

# FOX CANYON GROUNDWATER MANAGEMENT AGENCY

A STATE OF CALIFORNIA WATER AGENCY



## BOARD OF DIRECTORS

Eugene F. West, **Chair**, Director, Camrosa Water District  
David Borchard, **Vice Chair**, Farmer, Agricultural Representative  
Steve Bennett, Supervisor, County of Ventura  
Charlotte Craven, Councilperson, City of Camarillo  
Robert Eranio, Director, United Water Conservation District

## EXECUTIVE OFFICER

Jeff Pratt, P.E.

## NOTICE OF MEETING

**NOTICE IS HEREBY GIVEN** that the Fox Canyon Groundwater Management Agency (FCGMA) will hold an **Operations Committee Meeting** at **2:00 p.m.** on **Monday, February 5, 2018** in **Atlantic Conference Room**, at the Ventura County Government Center, Hall of Administration, Main Plaza at **800 South Victoria Avenue, Ventura, California**.

## FCGMA OPERATIONS COMMITTEE MEETING AGENDA

February 5, 2018

**Members:** Chair Steve Bennett  
Co-Chair Robert Eranio

### A. Call to Order / Introductions

**B. Public Comments** – Audience members may speak about FCGMA-related matters not on today's Agenda.

**C. Approval of Minutes** – Consider approval of minutes from the January 12, 2018 Operations Committee meeting

### D. Agenda Review

### E. AMI Performance Specifications

### F. NRCS Grant Implementation

- a. Vendor selection
- b. Grower Application Process
- c. Timeline

**G. Water Supply and Infrastructure Projects** – Initial steps to create a process for identification and prioritization of projects for inclusion in Groundwater Sustainability Plan forecasting of sustainable yield.

### H. Adjourn Operations Committee Meeting

## NOTICES

*The FCGMA Board strives to conduct accessible, orderly, and fair meetings where everyone can be heard on the issues. The Board Chair will conduct the meeting and establish appropriate rules and time limitations for each item. The Board can only act on items designated as Action Items. Action items on the agenda are staff proposals and may*

*be modified by the Board as a result of public comment or Board member input. Additional information about Board meeting procedures is included after the last agenda item.*

**Administrative Record:** *Material presented as part of testimony will be made part of the Agency's record, and 10 copies should be left with the Board Clerk. This includes any photographs, slides, charts, diagrams, etc.*

**ADA Accommodations:** *Persons who require accommodation for any audio, visual, or other disability in order to review an agenda or to participate in the Board of Directors meeting per the Americans with Disabilities Act (ADA), may request such accommodation in writing addressed to the Clerk of the FCGMA Board, 800 South Victoria Avenue, Location #1610, Ventura, CA 93009-1610, or via telephone by calling (805) 654-2014. Any such request should be made at least 48 hours prior to the meeting so staff can make the necessary arrangements.*

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**Availability of Complete Agenda Package:** *A copy of the complete agenda package is available for examination at the FCGMA office during regular working hours (8:00 a.m. to 5:00 p.m. Monday through Friday) beginning five days before the Board meeting. Agenda packet contents are also posted on the FCGMA website as soon as possible, and left there for archival retrieval in case reference is needed on previously considered matters. Questions about specific items on the agenda should be directed to the Agency's Executive Officer.*

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**Continuance of Items:** *The Board will endeavor to consider all matters listed on this agenda. However, time may not allow the Board to hear all matters listed. Matters not heard at this meeting may be carried over to the next Board meeting or to a future Board meeting. Participating individuals or parties will be notified of the rescheduling of their item prior to the meeting. Please contact the FCGMA staff to find out about rescheduled items.*

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**Electronic Information and Updates:** *Visit <http://www.fcgma.org> (for home page information) or Facebook (for meeting updates). Information available online includes the Board's meeting schedule, a list of the Board members and staff, weather station data, general information, and various Agency forms. If you would like to speak to a staff member, please contact the Clerk of the Board at (805) 654-2014.*

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**Jeff Pratt, P.E.**

## MINUTES

Minutes of the Fox Canyon Groundwater Management Agency's (FCGMA) Operations Committee meeting held **Friday, January 12, 2018 at 2:00 p.m.** in the Atlantic Conference Room at the Ventura County Government Center, Hall of Administration, 800 South Victoria Avenue, Ventura California.

