

Yolo County Flood Control & Water Conservation District

Board Meeting
34274 State Highway 16
Woodland, CA 95695
Tuesday, June 5, 2018
7:00 P.M.

Public documents relating to any open session item listed on this agenda that are distributed to all or a majority of the members of the Board of Directors less than 72 hours before the meeting are available for public inspection in the customer service area of the District's Administrative Office at the address listed above.

In compliance with the Americans with Disabilities Act, if you have a disability and need a disability-related modification or accommodation to participate in this meeting please contact Christina Cobey at (530) 662-0265 or info@ycfcwcd.org. Requests must be made as early as possible, and at least one full business day before the start of the meeting.

AGENDA

- 7:00 1. Consideration: Adoption of the May 1, 2018 Regular Board Meeting Minutes
- 7:02 2. Open forum (Limited to five minutes): Guest introductions, unscheduled appearances, opportunity for public comment on non-agenda items
- 7:07 3. Consideration: Adding Items to the Posted Agenda
In order to add an item to the agenda, it must fit one of the following categories:
a) A majority determination that an emergency (as defined by the Brown Act) exists; or
b) A 4/5ths determination that the need to take action that arose subsequent to the agenda being posted.
- 7:10 4. Consideration: Resolution 18.03 Accepting DWR Proposition 1 Sustainable Groundwater Planning Grant and Establishing Authorized Project Representative
- 7:15 5. Presentation: Update on Capital Improvement Program
- 7:30 6. Presentation: Water Measurement and Reporting
- 8:00 7. Directors' Reports: Report on meetings and conferences attended during the prior month on behalf of the District

- 8:05 8. Attorney's Report: Report on legal matters of concern to the District
- 8:10 9. General Manager's Report: Report regarding current general activities and projects of the District
- a) Operations, Maintenance, and Water Conditions
 - b) Financial Report
 - c) General Activities
 - d) Upcoming Events
- 8:25 10. General Discussion: Opportunity for clarification or additional information request
- 8:28 11. Consideration: Consider the approval and the payment of bills
- 8:30 12. Adjourn

The public may address the Board concerning an agenda item either before or during the Board's consideration of that agenda item. Public comment on items within the Board's jurisdiction is welcome, subject to reasonable time limits for each speaker. Upon request, agenda items may be moved up to accommodate those in attendance wishing to address that item. Times listed for consideration of agenda items are approximate only. The Board may consider any agenda item at any time during the Board meeting.

I declare that the foregoing agenda was posted at the office of the Yolo County Flood Control and Water Conservation District, 34274 State Highway 16, Woodland, CA on June 1, 2018.

By: _____
Kristin Sicke, Assistant General Manager

YOLO COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT
AGENDA REPORT

MEETING DATE: June 5, 2018

ITEM #: 1

SUBJECT: Consideration: Adoption of the May 1, 2018 Regular Board Meeting Minutes

INITIATED OR BOARD

COORDINATED OR

REQUESTED BY: STAFF

APPROVED BY: Tim O'Halloran

OTHER _____

ATTACHMENT YES NO

INFORMATION

DIRECTION

ACTION:

MOTION

RESOLUTION

BACKGROUND:

Pursuant to Section 54957.5 of the Brown Act, copies of the draft minutes are available to the public at the Board meeting prior to their approval.

Staff request the Directors call the Yolo County Flood Control and Water Conservation District (District) office if a correction is needed to be made to the draft minutes to clarify a substantial point or to correct content. Staff will then have time to make the appropriate change(s) and submit the revised draft for review to the Board and the public at the Board meeting.

RECOMMENDATION:

District staff recommend the adoption of the attached minutes with any corrections.



Y O L O C O U N T Y

**FLOOD CONTROL &
WATER CONSERVATION
DISTRICT**

BOARD MEETING MINUTES

Tuesday, May 1, 2018, 7:00 PM

YCFCWCD Offices

34274 State Highway 16

Woodland, CA 95695

The regular meeting of the Board of Directors of the Yolo County Flood Control and Water Conservation District (District) was held at 7:00 p.m. on Tuesday, May 1, 2018, at its regular place of business, 34274 State Highway 16, Woodland, California. Vice Chair Barth convened the meeting. The following people were in attendance:

District Board

Tom Barth

Bruce Rominger

Erik Vink

District Staff

Tim O'Halloran, General Manager

Max Stevenson, Assistant General Manager

Kristin Sicke, Assistant General Manager

Ryan Bezerra, Legal Counsel

Members of the Public

Jim Barrett

John McKean

Dave Pratt

Don Rominger

Rob Roscoe

1. CONSIDERATION: Approval of Minutes

M/S/C approved the minutes of the April 3, 2018 regular Board meeting as submitted.

Ayes: Directors Barth, Rominger, and Vink

Noes: None

Absent: Directors Brice and Kimball

Abstain: None

2. OPEN FORUM

General Manager O'Halloran informed the Board, that technically, it was Director Ann Brice's last meeting; however, she was unable to attend.

3. CONSIDERATION: Adding Items to the Posted Agenda

There were no changes made to the agenda.

