



— BUREAU OF —  
RECLAMATION

**Finding of No Significant Impact**

# Water Acquisitions for Fish and Wildlife Purposes

**Klamath Project, Oregon/California  
Interior Region 10 California Great Basin  
CGB-FONSI-2020-028**

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# Introduction

In accordance with Section 102(2)(c) of the National Environmental Policy Act (NEPA) of 1969, as amended, the Bureau of Reclamation (Reclamation) prepared a Supplemental Environmental Assessment (SEA), to examine the potential impacts to the affected environment associated with Reclamation's proposal to acquire up to 25,000 acre-feet (AF) of Klamath Project (Project) water for fish and wildlife purposes in Upper Klamath Lake (UKL), Tule Lake National Wildlife Refuge (TLNWR), or Lower Klamath National Wildlife Refuges (LKNWR). TLNWR and LKNWR are referred to collectively herein as the Refuges.

The SEA supplements the April 22, 2020 Environmental Assessment (2020 EA; CGB-EA-2020-18) entitled *Implementation of Klamath Project Interim Operating Procedures 2020-2023*, which analyzed the proposed implementation of interim operating procedures for the Project (Interim Operating Procedures) and resulted in a Finding of No Significant Impact (FONSI). In addition to evaluating the Interim Operating Procedures, the 2020 EA also included a Refuge Water Acquisition component under the Proposed Action Alternative that analyzed the acquisition of up to 25,000 AF of Project water for use for fish and wildlife purposes within the Refuges. The proposed action reviewed in the SEA modified the proposed action reviewed in the 2020 EA to expand the place of use at which the 25,000 AF of Project water could be used for fish and wildlife purposes to include UKL, in addition to the Refuges.

This FONSI is supported by Reclamation's SEA Number CBG-EA-2020-028 and the 2020 EA, both of which are attached and incorporated by reference.

# Background

Following the 2020 EA, Reclamation entered into a contract with the Klamath Project Drought Response Agency, to acquire up to 22,432 AF for fish and wildlife purposes. So far in the 2020 water year, Reclamation has acquired approximately 1,500 AF from the DRA, for use within the Refuges. However, the current, severe drought in the Klamath Basin is impacting fish and wildlife resources in addition to those within the Refuges. In particular, there is concern among Reclamation, the U.S. Fish and Wildlife Service (USFWS), the Klamath Tribes, and others over the potential impacts to endangered Lost River suckers (*Deltistes luxatus*) and shortnose suckers (*Chasmistes brevirostris*) due to low water conditions in UKL this year.

Inflows into UKL are currently below the 10th percentile over the period of record, and current projections have UKL ending at or slightly above water surface elevations designated under the Endangered Species Act (ESA) by the USFWS in its recent Biological Opinion (2020 USFWS BiOp) on Project operations as critical to the continued existence of suckers. Water quality conditions in UKL may deteriorate over the course of the summer to levels hazardous for humans, animals, and aquatic life. Localized fish mortality events have been observed to occur

under similar conditions in the past.

Due to the severe drought conditions, Reclamation is proposing to modify the action previously reviewed in the 2020 EA to consider acquiring Project water for fish and wildlife purposes in UKL, in addition to acquiring water for fish and wildlife purposes within the Refuges. Subject to consideration of competing wildlife resource needs within the Refuges due to drought conditions, Reclamation is proposing to potentially use some or all of the acquired water to raise UKL elevations above those that are currently projected to occur, which are at or slightly above the minimum elevations deemed critical by USFWS for purposes of meeting Reclamation's ESA compliance obligations in connection with its operation of the Project. Based on the critical drought conditions and limited water availability, and given current environmental concerns, interests, and resource values, this document will evaluate the impacts of these actions where the place of use of acquired water would be either the Refuges or UKL, or some combination of the two.