**Members:** Chair Steve Bennett  
Vice Chair Robert Eranio

### **A. Call to Order**

Chair Bennett called the meeting to order at 2:02 p.m.

In attendance were: (1) Steve Bennett, FCGMA Operations Committee Chair; (2) Robert Eranio, FCGMA Operations Committee Vice Chair; (3) Arne Anselm, WPD, Deputy Director; (4) Kim Loeb, FCGMA, Groundwater Manager; (5) Keely Royas, FCGMA Clerk of the Board; (6) Daniel Howe, Ranch Systems; (7) E.J. Remson, The Nature Conservancy (TNC); (8) Mike Ellis, United Water Conservation District (UWCD); (9) Matthew Fienup, California Lutheran University (CLU); (10) Brian Collins, UWCD; (11) Tony Stafford, Camrosa; (12) Tony Goff, Calleguas Municipal Water District (CMWD); (13) Bryan Bondy, CMWD.

### **B. Public Comments**

There were no public comments.

### **C. Approval of Minutes**

Vice Chair Eranio made a motion to approve the minutes. Chair Bennett seconded the motion, and the motion as amended were approved.

### **D. Agenda Review**

There were no changes made to the agenda.

### **E. AMI Performance Specifications**

Mr. Anselm directed everyone to the Advanced Metering Infrastructure (AMI) draft resolution. He stated that the resolution is a companion to the ordinance to require AMI installation and has been amended with the help of Tony Stafford and Tony Goff to add language that would allow existing scada systems or other automated platforms to comply with AIM without having to do any technical or mechanical changes to their systems.

Mr. Stafford went over the language that was added to the ordinance. Mr. Stafford stated that he reached out to Municipal and Industrial (M&I) and Agricultural (Ag) stakeholders and those who have already invested in their own sophisticated systems do not want added equipment.

Chair Bennett asked if Agency staff was comfortable with the changes that Mr. Stafford proposed.

Mr. Anselm stated that it does meet the Agency goals, but that there were a few minor tweaks that needed to be made. Mr. Anselm changed the word “purveyors” to “operators” to make the eligible participant range more broad. He also added that it will need a definition for scada. Mr. Anselm said that the 24 hour inspection note added matched up to what is already in the ordinance code.

Vice Chair Eranio stated that there are a couple of things that are not lining up with current policies. In section 3-C the meter calibration certification is every three years. In section 3-D the current GMA policy does allow for a well to be operated if the meter is not operational if it is out for repairs.

Mr. Loeb stated that the proposed AMI ordinance talks about an alarm condition and notification to the Agency. He proposed that it could possibly added as an and/or scenario, if the meter is not turned off than there is an alarm condition letting the Agency know that there is a well operating with a non-accurate pump.

There was a suggestion to make section 3-E match up with section 4-Mb.

Chair Bennett asked what the next step would be after these changes are made. Mr. Anselm stated that the next step would be to bring it back before the Board with the ordinance.

Mr. Stafford suggested adding the words “the AMI device” after the first comma in section 4-A. He also suggested changing “IP66” to “Nema 4”.

Chair Bennett asked Agency staff to research Section 4-E.

Vice Chair Eranio gave staff direction to move the item to the full Board.

## **F. NRCS Grant Implementation**

### **a. Procurement – RFQ and vendor selection**

Mr. Anselm stated that the Request For Qualification was sent out in late November. He stated that there were six responses. Mr. Anselm described the scoring matrix that was included in the agenda packet. He described that the front of the page is the scoring of the sections on the RFQ and the back of the page was the fatal flaws. It pointed out if one of the bidders did not meet one of the requirements.