4. PRESENTATION: Power Purchase Agreement with Valley Clean Energy Alliance for Selling Power at Indian Valley Reservoir

Assistant General Manager Stevenson reported on the District's history of power production at the Indian Valley Reservoir hydroelectric facility. Since January, the District has been working with the Valley Clean Energy Alliance (VCEA) to determine whether the District could sell power to VCEA. VCEA and the District came to a favorable arrangement for a two-year Power Purchase Agreement (PPA) starting June 1, 2018. The draft PPA was attached to the Board package for review. Stevenson stated that the PPA had been reviewed by Legal Counsel Bezerra and Stevenson, and still needed some minor revisions before execution. For due diligence, the District planned to have energy consultant Matt Swindle also review the contract.

Stevenson reported that the increase in hydropower income would depend on the water release patterns and storage conditions; however, after a preliminary analysis at VCEA's rates, the new PPA is expected to offer a 15% to 25% increase over the current PPA with PG&E. Stevenson stated that there was no minimum power production value and that scheduling fees would be about \$4 per Megawatt hour.

Director Barth noted the force majeure clause and inquired on the risk to the District since there were still some wood poles on site. Stevenson stated that the District would not be able to turn on the facility if the poles were to burn down and the PPA would terminate at no risk to the District.

Director Rominger urged District staff to talk with the Legislature about other hydropower income opportunities, and to have a conversation with Senator Bill Dodd and Assemblymember Cecilia Aguiar-Curry soon. Stevenson concurred with Director Rominger and informed that District staff planning to continue examining other income alternatives because the current power rate is not sustainable and large expenses will come up in the future at Indian Valley Reservoir.

Staff recommended that General Manager O'Halloran be given authority to contract with the Sacramento Municipal Utility District (SMUD)/VCEA for a PPA from June 1, 2018 to May 31, 2020.

M/S/C granted authority to General Manager O'Halloran to contract with the SMUD/VCEA for a PPA from June 1, 2018 to May 31, 2020.

Ayes: Directors Barth, Rominger, and Vink

Noes: None

Absent: Directors Brice and Kimball

Abstain: None

5. CONSIDERATION: Adoption of Fiscal Year 2018/2019 District Budget

General Manager O'Halloran reviewed the proposed Budget for Fiscal Year (FY) 2018/2019, which begins May 1, 2018. O'Halloran highlighted the agricultural water rates as the primary driver for the District's budget and explained that they were based on the rate schedule set in 2015.

O'Halloran reported the proposed FY 2018/2019 Budget was prepared by staff and reviewed and recommended by the Board's Finance Committee. O'Halloran detailed the primary difference between FY 2017/2018 and FY 2018/2019 by highlighting the special items of interest. The main differences were a decrease in irrigation and hydropower sales. Directors Barth and Vink reported on the two Finance Committee meetings and the Committee's approval of the FY 2018/2019 Budget.

Director Rominger inquired of the increase in non-agricultural appropriator contracts versus the previous year. Assistant General Manager Sicke reported that the non-agricultural appropriator contracts around Clear Lake depend on whether the Lake spills. Since the Lake did not spill this rainy season, the District would be billing non-agricultural appropriators according to contract terms.

Director Barth asked whether the Source of Supply for Indian Valley Dam included FERC Part 12D work, and O'Halloran confirmed that yes, the Source of Supply for Indian Valley Dam includes non-capital work such as FERC Part 12 D.

Jim Barrett questioned the components of the Environmental Resources line item. O'Halloran reported that the Environmental Resources line item was for Jon O'Brien's position plus additional environmental resources work.

District staff recommend adoption of the proposed O&M and Capital Budgets for FY 2018/2019.

M/S/C adopted the proposed O&M and Capital Budgets for FY 2018/2019.

Ayes: Directors Barth, Rominger, and Vink

Noes: None

Absent: Directors Brice and Kimball

Abstain: None

6. PRESENTATION: Report on Preparations for Replacing the Moore Siphon

Assistant General Manager Sicke provided an update on the status of the Moore Siphon Replacement Project. Sicke informed that to-date the following activities had occurred: contracting with the Engineer, survey of the property, and completion of geotechnical borings. Sicke stated that the Geotechnical Report still needed to be completed, which would provide necessary information for preparing the Scour Analysis and determining the optimal alignment and depth of the replacement pipeline. The Geotechnical Report and Scour Analysis would also provide essential information for preparing the design drawings and completing the permitting process. Sicke reported that the District is continuing to prepare for the temporary bypass emergency pipeline should the Siphon fail before the end of the 2018 irrigation season. The District started running flows through the Siphon at the end of April and the leak seems to be equivalent to last year's leak after the emergency repair. Sicke informed that the most difficult component involved in the project will likely be dealing with the high levels of groundwater and amount of de-watering that will need to occur.

7. DIRECTORS' REPORTS

Director Rominger reported that he attended the Cache Creek Conservancy First Foods dinner event.