The proposed water acquisition is being undertaken pursuant to Title I of the Reclamation States Emergency Drought Relief Act of 1991, as amended (Pub. L. 102-250, 106 Stat. 56, 43 U.S.C. §§2211 et seq.). Section 101 (43 U.S.C. §2211(c)) gives Reclamation authority to "purchase water from willing sellers, including, but not limited to, water made available by Federal Reclamation project contractors through conservation or other means with respect to which the seller has reduced the consumption of water." Section 102 (43 U.S.C. §2212(d)) authorizes Reclamation to "make water from Federal Reclamation projects and non-Project water available on a non-reimbursable basis for the purposes of protecting or restoring fish and wildlife resources, including mitigation losses, that occur as a result of drought conditions or the operation of a Federal Reclamation project during drought conditions."

## **Alternatives Evaluated**

### **No Action Alternative**

Under the No Action Alternative, through the existing contract with the DRA and any other similar contracts that may be executed in the future, to the extent Reclamation acquires water for use for fish and wildlife purposes, it would be used within the Refuges and not UKL. With the water going to the Refuges, as opposed to irrigation purposes, water surface elevations in UKL would be consistent with the Interim Operating Procedures and the 2020 USFWS BiOp. UKL elevations are currently projected to be at or slightly above the minimum required operating levels throughout the remainder of the 2020 spring/summer operating season, including multiple specific elevations that USFWS has determined to be critical to suckers, and which served as "boundary conditions" for purposes of the 2020 USFWS BiOp.

The specific boundary condition elevations cited in the 2020 USFWS BiOp are 4,142.0 feet (ft) prior to May 31, 4,140.0 ft prior to July 15 and a minimum elevation of 4,138.0 ft at any time (USBR datum). Currently, based on anticipated inflows, river releases and irrigation demand

through the remainder of the year, UKL is projected to be at 4,140.31 ft on July 15 and 4,138.14 at the lowest point this year. At these elevations, additional wetland habitat and access to water quality refugia for suckers would be limited during the late summer and early fall, when water quality in UKL is regularly impaired.

For 2020, the contract with the DRA would remain in effect, allowing for a total volume of up to 22,432 AF to be acquired, but any water acquired would only be provided to the Refuges, to the extent the DRA actually makes water available. If not made available by the districts and/or the DRA, the water would be used for irrigation purposes. In 2020, Reclamation has already acquired approximately 1,500 AF from the DRA, which has been or is still being used for fish and wildlife purposes within the Refuges. This leaves a balance of approximately 21,000 AF to potentially be made available by the DRA for use within the Refuges under Contract No. 20-WC-20-5651. It is possible that the DRA and/or districts within the Project may not be able or willing to make any additional water available for fish and wildlife purposes, over the approximately 1,500 AF already acquired. If not made available by the districts and/or the DRA, the water would be used for irrigation purposes.

In 2021 and 2022, Reclamation could again contract for and acquire up to 25,000 AF for use for fish and wildlife purposes in the Refuges, subject to drought conditions occurring again and Reclamation having authority and funding for drought assistance.

Accordingly, consistent with the 2020 EA, under the No Action Alternative, the range of water that Reclamation could potentially acquire moving forward in 2020 is between 0 and approximately 23,500 AF (excluding the volume already acquired from the DRA). Overall, for all years, the environmental impacts would remain consistent with those described and analyzed for the Refuge Water Acquisition component of the 2020 EA.

## **Proposed Action Alternative**

Under the Proposed Action Alternative, Reclamation would acquire up to 25,000 AF of water for use for fish and wildlife purposes in either UKL or the Refuges in 2020, and possibly in 2021 and 2022, subject to drought conditions occurring again and Reclamation having authority and funding for drought assistance.

Project water would be made available to Reclamation for fish and wildlife purposes within UKL by foregoing diversions of water otherwise available for irrigation purposes, consistent with the Interim Operating Procedures for the Project. The exact source of the water would depend on where it can be made available by districts or their representatives. The most likely sources would be water already present in UKL and water in the Lost River Diversion Channel (LRDC) and Klamath Straits Drain (KSD).

