### Water Shortage Contingency Plan

**Public Draft** 

March 12, 2021





Prepared for:

United Water Conservation District

Prepared by:

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#### Notes:

This public draft was prepared based on Department of Water Resources Draft 2020 Urban Water Management Plan Guidelines and is subject to updates to comply with the final release of the Department of Water Resources Final 2020 Urban Water Management Plan Guidelines.

This is a public draft and all statements, characterizations, and values are subject to change due to public or further internal review.

March 12, 2021

### **Water Shortage Contingency Plan**

#### Introduction

This Water Shortage Contingency Plan (WSCP) complies with California Water Code (CWC) Section 10632, which requires that every urban water supplier shall prepare and adopt a WSCP as part of its Urban Water Management Plan (UWMP). Section 10632.2 provides that, "An urban water supplier shall follow, where feasible and appropriate, the prescribed procedures and implement determined shortage response actions in its water shortage contingency plan...or reasonable alternative actions, provided that descriptions of the alternative actions are submitted with the annual water shortage assessment report pursuant to Section 10632.1."

The WSCP is the Supplier's operations plan for water shortages and is best developed in a manner that is suited for a Supplier's specific conditions, constraints, and opportunities. Understanding water supply reliability, factors that could contribute to water supply constraints, availability of alternative supplies, and what effect these have on meeting customer demands provides the Supplier with a solid basis on which to develop appropriate and feasible response actions in the event of a water shortage.

### Water Supply Reliability Analysis

The primary source of water for the United Water Conservation District's (United) Oxnard-Hueneme (OH) system is the Oxnard Basin. The groundwater basin is managed by the Fox Canyon Groundwater Management Authority (FCGMA) who sets allocations for each pumper. United's allocations are discussed as part of Chapter 6 in the Urban Water Management Plan (UWMP).

### **Annual Water Supply and Demand Assessment Procedures**

Pursuant to CWC Section 10632(a)(2), United must include in its WSCP the procedures used for conducting an annual Water Supply and Demand Assessment (Annual Assessment). The Annual Assessment is a determination of the near-term outlook for supplies and demands and how a perceived shortage may relate to WSCP response actions. This determination is based on information available to United at the time of the analysis. Starting in 2022, the Annual Assessment will be due on or before July 1 of each year.

The Annual Assessment and related reporting are to be conducted based on the supplier's procedures described in the WSCP. The Annual Assessment determination will be based on considerations of available water supplies, unconstrained water demand, planned water use, and infrastructure conditions. The balance between projected core water supplies and anticipated unconstrained demand will be used to determine what, if any, shortage stage is expected under the WSCP framework.

#### Six Standard Water Shortage Stages

Water Code Section 10632 (a)(3)(B) authorizes Suppliers to continue using their own water shortage levels that may have been included in past WSCPs. United follows, and is dependent upon, the actions

March 12, 2021

taken by the FCGMA. Table 1-1 presents a crosswalk between the FCGMA imposed stages and the six standard stages.

Table 1-1: Water Shortage Contingency Plan Levels					
Shortage Level	Percent Shortage Range	Water Supply Condition			
1	Up to 10%	Up to 10% reduction in groundwater allocation imposed by the FCGMA			
2	Up to 20%	Up to 20% reduction in groundwater allocation imposed by the FCGMA			
3	Up to 30%	Up to 30% reduction in groundwater allocation imposed by the FCGMA			
4	Up to 40%	Up to 40% reduction in groundwater allocation imposed by the FCGMA			
5	Up to 50%	Up to 50% reduction in groundwater allocation imposed by the FCGMA			
6	>50%	Greater than 50% reduction in groundwater allocation imposed by the FCGMA			

### **Shortage Response Actions**

The following section specifies the types of shortage response actions that may be undertaken before and during a shortage declaration. The actions will align with FCGMA allocation ordinances and emergency agreements and the WSCPs prepared by United's retail suppliers, the City of Oxnard and Port Hueneme Water Agency. Table 1-2 below provides a summary of the shortage stage and the suite of response actions United may take.