8. ATTORNEY'S REPORTS

Legal Counsel Bezerra reported on Assembly Bill 2649 (Arambula) that would address temporary permitting program for groundwater recharge and extend the temporary permitting program. Bezerra informed the Board that AB 2649 contains language about the State Water Resources Control Board subsidizing the program. Bezerra stated that the Bill would continue to exempt CEQA from the process and eventually, may lead to a long-term groundwater recharge permitting program.

Director Vink asked what ACWA's position was on the Bill, and Bezerra reported ACWA was currently neutral on AB 2649.

9. GENERAL MANAGER'S REPORT

General Manager O'Halloran provided reports on the following:

- a) Operations, Maintenance, and Water Conditions – The Water Conditions Report and hydrographs of real-time groundwater monitoring wells were reviewed.
- b) Financial Report Summary – Highlights from the April 30, 2018 financial statements report were reviewed and the actual FY 2017/2018 Budget was compared to the projected FY 2017/2018 Budget.
- c) General Activities – A list of outreach activities and projects both in-house and coordinating with other agencies was reviewed.
- d) The following upcoming events were announced:
 1. May 3: Yolo Subbasin Groundwater Agency (YSGA) Core Group Meeting,
District Boardroom

2. May 8-11: ACWA Spring Conference, Sacramento
3. May 9: Westside IRWM Coordinating Committee Meeting, District Boardroom
4. May 24: NCWA's Northern California Water Leaders Program, District Boardroom
5. June 6-7: Groundwater Resources Association of California (GRA) 1st Annual Groundwater Sustainability Agency (GSA) Summit, Sacramento

10. GENERAL DISCUSSION

Director Rominger requested the Yolo County Storm Water Resources Plan be corrected to state that Dry Slough was located at the northwest corner of Winters.

11. CONSIDERATION: Payment of Bills

M/S/C approved the following claims for payment – Yolo County Flood Control and Water Conservation District Checks # 055476 – 055488.

Ayes: Directors Barth, Rominger, and Vink

Noes: None

Absent: Directors Brice and Kimball

Abstain: None

12. ADJOURNMENT

There being no further business to come before the Board, the meeting was adjourned.

Tom Barth, Vice Chair

ATTEST:

Tim O'Halloran, Secretary

YOLO COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT

AGENDA REPORT

MEETING DATE: June 5, 2018

ITEM #: 4

SUBJECT: Consideration: Resolution 18.03 Accepting DWR Proposition 1 Sustainable Groundwater Planning Grant and Establishing Authorized Project Representative

INITIATED OR BOARD
REQUESTED BY: STAFF
 OTHER _____

COORDINATED OR
PREPARED BY: Kristin Sicke
APPROVED BY: Tim O'Halloran

ATTACHMENT YES NO
 DIRECTION

INFORMATION
 ACTION: MOTION
 RESOLUTION

BACKGROUND:

In compliance with the Sustainable Groundwater Management Act (SGMA), the Yolo Subbasin Groundwater Agency must develop a Groundwater Sustainability Plan (GSP) for the Yolo Subbasin and submit it to DWR by January 1, 2022. At the September 18, 2017, Yolo Subbasin Groundwater Agency (YSGA) Board of Directors' meeting, it was decided that the District would be the best applicant for submitting a Sustainable Groundwater Planning (SGWP) Grant Program application and entering into an agreement with the California Department of Water Resources (DWR) on behalf of the YSGA.

At the October 3, 2017 Board meeting, the Board approved Resolution 17.09 authorizing the District to submit an application to DWR to obtain a grant under the 2017 SGWP Grant Program and to enter into an agreement to receive a grant for the Yolo Subbasin GSP on behalf of the YSGA. For compliance with contract provisions, the District must formally accept the grant and establish an authorized project representative.

RECOMMENDATION:

Staff recommend approving Resolution 18.03 Accepting DWR Proposition 1 Sustainable Groundwater Planning Grant and Establishing Authorized Project Representative.

RESOLUTION NO. 18.03

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE YOLO COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT ACCEPTING CALIFORNIA DEPARTMENT OF WATER RESOURCES PROPOSITION 1 SUSTAINABLE GROUNDWATER PLANNING (SGWP) GRANT FUNDS AND DESIGNATING AN AUTHORIZED PROJECT REPRESENTATIVE

NOW, THEREFORE, BE IT RESOLVED, by the Board of Directors of the Yolo County Flood Control and Water Conservation District that the General Manager is hereby authorized to execute for and on behalf of the Yolo County Flood Control and Water Conservation District, a public entity established under the laws of the State of California, a contract accepting the Sustainable Groundwater Planning (SGWP) Grant for the planning and preparation of the Yolo Subbasin Groundwater Sustainability Plan on behalf of the Yolo Subbasin Groundwater Agency; and

BE IT FURTHER RESOLVED, by the Board of Directors of the Yolo County Flood Control and Water Conservation District that the General Manager, or his/her designees, the Assistant General Managers, are hereby appointed as authorized project representatives to provide the assurances, certifications, and commitments required for executing a financial assistance agreement from the California Department of Water Resources and any amendments or changes thereto. And furthermore, are designated to represent the Yolo County Flood Control and Water Conservation District in carrying out the Yolo County Flood Control and Water Conservation District's responsibilities under the assistance agreement, including certifying disbursement requests on behalf of the Yolo County Flood Control and Water Conservation District and in compliance with applicable requirements.

