

## ATTACHMENT 1

### Conceptual Project Proposal and Fiscal Year 2012-2013 Work Plan For Central Coast Ambient Monitoring Program (CCAMP) Groundwater Assessment and Protection (GAP)

The purpose of the Central Coast Ambient Monitoring Program-Groundwater Assessment and Protection (CCAMP-GAP) program is to do the following:

1. Identify and address threats to public health due to polluted groundwater supply.
2. Measure our performance in achieving tangible results (water quality protection and restoration) in our watersheds based on changes in groundwater quality.
3. Prioritize our work to focus on the most important groundwater issues.
4. Help determine appropriate Water Board requirements, and support and defend those requirements.
5. Support the implementation of special projects that address our highest priorities and help us achieve our measurable goals.
6. Implement the Water Board's Environmental Justice goals.

The following CCAMP-GAP project proposal is broken down into the following sections:

- Conceptual Model
- Endowment
- Operating Fund
- Domestic Well Outreach and Sampling Program
- Regional Groundwater Monitoring and Assessment
- Special Projects
- Goals
- Accountability & Transparency

#### **Conceptual Model**

The proposed groundwater program will be part of CCAMP and will be funded through similar mechanisms. However, CCAMP-GAP will operate under a slightly different business model than CCAMP. Instead of building a regional monitoring program from the ground up, as we largely did with our surface water monitoring program, we will collaborate extensively with various stakeholders to leverage (with supplemental funding and technical support) existing groundwater monitoring programs currently being implemented by local agencies. We will also help develop monitoring programs in priority groundwater basins where these monitoring programs currently do not exist.

Water Board staff will facilitate data capture and management via the State Board's GAMA GeoTracker database, making the CCAMP-GAP data readily available to the public and other regulatory agencies. We will use the data from CCAMP-GAP to help define our highest priorities and measure our performance in achieving our measurable goal for clean groundwater. Currently, our groundwater regulatory programs deal with groundwater pollution problems on an ad hoc basis, as they are discovered by certain events, such as when a development occurs, or a property is transferred, or when wells are sampled for some other purpose, or pollution is suspected and investigated. We have no systematic, region wide approach to assess and track the quality of our groundwater basins. CCAMP-GAP will eventually provide the data to help direct and prioritize our efforts to protect groundwater in a more comprehensive and effective manner.

CCAMP-GAP will also implement or support special projects, such as providing information and free groundwater sampling to domestic well owners so they can assess their groundwater quality and take appropriate actions to protect their own health and welfare. The proposed domestic well outreach and sampling project (see discussion below) will not only provide well owners with information they can use to make informed decisions about their drinking water, but will also allow us to develop a higher resolution understanding of shallow groundwater (i.e., upper-most aquifer) impacts in rural areas that can be used to prioritize our source control efforts.

Successful startup and implementation of CCAMP-GAP is predicated on securing settlement funds to create an endowment fund and a separate initial operating fund as proposed below. Staff will provide annual updates to the Water Board documenting the accomplishments of the previous year and outlining the next one year and five year work plan goals (see Accountability and Transparency Section, below).

Our goal is to build a comprehensive and transparent program that measures the physical condition of our groundwater basins over the long term, and reaching this goal will require significant increases in funding over time. Staff will direct additional enforcement funds, as they become available, to the CCAMP-GAP endowment, as we have done with CCAMP with respect to surface water monitoring and assessment, and as we have done with the Water Board's Low Impact Development Initiative (LIDI).

**Endowment: \$800,000**

Staff proposes to set up an initial \$800,000 endowment to provide an ongoing revenue stream to implement the annual CCAMP-GAP work plan. This endowment will require additional funding over time to increase the endowment principal and expand the capacity of CCAMP-GAP. The initial \$800,000 endowment will provide about \$40,000 per year in interest based on a long-term average earnings rate of five percent (understanding that the rate of return could be much lower depending on the economy). One of our longer term goals is to build the endowment up to \$5 million (with an estimated annual earnings rate of \$250,000 per year at 5% over the long term). The revenue stream generated from the endowment will be used to replenish a CCAMP-GAP operating fund, but also may be allowed to roll over to increase the endowment principal and future interest earnings.

**Operating Fund: \$471,000**

The CCAMP-GAP operating fund will be used to develop and implement regional groundwater monitoring programs and fund groundwater-related projects (see Special Projects discussion) Water Board staff will work with stakeholders to develop the detailed scopes of work and costs associated with these projects. The Executive Officer will prioritize the selection and implementation of these projects based on achieving the maximum cost benefit associated with effectively implementing projects that are in alignment with our highest priorities, as has been the case with CCAMP since its inception.

