

## **ATTACHMENT 8 - QUALITY ASSURANCE**

This application includes appropriate and well-defined quality assurance and quality control measures, as described below:

### **General**

- Periodic proposed meetings (at least every two months) will be conducted to verify project findings with District staff and the engineering consultant.
- Progress reports will be provided to DWR for review and comment regarding project status.
- The Final Project Report will be stamped by a Professional Engineer and Professional Geologist.
- All work will be performed under the supervision of, and reviewed accordingly by, a Professional Engineer, Professional Geologist or Certified Hydrogeologist.

### **Legal Issues**

- The District legal counsel will review and provide comments on the specifications, bidding documents, and permit applications.

### **Board of Directors**

- The District Board of Directors, comprised of local landowners, will be updated monthly on the project and be given the opportunity to provide comments, suggestions and criticisms.
- The public will be afforded the opportunity to comment on the project at Board meetings, which are open to the public.

### **Monitoring Wells**

- Well construction will be performed under contract by a licensed and experienced well driller, in accordance with specifications prepared by a licensed engineer or geologist.
- Wells will be constructed by drillers with a C-57 well driller's license.
- Well construction will be overseen by a Professional Engineer or Professional Geologist.
- Survey of the wells will be overseen by a Licensed Land Surveyor.
- Well construction will follow California Well Standards - Bulletin 74-90 (Supplement to Bulletin 74-81) prepared by the California Department of Water Resources.

## **ATTACHMENT 8 – QUALITY ASSURANCE**

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- Well construction will follow standard well construction procedures (the specifications will be developed as part of the grant funded efforts).
- Soils will be logged by a Professional Geologist according to standard logging procedures.
- OSHA health and safety standards will be required during well construction.
- PVC schedule pipe up to 4 inches in diameter shall be ASTM D1785, Schedule 40 or 80 as specified in the final construction documents. Pipe material shall have cell classification 12454-B and have NSF seal.

### **Water and Soil Sampling**

- Groundwater quality monitoring will be conducted in compliance with the Groundwater Quality Monitoring Act of 2001 (Part 2.76 commencing with Sec. 10780 of Division 26 of the CWC).
- Water quality testing will be performed by accredited, experienced, state-certified testing laboratories to ensure appropriate testing methods and chain of custodies.
- Field blank and duplicate samples will be collected, as described in the Work Plan.
- All water quality results will be reviewed by an experienced water quality specialist.