March 12, 2021

Table 1-2: Demand Reduction Actions						
Shortage Level	Demand Reduction Actions  Drop down list  These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply to you.	How much is this going to reduce the shortage gap? <i>Include volume units used.</i>	Additional Explanation or Reference (optional)	Penalty, Charge, or Other Enforcement? Drop Down List		
Add additional rows as needed						
1-6	Expand Public Information Campaign	up to 20 percent		No		
1-6	Other	0 to >50 percent	In accordance with the OH Users agreement and United's Board Policy for the OH System, United will coordinate with FCGMA and the OH Users to reduce allocations imposed by FCGMA to users.	No <sup>1</sup>		

#### NOTES:

<sup>1)</sup> Penalties for water delivered above allocation is subject to penalties imposed by FCGMA. Following any allocation reduction imposed by FCGMA, OH System allocation limits would be adjusted accordingly.

March 12, 2021

### **Supply Augmentation**

United does not purchase or import water on a regular basis specifically for OH purveyors; however, several OH purveyors have augmented their supply through several one-year emergency contracts with surrounding cities in times of water shortage.

United is participating in a project with surroundings cities for the State Water Interconnection Pipeline Project, which will provide United with an opportunity for emergency supply when available and based on a final agreement with the partner agencies. This project is anticipated to be online in the next five years.

#### **Demand Reduction**

As a water wholesaler, United does not have the authority or the ability to implement many of the demand measures available to water retailers. However, United's largest purveyors, the City of Oxnard and Port Hueneme Water Agency (PHWA)d, have demand reduction measures in place, including water use prohibitions. United would coordinate with and provide resources to their purveyors to promote the success of these demand measures.

As indicated in United's purveyors WSCP, water demand measure reductions can prohibit using potable water for street washing, filling of decorative fountains, car washing or filling or refilling pools. These prohibitions are available at all shortage stages but increase in severity in accordance with the water shortage level. Financial penalties are outlined in United's purveyors' respective UWMPs. United does not expect to receive any revenue or expenditure impacts from these measures, as water is supplied by contract. Refer to the PHWA and City of Oxnard's WSCP 2020 UWMP for more information.

Significant penalties are levied on United's OH purveyors by the FCGMA if they take delivery of water in excess of their allocations. To date, the threat of these financial penalties has effectively discouraged the overuse of local groundwater within the boundaries of the FCGMA. Penalties are set at the approximate cost to buy State Project Water from Calleguas MWD. FCGMA does not prohibit pumping above allocation but will apply penalties for this action. In accordance with the OH Users Agreement and United's Board Policy for the OH System, United will coordinate with FCGMA and the OH users to reduce allocations imposed by FCGMA.

While many of the demand reduction measures are unavailable to United, United does have a public education and outreach campaign. United actively participates in regional public education and outreach programs, including an annual water symposium, tours of regional water facilities, and presentations to interested stakeholders. The budget for each fiscal year will include specific line items for public outreach, and United intends to increase its efforts in this area.

Previously, United's General Manager had the ability to request additional water conservation measures as determined necessary and appropriate for the protection of public health and safety, and the conservation of groundwater aquifers and supplies (Resolution No. 2014-01). However, these requests are non-binding and do not have any enforcement mechanism.

March 12, 2021

### **Operational Changes**

The General Manager, or designee, is authorized to identify additional operational actions which United could undertake as determined necessary and appropriate for the protection of public health and safety, and the conservation of groundwater aquifers and supplies.

### **Additional Mandatory Restrictions**

California Water Code Section 10632(a)(4)(D) calls for "additional, mandatory prohibitions against specific water use practices that are in addition to state-mandated prohibitions and appropriate to the local conditions" to be included among the WSCP's shortage response actions. However, this item is not applicable to United. As a wholesaler, United does not dictate or control the end uses of water by retail consumers.

### **Emergency Response Plan**

In the event of a catastrophic supply interruption, United will implement their Water System Emergency Response Plan. It includes information on the strategies, resources, plans, and procedures that can be used to prepare for and respond to an incident, natural or man-made, that threatens life, property, or the environment. While this document is considered sensitive and not available to the public, some basic emergency response actions are generally described below.

Earthquakes pose a significant threat to United's infrastructure. Should an earthquake occur in the region, staff will first inspect the El Rio Treatment Plant, the disinfection facilities, which hold chlorine and ammonia in storage for chloramine disinfection. This is to ensure that there is no immediate danger of fire or release of hazardous chemicals and that water meets the primary drinking water standards. Once the treatment plant is secure, the remaining facilities will be inspected for damage. If a rupture on the OH Pipeline occurs, the operators will take the necessary steps to isolate the leak as soon as practical and proceed with pipeline repairs.

