

# Reporting, Measuring, and Planning Requirements for Water Users

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2023 Update

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### Author’s Note:

The electronic version of this Report includes hyperlinks to additional sources. If you would like to receive an electronic version of *Reporting, Measuring, and Planning Requirements for Water Users*, please contact NCWA at 916-442-8333.

## Introduction

The purpose of this report is to summarize and describe the reporting and measurement requirements that districts, companies, and individual landowners statewide must comply with, and to provide assistance in meeting these requirements with compliance. This report is an update to the August 2018 edition of *Reporting, Measuring, and Planning Requirements for Water Users*, which builds upon the earlier report, [Efficient Water Management for Regional Sustainability in the Sacramento Valley](#). This report aims to provide updated guidance for water right and contract holders to comply with these various requirements as part of the ongoing efforts for regional sustainability in the Sacramento Valley, and to help ensure that water will be available to serve multiple benefits, both now and in the future.

Water supplies are the lifeblood of the Sacramento Valley. Throughout the region, water supports both the economy and the environment and is essential to maintaining the Sacramento Valley way of life. The use of water supplies in the region requires water rights and contracts, which allow for the ability to store and access water at the time it is needed for farms, cities, rural communities, wildlife refuges, recreation, fisheries, and hydropower generation.

Since the mid-1800s, water has been diverted for many uses. Lands within the Sacramento Valley have been irrigated for farming and wildlife refuges, and municipal and domestic supplies have been provided to the Valley's people. Individual landowners and agricultural water suppliers secured some of the most senior water rights in the Sacramento Valley watershed. As the population of the state continued to grow, water leaders throughout the Sacramento Valley continued to secure and protect a variety of water rights and contracts so that water supplies were available for use in Northern California. These water rights and supplies are the socio-economic foundation for Northern California and serve various environmental values in the region. Today, water leaders in the region continue to exercise their water rights and their ability to divert water for [multiple benefits](#). This process has become more and more time consuming, complex, and costly, due to additional laws and regulations, along with increased and improved enforcement.

Individual water right holders and agricultural and urban water suppliers have a multitude of water monitoring, measuring, reporting, and planning requirements with which they must comply. Although compliance has become more time consuming and costly, the process has also become more important. These requirements are mainly the result of state and federal legislative actions and are implemented by the State Water Resources Control Board (SWRCB), Department of Water Resources (DWR), and U.S. Bureau of Reclamation (Reclamation). During the last decade, additional reporting and measurement requirements were added to the large number of requirements already in place for irrigators and municipalities. Many of these requirements are dependent on the size of the water supplier, or volume diverted under the water right/contract. The complex layers of requirements have resulted in many water right holders relying on experts to assist with the protection of their water rights.

As the pressure increases on water supplies in a growing state, particularly during drier years, these processes (if completed in an accurate and diligent manner) will help ensure that water right holders have the ability to divert water for multiple benefits in accordance with their water rights and contracts.

## Surface Water

The Water Commission Act of 1913 took effect on December 19, 1914, establishing the state's current water rights system. Today, the SWRCB and its Division of Water Rights (Division) is responsible for administering water rights law in California. DWR and Reclamation coordinate with the Division and other agencies in order to help manage and protect water resources; they are also water right holders under the jurisdiction of the SWRCB.

### California Water Rights

- **Any individual or entity who takes water from a lake, river, stream, or creek for a beneficial use requires a water right to do so.**
- **California's water right system is a priority system based on the understanding that water may not be available to all water right holders during dry periods.**

California water rights law requires that any diversion from a watercourse for a beneficial use be documented with the SWRCB. There are many types of water rights in the state; however, the two most common types are riparian and appropriative.

Water rights are based on a priority system (i.e., "first in time, first in right"), and the SWRCB relies upon documented information to administer the priority system, particularly in times of water shortages. The Division maintains the [Electronic Water Rights Information Management System](#) (eWRIMS), which is a public database used to track information on water rights.

Commonly, riparian water rights are the most senior water right. Riparian land is land located adjacent to a water source, and the owner of that land can divert a portion of the natural flow for reasonable beneficial use on the riparian land. Riparian landowners are required to document their claim through the filing of a [Statement of Water Diversion and Use](#) (Statement) and report their annual water use, as described in more detail in the following section. Water users who appropriated water before the Water Commission Act took effect have what is called a pre-1914 appropriative water right claim. Pre-1914 claims are also documented by filing a Statement with the SWRCB. Failure to file a Statement may result in civil liabilities that carry a fine of up to \$1,000, plus \$500 per day after the 30-day correction period. The correction period begins once the owner has been notified of the violation.

All post-1914 appropriative water users must apply for and receive a [water right permit](#) from the SWRCB. The process to receive a water right permit includes a public notice period, compliance with the California Environmental Quality Act, and other applicable policies in the geographic area. In addition, a [water availability analysis](#) must be performed to demonstrate a reasonable likelihood that water will be available to supply the proposed diversion. The analysis must consider senior water right holders, public trust, and environmental needs. Protests are allowed based on injury to other legal users of water and the environment. A water right permit will include terms defining the amount of water that may be diverted and during which season the diversion may occur along with the purpose of use and place of use associated with the authorized diversion. A diversion without a water right may result in a fine of up to \$500 per day of diversion and use.

Water right [registrations](#) are also available for expedited acquisition of appropriative water rights for certain small projects – small domestic use, small irrigation use, and livestock stockpond. Generally, a small project is defined as having a maximum direct diversion rate of 4,500 gallons per day or diversion to storage of an amount not to exceed 10 acre-feet (AF) per year. Following receipt of a registration, the SWRCB reviews the information and consults with the California Department of Fish and Wildlife. The SWRCB then issues a certificate of registration. Registrations are subject to renewal every five years and may be revoked if required fees and annual reporting have not been completed.

