



**STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD**

**INITIAL STATEMENT OF REASONS
FOR REGULATORY ACTION**

**DIVISION 3, CHAPTERS 2, 2.7, AND 2.8
Title 23, California Code of Regulations**

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Problem Statement

Regulatory Background

On June 24, 2015, Governor Edmund G. Brown, Jr. signed Senate Bill (SB) 88 (2015-2016 Reg. Sess.). This bill enacted sections 1840 and 1841 and amended sections 5103 and 5104 of the Water Code. The legislation authorized the State Water Resources Control Board (State Water Board or Board) to adopt rules, by emergency regulation, requiring diverters who divert more than 10 acre-feet per year to measure and report their diversions.

The State Water Board held meetings and workshops across the state to receive input from diverters on the key issues to be addressed in the regulation. The draft regulation was presented at a Board Workshop on December 17, 2015 to solicit feedback and comments on the regulation. On January 19, 2016, the regulation was presented to the Board for adoption and adopted by the Board, and on March 10, 2016, it was submitted to the Office of Administrative Law (OAL) for review. OAL approved the emergency regulation on March 21, 2016, and the regulation was codified as chapter 2.8 (sections 931 through 938) of title 23 of the California Code of Regulations.¹

Drought Issues and the Need for Measurement Data

California's recent extended droughts have highlighted the need for timely and accurate information on how much water is diverted in different watersheds and subwatersheds throughout the state. Even in times of non-drought, rain and snowfall patterns vary widely statewide; some regions may have an adequate or even surplus water supply while others may face severe water shortages.

During the 2012 to 2016 drought, it became apparent that the historical standard of reporting monthly diversion volumes at the end of the year did not provide sufficiently timely or accurate data for efficiently managing water resources in times of drought. Under drought emergency regulations, the State Water Board called upon diverters to provide estimates of anticipated surface water diversions each month and then submit revised values of what they actually diverted.

As droughts become more common and the effects of climate change become more severe, high quality, accurate data that are collected and reported at a finer resolution is becoming increasingly important for managing water resources. The Board relies on diversion data for forecasting and planning for limited water supplies, administering the water rights system and protecting senior water rights holders, and facilitating collaborative solutions among the Board and local water managers.

SB 88 and the resulting regulation sought to address this need for reliable diversion data by requiring diverters to accurately and frequently measure their diversions. Regulatory changes are needed to successfully implement the original goals of the statute and accompanying regulations.

¹ Unless otherwise specified, all regulation references are to title 23, division 3 of the California Code of Regulations.

Summary of Existing Regulations and Need for Revision

Measuring and Reporting: Chapter 2.8

Under existing regulations, diverters with claimed water rights to divert more than 10 acre-feet per year are required to measure their diversions. This includes combinations of claimed water rights that share a point of diversion, reservoir or pond, or place of use if the total volume that can be diverted under such a combination of claimed water rights is greater than 10 acre-feet per year. This threshold impacts approximately 12,000 claimed water rights (including permits, licenses, registrations, and riparian and pre-1914 appropriative claims), held or claimed by approximately 7,000 individual diverters.

Diverters subject to the regulations are required to measure the volume and rate of water directly diverted, diverted to or collected to storage, and withdrawn or released from storage. The frequency and accuracy at which diverters need to collect measurements are tiered such that larger diversions must be measured more frequently and with methods capable of greater accuracy. For direct diversions, frequency and accuracy requirements are based on the volume of water allowed to be diverted under each claimed water right or combination of rights that share a point of diversion or place of use, while requirements for diversions to storage are based on the capacity of the reservoir or pond. Under the existing regulations, diverters can measure their diversions using any measuring device or measurement method capable of measuring their diversions at the required frequency and accuracy. Diverters must then compile their measurements into a datafile that they submit with their annual reports for each of their claimed water rights. The largest diverters—those who divert more than 10,000 acre-feet per year or more than 30 cubic feet per second at any time between June and September when flows are generally lowest—have an additional requirement to upload their data to a public website weekly.

Diverters who are unable to fully meet all requirements may file an alternative compliance plan detailing how they intend to meet as many requirements as possible and explaining why they cannot meet all requirements. The alternative compliance pathway is intended to provide additional flexibility in the requirements with the understanding that the requirements may not be feasible for all diversion scenarios, but that any available measurement data are still important for managing and accounting for water resources.

These requirements have been in effect since 2016. Under the existing regulations, approximately 12,000 water rights claims are subject to the requirement that diversions be measured and a datafile with measurement data be submitted to the Board at the end of each year.

However, even though the regulations have been in effect for nearly nine years, fewer than 25 percent of the water rights subject to the existing requirements have a datafile submitted in any given year. Of those, fewer than 7 percent have datafiles submitted that both include parameters for date, time, and volume—three of the main required pieces of measurement data—and have column headings that are in the first row of the datafile—a characteristic that is essential for machine readability and systematic review of data submissions. That means that of the 12,000 water right claims for which a datafile is required to be submitted, only 185—or 1.5 percent—provide data that can be easily used for mass analysis. This does not even consider

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whether the measurements were collected at the required frequency or accuracy, so true compliance may actually be below 1 percent.

Because of the poor availability of high quality, comprehensive diversion data that can be used in mass systematic analyses, the Board had to rely on informational orders during the 2020 to 2022 drought to collect high-resolution diversion data from diverters (State Water Board, 2021). Since then, staff with the Board's Division of Water Rights (Division) have conducted extensive outreach and issued clarifying guidance to address the low data submission rates and the overall poor usability of submitted data, and to better understand the issues diverters face in their efforts to comply. As part of this effort, staff scheduled one-on-one meetings with several large diverters, including state and federal agencies, water agencies, and utility companies, as well as with water rights consultants. During each of these meetings, diverters had the opportunity to explain how they were interpreting the requirements and their various challenges in complying with them. Since every water right and every diversion scenario is unique, the purpose of these meetings was to meet with the diverters who have some of the largest impacts in terms of diversion volumes and who have some of the most complicated water rights accounting issues.

Following these meetings, the Division held public listening sessions, both in person and virtually, to solicit feedback from a wider audience and better understand the challenges that the broader community, including smaller diverters, are facing in their compliance efforts. Based on the feedback and concerns that were raised during these listening sessions, the Division issued guidance and compliance assistance tools to clarify the existing reporting requirements. The guidance and tools included:

- Making substantial changes to the Division's webpage for the reporting requirements to improve the structure and language of the information,
- Creating optional datafile templates with accompanying documentation and video tutorials on how to use them,
- Writing a detailed manual guiding diverters through each reporting provision and translating it into plainer language,
- Creating a Frequently Asked Questions page with answers to common questions,
- Producing tracking tools for diverters to search whether they've submitted a datafile in accordance with the requirements, and
- Updating forms to improve clarity.

After publishing this guidance and taking the other identified actions, the Division hosted a workshop to explain and demonstrate the newly available tools. This workshop was accompanied by a series of one-on-one meeting opportunities that diverters could sign up for to discuss their individual diversions and measurement scenarios. Staff also presented at the World Ag Expo in Tulare, California to answer questions and provide guidance to diverters within the agricultural community.

Despite years of outreach and compliance assistance efforts, rates of datafile submission did not substantially improve, remaining below 25 percent for water year 2023, with only 47 water rights reflected in data submitted using the templates the Division provided, accounting for only 71 of the 4,356 datafiles received. For water year 2023 alone, the State Water Board received

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datafiles in more than 1,400 unique formats, meaning that even after significant investment of staff time and resources spent on outreach, the data still lacked the standardization necessary for any efficient, systematic, or comprehensive analysis of water availability and use.

Meanwhile, the State Water Board has launched a new project called Updating Water Rights Data for California (UPWARD) to improve the way the State collects and manages its water rights data and information. The State's current water rights data system is outdated and lacks features that would make water rights reporting simpler and public access to information easier. UPWARD is intended to create a 21st century, modern platform that is crucial for California's long-term water resilience in the face of ongoing climate change. As part of its UPWARD data modernization project, the State Water Board began developing a new water rights reporting platform in 2023 called the California Water Accounting, Tracking, and Reporting System (CalWATRS). The platform will make the data reporting process more user-friendly and will allow the Board to more effectively administer the water rights system. This includes standardizing how data are formatted and submitted and improving the management of water rights measurement data, thereby enabling staff to better review and analyze water demand. CalWATRS is expected to become available to diverters in late 2025, and the first reporting deadline under this new system is expected to be in February 2026.

The value of a modernized water rights reporting system depends on the ability of users to understand and correctly use it. If there are data gaps caused by user confusion and missed reporting deadlines, the State Water Board will not be well-positioned to effectively respond to water shortages. The transition to CalWATRS as a reporting platform necessitates changes to the existing regulations to ensure that requirements align with how the new system works. Outreach has been unsuccessful at improving compliance, and enforcement is difficult without standardized requirements for reported data.

For these reasons, the Board is proposing to revise the existing regulations to better align with the upcoming CalWATRS water rights online reporting platform, to make the language clearer, to further reduce any barriers to compliance, and to improve the quality and usability of data submitted.

On November 13, 2024, the Board held an informal staff workshop to receive public input and questions about potential changes to the regulations. The associated written public comment period ran from November 4 until December 2, 2024. In response to public comments received during the workshop and comment period, the Board updated the proposed regulation text to make definitions and requirements more consistent throughout the regulation, alleviate reporting requirements for small storage water rights, simplify measurement and reporting requirements, and clarify how reports of measurement methodology and alternative compliance plans will be submitted.

Other Minor Changes: Chapters 2 and 2.7

Minor editorial changes to various code sections in chapters 2 and 2.7 will ensure consistent references to the electronic submittal of information to the online reporting platform, rather than referencing forms available on the Board's website.

In addition, existing regulations contained in chapter 2.7 do not require water rights holders to submit an email address to the Board, except as part of specific actions like reporting a change of ownership of a water right. The lack of a requirement for a means by which the Board can

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efficiently and reliably communicate with water right holders and claimants hampers the Board's efforts to modernize data collection and reporting processes, especially since most modern data collection platforms and websites use email addresses for secure authentication.

Separately, State Water Board regulations currently require annual notices of groundwater extraction and diversion to include the amount of groundwater extracted during the calendar year. However, Water Code section 5001 has been amended to require that annual notices report the amount of groundwater extracted during the water year. These conflicting requirements cause confusion to reporters and impact the ability of the State Water Board to efficiently administer the water rights system.

Anticipated Benefits

Measuring and Reporting: Chapter 2.8

California's water rights data include information on water use, demand, and when and how water is diverted from streams and rivers. This type of information is critical for data-driven water management decisions, particularly when hydrology and droughts affect supply. The requirements for improved measurement and reporting of water rights in SB 88 and the existing regulations were an important step toward improving water rights administration and transparency of diversion records. The proposed improvements to the existing regulations will strengthen the ability to meet the underlying purpose of the statute, further improving water rights administration and increasing the quality and transparency of diversion data. Proposed revisions to the regulations are anticipated to create specific benefits regarding clarity, data quality, and alignment with the Board's anticipated online reporting system. The transition to modern water rights reporting and data management systems will benefit the health and welfare of California residents by improving the quality and usability of measurement data. This will improve the state's environment by providing more precise and timely information about water diversions. The proposed regulation is not expected to affect worker safety. In addition, the proposed regulation will make the measurement and reporting requirements simpler and more efficient for staff and diverters alike.

The proposed regulation is anticipated to provide the following benefits:

- Clarify Diverter Requirements: The proposed revisions are being made to better translate the existing regulations into plain language. Improvements to the clarity, simplicity, and organization of the text will make it easier for diverters to understand and follow the measurement requirements.
- Improve Measurement Data Quality and Usability: By standardizing the datafile format and requiring that datafiles be submitted to the Board's online reporting platform, the Board expects data quality and usability to increase. Improved data quality will increase the Board's efficiency in compiling and reviewing the measurement data.
- Align with Modernized Water Rights Reporting System: The proposed revisions will align water rights measurement data with the Board's modernized water rights system, CalWATRS, by standardizing the formatting of data submissions and clarifying that measurement data must be submitted to the Board's online reporting platform.

Other Minor Changes: Chapters 2 and 2.7

By mandating the submission of email addresses, the Board will improve electronic reporting systems and cyber security, and provide timely updates, notifications, and compliance reminders to water rights holders and staff through modern online reporting platforms.

Aligning groundwater extraction and diversion reporting requirements with the water year will align regulatory reporting requirements with the reporting period specified in statute.

Purpose and Necessity of Proposed Changes

Measuring and Reporting: Chapter 2.8

The text of the proposed regulation looks significantly different from the existing regulations in sections 931 through 938, though the actual changes are much less substantial. Sections have been split, combined, renamed, and moved. The Board recognizes that the existing regulations are complex and can be confusing, so the draft revised text uses plain language where possible. Additionally, the proposed revision attempts to restructure the regulations to have a more logical flow that more clearly describes the requirements. As a result, many of the proposed changes will ultimately not have a regulatory effect. In addition, the Board has tried to simplify the requirements where possible, relax some of the measurement frequency and accuracy requirements, and remove some of the previously required components of a measurement methodology or alternative compliance plan. The Board has also proposed exception criteria, allowing flexibility and relief from requirements in certain circumstances.

The more substantive changes include specifying the datafile format and submission. Under the existing regulations, there is no specified format for how datafiles containing measured diversion data must be submitted. Without a standardized datafile format with consistent column headers, data cannot be systematically analyzed and instead must be individually reviewed. The proposed regulation requires a standardized datafile format. This will ensure the submitted data can be more effectively and efficiently used for its intended purposes and enable the Board to better manage California's surface water resources. This change would also provide consistent and clear direction to diverters, who often indicate they are unsure how to comply with the current regulations. While more prescriptive, the proposed changes should ultimately result in more efficient, cost-effective, and easier data submittals.

The proposed regulation clarifies requirements for points of rediversion. The existing regulations do not make any explicit distinction between points of initial diversion and points of rediversion of previously diverted or previously stored water. As a result, some diverters are measuring and reporting their rediversions, while others are not. The proposed regulation clarifies that rediversions must be clearly labeled to prevent double counting and also includes a provision allowing the Deputy Director of the Division (Deputy Director) to require diverters to measure their rediversions (if not already doing so) if the data are necessary to better understand water availability.

In addition, the proposed regulation requires identification of the measurement location. The existing regulations do not explicitly require diverters to identify the location of their measuring device. This information is necessary to determine where measured diversions occur, especially

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for diverters who have multiple points of diversion. The proposed regulation requires each measuring device to be linked to a physical location, to the extent possible.

The proposed regulation updates telemetry requirements and renames these as “large diversion requirements” to distinguish and disambiguate these requirements from true telemetry. The existing regulations make complex distinctions regarding which diverters are subject to telemetry requirements and what their reporting requirements are. The proposed regulation removes the streamflow percentage-based applicability criteria and the “June through September” qualifier for diverters with water rights to divert more than 30 cubic feet per second (cfs). Instead, water rights authorizing diversion of 30 cfs at any time of the year are subject to the large diversion requirements under the proposed regulation. This change will affect fewer than 200 additional water rights, totaling about 0.3 percent of all water rights in California. Additionally, the revision proposes to relax large diversion requirements so that provisional data can be more easily submitted.

Finally, the proposed revisions would allow the State Water Board to adjust thresholds for measurement frequency and large diversion requirements after reviewing key information related to costs and need. Under the existing regulations, the Deputy Director can adjust telemetry thresholds but only through a complicated process of setting a streamflow percentage for which diverters are subject to the requirements. The proposed regulation instead allows the Deputy Director to directly adjust the volumetric or flow thresholds if needed to remove confusion about which diverters are subject to the large diversion requirements.

The proposed regulation will affect existing sections in chapter 2.8, specifically sections 931 through 938. The proposed regulation adds section 939 and renames chapter 2.8 to be “Measuring and Reporting” to better reflect the requirements of the chapter. The sections and subdivisions below describe all proposed changes to the existing regulations.

Section 931: Definitions

The purpose of the Definitions section is to provide clarification of the terms used throughout chapter 2.8. Of the 22 terms included in this section, 13 are new additions and 9 are existing definitions that are proposed to be revised, as described below. The definition of “accuracy” in the existing regulations contained substantive regulatory content. For clarity, this has been moved from the Definitions section to the Measuring and Accounting section of the proposed regulation. Further explanation of this change is included in the discussion of section 933. Five definitions: “diverter with multiple claimed rights,” “executive director,” “measurement method,” “place of use,” and “type of measuring device” were removed from the chapter because they were either not used at all in the chapter or they were not used in a way that varies from the commonly understood meaning.

931(a) The addition of the term “annual report” is necessary to describe the variety of documents that diverters submit to the Board each year. Datafiles submitted pursuant to chapter 2.8 are submitted in conjunction with an annual report.

