WALKER RIVER PAIUTE TRIBE
WATER QUALITY CONTROL PLAN
FOR WALKER RIVER AND WEBER RESERVOIR

Prepared for

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1.0 INTRODUCTION

This Water Quality Control Plan (WQCP) has been prepared by Huffman & Carpenter, Inc. (H&C) on behalf of the Walker River Paiute Tribe (WRPT, or the "Tribe"). The WQCP is for the Walker River Indian Reservation located in Churchill, Lyon and Mineral Countries, Nevada (Attachment 1, Figure 1).

1.1 Location

The Reservation is located in west central Nevada. The land base is 323,407 acres or approximately 550 square miles. The primary source of surface water that flows through the Reservation is the Walker River (Attachment 1, Figure 2). The headwaters of the system arise in the Sierra Nevada range in Mono County, California. The headwaters of the river begin as two main forks, the West Walker River and the East Walker River, which join together south of Yerington, Nevada. After the confluence of the east and west forks, the Walker River flows north through Mason Valley and the Yerington area. Shortly after passing through the Mason Valley Wildlife Management Area, where it is augmented by flows from several irrigations return ditches and sloughs, the Walker River turns generally eastward and continues on to the Reservation. On the Reservation, it flows first east and then southeast through Campbell Valley to Weber Dam, forming Weber Reservoir. From Weber Reservoir it flows south-southeast into Walker Lake, the terminal sink of the basin.

1.2 Regulatory Background

In order for the WQCP and the Tribal Water Quality Standards (WQS) to become applicable under the Clean Water Act, (a) EPA must have found the tribe eligible to be treated in a manner similar to a state under section 518 of the Act for the purposes of administering a section 303(c) WQS program,

The WRPT Treatment As A State Appication was granted on March 2, 2016.

(b) the tribe must adopt the WQS pursuant to tribal law and submit them to EPA in accordance with 40 CFR part 131, and

The WRPT WQS were approved pursuant to tribal law on _____, 2018 and submitted to EPA on _____, 2018.

(c) EPA must approve the submitted WQS in accordance with part 131 and Clean Water Act section 303(c).

2.0 WATER QUALITY STANDARDS FOR THE WALKER RIVER PAIUTE TRIBE

This WQCP describes proposed water quality standards for the Walker River Indian Reservation (Attachment 1, Figure 1) including beneficial/designated uses, water quality criteria, and an Antidegradation Policy. These standards were developed using the EPA model for water quality standards template for waters on Indian reservations. Tribal water quality data collected from the WRPT water quality monitoring program was also reviewed. The overall purpose of these standards is to protect the Beneficial Uses of the Walker River and Weber Reservoir as it flows through Tribal lands and discharges to Walker Lake adjacent to and downstream of Tribal lands (Attachment 1, Figure 2).

The WRPT Water Quality Standards apply to all reservation waters and the Beneficial Uses/Designated Uses. The following benfeficial uses/designated uses apply to all waters and reflect the uses specified in section 101(a)(2) of the Clean Water Act. Since 1983, EPA's WQS regulation at 40 CFR 131.10 which has interpreted and implemented the Clean Water Act through requirements that WQS protect these uses. The WRPT WQS provide for and accomplish the following objectives:

(1) the protection and propagation of fish, shellfish, and wildlife;
(2) recreation in and on the water;
(3) cultural and traditional uses of the reservation waters; and
(4) use of the water as a public water supply, excluding saline waters.

The application of Tribal water quality standards will be a continual process. At least once every three to five years, the WRPT must review its water quality standards and, if appropriate, revise the standards. The WRPT may change its approach for establishing standards in subsequent reviews. For example, WRPT WQS standards could be developed using Tribal water quality data collected from the WRPT water quality monitoring program, and other published literature and data from the the USEPA. The overall purpose of all WQS standards is to protect the Beneficial/Designated Uses of the Walker River and Weber Reservoir as it flows through Tribal lands and discharges to Walker Lake.

The recommended water quality standards in this WQCP are a culmination of many years of Tribal activities designed to investigate and protect water quality. These activities demonstrate the Tribe's management experience, and the technical and administrative capabilities of the staff to administer and manage the water quality program.

2.1 Waters Requiring Water Quality Standards

The first step in developing water quality standards is to identify "waters of the United States". These "waters of the United States" are naturally occurring surface waters, and they are required to

have water quality standards. Artificially-created waters may also be designated to have water quality standards. The need to develop water quality standards for artificially-created waters is determined by the USEPA and the Tribe on a case-by-case basis. These man-made surface waters may be enhanced with the adoption of water quality standards (USEPA, 1990).

The waters requiring water quality standards on the Reservation are the free-flowing Walker River from where it enters the Reservation (at the northwestern boundary of the Reservation) to the inlet to Weber Reservoir; and from Weber Reservoir and to the inlet to Walker Lake. In addition, the WRPT proposes water quality standards for the man-made water body Weber Reservoir. Therefore, the WRPT proposes water quality standards for four reaches within the Reservation on the Walker River called Reaches B, C, D and E:

1. Reach B - Walker River at Reservation Boundary to Weber Reservoir (WR-01, WR-02, WR-05 TO WB-01);
2. Reach C - Weber Reservoir (WB-01);
3. Reach D - Weber Reservoir (WB-01) along Walker River through WR-06, WR-08, to Location WR-10 Walker River; and,
4. Reach E, Walker River WR-10 to WR-12.

These four reaches are essentially part of one interconnected continuous river system. (Attachment 2, Tables 2a, 2b and 2c).

2.2 Determining Beneficial Uses/Designated Uses

According to the USEPA (USEPA, 1990), each Indian Tribe must develop a use classification system that describes the uses of water bodies to be protected. At a minimum, water quality standards must provide for the protection and propagation of fish, shellfish, and wildlife, and for recreation in and on the water.

The WRPT employs a Beneficial Use system to classify the uses of the Walker River on the Reservation and Weber Reservoir. The Beneficial Uses are summarized on Attachment 2, Table 1. The applicability of the Beneficial Uses to each of the four reaches are listed in Attachment 2, Tables 2a, 2b, 2c. The Beneficial Uses described in these tables is the best estimate by the Tribe of the current and probable future uses of the water bodies. Please note that these Beneficial Uses are for surface water only and do not include groundwater.

2.3 Adopting Water Quality Criteria

The WRPT proposes water quality criteria based site-specific conditions and USEPA-recommended water quality criteria. Both narrative and numeric criteria are proposed by the WRPT for the four reaches on the Reservation (i.e., Reach B, Reach C, Reach D and Reach E). Attachment 2, Table 2d lists rationale for water quality standards.

2.3.1 General Numeric Criteria

General numeric criteria for the four reaches on the Reservation are listed in Attachment 2, Tables 2a, 2b, 2c and 2d. The numeric criteria differ slightly between Reach B and D (Walker River at the Reservation Boundary, up and downstream of Weber Reservoir) and Reach C (Weber Reservoir) versus Reach E (inflow to Walker lake).

2.3.2 General Narrative Criteria

General narrative criteria for the four reaches on the Reservation are listed in Attachment 2, Table 3. These criteria are the same for all four reaches.

2.3.3 Aquatic Life Criteria, Human Health Criteria, Recreational Water Quality Criteria Toxic Metals and Organic Compounds Pollutants Criteria

Toxic metals and organic compounds numeric criteria for the four reaches on the Reservation are listed in Attachment 2, Tables 4a, 4b, 4c through 9, respectively. These criteria are the same for all four reaches.

(1) Aquatic life criteria. The aquatic life criteria for these water quality standards are contained in Tables 4a, 4b, 4c through 7 of this section. The aquatic life criteria apply as follows:

i. The aquatic life criteria in Tables Tables 4a, 4b, 4c through 7 of this section apply to all waters designated for the protection and propagation of fish, shellfish, and wild life.

(2) Human Health Criteria. The human health criteria for these water quality standards are contained in Table 8 and are a cancer risk of 10^{-6} and fish consumption level of 22 grams/day.

i. The human health criteria for carcinogens in Table 8 was also based on an excess lifetime cancer risk level of 10^{-6} (one in a million).

ii. The human health criteria in these standards were calculated using a fish consumption rate of 22 grams per day (gpd) (Table 8).

iii. For all waters with the designated use specified domestic and municipal supply (public water supply) use, the human health criteria for "Water Plus Organisms" as presented in Table 8 apply.

iv. For all waters with the designated use aquatic life (protection and propagation of fish, shellfish, and wildlife), but without the designated use domestic and municipal supply (public water supply), the human health criteria for "Organisms Only" as presented in Table 8 apply.

(3) Recreational water quality criteria. For all waters with the designated use recreation in and on the water, the criteria in Column A of Table 9 shall apply.

2.3.4 Control Reaches

Criteria have been developed for water quality parameters of primary concern (PPCs) at four Control Reaches at the Reservation. At least one Control Reach is proposed for each of the four reaches on the Reservation (i.e., the Walker River above Weber Reservoir, Weber Reservoir, and the Walker River below Weber Reservoir). These four Control Reaches are shown on Attachment 1, Figure 3, and listed below.

Therefore, the WRPT proposes water quality standards for four reaches within the Reservation on the Walker River called Reaches B, C, D and E:

1. Control Reach B - Walker River at Reservation Boundary to Weber Reservoir (WR-01, WR-02, WR-05 TO WB-01);
2. Control Reach C - Weber Reservoir (WB-01);
3. Control Reach D - Weber Reservoir (WB-01) along Walker River through WR-06, WR-08, to Location WR-10 Walker River; and,
4. Control Reach E, Walker River WR-10 to WR-12.

These four reaches are essentially part of one interconnected continuous river system. (Attachment 2, Tables 2a, 2b and 2c).