Power outages also pose a threat to United's ability to provide water supplies. The El Rio Treatment Plant has emergency generators in the event of a regional power outage, however, United can only supply a limited amount of potable water during a power outage until the OH Wellfield Emergency generator project is complete.

Additional potential supply interruptions include groundwater contamination, sewage spills from wastewater treatment plants located upstream along the Santa Clara River, and petroleum spills from oil pipelines or overturned trucks near or at the plant. In these cases, United communicates with emergency personnel to shut down/isolate the OH system and notify purveyors of the interruption in service.

### **Seismic Risk Assessment and Mitigation Plan**

Seismic Risk Assessment and Mitigation plan discussed in this WSCP is pertinent to United's OH system only. The OH system covering an area of approximately 43 square miles serves the City of Oxnard,

March 12, 2021

PHWA, and several mutual water companies. The OH system's critical facilities include 12 groundwater wells, the El Rio Treatment Plant, located in the Oxnard Forebay, and a transmission pipeline that consists of an approximately eight mile transmission main and a four-mile long lateral known as the Mugu Lateral. General seismic hazards regarding facilities that do not directly supply the OH system but are within United's operating area, such as Freeman Diversion structure on the Santa Clara River and San Felicia Dam and Lake Piru are not included in this plan but are referred to in the 2015 Ventura County Multi-Hazard Mitigation Plan<sup>1</sup>.

There are various faults located within the vicinity of the OH system facilities. These faults along with probable surface rupture, liquefaction, and landslides hazards to these facilities are discussed below.

#### **Ground Faults**

The Simi-Santa Rosa fault zone extends from the Santa Susana Mountains westward along the northern margin of the Simi and Tierra Rejada valleys and along the southern slope and crest of the Las Posas Hills to their westerly termination<sup>1</sup>. *Per the 2015 Ventura County Multi-Hazard Mitigation Plan (Hazard Plan)*, the likely maximum magnitude along the Simi-Santa Rosa fault zone referenced as 6.7 with a recurring interval of 933 years<sup>1</sup>. The District facilities are within less than a mile of this fault.

The Oak Ridge fault system is a steep (65 degrees) southerly dipping reverse fault that extends from the Santa Susana Mountains westward along the southerly side of the Santa Clara River Valley and into the Oxnard Plain. The system is more than 50 miles long on the mainland and may extend an equal or greater distance offshore. Several recorded earthquake epicenters on land and offshore may have been associated with the Oak Ridge fault system. Portions of the system are zoned by the state as active<sup>1</sup>. The Ridge fault system is located less than five miles from the OH system. The likely Maximum Magnitude earthquake is 6.9 with a recurrence interval of 299 years<sup>1</sup>.

The Ventura-Pitas Point fault system includes the western half known as the Pitas Point fault, and the eastern half known as the Ventura fault. The Pitas Point fault extends offshore into the Pacific Ocean and is roughly 14 miles long. The Ventura fault extends into the communities of Ventura and Sea Cliff and runs roughly parallel to portions of U.S. 101 and State Route 126. The fault is roughly 12 miles long with a likely Maximum Magnitude earthquake of 6.9 with and unknow recurrence interval<sup>1</sup>. The Ventura-Pitas Point fault is a left-reverse fault located within 5 miles of the OH system.

The San Cayetano–Red Mountain–Santa Susana fault system consists of a series of major north-dipping reverse faults that extend over 150 miles from Santa Barbara County into Los Angeles County. Within this system, the San Cayetano fault is considered the greatest hazard to Ventura County<sup>1</sup>. It is a major, north-dipping reverse fault that extends for 25 miles along the northern portion of the Ventura Basin. The Oak Ridge fault system is a steep (65 degrees) southerly dipping reverse fault that extends from the Santa Susana Mountains westward along the southerly side of the Santa Clara River Valley and into the Oxnard Plain. The system is more than 50 miles long on the mainland and may extend an equal or greater

<sup>&</sup>lt;sup>1</sup> Ventura County Multi-Hazard Mitigation Plan, September 2015

March 12, 2021

distance offshore. This fault is located over 13 miles from the OH system and has a likely Maximum Magnitude earthquake of 6.8 with a recurrence interval of 507 years.

See Figure 1-1 for the fault zones near the District's boundaries.