931(b) This subdivision remains unchanged in the proposed regulation except for a corrected typo.

931(c) The addition of the term “claimed water right” is necessary because it encompasses all bases for water diversion by which a diverter may be subject to chapter 2.8. The definition

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removes confusing distinctions between claims, permits, licenses, and registrations, and creates a general term that can be used for the purposes of this regulation to collectively describe all of these.

931(d) The addition of the term “data standard” is necessary because it clarifies that measurement data must be standardized in a specified file type and format and must be transmitted in a particular way for the Board to systematically process the data it receives.

931(e) The modification of the term “Delta” to describe the Sacramento-San Joaquin Delta is necessary to be consistent with section 12220 of the Water Code.

931(f) To improve efficiency, the term “deputy director” has been modified to specifically express the Deputy Director’s ability to delegate authority as needed.

931(g) To maintain alphabetical order, this term is being moved from subdivision (e) of the existing regulations to subdivision (g) of the proposed regulation. The definition has been modified for clarity and conciseness. This modification is a non-substantive change.

931(h) The addition of the term “division” is necessary to concisely refer to the Division of Water Rights.

931(i) The addition of the term “identification number” is necessary to clarify how diverters must identify each claimed water right. In the existing regulations, the term is used without definition, which has resulted in some confusion about how diverters identify each of their claimed water rights.

931(j) The addition of the term “maximum allowable diversion amount” is necessary to concisely describe the various ways in which the authorized diversion amount (for permitted, licensed, and registered water rights) or historical or anticipated diversion amount (for pre-1914 and riparian claims) is referenced throughout the regulation. In the existing regulations, the definition is restated in multiple provisions throughout the text. For simplicity and clarity, the proposed revision states the definition once and then uses the new term in all other provisions.

931(k) The addition of the term “measurement methodology” is necessary to describe the equipment and procedures used to collect and convert data to account for the parameters required in the proposed regulation for each claimed water right.

931(l) The addition of the term “measuring” is necessary to indicate that measuring devices do not need to directly measure each required parameter. Any means of accounting for, calculating, determining, and subsequently recording the measured value is considered to be a means of measuring.

931(m) The modification of the term “measuring device” is necessary to remove the distinction between “measuring devices” (as defined in the existing regulations) and “measurement methods” (which are proposed to be removed from the existing regulations). The distinction in terminology has led to confusion and ambiguity over which equipment for collecting measurement data was considered a device versus a method. The proposed revision addresses this confusion by removing the distinction and redefining the term “measuring device” to include any means of measuring, including what previously would have been considered a measurement method.

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931(n) The addition of the term “online reporting platform” is necessary to describe the platform through which diverters will submit datafiles, reports of measurement methodology, alternative compliance plans, and other required submissions under the proposed regulation.

931(o) The modification of the term “point of diversion” is necessary because it clarifies that it includes points of redirection of previously diverted or previously stored water as well as points of direct diversion and diversion to storage.

931(p) The addition of the term “provisional data” is necessary because there are circumstances when diverters may be unable to finalize their measurement data to meet the accuracy requirements of the chapter within the specified timeframe. The ability to submit provisional data in such circumstances addresses this issue, while making it clear that submitted provisional data are not considered final.

931(q) The eligibility criteria for qualified individuals have been adjusted to include Board-certified Water Treatment Operators and Water Distribution Operators, hydrographers, water measurement technicians, and diverters who have completed an instructional course described in section 1841.5 of the Water Code. This expansion of eligibility recognizes that other professionals, in addition to those included in the existing regulations, are equipped with the skills and expertise needed to install and maintain measuring devices, implement measurement methodologies, and ensure accuracy. The expansion also aligns the definition with section 1841.5 of the Water Code, which allows diverters to complete a course on water measurement through the University of California Cooperative Extension as a means of becoming a qualified individual.

Under the existing regulations, the threshold of 100 acre-feet per year determines the criteria for who can be a qualified individual and corresponds to claimed water rights for direct diversion that must be measured daily. For consistency with other thresholds in the proposed regulation, the threshold for qualified individual eligibility has been adjusted to 200 acre-feet per year.

931(r) The addition of the term “quality assurance protocol” is necessary to indicate to diverters that raw data output by measuring devices may include errors that must be accounted for and corrected before the data are compiled into a datafile and submitted.

931(s) The addition of the term “rate” or “flow rate” is necessary to standardize the parameters of data that must be submitted and to differentiate volumetric flow rates from other possible rate measurements.

931(t) The addition of the term “raw measurement data” is necessary to indicate to diverters that the unaltered data output by measuring devices may include errors that must be accounted for and corrected using quality assurance protocols before the data are compiled into a datafile and submitted.

931(u) Use of the term “threatened, endangered, or fully protected aquatic species” instead of “threatened, endangered, or fully protected fish” is necessary because it expands consideration of species that may be at risk of harm due to diversion of water to include other aquatic species beyond fish.

931(v) The modification of the term “twelve month reporting period” is necessary to improve clarity.

Section 931.5: Authority of the Delta Watermaster

The purpose of section 931.5 is to identify and distinguish the roles of the Delta Watermaster in comparison to the roles of the Deputy Director and the Division. This section was modified to improve clarity and to be more consistent with the authorities described elsewhere in the regulation.

Section 932: Applicability

The purpose of section 932 is to specify who is subject to the requirements of chapter 2.8 as well as which diverters must also adhere to specific additional requirements described in the chapter.

932(a) Changes made to subdivision (a) of this section include describing applicability in relation to terms described in the Definitions section and using plain language to clearly and concisely describe applicability criteria. Whereas the existing regulations separately define applicability in terms of permits, licenses, registrations, and diverters who are required to file a Statement of Water Diversions and Use, the proposed regulatory text uses the definitions of “claimed water right” and “maximum allowable diversion amount” to more concisely state eligibility criteria.

Additionally, the proposed regulation exempts stockpond certificates, and registrations for small domestic use, livestock stockponds, and cannabis cultivation from all requirements. These certifications and registrations authorize diversions up to a maximum of 10 acre-feet per year. Under the existing regulations, these certifications and registrations are only subject to measurement requirements if they share a point of diversion or place of use with another claimed water right, and the sum of the authorized diversions at that point of diversion or serving that place of use is greater than 10 acre-feet per year. This scenario is uncommon and has led to confusion about who is subject to the regulation. For simplicity, clarity, and to alleviate requirements for small diversions, the proposed regulation explicitly excludes stockpond certificates and registrations for small domestic use, livestock stockponds, and cannabis cultivation from the requirements of the regulation. Registrations for small irrigation use are allowed to have maximum allowable diversion amounts greater than 10 acre-feet, and therefore they remain subject to the regulation. However, applicability for these registrations is based only on maximum allowable diversion amount in the proposed regulatory text, and no longer includes applicability based on the capacity of the storage facility. This change is necessary for consistency with the applicability criteria for other types of claimed water rights, none of which include criteria based on storage capacity.

932(b) Changes made to subdivision (b) of this section include moving the telemetry applicability criteria from section 933, subdivision (b)(4)(A) of the existing regulations to section 932, subdivision (b). In the existing regulations, the term “telemetry” was incorrectly used to describe frequent data reporting (whereas the true definition describes remote transmission of data), which caused confusion regarding what diverters were required to do. To address this confusion, the misleading term “telemetry requirements” has been replaced with “large diversion requirements” to indicate that they only apply to large diversions. As with subdivision (a) of this section, this subdivision has been revised to use terms defined in the Definitions section and use plain language to clearly and concisely describe applicability criteria. These changes are necessary to improve clarity within the regulation.

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Another change to this subdivision is the removal of large diversion applicability criteria based on historic calculated mean monthly streamflow (existing section 933, subdivision (b)(4)(A)(iv)). This change will improve clarity and make it easier to determine who is subject to large diversion requirements. The removed provision (existing section 933, subdivision (b)(4)(C)) specified that it would only take effect upon a date to be determined by the Deputy Director, but such a date was never set and therefore the provision never became effective.

An additional change to this subdivision is the expansion of the 30 cubic feet per second criterion to apply to diversions occurring at any time instead of just those occurring from June 1 through September 30 (existing section 933, subdivision (b)(4)(A)(iii)). When the existing regulations were adopted, one stated purpose of the telemetry provisions was fishery protection. However, the spawning, egg, and larval stages of many native aquatic species occur outside of the June through September timeframe, and therefore this change is necessary to address concerns regarding availability of sufficient water to support populations of aquatic species (State Water Board, 2018). This change would also help eliminate confusion regarding the timing of diversions by removing the “June through September” qualifier, since claimed water rights to divert 30 cfs at any time of the year would be subject to the large diversion requirements in the draft revised regulation. The change is expected to impact fewer than 200 claimed water rights, or 0.3 percent of all claimed water rights in California. Because these claimed water rights will be subject to the large diversion requirements for the first time, subdivision (b)(2) was added to provide additional time for these diverters to come into compliance. Instead of requiring these diverters to adhere to large diversion requirements immediately upon the proposed regulation becoming effective, they have until June of 2026 to begin meeting these requirements.

The proposed regulation removes the large diversion applicability criterion based on the size of reservoirs. The intent of the large diversion requirements is to provide the Board with near real-time information about diversions, and therefore applicability criteria should be based on authorized diversions, not storage capacity. Additionally, this change adds consistency with the general applicability criteria, which are based on maximum allowable diversion amounts and not on storage capacity.

Lastly, during the Division’s outreach, many diverters expressed concern regarding large diversion requirements as they relate to claimed water rights with multiple points of diversion. In some cases, a majority of the diversion may occur at a single point of diversion, and other points of diversion may divert a relatively insignificant amount of water. To address this concern, subdivision (b)(3) was added to indicate to diverters that such scenarios are eligible for alternative compliance where smaller diversions may be excluded from the large diversion requirements.

932(c) Subdivision (c) is being added to section 932 to identify who is subject to measurement requirements as they relate to withdrawals and releases from reservoirs. Under the existing regulations, all diverters who are subject to chapter 2.8 and who divert to storage are required to measure their withdrawals and releases from storage. For any reservoirs that are operated in a cyclical manner, diverters are required to also measure the elevation and volume of impounded water. During the Division’s outreach, many diverters who operate small ponds and reservoirs expressed concern that complying with these requirements is infeasible or cost prohibitive, and unlikely to result in meaningful or useful data that would allow the Board to make decisions. The Board generally agrees that most ponds and small reservoirs do not need to be required to

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measure withdrawals or the volume of impounded water. However, withdrawals and releases from larger reservoirs, especially those where water is released back to a stream, can provide important information about water availability and demand. The threshold of 5,000 acre-feet was selected because it encompasses approximately 97 percent of California's total reservoir capacity while excluding small ponds and reservoirs from additional measurement requirements. By defining the applicability for qualifying reservoirs in this subdivision, measuring and reporting requirements described throughout the regulation can be clearly and concisely referenced.

Removed Subdivisions: Existing section 932, subdivision (c) describes effective dates by which diverters must have installed measuring devices or implemented a measurement method. Because the latest of these dates was January 1, 2018, this subdivision is no longer necessary. All requirements of the proposed revised regulation will become effective concurrently with the effective date of the regulation, except for a subset of diverters with large diversions, the effective date for whom is described in subdivision (b)(2) of this section.

Section 933: Measuring and Accounting

The purpose of section 933 is to clearly define what each diverter needs to measure. Unlike annual reporting requirements (described in chapter 2.7), which require diverters to provide monthly totals of the volume of water diverted, section 933 of the proposed regulation specifies that diverters must measure both the rate and volume of water directly diverted, diverted to storage, and withdrawn or released from storage. It also requires that the data meet accuracy standards needed by the Board to ensure the data are useable for mass analysis. Additionally, for larger diverters, the data must be collected at a higher frequency than the monthly frequency required for annual reporting. Since larger diverters have greater impact on water availability, they are held to higher measurement standards.

In the existing regulations, requirements of what to measure and how to measure were separated based on whether a measuring device or measurement method was used. Under the proposed regulation, section 933 describes the requirements for what to measure, regardless of the equipment used. The proposed text of section 933 combines and simplifies the requirements of existing sections 933 and 934.

933(a) Under the existing regulations, diverters need to maintain a device capable of recording either the total volume of water diverted, flow rate, water velocity or water elevation. However, the authorizing statute (section 1840 of the Water Code) states that devices must be capable of monitoring *both* the rate and volume of water diverted. It also requires that devices and methods be able to account for direct diversion, collection to storage, and withdrawal or release from storage. The changes included in the proposed regulation clearly define which parameters diverters must measure and are necessary to better align the requirements of the regulation with those of the authorizing statute.

Additionally, the proposed changes to subdivision (a) are necessary to standardize the data submitted to the Board. The existing regulations do not specify a definitive list of parameters that must be measured and, as a result, the submitted data cannot be easily compared between different claimed water rights or used for systematic, large scale analyses of water diversions across the state. The existing regulations also inconsistently describe measurement parameters in different sections, with various sections saying: only the volume of water diverted needs to be

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measured, or diverters must measure the maximum and minimum elevations and volume of stored water, or diverters must measure the diverted water volume, flow rate, velocity, and elevation, or diverters only need to measure one of these parameters. This has led to confusion among diverters, despite guidance and workshops from the Division, and as a result, diverters are measuring and reporting inconsistent parameters. By specifying required measurement parameters, the proposed regulation will remove ambiguity regarding what diverters are required to measure and will improve the quality and usability of the data submitted to the Board.

933(b) Under the existing regulations, diverters who are subject to the large diversion requirements (formerly called “telemetry requirements”) are required to measure and report the same parameters as are required for all diverters, the difference being that diverters with large diversions must report data more than once per year. However, in many cases, this is not practical or even possible. Based on sections 657 and 658, for licensing purposes, whether a diversion is considered a diversion to storage or regulation of water cannot be determined until 30 days after the initial diversion. Since diverters with large diversions are required to report measurement data on a weekly basis, it is infeasible to parse direct diversions from diversions to storage. Therefore, in the proposed regulation, it is necessary to adjust the requirements for large diversions to be more feasible while still providing useful data to the Board. For the purpose of weekly data reporting, diverters do not need to distinguish between direct diversions, diversions to storage, and rediversions.

The requirement to measure the total volume of water in the reservoir was previously described in section 933, subdivision (b)(2)(B) and it applied to all cyclically operated reservoirs. In general, maximum and minimum storage volumes do not provide the Board with much meaningful data, except for large reservoirs (i.e., those meeting the “qualifying reservoir” applicability described in section 932, subdivision (c)) that are subject to large diversion requirements. For these reservoirs, a record of the volume in the reservoir, together with the volume and rate of water withdrawn or released, helps complete the mass balance of water accounting that provides further insight into water availability and demand.

933(c) Subdivision (c) allows the Deputy Director to require diverters to measure rediversions of previously diverted or previously stored water, which may be necessary for more comprehensive water accounting. The existing regulations refer to and require measurement of “points of diversion” without explicitly stating what this includes. Rediversions are often measured at a point of diversion, but the lack of explicit use of the term “rediversion” has led to inconsistency in how diverters report (or do not report) rediversions of previously diverted or previously stored water. Although many diverters measure their rediversions, other diverters do not. Including this subdivision is necessary to indicate that those diverters who currently measure their rediversions should continue to do so, and for those who are not currently measuring rediversions, the Deputy Director may require them to measure if that data are necessary to understanding water supply, demand, or availability.

933(d) Subdivision (d) is necessary to ensure that volume measurements are reported consistently. Whether diverters report incremental volumes of water diverted in each measurement interval or the cumulative total volume of water diverted can drastically affect how the data are interpreted. For consistency between datafiles, all volume data are required to reflect the discrete, incremental volume diverted or withdrawn or released in a measurement time interval, unless otherwise specified.

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933(e) This provision is based on existing section 933, subdivision (a). Currently, a diverter can measure their diversions using any device or combination of devices. In the proposed regulation, diverters are still able to use any device or combination of devices, but they will also need an accompanying methodology to account for the required parameters. This change is necessary because most devices do not automatically output both volume and rate of diversion or parse data per claimed water right, and so diverters by necessity must apply a methodology to convert the raw device output into data that meet the requirements of proposed section 935.

933(f) Under the existing regulations, diverters are encouraged to collaborate to collectively measure their diversions through a measurement method, as described in existing section 934, subdivision (a). Any data collected through such group measurement must be able to be apportioned to each claimed water right. In the proposed regulation, this concept of group measurement is extended to apply to all means of data collection, not just measurement through what was previously considered as a measurement method. The proposed regulation removes references to “measurement methods,” but does not alter the substantive meaning or requirements of the provision. This change is necessary because the concept of a “measurement method” has been removed in the proposed revision, in favor of an expanded definition of “measuring device” and the addition of the concept of a “measurement methodology.”

