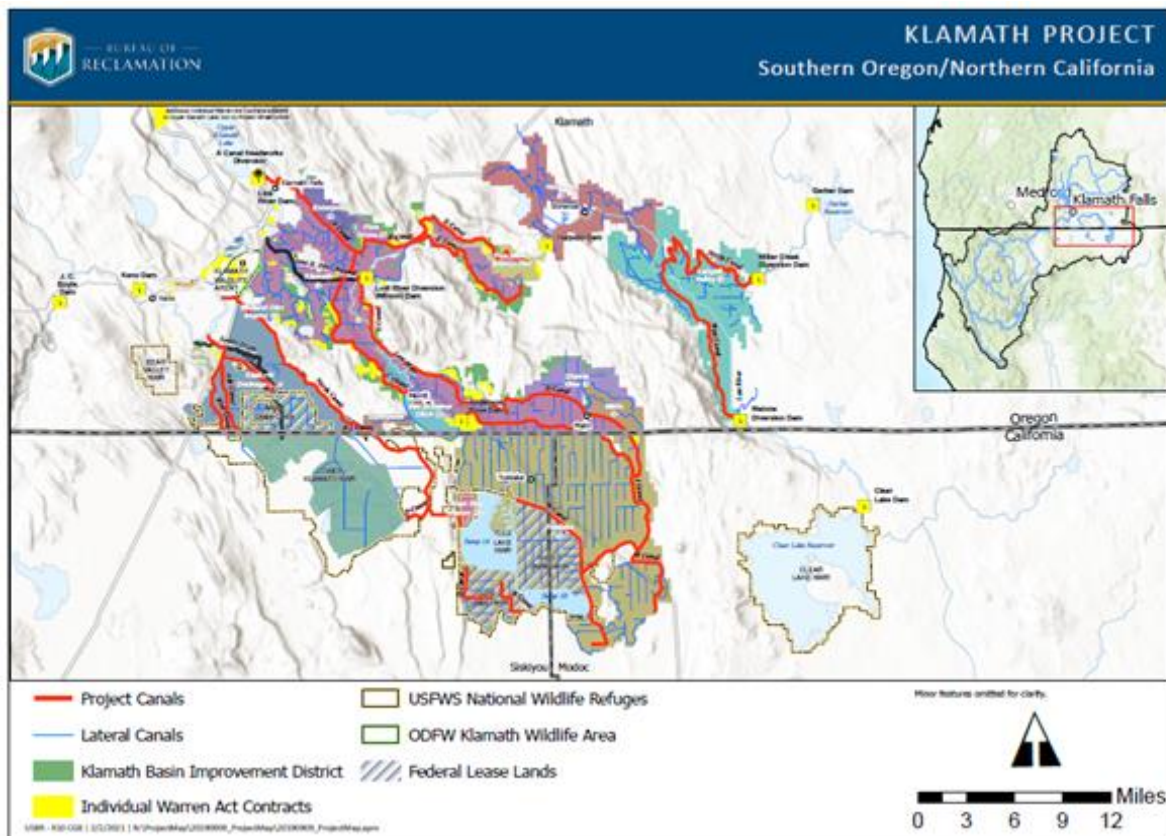




— BUREAU OF —  
RECLAMATION

# 2022 Drought Plan

**Klamath Project, Oregon-California  
Interior Region 10, California-Great Basin**



## **Mission Statements**

The U.S. Department of the Interior protects and manages the Nation's natural resources and cultural heritage; provides scientific and other information about those resources; and honors its trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated Island Communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

# Introduction

The Klamath Project (Project) delivers water for irrigation purposes to up to approximately 230,000 acres in southern Oregon and northern California when water is available. The Project relies upon several primary water sources to meet irrigation demands including water from Upper Klamath Lake (UKL), Clear Lake Reservoir, and Gerber Reservoir, and from the Klamath and Lost rivers.