2.3.5 Parameters of Primary Concern (PPCs)

The WRPT proposes water quality criteria based on USEPA-recommended water quality criteria. Other site-specific data have been collected by the WRPT.

The identified water quality standards for beneficial uses include:

- Temperature
- pH
- Dissolved Oxygen
- Total Phosphorus
- Nitrogen Species (Nitrate and Nitrite)
- Suspended Solids
- Turbidity
- Color
- Total Dissolved Solids
- Chloride
- Sulfate
- E coli

2.4 Antidegradation Policy and Implementation Methods

2.4.1 Antidegradation Policy

(1) Existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.

(2) Where the quality of the waters exceeds levels necessary to support the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected unless the WRPT finds, after full satisfaction of the intergovernmental coordination and public participation provisions, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. In allowing such degradation or lower water quality, the WRPT shall assure water quality adequate to protect existing uses fully. Further, the WRPT shall assure that there shall be achieved 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.

(i) Identification of reservation waters for the protections described in paragraph (2) of this section will be made on a parameter-by-parameter basis.

(ii) Before allowing any lowering of high water quality, pursuant to paragraph (2) of this section, the Tribe shall find, after an analysis of alternatives, that such a lowering is necessary to accommodate important economic or social development in the area in which the waters are located. The analysis of alternatives shall evaluate a range of practicable alternatives that would prevent or lessen the degradation associated with the proposed activity. When the analysis of alternatives identifies one or more practicable alternatives, the Tribe shall only find that a lowering is necessary if one such alternative is selected for implementation.

(3) Where high quality waters constitute an outstanding National resource, such as waters of National, State, and Tribal parks and wildlife refuges and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected.
(4) In those cases where potential water quality impairment associated with a thermal discharge is involved, the decision to allow such degradation shall be consistent with section 316 of the Clean Water Act.

2.4.2 Antidegradation Implementation Methods

(A) Aantidegradation Implementation Methods:

(1) Scope and Applicability. The antidegradation policy in Section 2.4.1 and these antidegradation implementation methods shall be applied to all reservation waters of the United States included in Section 2.1.

(i) All waters receive protection for existing instream uses consistent with Section 2.4.1(1).

(ii) High quality water protection consistent with Section 2.4.1(2) will be identified on a parameter-by-parameter basis. Each parameter for which water quality would be lowered by the regulated activity shall be considered and evaluated independently consistent with Section 2.4.2(3). The WRPT is not expected to maintain a list of waters receiving protection consistent with Section 2.4.1(2).

(iii) Waters provided protection as an Outstanding National Resource Water consistent with Section 2.4.1(3) will be identified following the process outlined in Section 2.4.2(4) and a comprehensive list shall be maintained by the WRPT.

(iv) The requirements of Section 2.4.1(2) will be triggered by all new or expanded regulated activities. Regulated activities include, but are not limited to, any activity that requires a permit, license or water quality certification pursuant to section 402 of the Act, section 404 of the Act, and section 401 of the Act.

Note: The WRPT will coordinate with the EPA Regional Office to amend the antidegradation implementation methods because the WRPT does not yet have the authority to administer the CWA section 402 permitting program. However, no lowering of a high quality water shall be allowed unless the WRPT makes the finding consistent with Section 2.4.2(3)(ii) and the lowering is authorized in a permit.

(v) Antidegradation protections will be addressed in new or reissued general permits authorized, implemented, or administered by the permitting authority either at the time the permitting authority develops and issues the general permit or upon review of an applicant's request to be covered by a general permit. The permitting authority will describe in writing in the permit fact sheet how the general permit is consistent with the antidegradation requirements of this paragraph and the antidegradation policy in Section 2.4.1.

(2) Existing Instream Use Protection consistent with Section 2.4.1(1). For all waters, the WRPT shall ensure that the level of water quality necessary to protect existing uses is maintained. In order to achieve this requirement, the WRPT shall consider whether a discharge would lower the water quality to the extent that it would no longer be sufficient to protect and maintain the existing uses of that water body. Such consideration shall be based on all existing and readily available water quality-related data and information, as well as any additional water-quality related data and information submitted during the public comment period for the permit or license.

(3) High Quality Water Protection consistent with Section 2.4.1(2). High quality waters are water bodies in which, on a parameter-by-parameter basis, the quality of the waters exceeds levels necessary to support protection and propagation of fish, shellfish, and wildlife and recreation in and on the water. The WRPT shall ensure that no action resulting in a lowering of water quality occurs unless the components outlined in Section 2.4.2(3)(i) are available to the WRPT and found to adequately support the lowering of water quality as necessary to accommodate important economic and social development in the area in which the water is located consistent with Section 2.4.2(3)(ii).

(i) When seeking to lower water quality for one or more parameters that exceeds levels necessary to support the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water, the WRPT will consider the following components and information:

(1) Identifying Information. Name of the applicant, a description of the nature of the applicant's business and the pollutants to be discharged, location of the discharge, the name of and any water quality data for the receiving water body, daily maximum and average flow to be discharged, and effluent characterization.

(2) Analysis of alternatives. Identification and evaluation of a range of practicable alternatives that would prevent or lessen the degradation associated with the proposed activity to determine whether the degradation of water quality is necessary. When the analysis of alternatives identifies one or more practicable alternatives, the WRPT shall only find that a lowering is necessary, consistent with Section 2.4.2(3)(ii), if one such alternative is selected for implementation.

(3) Socio-economic analysis. Identification and evaluation of the social and economic development benefits to the area in which the waters are located that will be foregone if the lowering of water quality is not allowed. Along with the analysis of alternatives, the socio-economic analysis is used to determine whether the lowering of water quality will accommodate important economic and social development in the area in which the water is located. The "area in which the waters are located" shall be determined on a case-by-case basis, and shall include all areas directly impacted by the proposed regulated activity. Factors that must be considered in the socio-economic analysis include, but are not limited to, the ecological and economic importance of the affected waters, identification of the least-cost method needed to prevent degradation, the importance of the development to the affected community, the identity and socio-economic health of the affected community as determined by appropriate analytical methods, and identification of a range of practicable alternatives that could prevent or lessen degradation while allowing the important development to occur.

(4) Any additional documentation requested by the WRPT which, in the judgment of the WRPT, is needed to decide whether to find that a lowering of water quality is necessary to accommodate important economic and social development in the area in which the water is located.

(ii) Once the WRPT has the components and information required in Section 2.4.2(3)(i), the WRPT shall use that information to make a finding as to whether the lowering of water quality is necessary to accommodate important social and economic development in the area in which the water is located.

(1) If the proposed lowering of water quality is either not necessary, or not important to accommodate social and economic development, the WRPT shall deny the request to lower water quality.

(2) If the lowering of water quality is necessary, and will accommodate important social and economic development goals, the WRPT may allow a lowering to the high quality water as long as one of the alternatives identified in Section 2.4.2(3)(i)(2) is selected for implementation. If a non-degrading practicable alternative is selected, no lowering in the high quality water will occur, and the WRPT does not need to authorize the lowering.

(3) In no event may the decision reached under this section allow water quality to be lowered below the level required to support existing and designated uses.

(4) The WRPT's decision to allow a lowering of water quality shall be subject to applicable public participation requirements. Any reports, documents and data relevant to the discussion at the public hearing shall be available at least thirty days before the hearing. To the extent possible, public notice regarding the finding to allow a lowering of water quality will be coordinated with other required notices for public review.

(5) In allowing any degradation of water quality, the WRPT must assure that there shall be achieved in the watershed the highest statutory and regulatory requirements for all new and existing point sources and cost-effective and reasonable best management practices for nonpoint source controls.

(4) Outstanding National Resource Water Protection consistent with Section 2.4.1(3). Any interested party may nominate a specific reservation water to be assigned as an Outstanding National Resource Water and the WRPT will make the final decision to assign the water as an Outstanding National Resource Water. Such nomination shall include written documentation of the qualifications of the reservation water that warrant Outstanding National Resource Water protection.

(i) The WRPT's decision to assign a water as an Outstanding National Resource Water shall be subject to applicable public participation requirements. Any data and information relevant to the decision shall be available at least thirty days before the hearing. To the extent possible, public notice regarding the decision to assign a reservation water as an Outstanding National Resource Water will be coordinated with other required notices for public review.

(ii) The WRPT will maintain a comprehensive list of the reservation waters in their Regions that have been assigned as an Outstanding National Resource Water consistent with Section 2.4.2(4)(i).

(iii) For reservation waters assigned as Outstanding National Resource Waters consistent with Section 2.4.2(4)(i), the WRPT shall ensure, through the application of appropriate controls on point and nonpoint pollutant sources, that water quality is maintained and protected. No new or expanded point source discharges will be allowed to Outstanding National Resource Waters, and no new or expanded point source discharges to tributaries to Outstanding National Resource Waters that would result in lower water quality in the Outstanding National Resource Waters will be allowed. The WRPT intends to allow short-term, temporary degradation in an Outstanding National Resource Water as long as the short-term, temporary degradation is limited to the shortest possible time in the context of weeks to months, does not impact existing uses, and does not alter the essential or special characteristics that make the reservation water an Outstanding National Resource Water.

2.5 Additional Information

It is recognized that natural conditions in both the Walker River on the Reservation and Weber Reservoir may, on occasion, be outside the limits established by the water quality standards. The WRPT acknowledges that water quality standards will not necessarily be considered violated when natural conditions cause criteria to be outside the established limits (these may be the result of natural physical, chemical and/or biological conditions). Exceedances of water quality standards will be considered on a case-by-case basis to determine the relative contribution of natural conditions and anthropogenic pollutant loading.