March 12, 2021

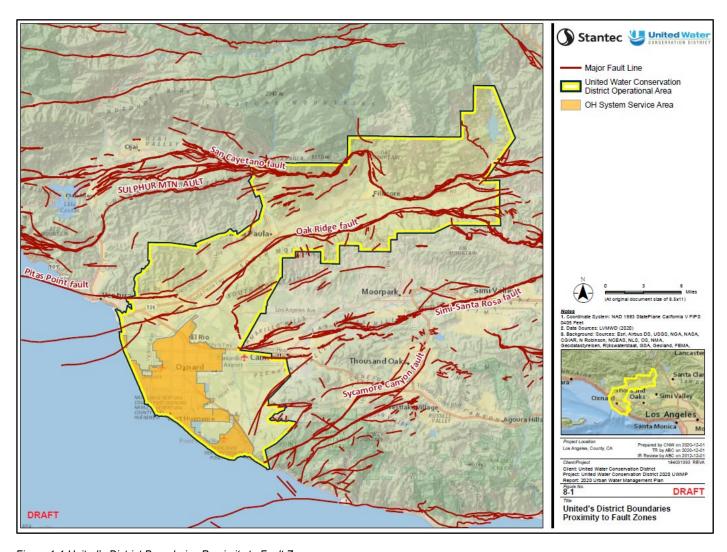


Figure 1-1 United's District Boundaries Proximity to Fault Zones

March 12, 2021

#### Seismic Risk

The OH system facilities are in close proximity to these faults but based on California Geological Survey Earthquake Hazard Zones maps for landslide, surface faults, and liquefaction as referenced in the Hazard Plan, the OH facilities including the groundwater wells, the treatment plant, and pipelines are only prone to liquefaction. Liquefaction can occur where sandy soils are saturated by the presence of shallow perched water. This could interrupt groundwater production, and damage the treatment plant, and the transmission line, and cause a water shortage to the OH system's customers.

Pertinent to the El Rio Treatment Plant, as discussed in the *United Water Conservation District Chlorine & Aqueous Ammonia Treatment Systems CalARP Seismic Assessment (Seismic 2019),* in order to minimize the effects of liquefaction, the District has constructed its facility on a large monolithic slab. Further mitigation can be made when designing new foundations and structures at the El Rio Treatment site through adherence to the Seismic Zone 4 soil and foundation support parameters in Chapters 16 and 18 of the 2007 California Building Code, the grading requirements in Chapters 18, 33, and the appendix to Chapter 33 of the Code<sup>2</sup>.

United's OH facilities are not located near steep hills or sloped land that would be susceptible to landslides. The threat of a landslide at the site is not regarded as a likely event in the event of an earthquake.

Tsunamis are water waves produced by the rapid tectonic displacement of the ocean floor. Based on California Geological Survey Tsunami Hazard Zones maps<sup>3</sup> United's water production facilities are not located close enough to the coastline to be vulnerable to tsunamis but portions of the transmission main and Magu Lateral are within one mile of the Tsunami Hazards Area and could be affected by potential tsunami inundation. The Small Woolsey Basin, a previous gravel mining pit, is located less than half a mile from the El Rio Treatment Plant and is typically dry. Under the certain circumstances, there is a potential for seiche inundation from this basin that could affect the El Rio wellfield and treatment facility<sup>2</sup>. A seiche is an oscillation of a body of water in an enclosed or semi-enclosed basin induced by earthquake shaking.

#### Mitigation

In the event of a pipeline break caused by liquefaction, there are no redundant pipelines for the OH system to deliver water to the OH system purveyors. United does have emergency response measures as described in section 1.4.5 in case of water shortage.

In the event of damage to the well field and /or El Rio Treatment facilities, United currently has no alternative source of water production. For future mitigation, under the development of the SWP Interconnection project, currently in design, there is a provision for two turnouts from the interconnection to United facilities for State Water Project (SWP) delivery in the event of an emergency. One turnout is

<sup>&</sup>lt;sup>2</sup> United Water Conservation District - Oxnard CalARP Seismic Assessment May 2019

<sup>&</sup>lt;sup>3</sup> https://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=ts\_evacuation

March 12, 2021

planned to be established on Rose Avenue near United's existing 78-inch supply line. Through this turnout, SWP could be delivered to the OH system. The location of the second turnout will be determined during the final design phase of the SWP Interconnection project.

In the event of an earthquake, if there is a disruption to the OH system due to liquefaction or a seiche event, United may not be able to successfully deliver water supplies. If such event were to occur, United will activate their Water System Emergency Response Plan (this document is considered sensitive and is not available to the public). Details on how United would address a disruption on their water supplies from a natural disaster is described in the emergency response plan.