California’s appropriative water rights system and the priority system are built on the understanding that water may not be available to all water right holders in all years. Particularly when water supplies are limited due to [drought conditions](#), the Division has the authority to determine that water is not available for diversions under water rights based on water supply conditions and notify diverters (this was referred to as a Notice of Unavailability in 2021). The Division relies upon historical reported water use, described in more detail below, to make decisions regarding water availability<sup>1</sup>. Recently, the Division has only issued Curtailment Orders after the SWRCB has adopted an emergency regulation. When a Notice of Unavailability or [Curtailed Order](#) is issued, a compliance certification is required in order to document receipt of the notice and confirm cessation of diversion. Riparian rights on a stream are considered to have the same priority. If there is not enough natural flow to meet their combined demands, then they must share the available supply. If a water right holder diverts water after being notified that water is not available under their right, it may result in fines of up to \$1,000 per day, and \$2,500 per AF not lawfully available under a valid water right.

### Water Right Reporting

- **Annual water right reports must be submitted electronically to the SWRCB by February 1 of each year.**
- **The annual reports are to include monthly diversion and use quantities for the prior water year (October 1 – September 30).**
- **The Division may require more frequent reporting requirements during times of water shortage.**

Post-1914 appropriative water right holders have been subject to reporting requirements since the Water Commission was established. Pursuant to 2009 legislation, the SWRCB began to require online annual reporting of water diversion and use by individual water right. Online water right reports are to be submitted through the SWRCB’s eWRIMS [Report Management System](#). Also, as a result of the 2009 legislation, riparian and pre-1914 water right claimants were required to submit water diversion and use reports online. During the dry years of 2013 – 2015, two important SWRCB actions occurred: the SWRCB issued an Order for Additional Information (Informational Order) and the legislature passed [Senate Bill \(SB\) 88](#), which resulted in the

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<sup>1</sup> In 2021, the SWRCB developed the [Water Unavailability Methodology](#) for the Delta Watershed to identify when supply is not available for diversion by water right holders at their priorities of right. The Methodology and its associated tool continue to be refined in response to public comment and may be updated as new information and data are available.

development of new reporting and measurement requirements, both of which are described in more detail below.

During 2014, Governor Brown declared a state of emergency due to severe drought conditions and the SWRCB adopted an emergency regulation for Curtailment of Water Diversions to Protect Senior Water Rights, which included a provision authorizing the Division to issue Informational Orders requiring riparian and pre-1914 water right claimants to provide additional information documenting their claims. Pursuant to this emergency regulation, the Division issued an Informational Order to 450 riparian and pre-1914 claimants in the Sacramento and San Joaquin Watershed and Delta. The Informational Order required the recipients to submit information supporting their claim, provide actual 2014 monthly diversion quantities, provide an estimate of monthly diversions for 2015, and report actual 2015 diversions on a monthly basis thereafter. The Division readopted the Informational Order and the claimants were required to continue to submit monthly reports of actual diversions on a periodic basis through October 2016. This monthly reporting of diversions was in addition to the annual water right reports.

Shortly after the issuance of the Informational Order, SB 88 was signed into law by Governor Brown on June 24, 2015. SB 88 required the SWRCB to develop regulations to implement the requirements of the bill. The [Reporting and Measurement Regulations](#) were adopted by the SWRCB on January 19, 2016 ([see California Code of Regulations, Title 23 \[23 CCR\] § 907 et seq.](#)). The Reporting Regulation changed the reporting frequency for riparian and pre-1914 claimants from tri-annually to annually, beginning with 2016 diversions. The Reporting Regulation also requires [annual reporting](#) for all other water right holders. The failure to electronically submit annual diversion reports, even when no diversions are made, is a violation subject to civil liability of up to \$500 per day.

The Reporting Regulation authorizes the Division to require reporting of diversions monthly, or more frequently, when flows or projected available supplies in a watershed or subwatershed are sufficient to support some, but not all, of the projected diversion demand. This requirement provides authorization for the Division to require reporting, similar to that of the Informational Order, without needing to adopt emergency regulations to do so.

In response to significant drought conditions in early 2021, Governor Newsom declared a state of emergency to exist in the Klamath River, Sacramento-San Joaquin Delta, and Tulare Lake Watershed Counties. Following this, the SWRCB adopted an Emergency Curtailment and Reporting Regulation in August 2021. The regulation authorized the curtailment of diversions during times when water was determined to be unavailable at a water right holder's or claimant's priority of right<sup>2</sup>. In addition, the emergency regulation enacted a monthly reporting of projected demand and actual diversions as authorized under the Reporting Regulation. This emergency regulation was re-adopted in August 2022 to be extended until August 2023; however, due to the

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<sup>2</sup> The Division reviewed water supply and demand conditions on at least a weekly basis to determine the curtailment status of each water right in the Delta Watershed in accordance with the Water Unavailability Methodology. The curtailment status was posted on the SWRCB's [Delta Drought website](#), and the curtailment orders required water right holders/claimants to monitor the website and cease diversions if their right was shown as curtailed.

improved water supply conditions, the curtailment orders imposing the curtailments and reporting requirements were rescinded in April 2023.

On September 23, 2021, Governor Gavin Newsom signed [SB 155](#), which changed the reporting deadline and reporting period for annual water use under water rights (see Water Code § [5101](#), [5104](#)). Following a transition, the reporting period changed from a calendar year basis to a water year basis. Annual water right reports are now to include diversions during the previous water year (October 1 – September 30) and be submitted by February 1 of the following year.

#### Measurement of Diversion and Use under Water Rights

- **All water right holders who divert or are authorized to divert more than 10 AF per year are required to measure their surface water diversions.**
- **Measurement options include measurement devices, Measurement Method, or Alternative Compliance Plans.**
- **The measurement equipment must meet certain accuracy standards and data must be recorded at a specified frequency.**
- **The installation and accuracy of the measurement device must be documented by a Qualified Individual.**

The [Measurement Regulation](#) was prepared by the SWRCB pursuant to SB 88 (see [23 CCR § 931 et seq.](#)). All water right holders who have previously diverted or intend to divert more than 10 AF per year (riparian and pre-1914 claims) or are authorized to divert more than 10 AF per year under a permit, license, or registration, are required to measure the water they divert as described in Table 1.