933(g) Under the existing regulations, section 933, subdivision (i) specifies that measuring devices must be located such that no water is delivered or used before being measured. This means that measuring devices are, in most cases, required to be located at each point of diversion. This understanding is further reinforced in section 934, subdivision (a), which states that a measurement method must be used if there is not a measuring device at each point of diversion. However, investigations have revealed that some diverters measure a significant distance from their point of diversion. Even if water is not used or delivered before being measured, water is lost to evaporation and percolation, and therefore the measured value is not representative of the actual diversion. The proposed regulation requires measuring devices to be located such that no water is delivered, used, or lost in significant amounts due to percolation and evaporation. This is necessary to address the existing issue, while still allowing flexibility for measurements to occur other than at the exact point of diversion, if measuring at the point of diversion is not feasible. The updated language also clarifies that because some diverters must measure withdrawals and releases from qualifying reservoirs, these measurement locations are subject to the same consideration as diversion measurements. The decision to describe acceptable measurement locations in terms of “significant” losses reflects the fact that each diversion is unique, so specifying an acceptable distance would not be appropriate, and specifying an acceptable amount of water loss could cause confusion regarding how those losses are measured and how accurate those measurements would be. The proposed language puts the onus on the diverter to ensure that water losses are not significant enough to affect the accuracy of the measurement.

933(h) The measurement frequency determines how often diverters must measure their diversions. Under the existing regulations, measurement frequency requirements are tiered such that larger diversions must be measured more frequently than smaller diversions. The frequency tiers are also based on the type of diversion, with diversions to storage having different thresholds than direct diversions. This differentiation based on type of diversion has led

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to confusion among diverters with claimed water rights to both directly divert and divert to storage.

Rather than having different threshold values for direct diversions and diversions to storage, the threshold tiers determining monthly, weekly, daily, and hourly measurement requirements in the proposed regulation are the same regardless of the type of diversion. Tiers were set to align with the existing values for diversions to storage which generally require slightly less frequent measurement than those for direct diversion. The intent of this update is to improve clarity and simplify the regulation text, and to alleviate requirements where possible. Therefore the less frequent measurement requirements were selected for the proposed regulation.

Additionally, the proposed revision clarifies that frequency requirements for diversions to storage (which are based on storage capacity) only include diversions to reservoirs, i.e., not underground storage, which would otherwise trigger the highest requirements since aquifers are generally much larger than 1,000 acre-feet, and it specifies that reservoirs with capacities of 10 acre-feet or less do not need to be measured. The proposed revision also clarifies requirements for claimed water rights that authorize both direct diversion and diversion to storage as well as for multiple claimed water rights that share a point of diversion or divert to the same reservoir: if any claimed water right authorizes diversion other than diversion to storage in a reservoir, then thresholds are based on the maximum allowable diversion amount, otherwise they are based on storage capacity. As in the existing regulation, if there are any conflicting requirements when determining measurement frequency, the more stringent requirement controls.

Lastly, the existing regulations state that frequency tiers are also based on a shared place of use between multiple claimed water rights, in addition to a shared point of diversion and shared reservoir. The location where water is beneficially used has significantly less impact on other claimed water rights compared to where water is diverted or stored. Therefore, this criterion was unnecessary and was removed in the proposed update.

933(i) Under the existing regulations, the formula for calculating accuracy is defined in the Definitions section, accuracy requirements are listed in section 933, subdivision (d), and diverter responsibilities for notifying the Board and taking corrective action if accuracy requirements are not met are described in section 933, subdivision (l). In the proposed regulation, the accuracy formula, requirements, and diverter responsibilities are consolidated for clarity in section 933, subdivision (i).

Other changes to accuracy requirements are also intended to improve clarity. In the existing regulations, the formula for calculating accuracy was incorrect and instead calculated percent error. The proposed changes revise this formula to correct this issue and clarify that accuracy is based on the values reported to the Board, in case additional quality assurance protocols need to be applied to the raw device output. Also, in the existing regulations, measuring devices that were installed or replaced after January 1, 2016 have different accuracy requirements depending on whether they are used to measure diversions of water or storage of water in a reservoir or a pond. Those accuracy requirements further depend on the size of the claimed water right, whether the device was laboratory certified, and the storage capacity of the reservoir or pond. The proposed regulation removes the distinction between direct diversions and diversions to storage for purposes of measurement accuracy, and the accuracy requirements are instead tied to measurement frequency requirements. This change is

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necessary to clarify and simplify the accuracy requirements and remove any ambiguity for diverters who may both directly divert and divert to storage.

The existing regulations require diverters to notify the Board with plans to take corrective action if they do not meet the required accuracy standards, but do not specify the timeframe for such notification. The proposed regulation specifies that diverters must do so within 30 days of detecting that their measurement methodology failed to meet the required accuracy. This change is necessary to allow an appropriate amount of time for diverters to understand the problem, identify the corrective action that must occur, and contact the Board.

Section 934: Measurement Methodology

The purpose of section 934 is to define requirements regarding how diverters measure their diversions. For each claimed water right, diverters must submit a report of measurement methodology in which they explain how their methodology accurately measures and accounts for the volume and rate of water directly diverted, diverted to storage, and withdrawn or released from qualifying reservoirs. Diverters must also register each of their measuring devices with the Board to provide information about the specific equipment used to collect measurements. The purpose of the report of measurement methodology and device registration is to help the Board better understand how each diverter is measuring their diversions and to identify and require corrections to any deficiencies in a methodology.

As described in reference to section 933: Measuring and Accounting, the existing regulations separate requirements of what to measure and how to measure based on whether diverters measure their diversion using a measuring device or measurement method. Under the proposed regulation, section 934 is intended to describe the requirements of how to measure, regardless of the equipment used. Components of existing sections 933 and 934 pertaining to requirements of how diverters must measure were combined and condensed to create proposed section 934.

934(a) This provision explains that any submission under chapter 2.8 requires the diverter to submit the required documents directly to the Board's online reporting platform. By listing this explanation once at the beginning of section 934 of the proposed regulation, instead of repeatedly including it separately for each type of submission, this provision helps make the regulation clearer and more concise.

934(b) This subdivision requires diverters to submit a report of measurement methodology containing information about how they are measuring and accounting for their diversions as well as how they are preparing their datafile submissions. The content of the report of measurement methodology includes requirements from both the Measuring Device and Measurement Method sections of the existing regulations (sections 933 and 934, respectively). Although most of the report of measurement methodology contents are maintained from existing requirements for measuring devices and measurement methods, there are a few changes in the proposed regulation. Whereas the existing regulations require a qualified individual to prepare the measurement method, the proposed regulation only requires a qualified individual to certify that the methodology meets the requirements of chapter 2.8. This change is necessary to allow diverters the flexibility to propose their own measurement methodologies while still requiring a qualified individual to approve it as adequate and appropriate. The proposed regulation also requires diverters to provide contact information for the qualified individual who verified that the

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measurement methodology meets the accuracy requirements. This is currently a requirement for the report of water measuring device (existing section 937); for consistency with the structure of the proposed regulation, it has been moved to this subdivision.

The proposed regulation also requires diverters to describe where they are measuring. While diverters generally measure at each point of diversion, this provision is necessary for the Board to interpret measurement datafiles submitted under section 935 of the proposed regulation and to understand where, when, and how much water is being diverted. Additionally, the proposed regulation expands the existing requirements to describe any methods used to convert the raw output from measuring devices to the parameters that diverters are required to report in their datafiles to be more consistent with other requirements of the regulation and with the authorizing statute. Currently, the existing regulations require an explanation of how diverters convert flow rate, velocity, and elevation to volume (existing section 933, subdivision (c)), but since flow rate is also a required parameter and diverters are permitted to measure other parameters such as electricity consumption as a means of calculating volume and flow rate, the proposed regulation requires an explanation of how the diverter converted any measured parameter to both volume and flow rate.

Additionally, the proposed regulation clarifies the existing requirement for a “description of how the measurement method is implemented to meet the requirements of this chapter” (existing section 934, subdivision (b)(1)(C)). The proposed regulation identifies specific aspects of measurement methodologies that diverters must provide a description of, including how they aggregate hourly measurements to determine daily values and how they apportion or distinguish measurements by claimed water right and diversion type. This is necessary for understanding how diverters are accounting for their diversions and ensuring that datafile submissions do not double count water by reporting the same diversion data for multiple claimed water rights. However, the Board recognizes that it may not be possible for apportioned data to meet the accuracy requirements described in the chapter, so proposed subdivision (b)(3)(F) allows reasonable calculations and approximations for the purpose of apportioning, as long as the total measurement is accurate.

The existing regulations require diverters to provide maps showing the location of the lands and assessor’s parcel numbers for each diverter participating in the measurement methodology, as well as information about their claimed water rights, including priority dates, places and purposes of use, and maximum allowable diversion amounts. The proposed regulation removes these requirements, as the Board has access to this information through other submittals and therefore it is not necessary for diverters to provide it again.

934(c) The existing regulations require that all measuring devices be installed and measurement methods be implemented no later than January 1, 2018. That date having since passed, it is necessary to update that date in the proposed regulation to allow diverters sufficient time to explain and document their measurement methodologies after the proposed regulation becomes effective. Because the previous deadline for filing and implementing a measurement method passed nearly seven years ago, many diverters have already submitted a measurement method form containing much of the same information as is required in the proposed report of measurement methodology. Any required updates to existing measurement methods will generally be minimal and will reflect measuring and accounting practices that diverters are currently implementing. For diverters who are measuring their diversions using a measuring device at each point of diversion or otherwise not using a measurement method as

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defined under the existing regulations, the report of measurement methodology requires them to describe the practices they have already implemented but does not require them to add or implement additional measuring or accounting practices. Therefore, an updated filing deadline of January 31, 2026 is appropriate for allowing sufficient time for diverters to update or prepare reports of measurement methodology. For claimed water rights that are not yet reflected or recorded by an installed measuring device or submitted measurement method under the existing regulations, and for future claimed water rights, diverters have up to 180 days to submit their reports of measurement methodology.

934(d) To ensure the measurement methodologies on file with the Board reflect the current measuring and accounting practices of diverters, some diverters may need to update their reports of measurement methodology after their initial filing. The proposed regulation requires that if diverters implement changes to their methodologies, they must update their reports of measurement methodology before the January 31 submission deadline for annual reports. This will allow diverters enough time to incorporate changes while also ensuring that filed methodologies are sufficiently up to date.

934(e) In the existing regulations, section 937 requires diverters to submit a report of water measuring device as a way of registering each measuring device with the Board. Device registration is likewise required in the proposed regulation, though the requirements have been relocated to be part of the Measurement Methodology section for clarity and conciseness. Diverters are still required to submit information about each of their measuring and data recording devices, the qualified individual who installed and calibrated each device, and the claimed water rights associated with each device. However, the proposed regulation also requires diverters to provide the location of each measuring device. This is necessary because it allows the Board to match each measuring device to a point of diversion, thereby providing critical information about where, when, and how much water is being diverted under each claimed water right.

Unlike the existing regulations, the proposed regulation does not require specific information about the name of the diverter or the maintenance schedules or serial numbers for measuring and data recording devices. The name and contact information of the diverter are already required as part of the report of measurement methodology, and do not need to be included again. Maintenance schedules depend on site- and device-specific factors, and maintenance requirements will vary between devices, diverters, and points of diversion. Serial numbers are, by definition, unique to each device, and do not provide meaningful information about the type of device or its accuracy. Because information about maintenance schedules and serial numbers does not provide the Board with meaningful information about devices or diversions, they do not need to be submitted when registering a device.

Whereas the existing regulations require diverters to submit a new report of water measuring device within 30 days of installation, calibration, or request from the Board, and every five years thereafter, the proposed regulation changes this requirement to instead only require device registration within 30 days of installing a new device or at a request from the Board. Instead of re-submitting device registration information with every recalibration (which currently is required at least once every five years), the proposed regulation requires diverters to update the existing registry when the device is recalibrated or when the device is moved. This ensures that the Board has up-to-date information about the accuracy and location of measurements without needing diverters to fully re-register their devices.

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Other changes to the device registration requirements include removing the deadlines for submitting registration information and updating language for consistency. All existing deadlines for submitting a report of water measuring device have passed, and the device registration is now located within the Measurement Methodology section, which has its own submission dates, so it is not necessary to keep the existing dates. The existing regulations require information about “the person testing the performance of the device” (section 937, subdivision (b)(2)) and “the person who installed the measuring device” (section 937, subdivision (b)(11)). Because section 933, subdivision (g) of the existing regulations currently requires that installation and testing of measuring devices be performed or overseen by a qualified individual, to improve clarity, the proposed regulation rephrases these requirements to refer to the qualified individuals who installed and calibrated each device.

934(f) As in the existing regulations, the proposed regulation sets requirements for how measurement methodologies must be implemented but updates the regulation text to reflect the revised definitions of measuring devices and measurement methodologies. Similar to the existing requirement for measurement methods, the proposed regulation requires measurement methodologies to be timely implemented. Additionally, the current requirement that a qualified individual must install and calibrate any measuring devices is maintained in the proposed regulation.

Section 934, subdivision (f)(2) in the proposed regulation requires that new measuring devices and associated infrastructure be installed such that they do not harm the environment or public trust resources. In the existing regulations, this requirement is implied through the alternative compliance criterion in section 935, subdivision (a), which allows diverters to use an alternative compliance approach if true compliance would “unreasonably affect public trust uses.” To improve the clarity, and also ensure that any new measuring devices be installed in a manner that avoids environmental impacts, the proposed regulation explicitly requires new devices and infrastructure to be installed in locations and manners that do not unreasonably affect public trust resources or the environment.

934(g) The existing regulations require qualified individuals to recalibrate measuring devices at least every five years (section 933, subdivision (h)). For diverters using a measurement method, qualified individuals must perform field testing every five years to ensure the method meets accuracy standards (existing section 934, subdivision (g)). However, Water Code section 1840, subdivision (a)(1)(A) requires diverters to provide evidence every five years that each device is functioning properly. During the Division’s outreach efforts, diverters reported that the mandatory recalibration requirement is overly burdensome and, in some cases, goes against manufacturer recommendations or requires the dismantling of diversion infrastructure. The intent of the provision is to ensure that devices are functioning properly and are accurately measuring diversions, but the current language adds additional burdens on diverters. To better align requirements with the statute and allow flexibility in how diverters verify the accuracy of their devices, the proposed regulation changes the recalibration requirement to instead require that diverters submit evidence of proper functioning every five years that is certified by a qualified individual. Such evidence may include recalibration certification or field testing reports, but it could also include manufacturer guarantees of proper functioning or any other appropriate evidence. The proposed language meets the original intent of the existing requirements but allows flexibility in how diverters can meet the requirements.

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934(h) Under the existing regulations, the Deputy Director can review, request additional information for, require changes to, and reject measurement methods. For inadequate measurement methods, the existing regulations require diverters to instead install measuring devices at each point of diversion. For diversions measured with measuring devices, the Division can perform field inspections to verify if measuring devices are properly installed and meet accuracy requirements. These provisions ensure that all submitted and implemented measurement methodologies meet the requirements of chapter 2.8 and provide the Board with high quality measurement data. The proposed regulation uses the updated definitions of measuring devices and measurement methodologies, but otherwise maintains the same authority to inspect, review, request additional information for, require changes to, and reject measurement methodologies.

The existing regulations do not specify whether measurement methods must be approved before implementation, and instead only state that they can be rejected. Although this implies that measurement methods do not need to be approved prior to being implemented, the lack of an explicit statement to this effect led to confusion among diverters. It is therefore necessary to explicitly indicate that any measurement methodology submitted to the Board is automatically considered to be provisionally approved unless and until the diverter is notified in writing that it has been rejected.

934(i) Under the existing regulations, measurement methods are valid for a maximum of five years, after which they must be renewed, with or without amendment. The intent of the existing requirement is to ensure that measurement methods are sufficiently up to date and that diverters review whether the specified method is still appropriate. However, the Board recognizes that most measurement methodologies will remain unchanged with each five-year renewal, and the requirement to prepare and submit a report of measurement methodology every five years may not be necessary. Under the existing regulations, the expiration provision is overly burdensome in relation to its intent, and so the proposed regulation adjusts the requirement such that reports of measurement methodology do not expire but instead diverters will be required to update them as needed (as discussed in the proposed section 934, subdivision (d)).

Removed Subdivisions: Subdivisions (e) and (f) of existing section 933 and subdivision (f) of existing section 934 discuss requirements for certifying that a measuring device or measurement method is accurate, including through periodic field testing and inspection. These subdivisions have been removed in the proposed regulation because they are not necessary to the Board's understanding of diversions and diversion measurements. In the proposed regulation, section 933 already specifies accuracy requirements that diverters are required to meet, and section 934 already requires diverters to submit evidence of proper functioning. Requiring diverters to also periodically send confirmation of accuracy and inspection does not improve the Board's ability to understand datafile submissions and therefore can be removed.