Mr. Anselm stated that the next step would be an interview. The interview committee will be made up of Agency Staff, Brian Collins from UWCD for his experience with systems, and Martin Gramckow, who would be an end user of the product. Mr. Anselm stated that he has not shown them any scoring of the proposals yet. He stated that they will be interview the top two or three above the scoring breakpoint. He said that if the committee is comfortable with that, then they can move ahead with the process.

Mr. Fienup asked what will come out of the interview, how will that be used, and what the timeline is. Mr. Anselm stated that hopefully he can schedule interview the following week. He hopes to get a unanimous decision from the committee to select. The next step after that would be to get a contract

together. Mr. Fienup asked if the interview committee would be making a decision or making a recommendation to Agency staff to bring to the Board.

There was question as to whether Martin Gramckow was the right person to represent growers. Mr. Remson stated that he would like to see some input from stakeholders on who should represent the Ag. Interests. Mr. Fienup recommended asking John Krist from the Ventura County Farm Bureau.

Chair Bennett asked Mr. Anselm if he know how many companies will be interviewed. Mr. Anselm stated that two of the companies stood way above the rest.

Mr. Fienup asked whether the time to get AMI off of the ground was part of the rubric. Mr. Anselm answered that it was taken into consideration.

Mr. Fienup also asked staff to pay special attention to the central database. He said that for the second phase of the water market pilot program, the time to establish an operational database should be part of the selection criteria.

**b. Incentives – Early adoption necessary to meet grant deadlines**

Mr. Anselm stated that in the agenda packet was a copy of the memo received from TNC and Cal Lutheran of what they propose for the incentive structure. He briefly went over the structure of the incentives and revised a schedule to line up with the incentive timelines. Mr. Anselm added to more proposed structures as options. One where there is no time restrict, but a set number of wells and the other option that is structured by money.

Vice Chair Eranio stated that his initial thought is to not keep strict time deadlines. If the maximum number of wells apply on day one of the timeline structure, then move right along with structure two.

Chair Bennett suggested to drop off the starting dates and stick to number of wells coming in and have a cut-off date.

There was a question as to log as the applications come in. Chair Bennett suggested as the applications come in, send out a reply stating what number they are in line and a timeline for installation.

Mr. Anselm stated that they also have to be in compliance with the water market for the extra incentive.

Mr. Fienup suggested that after the applicant has completed the required steps, electronic communication should be sent to the Agency.

**G. Outreach to Well Owners**

**a. Grant Opportunity –**

Mr. Anselm stated that because of the compressed timeline the importance to get the grant opportunity and AMI installation information out to stakeholders is a top priority. He stated that he wanted to have a brainstorming session of suggested ideas. He said that the Agency could do mailers and also work with the growers group, but wanted to know if there were other methods that he was missing.

Vice Chair Eranio wanted to confirm that it is for AG only in the Forebay, Oxnard Plain, and Pleasant Valley basins. Mr. Anselm stated that the AMI ordinance will be Ag and M&I, the grant opportunity will be Ag for all of the basins, and the water market will be limited to the Oxnard basins.

Chair Bennett made suggestions to use the GMA stakeholder email list, the hard address list and to reach out to the Farm Bureau so that may send it out in their newsletter as ways to reach stakeholders. He also suggested suggested putting it up on the website.

Vice Chair Eranio, thought that it would be a good idea to announce it at each one of the stakeholder workshops as well as in the newspaper.

Mr. Anselm asked if there would be separate outreach for well operators and well owner.

Mr. Loeb pointed out that well operators do not have the power to install meters on property that is not theirs.

**b. AMI ordinance and compliance –**

Items G a. and b. were combined together.

**H. 2018 Meeting Calendar and Future Topics**

Mr. Anselm stated that the Board adopted the calendar year 2018 schedule at the last Board meeting. He stated that the Operations Committee is scheduled to meet monthly.

The items discussed for future agendas were the NRCS grant implementation, water supply and infrastructure projects, meter calibration program, and smart meter conversion.

Vice Chair Eranio asked how the issue of undesirable results is going to be discussed. Mr. Loeb stated that there is going to be two Board workshops and two stakeholder workshops where undesirable results will be discussed.