#### **Communication Protocols**

United has several communication tools and methods in place to inform retail purveyors, the public, elected officials, and other agencies about water supply conditions. These include written notices to purveyors, updates on United's website, social media outreach, and collaboration with other agencies. These methods are not limited to any single water shortage level but would be used in varying degrees at all levels.

In the event that a water shortage results in decreased allocations, the General Manger or designee, upon agreement with the Board of Directions, may choose to send out a "Water Supply Availability Notice" to the OH Pipeline purveyors. The notice would provide the availability of supply for each purveyor and an anticipated timeline. Depending on the circumstances, United would ensure to provide a notice in advance of any major allocation reduction. The retail purveyors are encouraged to contact United with any questions or concerns.

United uses various outreach methods to communicate with purveyors. Important communication is facilitated primarily by email or telephone, but other communication methods such as e-flyers, social media, and website updates are also employed. United has Twitter, Facebook, and YouTube accounts to provide timely updates about water supply issues, infrastructure issues, and road closures due to construction. United also provides information on the News and Press Release page of their website (<a href="https://www.unitedwater.org/connect/#news-press">https://www.unitedwater.org/connect/#news-press</a>). This webpage provides a Media Toolkit with links to United's YouTube channel and an informational fact sheet. It is the responsibility of the General Manager or designee to oversee these communications which would be carried out by United's Safety and Security Program Coordinator. United plans to use these methods at all water shortage levels.

In the event of an emergency, the General Manager or designee would inform the Ventura County Association of Water Agencies to initiate the coordination of response and support with those agencies and member agencies. United is a member of the Association of Water Agencies (AWA) Disaster Preparedness Subcommittee (Subcommittee). The Disaster Preparedness Subcommittee is comprised of AWA members selected from geographical areas of the county. Each member represented by an Area Captain is responsible for relaying incident reporting information up the chain of command for emergency response assistance. The subcommittee serves as a platform for information and resources sharing among the members. United through the Subcommittee and directly has access to the Ventura County

March 12, 2021

Office of Emergency Services (OES). The OES is responsible for countywide disaster planning, mitigation, response, and recovery activities and can activate the County's Emergency Operations Center (EOC) in response to major events and disasters.

The tools and methods outlined above augment and compliment the efforts by FCGMA, Calleguas Municipal Water District, the County of Ventura, and the retailers served by United. All entities have extensive communication and outreach campaigns as outlined in their WSCPs. To ensure the collaboration and continuity of these outreach efforts, United's staff currently attend regular meetings with FCGMA. In the event that a Level 3-6 water shortage is declared, United anticipates these meetings will increase in frequency. In the event of water shortage emergency, the United representative would collaborate with the Ventura County Association of Water Agencies which includes neighboring member agencies.

### **Compliance and Enforcement**

This section is not applicable to United since they are a wholesale supplier.

### **Legal Authorities**

United is a public entity formed in 1950 pursuant to the Water Conservation District Law (California Water Code Section 74000, et seq.).

As a water conservation district, United does not have independent authority to directly regulate individual groundwater usage within its boundaries. United can declare a water shortage or adopt an ordinance or resolution that would inform pumpers and other water users within its boundaries about the availability of supply or lack thereof. In addition, United is required to "coordinate with any city or county which it provides water supply services for the possible proclamation of a local emergency" (California Government Code Section 8558) and will adhere to water shortage emergency ordinances adopted by the FCGMA and/or the County of Ventura."

United is a wholesale water provider to the City of Oxnard, Port Hueneme Water Agency (PHWA), and several mutual water companies. According to Section 2 of the Water Supply Agreement for Delivery of Water through the Oxnard/Hueneme Pipeline Agreement that went into effect on June 7, 1996, the parties acknowledged that the delivery of water made by United under this agreement is subject to the ongoing regulatory authorities of the Fox Canyon Groundwater Management Agency.

### **Financial Consequences of WSCP**

United's current pricing structure for OH System users includes the following elements:

- Variable rate, based on usage (per AF)
- Marginal rate based on usage (per AF)
- Fixed monthly costs

March 12, 2021

Unrecovered Variable rate (per AF)

The inclusion of "fixed" charges in the pricing structure allows United to continue receiving revenue for maintenance of its facilities even when groundwater allocations are reduced by the FCGMA and United's users receive less groundwater. The rates are based on usage, and a decreased volume can result in an increase per until. United does not apply a drought rate structure or surcharge to account for lost revenue from sales. However, United may consider the delay of capital improvements and reduction of expenditures to overcome impacts to revenues and expenditures.

