

Central Valley Regional Water Quality Control Board

Groundwater Quality Protection Strategy

June 2011 – 2013 Workplan Summary

This document has been prepared to provide a brief summary of work completed as outlined in the Future Actions List and Workplan for the August 2010 Groundwater Quality Protection Strategy (2011 Workplan). The 2011 Workplan can be found on the Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) website at:

http://www.waterboards.ca.gov/centralvalley/water_issues/groundwater_quality/gwq_protection_workplan_june2011.pdf

Introduction

The Central Valley Water Board adopted Resolution R5-2008-0181 in support of developing a Groundwater Quality Protection Strategy for the Central Valley Region through an active stakeholder process. To develop the Groundwater Quality Protection Strategy for the Central Valley Region, a Roadmap, public workshops were held to solicit information from stakeholders on groundwater quality protection concerns. Workshops were attended by stakeholders representing a variety of interests including: food processors, water purveyors, irrigation districts, conservation districts, rural communities, agricultural interests, federal and state agencies, cities, counties, elected officials, environmental groups, non-profit organizations, and other interested parties.

At the Central Valley Water Board September 2010 meeting, Resolution R5-2010-0095 was adopted approving the August 2010 Groundwater Quality Protection Strategy for the Central Valley (Roadmap)¹ recognizing that all high priority actions cannot be fully implemented with existing resources. The resolution directed staff to develop workplan(s) for the highest priorities, and continue to pursue new, and improve existing, partnering opportunities to leverage existing resources and avoid duplication of efforts.

Table 1 below lists the future actions (action) identified in the Roadmap. Each action identified was either underway or would be taken to improve or restore groundwater quality and was prioritized as high, medium, or low. For the high priority actions the Groundwater Quality Protection Strategy June 2011-2013 Workplan was developed. The following sections provide a summary of work completed from that workplan.

¹ Roadmap available for review at http://www.waterboards.ca.gov/centralvalley/water_issues/groundwater_quality/2010aug_gwq_protect_strat_approved.pdf

Table 1

Future Action #	Future Action	Priority		
		High	Medium	Low
6.4.1	CV-SALTS – Develop a Salt and Nitrate Management Plan	X		
6.4.2	Implement Consistent and Scientifically Sound Groundwater Monitoring Programs	X		
6.4.3	Implement Groundwater Quality Protection Programs through the Integrated Regional Water Management Plan Groups		X	
6.4.4	Broaden public participation through enhanced communication, education, and outreach	X		
6.4.5	Improve local implementation of Well Design and Destruction Programs		X	
6.4.6	Groundwater database	X		
6.5.1(a)	Alternative Dairy Waste Disposal – Dairy Manure Digester and Dairy Manure Co-Digester Facilities Completed June 2011	X		
6.5.1(b)	Develop Individual and General Orders for Poultry, Cattle Feedlot, other types of CAFO Facilities		X	
6.5.2(a)	Implementation of Long-Term ILRP	X		
6.5.2(b)	Coordinate with CDFR to identify methods to enhance fertilizer research and education program		X	
6.5.3	Reduce site cleanup backlog		X	
6.5.4(a)	Draft Waiver once new regulations adopted based on AB 885		X	
6.5.4(b)	Update Guidelines for Waste Disposal from Land Developments Completed June 2012	X		
6.5.4(c)	Develop methods to reduce backlog and increase facilities regulated	X		
6.5.4(d)	Actively coordinate with State Water Board on development of statewide ASR policy guidance Completed September 2012		X	

GROUNDWATER QUALITY PROTECTION WORKPLAN(S)

The Roadmap is considered an evolving document and as actions are completed or new information is gathered, revisions will be made. This is also true for the 2011 Workplan, which spanned two fiscal years, June 2011-2013. In June 2012 a status report was presented to the Central Valley Water Board. This presentation included adjustments to schedules or tasks as appropriate. The following sections provide a summary of work completed as of June 2013.

Action #6.4.1 CV-SALTS Develop a Salt and Nitrate Management Plan

Project Sponsor: Pamela Creedon

Project Manager: Jeanne Chilcott, jchilcott@waterboards.ca.gov

Stakeholder Group Sponsor: CV-SALTS Executive Management Committee

Stakeholder Group Project Manager: Daniel Cozad, dcozad@cvsalinity.org

Workplan Completion Summary:

The workplan was developed by CV-SALTS committees in an attempt to capture the efforts needed to produce an implementable Salinity and Nitrate Management Plan for the Central Valley and complete a basin plan amendment to support the plan.