Chair Bennett stated that he agreed that discussing undesirable results is not an issue for the Operations Committee, but rather the Board.

**I. Adjourn Operations Committee Meeting**

Chair Bennett adjourned the Operations Committee meeting at 2:58 p.m.

## Resolution No. 2018-  1

Of the

### Fox Canyon Groundwater Management Agency

#### A RESOLUTION SPECIFYING THE REQUIREMENTS FOR INSTALLATION, OPERATION AND MAINTENANCE OF ADVANCED METERING INFRASTRUCTURE DEVICES

**WHEREAS**, The Fox Canyon Groundwater Management Agency Ordinance Code specifies certain requirements for the installation and use of flowmeters; and

**WHEREAS**, The Fox Canyon Groundwater Management Agency Board of Directors on January 3, 2018, adopted an Ordinance to Require That Flowmeters Be Equipped with Advanced Metering Infrastructure (AMI) Telemetry (AMI Ordinance); and

**WHEREAS**, Pursuant to the AMI Ordinance, technical standards and specifications for the installation, operation and maintenance of the AMI device to be installed on flowmeters shall be set forth in a resolution adopted by the Agency.

**NOW, THEREFORE, IT IS HEREBY RESOLVED AND ORDERED THAT:**

#### **SECTION 1. Applicability**

This Resolution applies to all groundwater extraction facilities that are required by the Agency Ordinance Code to be equipped with a flowmeter. The operator shall install, operate and maintain the AMI device in accordance with this Resolution.

#### **SECTION 2. Definitions**

- A. Advanced Metering Infrastructure (AMI)** - An architecture for automated, two-way communication between a meter and a central data center via cellular, radio, or satellite communication systems to acquire real-time or near real-time groundwater-extraction data.
- B. AMI Device** - All the AMI related components installed at or near the extraction facility, including the Meter Interface, Remote Telemetry Unit (RTU), power source, and related feedback sensors for water usage monitoring.
- C. AMI System** - The entire AMI system that includes all field hardware, communication network, central database and user interface.

- D. **Agency** - The Fox Canyon Groundwater Management Agency.
- E. **Central Database** -A database that aggregates extraction data from AMI Field Hardware to be used by applications including: groundwater management, computerized maintenance management, and other relevant management systems.
- F. **Feedback Sensors** - Any combination of sensors to monitor extraction of water, or pump status, including, but not limited to, amperes, revolutions per minute of output shaft. Feedback sensors can warn of system leaks and equipment malfunctions
- G. **Flowmeter**, or **Meter**, means a manufactured instrument for accurately measuring and recording the flow of water in a pipeline.
- H. **Meter Interface** - A device that directly records the volume of water measured by the meter or register. This function can be performed through a variety of methods including, but not limited to optical sensor or magnetic signals.
- I. **Purveyor** – A well owner or operator supplying groundwater for use by others.
- J. **Remote Telemetry Unit (RTU)** - A component that records and stores meter readings at prescribed intervals and transmits them to the central database. The RTU may also include a battery, antenna, solar panel and other necessary appurtenances. RTUs can be programmed to calculate and trigger alarms based on operational conditions such as battery life, no-flow, backflow, and tampering.
- K. **Register** - The output unit or mechanical display, usually situated on top of the flowmeter that records the water flow measured by the flowmeter and conveys that information to the RTU.
- L. **Supervisory Control and Data Acquisition (SCADA)** - A system for remote monitoring and control of systems by an operator and/or programmable logic controllers.

### **SECTION 3. AMI Device Installation Requirements**

- A. AMI devices shall be installed according to manufacturer's instructions and in accordance with applicable building, electrical and mechanical codes.
- B. The Meter Interface shall be secured to the Meter in a manner that would show signs of tampering in the event of unauthorized removal from the register.
- C. AMI devices shall be installed in a manner that allows access for manual reading of the flowmeter.