United operates the OH System is as an enterprise fund and maintains financial reserves at levels sufficient to absorb unpredictable revenue shortfalls and to ensure fiscally prudent/desired cash flow levels. United's Board policy for the OH System was last adopted on July 1, 2015. The policy states United and the OH System contractors agree to meet and confer about developing a plan, which may include, but not be limited to, temporary rate increases, surcharges, capital contributions, or other reasonable methods that will restore the reserves, in the event the reserves are depleted by more than thirty percent in any fiscal year. In accordance with the Board policy and the OH Users Agreement, the current (fiscal year 2020-2021) minimum reserve level for the OH fund is \$1.1 million.

### **Monitoring and Reporting**

Monitoring and reporting key water use metrics is fundamental to water supply planning and management. Monitoring is also essential to ensure that the response actions are achieving their intended water use reduction purposes, or if improvements or new actions need to be considered. United will monitor and report on implementation of its WSCP.

On a monthly basis, United staff generate a technical report detailing the forebay available storage levels. This data is used to measure the effectiveness of any water shortage contingency stage that may be implemented. As stages of water shortage are declared by FCGMA, the District will follow implementation of those stages and continue to monitor water demand levels. United's Board reserves its right to undertake future actions in support of water conservation as authorized by law, including but not limited to declaration of a water shortage emergency, the filing of judicial actions concerning the ownership or use of water within the service area, and the enactment of ordinances for the operation of OH facilities.

#### **WSCP Refinement Procedures**

United, elected officials, or members of the public may suggest changes to the WSCP as part of the public hearing that considers the adoption of this document. Once a motion has been made, the District will evaluate and respond within 45 days.

The WSCP will be periodically re-evaluated to ensure that the shortage risk tolerance is adequate, and the shortage response actions are effective and up-to-date based on lessons learned from implementing the WSCP. At a minimum, the WSCP will be revised and updated during the UWMP update cycle to incorporate updated and new information. For example, new supply augmentation actions may be added, and actions that are no longer applicable for reasons such as program expiration will be removed. If

March 12, 2021

revisions to the WSCP are warranted before the UWMP is updated, the WSCP will be updated outside of the UWMP update cycle.

While preparing the Annual Assessment each year, United will routinely consider the functionality the overall WSCP and will prepare recommendations for United's Board of Directors if changes are found to be needed. Elected officials or members of the public may also suggest changes to the WSCP during a public meeting. Once a request or comment has been made, the District will evaluate and respond within 45 days. If the District deems that no change is necessary, tit will put out a brief statement which will be made available on their website, social medial platforms, and announced at the next board meeting. If the District deems a change is needed, District staff will update the WSCP and post the revisions to their website for a 30-day comment period. Following the comment period, District staff will make any final adjustments and present the latest version to the Board of Directors for approval.

#### **Special Water Feature Distinction**

United is a wholesaler and as such does not dictate or control the end uses of water by retail consumers. This applies to limitations placed on special water features as well and thus is not applicable.

### **WSCP Adoption, Submittal, and Availability**

The United WSCP was developed and is included as an appendix in the 2020 Draft UWMP and shall be made available to its purveyors and any city or county within which it provides water supplies no later than 30 days after adoption. Below is a description of how the WSCP will be adopted, submitted, implemented, and amended. The WSCP may be periodically amended independently of the UWMP, as needed.

United provided notice of availability of the draft 2020 UWMP and 2020 WSCP in accordance with CWC. A public meeting will be held prior to the adoption of the United's OH System WSCP. The public meeting will provide a platform for cities, counties, and members of the public to comment on the WSCP prior to its adoption. Notice of the public hearing was given to cities and counties within which water is supplied and to the general public.

A public hearing is scheduled to be held at United's Board Room located at 1701 N. Lombard Street, Oxnard CA 93030 on May 12, 2021 to receive public comments.

Not later than 30 days after filing a copy of its plan with the Department of Water Resources (DWR), the urban water supplier and the DWR shall make the plan available for public review during normal business hours. The adopted 2020 UWMP and WSCP for the OH system will be made publicly available on United's website <a href="https://www.unitedwater.org/">https://www.unitedwater.org/</a>.