The Project's water supplies (Project Supply<sup>1</sup> or Supplies) have been impacted by the severe drought conditions currently affecting the Klamath Basin in southern Oregon and northern California. This 2022 Drought Plan describes the background for and the process of allocating the available Project Supply during the 2022 spring/summer irrigation season (April 15 through September 30, 2022<sup>2</sup>), consistent with the contract priorities that exist within the Project.

## 2022 Drought Planning

On April 11, 2022, the Bureau of Reclamation (Reclamation) issued the 2022 Annual Operations Plan (Operations Plan) which identifies the estimated available supplies from the various Project water sources for the 2022 spring/summer irrigation season. To inform the Project Supply determination, on February 25, 2022, Reclamation initiated the meet and confer process consistent with Term and Condition (T&C) 1A of the National Marine Fisheries Services (NMFS) *Section 7(a)(2) Biological Opinion, and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response* (NMFS 2019 BiOp) issued on March 29, 2019, and T&C 1c of the U.S. Fish and Wildlife Service (USFWS; collectively the Services) *Biological Opinion on the Effects of the Proposed Interim Klamath Project Operations Plan, effective April 1, 2020, through September 30, 2022, on the Lost River and Shortnose Sucker* issued on April 10, 2020 (USFWS 2020 BiOp; collectively the BiOps). During the conferral process, Reclamation coordinated extensively with the Services, Tribes, and other affected key stakeholders and determined it was necessary to make temporary adjustments to the existing 2020 Interim Operations Plan to adaptively manage operations for the remainder of water year 2022, resulting in the 2022 Temporary Operating Procedures.

As the Operations Plan describes, Reclamation has determined that it will adaptively manage the Project Supply in a manner that will maintain UKL at or above an end-of-season (September 30<sup>th</sup>) minimum water surface elevation of 4,138.15 ft. The Project Supply volume will be dependent on subsequent inflows to UKL and is currently estimated at approximately up to 62,000 acre-feet (AF). The anticipated Project Supply is only 18 percent of the maximum Project Supply of 350,000 AF allowed for under the BiOps.

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<sup>1</sup> Project Supply is the volume of surface water available from UKL and the Klamath River for lands within the Klamath Project boundaries not served by the Lost River Basin (i.e., Clear Lake and Gerber reservoirs).

<sup>2</sup> It is recognized that although the operating season and water year ends on September 30 of each year, final spring/summer diversions may continue until mid-November to finish crop productions.

In response to the limited Project Supply, the Operations Plan identifies a series of operational considerations that include drought mitigation measures to potentially minimize involuntary shortages among Project contractors. These measures included the Klamath Project Drought Response Agency's (KPDRA) drought relief programs, voluntary water transfers among Project contractors, and voluntary water conservation efforts.

## **Contractual Priorities**

### **Project Water Contracts**

In the event of a shortage in Project Supply, Reclamation determines the allocation of the available supply in accordance with the terms of the contracts between Reclamation and districts and individual water users. There are four general types of these contracts within the Project: 1) settlement contracts; 2) repayment contracts; 3) Warren Act contracts; and 4) annual water rental agreements. In the event of a shortage in the available Project Supply, Reclamation implements the provisions in these contracts that create priorities among the four types of contracts within the Project.

#### **1. Settlement Contracts**

Settlement contracts describe agreements between the United States and water users with state water rights that were acquired independent, and prior to the filing, of Reclamation's notices and filings made in connection with the Project. Each of these agreements is unique and governed by the specific terms of the contract. The Van Brimmer Ditch Company (VBDC) contract, executed in 1909, is a settlement contract.

#### **2. Repayment Contracts**

The term repayment contract covers contracts executed pursuant to either the Reclamation Act of 1902 (32 Stat. 388, 43 U.S.C. §371 et seq.), or the Reclamation Act of 1939 (53 Stat. 1193). The lands covered by repayment contracts within the Klamath Project are exclusively within Klamath Irrigation District (KID) and Tulelake Irrigation District (TID)<sup>3</sup>. In the event of a shortage, these contracts provide for the reduction and/or termination of deliveries to Warren Act contractors (discussed below) prior to the reduction in deliveries to KID or TID.