Subdivision (c) of existing section 934 includes additional measurement requirements for diverters who measure collectively at a shared point of measurement, with paragraph (1) requiring an explanation of how diversion measurements are apportioned per claimed water right. In the proposed regulation, this requirement is incorporated into section 934, subdivision (b), removing the existing requirement that the diverter(s) explain how apportionments will be done "during periods of insufficient supply while preventing injury to any other legal user of water or to public trust resources" (existing section 934, subdivision (c)(1)). By removing this

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clause, the proposed regulation is clearer and more concise without substantively changing the information submitted to the Board. Section 934, subdivision (c)(2) of the existing regulations is being removed in the proposed regulation because it requires diverters to provide detailed irrigation descriptions that do not relate to diversion measurements. Those requirements are not necessary for the Board's understanding of the volume and flow rate of water diverted so they are also proposed to be removed.

Section 935: Submitting Measurement Data

The purpose of section 935 is to describe the required formats and procedures for submitting measurement data under chapter 2.8. Under the existing regulations, instructions have been criticized as being vague, with diverters interpreting the requirements differently and submitting non-standardized datafiles to the Board. During the 2020 to 2022 drought, data received through chapter 2.8 lacked sufficient standardization for the Board to effectively use it for data-based decision-making, and the Board ultimately needed to rely on informational orders to supplement diversion data (State Water Board, 2021). In 2023 alone, diverters submitted measurement data in over 1,400 unique formats, severely limiting the Board's ability to systematically analyze the measurement data as a collective dataset. Standardizing the data requirements submitted to the Board, including the formats, file types, and required parameters, will resolve this issue.

935(a) This subdivision outlines the main components that diverters are required to submit under chapter 2.8, including a measurement datafile and an explanation of how the diverter derived the data in the datafile from the measuring device's raw measurement data, and, for large diversions, weekly large diversion submissions. This provision is necessary for introducing the various submittals that are described throughout the remainder of this section.

935(b) The existing regulations do not clearly specify what submitted measurement data must include. As discussed regarding section 933 of the proposed regulation, required measurement parameters are inconsistently described in the existing regulation, with some sections requiring measurement of just the volume of water diverted, others allowing measurement of either volume, flow rate, velocity, or elevation, and other sections requiring the measurement of each of these parameters. As for what must be included in a datafile submission, the existing regulations simply state that diverters must "submit the data from each measuring device" (existing section 933, subdivision (b)(2)(A)). The requirements in proposed subdivision (b) specify which parameters must be reported, thereby allowing the Board to aggregate the data into a comprehensive and robust database of diversion information. By requiring datafiles to be standardized in terms of structure and contents and submitted in a machine-readable format, the proposed regulation will result in data that can be used for systematic mass analysis.

The proposed regulation also clarifies that data must reflect diversions occurring at each measurement location and for each claimed water right. These requirements were included in the existing regulations for how diverters need to measure but were not specified in the "Data Submittal" subdivisions for either measuring devices or measurement methods (existing section 933, subdivision (b)(2) and section 934, subdivision (d)(2), respectively). As a result, many diverters do not parse out diversions by claimed water right or measurement location, which in turn has led to datafiles seemingly overstating the amount of water diverted per claimed water right. If multiple claimed water rights jointly measure diversions but do not apportion measurement data, then the same water ends up being counted multiple times. This leads to

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exaggerated representations of water demand which can then lead to inaccurate calculations of water availability. To avoid double counting water diversions, it is necessary to specify that datafiles must only include data for the claimed water right being reported.

Lastly, the proposed regulatory text allows diverters to aggregate hourly measurements into daily values. While measurements must be collected hourly to ensure adequate monitoring of the largest diversions and reservoirs and to ensure accurate measurements, the industry standard, as evidenced by published data from the U.S. Geological Survey, is to aggregate data into daily values for reporting and publication (U.S. Geological Survey, 2024). This provision is necessary to indicate to diverters that it is acceptable to report daily values of hourly measurements.

935(c) Similar to the report of measurement methodology described in proposed section 934, subdivision (b), the purpose of section 935, subdivision (c) is to allow the Board to understand how diverters account for the water diverted under their claimed water rights, with the understanding that many measuring devices will not automatically output the exact data that are required to be included in each datafile. Raw device output may need to be quality assured, or the diverter may need to apply calculations to derive the required volume and rate parameters, or the data may need to be apportioned such that the datafile only includes data for the claimed water right being reported. In general, much of this supporting information describing how diverters derive the information in each datafile from the raw device output will be included in the report of measurement methodology required under section 934 of the proposed regulation. However, if there is any practice or protocol a diverter uses that is not already described in the report of measurement methodology, including practices that may deviate from their typical methodology, the diverter must submit a description of such practices and protocols as a supplement accompanying their datafile. This is necessary to ensure that the Board understands how water is measured and accounted for under each claimed water right.

935(d) Similar to the currently vague requirements for datafiles, the existing regulations do not explicitly specify what data must be reported in accordance with the large diversion requirements (formerly called “telemetry requirements”). The existing requirements simply state that diverters “shall provide telemetered diversion data via a public website” on a weekly or more frequent basis (section 934, subdivision (b)(4)(C)). The proposed revision clarifies that the data that must be reported under large diversion submissions must reflect the values that must be measured pursuant to the large diversion requirements of section 933, subdivisions (b) and (c). This is necessary to standardize the measured parameters and data submitted to the Board. In general, diverters subject to the large diversion requirements will be required to measure on an hourly basis. As is currently allowed by the existing regulations, the data submitted under the large diversion requirements may aggregate the hourly measurement data into daily values.

The proposed regulation also allows for the submittal of provisional data under certain circumstances. Under the existing regulations, large diversion data are held to the same accuracy requirements as data submitted in a datafile at the end of the year. However, this presents a substantial burden on large diverters to review and quality assure their data on a weekly basis. Allowing diverters to submit provisional data to satisfy large diversion requirements satisfies the Board’s need for more frequent reporting from larger diverters (which is especially critical during times of water scarcity), while also allowing greater flexibility for the diverter in circumstances where the data require additional quality control and review. Data submitted as a datafile at the end of the year, however, must be finalized and nonprovisional.

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Similarly, the weekly data submission schedule required for diverters with large diversions may preclude the ability of diverters to fully apportion measurement data to individual claimed water rights. Paragraph (3) of this subdivision in the proposed regulation requires diverters to identify all claimed water rights that are represented by the weekly data submission in order to prevent double counting of diversions, but does not require parsing out large diversion submissions per claimed water right. Data submitted as a datafile at the end of the year, however, must be fully apportioned.

Lastly, paragraph (4) of this subdivision is necessary to explicitly clarify that large diversion requirements are an additional requirement for a subset of diverters, and that diverters who are subject to the large diversion requirements are still subject to the general requirement for submitting a datafile at the end of the year. Under the existing regulations, this is not explicitly stated, and as a result, some diverters do not submit an annual datafile. Because of the allowance for provisional and non-apportioned data for the large diversion submissions, diverters who are subject to large diversion requirements must submit a final datafile at the end of the year correcting any errors and ensuring that the measurement data meet all data standards and accuracy requirements pursuant to chapter 2.8.

935(e) The purpose of this subdivision is to describe how diverters are expected to submit the datafiles, supplementary materials, and large diversion submissions to the Board. Under the existing regulations, data submitted must be “in a format retrievable and viewable using Microsoft Excel, Microsoft Access, or other software program authorized by the Deputy Director” (existing section 933, subdivision (b)(1)). There is no mention of how the data should be formatted, what columns to include, which parameters are required, or how the data should be submitted. This has led to inconsistency among diverters in each of these aspects. To improve data standardization and to make datafiles machine-readable for systematic, mass analysis of statewide water availability and demand, it is necessary to specify how data are to be formatted. Therefore, the proposed regulation requires that data be submitted either by uploading data through a specified template or by transmitting data directly to the Board’s online reporting platform. Reporting templates will be provided by the Board and will include fields for each of the required measurement values, thereby allowing consistent formatting for all data submissions. This revision is consistent with the Board’s existing standardized data submission requirements for its other programs, including programs regulating drinking water, water quality, and groundwater remediation (Division of Drinking Water, 2021; State Water Board, 2024; State Water Board, 2005). The proposed requirements in this subdivision are intended to align diversion measurement data submissions with data standards already in use by other programs.

For large diversion submissions, the existing regulations require diverters to post their data to a “public website,” but does not specify which website the data must be posted to (existing section 933, subdivision (b)(4)(C)). Consequently, data are posted to a wide range of unique websites that the Board must navigate to access the data. To increase efficient access to and use of near-real-time data in large-scale analyses, it is necessary that diverters post their data in a consistent location. Therefore, the proposed regulation requires diverters subject to large diversion requirements to post their data to the Board’s online reporting platform, either through a template provided by the Board or through direct transmission. Additionally, the regulation allows the Deputy Director to approve other public websites to allow additional flexibility in how and where diverters submit their data. The data submission requirements for large diversions have the added benefits of alleviating the regulatory need for diverters to maintain websites

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dedicated to hosting large diversion data and of simplifying data submission requirements such that both datafiles and large diversion submissions are submitted through the same online reporting platform.

935(f) The existing regulations require diverters to submit their datafiles with their annual reports in accordance with chapter 2.7 and within 30 days of a request or order by the Board. The existing regulations also require diverters subject to the large diversion requirements to post data on a weekly basis. The proposed regulation maintains this same submission schedule for datafiles and large diversion submissions, and also requires that the supplementary materials described in proposed section 935, subdivision (b) be submitted concurrently with datafiles and annual reports. This subdivision is necessary to specify the submission deadlines for each required submittal.

935(g) The existing regulations require diverters to keep records of data from each measuring device for a minimum of 10 years (section 933, subdivision (b)(3)). This requirement is maintained in the proposed regulation, with the clarification that the “data from each measuring device” includes the raw, unaltered output from measuring devices as well as the data that were included in measurement datafiles, and any supplementary materials describing the quality assurance protocols, calculations, conversions, and formulas used to derive the submitted dataset from the raw output. This clarification is necessary because the existing language of the regulations does not make any distinction between raw measurement data, which may include parameters like water elevation or velocity, and the submitted measurement data, which must include the volume and rate of water diverted. Records of both must be retained. This change should simplify procedures for reporters, who previously may have been confused by the need to submit both raw datafiles as well as final datafiles. Raw datafiles may have reporting errors, or time periods when a measuring device was not functioning (non-functioning reporting devices are common; debris or sediment can block transducers, electrical issues can occur, animals may destroy equipment, etc.). The proposed regulation requires that the raw data be kept by the reporter, but the Board will only require the submission of final or cleaned-up versions of the data at the end of each year (the provisional reporting described above is complimentary to this revision).

Section 936: Alternative Compliance with Measuring and Reporting Requirements

The existing regulations set measuring, accounting, and reporting requirements that ensure diversion data are collected at sufficient frequency and accuracy to allow the Board to effectively manage water resources and administer the water rights priority system. However, the Board recognizes that the requirements may not be universally appropriate for all diversion scenarios. The alternative compliance pathway is intended to allow flexibility for diverters who are unable to adhere to all requirements set forth in the regulations or who have more effective or efficient ways of measuring. By allowing for the development and implementation of alternative compliance plans, section 936 of the proposed regulation provides diverters with an opportunity for relief from infeasible requirements, or from scenarios where the data would not be useful, while still ensuring they provide useful data and information to the Board.

936(a) In accordance with Water Code section 1840, subdivision (b)(1)(A), the Board has found that for many diverters, strict compliance with the measuring and reporting requirements “is infeasible, is unreasonably expensive, would unreasonably affect public trust uses, or would result in the waste or unreasonable use of water.” As with the existing regulations, under the

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proposed revision, diverters may propose alternative compliance plans to more effectively or efficiently measure their diversions than would be possible through strict compliance. In addition, the proposed revision clarifies that the list of acceptable scenarios where alternative compliance would be appropriate—as described in section 935, subdivision (a) of the existing regulations—is non-exhaustive. The intent of the proposed regulation is for diverters to provide the Board with accurate and timely diversion information that is of sufficient quality for the Board to manage water resources and administer the water rights priority system. If diverters can meet that intent through means other than what is described in proposed sections 933 through 935, and they can demonstrate that their proposed approach is more effective or efficient for their unique diversion scenario, the Board is open to accepting alternative compliance plans from these diverters. However, any alternative compliance plan is subject to the Division’s review and rejection if it is determined to be insufficient or inadequate for meeting the Board’s data needs.

936(b) As with measurement methodologies, measurement under an alternative compliance plan can cover a single claimed water right or multiple claimed water rights, including a combination of claimed water rights held by multiple diverters. This is allowed under the existing regulations, and for clarity has been put in its own subdivision in the proposed regulation.

936(c) The existing regulations describe the content that must be included in an alternative compliance plan. In general, most required plan components remain the same or similar between the existing regulations and the proposed regulation. The proposed changes are intended to improve the Board’s understanding of the rate and volume of water diverted under each claimed water right without asking the diverter to provide unnecessary information.

Under the existing regulations, diverters pursuing alternative compliance need to list each of the beneficial uses for which water is diverted. The Board already has access to this information through other requirements and regulations, and therefore it is unnecessary to include it as a requirement for alternative compliance plans. Additionally, diverters must currently include an implementation budget and a list of all permits needed to implement their alternative compliance plans. Diverters claiming an unreasonable financial burden are also required to submit a cost analysis. This information does not improve the Board’s ability to accept or understand measurement data and its removal will not affect the availability or quality of measurement data received under alternative compliance plans.

Other changes to the contents of alternative compliance plans are intended to clarify diversion measurement requirements that are not explicitly stated in the alternative compliance section of the existing regulations. As with regular compliance under sections 933 through 935 of the proposed regulation, diverters pursuing alternative compliance will need to describe how they are measuring their diversions, including identifying the measurement location, describing any calculations, conversions, formulas, and quality assurance protocols, and describing how measurements will be apportioned to each claimed water right. This information is necessary to ensure that diversions are being measured appropriately and meet the requirements of chapter 2.8 to the extent possible. Additionally, the proposed regulation specifies that diverters must include a description of how their alternative measurement methodology accounts for any water losses that may occur between the point of diversion (or location where water is withdrawn or released from a qualifying reservoir) and the point of measurement. Alternative compliance plans could contain nonconventional measurement approaches, including use of remote sensing technologies. This provision is necessary to ensure that the data collected under such

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methods are representative of the actual diversions and do not over- or under-count the amount of water diverted.

936(d) The existing regulations require alternative compliance plans to generally meet the requirements of sections 933 and 934. To clarify this requirement, the proposed regulation specifies that diverters pursuing alternative compliance must also register each of their devices in accordance with proposed section 934, subdivision (e). If the alternative compliance plan describes a measurement methodology that does not use any measuring devices, diverters will need to explicitly indicate that no devices are used.

936(e) The existing regulations do not describe data submission procedures or schedules for diverters who measure their diversions under an alternative compliance plan. Instead, existing section 935, subdivision (b)(2) states that diverters pursuing alternative compliance need to meet the requirements of chapter 2.8 and achieve alternative compliance “for each of the requirements of sections 933 and 934.” In the existing regulations, sections 933 and 934 describe the data submission requirements and procedures for diverters who measure using measuring devices and measurement methods, respectively. During the Division’s outreach efforts, many diverters reported that they were unaware that they needed to submit a measurement datafile if they measure under an alternative compliance plan, despite datafiles being required under both sections 933 and 934. To clarify submission obligations, it is necessary to explicitly describe that any required data submissions described in chapter 2.8, including datafiles, supplementary materials, and large diversion submissions, also apply to diverters pursuing alternative compliance, unless they are approved to use (see subdivision (j)(5)) an alternative data submission process or schedule as part of their alternative compliance plan.

936(f) This provision regarding implementation was moved from section 935, subdivision (e) in the existing regulations to section 936, subdivision (f) in the proposed regulation to improve the flow and structure of the regulation.

936(g) The existing regulations require that all alternative compliance plans be filed no later than January 1, 2018. That date having since passed, it is necessary to update the deadline in the proposed regulation to allow diverters sufficient time to update their alternative compliance plans after the proposed regulation becomes effective. Because the previous filing deadline for alternative compliance plans passed nearly seven years ago, most diverters intending to pursue alternative compliance have already submitted an alternative compliance plan. As discussed with respect to subdivision (c) of this section, the content of the alternative compliance plans is largely the same under the proposed regulation as under the existing regulations. Any required updates to existing alternate compliance plans will generally be minimal and will reflect measuring and accounting practices that diverters are currently implementing. Therefore, an updated filing deadline of January 31, 2026 is appropriate for allowing sufficient time for diverters to update or prepare alternative compliance plans. For claimed water rights that may submit an alternative compliance plan in the future, diverters must submit their alternative compliance plan before they begin implementing it.