PASSED AND ADOPTED by the Board of Directors of the Yolo County Flood Control and Water Conservation District on June 5, 2018 by the following vote:

AYES:

NOES:

ABSENT:

Signed by me after its passage this 5th day of June 2018.

Mary Kimball, Chair

ATTEST:

Tim O'Halloran, Secretary

YOLO COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT

AGENDA REPORT

MEETING DATE: June 5, 2018

ITEM #: 5

SUBJECT: Presentation: Update on Capital Improvement Program

INITIATED OR BOARD
REQUESTED BY: STAFF
 OTHER _____

COORDINATED OR
PREPARED BY: Tim O'Halloran
APPROVED BY: Tim O'Halloran

ATTACHMENT YES NO INFORMATION
 DIRECTION ACTION: MOTION
 RESOLUTION

BACKGROUND:

As follow-up to the budget presentation at the Board's May meeting, staff will brief the Board on the many capital improvements that are anticipated to be initiated, financed, and completed in the next three-year timeframe.

These projects include;

1. Cache Creek Dam improvements,
2. Indian Valley Reservoir and hydroelectric plant improvements,
3. Moore Siphon replacement,
4. Safety improvements to the Winters and West Adams Headgates, and
5. Headquarters remodel.

Staff is working on developing project details and estimated costs for each of these projects. Financing will be required to complete these projects in a three-year timeframe, and it is anticipated that an outside project manager will be hired to work with key staff members to bring these projects to completion.

RECOMMENDATION:

This agenda item is for informational purposes only. No Board action is required.

YOLO COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT

AGENDA REPORT

MEETING DATE: June 5, 2018

ITEM #: 6

SUBJECT: Presentation: Water Measurement and Reporting

INITIATED OR BOARD
REQUESTED BY: STAFF
 OTHER _____

COORDINATED OR
PREPARED BY: TO/MS/KS
APPROVED BY: Tim O'Halloran

ATTACHMENT YES NO
 DIRECTION

INFORMATION
 ACTION: MOTION
 RESOLUTION

BACKGROUND:

For operational, administrative, and regulatory reasons, accurate water measurement and reporting has become an increasingly important aspect of meeting the District's mission. From ensuring that our customers receive the correct amount of water that they have ordered to complying with state regulations, District staff strive to measure, compile, and report accurate water measurement data. It is quite apparent that pressure, both internal and external to the District, will continue to increase the need for accurate flow measurement and increased reporting. This need will require additional staff time as well as significant capital investments.

Recently, a draft white paper titled "Reporting, Measuring, and Planning Requirements for Agricultural Water Users" was written by MBK engineers and discussed at a NCWA Water Resources Managers' meeting. This document (attached) summarizes many of the water measurement and reporting regulatory requirements that the District is legally obligated to comply with, such as SB 88 (measurement of diversion and use under water rights), SB X7-7 (farm turnout delivery measurement accuracy), Agricultural Water Management Plan development, and SGMA (Sustainable Groundwater Management Act).

In addition to the above-mentioned regulatory requirements, the District has a fundamental need from a business and credibility perspective to ensure our customers are receiving and billed for the actual amount of water ordered. The development of our SCADA system over the previous 10 years provides us with a strong, technical tool to assist in meeting our regulatory and business requirements. However, much work still needs to be done, particularly at the farm-gate level, to ensure that we meet current and future regulatory and business requirements.

Staff will update the Board on the status of compliance with state regulations and will discuss anticipated capital and policy improvements to enhance our ability to accurately measure water flow throughout our system.

RECOMMENDATION:

This agenda item is for informational purposes only. No Board action is required.

Reporting, Measuring, and Planning Requirements for Agricultural Water Users

Prepared for the Northern California Water Association by:



Introduction

Since the late 1800s, lands within the Sacramento Valley have been irrigated. According to state engineer reports, approximately 80,000 acres were irrigated in the Sacramento Valley by 1879 and that number nearly tripled by 1910. Individual land owners and agricultural water suppliers secured some of the oldest water rights in the Sacramento Valley watershed. As the population of the state continued to grow, water leaders throughout the Sacramento Valley continued to secure and protect a variety of water rights and contracts so that water supplies were available for use in Northern California. These water rights and supplies are the socio-economic foundation for Northern California and serve the various environmental values in the region. Today, water leaders continue to take action to protect their water rights and ability to divert water. This process has become more and more time consuming and costly due to increased regulations.

Individual water right holders and agricultural water suppliers have a multitude of water monitoring, measuring, reporting, and planning requirements with which they must comply. These requirements are mainly the result of state and federal legislative actions and are implemented by the State Water Resources Control Board (SWRCB), Department of Water Resources (DWR), and US Bureau of Reclamation (USBR). During the recent dry years, additional reporting and measurement requirements were added to the large number of requirements already in place for irrigators. Many of these requirements are dependent on the size of the water supplier, or volume under the water right/contract. The complex layers of requirements have resulted in many water users relying on experts to assist with the protection of their water rights. This purpose of this memorandum is to summarize and describe the reporting and measurement requirements with which irrigation districts and individual farmers in Northern California must comply and to provide assistance with compliance. This memorandum is comprised of three parts to describe efforts pertaining to surface water, groundwater, and regional actions.