#### **3. Warren Act Contracts**

Warren Act contracts include all contracts executed pursuant to the 1911 Warren Act (36 Stat. 925, 43 U.S.C. §§523-525), which provide for a supply of Project water that is secondary to the contractual rights of both settlement and repayment contractors. Consistent with the Warren Act, deliveries under these contracts are subject to being curtailed, if necessary, when there is an inadequate supply for lands covered by repayment and settlement contracts. The contract with the Klamath Drainage District is an example of a Warren Act contract.

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<sup>3</sup>Klamath Irrigation District and Tulelake Irrigation District are commonly referred to as "districts" throughout this document.

Many of the Warren Act contracts on the Project also expressly provide for a limited amount of water, such as a maximum of 2.0 or 2.5 AF per irrigable acre. These contracts also commonly include a limitation on the monthly rate of diversions (e.g., no more than 0.6 AF per irrigable acre per month). Such limitations apply independently of any restrictions that may exist under state law.

#### **4. Annual Water Rental Agreements**

Annual water rental agreements provide water if, and when, there is excess water beyond the needs of lands under settlement, repayment, and Warren Act contracts. Reclamation executes annual water rental agreements in various locations, depending on the availability of surplus water supplies. KID and TID are also authorized to enter into annual water rental agreements, if such water is available, through their respective delivery control points, with Project water users. Generally, if Project water supplies are limited among settlement, repayment, and Warren Act contracts, Reclamation will not make water available for annual water rental agreements.

## **Contractual Allocation**

In allocating the available Project Supply from UKL and the Klamath River, the first consideration is the 1909 Settlement Contract between the United States and the VBDC. This contract provides for the delivery of fifty (50) cubic feet per second (cfs) of water from April 15 to October 1 of each year through the C Canal, in satisfaction of the water rights VBDC originally claimed to waters from Lower Klamath Lake and the Klamath River. Reclamation interprets this settlement contract as requiring that – where reasonable – VBDC’s 50 cfs be satisfied before water is made available to the remaining Project contractors.

Following VBDC’s 50 cfs fulfillment as described above, the Project contracts provide for delivery of a supply of water, when legally and physically available, to the Project’s repayment contractors, KID and TID. The amount of Project surface water from UKL and the Klamath River allocated to satisfy the demands of KID and TID is based on a number of factors, such as current and projected hydrologic conditions, anticipated return flow patterns (particularly through the Lost River drainage), existing cropping patterns, and federal legal requirements.

As set forth in Table 1 below, the maximum irrigation demands from UKL of lands within the Van Brimmer, KID, and TID boundaries are based on a duty of water of 3.5 acre-feet/acre. The actual volume required for irrigation is subject to change based on a variety of factors, such as acreage participating in demand management measures, in-season precipitation, and evapotranspiration rates. Given current and projected hydrologic conditions and despite voluntary drought mitigation measures and alternate water sources (described below under *Managing Available Project Supply*), Reclamation estimates that the currently available Project Supply from UKL and the Klamath River is insufficient to meet the full irrigation demands of KID and TID (Repayment contractors).

Accordingly, Project Supply from UKL and the Klamath River is not available for lands served under either Warren Act contracts or water rental agreements. KID and TID, which are responsible for the operation and maintenance of certain Project facilities, will be notified that surface water deliveries to Warren Act contractors served through these facilities consistent with this allocation are prohibited, except under approved voluntary transfer agreements, as discussed in the Operations

Plan.

Table 1 shows the estimated volume of water from UKL and the Klamath River that Reclamation has determined is available for lands served under Settlement and Repayment contracts at this time. This volume is subject to change based on hydrologic conditions and/or legal requirements. Reclamation is aware that certain irrigation districts have requested to manage the available limited Project Supply amongst themselves rather than Reclamation doing so by contractual prioritization. However, no proposed plan is effective absent approval from Reclamation, which retains the authority ultimately to apportion the Project Supply. Furthermore, Reclamation has not yet received a final plan from the districts that manages Project Supply among the districts or relieves the United States of liability if, under such plan, priority contractual obligations, such as those to contractors with equal to or higher rights of priority, are not met. Regardless, Reclamation has a contractual and legal obligation to allocate the Project Supply based on the existing contract priority as shown in Table 1.