The means of delivery for this water would depend on Reclamation's intended place of use (i.e., UKL or the Refuges). For example, water stored in UKL can be retained and not released from the lake, in order to increase water surface elevations above what would occur were this water to be diverted for irrigation. Stored water can also be released from the lake and delivered directly to the Refuges through existing Project facilities.

Water in the LRDC and KSD can likewise be delivered directly to the Refuges through existing Project facilities or can result in additional storage in UKL through an operational exchange. In this latter situation, if water in the LRDC and KSD (that is otherwise available for diversion for irrigation use) is not actually diverted, it flows to the Klamath River and results in a comparable volume being retained in UKL – water that would otherwise have been released to meet ESA required flows in the Klamath River downstream of Iron Gate Dam. The mechanism for this operation is called the “UKL Credit” under the Interim Operating Procedures (*see* 2020 EA, section 2.2.4) and ensures that a volume equal to the amount not diverted from the LRDC and KSD is retained in UKL from March 1 through September 30.

October 1, 2020 is the start of the next water year, when inflows to UKL are anticipated to increase, beginning the gradual refill of UKL. This date also marks the transition to the fall-winter period under the Interim Operating Procedures, for purposes of determining river flows and required lake levels. Through the fall-winter period and beyond, the water acquired for fish and wildlife purposes in UKL and remaining in UKL at the end of the water year if not delivered to the Refuges would be managed consistent with the Interim Operations Procedures. In general, higher UKL elevations in the early fall result in potentially more operational flexibility over the fall-winter period, including for releases to the Klamath River and deliveries to the Project. However, the elevation differences likely to occur as a result of the Proposed Action Alternative are likely to result in small operational differences, to the extent they occur.

The additional water retained in UKL would result in water surface elevations during the spring/summer operating season higher than the minimum required operating levels that USFWS has determined to be critical to suckers for purposes of Reclamation’s compliance with the ESA.

If the full 25,000 AF is acquired by Reclamation and retained in UKL in 2020, the water surface elevation would be approximately 0.25 ft higher at the end of September than would otherwise occur. Based on current projections for 2020, the full 25,000 AF being retained in UKL would result in the lake being at or above 4,138.37 ft on September 30, 2020 and 4,138.3 ft at its lowest point of the year (around October 12).

According to the 2019 USFWS BiOp, water surface elevations greater than or equal to 4,138.3 ft at the end of September provide some protections for adult suckers against hazardous water quality conditions, by providing the fish access to Pelican Bay, where they can seek water quality refugia and better avoid predators. When water quality conditions become especially stressful, adult suckers have been documented seeking refuge in or near Pelican Bay, where springs provide cooler water and higher dissolved oxygen concentrations.

Reclamation’s discretionary action encompasses using water that is acquired for fish and wildlife purposes in either UKL or the Refuges, or potentially both, rather than just being limited to the Refuges. Drought conditions and the corresponding impacts to fish and wildlife through the course of summer and fall would influence Reclamation’s decision on where to use water acquired from the DRA. General factors that would likely be considered in this decision would be input and information received from USFWS, present hydrologic conditions, water levels in the Refuges, and biological needs of fish and wildlife in the respective locations at that time.

Both the No Action and Proposed Action alternatives assume Reclamation may acquire a volume of water ranging from 0 to 25,000 AF for fish and wildlife purposes. Any water acquired would be used to mitigate the impacts caused to fish and wildlife resources due to drought conditions, regardless of where exactly the water is used (i.e., either UKL or the Refuges). Under either alternative, Reclamation anticipates acquiring some volume of water, the exact amount uncertain, for use within the Refuges. For example, in 2020, Reclamation anticipates the need for water to maintain permanent or seasonal wetlands during the summer period in LKNWR, to support waterfowl broods. Additionally, it is anticipated that water will be needed to re-fill Sump 1B in the Tule Lake Sumps in the late summer or early fall. Special operation of Pumping Plant D, to deliver water to LKNWR, may also occur this year, subject to water availability.

