, 2015. The Water Board's considers the AB 52 tribal consultation requirements in the Public Resources Code as also applying to an SED.

A list of Tribes with current or ancestral ties to the Mono Basin was solicited from the CA NAHC specifically for the Mono Basin project. Letters were sent to Tribes on the NAHC list in October and November 2022 notifying them of the opportunity to consult regarding the proposed project to designate waterbodies in the Mono Basin with the TBUs. The letters were sent to both the Tribes that had requested notification pursuant to AB 52 and Tribes that had not requested such notification. The Mono Lake Kootzaduka'a and the Bishop Paiute Tribes both responded affirmatively to the opportunity to consult. Due to winter weather conditions, staff held virtual consultation meetings with those Tribes in January 2023. Representatives from several other Tribes in the region attended the consultation meeting with the Mono Lake Kootzaduka'a Tribe at the invitation of the Mono Lake Kootzaduka'a Tribal Chairwoman.

6.4. Public Participation

The public process for the Mono Basin TBU Designation Project began with the January 20, 2023 release of a Notice of Public Scoping Meeting that was published on the Lahontan Water Board's Tribal Cultural and Subsistence Fishing Beneficial Uses webpage website and circulated via the Basin Planning – Regionwide and Basin Planning – Tribal Cultural and Subsistence Beneficial Uses email subscription lists. The notice was also provided to the Mono County Clerk for posting and shared with the list of California Native American Tribes provided by the Native American Heritage Commission for this project. The virtual CEQA scoping meeting was held on February 9, 2023, on the Zoom meeting platform. The goal of the CEQA scoping meeting was to receive public input on the scope of the environmental analysis to support the Mono Basin Tribal Beneficial Uses Designation Project. Attendees were provided with an overview of the project and given the opportunity to ask questions and provide comments on issues to consider for the environmental analysis of the project. Additionally, written comments were accepted through February 21, 2023.

LADWP submitted the only written comment letter received during the comment period that echoed the oral comments the agency made during the scoping meeting.

A second notice was circulated to clarify that additional waterbodies beyond those named in the scoping notice may be proposed for TBU designation and that application of the CUL beneficial use is not limited to human health concerns related to consumption of aquatic organisms. As a courtesy to Tribes and the public, the notice provided an opportunity for the submittal of additional scoping comments. The notice was sent out to the email subscription lists for Basin Planning – Regionwide and Basin Planning – Tribal Cultural and Subsistence Beneficial Uses and separately to Tribes associated with the Mono Basin on April 28, 2023, with comments due on May 11, 2023. One letter was received during the second comment period from LADWP.

Assembly Bill 2108 Outreach

Assembly Bill 2108 amended the California Water Code to add section 189.7 that sets forth requirements for the Water Boards to conduct equitable, culturally relevant outreach when

considering proposed discharges of waste that may have disproportionate impacts on water quality in disadvantaged communities or tribal communities. It also added section 13149.2 to the Water Code that requires the Water Boards to make findings on anticipated water quality impacts in disadvantaged or tribal communities when adopting water quality control plans.

As described above, outreach was conducted to tribal communities in the vicinity of the Mono Basin to inform them about the Mono Basin Tribal Beneficial Uses Designation Project and to offer an opportunity for consultation on this project. Additionally, notices regarding CEQA scoping were sent to the Tribes on the CA NAHC list to solicit their input on the scope of the environmental analysis for this this project. The CEQA Scoping notice was posted by the Clerk for Mono County as a way to notify the community about this project. Targeted emails were also sent to community groups and non-profits in the project vicinity to notify them about this project and to encourage them to sign up for the Tribal Beneficial Uses listserv to receive continuing updates. In compliance with Water Code section 13149.2, the Lahontan Water Board finds that the designation of TBUs to waterbodies in the Mono Basin would not lead to disproportionate impacts on water quality in disadvantaged or tribal communities.

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