Table 1. 2022 Project Supply and Allocation by Irrigation District.

Estimated Project Supply (AF) = 62,000

District	Acres (AC)	Max – AF/AC <sup>4</sup>	Max – AF	Allocation – AF/AC <sup>5</sup>	Allocation – AF
Van Brimmer	4,695 <sup>6</sup>	3.50	16,433	3.50	16,433
KID	39,299 <sup>7</sup>	3.50	137,547	0.45	17,862
TID	61,075 <sup>8</sup>	3.50	213,763	0.45	27,705
Subtotal	105,068	NA	367,739	NA	62,000

## Managing Available Project Supply

### 1. Approach

The approach to manage available Project Supply is subject to change based on several factors, including, but not limited to: changes in hydrologic conditions and anticipated water demands, participation in drought mitigation measures, voluntary water conservation efforts, and voluntary water transfers. Reclamation will update the current Project Supply and associated contractual allocation as needed based on available information, and as described in the Operations Plan.

Reclamation will also revise the estimated volume of the Project Supply available from UKL and the Klamath River following the May 1 and June 1 UKL inflow forecasts from the Natural Resources Conservation Service (NRCS). This recalculation could cause the estimated Project Supply available from UKL and the Klamath River to change. As a result, following the NRCS' May 1 and June 1 UKL inflow forecasts, Reclamation will update the current estimated allocation, based on the hydrologic information available at that time. The 2022 Drought Plan will not be revised and reissued following these scheduled updates, but Reclamation will directly notify Project contractors of any change in the current estimated contractual allocation, in writing.

Reclamation will track water usage at the points of diversion by using U.S. Geological Survey gages

when available (North and Ady Canals), Hydromet (A Canal), or self-reporting (Station 48 and Miller Hill) with periodic field measurements to check calibration. The usage will be reported through the use of the Project Deliveries and Demands (D and D) tracking spreadsheet that Reclamation has utilized in recent years to track spring/summer operations. The D and D sheet will be shared with districts and water users as part of weekly coordination efforts.

## **2. Coordinated Water Conservation Efforts**

In response to the limited Project Supply from UKL and the Klamath River, Reclamation will continue coordinating with districts and other water users within the Project about how best to adaptively manage the Project Supply. The districts are already implementing a number of conservation strategies, including modified operations and slow priming of canals. The districts, through their representatives, are also implementing various drought assistance programs. These activities will have the effect of reducing demand on Project Supply from UKL and the Klamath River, the extent to which remains uncertain.

## **3. Drought Mitigation Measures and Alternate Water Sources**

KPDRA will soon commence the process of accepting applications for Project irrigators to participate in the “No Irrigation” land idling program<sup>4</sup> for the 2022 spring/summer irrigation season. Applications are anticipated to be accepted through at least mid-May 2022. Once the acceptance period is over, KPDRA will offer contracts to landowners, who will then have until early June to decide whether to sign and implement the contract. Compliance with the terms of the KPDRA contracts and eligibility for drought program funding will be verified after the end of the irrigation season in November 2022, to determine the payments to be made. Payments will likely be made in January 2023. The eligibility of landowners to receive payment from KPDRA is contingent upon their respective district’s continued compliance with the Operations Plan, this 2022 Drought Plan and other Reclamation directives.