Surface Water

The Water Commission Act of 1913 took effect on December 19, 1914, establishing the state's water rights system. Today, the SWRCB and its Division of Water Rights (Division) is responsible for administering water rights law in California. DWR and USBR are water right

holders under the jurisdiction of the SWRCB, but also coordinate with the Division and other agencies to help manage and protect water resources.

Water Right Reporting

- **Annual water right reports, which are to include monthly diversion and use quantities, are due to the SWRCB by April 1 or July 1 of each year.**
- **The Division may require more frequent reporting requirements during times of water shortage.**

Post-1914 Appropriative water right holders have been subject to reporting requirements since the Water Commission was established. Pursuant to 2009 legislation, the SWRCB began to require online annual reporting of water diversion and use by individual water right. Also, as a result of the 2009 legislation, riparian and pre-1914 water right claimants were required to submit water diversion and use reports online, which were due every three years. During the recent dry years of 2013 – 2015, two important SWRCB actions occurred – the SWRCB issued an Order for Additional Information and the legislature passed Senate Bill (SB) 88, which resulted in the development of new reporting and measurement requirements, both of which are described in more detail below.

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

Shortly after the issuance of the Informational Order, SB 88 was signed by Governor Brown on June 24, 2015. SB 88 required the SWRCB to develop regulations to implement the requirements of the bill. The Reporting and Measurement Regulation (Measurement Regulation) was adopted by the SWRCB on January 19, 2016. The Measurement Regulation changed the reporting frequency for riparian and pre-1914 claimants from tri-annually to annually, beginning with 2016 diversions. The Measurement Regulation also requires annual reporting for diversion and use under small domestic registrations and stock pond certificates, which were not previously required. In addition, the Measurement Regulation authorizes the Division to require monthly or more frequent reporting of diversions when flows or projected available supplies in a watershed or subwatershed are sufficient to support some, but not all, projected diversion demand. This requirement essentially provides authorization for the Division to require

reporting similar to that of the Informational Order without needing to adopt emergency regulations to do so.

Measurement of Diversion and Use under Water Rights

- **All water right holders who divert or are authorized to divert more than 10 acre-feet per year are required to measure their surface water diversions.**
- **The measurement equipment must meet certain accuracy standards and data must be recorded at a specified frequency.**
- **The installation and accuracy of the measurement device must be documented by a Qualified Individual.**

The Measurement Regulation was prepared by the Division pursuant to SB 88. All water right holders who have previously diverted or intend to divert more than 10 acre-feet per year (riparian and pre-1914 claims) or are authorized to divert more than 10 acre-feet per year under a permit, license, or registration, are required to measure the water they divert as described in Table 1.

Compliance with the Measurement Regulation can be achieved by measuring diversions with a measurement device, utilizing a Measurement Method, or implementing an Alternative Compliance Plan where strict compliance is not possible. The accuracy of the measurement needs to be certified by a “Qualified Individual”. For diversions or water rights with a face-value greater than 100 acre-feet per year, a Qualified Individual may be a California-Registered Professional Engineer, a California-Licensed Contractor authorized by the State License Board for C-57 well drilling or C-61 Limited Specialty/D-21 Machinery and Pumps, or a person under the supervision of a California-Registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods. For diversions or water rights with a face-value less than 100 acre-feet, a person familiar with water measurement, including the water right holder, may be the Qualified Individual.

Table 1. Measurement Regulation Thresholds and Requirements

Direct Diversion	Storage	Deadline for Measurement Compliance	Required Accuracy of Device	Required Monitoring Frequency	Telemetry
≥ 1,000 AF/year	≥ 1,000 AF	January 1, 2017	Installed before 1/1/16: 15% Installed after 1/1/16: 10%	Hourly	Diverter who diverts: — > 10,000 AF annually — > 30 cfs by DD during Jun. through Sept. 30 — > 10,000 AF capacity of pond/reservoir — in certain areas (see Measurement Regulation).
≥ 100 AF/year	≥ 200 AF	July 1, 2017		Daily	
	≥ 100 AF		January 1, 2018	Weekly	
> 10 AF/year	≥ 50 AF	15%		Monthly	
	> 10 AF				

Many water right holders did not have enough time to fully comply with the measurement accuracy and/or frequency requirements by the deadlines identified in Table 1. This resulted in an intermediate effort of submitting Requests for Additional Time to the Division. On January 1, 2018, Assembly Bill (AB) 589 passed and allows any diverter who has completed a course on measurement devices and methods administered by the University of California Cooperative Extension (UCCE), including passage of a proficiency test, to be considered a Qualified Individual who may install and maintain measuring devices or implement Measurement Methods for diversions under his/her water rights. Pursuant to AB 589, the Qualified Individual certification provided by this class may need to be renewed after January 1, 2023.