It is also understood that the magnitude of water flow in the lower Walker River and water elevation in Walker Lake are inexorably linked to water quality and protection of beneficial uses of both the river and the lake. If, using a combination of evaluation tools, it is concluded that an overall benefit to the Lake or River can be achieved by increased flow, the WRPT can make accommodations for a temporary condition in which existing water quality may be lowered (i.e., the WRPT may temporarily relax its Antidegradation Policy). The evaluation tools may include (but may not be limited to) water quality models, focused research, monitoring data, and scientific discretion. A similar approach may be applied for any specific water quality criteria. In cases where potential water quality impairments associated with thermal discharge are involved, the Antidegradation Policy and its implementation shall be consistent with Section 316 of the CWA, as amended (33 U.S.C. Section 1326 (1987)).

2.6 Implementation

The WRPT's Water Resources Department (WRD), acting under authority delegated by the Tribal Council of the Walker River Paiute Tribe, shall implement the WRPT's water quality standards for the Walker River Indian Reservation. Implementation will include adherence to the Antidegradation Policy and be accomplished by establishing and maintaining controls on the discharge of pollutants into surface waters. The WRD will also work in close cooperation with local, State and Federal agencies towards the goal of controlling regional discharges including nonpoint source pollution. Habitat restoration will be an important component of the implementation efforts. The WRD, working with the Tribal Council, shall do the following.

<u>Monitoring and Assessment</u>

1. Monitor water quality to assess the effectiveness of pollution controls and to determine whether water quality standards are being attained. While emphasis will continue to be placed on chemical based monitoring, additional biological indicators of water quality and ecosystem health may be developed.

2. Review adequacy of existing data base and obtain additional data when required. The WRPT will promote an active program to: better define the scientific understanding upon which the water quality standards are based; obtain information as to the impacts of point and nonpoint source discharges on receiving waters; and assist in implementation of water quality controls and habitat restoration projects.

3. Continue liaison with local, State and Federal monitoring and research activities, which are currently underway regionally.

4. Assist USEPA staff to write National Pollutant Discharge Elimination System (NPDES) permits for point source discharges to receiving waters on the Reservation.

5. Assess the probable impact of discharges on receiving waters in light of designated uses and numeric and narrative standards. All permits issued or reissued shall be conditioned in such a manner as to authorize only activities that will not cause violations of Tribal water quality standards. Permits may be subjected to modification whenever it appears to the permitting authority that the activity violates water quality standards.

6. Work with USEPA to develop water-quality-based effluent limitations and comments on technology-based discharge limitations, as appropriate, for inclusion in any Federal permit issued to a discharger pursuant to Section 402 of the Clean Water Act (33 U.S.C. Section 1342).

7. Require that these water-quality-based discharge limitations be included in any such permit as a condition for Tribal certification pursuant to Section 402 of the CWA (33 U.S.C. Section 1342).

8. Coordinate with upstream jurisdictions to ensure that permits issued by these jurisdictions comply with WRPT water quality standards.

9. Advise prospective dischargers of discharge requirements.

10. Develop and pursue inspection and enforcement programs to ensure that dischargers comply with requirements of the WRPT water quality standards and any requirements promulgated thereunder and to support the enforcement of Federal permits by the USEPA.

11. May establish a schedule in a NPDES Permit to bring a source or nonpoint source into compliance with an existing or revised water quality standard.

Nonpoint Source Controls

12. Encourage voluntary implementation of WRPT's NPS Pollution Management Plan (H&C, 2001) to control nonpoint sources of pollutants to achieve compliance with the Tribal water quality standards.

13. Review and modify, as appropriate, best management practices established in permits, orders, rules or directives to achieve compliance with water quality criteria.

14. Work with local, State and Federal agencies, and private concerns to address and develop solutions to reduce the impacts of regional agricultural activities on the Walker River.

15. Work with local, State, and Federal agencies, and private concerns, as appropriate, to coordinate nonpoint source control activities.

16. Investigate the benefits of "pollution trading" as a mechanism to prevent the cumulative increase of regional nonpoint source and point source discharges.

Wastewater

17. Upgrade domestic wastewater treatment, as necessary, to protect and maintain beneficial uses and existing water quality.

Education

18. Encourage WRD staff to obtain training in the areas of watershed management, water quality monitoring, water quality protection, riparian restoration, and other appropriate topics.

19. Provide educational outreach to Tribal members and landowners concerning how human activities affect pollution of receiving water bodies.

Regional Planning

20. Participate with local, State, and Federal agencies, and private concerns in regional water quality and riparian habitat restoration projects.

21. Participate with local, State, and Federal agencies, and private concerns, in discussions on regional water supply planning.

22. The WRPT has completed an emergency response plan that lists the actions to be taken if a transportation accident causes a spill of harmful material to enter the Walker River.

Enforcement

23. WRPT water quality standards shall be enforced through all methods available to the WRPT including, but not limited to: issuance of permits by the USEPA; participation by the WRPT in the USEPA permitting process; imposing conditions in leases of Tribal lands, rights of way across Tribal lands and other legal documents authorizing the use of Tribal lands or interests in Tribal lands; issuance of regulatory orders; taking court actions; review and approval of plans and specifications; evaluation of compliance with best management practices and all reasonable methods of prevention, control, and treatment of wastes prior to discharge; and coordination with Tribal and non-Tribal departments and regulatory agencies.

Review

24. In accordance with section 303 (c) of the CWA (as amended), public hearings will be held at least once each three year period for the purpose of reviewing applicable water quality standards and/or adopting new standards. Reviews may be held more frequently if necessary.

25. All standards are subject to modification if new scientific data and understanding becomes available, even if this entails an apparent "relaxation" of standards.

3.0 SUMMARY OF WATER QUALITY STANDARDS

Attachment 2, Tables 2a, 2b, 2c and 2d contain a summary of the water quality standards proposed by the WRPT for the parameters of primary concern for the Walker River and Weber Reservoir within the Reservation.

4.0 REFERENCES

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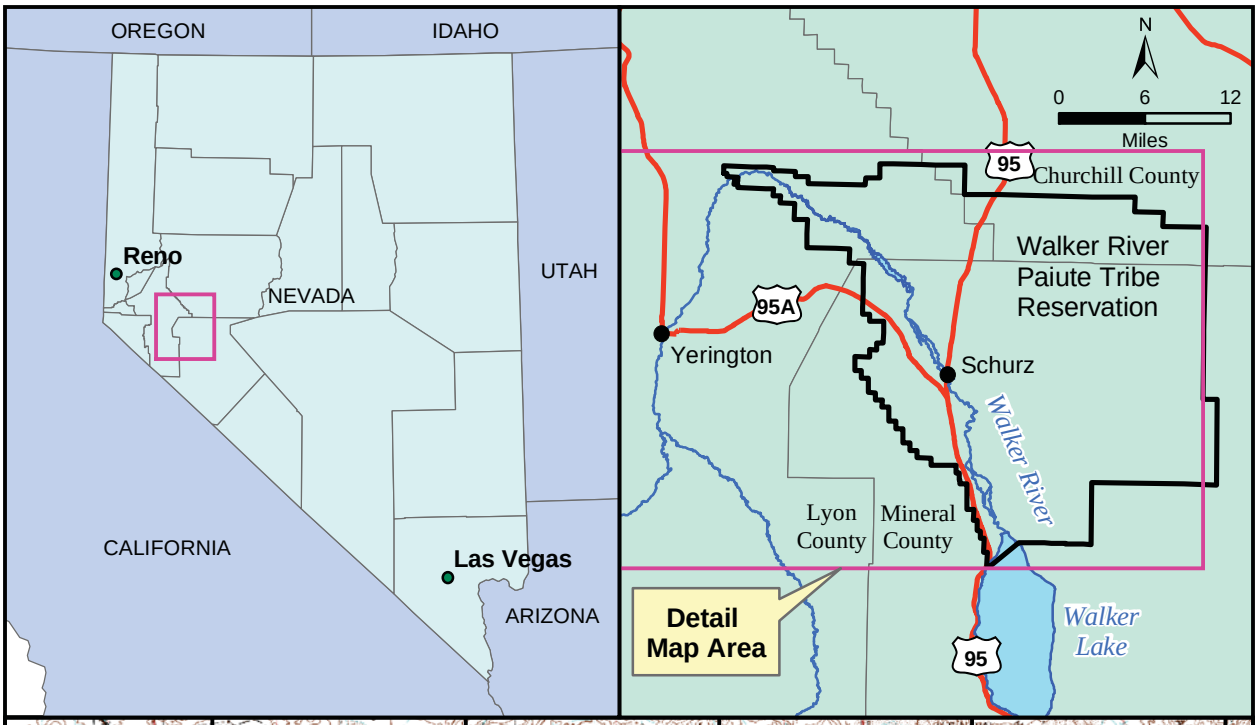
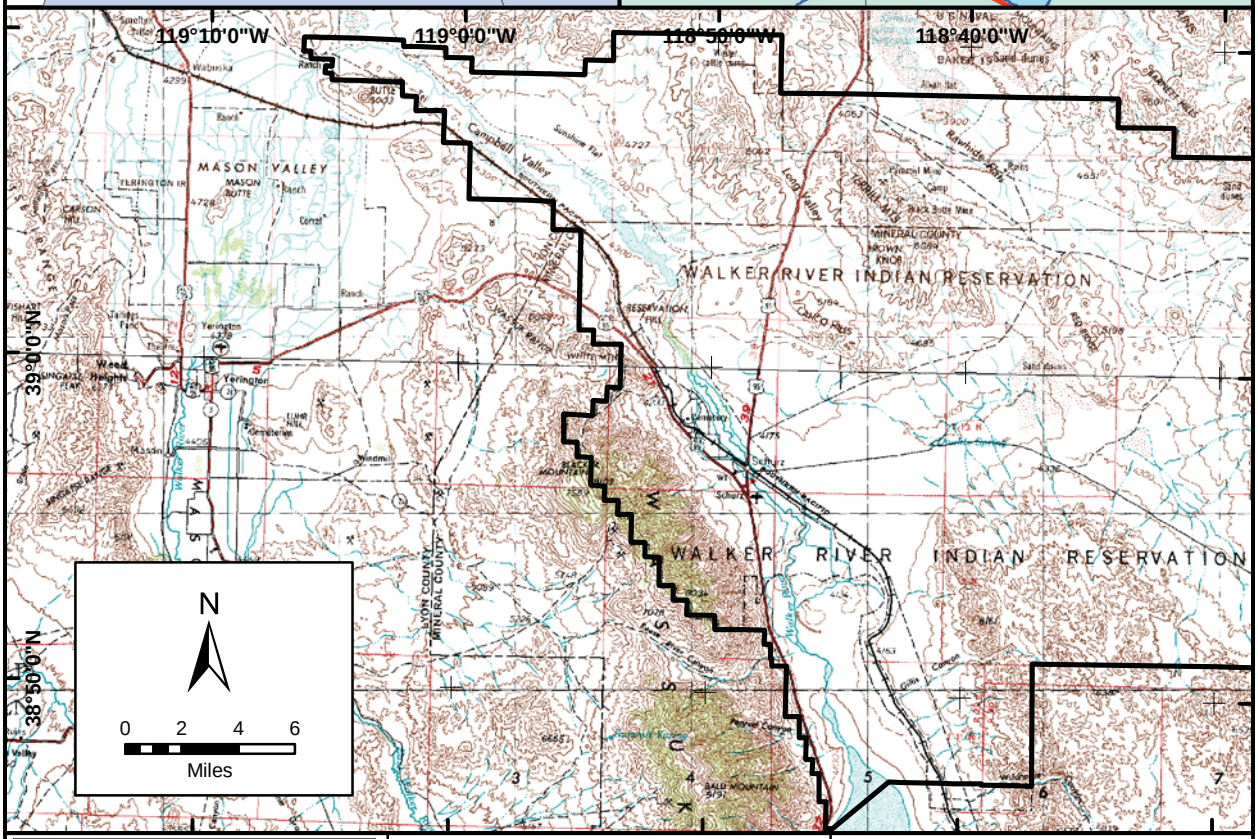
ATTACHMENT 1 - Figures