Compliance with the Measurement Regulation can be achieved by measuring diversions with a measurement device, utilizing a Measurement Method, or implementing an Alternative Compliance Plan (ACP) where strict compliance is not possible. The accuracy of the measurement needs to be certified by a designated Qualified Individual. For diversions or water rights with a face-value greater than 100 AF per year, a Qualified Individual may be a California-Registered Professional Engineer; a California-Licensed Contractor, authorized by the State License Board for C-57 well drilling or C-61 Limited Specialty/D-21 Machinery and Pumps; or a person under the supervision of a California-Registered Professional Engineer who is employed to install, operate, and maintain water measurement and reporting devices or methods. For diversions or water rights with a face-value less than 100 AF per year, a person familiar with water measurement, including the water right holder, may be the Qualified Individual. On January 1, 2018, Assembly Bill (AB) 589 passed, which allows any diverter who has completed a [course](#) on measurement devices and methods administered by the University of California Cooperative Extension (UCCE), including passage of a proficiency test, to be considered a Qualified Individual that may install and maintain measuring devices or implement Measurement Methods for diversions under the diverters' water rights (see [Water Code § 1841.5](#)).

Failure to maintain a measurement device, employ a Measurement Method, or implement an ACP in accordance with the Measurement Regulation is a violation subject to civil liability of up

to \$500 per day. The Division maintains a [searchable list](#) of water rights and claims it believes are subject to the Measurement Regulation but appear to have made no attempt at complying or have indicated a measuring device(s) has been installed but no associated datafile has been submitted.

**Table 1. Measurement Regulation Thresholds and Requirements**

Direct Diversion	Storage	Required Accuracy of Device	Required Monitoring Frequency	Telemetry
≥ 1,000 AF/year	≥ 1,000 AF	Installed before 1/1/16: 15%	Hourly	Diverter who diverts: → > 10,000 AF annually → > 30 CFS by DD during Jun. through Sept. 30 → > 10,000 AF capacity of pond/reservoir → in certain areas (see Measurement Regulation).
≥ 100 AF/year	≥ 200 AF	Installed after 1/1/16: 10%	Daily	
	≥ 100 AF	15%	Weekly	
> 10 AF/year	≥ 50 AF			
	> 10 AF		Monthly	

Water right holders who require additional time to fully comply with the measurement requirements may submit Requests for Additional Time, which provide a form of compliance for up to two years at a time. Approval of Requests for Additional Time is contingent on financial considerations, minimum time needed to access site due to weather conditions, minimum time needed to obtain agency permits, or unforeseen circumstances.

Alternatively, a water right holder may submit an ACP when strict compliance with the requirements identified in Table 1 is not feasible, would be unreasonably expensive, would unreasonably affect public trust resources, or would result in the waste or unreasonable use of water. The ACP must describe how the diverter will achieve reasonable compliance with the measurement requirements and provide documentation to support their basis of requesting the ACP. After the ACP has been submitted to the Division, it will be posted to a website with an opportunity for public comment. The Deputy Director of Water Rights may review, audit, require additional information, and/or reject an ACP. There is no set timeline during which any of these activities must occur. An ACP may remain in effect for up to five years and may be renewed by resubmittal.

All water right holders complying with the Measurement Regulation using a measurement device or Measurement Method are required to submit the raw data file from measurement device or Methods to the SWRCB in their annual water right reports each year. All forms of compliance (device, Measurement Method, and ACP) shall be evaluated and certified by a Qualified Individual every five years, and flow meters shall be recalibrated at least every five years or more frequently according to the manufacturer’s specification. Further, [telemetry](#) is required for



diverters who fit the criteria listed in Table 1. Diverters subject to telemetry reporting must publish their diversion data to a publicly accessible website. In addition to posting diversion data to a public website, diverters subject to the telemetry requirement must submit the associated raw data file to the SWRCB in their annual water right report.

## Water Management Planning

The state government, through DWR, and the federal government, through Reclamation, both impose planning, measurement, and reporting requirements on water users. In some instances, the different planning activities have conflicting or competing requirements/goals. There are different planning criteria and practices for agricultural water suppliers and urban water suppliers.

### Making Conservation a California Way of Life

Governor Brown's Executive Order B-37-16 built on long-term water conservation measures. B-37-16 directed five state agencies (DWR, SWRCB, California Department of Food and Agriculture, California Public Utilities Commission, and the California Energy Commission), collectively referred to as the EO Agencies, to seek input from stakeholders and develop a report based on the objectives contained in the Executive Order. On January 20, 2017, the EO Agencies submitted their final report, [Making Water Conservation a California Way of Life: Implementing Executive Order B-37-16](#), to the Governor's office for possible 2017 legislative consideration. MBK participated in the public meetings and workshops as a member of the Agriculture Advisory Group (AAG) and submitted comments to the EO Agencies relative to the report.

On May 31, 2018, Governor Brown signed [AB 1668](#) and [SB 606](#) into law. The two-bill legislative package went into effect January 1, 2019, and is based on the Brown Administration's "[Making Conservation a California Way of Life](#)" framework. AB 1668 and SB 606 established guidelines for statewide water efficiency standards in an effort to better prepare the state for droughts and climate change. The two bills provide incentives for water suppliers to recycle water and provide recommendations for drought planning for small water suppliers and rural communities. Under this two-bill legislation, DWR and SWRCB recommend that urban water suppliers achieve an indoor water use efficiency standard of 55 gallons per capita per day by 2023, declining to 47 gallons per day by 2025, and 42 gallons by 2030 and beyond. Additionally, these bills adjusted or added certain requirements to existing laws regarding agricultural and urban water suppliers, which are incorporated in the forthcoming sections.

