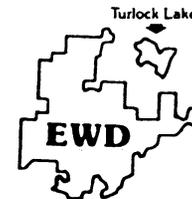


EASTSIDE WATER DISTRICT



BOARD OF DIRECTORS
James G. Crececius <i>Chairman</i> 874-1866
Ward Burroughs 874-9400
Tim Johnson 874-5343
David H. Long 874-1875
Al Rossini 874-3739
Karen Whipp <i>Secretary</i> 589-0689

**EASTSIDE
WATER DISTRICT**
P.O. BOX 280
DENAIR, CA 95316



EASTSIDE WATER DISTRICT NEWSLETTER September 2013

This newsletter is published to inform members of the Eastside Water District (EWD) and other interested parties about issues that affect the EWD, particularly efforts toward resolving the groundwater overdraft problem within EWD boundaries.

Previous editions of this newsletter have reported the EWD's efforts to find solutions to the declining groundwater levels in the area. These efforts included studies to acquire water from other agencies and delivering it to replace or reduce groundwater pumping, the construction of Pilot Recharge Basins to explore the viability of artificial recharge of the groundwater aquifer, and cooperation with other agencies in the basin to manage groundwater. Included in this edition are reports on the District's continuing search for solutions and cooperation with other agencies.

EDITORS NOTE

Historically we have attempted to publish this newsletter once or twice per year. Unfortunately we let ourselves get distracted carrying out the activities discussed in this edition of the newsletter and we neglected to publish several editions. For that we apologize. We will try to do better in the future.

CALIFORNIA STATEWIDE GROUNDWATER ELEVATION MONITORING (CASGEM)

On November 4, 2009 the State Legislature amended the Water Code with SBx7-6, which mandates a statewide groundwater elevation monitoring program to track seasonal and long-term trends in groundwater elevations in California's groundwater basins. To achieve that goal, the amendment requires collabora-



tion between local monitoring entities and Department of Water Resources (DWR) to collect groundwater elevation data. Collection and evaluation of such data on a statewide scale is an important fundamental step toward improving management of California's groundwater resources.

In accordance with this amendment to the Water Code, DWR developed the California Statewide Groundwater Elevation Monitoring (CASGEM) program. The intent of the CASGEM program is to establish a permanent, locally-managed program of regular and systematic monitoring in all of California's alluvial groundwater basins. The CASGEM program will rely and build on the many, established local long-term groundwater monitoring and management programs. DWR's role is to coordinate the CASGEM program, to work cooperatively with local entities, and to maintain the collected elevation data in a readily and widely available public database. DWR will also continue its current network of groundwater monitoring as funding allows.

The law anticipates that the monitoring of groundwater elevations required by the enacted legislation will be done by local entities. The law required local entities to notify DWR in writing by January 1, 2011 if the local agency or party seeks to assume groundwater monitoring functions in accordance with the law.

The EWD, the Turlock Irrigation District (TID) and other agencies in the Turlock Groundwater Sub-basin have declared the intent to monitor groundwater elevations within their boundaries. The EWD and TID jointly retained the services of consulting engineering firm Todd Engineers design a monitoring program including identification of wells to monitor. The EWD then contacted landowners seeking permission to monitor wells on their property. Initially EWD will monitor fifteen wells. It is anticipated that over time additional wells will be added. These data will be submitted to the Department of Water Resources, as required by the legislation. This information will be publically available on the internet. The EWD Board of Directors has expressed appreciation of landowners who agreed to cooperate on this program.

JOE MARCOTTE RETIRING – KEVIN KAUFFMAN BEGINNING

Joe Marcotte, Water Resource Consultant, is retiring. Joe has consulted for EWD since 1993 while also serving other clients. Joe has a long history of water experience having first worked on a dam in Oklahoma in 1958. He worked for the Bureau of Reclamation, finishing up as Assistant Commissioner in Washington D.C., until 1987 when he became the CEO for Modesto Irrigation District followed by a brief stint as General Manager for Turlock Irrigation District.