Fig. 1 - Site Location Map
Fig. 2 - Walker River Basin Map
Fig. 3 - Surface Water Monitoring Sites Location Map





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Water Quality Control Plan
Walker River Indian Reservation

Attachment 1, Figure 1
Site Location Map

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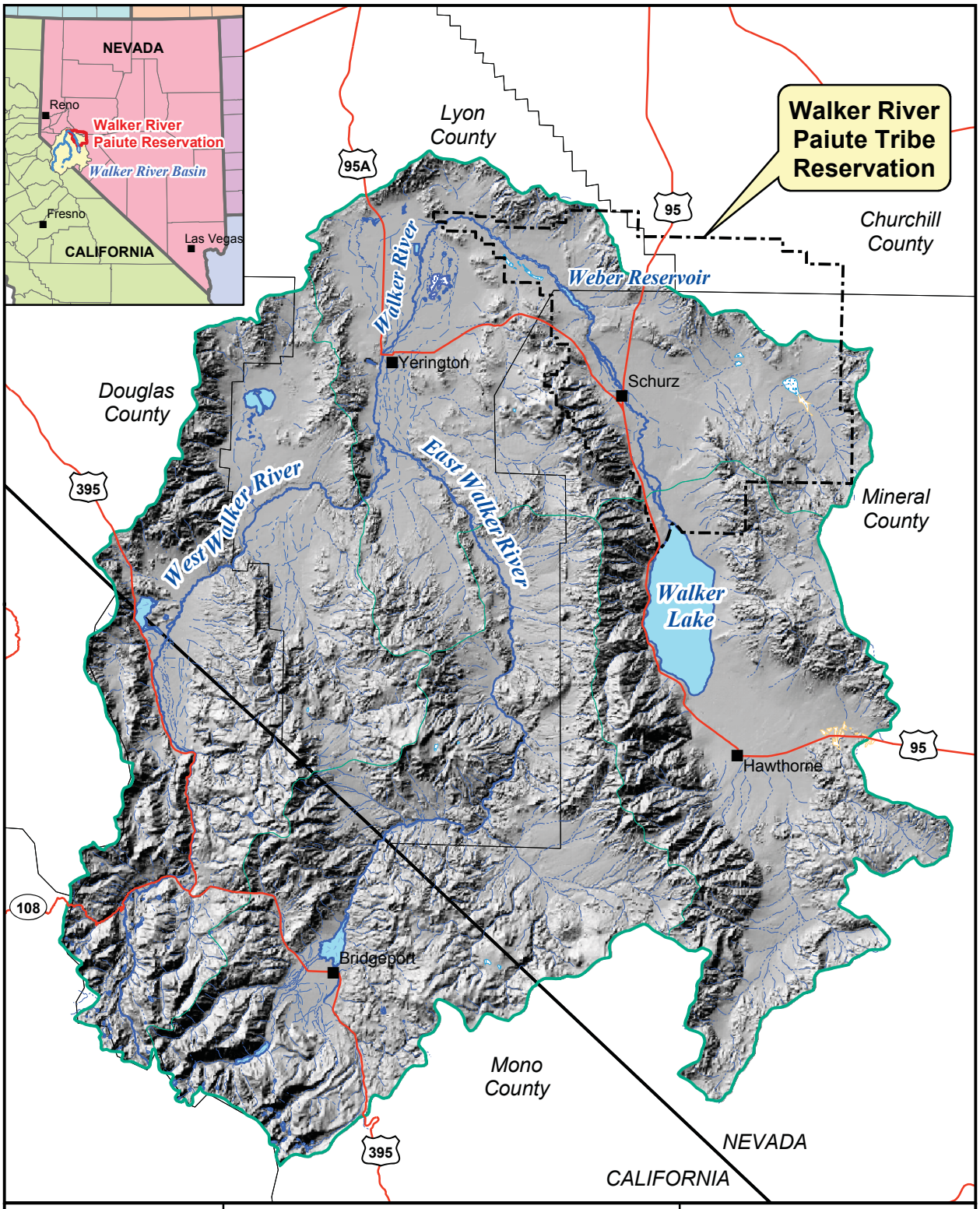

Water Quality Control Plan
Walker River Indian Reservation

Attachment 1, Figure 2
Walker River Basin

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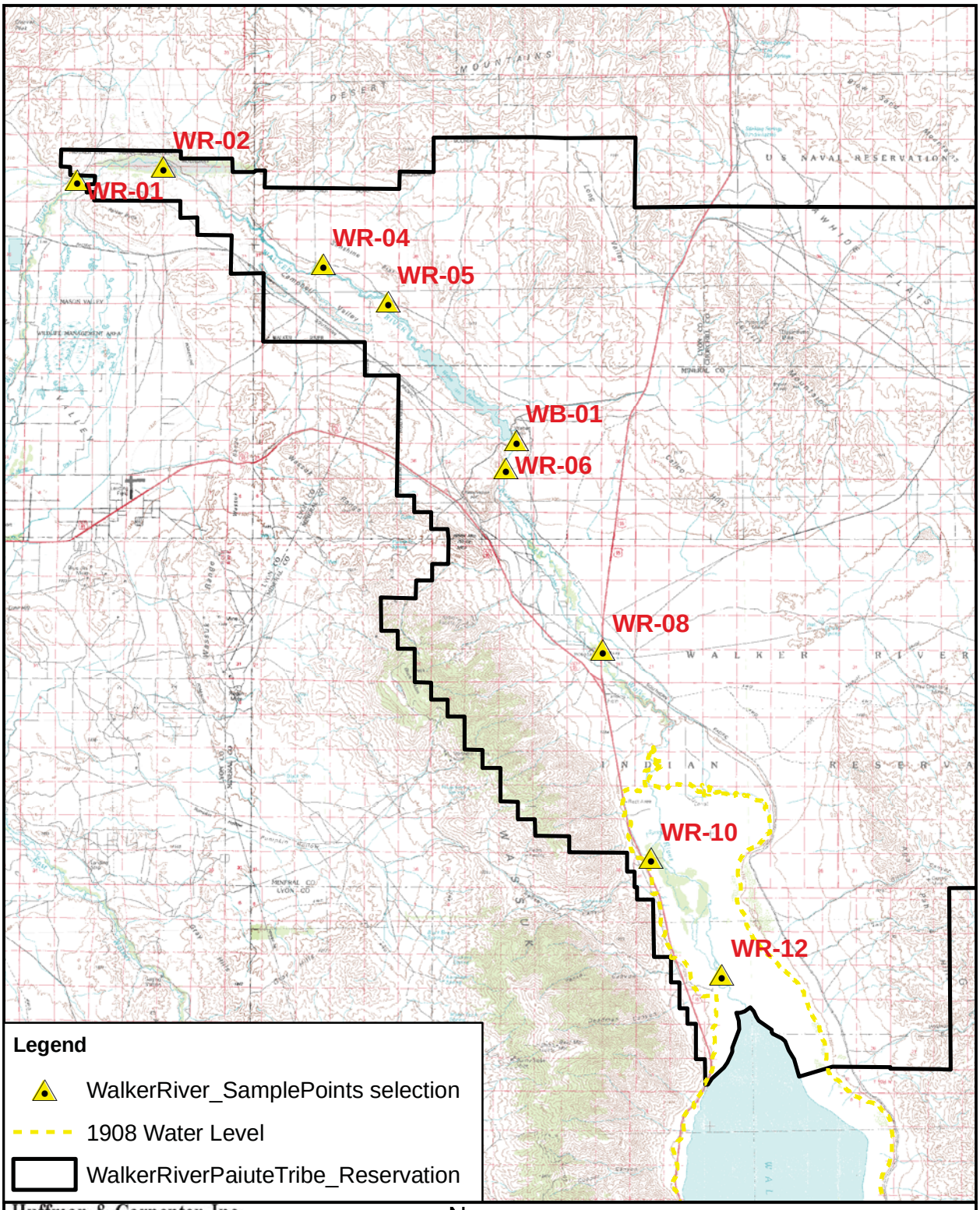