Water acquired and initially used for fish and wildlife purposes in UKL may also subsequently be delivered to the Refuges, as circumstances and fish and wildlife needs warrant. This operation could occur with the stored water being released from UKL and re-diverted downstream at existing diversion works (i.e., Ady Canal and LRDC). This approach to managing any water made available to and acquired by Reclamation is intended to provide operational flexibility for responding to changing drought conditions and associated impacts to fish and wildlife resources.

No new construction or modification of existing facilities would occur in order to complete the Proposed Action Alternative. Reclamation's action is administrative in nature and serves to optimize and provide operational flexibility with the use of limited water supplies in the Klamath Basin, given the severe drought conditions and current environmental concerns, interests, and resource values.

## Findings

In accordance with NEPA, Reclamation has found that the potential acquisition of up to 25,000 AF of water for fish and wildlife purposes within UKL or the Refuges for 2020-2023 is not a major Federal action that would significantly affect the quality of the human environment. Consequently, an EIS is not required. The FONSI determination is based on the following:

### **Water Resources**

Under the Proposed Action Alternative, if the full 25,000 AF of acquired water was used in UKL, water surface elevations UKL at the end of the season would be projected to be approximately 0.25 ft higher than would occur under the No Action Alternative. In 2020, the water surface elevation of UKL would be at approximately 4,138.37 ft on September 30 and 4,138.30 at the lowest point this year, around October 12, 2020.

In 2021 and 2022, should Reclamation acquire additional water for fish and wildlife purposes, UKL water surface elevations would remain consistent with those levels expected to occur under the Interim Operations Procedures and analyzed in the 2020 EA.

The best available science does not indicate that the projected increase in elevations in UKL anticipated to occur under the Proposed Action Alternative would alter water quality conditions compared to the No Action Alternative. Further, no additional impact is anticipated to occur in water quality in the Klamath River under the Proposed Action Alternative when compared to the No Action Alternative, as no change in flows would occur.

Similar to the No Action Alternative, the Proposed Action Alternative is not anticipated to result in additional effects to groundwater resources beyond that previously analyzed in the 2020 EA. It is likely that the same level of groundwater pumping would occur regardless of whether the funds are obtained from Reclamation because of the extent of shortages to the Project water supply.

Under the Proposed Action Alternative, there would be a reduction in the cumulative amount of water delivered to the Refuges relative to the No Action Alternative, equivalent to the amount of water that is instead used in UKL. Although the amount is uncertain, it is reasonable to assume that the Proposed Action Alternative would result in less water being acquired for the Refuges compared to the No Action Alternative, given competing fish and wildlife needs in UKL. However, any water provided to the Refuges will have beneficial environmental effects relative to the No Action Alternative reviewed in the 2020 EA; these beneficial effects may simply be reduced under the Proposed Action Alternative reviewed in the SEA, depending upon whether any water that may be acquired is used at the Refuges, UKL, or some combination of the two.

Any water acquired and not used within the Refuges would be due to paramount fish and wildlife needs in UKL in response to drought conditions. Reclamation will coordinate with USFWS in evaluating fish and wildlife needs between UKL and the Refuges. As noted previously, general factors that Reclamation would consider in making this decision would be input and information received from USFWS, present hydrologic conditions, water quality conditions in UKL, water levels in the Refuges, and the biological needs of fish and wildlife in the respective locations at that time.

## **Biological Resources**

### *Lost River and Shortnose Suckers*

Water surface elevations in UKL under the Proposed Action Alternative are anticipated to be within the range of levels anticipated to occur in the 2020 EA and analyzed in the 2020 USFWS BiOp. Acceptance of the UKL water acquisition proposal could result in UKL water surface elevations in 2020, and possibly 2021 and 2022, being up to approximately 0.25 feet higher than would otherwise occur under the No Action Alternative.

