

# Quality Assurance

Quality Assurance, technical support, protocols, standards and policy guidance will be provided to the project by the following partners:

## 1) Fresno County Water Advisory Committee (FCWAC)

FCWAC has a Groundwater Subcommittee that will continue in their role as a Technical Advisory Committee (TAC). The membership includes the following:

- Sarge Green, Chair – Groundwater Subcommittee / California Water Institute, CSUF
- Ron Taylor, Branch President – Groundwater Management Association
- Christopher Johnson, President - Aegis Groundwater Consulting
- Richard Fronk, President – Fronk’s Mountain Drilling

## 2) iCAD, Inc. (<http://www.icadautomation.com/>)

SCADA (System Control and Data Acquisition) and Historian Data Collection Systems

All personnel involved with the design, installation and testing of the SCADA (System Control and Data Acquisition) monitoring and Historian data collection systems for monitoring groundwater conditions at the two school sites are all professional engineers and have received certification that cover all electro-mechanical, Information Technology (IT) software and hardware that will be integrated and tested utilizing Factory Acceptance Testing (FAT) and other standards. This includes as their Lead Engineer is an individual with an EE with 19 years of experience in the field – and their assigned Project Manager who has a BS in Agriculture engineering and a Masters in Integrated Systems Management. Represented system components and certification requirements include the following:

- Wonderware
- Rockwell Software
- Allen-Bradley
- Siemens
- Automation Direct
- GE Fanuc
- Various Network Architectures

## 3) Lyles College of Engineering’s (LCE) Department of Civil and Geomatics Engineering, CSU Fresno ([http://www.fresnostate.edu/engineering/civil\\_geomatics/geomatics/index.shtml](http://www.fresnostate.edu/engineering/civil_geomatics/geomatics/index.shtml))

LCE will continue their participation and providing technical support with Dr. Lubo Liu, Associate Professor (<http://zimmer.csufresno.edu/~llubo/>) leading the effort who has a PhD in Environmental Engineering from the University of South Carolina with a focus on groundwater. Dr. Liu also has a M.S. in Water Resources and Hydraulic Engineering from Tsinghua University, Beijing as well as a BS from the same university as well.

## 4) California Department of Water Resources – Fresno / Sacramento

As in Phase I, local staff in particular Chris Montoya and Michael McGinnis are expected to provide support to verify findings associated with groundwater resources based upon the analysis they perform

for PSA-5 (Planning Sub Area) and DAU-203 (Detailed Analysis Unit) within the upper San Joaquin River Basin and Big Sandy Watershed. For over 10 years they have worked collaboratively with on-going efforts to assess, monitor, plan and implement water resource management practices and policies in the study area. Additionally, it is expected that Dane Mathis and his staff will continue to provide technical, managerial and policy guidance on how best to implement and complete all tasks associated with this project proposal

In respect to integrating SCADA at the two school sites with CASGEM/WDL, support has been provided by Eric Senter, Engineering Geologist with DWR in Sacramento. It is expected that support will continue.

## **5) Sierra Resource Conservation District**

For over ten (10) years Sierra RCD and their affiliates have provided significant program and project management services related to the CALFED Bay Delta Program and other water resource related initiatives within eastern Fresno County. The Board of Directors which serves under the Fresno County Board of Supervisors provides oversight to the Project Manager with the President serving as the Project Director to assure that all fiduciary, quality and schedule commitments are adhered to under terms and conditions agreed upon within any executed contract. Over the last 30 years the assigned Project Manager has been trained and certified in a number of programmatic, quality and financial management programs within the Information Technology (IT) and High Tech Industry – as well as 10 years in water resources, including the following quality assurance related programs:

- Malcolm Baldrige Quality Program
- (CIRM) Certification in Integrated Resource Management
- Project Management Institute Training
- OMB (Office of Management and Budget) Compliance
- ISO 9000

## **6) Southern Sierra Integrated Resource Management (IRWM) Group**

The Sierra RCD is an active member of the Southern Sierra IRWM Group which consists of a number of participants that are being provided support through DWR and the Center for Collaborative Policy that have highly technical expertise that can be called upon to provide review and advice. These members will be able to provide augmentation with the Fresno County Water Advisory Committee's Groundwater Subcommittee as a Technical Advisory Committee (TAC) in which there is built in an on-going level of cross-membership and participation. Examples include the engineering firm Provost and Pritchard, and representation from the California Water Institute and their ability to provide additional quality assurance and technical feedback.