936(h) To ensure the alternative compliance plans on file with the Board reflect the current measuring and accounting practices of diverters, it is necessary for diverters to update their alternative compliance plans as needed, including if they make any changes to the methodology, area, measurement location, or participants included in a previously submitted

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plan. The proposed regulation requires that if diverters implement changes to how they measure and report data, they must update their alternative compliance plan before the January 31 submission deadline for annual reports, which allows diverters enough time to incorporate changes while also ensuring that filed plans are sufficiently up to date.

936(i) This provision regarding the public posting of alternative compliance plans was moved from section 935, subdivision (g) in the existing regulations to section 936, subdivision (i) in the proposed regulation to improve the flow and structure of the regulation.

936(j) Under the existing regulations, the Deputy Director can review, audit, request additional information for, require changes to, and reject alternative compliance plans (section 935, subdivision (h)). This ensures that all submitted and implemented plans meet the requirements of chapter 2.8 and provide the Board with high quality measurement data. The proposed regulation clarifies that “auditing” an alternative compliance plan refers to conducting field inspections and requesting information as needed to confirm that plans have been properly implemented and meet all requirements. For clarity and to improve the flow of the text, the provision stating that an alternative compliance plan may be rejected for failure to implement a previously submitted plan has been moved from section 935, subdivision (k)(3) of the existing regulations to section 936, subdivision (j)(4) of the proposed regulation.

Throughout the Division’s outreach efforts, diverters repeatedly commented that they were unsure when alternative compliance plans became effective because they did not receive any notice that their proposed plans had been approved. The existing regulations do not state that plans need to be approved and instead only state that they can be rejected. Because commenters raised concern that the lack of an explicit statement to this effect has caused confusion and may have delayed implementing alternative compliance plans, it is necessary to explicitly describe in section 936, subdivision (j)(5) of the proposed regulation that any alternative compliance plan submitted to the Board is automatically considered provisionally approved unless and until the diverter is notified in writing that the plan has been rejected.

936(k) Under the existing regulations, alternative compliance plans are valid for a maximum of five years, after which they must be renewed, with or without amendment (existing section 935, subdivision (k)). The intent of the existing requirement is to ensure that alternative compliance plans are sufficiently up-to-date and that diverters review whether the specified alternative compliance approach is still appropriate. However, the Board recognizes that most alternative compliance plans will remain unchanged with each five-year renewal, and the requirement to prepare and submit a plan every five years may not be necessary. Because this requirement may be overly burdensome in relation to its intent, it is appropriate to remove the expiration provisions for alternative compliance plans and instead require diverters to review their existing alternative compliance plans every five years, but only update them as necessary (as discussed in proposed section 936, subdivision (h)); they need not re-prepare and re-submit the same alternative compliance plan.

Removed Subdivisions: Section 935, subdivision (d) of the existing regulations requires that diverters report on implementation progress for their alternative compliance plans. This provision is proposed to be removed. If plans are implemented according to their included schedules, then the Board does not need additional confirmation of the implementation status. If there are schedule delays, then diverters must update their alternative compliance plans to reflect the updated schedule—according to section 936, subdivision (h) of the proposed

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regulation. Accordingly, the requirement in section 935, subdivision (d) is unnecessary and can be removed.

Section 937: Temporary Exemption from Measurement

The purpose of section 937 is to describe when diverters may be temporarily exempt from measurement requirements. There are four primary exemption categories: requests for additional time; exemption from submitting data for diverters who do not divert and do not withdraw or release from qualifying reservoirs; exemption from submitting data if diversion infrastructure or withdrawal or release infrastructure is destroyed or rendered inoperable, and exemption from measurement if measuring devices or associated infrastructure are destroyed or rendered inoperable. The latter three categories are entirely new in the proposed regulation and provide increased flexibility to diverters.

937(a) Although diverters may be subject to or exempted from specific measurement requirements, other parts of the Water Code and other existing regulations remain in effect, including the requirement that all diverters complete and submit annual reports in accordance with chapter 2.7. This subdivision is necessary to clarify that temporary measurement exemptions do not affect the diverter's annual reporting requirements.

937(b) The ability to request additional time to comply with the requirements of this chapter has been moved from section 936 of the existing regulations to section 937, subdivision (b) of the proposed regulation. The text has been updated for clarity and consistency, but all requirements under this provision remain the same.

937(c) The existing regulations are intended to require, but do not state explicitly, that diverters are required to submit datafiles even if they did not divert or withdraw or release any water during the twelve-month reporting period. Since the regulations became effective, approximately 85 percent of diverters who did not divert in a given year also failed to submit a datafile, which commenters attributed to confusion about submission requirements in cases of no diversions. Requiring submissions where no diversions occurred also results in unnecessary costs to the State, as the Board must save, curate, and manage datafiles with no data in them. In the proposed regulation, if no diversions and no withdrawals or releases from qualifying reservoirs are made under their claimed water right during the entire twelve-month reporting period, the diverter is not required to submit a datafile or accompanying supplementary materials. Diverters who use this temporary exemption must correspondingly indicate in their associated annual report for the claimed water right that no diversions or withdrawals or releases were made. Should any diversion or withdrawal or release from a qualifying reservoir occur during a twelve-month reporting period, the submission requirements described in section 935 apply for that reporting period. Paragraph (2) of this proposed subdivision describes how this exemption applies to diverters subject to large diversion requirements where no diversions and no withdrawals or releases from qualifying reservoirs are made during the corresponding large diversion reporting period. This subdivision is necessary to provide clarity to diverters and make reporting requirements more efficient and simpler to implement.

937(d) Under the existing regulations, there are no temporary exemptions for diverters whose diversion infrastructure or withdrawal or release infrastructure has been destroyed. During the Division's outreach, diverters raised concerns about how they are expected to comply if a fire or flood destroys their pumps or other equipment. The proposed regulation adds a provision that if

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a natural disaster, emergency, or other unforeseen circumstance destroys the diversion infrastructure or withdrawal or release infrastructure or otherwise prevents diversions or withdrawals or releases from qualifying reservoirs, then the diverter is not required to submit diversion data or withdrawal or release data, respectively, for the portion of the reporting period during which they are unable to divert or withdraw or release from a qualifying reservoir. The diverter must still indicate in the annual report for the affected claimed water right that the diversion was inoperable for a specified period. Once diversions or withdrawals or releases from qualifying reservoirs resume, the diverter is responsible for all measuring and reporting requirements of the chapter. This exemption is necessary to make reporting more efficient and easier to implement for diverters and to provide some relief in extenuating circumstances.

937(e) Under the existing regulations, there are no temporary exemptions for diverters whose measuring devices are destroyed. The proposed regulation adds a provision that if a natural disaster or other catastrophic event destroys measuring devices or the associated infrastructure, then the diverter may request a temporary exemption from measuring the affected measurement parameters for up to 180 days. Requests must be submitted within 30 days of the measuring device becoming inoperable, which allows the diverter sufficient time to assess the damage and submit the request. The 180-day temporary exemption is intended to allow sufficient time to repair or replace the measuring device. If the Deputy Director does not issue an approval or rejection within 30 days of receipt of the temporary exemption request, the temporary exemption request is considered provisionally approved up to 180 days from the date the request was submitted or until the Deputy Director issues a written approval or rejection. This is intended to provide extra flexibility for both the diverter and the Board, in the event that the request cannot be reviewed within 30 days. Depending on the diversion and the location, 180 days may not provide adequate time for measuring devices to be repaired or replaced. The proposed provision allows diverters to submit a request to extend the temporary exemption as appropriate. This subdivision is necessary to make reporting more efficient and easier to implement for diverters and to provide some relief in extenuating circumstances.

Section 938: Threshold and Submission Adjustment

Water availability and demand vary greatly between watersheds and subwatersheds across California. A diversion occurring in one area may have a more substantial impact on water supplies than a diversion of the same size occurring in a different area. Similarly, other conditions affecting the ability to measure diversions, including access to electricity or internet, may vary significantly across the state. Therefore, the need for measurement data and the value of the data in relation to the cost and effort of data collection will likewise vary between regions and watersheds. The purpose of the proposed Threshold and Submission Adjustment section is to allow the Deputy Director to adjust requirements such that the benefits of diversion measurement data better align with the technical and financial costs of measuring. The section is intended to avoid a “one-size-fits-all” approach for the entirety of California and instead tailor requirements to suit specific watersheds, as needed. The proposed regulation updates existing processes and expands their applicability from what is already provided in the existing regulations.

938(a) The definition of “threshold” is necessary to concisely describe how different requirements apply to different diverters depending on their claimed water rights. To improve the readability of the text and reduce repetition, “threshold” is used as a general umbrella term

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to collectively refer to general applicability, large diversion applicability, qualifying reservoir, and measurement frequency thresholds.

938(b) The definition of “submission schedule” is necessary to concisely describe when data and supplementary materials must be submitted. To improve the readability of the text and reduce repetition, “submission schedule” is used as a general umbrella term to collectively refer to datafile and supplementary materials submission schedules and large diversion submission schedules.

938(c) The intent of this provision is to tailor reporting requirements in watersheds to focus on those diverters that have the greatest effect on streamflow and water availability. However, the existing regulations only allow adjustments to the 10-acre-foot general applicability threshold that determines who is subject to chapter 2.8, and do not allow for other adjustments such as adjustments to measurement frequencies, large diversion applicability, or submission schedules.

Under the existing regulations, there is no way to change the measurement frequency requirements without exempting an entire size class of diverters. For example, to adjust the requirements for diverters who are required to measure their diversions daily, the Deputy Director only has the option of either requiring them to measure on a daily basis or not requiring these diverters to measure at all. Under the proposed regulation, measurement frequency thresholds can be adjusted to instead require monthly or weekly measurement, which may better balance the needs and burdens associated with diversion measurement. Added flexibility is needed to ensure the Board captures useful information without creating an inefficient or infeasible workload for the diverter.

Additionally, under section 933, subdivision (b)(4)(A)(iv) in the existing regulations, the Deputy Director can adjust who is subject to large diversion requirements by adjusting the threshold percentage of historical mean monthly streamflow. As previously discussed, the proposed regulation removes all reference to requirements based on historical mean monthly streamflow. Instead, section 938 simplifies the process of adjusting the large diversion applicability thresholds, which has the added benefit of improving clarity and reducing confusion among diverters.

The existing regulations include a provision that the Board can require more frequent data submissions, upon request. This provision is important for managing water resources during droughts or other times of shortage. This provision is retained in the proposed regulation, but modified so that the process is clearer and more straightforward. Section 933, subdivision (b)(2)(A) of the existing regulations requires that in addition to end-of-year datafile submissions, diverters must submit data within 30 days of any request from the Board. In the proposed regulation, the ability to require more frequent data submission is incorporated via the submission schedule adjustment provision, allowing the Deputy Director to set a submission schedule as needed for a watershed or subwatershed.

938(d) Under the existing regulations and in Water Code section 1840, subdivision (b)(2), the Deputy Director can raise the general applicability threshold above 10 acre-feet per year. This provision is maintained in the proposed regulation but is reworded to clarify that the general applicability threshold cannot be lowered below 10 acre-feet per year.

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938(e) The proposed regulation adds the ability to adjust measurement frequency thresholds. However, the Board recognizes that many measuring devices may be limited in how frequently they can measure. Therefore, this subdivision sets a maximum measurement frequency such that diverters, excluding those subject to large diversion requirements, will not be required to measure more frequently than the specified limit. The maximum measurement frequency values were selected to align with the existing frequency requirements for direct diversions (existing section 933, subdivision (b)(1)(A)).

938(f) Under the existing regulations, the Deputy Director can adjust the requirement to submit large diversion data based on streamflow and the size of a diversion only after giving notice and the opportunity for public comment. In the proposed regulation, requirements for public notice and opportunity for comment are retained and applied to any adjustment to the large diversion applicability, qualifying reservoir, or frequency thresholds, or the submission schedules.

938(g) Section 932, subdivision (d)(1) of the existing regulations describes the various factors that the Deputy Director must consider before adjusting the general applicability threshold. These considerations ensure that any threshold adjustment is appropriate, that the measurement requirements do not place an undue burden on diverters, and that the reduced amount of data received will not adversely impact the Board's ability to manage and protect public trust resources. For consistency and to balance the Board's need for timely and accurate measurement data with the cost of measuring borne by the diverter, the proposed regulation requires that the Deputy Director consider the same factors as originally described in existing section 932, subdivision (d)(1) before adjusting any of the other thresholds or submission schedules.

938(h) Based on the feedback received during the Division's outreach efforts, most diverters tend to review their measurement data only once per year, when preparing their datafile for submission with their annual reports. Many diverters mentioned that more frequent quality assurance or accounting procedures are either infeasible or an inefficient use of time and resources. Especially in cases of storage diversions and withdrawals under the Last-In; First-Out/First-In; Last-Out methodology, diverters cannot accurately characterize their diversions and withdrawals until 30 days after the diversion takes place (Division of Water Rights, 2013). Based on the time required to prepare datafiles and the burden it may place on diverters if the datafile submission schedule is increased to require more frequent submission, it is necessary for the Deputy Director to have discretion to allow diverters to submit provisional data. However, because of the Board's need for accurate and reliable end-of-year data, datafiles submitted alongside annual reports must not be provisional.

938(i) Under the existing regulations, any adjustment to the general applicability threshold may remain in effect for up to five years, after which the authorization may be renewed. Because the proposed regulation includes the ability for the Deputy Director to adjust other thresholds and submission schedules, this provision has been updated to reflect that any adjustment to any threshold or submission schedule must be reevaluated at least once every five years. This is necessary to ensure that any adjusted threshold or submission schedule continues to be appropriate for providing the Board with accurate and timely measurement data without creating an unnecessary cost or burden for diverters.

938(j) In the existing regulations, the Deputy Director is required to maintain a list on the Board's website of watersheds and subwatersheds where the applicability threshold is different

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from the default value of 10 acre-feet per year. Because the proposed regulation includes the ability for the Deputy Director to adjust other thresholds and submission schedules, it is appropriate that any threshold or submission schedule that has been adjusted in accordance with proposed section 938 be listed on the Board's website as well, to improve transparency and allow diverters to review requirements that are specific to their watershed or subwatershed.

938(k) In an effort to use plainer language throughout the regulation, the word "commencing" in the existing regulations is replaced with "beginning" in the proposed regulation (existing section 932, subdivision (d)(6)).

Section 939: Compliance

The purpose of section 939 is to identify what constitute violations and to identify the risks associated with not meeting the requirements of the chapter. Under the existing regulations, descriptions of violations and their consequences are in section 932, subdivisions (e) and (f), section 933, subdivisions (k) through (m), section 934, subdivision (h), and section 938. In the proposed regulation, these descriptions have been consolidated and relocated to section 939 to improve the structure and logical flow of the regulation.

939(a) The existing regulations describe violations and their consequences for failing to accurately measure diversions or otherwise meet the requirements chapter 2.8. These descriptions are located in sections 932, 933, 934, and 938 of the existing text and describe the penalty as "civil liability of up to \$500 per day pursuant to Water Code section 1846." In the proposed regulation, these various descriptions have been consolidated for clarity and conciseness and relocated to section 939. Additionally, with the passage of Assembly Bill 460 in 2024—which updates section 1846 of the Water Code—the maximum civil liability amount will be increased from \$500 per day to \$1,000 per day and the amount will be annually adjusted for inflation beginning in 2026. Therefore, it is necessary to update the stated penalties in the revised regulation to align with the updated statutory penalties.

Under the existing regulations, descriptions of violations for failing to repair and replace inaccurate measuring devices or correct deficiencies in a measurement method are in various provisions of sections 933 and 934. Because the proposed regulation refines the concept of "measuring devices," removes the term "measurement method," and introduces the term "measurement methodology," it is necessary to re-describe violations in terms of the measurement methodology.

Additionally, there are no explicit references to violations regarding alternative compliance plans in the existing regulations. Existing section 935, subdivision (k)(3) states that inadequate alternative compliance plans may be rejected, resulting in an obligation to fully comply with sections 933 and 934, without the flexibility afforded through alternative compliance. Provisions to this effect are maintained in the proposed regulation, with added language in section 939, subdivision (a) making it clear that deficient alternative compliance plans not meeting the requirements of the chapter violate the regulation. This change clarifies that deficiencies in alternative compliance plans must be corrected for the plan to be effective and for the claimed water right not to be in violation of the regulation.