In September 2022, DWR provided [recommendations](#) to SWRCB for outdoor water use efficiency standards, variances for unique uses that may affect a supplier's urban water use objectives, guidelines and methodologies to account for bonus incentive for potable reuse, and performance measures for commercial, industrial, and institutional (CII) water use. Further details are provided in the [Draft Staff Framework for the Making Conservation a California Way of Life Regulation](#), released on March 15, 2023.

### State Agricultural Water Management Plans

- **Agricultural water suppliers providing water to more than 25,000 acres (excluding recycled water deliveries) must prepare and submit an SB X7-7 Agricultural Water Management Plan (SB X7-7 AWMP).**
- **SB X7-7 AWMP criteria require implementation of turnout level measurement and volumetric pricing of water deliveries.**
- **SB X7-7 AWMPs are to be updated every five years and submitted to DWR.**

The Water Conservation Act of 2009, or SB X7-7 (see [Water Code § 10820](#)), required agricultural water suppliers with greater than 25,000 irrigated acres to adopt and submit [Agricultural Water Management Plans](#) (SB X7-7 AWMP) to DWR. The largest component of these SB X7-7 AWMPs is the implementation of Efficient Water Management Practices (EWMPs), including the measurement and volumetric pricing of water deliveries referred to as “Critical” EWMPs. SB X7-7 also permits water management plans that are part of a regional plan to be submitted, provided those plans meet the requirements of SB X7-7. The initial SB X7-7 AWMPs were due July 31, 2012, and with changes from AB 1668, are now required to be updated every five years by April 1 in years ending in one and six. Under SB X7-7, agricultural water suppliers that provide water to 10,000 to 25,000 irrigated acres (excluding recycled water) are not required to prepare and submit SB X7-7 AWMPs unless state funds are available to support the effort.

The SB X7-7 AWMPs must include an annual water budget based on a quantification of all inflow and outflow components of the water suppliers’ service area. Additionally, SB X7-7 AWMPs must identify water management objectives based on the water budget to improve system efficiency or to meet other water management objectives. Additionally, SB X7-7 AWMPs must include a drought plan that describes the actions of the water supplier related to drought preparedness and management of water supplies and allocations during drought conditions. As a result of the “Making Conservation a California Way of Work” framework, water suppliers must now include a quantification of water use efficiency within the service area is based on one of the four approved methods described in DWR’s 2012 Report to the Legislature, [“A Proposed Methodology for Quantifying the Efficiency of Agricultural Water Use”](#). Water suppliers are required to update their SB X7-7 AWMP with any progress made towards EWMP implementation and a plan to fully implement the Critical EWMPs by the next five-year update. The two Critical EWMPs – turnout level measurement and volumetric pricing – must be implemented.

SB X7-7 also allows for groups to prepare and submit a Regional Water Management Plan if each of the participants meets the requirements of SB X7-7. Several groups within the Sacramento Valley have moved forward with regional plans. Water users who divert from the Feather River have coordinated to develop a Feather River Regional Agricultural Water Management Plan, which consists of regional components and individual water supplier components. The Yuba Water Agency coordinated with its member units to prepare a single plan which could be considered a regional AWMP. A group of SRSCs coordinated with DWR and Reclamation in order to meet the requirements of both state and federal planning criteria. Their

Sacramento Valley Regional Water Management Plan (SVRWMP) is described in Federal Agricultural Water Management Plans, below.

#### State Urban Water Management Plans

- **Urban water suppliers who provide over 3,000 AF per year or serve more than 3,000 urban connections must prepare and submit an Urban Water Management Plan (SB X7-7 UWMP) pursuant to SB X7-7.**
- **Water suppliers are required to assess the reliability of water sources over a 20-year planning timeframe.**
- **SB X7-7 UWMPs are to be updated every five years and submitted electronically to DWR.**

The Urban Water Management Planning Act was adopted in 1983. Since that time, modifications have been incorporated over the years with a significant amendment being made in 2009 as a result of the Water Conservation Act, or SB X7-7 (see Water Code § [10620 – 10645](#)). Urban water suppliers that annually deliver over 3,000 AF of water for municipal purposes, or which serve more than 3,000 connections, are required to prepare and submit an [Urban Water Management Plan](#) (SB X7-7 UWMP) to DWR every five years. SB X7-7 UWMPs are intended to ensure that water suppliers are prepared to provide an appropriate level of reliability in their service that meets the needs of their customers during normal, dry, and multiple dry water years, while ensuring that water suppliers actively pursue efficient use of their supplies.

DWR provides a SB X7-7 UWMP Guidebook, workshops, tools, and program staff to assist urban water suppliers in developing their SB X7-7 UWMP. Within the SB X7-7 UWMPs, urban water suppliers are required to assess the reliability of water sources over a 20-year planning time frame, describe management measures and water shortage contingency plans, and discuss the use and planned use of recycled water.

In addition to UWMPs, urban water suppliers are required to conduct an [Annual Water Supply and Demand Assessment](#) (Annual Assessment) and submit an Annual Water Shortage Assessment Report (Annual Shortage Report) to DWR consistent with the water shortage contingency plan (see Water Code § [10635](#)). Urban water suppliers must also calculate their [urban water use objective](#) (UWUO) and assess whether their actual water use met the UWUO in their Annual Water Use Report by January 1 of each year, starting in 2024. If an urban water supplier does not meet its UWUO, SWRCB may take enforcement action against them. Such actions may include issuance of informational orders, written notices, and conservation orders.

#### Federal Agricultural Water Management Plans

- **Water supply contract holders must prepare and submit an Agricultural Water Management Plan, pursuant to CVPIA requirements – those who receive less than 2,000 AF of water per year for irrigation or irrigate less than 2,000 acres of land are exempt.**
- **The criteria require implementation of five “non-exemptible” Best Management Practices.**

- **Water Management Plans are to be updated every five years and submitted to Reclamation.**

Entities which hold a contract for irrigation water supply with Reclamation must prepare and submit an [Agricultural Water Management Plan](#) (Federal AWMP) to Reclamation, as required by the Reclamation Reform Act of 1982 (RRA) and the Central Valley Project Improvement Act of 1992 (CVPIA). Those who receive less than 2,000 AF per year of Reclamation project water supplies or receive water for irrigation of less than 2,000 acres of land are exempt from preparing a Federal AWMP. Updated Federal AWMPs are to be submitted every five years, and Best Management Practices (BMP) updates are to be submitted annually by April 30. In recent years, Reclamation has not required qualifying agricultural contractors to submit annual updates to BMPs and has identified that the data be retained and incorporated in the next Federal AWMP. Continued project water delivery is dependent on the water supply contractor implementing, or working diligently to implement, the measures described in an approved Federal AWMP.