Work over the last two years included completion of the following task 1 items

- Framework and Strategy update and development of a Workplan for the CV-SALTS Initiative, February 2012
http://cvsalinity.org/index.php/component/docman/doc_download/1092-cv-salts-approved-workplan-final.html?Itemid=290.
- Annual Central Valley Water Board Workshop, June 2012 and State Water Board, December 2012
http://www.waterboards.ca.gov/centralvalley/water_issues/salinity/progress_reports/index.shtml
- Reports based on pilot study evaluations :
 - Westside Salt Assessment by the Bureau, February 2013
<http://www.usbr.gov/mp/ptms/index.html>
 - Report on Validity of Pilot Studies, December 2011
http://cvsalinity.org/index.php/docs/doc_download/1971-revised-framework-and-appendices-a-b-c-pdf.html
 - Management Practice Screening Tool, August 2011
http://cvsalinity.org/index.php/component/docman/doc_details/1871-management-practices-evaluation-for-salt-and-nutrients-v-10-10-17-11-pdf.html?Itemid=314

Technical studies, research, and monitoring to support needs and issues under task 2 is led by a Technical Project Manager. Numerous projects have been completed or initiated including:

Completed:

- ✓ Technical recommendations regarding use of modeling tools to develop site specific salinity objectives to protect irrigated agriculture;
- ✓ Technical review of salinity and nitrate water quality criteria and recommendations to protect stock watering;
- ✓ Salinity water quality criteria review for aquatic life;
- ✓ GIS database and beneficial use maps for the Central Valley and Delta (coordinated with State Water Board effort);
- ✓ Initial salinity/nitrate source and fate conceptual model for Central Valley;
- ✓ White paper on salinity and nitrate impacts on municipal and domestic supply;
- ✓ White paper on salinity impacts on irrigated agriculture; and

In progress:

- ✓ Management zone based evaluation of appropriate salinity water quality objectives to protect irrigated agriculture (in progress);
- ✓ Strategic Salt Accumulation Land and Transport Study (SSALTS) evaluation salt disposal options;
- ✓ Case studies to ground-truth policy and implementation recommendations for surface and ground waters (in progress):
 - Appropriate application and protection of municipal and domestic supply in agriculturally dominated surface water bodies (Publicly Owned Treatment Works receiving waters in the Sacramento River Basin);
 - Appropriate application and protection of municipal and domestic supply in a portion of the unconfined aquifer within the Tulare Lake Bed;
 - Lower San Joaquin River salinity and boron water quality objectives and implementation program; and
 - Early implementation project to provide safe drinking water for disadvantaged community

For more information on the above listed projects see CV-SALTS website Technical Project Index page at:

<http://www.cvsalinity.org/index.php/committees/technical-advisory/technical-projects-index.html>

Additional work completed by CV-SALTS not listed in the 2011 Workplan included:

- ✓ Co-sponsor of and participant in the Groundwater Resources Association Salinity and Nitrate Conference in Fresno (June 2012);
- ✓ Drafted revised Chapter 18 (Salt and Salinity Management) for the California Water Plan;
- ✓ Improved functionality of the CV-SALTS website, and;
- ✓ Developed Central Valley Salinity brochure <http://www.cvsalinity.org/index.php/news/86-salt-story.html>

Information on continuation of technical studies, development of the Salt and Nitrate Management Plan, and environmental documentation will be included in the

Groundwater Quality Protection Strategy for the Central Valley Region, a Roadmap, June 2013-2015 Workplan (2013 Workplan).

Action #6.4.2 Implement Consistent and Scientifically Sound Groundwater Quality Monitoring Program

Project Sponsor: Clay Rodgers

Project Manager: Rob Busby, rbusby@waterboards.ca.gov

Workplan Completion Summary:

The Central Valley Water Board brought together experts in the field of groundwater quality monitoring to advise and comment on technical issues. The Groundwater Monitoring Advisory Workgroup (GMAW) is an advisory panel to assist the Central Valley Water Board in evaluating how and why groundwater quality monitoring is conducted, to maximize the collection of reliable data, ensure the efficient use of resources, and provide for the proper evaluation of data.

During the period of the 2011 Workplan, the GMAW was assembled, the group identified four technical issues to develop white papers, and the group provided technical recommendations to the Irrigated Lands Regulatory Program Groundwater Technical Advisory Committee.