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WALKER RIVER PAIUTE RESERVATION
Lyon & Mineral Counties, Nevada

Attachment 1, Figure 3
Samping Sites Location Map

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ATTACHMENT 2 - Tables

ATTACHMENT 2, TABLE 1 - BENEFICIAL USES/ DESIGNATED USES
Water Quality Control Plan, Walker River Paiute Tribe

Abbreviations and Definitions of Beneficial/Designated Uses

AQUL	Aquatic Life. A beneficial use designation in which the waterbody provides suitable habitat for survival and reproduction of desirable fish, shellfish, and other aquatic organisms.
CLTL	Cultural. For the purpose of preserving quality of water for ceremonial, traditional, and cultural uses of the Walker River Paiute people.
DOMS	Domestic or Municipal Supply. For the purpose of community or individual water supply systems including, but not limited to, drinking water.
GRND	Groundwater Recharge. For the purpose of recharge of groundwater for future extraction, maintenance of water quality, or other purposes.
IND	Industrial. For the purpose of industrial uses.
INST	Instream Flow. For the purpose of preserving river geomorphic feature.
IRRG	Irrigation. Beneficial uses of water for the purpose of irrigation including, but not limited to, farming, horticulture, range and range vegetation.
LSWT	Livestock Watering. For the purpose of watering range and farm livestock.
RARE	Rare, Threatened and Endangered Species. For the purpose of supporting habitat necessary for the survival and successful maintenance of plant or animal species established as rare, threatened or endangered.
REC1	Recreation - Water Contact. For the purpose of recreational activities involving body contact with water. These include, but are not limited to, swimming, wading, water skiing, skin and SCUBA diving, wind surfing, jet skiing, fishing, and bathing.
REC2	Recreation - Water Non-contact. For the purpose of recreational activities involving proximity to water but not normally involving body contact. These include, but are not limited to, picnicking, sunbathing, hiking, beach combing, camping, boating, hunting, sightseeing, and aesthetic enjoyment in conjunction with the above activities.
RIPH	Riparian Habitat. For the purpose of maintaining and enhancing the growth and survival of riparian vegetation.
WET	Wetland Habitat. For the purpose of maintaining and enhancing the growth and survival of wetland habitat.
WILD	Wildlife and Wildlife Habitat. For the purpose of protection and propagation of wildlife (including fish, birds and other water dependent biota), and supporting wildlife habitat.

Attachment 2, Table 2a STANDARDS OF WATER QUALITY - Walker River, Reaches B and D

Walker River Reaches B, C, D and E [Reach B - Walker River at Reservation Boundary to Weber Reservoir] (WR-01, WR-02, WR-05 TO WB-01); Reach C - Weber Reservoir (WB-01), Reach D - Weber Reservoir (WB-01) along Walker River through WR-06, WR--08, to Location WR-10 Walker River, Reach E, Walker River WR-10 to WR-12]														
PARAMETERS	**WATER QUALITY STANDARDS FOR BENEFIIAL USES**	**Beneficial Uses [Reach B (WR-01, WR-02, WR-05), Reach D (WR-06, WR-08]**												
		Aquatic Life	Cultural	Domestic or Municipal Supply	Groundwater Recharge	Industrial	Instream Flow	Irrigation	Livestock Waterig	Recreation; Contact	Recreation; Non-Contact	Riparian Habitat	Wetland Habitat	Wildlife and Wildlife Habitat
Beneficial Uses		X	X	X	X	X	X	X	X	X	X	X	X	X
Aquatic Life Species of Concern: LCT When Present														
Temperature - °C	**S.V. Nov-Mar ≤13 S.V. Apr-Jun ≤23 (A) S.V. Jul-Oct≤28**	*												
pH	**S.V. 6.5-9.0**	*												
Dissolved Oxygen	**S.V ≥5.0 June-Oct. S.V.≥8.0 Nov.-May**	*												
Total Phosphorous (as P) - mg/l	**S.V.≤0.05**	*												
Nitrogen Species (as N) - mg/l	**Nitrite S.V. ≤5.0 (B)**	*												
	Nitrate S.V. ≤10			*										
Suspended Solids - mg/l	**S.V. ≤80**	*												
Turbidity - NTU	**S.V. ≤50 (C)**	*												
Total Dissolved Solids - mg/l	**A-Avg. ≤500**			*										
Chloride - mg/l	**Acute ≤800 S.V. ≤230 (D)**	*												
Sulfate - mg/l	**S.V. ≤250**			*										
E. coli - No./100 ml	**G.M.≤126 S.T.V. ≤410**									*	*			

Note A: S.V. ≤21°C. February through June when LCT are present (C below).

Note B: The The nitrite beneficial use standards is ≤0.06 from February through June when Lahontan Cutthroat Trout are present.

Note C: Feb-June ≤10.0 when Lahontan Cutthroat Trout are present.

Note D: Chloride- One-hour and 96-hour acerage concentration limts may only be exceed once every three years.

Attachment 2, Table 2b., STANDARDS OF WATER QUALITY - Walker River, Weber Reservoir - Reach C

Walker River Reaches B, C, D and E [Reach B - Walker River at Reservation Boundary to Weber Reservoir] (WR-01, WR-02, WR-05 TO WB-01); Reach C - Weber Reservoir (WB-01), Reach D - Weber Reservoir (WB-01) along Walker River through WR-06, WR--08, to Location WR-10 Walker River, Reach E, Walker River WR-10 to WR-12]														
PARAMETERS	**WATER QUALITY STANDARDS FOR BENEFIIAL USES**	**Beneficial Uses [Reach C (WB-01)]**												
		Aquatic Life	**Cultural**	**Domestic or Municipal Supply**	**Groundwater Recharge**	**Industrial**	**Instream Flow**	**Irrigation**	**Livestock Watering**	**Recreation; Contact**	**Recreation; Non-Contact**	**Riparian Habitat**	**Wetland Habitat**	**Wildlife and Wildlife Habitat**
Beneficial Uses		X	X	X	X	X	X	X	X	X	X	X	X	X
Aquatic Life Species of Concern: LCT When Present														
Temperature - °C Weber Reservoir	**S.V. Nov-Mar ≤13**	*												
	S.V. Apr-Jun ≤23 (A)													
	S.V. Jul-Oct≤28													
pH	**S.V. 6.5-9.0**	*												
Dissolved Oxygen	**S.V ≥5.0 June-Oct. S.V.≥8.0 Nov.-May**	*												
Total Phosphorous (as P) - mg/l Weber Reservoir	**S.V.≤0.025**	*												
Nitrogen Species (as N) - mg/l	**Nitrite S.V. ≤5.0 (B)**	*												
	Nitrate S.V. ≤10			*										
Suspended Solids - mg/l	**S.V. ≤80**	*												
Turbidity - NTU	**Warm S.V ≤50 (C)**	*												
Total Dissolved Solids - mg/l	**A-Avg. ≤500**			*										
Chloride - mg/l	**Acute ≤800 S.V. ≤230 (D)**	*												
Sulfate - mg/l	**S.V. ≤250**			*										
E. coli - No./100 ml	**G.M.≤126 S.T.V. ≤410**									*	*			
Note A: S.V. ≤21°C. February through June when LCT are present (C below).														
Note B: The The nitrite beneficial use standards is ≤0.06 from February through June when Lahontan Cutthroat Trout are present.														
Note C: Feb-June ≤10.0 when Lahontan Cutthroat Trout are present.														
Note D: Chloride- One-hour and 96-hour acerage concentration limts may only be exceed once every three														

Attachment 2, Table 2c., STANDARDS OF WATER QUALITY - Walker River Reaches E

Walker River [Reach B - Walker River at Reservation Boundary to Weber Reservoir] (WR-01, WR-02, WR-05 TO WB-01); Reach C - Weber Reservoir (WB-01), Reach D - Weber Reservoir (WB-01) along Walker River through WR-06, WR--08, to Location WR-10 Walker River, Reach E, Walker River WR-10 to WR-12]

PARAMETERS	WATER QUALITY STANDARDS FOR BENEFIIAL USES	Beneficial Uses [Reach E (WR-10 amd WR-12)]												
		Aquatic Life	Cold Freshwater Habitat	Cultural	Domestic or Municipal Supply	Groundwater Recharge	Industrial	Instream Flow	Irrigation	Livestock Watering	Recreation; Contact	Recreation; Non-Contact	Riparian Habitat	Wetland Habitat	Wildlife and Wildlife Habitat
Beneficial Uses		X	X	X	X	X	X	X	X	X	X	X	X	X	X
Aquatic Life Species of Concern: LCT When Present															
Temperature - °C	**S.V. Nov-Mar ≤13**	*													
	S.V. Apr-Jun ≤23 (A)														
	S.V. Jul-Oct≤28														
pH	**S.V. 6.5-9.0**	*													
Dissolved Oxygen	**S.V ≥5.0 June-Oct. S.V.≥8.0 Nov.-May**	*													
Total Phosphorous (as P) - mg/l	**S.V.≤0.05**	*													
Nitrogen Species (as N) - mg/l	**Nitrite S.V. ≤5.0 (B)**	*													
	Nitrate S.V. ≤10				*										
Suspended Solids - mg/l	**S.V. ≤80**	*													
Turbidity - NTU	**S.V ≤50 (C)**	*													
Total Dissolved Solids - mg/l	**A-Avg. ≤500**				*										
Chloride - mg/l	**Acute ≤800 S.V. ≤230 (D)**	*													
Sulfate - mg/l	**S.V. ≤250**				*										
E. coli - No./100 ml	**G.M.≤126 S.T.V. ≤410**										*	*			

Note A: S.V. ≤21°C. February through June when LCT are present (C below).