Kevin Kauffman, Professional Engineer, Kevin Kauffman Consulting will replace Joe Marcotte. Kevin just retired from the position of General Manager, Stockton East Water District. Kevin's extensive experience in water management includes managing surface water supplies from the Stanislaus and Calaveras Rivers, overseeing the design, construction, and operation of direct groundwater recharge facilities, and currently securing the right to divert additional surface waters for recharge operations in San Joaquin County. The Board of Directors is optimistic that this transition will bring even greater progress towards meeting the EWD mission.

EWD DIRECTORS AND STAFF

The EWD is governed by a five person Board of Directors elected to alternating four-year terms. Day to day functions of the EWD are carried out by contract staff. Following are the names and phone numbers of Directors and Staff.

Jim Crecelius, Chairman Ward Burroughs, Director
Phone (209) 874-1866 Phone (209) 874-9400

Tim Johnson, Director David H. Long, Director
Phone (209) 874-5343 Phone (209) 442-4700

Al Rossini, Director
Phone (209) 874-3739

Karen Whipp, Secretary Kevin M Kauffman, Engineer
Phone: (209) 589-0689 Phone (209) 478-4940

Jeanne Zolezzi, Attorney
Phone (209) 472-7700

Visit the Eastside Water District WEB Site
<http://www.EastsideWaterDistrict.com>



EASTSIDE WATER DISTRICT ANNEXES LAND

In response to requests by neighboring landowners, the EWD added 7,159.30 acres of land to its territory. Initially several landowners inquired of EWD Director Al Rossini about the possibility of annexing to the District. After much discussion the Board of Directors decided to find out if in addition to the landowners who made the inquiry there were others who would be interested in being annexed. Landowners within the immediate proximity of the EWD were invited to a community outreach meeting for information and question and answer discussions regarding the proposed annexation. It was explained that that the annexations would be strictly voluntary.

Probably the most asked question was “Why should I join the Eastside Water District? The answer given was:

- The EWD was formed for the purpose of searching for solutions to the groundwater overdraft, and attendant declining groundwater levels, in the basin. Every irrigator who pumps groundwater from the basin contributes to the groundwater overdraft. Joining the District will give the opportunity to help in the search for solutions.
- In recent years the California State Legislature has passed a number of water related bills each of which place a burden on water users. These burdens range from filing reports to limitations on use of the resource. It is expected that the Legislature will continue to legislate the use of California water. The EWD in cooperation with other agencies attempts (with some success) to influence the legislation to reduce the impact on users. Even now the EWD is working other agencies in the Turlock Groundwater Sub-basin to comply with the California Statewide Groundwater Elevation Monitoring Program (SBx7-6) which requires that groundwater elevations be monitored and reported throughout the state. The EWD will monitor groundwater levels for all landowners within the District.

Based on the feedback from landowners the Board made the decision to proceed with the annexation and directed that the proper application forms, maps, legal descriptions and environmental compliance documents be filed with Stanislaus County LAFCO. LAFCO, the Local Agency Formation Commission, is responsible for reviewing and approving all annexations in the County. The EWD paid all costs associated with the annexation. LAFCO approved the annexation on March 28, 2012. The resulting total acreage of the EWD is now 61,293 acres.

LOCAL GROUNDWATER ASSISTANCE GRANT

The members of the Turlock Groundwater Basin Association have been notified by the California Department of Water Resources (DWR) that its application for a Local Groundwater Assistance Grant to study the Eastern Turlock Subbasin will be approved. The title of the study will be: “Hydrogeologic Characterization of the Eastern Turlock Subbasin.” The goal of the project is to develop an understanding of the hydrogeology of the eastern subbasin and to apply that understanding to predict impacts of increased groundwater use in non-district lands on subbasin groundwater levels and quality. The project will accomplish the following objectives:

- Development of a comprehensive, updated hydrogeologic conceptual model that provides an overall understanding of how the groundwater system works with a focus on non-district lands
- Evaluation of changing land use and groundwater conditions that supports a better understanding of land use impacts on groundwater resources
- Update and application of the regional numerical model as a tool to assist with land use planning and groundwater management decisions throughout the subbasin
- Support for ongoing groundwater programs such as the California Statewide Groundwater Elevation Monitoring (CASGEM) program
- Support for programs associated with the Turlock Groundwater Basin Groundwater Management Plan (GWMP) including recent regulatory requirements of a GWMP such as the mapping of recharge zones as required by Assembly Bill 359 (AB359, 2011).”