The increased water surface elevations in UKL that may occur as a result of the UKL water acquisition proposal are anticipated to provide some level of beneficial effect for endangered Lost River and shortnose suckers when compared to the No Action Alternative. Higher UKL elevations in the summer and early fall months provide additional habitat for various life stages of suckers and in the late summer provide improved water quality refugia particularly during warm and dry hydrologic conditions, as are occurring in 2020 (*see* SEA, section 3.2.2.1).

*Bull Trout, Oregon Spotted Frog and Applegate's Milkvetch*

Elevation differences in UKL are not anticipated to occur during a time when bull trout (*Salvelinus confluentus*) are using Agency Lake as a migratory corridor. Therefore, the Proposed Action Alternative is not likely to result in affects to this species outside those considered under the No Action Alternative.

The Proposed Action Alternative may have an indirect benefit for Oregon spotted frog (*Rana pretiosa*) when compared to the No Action Alternative as it is possible that increased water surface elevations in UKL and Agency Lake could indirectly influence and sustain wetland areas along the lower one mile of Wood River.

The Proposed Action Alternative does not affect areas occupied by Applegate's milkvetch (*Astragalus applegatei*), so no effect would likely occur to this species.

*Coho and Chinook Salmon, Eulachon, Green Sturgeon Southern Resident Killer Whale*

Under the Proposed Action Alternative, Reclamation's acquisition of a volume of water for use for fish and wildlife purposes in UKL or the Refuges would result in the same flows in the Klamath River as those that would occur under the No Action Alternative. Accordingly, no additional effects are expected to occur as a result of implementation of the Proposed Action Alternative for coho salmon (*Oncorhynchus kisutch*), Chinook salmon (*Oncorhynchus tshawytscha*), eulachon (*Thaleichthys pacificus*), green sturgeon (*Acipenser medirostris*), or southern resident killer whales (*Orcinus orca*), outside those effects identified and associated with the No Action Alternative.

*Other Fish and Wildlife Species (Non-ESA-Listed)*

Under the Proposed Action Alternative, Reclamation's acquisition of water for use for fish and wildlife purposes in UKL or the Refuges would likely result in slightly increased water surface elevations in UKL. Klamath River flows would still be the same as anticipated to occur under the No Action Alternative. The increased UKL elevations under the Proposed Action Alternative may provide a beneficial effect and are likely to be sufficient to continue to support native and other non-native fish species in UKL, such as redband trout, chub, bass, sunfish, and yellow perch. As there is no change anticipated for Klamath River flows from the No Action Alternative, the effects to non-ESA-listed species would be the same.

In general, and similar to the No Action Alternative, terrestrial species in the affected area would likely continue to experience similar conditions as compared to the No Action Alternative.

Though removed from protection under the ESA, bald and golden eagles continue to be protected under the Bald and Golden Eagle Protection Act (16 U.S.C. §§668-668c). No measurable change in impacts are anticipated for these species under the Proposed Action Alternative.

*Wetland and Riparian Areas and Migratory Birds*

Both the No Action and Proposed Action alternatives assume that the volume of water that may be acquired for the Refuges would range between 0 and 25,000 AF in any given year under the Interim Operations Plan (i.e., 2020-2022). It is possible that the volume of water acquired by Reclamation for the Refuges could be the same under either alternative.



Nevertheless, under the Proposed Action Alternative, to the extent Reclamation acquires water for use for fish and wildlife purposes in UKL, the volume that could be available for use on the Refuges would potentially be reduced, unless the water is used in both places. For this reason, the most likely result of the Proposed Action Alternative is that Reclamation would acquire and use within the Refuges a lesser volume of water than it otherwise would acquire under the No Action Alternative, though the exact volume is uncertain.

Acquiring less water for the Refuges may result in drought-related impacts to wetland and riparian areas and the migratory birds that rely on these areas, which otherwise might be further stemmed or mitigated under the No Action Alternative. The exact location (i.e., which refuge and what habitat type) and number of acres that might otherwise be benefited under the No Action Alternative would depend on where exactly and when the additional water would be used, which is unknown presently.