#### **SECTION 4. AMI Device Performance Requirements**

- A.** The AMI device shall be certified to comply with all applicable Federal Communication Commission (FCC) Rules.
- B.** AMI System shall record the total extractions from the Meter; at minimum, the AMI System shall employ one other method of detecting pump operation, such as pump amperage consumption, revolutions per minute of output shaft, or water pressure. The two methods of detecting pump operation shall be compared in real time by the AMI System to detect events of pump operation not recorded by the Meter
- C.** The AMI device shall send timestamped alerts to the Agency and operator via email or text message whenever:
  - 1.** No extractions are recorded during pump operation.
  - 2.** Reverse flow or backflow is detected when provided by an existing water Meter.
  - 3.** An error is detected affecting the ability of the AMI System to meet the specification of this resolution.
- D.** The method of recording the total volume of extractions by the AMI system shall be accurate within a range of  $\pm 5\%$  of the flowmeter reading within a six month validation period.
- E.** The RTU shall store the data of total extractions and from feedback sensors, including alerts, for a minimum of one month or 4 MB of Meter data on internal data storage, including date and time stamps
- F.** The RTU shall be capable of uploading extraction data to the Central Database a minimum of twice per day in a common format (e.g. comma separated value (CSV)) that will be specified by the Agency.
- G.** The RTU date and time settings shall be set to Pacific Standard Time, and all sensors detecting pump operation shall be synched with the RTU.

#### **SECTION 5. Requirements for Purveyors Utilizing a SCADA System**

A water purveyor utilizing a SCADA system shall be deemed in compliance with article 4 of the AMI Ordinance provided the purveyor demonstrates that its SCADA system meets the performance specifications in this Resolution.

**SECTION 6. Operation and Maintenance Requirements**

An operator shall provide, properly install, maintain in good working order and operate the AMI device specified by this Resolution.

**SECTION 7. Inspection of AMI Devices**

Agency staff or their designees may inspect AMI devices or SCADA systems for compliance with this Resolution in accordance with the AMI Ordinance.

**SECTION 8. Demonstration of Compliance**

Compliance with this Resolution can be demonstrated by submitting a list of equipment, including product identification, and manufacturer's information, along with an inspection report from an installer or equipment product distributor certified by the manufacturer to perform installations and maintenance stating that the equipment is properly installed and working.

On a motion by Director \_\_\_\_\_ and seconded by Director \_\_\_\_\_, the foregoing Resolution was duly passed and adopted by the Board of Directors at a regularly scheduled meeting of the Board held on this 26th day of February 2018 in Ventura, California.

\_\_\_\_\_  
Eugene F. West, Chair, Board of Directors  
Fox Canyon Groundwater Management Agency

ATTEST: I hereby certify that the above is a true and correct copy of Resolution No. 2018-\_\_.

By: \_\_\_\_\_  
Keely Royas, Clerk of the Board

# Water Supply and Infrastructure Projects Identification and Prioritization for GSPs

Operations Committee Meeting  
Item G – February 5, 2018



Kim Loeb  
Groundwater Manager

# Introduction

- SGMA requires GSPs to include Management Actions and/or Projects to bring basins into sustainable groundwater management within 20 years
- Projects are not required to be initiated or funded by FCGMA
- Projects can increase forecasted basin sustainable yield by
  - Providing supplemental supply
  - Replacing groundwater pumping
  - Reducing undesirable results