939(b) Under the existing regulations, section 932, subdivisions (e)(1) and (e)(2) describe how diverters must measure their diversions in circumstances where other legal requirements, including terms and conditions of the claimed water right, statutes, orders, policies, regulations,

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decisions, or judgements may conflict with requirements of chapter 2.8. In the proposed regulation, the two paragraphs of the original subdivision are combined and moved to section 939. This change is necessary to reduce repetitive language from two similar provisions, make the regulation clearer, and consolidate all compliance-related provisions into a single Compliance section.

939(c) The language included in this subdivision is currently in section 933, subdivision (m) of the existing regulations. The relocation to section 939 in the proposed regulation improves the structure and logical flow of the regulation.

Other Minor Changes: Chapters 2 and 2.7

The primary objectives of the proposed regulation changes to chapters 2 and 2.7 are to:

- **Facilitate Secure Online Reporting:** Ensure all water rights holders log into the online data reporting platform using an email address.
- **Streamline Existing Language:** Consolidate and streamline existing regulatory language to be clearer (including non-substantive changes).

Section 907(d) The proposed regulation adds a definition of “Online reporting platform.” This change is needed in order to describe and clarify the new procedures for submitting reports on the State Water Board’s new online reporting platform.

Section 910 The existing regulations state that the regulations contained in chapter 2.7 are adopted for the purposes of Chapter 2.7 of Division 1 of the Water Code and Parts 2, 5, and 5.1 of Division 2 of the Water Code. The proposed regulation adds Part 5.2 of Division 2 of the Water Code, which provides requirements for groundwater extraction reporting for probationary basins and basins without a groundwater sustainability agency. This change is needed to include all types of reporting required by the Water Code.

Section 911 The proposed regulation clarifies that to the extent authorized by law, the regulations apply to an Indian tribe and any reports filed by the Indian tribe. The current regulations state that to the extent authorized by federal law, this chapter applies to the federal government and any reports filed by the federal government. The change is necessary to clarify the applicability of the regulations to other sovereign entities such as tribes.

Section 913 Proposed section 913, subdivision (a) will require reports to be electronically submitted through the Board’s online reporting platform. This new section is needed to transition the Board’s reporting process from forms on the Board’s website to the Board’s new online reporting platform. The proposed regulation is needed in order to modernize the Board’s data reporting system.

Proposed section 913, subdivision (b) will require reporters to use an email address to log in to the online reporting platform. An email address is required for secure access to the online reporting platform and allows additional security measures, such as two-factor authentication. The proposed regulation is necessary to modernize the Board’s data reporting and communication systems while meeting cybersecurity requirements. By requiring water right holders to use an email address to access the online reporting platform, the Board will enhance reporting efficiency and improve data quality, which will better support management of California’s water resources.

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Removed Section 920(b) The existing regulations include a section describing the process for electronic submission of supplemental statements of water diversion and use, which includes the Board providing a username and password to the reporter and the reporter using an electronic form. The proposed regulation removes this section in order to simplify and align the regulatory text with the process for electronic reporting on the Board's new online reporting platform.

Section 924(d) The existing regulations and Water Code section 1228.5 are ambiguous as to whether registrants must affirmatively submit a separate request or report for renewal of their registration, or whether compliance with the applicable reporting requirements is sufficient. The proposed regulation clarifies that the Board will treat registrants who are current with their annual reporting as though they had affirmatively requested renewal of their registration prior to the applicable deadline.

Section 930 Consistent with Water Code sections 1058, 1840, 1841, and 5001, the State Water Board proposes the changes to section 930 to align with the statutory reporting period being the water year.

The existing regulations state that the report must include the amount of groundwater extracted during the calendar year. The proposed regulation changes "calendar year" to "twelve month reporting period" to be consistent with Water Code section 5001, which requires annual reporting of the amount of groundwater extracted during the water year. The proposed regulation is necessary to improve clarity for the existing regulations and to carry out the Board's primary goal of efficiently administering the State's water rights system.

Other Minor Changes: Additional minor editorial changes to sections 831, 915, 916, 920, 924, 925, 929, and 930 will ensure consistent references to the electronic submission of information via the online reporting platform, rather than using forms available on the Board's website.

Alternatives Information

The Board must determine that no reasonable alternative it considered or that has otherwise been identified and brought to its attention would be either more effective in carrying out the purpose for which the action is proposed, as effective and less burdensome to affected private persons than the proposed action, or more cost-effective to affected private persons and equally effective in implementing the statutory policy or other provision of law.

The State Water Board considered two alternatives to the proposed regulation.

Description of Alternatives

Similar to the proposed update, the two alternatives improve clarity and organization of the existing regulatory text.

The first alternative ("Alternative 1") considers only two of the requirements proposed in the SB 88 regulation update:

- (a) Water right holders would be required to provide an email for their CalWATRS account, and
- (b) Diverters would be required to use a State Water Board template to report measurement data or transmit data directly to CalWATRS.

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Alternative 1 is, therefore, less stringent than the proposed SB 88 regulation update.

The second alternative (“Alternative 2”) considers all the requirements proposed in the SB 88 regulation update and makes one of them relatively more stringent: all rediversions (and not only those requested by the State Water Board) would be required to be measured and reported. Alternative 2 is, therefore, more stringent than the proposed SB 88 regulation update.

Costs and Benefits, and Reason for Rejection

The analysis of cost impacts of the two alternatives can be found in Section 8 of the Economic Impact Assessment (EIA) and the analysis is based on the same assumptions and calculations described in Section 4 of the EIA.

Under the proposed regulation, water right holders would incur one-time costs of approximately \$4.7 million, plus annual costs of approximately \$470,000.

Under Alternative 1, water right holders would incur one-time costs of approximately \$630,000, plus annual costs of approximately \$27,000, that reflect the time needed to comply with the email and data template requirements. Water right holders under this alternative would not incur any costs related to equipment installation and maintenance.

Under Alternative 2, water right holders would incur one-time costs of approximately \$6.1 million, plus annual costs of approximately \$700,000. Compared to the proposed regulation, diverters under this alternative would have to report a greater number of rediversions and install more measurement devices, and would therefore incur higher reporting, installation, and maintenance costs in aggregate.

Discussion of Alternatives

Alternative 1 would incur a lower cost to water right holders in terms of one-time and annual costs, but it would not be equally effective in achieving the purposes of the regulation because it would not address all of the needs for revision of the existing regulations as described in the “Summary of Existing Regulations and Need for Revision” section of this document, nor would it provide all of the benefits discussed in the “Anticipated Benefits” section of this document. Critically, Alternative 1 would result in measurement data being submitted to the Board that are less able to be used for effective water management than data submitted under the proposed regulation.

Although Alternative 2 would potentially yield greater benefits in the form of data submissions for rediversions, the one-time and annual costs to water right holders would be substantially greater than the costs incurred under the proposed regulation, so Alternative 2 represents a greater burden on water right holders.

There were no alternatives considered that were less burdensome and equally effective in achieving the purposes of the proposed regulation. The regulation does not mandate the use of any specific technologies and equipment.

Documents Relied Upon: Technical, Theoretical, and/or Empirical Studies, Reports, or Documents

Division of Drinking Water (2021) *California Laboratory Intake Portal Technical Documentation for EDP/EDD*. State Water Resources Control Board. <https://download.earthsoft.com/CA>

Initial Statement of Reasons

SWRCB/CASWRCB_DDW_Technical_Documentation.pdf (Accessed: February 5, 2025).

Division of Water Rights (2013) *Considerations for Reservoir Licensing*. State Water Resources Control Board. https://www.waterboards.ca.gov/waterrights/water_issues/programs/applications/docs/licensing.pdf (Accessed: February 5, 2025).

Division of Water Rights (2024a) *Draft Proposed Changes to the Water Measurement and Reporting Regulation: Staff Workshop*. https://www.waterboards.ca.gov/waterrights/water_issues/programs/diversion_use/docs/2024/staff-workshop-presentation_deadline-extended.pdf (Accessed: February 5, 2025).

Division of Water Rights (2024b) *Water Measurement and Reporting Regulation (SB-88): Feedback Summary, Water Measurement and Reporting Regulation*. State Water Resources Control Board. https://www.waterboards.ca.gov/waterrights/water_issues/programs/diversion_use/docs/2024/listening-sessions-feedback-summary.pdf (Accessed: February 5, 2025).

Regulation of Water, 23 California Code of Regulations §657 (1987).

State Water Resources Control Board (2005) *GeoTracker GEO_BORE, GEO_REPORT, and FIELD POINT/WELL CONSTRUCTION Guidelines & Restrictions: Electronic Deliverable Format, Version 2*. https://www.waterboards.ca.gov/ust/electronic_submittal/docs/geo_bore_geo_report_guidelines.pdf (Accessed: February 5, 2025).

State Water Resources Control Board (2016) *Measurement and Reporting of Water Diversion Emergency Regulations Digest*. https://www.waterboards.ca.gov/waterrights/water_issues/programs/measurement_regulation/docs/oal_review/measure_reg_oal_digest.pdf (Accessed: February 5, 2025).

State Water Resources Control Board (2018) *Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary*. https://www.waterboards.ca.gov/plans_policies/docs/2018wqcp.pdf (Accessed: February 5, 2025).

State Water Resources Control Board (2021) *Initial Order Imposing Water Right Curtailment and Reporting Requirements in the Sacramento-San Joaquin Delta Watershed*. https://www.waterboards.ca.gov/drought/delta/docs/082021_order_lg.pdf (Accessed: February 5, 2025).

State Water Resources Control Board (2024) *Instructions for Submitting CEDEN Compatible Data*. https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/data-submission.html#instructions-ceden (Accessed: February 5, 2025).

Storage of Water, 23 California Code of Regulations §658 (1987).

U.S. Geological Survey (2024) *Water Quality Daily Data*. <https://help.waterdata.usgs.gov/faq/water-quality/water-quality-daily-data> (Accessed: February 14, 2025).

Economic Impact Assessment of Proposed Updates to the Water Diversion and Use and Water Measurement and Reporting Regulations

1. Summary

California's Water Measurement and Reporting Regulation (chapter 2.8 of title 23 of the California Code of Regulations), often referred to as SB 88 regulation, requires many diverters to measure and report the amount of water they divert. The State Water Resources Control Board ("Water Board") is proposing to revise the SB 88 regulation to improve the quality and usability of the data submitted under the regulation, as well as to improve the overall clarity of the text. The revisions are based on feedback from existing diverters and reporters, after substantial outreach and engagement over the previous two years.²

The proposed SB 88 regulation update is anticipated to improve the accuracy, consistency, and usability of water diversion data, which is essential for effective water management, particularly during droughts. By clarifying terms, simplifying requirements, and standardizing data formats, the update will help streamline reporting for water right holders and make data analysis more efficient for the Water Board. These changes are expected to promote a more transparent, flexible, and responsive water management framework, and reduce some of the compliance costs to water right holders, though specific cost savings could not be quantified in this economic impact assessment due to existing data limitations.

The proposed update to the SB 88 regulation introduces some new requirements that can directly affect water right holders. The proposed update will potentially impact water right holders' reporting costs as well as expenses related to new measurement and recording equipment. As shown in Table 1, the proposed update is estimated to have a one-time cost impact of approximately \$4.7 million, plus an annual cost impact of approximately \$470,000.³ About half of the one-time cost is associated with reporting requirements, and the other half with the need for new measurement and recording devices. Most of the recurring costs are associated with maintenance and operation of the new devices.

² Additionally, the Water Board is also proposing minor revisions to the Appropriation of Water and the Water Diversion and Use Reports regulations (chapters 2 and 2.7 of title 23 of the California Code of Regulations).

³ One-time cost impacts estimated in this economic impact assessment most likely will not be incurred in any 12 consecutive months after the proposed update to the SB 88 regulation is effective. Rather, one-time cost impacts probably will be incurred over several years after the effective date. All prices and costs in this assessment are in constant 2024 dollars.

Table 1

Estimated costs for water right holders

Cost Type	Cost (\$)	
	One-time	Recurring
Reporting	2,210,017	96,664
Equipment installation and maintenance	2,458,064	368,710
Total	4,668,081	465,374

Note: Cost estimates in the table include fiscal impacts on state and local governments. In this and subsequent tables, “Recurring” costs include: (a) estimated annual costs incurred by water right holders after the proposed regulation becomes effective (e.g., annual operation and maintenance of measurement devices, as explained in Section 4.2), and (b) estimated initial costs sustained in subsequent years as additional water right holders begin to incur these costs (e.g., the cost of submitting an annual report with measurement data, as explained Sections 2.1 and 4.1).

The proposed SB 88 regulation update is anticipated to have a negligible impact on California’s economy. Although some diverters may increase capital expenditure to purchase new measurement and recording equipment, this change is not expected to significantly affect production levels or lead to increased investment across the state. Likewise, existing manufacturers and service providers for measurement and recording equipment would not require expansion, so new businesses in these sectors are unlikely to emerge, nor are existing businesses expected to close. Job creation or elimination is also not expected as a result of the proposed update. Additionally, while the update relies on established technologies and is not expected to drive major innovation, future support for integration with the CalWATRS platform may lead to some technological developments.

2. Introduction

2.1 Baseline

The Water Measurement and Reporting Regulation, effective since 2016, requires many diverters to measure and report the amount of water they divert. These regulations established, for the first time, formal requirements to meter or measure certain diversions and report that data to the Water Board. In general, this applies to those who divert more than ten acre-feet per year. This includes diverters who have:

- A single water right with a face value or historical use (whichever is greater) of more than ten acre-feet per year;
- Multiple water rights that share a point of diversion and have a combined face value or historical use of more than ten acre-feet per year;
- Multiple water rights that share a place of use and have a combined face value or historical use of more than ten acre-feet per year;
- Multiple water rights that divert to the same reservoir or pond and have a combined face value or historical use of more than ten acre-feet per year.

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Diverters must measure their diversions monthly, weekly, daily, or hourly, depending on the type and size of the diversion. In general, diverters only need to submit their measurement data to the Water Board once per year, though larger diverters are required to provide measurement data on a weekly basis.⁴ Data is submitted as an attachment to the Annual Water Diversion and Use Reports. Diverters who fail to measure and report their diversions could be subject to fines and other penalties.

Table 2 summarizes the six years of available water rights data (water years 2018–2023):

- Number of water rights subject to the SB 88 regulation that were included in this economic impact assessment: 11,500;⁵
- Average number of water rights for which Annual Water Diversion and Use Reports (annual reports) were submitted: 10,400 per year (90 percent of 11,500);
- Average number of water rights for which annual reports were submitted and measurement data (datafiles) was attached: 2,300 per year (20 percent of 11,500);
- Average number of water rights for which annual reports were submitted but measurement data was not attached: 8,100 per year (71 percent of 11,500);
- Average number of water rights for which annual reports were submitted but measurement data was not attached, and that had water diversions greater than zero: 5,600 per year (49 percent of 11,500);
- Average number of water rights for which annual reports were submitted but measurement data was not attached, and that had water diversions greater than zero and that had measurement devices: 2,300 per year (20 percent of 11,500);
- Average number of water rights for which annual reports were submitted but measurement data was not attached, and that had no water diversions: 2,500 per year (22 percent of 11,500).

The number of water rights for which annual reports were submitted with attached measurement data showed considerable variation from year to year. But, *on average*, the number of water rights that attached measurement data increased by about 100 per year from water year 2018 to 2023, which corresponds to an *average* annual rate of increase of approximately 4.3 percent.

⁴ In the existing regulation, diverters who divert more than 10,000 acre-feet per year or 30 cubic feet per second between June and September, or who have a reservoir with a capacity of at least 10,000 acre-feet, must post measurement data to a public website at least once per week.

⁵ Approximately 500 water rights that are held by the federal government were excluded from this analysis, as the scope of this economic impact assessment is limited to State and local governments, and private diverters. Water rights that are in the Legal Delta also were excluded from this analysis, as many of these rights collect measurement data under an alternative compliance plan (“Delta ACP”) that provides the Water Board with measurement data without the submission of datafiles, and many others in the Legal Delta are working on individual ACPs with a similar strategy. The proposed update to the SB 88 regulation is not expected to affect those diverters.

Table 2**Average number of water rights subject to SB 88 regulation in water years 2018–2023**

Annual Report Submitted	SB 88 Datafile Submitted	Water Diverted during Year	Measurement Device	Annual Average Number of Water Rights Subject to SB 88
yes	yes	-	yes	2,258 (20%)
yes	no	yes	yes	2,264 (20%)
yes	no	yes	no	3,328 (29%)
yes	no	no	NA	2,523 (22%)
no	no	NA	NA	1,109 (10%)
				11,482 (100%)

Note: Table includes water rights for which annual reports were submitted within six months of the established due date and excludes water rights held by the federal government and water rights in the Legal Delta. Total numbers and percentages in this and subsequent tables may not add up due to rounding. “NA” means data was not available. The symbol “-” in the first row indicates that for some water rights water was diverted, while for others no water was diverted.