Overall, for purposes of evaluating the potential impacts, generally between two to three AF per acre is required to maintain wetland area units over the course of the summer period. A similar volume is required to reflood dry farmland or wetland areas in the Refuges at any time of the year. Reductions in the quantity of water acquired and used within the Refuges would mean a proportional reduction in the number of acres of wetlands that can be maintained or reflooded. Presumably in this case the benefit to fish and wildlife in UKL, particularly two species of endangered suckers, would outweigh the potential benefit to wetland areas and migratory waterfowl in the Refuges, or mitigate the overall impact to fish and wildlife resources, but that does not change the fact that less water would potentially be delivered to the Refuges.

Less water available for mitigating drought-related impacts occurring specifically within the Refuges, including wetlands in LKNWR, could result in a further reduction from the historical level of food resources and habitat in the Klamath Basin for migratory birds, including waterfowl, shorebirds, gulls, terns, cranes, rails, herons, grebes, egrets, songbirds, and raptors. Low water levels in LKNWR and the concentration of birds in smaller wetland areas in both Refuges also increases the potential for waterfowl diseases, particularly avian botulism, to spread. These impacts would be expected to occur roughly in proportion to the difference in the amount of water acquired under the Proposed Action Alternative compared to the No Action Alternative. Overall, less water acquired would increase the likelihood, extent, and severity of these impacts.

These considerations with respect to wetland and riparian areas, and associated migratory waterfowl, would factor into Reclamation's decision as to where and how exactly to use water acquired for fish and wildlife purposes. Drought-related impacts to fish and wildlife resources within the Refuges would be weighed against the competing needs in UKL. Ultimately, Reclamation would attempt to use the water acquired in a manner that maximized the associated fish and wildlife benefit, whether that meant using the water in UKL, the Refuges, or both.

To the extent Reclamation decides to use water acquired for fish and wildlife purposes in UKL, the Proposed Action Alternative has the potential to benefit wetland areas surrounding the lake, including portions of Upper Klamath Lake National Wildlife Refuge (UKNWR), by generating higher water surface elevations in UKL. Marshes adjacent to UKL are generally inundated when

water levels are at or above 4,140.00 ft in elevation. The Proposed Action Alternative may result in the lake reaching this level earlier and lasting longer through the fall and winter than would otherwise occur under the No Action Alternative, but the effect is likely short in duration.

As described in the 2020 EA (*see* sections 4.4.4 and 4.4.5), drought-related impacts to wetland areas and wetland-dependent species, including waterfowl, are not a result of operation of the Project under the Proposed Action Alternative, but rather factors outside of Reclamation's control, including drought and resulting water availability, ESA requirements, the United States' contractual obligations to Project water users and trust obligations to tribes in the Klamath Basin, and relevant water rights (*see* 2020 EA, section 1.4.4). The Proposed Action seeks to mitigate these impacts by acquiring water for fish and wildlife purposes, some or all of which may be used at the Refuges. Any water provided to the Refuges will have beneficial environmental effects relative to the No Action Alternative reviewed in the 2020 EA; these beneficial effects may simply be reduced under the Proposed Action Alternative reviewed in the SEA, depending upon whether any water that may be acquired is used at the Refuges, UKL, or some combination of the two.

### **Recreation**

It is possible that the same volume of water would be acquired for the Refuges under the Proposed Action Alternative compared to the No Action Alternative, which would mean that the effects on recreation would be the same under either alternative. However, it is reasonable to assume that the Proposed Action Alternative would result in less water being acquired for the Refuges than would otherwise occur under the No Action Alternative, although this volume is uncertain. The effect of this reduction in water on recreational opportunities would depend on location and timing of the additional water that would have otherwise been acquired and used within the Refuges.