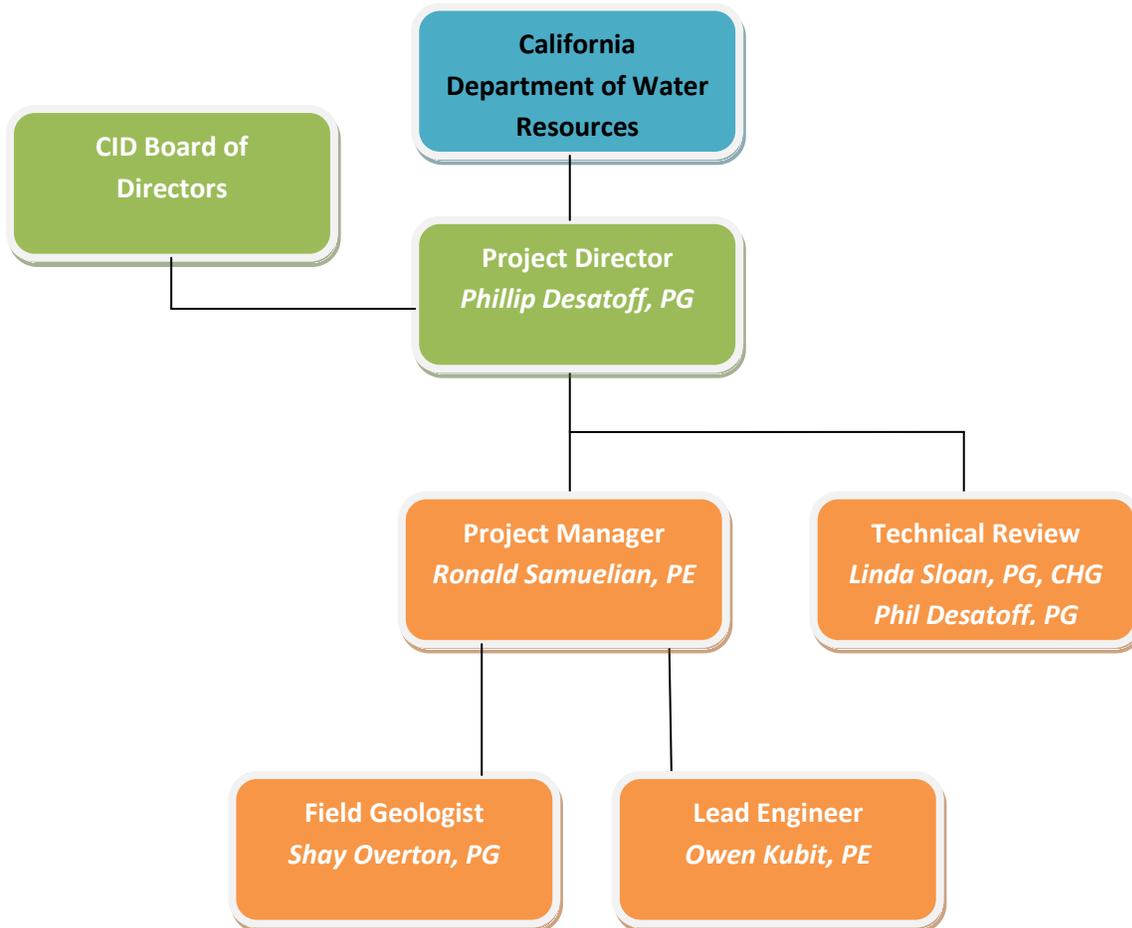
### **Technical Review**

- All work performed on the study will be reviewed by senior staff before submission to DWR.
- Review comments on a Draft Report, and possibly some interim submittals, will be solicited, and incorporated when merited, from the DWR, the District Board members, the general public, and other pertinent agencies.
- The CID General Manager, Phil Desatoff, is a licensed geologist and has considerable experience with hydrogeologic investigations. Mr. Desatoff will provide important technical review of work performed by consultants.

### **Project Team**

An organization chart for the project is shown as **Figure 8.1**. This figure shows DWR, CID staff and technical consultants.

**ATTACHMENT 8 – QUALITY ASSURANCE**



**Figure 8.1 – Project Organization Chart**

Principal staff working on the project have the qualifications and skills to successfully complete the work. All of the team members have experience with groundwater projects in the Consolidated Irrigation District. A brief description of the major project team members follows:

**CONSOLIDATED IRRIGATION DISTRICT**

**Phillip Desatoff, PG – Project Director / Technical Review Geologist**

Phillip Desatoff has been the General Manager of the Consolidated Irrigation District for over five years. Prior to this, Mr. Desatoff was the County of Fresno Geologist. Mr. Desatoff has been actively involved in the development of groundwater recharge, groundwater banking planning, and monitoring well facilities in CID. As general manager of an irrigation district, Mr. Desatoff has extensive project management experience, and will help ensure the project is completed on time and on budget. Mr.



## **ATTACHMENT 8 – QUALITY ASSURANCE**

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Desatoff is also involved with several other local and regional water management agencies including the Upper Kings Basin Integrated Regional Water Management Authority.

### **PROVOST & PRITCHARD CONSULTING GROUP**

#### **Ronald Samuelian, PE - *Project Manager***

Mr. Samuelian is a principal water resources engineer with over 15 years experience. Mr. Samuelian has led CID's efforts in planning and designing groundwater management and banking programs. In addition, Mr. Samuelian has overseen numerous improvements to the groundwater infrastructure and groundwater management in the adjacent Fresno Irrigation District over the past 14 years. Prior to this, Mr. Samuelian was Chief Engineer of the Fresno Irrigation District. Mr. Samuelian has a BS in Civil Engineering, a Masters in Business Administration, and is a Professional Civil Engineer (No. C59208) in California.

#### **Owen Kubit, PE - *Lead Engineer***

Mr. Kubit is a senior water resources engineer with over seventeen years experience in the planning, design, and construction of water resources projects. Mr. Kubit has an interdisciplinary background in both water resources engineering and geology. Mr. Kubit has been the lead design engineer for many monitoring well construction projects throughout the Central Valley. Mr. Kubit has a BS and MS in Civil Engineering, an MS in Geology, and is a Professional Civil Engineer (No. C66552) in California.

#### **Shay Overton, PG - *Field Geologist***

Mr. Overton has over 7 years experience as a geologist. He has worked on numerous groundwater projects involving subsurface investigations, monitoring wells, and production wells. He is familiar with the geology in the Consolidated Irrigation District, and has been involved with the feasibility study of CID's first groundwater banking project and the study's monitoring well construction. Mr. Overton has a BS and MS in Geology, and is a Professional Geologist (No. 8424) in California.

#### **Linda Gomez Sloan, PG, CHG – *Technical Review Geologist***

Ms. Sloan is a hydrogeologist, with over 10 years of professional environmental and water resource experience, including involvement with all aspects of groundwater monitoring, reporting, and data assessment. Mrs. Sloan has worked on a large variety of groundwater projects that involve monitoring wells, production wells, and subsurface investigations. Mrs. Sloan has a BS and MS in Geology, and is a Professional Geologist (No. 8299) and Certified Hydrogeologist (No. 930) in California.