The Federal AWMP requires implementation of BMPs. There are five Critical BMPs which are designated as *non-exemptible*: turnout water measurement, designation of a Water Conservation Coordinator, providing/supporting the availability of water management services to water users, adoption of a volumetric pricing structure, and evaluation/improvement of contractor pump efficiencies. If a water supplier is subject to both DWR and Reclamation sets of requirements, at a minimum, they must implement the critical EWMPs associated with the DWR plans and the critical BMPs associated with the Reclamation plans. Although Reclamation and DWR will accept a plan approved by the other agency, ensuring that criteria required by both agencies are incorporated into the plan adds an additional burden. For example, an SRSC or Water Service Contractor (WSC) (e.g., Tehama-Colusa Canal Authority [TCCA] member agency) may submit its Federal AWMP to DWR to meet the state requirements, but the plan must also meet requirements set forth by the state, including those in Executive Order B-29-15.

Currently, nine SRSCs participate in the SVRWMP, which was prepared in cooperation with Reclamation in 2006. Since SB X7-7 was passed, the SRSCs have coordinated with DWR in order to ensure that the SVRWMP would be accepted under both criteria. Each SRSC participating in the SVRWMP submits separate information to comply with the turnout measurement, volumetric pricing, drought management plan, and water budget requirements. Amongst the benefits of the SVRWMP is the showing of water use efficiency on a district, basin, and regional basis. Other SRSCs and WSCs in the region comply with the Federal AWMP requirements individually.

#### Federal Urban Water Management Plans

- **Water supply contract holders who receive more than 2,000 AF per year of municipal and industrial (urban) water from a Reclamation project must prepare and submit an Urban Water Management Plan pursuant to CVPIA requirements.**
- **The criteria require implementation of five “non-exemptible” Best Management Practices.**

- **Water Management Plans are to be updated every five years and submitted to Reclamation.**

Water supply contractors who receive more than 2,000 AF per year of urban water from Reclamation must prepare and submit an [Urban Water Management Plan](#) (Federal UWMP) pursuant to the requirements of RRA and CVPIA. Federal Water Management Planner applies to both urban and agricultural water supply contractors. The Federal UWMP requires implementation of urban BMPs which are currently developed by the California Water Efficiency Partnership (CalWEP) (formerly California Urban Water Conversation Council). Foundational BMPs include good operations practices, water loss control, and education programs. Programmatic BMPs include conservation methods to be implemented by the water supplier, as well as methods that can be undertaken with residents, commercial, institutional, and industrial users, and for landscape irrigation. The CVPIA UWMP are to be updated and resubmitted every five years. In addition, Reclamation requires annual updates, which are completed on the [CalWEP website](#).

Continued project water delivery is dependent on the water supply contractor implementing, or working diligently to implement, the measures described in an approved Federal UWMP.

#### Farm-Gate Delivery Report

- **Agricultural water suppliers delivering 2,000 AF per year or serving 2,000 or more irrigated acres must submit an Agricultural Aggregated Farm-Gate Delivery Report.**
- **The reports must be submitted electronically by April 1 each year and are to include monthly or bimonthly aggregated farm-gate delivery quantities organized by groundwater basin/sub-basin number**

In 2007, AB 1404 amended sections of the Water Code to require submittal of aggregated farm-gate delivery data to DWR, which were further amended by AB 1668 in 2018 (see [Water Code § 531](#) et seq.). The [farm-gate delivery reporting](#) requirements apply to agricultural water suppliers delivering 2,000 AF or more of surface water annually for agricultural purposes or serving 2,000 or more acres of agricultural land. The agricultural water supplier must submit an online form with monthly or bimonthly aggregated farm-gate deliveries on an annual basis, along with information about their measurement program or practices. This is necessary to document that the supplier is using “best professional practices” or to document that implementation of such program or practices to measure is not locally cost effective. Although the farm-gate delivery reporting is not a requirement specifically associated with the SB X7-7 AWMPs, agricultural water suppliers subject to SB X7-7 must provide this information in accordance with the turnout measurement requirements of SB X7-7. The Agricultural Aggregated-Farm-Gate Delivery Report must be submitted electronically annually to DWR by April 1 of each year for the preceding calendar year.

#### Drinking Water Annual Report

- **Public water systems are required to submit an electronic annual report to the Division of Drinking Water around mid-May each year.**

Public water systems that provide drinking water, are required to submit an [Electronic Annual Report](#) to the SWRCB Division of Drinking Water (see [CA Health & Safety Code § 116530](#)). This report may be required to include, but is not limited to, detailed plans and specifications, water quality information, physical descriptions of the existing or proposed system, and financial assurance information. The annual report must be submitted electronically and is typically due around mid-May of each year.

#### Contractor Coordination with Reclamation

- **SRSCs and WSCs are required to submit an estimated schedule of monthly diversions to Reclamation by April 1 of each year.**

Pursuant to Article 3c of their Settlement Contracts, SRSCs need to submit a written schedule of their monthly diversions under the Settlement Contracts for the upcoming contract season to Reclamation. This schedule is due by April 1 of each year. In addition, SRSCs need to provide any revisions to this schedule by the first day of each month during the remainder of the irrigation season. In past years, Reclamation has specifically requested this information within its notification letters identifying Shasta Critical/Non-Shasta Critical Years. These schedules and revisions are typically provided to Reclamation’s Mid-Pacific Region, Northern California Area Office. Similarly, WSCs are also required to provide a schedule of their estimated monthly diversions to Reclamation.