The list of technical issues was reprioritized by the group and it is currently working on the draft white paper for Site Characterization and the Conceptual Model Approach. Once this white paper has been developed the group will then begin drafting a white paper on Establishing and Applying Site-Specific Background Concentrations.

The GMAW is a volunteer effort which has provided technical recommendations, but it will continue to take time to flesh out and finalize Technical Issues White Papers. More information on the technical issues and schedule for white paper development will be included in the 2013 Workplan.

Action #6.4.4 Broaden Public Participation Through Enhanced Communication, Education, and Outreach

Project Sponsor: Richard Loncarovich

Project Manager: Linda Bracamonte, lbracamonte@waterboards.ca.gov

Workplan Completion Summary:

The 2011 Workplan identified tasks to broaden public participation throughout the Central Valley Region. We have completed the following:

- Provided meeting facilitation training to 26 Regional Board staff,
- Held multiple board workshops in project specific locations. As the need arise we will continue to provide this service.
- Provide the opportunity for interested parties to participate in specific program issues such as, CV Salts, Dairy Monitoring, ILRP, etc.
- Working with State Water Board to expand our ability to allow for remote Board Meeting Participation from all three of our offices.
- Working with vendors to upgrade our equipment to allow for webcasting of our Board Meetings.

The initial effort has been completed but broadening public participation will be an on-going effort for the Central Valley Water Board.

Action #6.4.6 Groundwater Database

Project Sponsor: Richard Loncarovich and Clay Rodgers

Project Manager: [Jovel Vossler, javossler@waterboards.ca.gov](mailto:javossler@waterboards.ca.gov)

Workplan Completion Summary:

Working cooperatively with State Water Board's Office of Information Management and Analysis (OIMA) and Central Valley Water Board staff reviewed all existing groundwater data systems and their ease of use and functionality. The Workgroup identified the basic groundwater data needs of all key programs. The effort identified all programs with groundwater data that are currently not in a database.

An issue paper was sent to OIMA recommending that the State Water Board's GeoTracker System be modified to incorporate data from the remaining programs with groundwater data that were not already in the system. The issue paper identified the key groundwater data elements that the system would need to accommodate in each key program. The services of the Region 5 Workgroup were made available to help OIMA in this process.

The State Water Board had reached a similar decision that GeoTracker was the appropriate system to be modified to accommodate remaining groundwater data. At this point OIMA's plan is to move forward one program area at a time to make modifications to the system. This effort will take several years to complete and as each program is identified Region 5 staff will work closely with OIMA's staff to make sure our program data is identified and the functionality of the system is appropriate for each program.

Action #6.5.2(a) Implementation of the Long-Term Irrigated Lands Regulatory Program (ILRP)

Project Sponsor: Ken Landau

Project Manager: Joe Karkoski, jkarkoski@waterboards.ca.gov

Workplan Completion Summary:

Work over the last two years focused on developing and adopting General Waste Discharge Requirements for discharges of wastewater from irrigated lands in the Central Valley. Development of seven Orders that allow growers to be represented by third-party groups was planned, with six Orders covering specific watershed areas, one Order covering a specific commodity (rice), and one Order for those growers that are not part of a third-party group (Coalition). To date one third-party General Order has been adopted for the East San Joaquin Coalition and the General Order for growers not part of a third-party group has been adopted. A tentative third-party General Order for the Tulare Lake Basin will be considered at a board meeting on 19 September 2013. Draft General Orders for the Western San Joaquin River Watershed, the Western Tulare Lake Basin, the Sacramento River Watershed, San Joaquin County and the Delta, and rice in the Sacramento Valley have been distributed for public review.

Tasks to complete the development and issuance of the General Orders will be outlined in the 2013 Workplan.

Action #6.5.4(b) Update Guidelines for Waste Disposal from Land Developments – Completed June 2012

Project Sponsor: Rick Moss

Project Manager: Rob Busby, rbusby@waterboards.ca.gov

At the time of approval of the Roadmap, September 2010, the State Water Board's efforts related to Assembly Bill 885 (AB 885) had stalled. The priority given to action 6.5.4(b) was partly based on resources and the need to continue to work on an update to the waste disposal guidelines.

AB 885, creating Section 13291 et. seq. of the California Water Code, legislated statewide minimum 'regulations or standards' for onsite sewage treatment systems (including septic systems). AB 885 required the State Water Board to adopt new regulations for discharges from onsite wastewater treatment systems.