Note B: The The nitrite beneficial use standards is ≤0.06 from February through June when Lahontan Cutthroat Trout are present.

Note C: Feb-June ≤10.0 when Lahontan Cutthroat Trout are present.

Note D: Chloride- One-hour and 96-hour acerage concentration limts may only be exceed once every three years.

Attachment 2, Table 2d, Rationale for Standards

	B	C	D	J	K	L	M
1	**EPA water quality criteria**						
2	**Perameter**	**Reference**	**ConcentrationsRange**	**Special Notes From Tables 2a, 2b and 2c**			
3	Temperature	Gold Book	SV Nov-Mar ≤13, SV Apr-Jue ≤23, SV Jul-Oct ≤28	Note A: S.V. ≤21^{o}C. February through June when LCT are present (C below).			
4	pH	Gold Book	6.5-9				
5	Total phosphorus	Gold Book	≤0.05, ≤0.025				
6	Nitrate	Gold Book	≤10	Note B: The The nitrite beneficial use standards is ≤0.06 from February through June when Lahontan Cutthroat Trout are present.			
7	Nitrite	Gold Book	≤5	Note B: The The nitrite beneficial use standards is ≤0.06 from February through June when Lahontan Cutthroat Trout are present.			
8	Suspended Solids	Gold Book	SV ≤80				
9	Turbidity	FWPCA,1968	SV ≤50	Note C: Feb-June ≤10.0 when Lahontan Cutthroat Trout are present.			
10	Total Dissolved Soli	Water quality Control 1988	A-Average ≤500				
11	Chloride	Water quality Control 1989	Acute≤ 800 ≤230	Note D: Chloride- One-hour and 96-hour acerage concentration limts may only be exceed once every three years.			
12	Sulfate	Water quality Control 1990	SV 250				
13	E.coli	RWQC 2012	≤126 G.M. ≤410 STV				

These narrative water quality standards apply to the Walker River on the Reservation and Weber Reservoir.

1. Bacteria, Coliform. Waters shall not contain concentrations of coliform bacteria attributable to human wastes.

2. Bioaccumulation. Toxic pollutants shall not be discharged as a result of human activities at levels that will bioaccumulate in aquatic resources to levels that are harmful to human health or aquatic life.

3. Biostimulatory Substances. Waters shall not contain biostimulatory substances in concentrations that cause aquatic growths to the extent that such growths promote nuisance conditions or adversely affect beneficial uses.

4. Chemical Constituents. Waters designated as DOMS shall not contain concentrations of chemical constituents in excess of drinking water standards specified under Tribal code. The concentration of contaminants in waters that are existing or potential sources of drinking waters shall not occur at levels, which are harmful to human health. Waters designated as IRRG or LSWT shall not contain concentrations of chemical constituents in amounts that adversely affect their beneficial uses for agricultural purposes. Waters shall not contain concentrations of chemical constituents in amounts that adversely affect water for other beneficial uses.

5. Color. Waters shall be free of coloration that causes nuisance or adversely affects the water for beneficial uses. The natural color of fish or other inland surface water resources shall not be impaired.

6. Floating Materials. Waters shall not contain floating material, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect the water for beneficial uses.

7. Oil and Grease. Waters shall not contain oils, greases, waxes or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or that otherwise adversely affect the water for beneficial uses.

8. Pesticides. Pesticide concentrations in water and aquatic sediments shall not exceed levels that impair the health or reproductive success of human, animal, plant or aquatic life.

   Waters designated as DOMS shall not contain concentrations of pesticides in excess of drinking water standards specified under Tribal code. [Pesticides are defined to include, herbicides, rodenticides, fungicides, piscicides and other economic and agricultural poisons.]

9. Radioactivity. Radionuclides shall not be present in concentrations which are deleterious to human, plant, animal or aquatic life nor which result in the accumulation of radionuclides in the food web to the extent which presents a hazard to human, plant, animal, or aquatic life.

10. Sediment and Turbidity. The suspended sediment load and suspended sediment and turbidity concentrations shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses. Waters shall not contain substances in concentrations that result in deposition of material that causes nuisance or that adversely affects the water for beneficial uses.

11. Species Composition. Communities and populations of aquatic biota, including invertebrate, vertebrate and plant species, shall not be degraded as a result of point source or nonpoint source discharge. This applies to transient as well as cumulative conditions. Short-term variances from these objectives may be allowed for actions that are being taken to fulfill statutory requirements under Tribal law or the federal Endangered Species Act.

12. Taste and Odor. Waters shall not contain taste or odor-producing substances discharged from activities in the watershed in concentrations that impart undesirable tastes or odors to fish or other edible products of aquatic origin, that cause nuisance or that adversely affect the water for beneficial uses. The natural taste and odor of fish used for human consumption shall not be impaired.

13. Temperature. The ambient receiving water temperature of all waters shall not be altered by point or nonpoint source inputs unless it can be demonstrated to the satisfaction of the the Tribal Council of the Walker River Paiute Tribe [and designated Tribal water quality standards enforcement agency] that such an alteration in temperature does not adversely affect the water for beneficial uses.

14. Toxicity. All waters shall be maintained free of toxic substances which enter the waterbody from human activities in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life. The concentrations of toxic pollutants in the water column, sediments, or biota shall not adversely affect water for beneficial uses. Furthermore, if it is determined that a compound of toxic affect is interfering with the beneficial uses of any waterbody on Tribal lands, but that this compound is not identified with a numeric criteria, the Tribe will consult with the USEPA and may, if appropriate, utilize the best science available to develop a numeric limit.

Attachment 2, Tables 4a, 4b and 4c. Aquatic Life Criteria Water Quality Control Plan, Walker River Paiute Tribe

Table 4a

A		B Freshwater	
Compound	CAS Number	Criterion Maximum Concentration (CMC) (µg/L) B1	Criterion Continuous Concentration (CCC) (µg/L) B2
Acrolein	107028	3	3
Aldrin[a]	309002	3	-
Alkalinity[b]		-	20000
alpha-Endosulfan[a,c]	959988	0.22	0.056
Aluminum pH 6.5 – 9.0	7429905	Reserved[d]	
Ammonia	7664417		
Arsenic[e,f]	7440382	340	150
beta-Endosulfan[a,c]	33213659	0.22	0.056
Cadmium[f]	7440439	See Table 1b	
Carbaryl	63252	2.1	2.1
Chlordane[a]	57749	2.4	0.0043
Chloride	16887006	860000	230000
Chlorine	7782505	19	11
Chlorpyrifos	2921882	0.083	0.041
Chromium (III)[f]	16065831	See Table 1b	
Chromium (VI)[f]	18540299	16	11
Copper[f]	7440508	See Table 2	
Cyanide[h]	57125	22	5.2
Demeton	8065483	-	0.1
Diazinon	333415	0.17	0.17
Dieldrin	60571	0.24	0.056[a]
Endrin	72208	0.086	0.036[i]
gamma-BHC (Lindane)	58899	0.95	-
Guthion	86500	-	0.01
Heptachlor[a]	76448	0.52	0.0038
Heptachlor Epoxide[a,j]	1024573	0.52	0.0038
Iron	7439896	-	1000
Lead[f]	7439921	See Table 1b	

Attachment 2, Tables 4a, 4b and 4c. Aquatic Life Criteria Water Quality Control Plan, Walker River Paiute Tribe

A		B Freshwater	
Compound	CAS Number	Criterion Maximum Concentration (CMC) (µg/L) B1	Criterion Continuous Concentration (CCC) (µg/L) B2
Malathion	121755	-	0.1
Mercury[f,k]	7439976	1.4	0.77
Methoxychlor	72435	-	0.03
Mirex	2385855	-	0.001
Nickel[f]	7440020	See Table 1b	
Nonylphenol	84852153	28	6.6
Oxygen, Dissolved[l]	7782447		
Parathion	56382	0.065	0.013
Pentachlorophenol	87865	19[m]	15[m]
pH[n]		-	6.5 – 9
Selenium	7782492	See Table 3	
Silver[a,f]	7440224	See Table 1b	
Sulfide-Hydrogen Sulfide	7783064	-	2
Temperature[o]		-	-
Toxaphene	8001352	0.73	0.0002
Tributyltin (TBT)		0.46	0.072
Zinc[f]	7440666	See Table 1b	
4,4'-DDT[a]	50293	1.1	0.001

Footnotes to Table 4a, 4b, 4c of this section:

a. These criteria are based on the 1980 criteria, which used different Minimum Data Requirements and derivation procedures from the 1985 Guidelines. If evaluation is to be done using an averaging period, the acute criteria values given are not to be exceeded and should be divided by 2 to obtain a value that is more comparable to a CMC derived using the 1985 Guidelines.

b. The CCC of 20mg/L is a minimum value except where alkalinity is naturally lower, in which case the criterion cannot be lower than 25% of the natural level.

c. This value was derived from data for endosulfan and is most appropriately applied to the sum of alpha-endosulfan and beta-endosulfan.

d. Freshwater criteria for aluminum is reserved for new values under development. Criteria will be added once available.

e. This recommended water quality criterion was derived from data for arsenic (III) but is applied here to total arsenic.