In recent years, a group of many SRSCs, TCCA, and federal refuge managers have been voluntarily coordinating with Reclamation Central Valley Operations (CVO) staff regarding diversions and operations of the Sacramento River. Coordination efforts include requesting, organizing, compiling, tracking, and sharing operation, diversion, and river conditions data within the group of SRSCs and with CVO. Diversion projections are updated and maintained by the managers of individual SRSCs, refuges, and TCCA regularly through the SRSCs’ online diversion portal.

#### Groundwater

Landowners overlying a groundwater basin may extract that groundwater for beneficial use on their land without approval from the SWRCB. In several basins, groundwater use is subject to regulation, in accordance with court decrees adjudicating the groundwater rights within the basins; however, none of these basins are located in the Sacramento Valley. In the Sacramento Valley, many individuals and water suppliers rely on the conjunctive use of surface water and groundwater, while some entities rely solely on groundwater. On September 16, 2014, Governor Brown signed into law a three-bill legislative package, composed of AB 1739, SB 1168, and SB 1319, collectively known as the [Sustainable Groundwater Management Act](#) (SGMA), which provides a framework for sustainable groundwater management.

#### CASGEM Monitoring and Reporting

- **Designated CASGEM Monitoring Entities collect groundwater elevation measurements and report the data online on a semi-annual basis.**

Prior to SGMA, in 2009, SB X7-6 (Water Code § [10920 – 10936](#)) established collaboration between local monitoring parties and DWR in order to develop a state-wide groundwater monitoring network for groundwater elevations. In response, DWR developed the [California Statewide Groundwater Elevation Monitoring](#) (CASGEM) Program to track seasonal and long-term groundwater elevation trends. Through this process, local parties have been established as CASGEM Monitoring Entities who collect groundwater elevation measurements and report the data through the CASGEM online data submittal and reporting system. CASGEM Program requirements have become more prevalent recently.

The groundwater elevation data, which have been collected through the CASGEM Program, provided key information for groundwater management decisions, including the development of [Groundwater Sustainability Plans](#) (GSP) pursuant to SGMA. In many cases, the CASGEM Monitoring Entities are also Groundwater Sustainability Agencies (GSA) under SGMA. Therefore, groundwater data collection continues via the CASGEM Program and SGMA implementation.

#### Sustainable Groundwater Management Act

- **Locally formed GSAs prepared and adopted GSPs for each groundwater subbasin in the Sacramento Valley by January 31, 2022.**
- **GSAs must establish a sustainability goal for the groundwater subbasin which, in part, means avoiding the six “undesirable results.”**
- **Measuring, monitoring, and management actions will be undertaken thereafter with a report due by April 1 each year and plan updates every five years.**

In the middle of the 2013 – 2015 dry years, SGMA was signed into law by Governor Brown (see [Water Code § 10720 et seq](#)). SGMA gives local agencies the authorities necessary to create GSAs and establishes a framework to develop GSPs in order to implement strategies to sustainably manage groundwater resources. GSAs throughout the Sacramento Valley coordinated to ensure that a GSP(s) was prepared and submitted for each subbasin by the January 31, 2022 deadline. The GSPs establish goals to keep the region’s water resources sustainable, which means avoiding the following “undesirable results” described in SGMA:

- Chronic lowering of groundwater levels
- Reduction of groundwater storage
- Seawater intrusion
- Degraded water quality
- Land subsidence
- Depletions of interconnected surface water

As of the date of this report, many of the GSPs covering Sacramento Valley subbasins are being reviewed by DWR to determine if they are in compliance with the GSP Regulations ([23 CCR § 350 et seq](#)). Since submittal of the GSPs, the GSAs are required to implement monitoring and measuring practices described in the GSP, submit annual reports, and review/update the plan every five years. The GSPs, annual reports, and associated data are submitted online through the

[SGMA Portal](#). The SGMA Portal allows local agencies, GSAs, and watermasters to submit and modify information that is required by SGMA. The SGMA Portal is also publicly accessible. The public has the ability to view and provide comments on information related to GSAs, GSPs, and other basin information.

SGMA requires the GSAs to consider water quantity and water quality. This includes the development of detailed water budgets, which consider surface water and groundwater relationships. These water budgets have different requirements, as compared to the water budgets needed for the SB X7-7 WMPs and Federal WMPs, which has led to conversations about the need for consistency amongst planning requirements.

Grant funds, made available through Proposition 1 and other programs, have been made available to GSAs to assist with the preparation of GSPs and other activities which support sustainable groundwater management. [The Sustainable Groundwater Management \(SGM\) Grant Program](#) also provides ongoing funding to GSAs and other entities under SGMA towards developing and implementing sustainable groundwater management.

DWR is responsible for overseeing and implementing SGMA and provides support to local agencies through best management practices, [engagement, facilitation, and technical services](#). If local agencies do not meet deadlines or are not managing groundwater sustainably, the SWRCB may intervene and initiate the “[State Backstop](#)” process.

## Regional Efforts

In addition to the aforementioned overarching requirements, water right holders and water suppliers must comply with regional requirements that involve coordination and submittal to other agencies.

### Integrated Regional Water Management

- **Regional water management efforts can be supported by state funds through the Integrated Regional Water Management Program.**

In 2002, the Regional Water Management Planning Act (SB 1672) was passed by the Legislature (see [Water Code § 10543](#)). [Integrated Regional Water Management](#) (IRWM) enables self-identified regions to integrate and implement water management solutions for their region, which is a foundation of Action 2: "Increase regional self-reliance and integrated water management across all levels of government," in the California Water Plan. Bond funds have supported IRWM development throughout California. IRWM is a collaborative effort to identify and implement water management solutions on a regional scale that increase regional self-reliance, reduce conflict, and manage water in order to concurrently achieve social, environmental, and economic objectives. This approach delivers higher value for investments by considering all interests, providing [multiple benefits](#), and working across jurisdictional boundaries. Examples of multiple benefits include improved water quality, better flood management, restored and enhanced ecosystems, and more reliable surface and groundwater supplies.