It is important to note that diversions under Sacramento River Settlement Contracts (Settlement Contracts) have been measured for years; however, in many instances, the measurement equipment did not or does not meet the stricter requirements of the Measurement Regulation. For example, USBR monitors its measurement devices on a monthly basis in accordance with the Settlement Contracts, but data is not necessarily recorded on an hourly or daily basis. In order to avoid duplicative efforts and the installation of additional measurement devices by the water right holders, USBR has agreed to upgrade its equipment and install data loggers to assist in compliance with the recording frequency requirements and to certify the equipment as the Qualified Individual. USBR staff are currently working through the requisition process to obtain equipment.

Water Management Planning

The state government, through DWR, and the federal government, through the USBR, both impose planning, measurement, and reporting requirements on water users. In some instances, the different planning activities have conflicting or competing requirements/goals.

State Agricultural Water Management Plans

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

The Water Conservation Act of 2009, or SB X7-7, required agricultural water suppliers with greater than 25,000 irrigated acres to adopt and submit Agricultural Water Management Plans (AWMP) to DWR. The largest component of these AWMPs is the implementation of Efficient Water Management Practices (EWMPs) including the measurement and volumetric pricing of water deliveries, “Critical” EWMPs. SB X7-7 also permits water management plans that are part of a regional plan to be submitted, provided those plans meet the requirements of SB X7-7. The initial AWMPs were due July 31, 2012 and were required to be updated in 2015 and every five years thereafter. Under SB X7-7, agricultural water suppliers that provide water to 10,000 to

25,000 irrigated acres are not required to prepare and submit plans, unless state funds are available to support the effort.

The 2013 – 2015 dry period resulted in increased public interest in AWMPs and water use efficiency. In response, Governor Brown issued Executive Order B-29-15 on April 1, 2015. B-29-15 directed those agricultural water suppliers with greater than 25,000 irrigated acres to include a detailed drought management plan and water budgets for 2013, 2014, and 2015 in their required 2015 AWMP Update. B-29-15 also directed agricultural water suppliers that provide water to 10,000 to 25,000 irrigated acres to prepare and submit initial AWMPs by July 1, 2016 and state funds were made available to do so. However, these smaller water suppliers are not required to implement the EWMPs.

SB X7-7 also allows for groups to prepare and submit a Regional Water Management Plan if each of the participants meet the requirements of SB X7-7. A group of Sacramento River Settlement Contractors (SRSCs) coordinated with DWR and USBR to meet the requirements of both planning criteria. Their Sacramento Valley Regional Water Management Plan (SVRWMP) is described further below under Central Valley Improvement Act Agricultural Water Management Plans.

The development of an SB X7-7 AWMP requires significant effort by the water supplier. The two Critical EWMPs – turnout level measurement and volumetric pricing – must be implemented. Due to the nature of irrigation in the Sacramento Valley, water managers have struggled to implement turnout level measurement due to low maintenance flows, minimal head, debris, and silt. Water suppliers are required to update their AWMP every five years, including any progress made towards EWMP implementation and a plan to fully implement the Critical EWMPs by the next five-year update.

On May 9, 2016, the Governor issued Executive Order B-37-16 establishing the “Making Conservation a California Way of Life” framework including water conservation and drought planning. Legislation resulting from this framework and the proposed changes to AWMP requirements are summarized below under Making Conservation a California Way of Life.

Central Valley Project Improvement Act Water Management Plans

- **Water supply contract holders receiving more than 2,000 acre-feet per year or irrigating more than 2,000 acres of land must prepare and submit a Water Management Plan pursuant to CVPIA requirements.**
- **The criteria require implementation of five “non-exemptible” Best Management Practices.**
- **Water Management Plans are to be updated every five years and submitted to USBR.**

Entities which hold a contract for water supply with USBR and receive 2,000 acre-feet per year or more of USBR project water supplies or receive water for irrigation of more than 2,000 acres of land, must prepare and submit a Water Management Plan (WMP) to USBR as required by the

Reclamation Reform Act of 1982 (RRA) and the Central Valley Project Improvement Act of 1992 (CVPIA).

The USBR WMP requires implementation of Best Management Practices (BMPs). There are five Critical BMPs which are “non-exemptible”: turnout water measurement, designation of a Water Conservation Coordinator, providing/supporting the availability of water management services to water users, adoption of a volumetric pricing structure, and evaluation/improvement of district pump efficiencies. If a water supplier is subject to both DWR and USBR sets of requirements, at a minimum, they must implement the critical EWMPs associated with the DWR plans and the critical BMPs associated with the USBR plans. Although USBR and DWR will accept a plan approved by the other agency, ensuring that criteria required by both agencies is incorporated into the plan adds additional burden. For example, a SRSC may submit its USBR WMP to DWR to meet the state requirements, but it must also meet requirements set forth by the state including those in Executive Order B-29-15.