Of the 11,500 water rights subject to the SB 88 regulation that were included in this economic impact assessment, approximately 9,900 water rights (86 percent) are held by private diverters, 200 (2 percent) by the state government, and 1,400 (12 percent) by local governments. The impact of the proposed SB 88 regulation update on each of these three groups is analyzed separately in this assessment.

The new California Water Accounting, Tracking, and Reporting System online reporting platform (“CalWATRS”) is expected to replace the current reporting system in 2025, and sustain the improvement in baseline compliance observed in the past years. CalWATRS will better inform diverters of their measuring and data reporting requirements during the reporting process, and it will also allow staff to flag mistakes with submitted reports and send notifications to diverters directly. These changes might benefit, in particular, diverters who do not know that they are subject to the SB 88 regulation, and diverters who have measurement devices but do not know that they must upload a datafile with measurement data.

CalWATRS is expected to come into operation independently of the implementation of the proposed update to the SB 88 regulation, and, therefore, is treated in this analysis as part of the baseline. Taking CalWATRS implementation into consideration, this economic impact assessment assumes that, absent the proposed SB 88 regulation update, the number of water rights for which annual reports are submitted with measurement data would continue to increase, *on average*, at the same average rate observed from water year 2018 to 2023, i.e., by approximately 4.3 percent per year. This assumption allows the number of water rights for which annual reports are submitted with measurement data to vary from one year to another, and thus is consistent with the observed historical pattern.

2.2 Proposed Regulation

The proposed update to the SB 88 regulation improves clarity and organization of the existing regulatory text and makes minimal changes to current requirements. The main changes, mostly affecting current reporting requirements, are:

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- Rediversions: diverters will be required to identify and report rediversions already being measured; diverters may be required, upon request, to measure rediversions and report them as such.⁶
- Email accounts: water right holders will be required to provide an email for their CalWATRS account.⁷
- Data template: diverters will be required to use a template provided by the Water Board to report measurement data or transmit data directly to the Water Board's online reporting platform (CalWATRS) using the data standard specified by the Board.
- Large diversion submissions: diverters who are subject to the large diversion requirements will need to submit their data to CalWATRS instead of posting to any public website.⁸
- Large diversion applicability: diverters allowed to divert more than 30 cubic feet per second ("cfs") of water at any time during the year will be subject to the large diversion requirements.⁹
- Point of measurement: diverters will be required to identify and report their measurement location.
- Measurement methodology: diverters will be required to file a Report of Measurement Methodology form describing how they are measuring and accounting for diversions.

Overall, the proposed update to the SB 88 regulation is not expected to affect the baseline number of water rights that are subject to the SB 88 regulation or the baseline number of these water rights that submit annual reports to the Water Board (Table 2). However, diverters who have measurement devices but still do not submit the necessary datafiles with their annual reports might be more likely to do so as a result of the proposed update. Taking that potential effect into account, this economic impact assessment assumes that the number of water rights for which annual reports are submitted with measurement data will increase at a slightly greater average rate than the expected 4.3 percent for the baseline. More specifically, because the

⁶ Rediverted water refers to water that has previously been diverted or stored from a watercourse or storage location where the previously diverted or stored water has been comingled with other claimed water rights.

⁷ This requirement affects water right holders more generally and not just the subset of water right holders subject to the SB 88 regulation.

⁸ Currently, this is referred to as the "telemetry requirement" although the existing regulation misuses the term to instead refer to more frequent submission of data. The proposed update replaces the term "telemetry requirements" with "large diversion requirements" to better reflect the nature of the requirements.

⁹ As mentioned before, currently, diverters are subject to these requirements if they are allowed to divert more than 10,000 acre-feet of water per year, have a reservoir with 10,000 acre-feet or more of capacity, or are allowed to divert more than 30 cfs of water at any time between June and September. The new large diversion applicability will, in addition, include diverters who are allowed to divert more than 30 cfs of water at any time during the entire year.

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increase in the number of water rights with measurement data is projected to be driven mostly by water right holders that may still be getting accustomed to the initial regulation adopted eight years ago, the impact of the proposed update on the number of water rights that submit measurement data is projected to be nonzero, but still an order of magnitude smaller than the projected baseline increase (i.e., greater than zero but less than one percent).¹⁰

Additionally, as a result of the proposed SB 88 regulation update, some diverters likely will need to install measurement and recording devices, including at points of rediversion or to satisfy large diversion requirements. These impacts are discussed in detail in Section 4.

3. Benefits

The proposed SB 88 regulation update is expected to yield benefits that are not possible to quantify given the existing data. The proposed update aims to enhance the accuracy, consistency, and usability of reported data, which is crucial for effective water management, especially in drought conditions. By restructuring the regulation for clarity, simplifying requirements, and standardizing data formats, the proposed update will make it easier for water right holders to comply and for the Water Board to analyze the data systematically.

More specifically, the proposed update clarifies key terms, like “measurement device,” and more explicitly requires labelling of points of rediversion and identification of measurement locations. These changes are expected to reduce reporting confusion and prevent data inconsistencies. The addition of exemption criteria for those who did not divert and expanded eligibility for alternative compliance plans will introduce flexibility for diverters, easing compliance burdens while ensuring that necessary data is captured. Aligning reporting requirements with the water year and mandating email addresses for digital reporting will further streamline processes, supporting a more transparent and responsive water management framework in California. By clarifying and streamlining reporting processes, taken together these changes are expected to reduce some of the compliance costs for water right holders. These cost savings were not quantified in this economic impact assessment because of data limitations. More specifically, the cost savings associated with greater understanding of requirements may vary greatly between water right holders and cannot be easily quantified. The benefits from improvements in water rights administration and statewide water management also are difficult to assign a value to, because they depend on future decisions and conditions that cannot be accurately forecasted.

4. Direct Costs

4.1 Reporting Costs

As explained in Section 2.2, the proposed update to the SB 88 regulation will revise some of the current reporting requirements that could have an economic impact on diverters. More specifically, when reporting, diverters will be required to (1) provide information on rediversions (if requested by the Water Board), (2) provide an email address for their CalWATRS account,

¹⁰ The mid-point of 0.5 percent is assumed for subsequent calculations in this economic impact assessment. Estimated cost impacts would not significantly differ if other values in that range were assumed.

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(3) submit their measurement data using a specified datafile format or template in CalWATRS, (4) submit their large diversion submissions to CalWATRS (if subject to the large diversion requirements), (5) identify their measurement location, and (6) file a Report of Measurement Methodology form describing how they are measuring and accounting for diversions.

The table below summarizes the impact on reporting costs for private water right holders (reporting costs for state and local governments are analyzed separately in Section 6). As shown in the table, private water right holders combined will potentially experience a one-time reporting cost of approximately \$1.5 million and subsequent annual reporting costs of approximately \$56,000 as a result of the proposed SB 88 regulation update.

Table 3
Reporting costs for private water right holders

Reporting-related Task	Cost (\$)	
	One-time	Recurring
Rediversion	0	17,967
Email account	77,678	0
Measurement data template	413,721	20,047
Large diversion requirements	529,304	0
Measurement location	201,964	2,506
Measurement methodology	310,298	15,035
Total	1,532,975	55,555

Water rediversion is an important metric for accounting for the total amount of water diverted and used, and many diverters are already measuring and reporting rediversions.¹¹ These diverters would be required to indicate, to the extent possible, the amount of water rediverted in submitted measurement data. The amount of time needed to submit the information about a rediversion would vary and is expected to be, on average, two hours every year, per point of rediversion (“PoRD”). Assuming an hourly rate of \$121.40, which is based on the 2024 median hourly wage of a mechanical engineer in California multiplied by a factor of two to account for benefits and overhead,¹² the cost of reporting the required information to the Water Board would be approximately \$243 per PoRD per year (\$121.40/hour × 2 hours). It is projected that private diverters would be asked to report information for approximately 74 PoRDs every year.¹³ Thus, the total reporting cost of this requirement, as shown in Table 3, would be about \$18,000 per

¹¹ Diverters may already be measuring rediversions specifically, or they may be measuring a combination of rediversions, diversions to storage, and/or direct diversions at the same point of diversion.

¹² Other occupations such as civil engineer, environmental engineer, or engineering technician could also have been assumed in this economic impact assessment. The assumption that the tasks will be performed by a mechanical engineer potentially over-estimates the costs of the tasks.

¹³ This projection relies on an analysis of (1) rediversions for which data are already available and (2) rediversions for which data are still lacking and that are projected to be requested in the future based on watershed and ownership. This analysis also has data limitations, as the current reporting system does not have comprehensive data on rediversions.

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year ($\$243/\text{PoRD} \times 74 \text{ PoRDs}$) for private diverters. Some of the diverters would additionally need to install measurement devices to measure rediversions – the installation and maintenance costs of such devices are discussed in Section 4.2.

Most water right holders, approximately 90 percent, have already provided an email address to the Water Board and, therefore, would not incur any additional cost to comply with the email requirement for a CalWATRS account. It is assumed that the remaining water right holders would have to create an email account and submit it to the Water Board. The amount of time needed to do so would vary and is expected to be, on average, 30 minutes per water right holder.¹⁴ It is projected that approximately 1,280 private water right holders (ten percent of 12,797) would need to create an email account and report it to CalWATRS.¹⁵ Thus, assuming as before an hourly rate of \$121.40, the total reporting cost of this requirement, as shown in the table above, would be approximately \$77,700 for private water right holders.

The amount of time needed to submit measurement data in the template designed by the Water Board would vary and is expected to be, on average, two hours per water right. This average accounts for the instances in which a water right is associated with multiple points of diversion.¹⁶ The average also accounts for both diverters who are already providing measurement data to the Water Board, as well as diverters who have not submitted datafiles before, but are projected to start doing so in the next years. While the former group of diverters will likely spend less than two hours on average to update their datafiles to conform with the template, the latter (and smaller) group will probably need approximately two hours on average to create a datafile conforming to the template and upload it. Among private diverters, it is estimated that approximately 1,704 water rights already submitting datafiles would conform to the template in the first year after the proposed regulation is effective, and another 83 water rights would start submitting datafiles conforming to the template every year afterwards. Therefore, assuming as before an hourly rate of \$121.40, the total reporting cost of the template requirement for private diverters would be an initial \$413,700 plus approximately \$20,000 every year.

The amount of time needed to comply with the large diversion requirement that data be submitted to CalWATRS would depend on, among other factors, whether the diverter is already reporting to a public website in accordance with the existing telemetry requirements. For the large diversion requirements, diverters may either submit measurement data in a template provided in CalWATRS, or they may connect their measurement and reporting equipment to transmit measurement data directly to CalWATRS. Based on current data submission rates for the existing telemetry requirements, it is expected that most diverters will opt to connect their devices to CalWATRS. If the diverter is already reporting to a public website, the amount of time needed to adjust that process to submit to CalWATRS is estimated to be, on average, eight

¹⁴ This 30-minute average also accounts for the potential instances in which internet is not readily available to a water right holder. The number of water right holders without internet access is estimated to be minimal.

¹⁵ 12,797 is the number of private water right holders who have filed an annual report in the past five years. Thus, it includes, but is not limited to, private water right holders subject to the SB 88 regulation.

¹⁶ There are approximately 1.4 points of diversion per water right in the dataset analyzed in this economic impact assessment.

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hours per water right.¹⁷ If the diverter is not currently telemetering to a public website, then the amount of time needed to set up a connection to CalWATRS is estimated to be, on average, 16 hours per water right. These averages account for the instances in which a water right is associated with multiple points of diversion and therefore multiple devices. Notably, the amount of time needed to transmit data to CalWATRS will likely decline over the years, as device manufacturers start supporting CalWATRS integration in the future.¹⁸ Among private diverters, it is estimated that 321 water rights are already telemetering to public websites and an additional 112 would be setting up these connections or uploading large diversion datafile templates for the first time. Therefore, assuming an hourly rate of \$121.40, the total reporting cost of this requirement for private diverters would be approximately \$529,300. Some of the 112 diverters would additionally need appropriate measurement and recording devices – the installation and maintenance costs of such devices are discussed in Section 4.2.

Diverters will be able to identify their measurement location in CalWATRS by zooming in on a map and clicking the appropriate location. The amount of time needed to do that would vary and is expected to be, on average, 15 minutes per water right. This average accounts for the instances in which a water right is associated with multiple points of diversion. Among private diverters, it is estimated that approximately 6,700 water rights (those already submitting annual reports with measurement data to the Water Board, as well as those with diversions greater than zero that are submitting annual reports without measurement data) would identify their measurement locations in the first year after the proposed regulation is effective, and an additional 83 water rights would start doing so every year afterwards (those that will start submitting measurement data to the Board). Therefore, assuming an hourly rate of \$121.40, the total reporting cost of this requirement for private diverters would be an initial \$202,000 plus approximately \$2,500 every year.

The amount of time needed to describe the existing measurement methodology being used by the diverter and to file the Report of Measurement Methodology with the Water Board would vary and is expected to be, on average, 1.5 hours per water right. This estimate accounts for the potential time spent on describing calculations, conversions, and quality assurance protocols, through which the diverter accounts for the volume and flow rate of water diverted under each water right. Among private diverters, it is estimated that approximately 1,704 water rights already submitting datafiles would additionally file the Report of Measurement Methodology in the first year after the proposed regulation is effective, and another 83 water rights would start submitting such reports every year afterwards. Therefore, assuming as before an hourly rate of \$121.40, the total reporting cost of the measurement methodology requirement for private diverters would be an initial \$310,300 plus approximately \$15,000 every year.

4.2 Equipment Installation and Maintenance Costs

As mentioned in the previous section, some of the diverters will need certain equipment in order to be able to comply with the new redirection and large diversion requirements. Table 4

¹⁷ A highly experienced professional, already familiar with the equipment, reporting system, and CalWATRS, could probably set it up in as little as two hours (including testing).

¹⁸ Several manufacturers have participated in the CalWATRS development with the Water Board.

summarizes the impact of these requirements on equipment installation, operation, and maintenance costs for private diverters (equipment installation and maintenance costs for state and local governments are analyzed separately in Section 5). As shown in the table, private diverters will potentially experience (one-time) equipment installation costs of approximately \$637,000 and subsequent annual maintenance costs of approximately \$96,000 as a result of the proposed SB 88 regulation update.

Table 4**Equipment installation and maintenance costs for private water right holders**

Equipment-related Task	Cost (\$)	
	One-time	Recurring
Measurement device installation (rediversion requirement)	297,602	0
Measurement device maintenance (rediversion requirement)	0	44,640
Telemetry-capable recording device installation	339,150	0
Telemetry-capable recording device maintenance	0	50,873
Total	636,752	95,513

The installation cost of a new measurement device is case-specific and thus can vary widely. For large diversions (direct diversions of 10,000 acre-feet/year or more), the installation cost can range from \$13,500 to \$26,200 per device, and includes the costs of an open channel flow device, pressure transducer, staff gauge, data logger recording device, and telemetry.¹⁹ Telemetry is not a required feature for measuring large diversions, but will generally be desired based on the frequency at which diverters are required to collect and submit measurement data. Often rediversions occur and are already being measured at a point of direct diversion or diversion to storage, in which case the diverter would need to account for the rediversion but an additional measuring device would not be necessary. If necessary, and by request, other diverters may need to install an additional measuring device for points of rediversions that are not already being measured. Most of the diverters that are projected to need new measurement devices for points of rediversion have diversions greater than 10,000 acre-feet/year, and, therefore, would likely incur installation costs in that price range. The mid-point of that range, approximately \$19,840/PoRD, was thus assumed as the potential installation cost incurred by diverters projected to need new measurement devices at their points of rediversion. Among private diverters, about 15 points of rediversion are projected to need new measurement devices, and would thus incur total installation costs of approximately \$297,600, as shown in the table above.

¹⁹ Installation, maintenance, and operating costs of a new measurement device were obtained from Table 3 in the appendix to the STD. 399 form for the "Measurement & Reporting on the Diversion of Water" emergency regulation. These cost estimates were adjusted for inflation based on California's consumer price index obtained from the Department of Finance.

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Following industry standards, it was assumed that the annual cost of operation and maintenance of the measuring device would be equal to 15 percent of the cost of installing a new device. Thus, the total cost incurred by the 15 private diverters to operate and maintain new measuring devices for measuring rediversions would be approximately \$44,600 per year.

Like measurement devices, the installation cost of a new recording device for transmitting large diversion data is case-specific and can vary widely. It depends, for example, on the type of transmission and the frequency and volume of transmission that diverters choose to do.²⁰ The installation cost of these devices can range from \$3,500 (e.g., out-of-the-box cellular chips, transmission of daily measurements of a few parameters, one-year cellular plan) to \$5,000 (e.g., use of satellite or radio if cellular reception is not reliable). The mid-point of that range, \$4,250/device, or approximately \$5,950/water right, was thus assumed as the potential installation cost incurred by diverters projected to need new devices. Among private diverters, approximately 57 water rights are projected to need new recording devices for transmitting large diversion data, and would thus incur total installation costs of approximately \$399,200, as shown in Table 4.