Northern California water suppliers (in partnership with local governments, environmental representatives, and state and federal agencies) adopted an “Integrated Regional Water Management Plan (IRWMP) for the Sacramento Valley”, on December 12, 2006. The Sacramento Valley-wide IRWMP focused on regional sustainability, and “...contains a strategic framework to meet the various water supply needs in the region both now and into the future...” and will “...guide the development of water resources policies, programs, and projects”. Since 2006, IRWMP planning in the Sacramento Valley has evolved and entities are currently pursuing more specific regional planning efforts in order to advance regional sustainability, to provide a forum for improved coordination of water resources management, and to implement various projects that will improve regional sustainability in the Sacramento Valley. There are four processes in the Sacramento Valley, including the Northern Sacramento Valley IRWMP, American River Basin IRWMP, Westside Sacramento IRWMP, and Yuba County IRWMP.

### Irrigated Lands Regulatory Program

- **Property owners of irrigated agricultural lands must comply with Waste Discharge Requirements as an individual or through participation in a coalition group.**
- **The Sacramento Valley Water Quality Coalition and California Rice Commission Coalition assist growers in the Sacramento basin through surface water and groundwater quality monitoring.**

The [Irrigated Lands Regulatory Program](#) (ILRP) was created by the Central Valley Regional Water Quality Control Board (CVRWQCB) in response to SB 390 (see [Porter-Cologne Water Quality Control Act](#); [California Water Code Division 7](#)). In 2003, a specific program was developed to address discharge of “waste” (e.g., pesticides, herbicides, nutrients) from agricultural lands. According to regulations imposed by Legislature and the Central Valley Regional Water Quality Control Board (CVRWQCB), property owners of irrigated agricultural lands must decide whether to participate as a group or individual. In the Sacramento Valley, two coalitions have formed to support landowners with the Waste Discharge Requirements (WDR): [the California Rice Commission Coalition](#) (CRCC) and the [Sacramento Valley Water Quality Coalition](#) (SVWQC). Through the coalitions’ efforts, individuals are not required to participate on their own, but instead pay a fee to the coalition for coverage and submit information as requested.

The California Rice Commission (CRC) took on a proactive role in the ILRP as a commodity specific coalition that covers rice growers in the Sacramento Valley who farm approximately 500,000 acres of rice annually. All conventional and organic rice growers in the Sacramento River Basin receive automatic inclusion in the CRCC. Also located in the Sacramento Valley, the Northern California Water Association (NCWA) partnered with over 200 agricultural representatives, natural resource professionals, wetlands managers, and local governments throughout the region in order to improve water quality for Northern California farms, cities, and the environment by forming the SVWQC. The mission of the SVWQC is to enhance and improve water quality in the Sacramento River Basin while sustaining the economic viability of agriculture, functional values of managed wetlands, and sources of safe drinking water. The SVWQC is composed of more than 8,600 farmers and wetlands managers encompassing more

than 1.1 million irrigated acres. The SVWQC signed a Memorandum of Agreement with the CRC to coordinate the respective programs in the Sacramento River Basin.

As part of the ILRP, both the SVWQC and CRCC coordinate surface water and groundwater quality monitoring to be reported annually to the CVRWQCB. WDR compliance is achieved through the SVWQC’s and CRCC’s development and implementation of Monitoring and Reporting Program Plans. Both entities require members to submit Farm Evaluations which are compiled to facilitate compliance.

## Recommendations for Improving Reporting Requirements

As described through this report, individual water right holders and agricultural and urban water suppliers have a multitude of water monitoring, measuring, reporting, and planning requirements with which they must comply. Table 2 summarizes the recurring planning and reporting requirements.

**Table 2. Summary of Planning and Reporting Requirements**

Report/Plan	Reporting Period	Cycle
Water Right Reports	Water Year	February 1 each year
Federal WMP	Contractor's Choice	Every 5 years
State/SB X7-7 WMP	Water Year	April 1 of years ending in 1 and 6
AB 1404 Farm Gate Delivery Reports	Calendar Year	April 1 each year
SGMA: GSPs	Water Year	Revisit every 5 years
SGMA: Annual Reports	Water Year	April 1 each year

As more focus is brought to water issues throughout the state, compliance with these requirements has also become more important. However, compliance has become more complicated, time consuming, and costly. Many water users have identified the duplicative nature of some of these requirements. This following list provides potential recommendations that could be considered by regulatory agencies to improve these requirements and to improve evaluation of compliance. Each recommendation is followed by an example.

- Evaluate the overlapping requirements of SGMA with SB X7-7 and Federal WMPs.
  - Much of the information evaluated by individual water supplies in WMPs is also evaluated at a groundwater subbasin scale for SGMA. For many local water agencies, the analyses required are similar, but not the same, which can result in conflicting and confusing information. One option may be to incorporate WMP updates as an appendix to GSPs.