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

Farm-Gate Delivery Report

- **Agricultural water suppliers delivering 2,000 acre-feet per year or serving 2,000 or more acres must submit an Agricultural Aggregated Farm-Gate Delivery Report.**
- **The reports are due by July 31 each year and are to include monthly or bimonthly aggregated farm-gate delivery quantities.**

In 2007, AB 1404 amended sections of the Water Code to require submittal of aggregated farm-gate delivery data to DWR. The farm-gate delivery reporting requirements apply to agricultural water suppliers delivering 2,000 acre-feet or more of surface water annually for agricultural purposes or serving 2,000 or more acres of agricultural land. The agricultural water supplier must submit a form with monthly or bimonthly aggregated farm-gate deliveries on an annual basis, along with information about their measurement program or practices to document that they are using “best professional practices”, or information documenting that implementation of such program or practices to measure is not locally cost effective. Although the farm-gate delivery reporting is not a requirement specifically associated with the SB X7-7 AWMPs, agricultural water suppliers subject to SB X7-7 must provide this information in accordance with the turnout measurement requirements of SB X7-7. The Agricultural Aggregated-Farm-Gate Delivery Report must be submitted annually to DWR by July 31 of each year. Currently enrolled legislation may result in changes to these submittal requirements.

SRSC Diversion Estimates and Coordination

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

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

Beginning in 2014, due to dry conditions and as a result of increased emphasis on temperature management in the Upper Sacramento River, coordination between the SRSCs and USBR's Central Valley Operations staff has been undertaken on a much more regular basis, particularly in the spring months. The purpose of this coordination is to assist USBR in its overall operation of the Central Valley Project for multiple beneficial purposes and to meet the Settlement Contract requirements. Although this diversion coordination is not a requirement of the SRSCs, it is understood to be extremely useful and will likely continue into the future in most years.

Groundwater

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

CASGEM Monitoring and Reporting

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

Prior to SGMA, in 2009, SB X7-6 established collaboration between local monitoring parties and DWR to develop a state-wide groundwater monitoring network for groundwater elevations. In response, DWR developed the California Statewide Groundwater Elevation Monitoring (CASGEM) Program to track seasonal and long-term groundwater elevation trends. Through this process, local parties have been established as CASGEM Monitoring Entities who collect groundwater elevation measurements and report the data through the CASGEM online data submittal and reporting system. CASGEM Program requirements have become more prevalent recently. In 2015, Executive Order B-29-15 required high- and medium-priority groundwater

basins that were not being monitored under the CASGEM Program be referred to the SWRCB for possible enforcement action. DWR notified the SWRCB that seven groundwater basins, all located in Southern California, were not being monitored in accordance with CASGEM Program guidelines. Entities who fail to comply with CASGEM monitoring requirements are not eligible to receive state funding for groundwater projects; therefore, Proposition 1 funding for SGMA activities is contingent upon CASGEM Program compliance.

The groundwater elevation data which have been collected through the CASGEM Program are anticipated to provide key information for groundwater management decisions. It is anticipated that CASGEM monitoring will be coordinated by the local agencies implementing SGMA, and the CASGEM Monitoring Entities may transition as SGMA moves forward. DWR hopes to improve the online system to make it a more functional resource.

Sustainable Groundwater Management Act

- **Locally formed Groundwater Sustainability Agencies are required to prepare and adopt a Groundwater Sustainability Plan by January 1, 2022.**
- **Measuring, monitoring, and management actions will be undertaken thereafter with a report due each year and plan updates every five years.**

In the middle of the 2013 – 2015 dry years, the SGMA was signed into law by Governor Brown. SGMA gives local agencies the authorities to create Groundwater Sustainability Agencies (GSA) and establishes a framework to develop Groundwater Sustainability Plans (GSP) in order to implement strategies to sustainably manage groundwater resources. The complexity of complying with SGMA is anticipated to result in a significant expense and effort.

Entities in Northern California coordinated to have the entire Sacramento Valley covered by a GSA by the deadline of July 1, 2017. These GSAs are now continuing their coordination efforts to begin the planning process and develop GSPs to keep the region's water resources sustainable, which means avoiding "undesirable results" described in SGMA. SGMA requires the GSAs to consider water quantity and water quality. This will include the development of detailed water budgets, which consider surface water and groundwater relationships. These water budgets have different requirements as compared to the water budgets needed for the SB X7-7 AWMPs and USBR WMPs and has led to conversations about the need for consistency amongst planning requirements.

Proposition 1 grant funds are being made available to GSAs to assist with the preparation of GSPs and others activities which support sustainable groundwater management. A review of the grant applications submitted by GSAs within the Sacramento Valley indicates that local entities estimate compliance with SGMA will cost approximately \$14.7 million (including local and grant funding sources) to result in acceptable GSPs by January 1, 2022. After initial submittal of the GSPs, the GSAs will be required to implement monitoring/measuring practices described in the GSP, submit annual reports, and review/update the plan every five years.