Some landowners and districts may have the option to pump privately developed groundwater to supplement or replace Project surface water; in Oregon, this occurs under supplemental, and drought permits. Groundwater pumping in California is subject to the Tule Lake Groundwater Sustainability Plan adopted in 2021 by the Tulelake Subbasin Groundwater Sustainability Agency under the terms of the California Sustainable Groundwater Management Act. The quantity of groundwater utilized is not under Reclamation’s control and cannot be determined due to various economic variables relative to pumping costs assumed by the well owner (power costs associated with pumping groundwater may or may not influence the volume utilized) and/or groundwater management constraints imposed by the states of Oregon and California.

## **4. Adaptive Management Process**

As described in the Operations Plan, Reclamation will continuously monitor hydrologic conditions and coordinate with Project contractors on the availability and use of Project Supply to adaptively manage the deliveries in a manner that maintains UKL water surface elevations. Specifically, the

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<sup>4</sup> The “No Irrigation” land idling program is designed to reduce surface water demand within the Project, thereby balancing Project Supply and demand, by contracting with landowners to idle their land, accepting monetary compensation in lieu of Project surface water.

UKL water surface elevation must be no lower than 4,139.2 through July 15, 2022, and no lower than 4,138.15 through the remainder of the irrigation season.

To coordinate Project operations in a manner that will optimize delivery of the limited Project Supply while maintaining the UKL water surface elevations described above, Reclamation will coordinate at least weekly with district managers. Information such as the seasonal Project diversions to date, the approximate remaining Project Supply, and Project water users' consolidated plans for diversions in subsequent weeks, will be exchanged.

The Operations Plan also includes a provision for sharing water volumes that exceed forecasted UKL inflows on a monthly and cumulative basis. The actual UKL inflows observed during each full month will be compared to the forecasted volume<sup>5</sup>. Half (50 percent) of any observed volume exceeding anticipated UKL inflows will be added to the end-of-season UKL volume and the UKL target elevation (originally 4,138.15 feet, as above) will be increased accordingly. The remaining 50 percent of any monthly UKL inflows exceeding the anticipated volume will be available as Project Supply. This will be an iterative process, with the provisional exceedance volume adjusted upward or downward each month, until a final exceedance volume is determined no later than October 1. Using the same methodology, in the event that the cumulative observed UKL net inflow volume over the irrigation season is less than the forecast inflow volume, Project deliveries shall be managed such that the UKL water surface does not fall below water surface elevation 4,138.15, and thus the estimated Project Supply will be reduced accordingly. If despite these measures, the UKL elevation is projected to drop below water surface elevation 4,138.15, Reclamation will request to meet and confer with the Services.

Reclamation will continue to coordinate with Project contractors on Project diversions to address unforeseen circumstances that may arise this year. The estimated available Project Supply is tracked daily, with updates regarding remaining Project Supply to Project water users occurring approximately every week during the irrigation season or as needed. If the Project Supply must be reduced from the original estimate, Reclamation will provide notification in writing.

All districts and water users within the Project are strongly advised to closely track their water use, monitor their irrigation demands, track water transfers, and advise Reclamation accordingly. Districts are also strongly encouraged to coordinate their respective operations, to maximize the use and eliminate all waste to the best of their abilities.

## **Monitoring and Enforcement**

In the event that Reclamation discovers, or receives a complaint of, an unauthorized use of Project Supply, Reclamation and/or its contractors will investigate, as deemed appropriate by the Area Manager of the Klamath Basin Area Office. Use of Project Supply contrary to district or individual contracts with Project water users, the Operations Plan, this Drought Plan, or other Reclamation directives will result in a written notification to the landowner, the respective district, and/or

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<sup>5</sup> Through June, the NRCS 50 percent exceedance forecast will be used, with forecasts from the River Forecast Center and other sources used after NRCS forecasts end for the season



KPDRA (as applicable). The letter will explain the basis for the alleged unauthorized use and the required remedies. Failure to comply may result in further enforcement or other legal action, including loss of eligibility for payments pursuant to KPDRA drought relief programs.

For more information, please visit <http://www.usbr.gov/mp/kbao/> and/or contact Dave Felstul at 541-880-2550 or via e-mail at [dfelstul@usbr.gov](mailto:dfelstul@usbr.gov).