- As an alternative to the above recommendation, the agencies could provide guidance documents to provide suggestions on how to efficiently meet the requirements of multiple processes using the same data.
- Simplify report and plan requirements and host workshops to ensure water suppliers and users understand current requirements.
  - Simplifying plan requirements and reporting forms could streamline efforts towards meeting all requirements of the multiple processes. This should include an evaluation of what requested material is meaningful and needed.
  - In instances where current requirements cannot be easily changed or simplified, the responsible agency should host workshops to provide direction to water users and suppliers. For example, annual water right reporting forms have become lengthy and require detailed responses from water rights holders. Division staff should better educate water right holders so that the forms are completed correctly, including submittal of data pursuant to the Measurement Regulation.
- Align deadlines and reporting period for requirements that rely on the same information.
  - The aggregated farm gate delivery reports are to be submitted by many agencies that are also required to submit an SB X7-7 AWMP; however, the data is requested in different format and for a different reporting period (as shown in Table 2).
- Develop portals that are user-friendly, easier to access, and can be used for compliance with more than one requirement.
  - The SWRCB has developed multiple portals for use by water right holders to submit information in compliance with regulations and orders (e.g., annual water right reporting, Measurement Regulation compliance, Curtailment Order reporting, water right forms, etc.). These portals can be hard to locate and are not accessible from a single location.
  - DWR could improve the WUE Data Portal functionality by allowing users to save draft reports, make amendments, and view the final submitted report.
- Consolidate SGMA and CASGEM portals to have one central location for groundwater data submission.
  - In many cases, the CASGEM Monitoring Entities are also GSAs under SGMA, so groundwater data collection continues to comply with both programs. The data entry and submittal for CASGEM and SGMA could be consolidated.
- Perform internal review to ensure agency reports regarding compliance with regulatory requirements are accurate prior to publishing.
  - The SWRCB has created many useful tools to help water right holders confirm their compliance with regulatory requirements. The information in these tools should be carefully reviewed by the SWRCB before distributing to ensure that water rights holders are not incorrectly shown as out of compliance. For instance,

- the SB 88 Deficiency List needs to consider water rights holders in compliance through submitted of ACPs and Requests for Additional Time.
- SWRCB staff should contact individual water right holders prior to publishing and continue outreach even after publishing. This would educate water users, eliminate misrepresentation of compliance, and signify the importance of meeting requirements.

## Activities Important to Sacramento Valley Water Users

Due to the many moving parts, individual water right holders and agricultural water suppliers must be aware of actions that may challenge their water supply. While not all the items discussed below are a reporting, measurement, and/or planning requirement, each necessitates the attention, investment, and involvement of Sacramento Valley water users.

### Sacramento-San Joaquin River Delta and San Francisco Bay

The Sacramento-San Joaquin Rivers Delta and the San Francisco Bay (Bay-Delta) are an important economic and environmental resource benefiting all of California and the nation. Much is at stake with the implementation of numerous ecosystem restoration and water management actions under consideration. The various Bay-Delta processes continue with the SWRCB moving forward with the [Water Quality Control Plan](#) (WQCP) update; the state administration is advancing the [Delta Conveyance Project](#) (tunnels); and the agencies are consulting on new biological opinions for the operation of the Central Valley Project and the State Water Project. These processes are all exploring ways to redirect water from the Sacramento River Basin in order to serve various water needs in the Bay-Delta.

As the WQCP update has progressed, Governor Brown and Governor Newsom both called upon the California Natural Resources Agency to convene parties and help facilitate [voluntary agreements](#)<sup>3</sup> (VAs) among interested parties to implement flow and non-flow actions to meet regulatory standards and support all beneficial uses of water. The VAs are intended to provide an alternative to implementation of SWRCB staff's proposed unimpaired flow approach to the WQCP update. As a result of these collective efforts on the VAs, various presentations and materials have been provided to the SWRCB, which staff evaluated in a Scientific Basis Report Supplement in Support of Voluntary Agreements, released January 2023.

The NCWA Bay-Delta Task Force continues to meet monthly in order to coordinate all the various efforts in the Sacramento River Basin surrounding the Bay-Delta, and to bring their team of directors, water resources managers, attorneys, biologists, and engineers together to strategize and take action to protect Northern California water rights and supplies and to help manage the water resources in our region for multiple beneficial uses.

### Modernization and Data Accessibility

On September 23, 2016, the [Open and Transparent Water Data Act \(AB 1755\)](#), was approved by Governor Brown. AB 1755 (Water Code § [12400 – 12420](#)) requires DWR, in consultation with

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<sup>3</sup> The California Natural Resources Agency (CNRA) also published additional information related to VAs located at this [link](#).

the California Water Quality Monitoring Council, SWRCB, and the California Department of Fish and Wildlife to develop an online platform in order to integrate existing water and ecological data information from multiple federal, state, and local databases (e.g., reservoir operations, groundwater data, land use, water rights, surface water diversions, water quality, fish abundance, etc.) and provide data on completed water transfers and exchanges. In April 2018, DWR and partner agencies released a [progress report](#) on implementation which included an initial draft strategic plan and preliminary protocols. The state agencies are collaborating with, and learning from, other state and federal agencies, data experts, and AB 1755 stakeholders (which includes data providers and consumers) to chart a successful path forward. Through this process, two State-hosted data portals, [California Natural Resources Agency Open Data](#) and [California Open Data Portal](#), have been developed to allow users improved access to available water and ecological datasets. These portals will continue to be improved and have datasets added.

There has been a recent increase in discussions surrounding the [modernization of our water system](#) in California, including the water rights system. In August 2022, Governor Newsom released [California's Water Supply Strategy](#) (Water Strategy), which calls for the modernization of our water management system, including both 21st century water storage and delivery infrastructure and a water rights system that will support this improved water management as California adapts to our new climate reality and increasing scarcity. The SWRCB has made progress in rebuilding the water right data management system and proposes to continue to improve the way the state collects and manages its water rights data and information through its Updating Water Rights Data for California (UPWARD) project. Enhanced water rights data and technologies are integral to strengthening and supporting the existing water rights system in California.

## Summary and Conclusions

Although water users may struggle with the time and financial burden of various and sometimes overlapping requirements, these efforts will continue to protect their water rights and the ability to access water supplies. While complying with new legislation and regulations, water resource managers throughout the Sacramento Valley continue to manage precious water supplies to support the culture, economy, and environment of the region. Sacramento Valley water suppliers and users are continually implementing new practices and infrastructure to increase efficient water management at the field, city, district, and regional levels. The challenge in the Sacramento Valley will be to improve water management and both farming and municipal practices. This should be accomplished in a way that ensures efficiency at the local level, without compromising regional efficiency and the benefits and values the water use provides to the environment and other downstream water users. This report should help guide water users to comply with these various requirements as part of the ongoing efforts for regional sustainability in the Sacramento Valley, and to help ensure that water will be available to serve multiple benefits now and in the future.