Regional Efforts

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

Integrated Regional Water Management

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

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

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

Irrigated Lands Regulatory Program

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

The Irrigated Lands Regulatory Program (ILRP) was initiated in 2003 to address discharge of "waste" (e.g., pesticides, herbicides, nutrients) from agricultural lands. According to regulations imposed by Legislature and the Central Valley Regional Water Quality Control Board (CVRWQCB), property owners of irrigated agricultural lands must decide whether to participate

as a group or individually. In the Sacramento Valley, two coalitions, described further below, have formed to support landowners with the Waste Discharge Requirements (WDR). Through the coalition efforts, individuals are not required to participate on their own, but instead pay a fee to the coalition for coverage and submit information as requested.

The California Rice Commission (CRC) took on a proactive role in the ILRP as a commodity specific coalition that covers rice growers in the Sacramento Valley who farm approximately 500,000 acres of rice annually. All conventional and organic rice growers in the Sacramento River Basin receive automatic inclusion in the California Rice Commission Coalition (CRCC). Also in the Sacramento Valley, the Northern California Water Association (NCWA) partnered with over 200 agricultural representatives, natural resource professionals, wetlands managers, and local governments throughout the region to improve water quality for Northern California farms, cities, and the environment by forming the Sacramento Valley Water Quality Coalition (SVWQC). The mission of the SVWQC is to enhance and improve water quality in the Sacramento River Basin, while sustaining the economic viability of agriculture, functional values of managed wetlands, and sources of safe drinking water. The SVWQC is composed of more than 8,600 farmers and wetlands managers encompassing more than 1.1 million irrigated acres. The SVWQC signed a Memorandum of Agreement with the CRC to coordinate the respective programs in the Sacramento River Basin.

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

Looking Ahead

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

Making Conservation a California Way of Life

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

As enrolled by the Legislature on May 14, 2018, AB 1668 and SB 606 are a two-bill legislative package based on the Brown Administration's "Making Conservation a California Way of Life" framework. NCWA participated in negotiations to successfully remove problematic components of AB 1668. AB 1668 would, in part, enact a variety of new requirements for AWMPs. In 2017, NCWA participated in extensive negotiations related to the agricultural water management planning provisions of AB 1668 that resulted in the removal of all agricultural water supplier opposition to the bill. As enrolled, AB 1668 will:

- Require agricultural water suppliers' annual Aggregated Farm-Gate Delivery Reports to comply with new submittal requirements.
- Enact new submittal requirements and DWR review authorities for the AWMPs developed by water suppliers every five years.
- Require AWMPs to include an annual water budget based on a quantification of all inflow and outflow components of a suppliers' service area, as well as an identification of water management objectives based on the budget and a quantification of water use efficiency within the service area based on one of four approved methods.
- Require AWMPs to include a drought plan that describes the actions of the water supplier related to drought preparedness and management of water supplies and allocations during drought conditions.

[Sacramento-San Joaquin River Delta and San Francisco Bay](#)

The Sacramento-San Joaquin River Delta and San Francisco Bay (Bay-Delta) is an important economic and environmental resource benefiting all of California and the nation, and much is at stake with the implementation of numerous ecosystem restoration and water management actions under consideration. The various Bay-Delta processes continue with the SWRCB moving forward with the Water Quality Control Plan (WQCP) update; the state administration is advancing Cal WaterFix (tunnels); and the federal agencies are consulting on new biological opinions for the operation of the Central Valley Project and the State Water Project. These processes are all looking in some fashion to redirect water from the Sacramento River Basin to serve various water needs in the Bay-Delta. For context, these processes appear to be looking to redirect 500,000 acre-feet to 1,000,000 acre-feet away from the region.

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

[Open and Transparent Water Data Act](#)

On September 23, 2016, AB 1755, the Open and Transparent Water Data Act, was approved by Governor Brown. AB 1755 requires DWR, in consultation with the California Water Quality Monitoring Council, SWRCB, and the California Department of Fish and Wildlife to develop an online platform to integrate existing water and ecological data information from multiple federal,

state, and local databases (e.g., reservoir operations, groundwater data, land use, water rights, surface water diversions, water quality, fish abundance, etc.) and provide data on completed water transfers and exchanges. DWR and partner agencies released a progress report on implementation which included an initial draft strategic plan and preliminary protocols. The state agencies are collaborating with and learning from other state and federal agencies, data experts, and AB 1755 stakeholders, including data providers and consumers, to chart a successful path forward. By September 2019, an operational integrated water data platform will be available with additional data added thereafter. AB 1755 also creates a Water Data Administration Fund for the purposes of implementation and management of the water data, which seems to be funded through appropriations or voluntary donations.

Summary and Conclusions

Although water users may struggle with the time and financial burden of overlapping requirements, these efforts continue to protect their water rights. Even while complying with legislation and regulations, water managers throughout the Sacramento Valley support the culture, economy, and environment of the region. Sacramento Valley farmers are continually implementing new practices and infrastructure to increase efficient water management at the field, district, and regional levels. The challenge in implementing new water management and farming practices is to ensure that increasing efficiency at the local level will not jeopardize the benefits and values the water use provides to the environment or to other downstream water users. Farming is the economic driver in the region. It is the basis of the economy for most of the counties and local communities in the Sacramento Valley. Water resources managers partner with federal and state agencies and conservation organizations to create and enhance wildlife habitat and protect important native fish species.