Results of the study will be used to support additional groundwater management activities and statewide programs. Currently, no monitoring is being conducted on the eastern non-district lands as part of the subbasin’s CASGEM program. This study will evaluate promising areas for monitoring, and may identify existing wells for potential CASGEM inclusion. In addition, the study will provide more detailed information on potential recharge areas and rates; this information will support satisfaction of the AB359 requirement for mapping recharge and wellhead protection areas. When multiple agencies unite on projects such as this the DWR requires that one agency take a lead role in applying for the grant and if the grant is awarded continue in the lead capacity as administrator of the grant. The City of Turlock has accepted this responsibility.



**TURLOCK IRRIGATION DISTRICT
EASTSIDE WATER DISTRICT
PILOT GROUNDWATER RECHARGE PROJECT**

As previously reported in this newsletter, in continuation of the effort to determine the viability of artificial recharge of the groundwater aquifer, the Turlock Irrigation District (TID) and EWD entered into an agreement to construct and operate a Pilot Recharge Basin located adjacent to the TID Cross Ditch, north of East Avenue, approximately one third of a mile west of Santa Fe Avenue.

The project originally had a two-fold objective: 1) Identify additional suitable recharge sites and 2) Evaluate the feasibility of constructing recharge basins, which would receive water only in wet years. Under the terms of the agreement EWD financed and constructed the Basin, TID furnishes water when in its judgment it has water available. It was anticipated there would be years during the ten-year life of the study that the basin will receive no water.

The EWD constructed the project in 2006. The ultimate plan was to construct multiple recharge cells totaling approximately four acres, however given the uncertainty of geologic suitability for recharge a smaller project was constructed to determine whether water would percolate from the Basin to the groundwater. It was originally anticipated that the basin would be excavated to a depth of 6 to 8 feet. In order to determine whether it would be necessary to excavate through the hardpan for the larger project two small basins (50 feet by 100 feet) were designed and constructed, one to pond water on top of the hard pan, the other excavated through the hard pan. While the material beneath the hardpan is sandy, it is lightly cemented. Water was put in the basins in mid July 2006. Results were disappointing. Neither basin accepted water.

In the course of deliberating the next course of action the EWD Board of Directors directed further excavation of a trench in the floor of the deeper basin to see if more suitable material might be found. At about ten feet below the floor, uncemented sand was encountered. Water was put in the trench and it percolated at a promising rate. The entire basin was then excavated an additional ten feet so that the total depth is about eighteen feet.

Water was turned into the newly excavated basin on October 4, 2006 and allowed to recharge until TID ended its irrigation season on October 25, 2006. During the 21 days of operation 3.44 acre-feet of water was recharged. The

area of the basin floor is approximately 0.12 acres, thus the total vertical feet of water recharged was 28.6 feet or an average of approximately 1.4 feet

per day. While the recharge rate was promising, the recharge period was too short to determine whether recharge over a longer period will justify constructing the larger basins. The Districts operated the basin again in 2007 to determine whether excavation of the larger basins would be justified. The Directors concluded that while the recharge rate of 0.52 feet per day was satisfactory it was not sufficient to justify excavating the entire four-acre basin to the 18 foot depth. They determined that given the basin was already excavated and operational to continue to operate the project to learn more about managing issues such as the algae that forms and slows the recharge. Recharge in subsequent years has been above the average recharge rate in the San Joaquin Valley of 0.5 feet per day.

Water is supplied to the Basin by a pump in the TID Cross Ditch No.1. A float switch in the basin, which maintains a water depth between one foot and two feet, controls the pump. In order to monitor the groundwater levels, observation wells were bored adjacent to the recharge basins to a depth of 70 feet. Prior to start of recharge the groundwater level was approximately 34 feet below the surface. The groundwater mound rose approximately 3.9 feet.

Experiments are currently underway to determine if reconfiguration of the basin floor will improve the recharge rate.