**Domestic Well Outreach and Sampling Program**

The implementation of this program is a regional priority due to significant public health threats associated with unregulated domestic wells in rural agricultural areas as result of widespread and severe nitrate pollution. Therefore, this program is one of the first year CCAMP-GAP goals (see Goals below) and is currently under development. More detailed information regarding this program was provided as part of the Executive Officer's Report to the Board (Item No. 17) contained within the July 14, 2011 Water Board Public Meeting agenda package. Since that time we have prepared a draft domestic well outreach and sampling project grant application request for qualifications package, scope of work, draft outreach and notification flyer. We are coordinating this work with several stakeholders, including State Board GAMA program staff, the California Department of Public Health, various County Health and Public Works Departments, and several nonprofit

environmental groups. The primary goals of the domestic well outreach and sampling program are to:

1. Provide domestic well owners and the general public in the Central Coast Region with specific information regarding potential nitrate impacts to their drinking water supplies, options for dealing with the health threat, and available water quality testing opportunities.
2. Provide free nitrate sampling to domestic well owners.
3. Develop comprehensive maps that delineate the concentration of nitrate in shallow aquifers and domestic wells.
4. As funds are available, provide financial assistance for Limited Resource Farmers and Ranchers or Socially Disadvantaged Operators on an as-needed, sliding-scale basis to help them comply with the groundwater sampling requirements of the Irrigated Agriculture Order.

The long-term goal is to sample domestic wells every five to ten years, depending on available funds. We will also work with local agencies to develop ongoing domestic well sampling and notification programs in all the Region's groundwater basins where domestic well drinking water is threatened or unsafe.

### **Regional Groundwater Monitoring and Assessment**

There are a number of organizations currently implementing groundwater monitoring programs with dedicated monitoring well networks within the Region. CCAMP-GAP will leverage these existing individual programs into a coordinated regional monitoring program. We will start with a pilot project that directs groundwater data from a local agency into the GAMA GeoTracker database. As with the proposed domestic well program, additional funds will be made available as necessary from the CCAMP-GAP operating fund to implement this program.

Coordinating the groundwater data from local agencies into a regional database will significantly improve our ability to assess the data, streamline sharing of these data with the Water Board and other agencies, and allow public access to the data (while keeping well location and ownership confidential). These data would be immediately available for review and limited analyses via GeoTracker as well as for download into GIS or other modeling programs for more robust analyses. Water quality analyses for these existing programs are typically conducted by State-certified private in-house laboratories or commercial "clean water" laboratories that are not currently configured to upload raw analytical data into GeoTracker. Therefore our initial efforts will be to facilitate the electronic transfer of groundwater quality data generated via existing monitoring programs directly into GeoTracker. Once the existing monitoring programs are built into and uploading to GeoTracker, we will focus on capturing all available historical data within the system where feasible. We intend to collaborate with the entities implementing groundwater monitoring programs on a regular and ongoing basis and to provide technical and financial support to expand the existing monitoring programs and develop new ones in priority basins, where needed and given available funding. The following is an outline of the basic monitoring and assessment program development task list:

1. Water Board staff will outreach and coordinate with regional groundwater monitoring stakeholders to:
  - a. Identify and define existing programs
  - b. Advocate CCAMP-GAP
  - c. Identify shared priorities and goals
  - d. Identify and evaluate potential beneficial projects
2. Leverage existing programs where they exist with technical and financial support to facilitate:
  - a. Electronic transfer of data into GeoTracker GAMA
    - i. GAMA technical support
    - ii. Laboratory technical support (to facilitate Electronic Data Format [EDF])
    - iii. Agency/program technical support

- b. Capture/upload historical data from monitoring program
- c. Add additional monitoring wells, increase sampling frequency, add constituents, etc.
3. Capture, integrate & manage additional groundwater and well data from other sources (i.e. well permitting data for unregulated drinking water supply systems/wells)
4. Develop monitoring programs within areas where they don't currently exist
5. Develop or build on existing Quality Assurance Project Plans (QAPPs) and Sampling and Analysis Plans (SAPs)

Water Board staff have already begun implementing the first task. The cost associated with each of the subsequent tasks is currently uncertain and will likely be based on the characteristics of each individual local monitoring program. One of our first year goals (see CCAMP-GAP Goals below) is to determine the cost associated with these tasks and prioritize implementation based on available funding and regional benefit. This effort is currently underway.

We have had favorable preliminary discussions with several local agencies that are implementing regional groundwater monitoring programs regarding the proposed program. As of the date of this staff report we have identified and contacted the following with regard to their existing groundwater monitoring programs and our proposed program:

- Monterey County Water Resources Agency (MCWRA)
- Pajaro Valley Water Management Agency (PVWMA)
- San Benito County Water District (SBCWD)
- Santa Clara Valley Water District (SCVWD)
- Monterey Peninsula Water Management District (MPWMD)
- San Luis Obispo County – Department of Public Works
- Santa Barbara County – Water Resources Division of Public Works
- Santa Cruz County - Water Resources Program

In addition to the regional groundwater monitoring programs with dedicated well networks, we are also reaching out to the counties throughout the Region, principally the Health Departments, as the primacy agency for the drinking water programs and well permitting oversight, to begin capturing Local and State Small Water System well and domestic well water quality information. Our initial efforts are focused on piloting this program with Monterey County given they have the largest number of small water supply systems and domestic wells in our Region. We have also begun discussions with State Water Board GAMA program staff and various regional stakeholders to provide GeoTracker functionality that will directly benefit local agency programs such as drinking water and well permitting programs. In an effort to improve our chances for success, we are endeavoring to make this program as easy and as desirable as possible for participating local agency stakeholders. With this approach we hope to not only improve the functionality of our program, but also to provide benefits to the programs of the participating local agencies.