Under either the No Action or Proposed Action alternatives, it is possible that the USFWS may temporarily close areas within LKNWR to hunting, due to lack of water. The likely consequence of closures would be to shift hunting pressure to other areas that remain open (e.g., TLNWR, Miller Island Refuge, UKNWR). This condition is equally applicable under either the No Action or Proposed Action alternatives. The decision to temporarily close portions of LKNWR to hunting is within the discretion of USFWS, subject to Federal laws and regulations and has not yet been made. Accordingly, the decision to temporarily close portions of LKNWR to hunting and any resultant associated conditions are speculative at this time.

Recreational opportunities related to wildlife observation and photography would likely continue under either alternative, though additional water may improve the quality of these activities under the No Action Alternative.

By generating higher water surface elevations earlier throughout the summer and fall, the Proposed Action Alternative has the potential to benefit recreational opportunities in UKL, including UKNWR. Channels and open water areas within marshes adjacent to UKL are generally accessible by boat, including canoes and kayaks, when water levels are at or above 4,140.00 ft in elevation. The Proposed Action Alternative may result in the lake reaching this level earlier and lasting longer through the fall and winter than would otherwise occur under the

No Action Alternative, but the effect is likely short in duration. Boat access to adjacent wetland areas, including in UKNWR, would therefore be similar under both alternatives.

### **Land Use**

The Proposed Action Alternative could but is not expected to result in additional fallowing of agricultural lands within the Project. The extent of land fallowed (i.e., not planted and farmed) in 2020 is and would be the result of the current drought and the resulting shortage and the supply available for irrigation from UKL. The acquisition of water by Reclamation may result in delayed or reduced irrigation practices to some extent, but not in additional land idling beyond what would already be expected to occur were Reclamation to not acquire water. The Proposed Action Alternative would only be taken in drought years, like 2020, so even though the acreage of land participating in voluntary land idling is uncertain, the same short-term impacts would be expected as for involuntary land idling.

### **Socioeconomics**

Under either the No Action or Proposed Action alternative, Reclamation's acquisition of water for fish and wildlife purposes in 2020 and possibly future years, would offset at least part of the economic impacts to farmers within the Project due to water shortages by providing Federal funds that can be used (if districts so choose) for voluntary demand management programs. These programs in the past have generally included compensating landowners for the cost of pumping supplemental groundwater or voluntarily agreeing to forego the use of surface water. This benefit may partially mitigate the negative impacts of reduced water supply as discussed in the 2020 EA (*see* section 4.7), for years like 2020 and similar drought years in the future, should a similar program be implemented.

Although increased UKL elevations are anticipated to provide benefits to UKL and endangered shortnose and Lost River suckers, due to the status of the species, the continuation of conditions where there are no fishing opportunities for the Klamath Tribes would continue. As Klamath River flows are anticipated to remain consistent with the Interim Operating Procedures and the 2019 NMFS BiOp, no change in flows would occur as a result of implementation of the Proposed Action Alternative. The conditions associated with the No Action Alternative where there may be less potential for adverse effects to tribal fisheries-related socioeconomic resources in the lower river that could increase fish harvest for subsistence and commercial fishing would continue. Overall, there would be no change between the No Action and the Proposed Action alternatives with respect to Indian Tribal communities' socioeconomic status.

As Klamath River flows would continue to be managed consistent with the Interim Operating Procedures and the 2019 NMFS BiOp, no change in flows would occur as a result of implementation of the Proposed Action Alternative. Therefore, there would be no change between the No Action and the Proposed Action alternatives with respect to socioeconomic effects on commercial fishing.

A socioeconomic impact may occur due to loss of hunting opportunities in LKNWR, to the extent USFWS decides to temporarily close portions of the refuge due to lack of water, although this decision and associated resultant conditions are speculative at this time. However, the more likely consequence of closures is to shift hunting pressure to other areas that remain open (e.g.,

TLNWR, Miller Island Refuge, UKNWR).