The approach for all actions in the Roadmap is to leverage resources and coordinate efforts with other agencies or organizations. While developing the 2011 Workplan, the State Water Board initiated work on AB 885 requirements. At the direction of executive management Central Valley Water Board, staff participated in the State Water Board's effort.

Workplan Completion Summary:

Central Valley Water Board staff participated in development of State Water Board Policy as part of the Policy Writing Team. As part of the Policy Writing Team staff reviewed policy objectives, language, and specific Onsite Wastewater Treatment Systems (OWTS) criteria to ensure concerns and issues specific to the Central Valley Region were included and/or addressed in the Policy, as appropriate.

On 19 June 2012, the State Water Board adopted a Policy for regulation of OWTS. Each Regional Board will be required to update its Basin Plan to be in compliance with the OWTS Policy or adopt policy/guidelines that are as restrictive as the State Water Board policy; and to review and approve all of the local area management plans concerning OWTS in its respective Region. This work will be included in the 2013 Workplan.

Action #6.5.4(c) Develop methods to reduce backlog and increase facilities regulated

Project Sponsor: Rick Moss

Project Manager: Lonnie Wass, lwass@waterboards.ca.gov

Workplan Completion Summary:

The focus of the workplan was to develop process improvement tools to assist and improve the efficiency of Waste Discharge Requirements (WDR) writers in the review of applications and development of waste discharge requirements; identify potential dischargers that would fit into general orders, and prioritize existing permits.

Several tools were developed to improve the WDR process including a checklist for dischargers on the information needs for antidegradation analysis which helps to reduce the amount of additional information requests. For staff, standard templates similar in formatting to NPDES permits were developed for use on a case by case basis to provide WDR consistency.

The State Water Board has a WDR unit to assist Regional Boards in reducing WDR backlogs. This unit has been working on the development of a General Order for Small Volume Domestic Wastewater with flows of less than 100,000 gpd. If this General Order is adopted, approximately 250 dischargers in the region would be eligible for this more streamlined WDR process. The draft General Order is currently in management review prior to presentation for adoption by the State Water Board later this year.

Through the prioritization, use of several tools, and general orders the backlog of WDRs has decreased approximately 30% during the workplan term.

Work to refine the tools developed and to identify additional potential General Orders will be outlined in the 2013 Workplan.

Action #6.5.4(d) Actively coordinate with State Water Board on development of statewide Aquifer Storage and Recovery policy guidance – Completed September 2012

Project Sponsor: Rick Moss

Project Manager: Rob Busby, rbusby@waterboards.ca.gov

Goal: To develop a statewide approach for Aquifer Storage and Recovery (ASR) projects through coordination with DWR and the State Water Board.

Objective: To provide statewide consistency for permitting of ASR projects.

Action Items: Commit resources for staff participation in development of a statewide approach for permitting ASR projects.

Background:

An information item on ASR projects presented at the April 2008 Central Valley Water Board Meeting solicited Board input on regulation of ASR projects. During that meeting, the Central Valley Water Board suggested implementation of a non-regulatory approach to condition and control ASR Projects. A Unified Statewide ASR program would be developed through a collaborative effort of the State and Regional Water Boards, DWR, CDPH and USEPA. As long as a project proponent followed the guidelines, the Water Board would not impose additional conditions through a waiver or waste discharge requirements (WDRs). At the time the Groundwater Quality Protection Strategy for the Central Valley Region, a Roadmap was finalized it was anticipated that the State Water Board would take the lead on this project. Therefore it was identified as a medium priority and was not included in the 2011 Workplan.

In 2012 the State Water Board working with the Regional Water Boards prepared an Initial Study and Notice of Proposed Mitigated Negative Declaration (State Clearing House No. 2012082055 and circulated these for public review on 13 August 2012. After considering comments received on the Initial Study, the State Water Board determined based on the reasons specified in the Initial Study that the proposed project, the adoption of the General Order, will have a less than significant effect on the environment and will not result in significant cumulative impact; and that specific requirements in the General Order will mitigate any potential adverse impacts.

To streamline the permitting process and to ensure consistent requirements, the State Water Board adopted on 19 September 2012, general WDRs for ASR projects that inject treated drinking water into aquifers. The general WDRs require that water injected into an aquifer meet drinking water standards and not cause groundwater to violate any water quality objectives in the applicable Water Quality Control Plan.

The general WDRs are available for use by the Regional Water Boards for permitting ASR projects that meet the criteria provided in the waste discharge requirements. The board's executive officer is authorized to enroll ASR projects under the waste discharge.