### **Special Projects**

In addition to collaborating with various stakeholders to develop and implement a comprehensive and robust regional groundwater monitoring and assessment program, CCAMP-GAP will also support the implementation of special studies and projects to protect and restore groundwater quality, or otherwise support activities addressing our highest priorities as they relate to groundwater or the interrelationships between surface water and groundwater.

CCAMP-GAP funds available within the operating account beyond those earmarked for the specific programs and projects proposed within this project proposal and work plan will be available to implement various types of projects including but not limited to the following:

- Domestic Well Sampling Program (for an ongoing or repeat program at specified frequency, or to supplement/leverage local agency domestic well sampling efforts)
- Special studies (groundwater age dating, isotopic analyses, modeling, etc.)
- Well abandonment/destruction
- Development and implementation of well head protection programs
- Emergency replacement water supply
- Groundwater recharge (i.e., active recharge projects)
- Groundwater basin/aquifer assessment and ongoing trend analyses
- Salt and Nutrient Management Planning (i.e., plan development, Basin Planning, implementation, etc.)
- Seawater intrusion related projects
- Technical support for Basin Plan amendments
- Testing and implementation of technologies to reduce groundwater pollution

This is a preliminary conceptual list of potential projects. We will generate a more specific ongoing list of potential projects in concert with regional and local stakeholders. Projects will be evaluated on the basis of 1) their alignment with the Water Board's highest priorities, 2) providing regional scale groundwater data that will improve our ability to effectively evaluate and manage water quality and supply, 3) achieving tangible results in protecting and restoring water quality and/or supply, 4) leveraging existing programs with a regional benefit, and 5) leveraging of supporting funds.

### **Goals**

We have developed an initial set of one-year and five-year goals.

The first year goals are to:

1. Implement a region-wide domestic well outreach and sampling program (currently under development)
2. Identify and begin collaborating with all applicable local and regional groundwater monitoring stakeholders (currently in process)
3. Implement initial water quality data capture and transfer pilot program with an individual local agency - determine the costs associated with and enter into agreements or contracts as necessary with stakeholder(s) to begin uploading groundwater monitoring data directly into GeoTracker GAMA
4. Identify and secure additional sources of potential funding, and
5. Develop and prioritize a running list of potential groundwater-related projects with maximum benefit in achieving our measurable goals and addressing our highest water quality priorities

The initial five-year goals are to:

1. Get all of the existing regional groundwater monitoring programs reporting data directly into GeoTracker GAMA and begin upload of historical data
2. Begin integrating regional groundwater monitoring data with surface water quality (CCAMP) and land use data
3. Develop an online "report card" of regional groundwater conditions
4. Integrate regional groundwater monitoring programs with salt and nutrient management program (Recycled Water Policy, SWRCB Resolution No. 2009-0011) monitoring program(s)
5. Develop Basin Plan amendments to protect water quality and watersheds from impacts to riparian and wetland areas and groundwater recharge.
6. Begin funding projects with a maximum regional benefit in achieving our measurable goals and addressing our highest water quality priorities
7. Build the CCAMP-GW endowment up to \$5 million
8. Implement follow-up domestic well sampling (fifth or sixth year; the goal is to implement this program once every five to ten years)

**Accountability & Transparency**

As noted in previous sections of this project proposal and fiscal year work plan, Water Board staff will provide annual progress reports and future work plans during scheduled public hearings to facilitate Water Board and public participation in the ongoing development and implementation of the program. The annual progress reports and work plans will:

1. Evaluate the previous fiscal year goals and progress toward achieving the five year goals, and present the next one year and five year set of goals with an emphasis on:
  - a. identifying and discussing newly initiated projects,
  - b. providing the status of ongoing projects,
  - c. forecasting anticipated projects and expenditures for the next year and five year time horizons based on available/anticipated funds,
2. Refine the conceptual special project list and evaluation criteria, and
3. Provide an evaluation of the efficacy of the program with a discussion of successes, shortfalls and opportunities.

Water Board staff will also present the results/findings of special studies and assessment work either as part of the annual updates, as stand-alone informational items or within the Executive Officer's reports as needed to inform the Water Board and public. The five year goal of developing an online groundwater quality "report card" will also help facilitate public transparency and accountability of the effectiveness of Water Board programs focused on our regional-scale water quality problems.

S:\Vision Creation and Implementation\CLEAN GW TEAM\CCAMP GAP\040312 Staff Report\CCAMP-GAP\_FY11-12\_conceptual\_workplan\_final.docx