Following industry standards, it was assumed as before that the annual cost of operation and maintenance of the telemetry-capable recording device would be equal to 15 percent of the cost of installing a new device. Thus, the total cost to operate and maintain new devices associated with the 57 water rights would be approximately \$50,900 per year.

5. Cost Impact on Businesses and Individuals

5.1 Typical and Small Businesses

To assess the cost impact on typical and small regulated businesses (all regulated businesses are private water right holders), approximately 9,900 water rights held by private diverters were analyzed. The volume of water allowed to be diverted for a water right varies significantly, ranging from 10 acre-feet per year to more than 500,000 acre-feet per year. The median water right among private diverters, in terms of volume allowed to be diverted, is approximately 100 acre-feet, and the fifth percentile is approximately 14 acre-feet. The median number of water rights held by private diverters is one. The “typical” water right holder in this economic impact assessment is, therefore, defined as holding approximately one water right for an allowed diversion volume of 100 acre-feet, and the “small” water right holder is defined as holding one water right for a diversion volume of 14 acre-feet of water or less.

The small and typical water right holders thus defined likely will not be affected by the rediversion and large diversion requirements – as explained in Section 4.2, water right holders that will likely need new measurement or recording devices are some of the largest diverters. The remaining requirements, i.e., the ones related to the new reporting tasks described in Section 4.1, are projected to have some impact on small and typical water right holders.

²⁰ Because of the utility of telemetering devices for diverters subject to the large diversion requirements, the calculations in this economic impact assessment assume diverters will install and maintain telemetry-capable recording devices, even though these devices are not strictly required.

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Table 5 shows the cost impact on a small or typical water right holder, based on the unit costs discussed before, including the assumed hourly rate of \$121.40. Both small and typical water right holders are expected to incur a one-time cost of approximately \$516 (per business on average), which accounts for the time needed to provide an email address for their CalWATRS account, submit their measurement data using a template provided by the Water Board or CalWATRS, identify their measurement location, and file a Report of Measurement Methodology form describing how they are measuring and accounting for diversions, discussed previously.

Table 5

Cost impact on a typical or small private water right holder

Reporting-related Task	Cost (\$)
Email account	61
Measurement data template	243
Measurement location	30
Measurement methodology	182
Total	516

5.2 Individuals

It is likely that some of the private diverters discussed in the previous section are individuals and not businesses. However, it is not possible to distinguish between individuals and businesses with the available data. For that reason, it is assumed that, like small and typical regulated businesses, most of the individuals holding water rights and subject to the SB 88 regulation would only incur the reporting-related costs of \$516 (per individual on average), but not the costs related to new measurement and recording devices.

6. Fiscal Impacts

6.1 Local Governments

As stated before, approximately 12 percent, or 1,400, of the 11,500 water rights subject to the SB 88 regulation are held by local government agencies. The cost impact of the proposed SB 88 regulation update on this group of water rights is analyzed separately in this section, but is based on the same assumptions and calculations described in Section 4 for private water right holders.

Table 6 summarizes the impact on reporting costs for local government agencies. Combined, they will potentially experience a one-time reporting cost of approximately \$635,600 and subsequent annual reporting costs of approximately \$41,000 as a result of the proposed SB 88 regulation update.

Table 6
Reporting costs for local governments

Reporting-related Task	Cost (\$)	
	One-time	Recurring
Rediversion	0	28,893
Email account	3,223	0
Measurement data template	130,384	6,318
Large diversion requirements	371,970	0
Measurement location	32,222	790
Measurement methodology	97,788	4,738
Total	635,586	40,739

As before, it assumed that the amount of time needed to submit the information about rediversions would be, on average, two hours every year. Additionally, it is projected that local government agencies would be asked to report information for approximately 119 rediversion every year. Thus, assuming an hourly rate of \$121.40, the total reporting cost of this requirement would be about \$28,900 per year.

It is projected that approximately 53 local government agencies would need to create an email account and report it to CalWATRS,²¹ and that the amount of time needed to do so would be, on average, 30 minutes per agency. Thus, assuming an hourly rate of \$121.40, the total reporting cost of this requirement, as shown in the table above, would be approximately \$3,200 for local government agencies.

The amount of time needed to submit measurement data in the template designed by the Water Board would be, on average, two hours per water right. Among local government agencies, it is projected that approximately 537 water rights already submitting datafiles would conform to the Board-provided data template in the first year after the proposed regulation is effective, and another 26 water rights would start submitting datafiles conforming to the template every year afterwards. Therefore, the total reporting cost of the template requirement for local government agencies would be an initial \$130,400 plus approximately \$6,300 every year.

As explained in Section 4.1, the amount of time needed to comply with the large diversion requirement that data be submitted to CalWATRS is estimated to be either eight or 16 hours per water right, depending on whether the diverter is already reporting to a public website in accordance with the existing telemetry requirements. Among local government agencies, it is estimated that 319 water rights are already telemetering to public websites and an additional 32 would be telemetering for the first time, with the same assumption discussed in Section 4 that diverters subject to the large diversion requirements will opt for telemetry-capable recording devices. Therefore, the total reporting cost of this requirement for local government agencies would be approximately \$372,000.

²¹ More precisely, the number of local government agencies that would need to create an email account is projected to be 53.1, and not 53 as shown in the text. This same approach (of showing rounded numbers in the text) was taken throughout the document for clarity, and does not affect the results of this economic impact assessment.

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The amount of time to identify measurement locations in CalWATRS is expected to be, on average, 15 minutes per water right. Among local government agencies, it is estimated that approximately 1,100 water rights would identify their measurement locations in the first year after the proposed regulation is effective, and an additional 26 water rights would start doing so every year afterwards. Therefore, the total reporting cost of this requirement for local government agencies would be an initial \$32,200 plus approximately \$800 every year.

The amount of time needed to describe the existing measurement methodology being used and to file the Report of Measurement Methodology with the Water Board is expected to be, on average, 1.5 hours per water right. Among local government agencies, it is estimated that approximately 537 water rights already submitting datafiles would additionally file the Report of Measurement Methodology in the first year after the proposed regulation is effective, and another 26 water rights would start submitting such reports every year afterwards. Therefore, the total reporting cost of the measurement methodology requirement for local government agencies would be an initial \$97,800 plus approximately \$4,700 every year.

Table 7 summarizes the impact of the new rediversion and large diversion requirements on equipment installation, operation, and maintenance costs for local government agencies. Combined, they will potentially experience (one-time) equipment installation costs of approximately \$1.8 million and subsequent annual maintenance costs of approximately \$270,000 as a result of the proposed SB 88 regulation update.

Table 7

Equipment installation and maintenance costs for local governments

Equipment-related Task	Cost (\$)	
	One-time	Recurring
Measurement device installation (rediversion requirement)	1,785,612	0
Measurement device maintenance (rediversion requirement)	0	267,842
Telemetry-capable recording device installation	11,900	0
Telemetry-capable recording device maintenance	0	1,785
Total	1,797,512	269,627

As explained in Section 4.2, the installation cost incurred by diverters projected to need new measurement devices at their points of rediversion is assumed to be approximately \$19,840/PoRD. Among local governments, about 90 points of rediversion are projected to need new measurement devices, and would thus incur total installation costs of approximately

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\$1,786,000, as shown in Table 7, and subsequent operating and maintenance costs (15 percent of installation costs) of approximately \$267,800 per year.²²

The installation cost of a new telemetry-capable recording device is estimated to be approximately \$5,950/water right. Among local government agencies, approximately two water rights are projected to need new devices, and would thus incur total installation costs of approximately \$11,900, and subsequent operating and maintenance costs (15 percent of installation costs) of approximately \$1,800 per year.

6.2 State Government

Approximately two percent, or 200, of the 11,500 water rights subject to the SB 88 regulation are held by state government agencies. The cost impact of the proposed SB 88 regulation update on this group of water rights is analyzed separately in this section, but is based on the same assumptions and calculations described in Section 4 for private water right holders.

Likely, state agencies will not be as impacted as private water right holders and local government agencies in aggregate. Table 8 summarizes the impact on reporting costs for state agencies. Combined, they will potentially experience a one-time reporting cost of approximately \$41,500 and subsequent annual reporting costs of approximately \$400 as a result of the proposed SB 88 regulation update.

Table 8

Reporting costs for state government

Reporting-related Task	Cost (\$)	
	One-time	Recurring
Rediversion	0	0
Email account	140	0
Measurement data template	4,087	198
Large diversion requirement	30,107	0
Measurement location	4,057	25
Measurement methodology	3,065	149
Total	41,456	371

It is projected that likely no state agency would be asked to report new rediversion information to the Water Board, and thus would not incur any costs related to this new requirement.²³

It is projected that potentially two or three state agencies would need to create an email account and report it to CalWATRS, and that the amount of time needed to do so would be, on average,

²² Total installation costs of new measurement devices at PoRDs likely are over-estimated in this economic impact assessment, as many of these PoRDs might already have the necessary infrastructure in place. Similarly, maintenance costs at PoRDs are potentially over-estimated in this assessment, as many already have ongoing maintenance, oversight, and tracking.

²³ No state agency rights were listed as having a point of rediversion in the data analyzed in this economic impact assessment.

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30 minutes per agency. Thus, assuming an hourly rate of \$121.40, the total reporting cost of this requirement, as shown in the table above, would be approximately \$140 for the state agencies.

The amount of time needed to submit measurement data in the template designed by the Water Board would be, on average, two hours per water right. Among state agencies, it is projected that approximately 17 water rights already submitting datafiles would conform to the Board-provided data template in the first year after the proposed regulation is effective, and one additional water right would start submitting datafiles conforming to the template every year afterwards. Therefore, the total reporting cost of the template requirement for state agencies would be an initial \$4,100 plus approximately \$200 every year.

The amount of time needed to comply with the large diversion requirement that data be submitted to CalWATRS is estimated to be either eight or 16 hours per water right, depending on whether the diverter is already reporting to a public website. Among state agencies, it is estimated that 17 water rights are already telemetering to public websites and an additional seven water rights would be telemetering for the first time, with the same assumption discussed before that diverters subject to the large diversion requirements will opt for telemetry-capable recording devices. Therefore, the total reporting cost of this requirement for state agencies would be approximately \$30,100.

The amount of time to identify measurement locations in CalWATRS is expected to be, on average, 15 minutes per water right. Among state agencies, it is estimated that approximately 134 water rights would identify their measurement locations in the first year after the proposed regulation is effective, and one additional water right would start doing so every year afterwards. Therefore, the total reporting cost of this requirement for state agencies would be an initial \$4,100 plus approximately \$30 every year.

The amount of time needed to describe the existing measurement methodology being used and to file the Report of Measurement Methodology with the Water Board is expected to be, on average, 1.5 hours per water right. Among state agencies, it is estimated that approximately 17 water rights already submitting datafiles would additionally file the Report of Measurement Methodology in the first year after the proposed regulation is effective, and one additional water right would start submitting such report every year afterwards. Therefore, the total reporting cost of the measurement methodology requirement for state agencies would be an initial \$3,100 plus approximately \$150 every year.

Table 9 summarizes the impact of the new rediversion and large diversion requirements on equipment installation, operation, and maintenance costs for state agencies. Combined, they will potentially experience (one-time) equipment installation costs of approximately \$23,800 and subsequent annual maintenance costs of approximately \$3,600 as a result of the proposed SB 88 regulation update. Given that no state agency is expected to report new rediversion information, these costs refer to the installation, operation, and maintenance of telemetry-capable recording devices.

Table 9**Equipment installation and maintenance costs for state government**

Equipment-related Task	Cost (\$)	
	One-time	Recurring
Measurement device installation (rediversion requirement)	0	0
Measurement device maintenance (rediversion requirement)	0	0
Telemetry-capable recording device installation	23,800	0
Telemetry-capable recording device maintenance	0	3,570
Total	23,800	3,570

The installation cost of a new telemetry-capable recording device is estimated to be approximately \$5,950/water right. Among state agencies, approximately four water rights are projected to need new devices, and would thus incur total installation costs of approximately \$23,800, and subsequent operating and maintenance costs (15 percent of installation costs) of approximately \$3,600 per year.

7. Economy-Wide Impacts

The impact of the proposed SB 88 regulation update on the state economy is projected to be negligible. More specifically:

- Investment in the state:** As explained in previous sections, the proposed update is expected to increase capital expenditure through the purchase of new measurement and recording equipment by some of the diverters. This increased capital expenditure, however, is relatively negligible, and thus not sufficiently large to affect production levels of existing in-state manufacturers of flow meters, gauges, telemetry-capable recording devices, and related equipment. Therefore, no significant increase in investment is expected statewide.
- Creation of new businesses or elimination of existing businesses:** Existing manufacturers of measurement and recording equipment likely would not need to expand production as a result of the proposed SB 88 regulation update. Similarly, businesses that provide support, maintenance, and repair of such equipment would not experience any notable expansion. Likewise, engineering consulting firms, contractors, and related businesses that assist diverters with the reporting requirements and measurement data management would not experience any notable expansion. Accordingly, it is unlikely that new businesses in these manufacturing or service sectors will be created in the state. No existing business is expected to be eliminated as a result of the proposed SB 88 regulation update.
- Creation or elimination of jobs within the state:** For the reasons explained in the previous bullet points, it is unlikely that jobs will be created or eliminated within the state as a result of the proposed update.

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- **Competitive advantages or disadvantages for businesses:** The proposed SB 88 regulation update would not put in-state businesses at a disadvantage.
- **Incentives for innovation in products, materials, or processes:** The SB 88 regulation and proposed update rely on available and well-established measurement and recording technologies. As noted in Section 4.1, an increasing number of telemetry-capable recording device manufacturers will potentially start supporting integration with CalWATRS in the coming years, which could be seen as an innovation. However, the overall impact of the proposed update on innovation in products, materials, or processes likely will be negligible.

8. Alternatives

Two alternatives to the proposed SB 88 regulation update were evaluated in this economic impact assessment. Like the proposed update, the two alternatives improve clarity and organization of the existing regulatory text. However, the first alternative (“Alternative 1”) considers only two of the requirements proposed in the SB 88 regulation update: (a) water right holders would be required to provide an email for their CalWATRS account, and (b) diverters would be required to use a Water Board template to report measurement data or transmit data directly to CalWATRS. Alternative 1 is, therefore, less stringent than the proposed SB 88 regulation update. The second alternative (“Alternative 2”) considers all the requirements proposed in the SB 88 regulation update and makes one of them relatively more stringent: all rediversions (and not only those requested by the Water Board) would be required to be measured and reported as such. Alternative 2 is, therefore, more stringent than the proposed SB 88 regulation update.

The analysis of cost impact of the two alternatives is based on the same assumptions and calculations described in Section 4. Table 10 below summarizes the estimated cost impact of Alternatives 1 and 2, as well as the estimated cost impact of the proposed SB 88 regulation update for comparison. For simplicity, the cost estimates shown in the table include potential fiscal impacts. Under Alternative 1, water right holders would incur one-time costs of approximately \$630,000, plus annual costs of approximately \$27,000, that reflect the time needed to comply with the email and data template requirements. Water right holders under this alternative would not incur any costs related to equipment installation and maintenance. Under Alternative 2, water right holders would incur one-time costs of approximately \$6.1 million, plus annual costs of approximately \$700,000. Compared to the proposed update, diverters under this alternative would have to report a greater number of rediversions and install more measurement devices, and, therefore, incur higher reporting, installation, and maintenance costs in aggregate.

Table 10

Estimated costs for water right holders under Alternative 1, the proposed SB 88 regulation update, and Alternative 2

Alternatives and Proposed Update	Cost (\$)	
	One-time	Recurring
Alternative 1	629,243	26,562
Proposed SB 88 regulation update	4,668,081	465,374
Alternative 2	6,076,731	693,910

Note: Cost estimates in the table include fiscal impacts on state and local governments.

9. References

Department of Finance, State of California, 2024. Economic Forecasts, U.S. and California. Retrieved from: <https://dof.ca.gov/forecasting/economics/economic-forecasts-u-s-and-california/>.

Economic and Fiscal Impact Statement, STD. 399 form, for the “Measurement & Reporting on the Diversion of Water” Emergency Regulation, 2016.

Employment Development Department, State of California, 2024. Occupational Employment and Wage Statistics (OEWS), 2009-2024. Retrieved from https://data.ca.gov/dataset/6411456b-594b-4b73-af57-ce8dd401f2e2/resource/aef4c53a-7e17-418c-acc1-d189e39b6caa/download/oews-2009-2024_original.csv.