f. Freshwater and saltwater criteria for metals are expressed in terms of the dissolved metal in the water column. See Office of Water Policy and Technical Guidance on Interpretation and Implementation of Aquatic Life Metals Criteria. See Table 1a for conversion factors.
g. Saltwater criteria for copper is reserved for new values under development. Criteria will be added once available.
h. These recommended water quality criteria are expressed as µg free cyanide (CN/L).
i. The derivation of the CCC for this pollutant did not consider exposure through the diet, which is probably important for aquatic life occupying upper trophic levels.
j. This value was derived from data for heptachlor and there was insufficient data to determine relative toxicities of heptachlor and heptachlor epoxide.
k. This recommended water quality criterion was derived from data for inorganic mercury (II), but is applied here to total dissolved mercury. If a substantial portion of the mercury in the water column is methylmercury, this criterion will probably be under protective. In addition, even though inorganic mercury is converted to methylmercury and methylmercury bioaccumulates to a great extent, this criterion does not account for uptake via the food chain because sufficient data were not available when the criterion was derived.
l. For fresh waters, see Quality Criteria for Water, 1986 ("Gold Book"). For marine waters, see Ambient Aquatic Life Water Quality Criteria for Dissolved Oxygen (Saltwater): Cape Cod to Cape Hatteras (EPA-822-R-00-012).
m. Freshwater aquatic life values for pentachlorophenol are expressed as a function of pH and values displayed in table correspond to a pH of 7.8. $CCC = e^{1.005(pH) - 5.134}$, $CMC = e^{1.005(pH) - 4.869}$
n. For open ocean waters where the depth is substantially greater than the euphotic zone, the pH should not be changed more than 0.2 units from the naturally occurring variation or any case outside the range of 6.5 to 8.5. For shallow, highly productive coastal and estuarine areas where naturally occurring pH variations approach the lethal limits of some species, changes in pH should be avoided but in any case should not exceed the limits established for fresh water, *i.e.*, 6.5-9.0.
o. Criteria are species dependent. See Quality Criteria for Water, 1986 ("Gold Book").

Notes to Table 4

1. Freshwater and saltwater aquatic life criteria apply as specified in Section 2.3.3(1).
2. Because of variations in chemical nomenclature systems, this listing of toxic pollutants does not duplicate the listing in Appendix A to 40 CFR Part 423 - 126 Priority Pollutants. EPA has added the Chemical Abstracts Services (CAS) registry numbers, which provide a unique identification for each chemical.

Attachment 2, Tables 4a, 4b and 4c. Aquatic Life Criteria Water Quality Control Plan, Walker River Paiute Tribe

Table 4b: Conversion Factors for Dissolved Metals

Metal	Freshwater CMC	Freshwater CCC	Saltwater CMC	Saltwater CCC
Arsenic	1.000	1.000	1.000	1.000
Cadmium	1.136672-[(ln hardness)(0.041838)]	1.101672-[(ln hardness)(0.041838)]	0.994	0.994
Chromium III	0.316	0.860	—	—
Chromium VI	0.982	0.962	0.993	0.993
Copper	0.960	0.960	0.83	0.83
Lead	1.46203-[(ln hardness)(0.145712)]	1.46203-[(ln hardness)(0.145712)]	0.951	0.951
Mercury	0.85	0.85	0.85	0.85
Nickel	0.998	0.997	0.990	0.990
Selenium	—	—	0.998	0.998
Silver	0.85	—	0.85	—
Zinc	0.978	0.986	0.946	0.946

Table 4c: Parameters for Calculating Freshwater Dissolved Metals Criteria That Are Hardness-Dependent

Chemical	mA	bA	mC	bC	Freshwater Conversion Factors (CF) CMC	CCC
Cadmium	0.9789	-3.866	0.7977	-3.909	1.136672-[(*ln*hardness)(0.041838)]	1.101672-[(*ln*hardness)(0.041838)]
Chromium III	0.8190	3.7256	0.8190	0.6848	0.316	0.860
Lead	1.273	-1.460	1.273	-4.705	1.46203-[(*ln*hardness)(0.145712)]	1.46203-[(*ln*hardness)(0.145712)]
Nickel	0.8460	2.255	0.8460	0.0584	0.998	0.997
Silver	1.72	-6.59	—	—	0.85	—
Zinc	0.8473	0.884	0.8473	0.884	0.978	0.986

Hardness-dependent metals criteria may be calculated from the following:

CMC (dissolved) = exp{mA [*ln*(hardness)]+ bA} (CF)

CCC (dissolved) = exp{mC [*ln*(hardness)]+ bC} (CF)

Table 5. Copper Aquatic Life Criteria for Fresh Waters, Water Quality Control Plan, Walker River Paiute Tribe

Metal	CAS No.	Criterion Maximum Concentration (CMC) [a] (µg/L)	Criterion Continuous Concentration (CCC) [b] (µg/L)
Copper	7440508	Acute (CMC) and chronic (CCC) freshwater copper criteria shall be developed using EPA's 2007 *Aquatic Life Ambient Freshwater Quality Criteria—Copper* (EPA–822–R–07–001), which incorporates use of the copper biotic ligand model (BLM). Where sufficiently representative ambient data for DOC, calcium, magnesium, sodium, potassium, sulfate, chloride, or alkalinity are not available, the state or tribe shall use the values from the *Draft Technical Support Document: Recommended Estimates for Missing Water Quality Parameters for Application in EPA's Biotic Ligand Model*, March 2016, EPA 820-E-15-106, which is hereby incorporated by reference. If taking stream order into account, the state or tribe will use Tables 8, 9, and 10 of the document; for estimates irrespective of stream order, the state or tribe will refer to Table 4.	

[a] The CMC is the highest allowable one-hour average instream concentration of copper. The CMC is not to be exceeded more than once every three years.
[b] The CCC is the highest allowable four-day average instream concentration of copper. The CCC is not to be exceeded more than once every three years.

Table 6. Selenium Aquatic Life Criteria for Fresh Waters, Water Quality Control Plan, Walker River Paiute Tribe

Criterion Element	Magnitude	Duration	Frequency
Fish Tissue[a] (Egg-Ovary)[b]	15.1 mg/kg dw	Instantaneous measurement[c]	Not to be exceeded
Fish Tissue[a] (Whole Body or Muscle)[d]	8.5 mg/kg dw or 11.3 mg/kg dw muscle (skinless, boneless filet)	Instantaneous measurement[c]	Not to be exceeded
Water Column[e] (Monthly Average Exposure)	1.5 µg/L in lentic aquatic systems 3.1 µg/L in lotic aquatic systems	30 days	Not more than once in three years on average
Water Column[e] (Intermittent Exposure)[f]	$WQC_{int} = \frac{WQC_{30\text{-}day} - C_{bkgrnd}(1 - f_{int})}{f_{int}}$	Number of days/month with an elevated concentration	Not more than once in three years on average

[a] Fish tissue elements are expressed as steady-state.
[b] Egg/ovary supersedes any whole-body, muscle, or water column element when fish egg/ovary concentrations are measured.
[c] Fish tissue data provide point measurements that reflect integrative accumulation of selenium over time and space in fish population(s) at a given site.
[d] Fish whole-body or muscle tissue supersedes water column element when both fish tissue and water concentrations are measured.
[e] Water column values are based on dissolved total selenium in water and are derived from fish tissue values via bioaccumulation modeling. Water column values are the applicable criterion element in the absence of steady-state condition fish tissue data.
[f] Where $WQC_{30\text{-}day}$ is the water column monthly element, for either a lentic or lotic waters; C_{bkgrnd} is the average background selenium concentration, and f_{int} is the fraction of any 30-day period during which elevated selenium concentrations occur, with f_{int} assigned a value ≥ 0.033 (corresponding to 1 day).

Table 7. Ammonia Aquatic Life Criteria for Fresh Waters, Water Quality Control Plan, Walker River Paiute Tribe

mg TAN/L	
Acute (CMC) equation (1 hour average)	$CMC = MIN\left(\left(\frac{0.275}{1+10^{7.204-pH}}+\frac{39.0}{1+10^{pH-7.204}}\right), \left(0.7249\times\left(\frac{0.0114}{1+10^{7.204-pH}}+\frac{1.6181}{1+10^{pH-7.204}}\right)\times\left(23.12\times 10^{0.036\times(20-T)}\right)\right)\right)$
Chronic (CCC) equation (30-day rolling average)*	$CCC = 0.8876\times\left(\frac{0.0278}{1+10^{7.688-pH}}+\frac{1.1994}{1+10^{pH-7.688}}\right)\times\left(2.126\times 10^{0.028\times(20-MAX(T,7))}\right)$
Note: Ammonia criteria are a function of pH and temperature. At the standard normalized pH of 7.0 and temperature of 20 °C, the acute criterion would be 17 mg TAN/L and the chronic criterion would be 1.9 mg TAN/L. Criteria duration: the acute criterion is a one-hour average and the chronic criterion is a thirty-day rolling average. Criteria frequency: Not to be exceeded more than once in 3 years. * Not to exceed 2.5 times the CCC as a 4-day average within the 30-days, *i.e.* 4.8 mg TAN/L at pH 7 and 20 °C more than once in 3 years on average.	

Note to Table 7: Acute (CMC) and chronic (CCC) freshwater ammonia criteria were developed using EPA's 2013 *Aquatic Life Ambient Water Quality Criteria for Ammonia - Freshwater* (EPA–822–R–13–001), which is hereby incorporated by reference. Illustrations, tables, and formulae used in the development of these equations can be found on pages 40-52 of the criteria document. Alternative equations for the presence or absence of *Oncorhynchus sp.* (rainbow trout) can be found on pages 41-42 of the document.