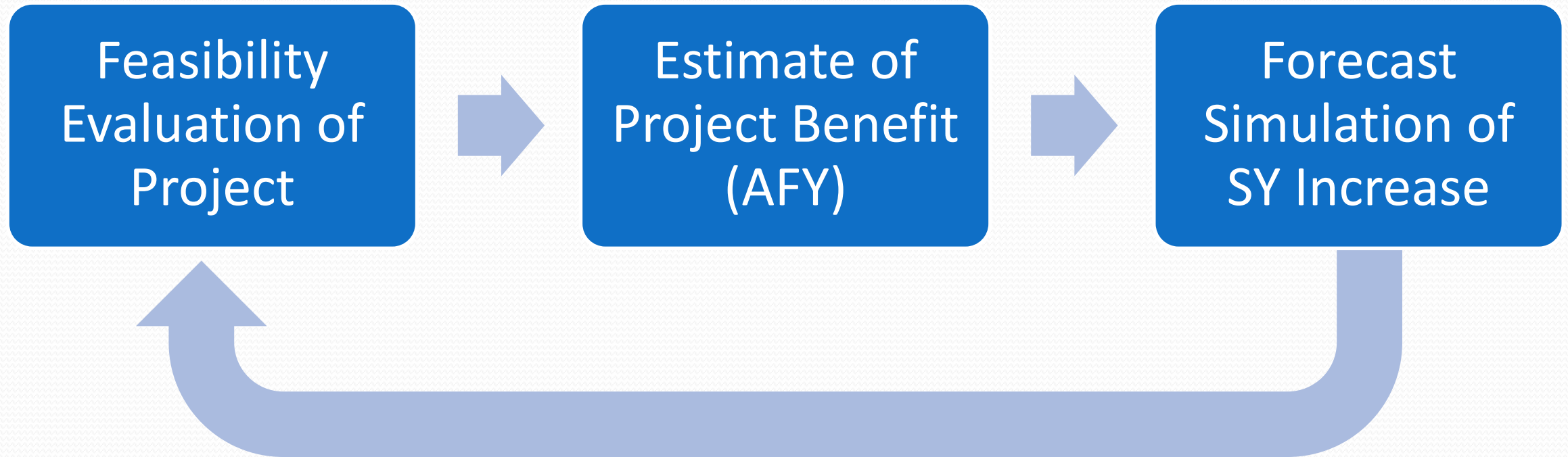
# Objective

- Define process for identification and prioritization of projects to be included in GSP forecast of sustainable yield
- Purpose is to identify projects in GSP forecast of sustainable yield
  - Not a commitment to specific projects
  - Will be reevaluated in future

# Types of Projects (with examples)

- Water supply
  - Recharge facility
  - Seawater desalination plant
  - Long-term purchase of imported/recycled water
  - Arundo removal and maintenance
- Infrastructure to support management action/reduce undesirable result
  - Piping project to shift pumping from coast to inland, UAS to LAS, etc.
- Undesirable result mitigation
  - Groundwater quality improvement (to the extent that it increases SY)

# GSP Sustainable Yield Forecast



# Summary of GSP Regs for Projects

- Implementation trigger (if applicable)
- Description of public notice process
- Summary of permitting and regulatory requirements
- Status and implementation timetable
- Expectation and evaluation of benefits
- Explanation of how project will be accomplished (e.g., reliance on other jurisdictions)
- Legal authority
- Estimated cost and description of funding plan
- Uncertainty assessment



# Currently Identified Projects

- TAG compiled list of proposed water supply projects
- Calleguas MWD/FCGMA Las Posas Replacement Water Study (Aug 2017)
- Preliminary Draft Groundwater Sustainability Plans

# Consideration of Project Aspects

- Technical
- Financial
- Legal
- Environmental / Permitting
- Political

# Project Criteria

- Increases sustainable yield
  - Can be implemented within 20 years
  - Agency proponent
  - Can be funded
  - Is cost effective (benefit cost ratio)
- 
- Additionally, a list of concept projects can be included in the GSPs, but they will not be included in forecast of basin sustainable yield

# Process for Identification & Prioritization

- Begin with currently identified projects
- Define process and timeline for new project proposals
- Develop initial screening checklist
- Develop scoring criteria
- Task existing or new committee for review and scoring of projects

## Water Supply and Infrastructure Projects Identification and Prioritization for GSPs

### Operations Committee Meeting Item G – February 5, 2018



Kim Loeb  
Groundwater Manager

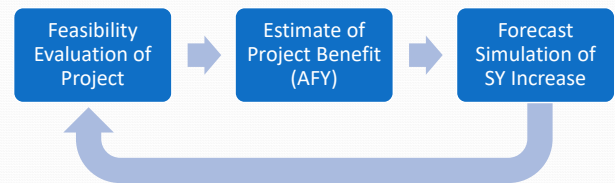
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