### **Air Quality**

Under the Proposed Action Alternative, Reclamation's acquisition of water for fish and wildlife purposes in UKL or the Refuges is not expected to result in additional impacts to air quality, because the extent of fallowing of agricultural farmland would be the same as under the No Action Alternative. Similar to the No Action Alternative, dust emissions (PM<sub>2.5</sub>) within the Project boundaries would likely occur as a result of fallowed land and which could experience incremental increases in drought years. Dust mitigation practices such as cover crops and stubble management may be employed but are speculative and not able to be measured accurately as they would occur on a farm level and would likely be short-term, temporary and limited to drought years, like 2020.

### **Indian Trust Resources**

The Klamath Tribes' current levels of ceremonial use would continue and fishing for subsistence and commercial needs would still not occur consistent with the No Action Alternative. As such, there would be no change in the Klamath Tribes trust resources.

As Klamath River flows would continue to be managed consistent with the Interim Operating Procedures and 2019 NMFS BiOp, no change in flows would occur as a result of implementation of the Proposed Action Alternative. Current levels of harvest of salmon for subsistence, ceremonial, and commercial needs would likely continue. As such, there would be no change between the No Action and the Proposed Action alternatives with respect to downriver tribal trust resources.

### **Environmental Justice**

Under the Proposed Action Alternative, Reclamation's acquisition of water for fish and wildlife purposes in UKL could lessen the economic hardships on local low income rural agricultural communities in Klamath, Modoc, and portions of Siskiyou counties during years of dry hydrologic conditions like 2020, by providing a source of funding for non-Federal voluntary demand management activities including land idling and groundwater pumping, etc.

No changes in environmental justice impacts are anticipated for the Klamath Tribal communities as compared to the No Action Alternative.

Overall, under both alternatives the impacts on minority and low-income populations throughout the action area are expected to be minor due to the short term of the action. Therefore, ethnic minority and/or low-income sectors of the population are not expected to be disproportionately affected by adverse environmental impacts associated with the either alternative.

### **Cultural Resources**

The Proposed Action Alternative has no potential to affect historic properties (40 CFR 1508.27(b)(8)). The Proposed Action Alternative would allow for implementation of Project operating procedures within existing facilities and would not produce any ground disturbances, construction of new facilities or modification of existing facilities, or land use changes. Since the Proposed Action Alternative has no potential to affect historic properties, no cultural resources

would be impacted as a result of the Proposed Action Alternative.

### **Indian Sacred Sites**

The Proposed Action Alternative is not likely to limit access to, and ceremonial use of, Indian Sacred Sites on Federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites (EO13007 and 512 OM 3).

### **Climate Change and Greenhouse Gases**

Implementation of neither the Proposed Action nor the No Action Alternative would contribute to climate change or greenhouse gases due to the nature and short time period of the action.

### **Cumulative Effects**

The Proposed Action Alternative would not have significant cumulative impacts (40 CFR 1508.27(b)(7)). Reclamation reviewed the cumulative impacts for the Proposed Action Alternative for all resource areas analyzed in the EA. There were no significant cumulative impacts identified for these resource areas.

### **Other Considerations**

- The Proposed Action Alternative would not significantly impact natural resources and unique geographical characteristics such as historic or cultural resources; parks, recreation lands, and refuges; national natural landmarks; sole or principal drinking water aquifers; prime and unique farmlands; wetlands (Executive Order 1190); national monuments; and other ecologically significant or critical areas (40 CFR 1508.27(b)(3) and 43 CFR 46.215(b)). Although portions of the Klamath River are designated as Wild and Scenic, Project flow management would largely be within the normal release range of water levels along the Klamath River and would not be reduced below or exceed the historic range of flows.
- The Proposed Action Alternative would not significantly impact flood plains (EO 11988). No construction, dredging or other modifications of regulated water features would be associated with the Proposed Action Alternative. No permits under the Clean Water Act would be needed. The Proposed Action Alternative only includes providing controlled water deliveries and releases that are within the normal operational range and maintenance activities within enclosed facilities. Floodplains would not be impacted by the Proposed Action Alternative.
- The Proposed Action Alternative would not violate Federal, state, tribal, or local law or requirements imposed for the protection of the environment (40 CFR 1508.27(b)(10)).