Table 8. Human Health Criteria, Water Quality Control Plan, Walker River Paiute Tribe

A		B Criteria using a fish consumption of 22 gpd	
Pollutant	**CAS Number**	**B1 Water + Organism (µg/L)**	**B2 Organism Only (µg/L)**
1,1,1-Trichloroethane[a]	71556	10000	200000
1,1,2,2-Tetrachloroethane[b]	79345	0.2	3
1,1,2-Trichloroethane[a,b]	79005	0.55	8.6
1,1-Dichloroethylene[a]	75354	300	20000
1,2,4,5-Tetrachlorobenzene	95943	0.03	0.03
1,2,4-Trichlorobenzene[a]	120821	0.069	0.073
1,2-Dichlorobenzene[a]	95501	1000	3000
1,2-Dichloroethane[a,b]	107062	9.9	630
1,2-Dichloropropane[b]	78875	0.9	30
1,2-Diphenylhydrazine[b]	122667	0.03	0.2
1,2-Trans-Dichloroethylene[a]	156605	100	4000
1,3-Dichlorobenzene	541731	7	10
1,3-Dichloropropene[b]	542756	0.27	11
1,4-Dichlorobenzene[a]	106467	300	900
2,4,5-Trichlorophenol[c]	95954	300	600
2,4,6-Trichlorophenol[b,c]	88062	1.4	2.7
2,4-Dichlorophenol[c]	120832	10	60
2,4-Dimethylphenol[c]	105679	100	2000
2,4-Dinitrophenol	51285	10	300
2,4-Dinitrotoluene[b]	121142	0.048	1.6
2-Chloronaphthalene	91587	800	1000
2-Chlorophenol[c]	95578	30	800
2-Methyl-4,6-Dinitrophenol	534521	2	30
3,3'-Dichloro-benzidine[b]	91941	0.049	0.14
3-Methyl-4-Chlorophenol[c]	59507	500	2000
4,4'-DDD[b]	72548	0.00012	0.00012

Table 8. Human Health Criteria, Water Quality Control Plan, Walker River Paiute Tribe

A		B Criteria using a fish consumption of 22 gpd	
Pollutant	**CAS Number**	**B1 Water + Organism (µg/L)**	**B2 Organism Only (µg/L)**
4,4'-DDE[b]	72559	0.000017	0.000017
4,4'-DDT[b]	50293	0.00003	0.00003
Acenaphthene[c]	83329	70	90
Acrolein	107028	3	400
Acrylonitrile[b]	107131	0.061	6.7
Aldrin[b]	309002	0.00000074	0.00000074
alpha-BHC	319846	0.00035	0.00038
alpha-Endosulfan	959988	20	30
Anthracene	120127	300	400
Antimony[a,d]	7440360	5.3	580
Asbestos[a]	1332214	7 million fibers/L	--
Barium[a,e]	7440393	1000	--
Benzene- Upper CSF[a,b]	71432	0.58	15
Benzidine[b]	92875	0.00014	0.01
Benzo(a) Anthracene[b]	56553	0.0012	0.0013
Benzo(a) Pyrene[a,b]	50328	0.00012	0.00013
Benzo(b) Fluoranthene[b]	205992	0.0012	0.0013
Benzo(k) Fluoranthene[b]	207089	0.012	0.013
beta-BHC (beta-HCH)[b]	319857	0.0079	0.014
beta-Endosulfan	33213659	20	40
Bis(2-Chloro-1-Methylethyl) Ether	108601	200	3000
Bis(2-Chloroethyl) Ether[b]	111444	0.03	2.1
Bis(2-Ethylhexyl) Phthalate[a,b]	117817	0.32	0.37
Bis(Chlormethyl) Ether	542881	0.00015	0.017
Bromoform[a,b]	75252	7	110
Butylbenzyl Phthalate	85687	0.1	0.1
Carbon Tetrachloride[a,b]	56235	0.4	5

Table 8. Human Health Criteria, Water Quality Control Plan, Walker River Paiute Tribe

A		B Criteria using a fish consumption of 22 gpd	
Pollutant	**CAS Number**	**B1 Water + Organism (µg/L)**	**B2 Organism Only (µg/L)**
Chlordane[a]	57749	0.0003	0.00031
Chlorobenzene[a,c]	108907	100	800
Chlorodibromo-methane[a,b]	124481	0.8	20
Chloroform[a,b]	67663	60	2000
Chlorophenoxy Herbicide (2,4,5-TP) [Silvex][a]	93721	100	400
Chlorophenoxy Herbicide (2,4-D)[a]	94757	1300	12000
Chrysene[a,b]	218019	0.12	0.13
Copper[a,b,c]	7440508	1300	--
Cyanide[a]	57125	4	400
Dibenzo(a,h) Anthracene[b]	53703	0.00012	0.00013
Dichlorobromo-methane[a,b]	75274	0.94	26
Dieldrin[b]	60571	0.0000012	0.0000012
Diethyl Phthalate	84662	600	600
Dimethyl Phthalate	131113	2000	2000
Di-n-Butyl Phthalate	84742	20	30
Dinitrophenols	25550587	10	1000
Endosulfan Sulfate	1031078	20	40
Endrin[a]	72208	0.03	0.03
Endrin Aldehyde	7421934	1	1
Ethylbenzene[a]	100414	67	120
Fluoranthene	206440	20	20
Fluorene	86737	50	70
Gamma-BHC (HCH); Lindane[a]	58899	4.1	4.3
Heptachlor[a,b]	76448	0.0000057	0.0000057
Heptachlor Epoxide[a,b]	1024573	0.000031	0.000031
Hexachlorobenzene[a,b]	118741	0.000076	0.000076

Table 8. Human Health Criteria, Water Quality Control Plan, Walker River Paiute Tribe

A		B Criteria using a fish consumption of 22 gpd	
Pollutant	**CAS Number**	**B1 Water + Organism (µg/L)**	**B2 Organism Only (µg/L)**
Hexachlorobutadiene[a,b]	87683	0.009	0.009
Hexachlorocyclo-hexane (HCH) - Technical	608731	0.0064	0.0098
Hexachlorocyclo-pentadiene[a,c]	77474	3	4
Hexachloroethane[b]	67721	0.1	0.1
Indeno(1,2,3-cd) Pyrene[b]	193395	0.0012	0.0013
Isophorone[b]	78591	34	1800
Manganese[c,f]	7439965	50	100
Methoxychlor[a]	72435	0.02	0.02
Methyl Bromide	74839	100	10000
Methylene Chloride[a,b]	75092	20	1000
Methylmercury [g]	22967926		0.3 mg/kg
Nickel[d]	7440020	470	1500
Nitrates[a]	14797558	10000	--
Nitrobenzene[c]	98953	10	500
Nitrosamines	-	0.0008	1.24
Nitro-sodibutylamine[b]	924163	0.006	0.2
Nitro-sodiethylamine [b]	55185	0.0008	1.24
Nitrosopyrrolidine[b]	930552	0.016	31
N-Nitro-sodimethylamine[b]	62759	0.00065	2.7
N-Nitrosodi-n-Propylamine[b]	621647	0.0047	0.46
N-Nitro-sodiphenylamine[b]	86306	3	5.5
Pentachloro-benzene	608935	0.1	0.1
Pentachlorophenol (PCP)[a,b,c]	87865	0.02	0.04
pH	-	5-9	--

Table 8. Human Health Criteria, Water Quality Control Plan, Walker River Paiute Tribe

A		B Criteria using a fish consumption of 22 gpd	
Pollutant	**CAS Number**	**B1 Water + Organism (µg/L)**	**B2 Organism Only (µg/L)**
Phenol[c]	108952	4000	300000
Polychlorinated Biphenyls (PCBs)[a,b,h]	PCB	0.000058	0.000058
Pyrene	129000	20	30
Recreational Criteria			
Selenium[a]	7782492	160	3800
Solids Dissolved and Salinity	-	250000	--
Tetrachloroethylene[a,b]	127184	10	28
Toluene[a]	108883	57	500
Toxaphene[a,b]	8001352	0.00068	0.00069
Trichloroethylene[a,b]	79016	0.6	7
Vinyl Chloride[a,b]	75014	0.022	1.6
Zinc[c]	7440666	7000	23000

Footnotes to Table 8 of this section:

a. EPA has issued a Maximum Contaminant Level (MCL) for this chemical that may be more stringent. See EPA's National Primary Drinking Water Regulations.

b. This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (*e.g.*, for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).

c. The criterion for organoleptic (taste and order) effects may be more stringent. See National Recommended Water Quality Criteria - Organoleptic Effects.

d. This criterion was revised to reflect EPA's q1* or RfD as contained in the Integrated Risk Information System (IRIS) as of May 17, 2002. The fish tissue bioconcentration factor (BCF) is from the 1980 Ambient Water Quality Criteria document.

e. This human health criterion is the same as originally published in the Quality Criteria for Water, 1976 ("Red Book") which predates the 1980 methodology and did not utilize the fish ingestion BCF approach. This same criterion value is published in the Quality Criteria for Water, 1986 ("Gold Book").

f. The Human Health for the consumption of Water + Organism criterion for manganese is not based on toxic effects, but rather is intended to minimize objectionable qualities such as laundry stains and objectionable tastes in beverages.

g. This fish tissue residue criterion for methylmercury is based on the total fish consumption rates used in columns B through E.

h. This criterion applies to total PCBs (*e.g.*, the sum of all congener or all isomer or homolog or Aroclor analyses).

Table 9. Recreational Water Quality Criteria, Walker River Paiute Tribe

	A **Recommendation 1**	
	Estimated Illiness Rate (NGI): 32 per 1,000 primary contact recreators	
Criteria Element	Magnitude	
Indicator	GM (cfu/100 mL)[a]	STV (cfu/100 mL)
Enterococci (marine and fresh)	30	110
E. coli (fresh)	100	320
Duration and Frequency: The water body GM should not be greater than the selected GM magnitude in any 30-day interval. There should not be greater than a ten percent excursion frequency of the selected STV magnitude in the same 30-day interval.		