

# FOX CANYON GROUNDWATER MANAGEMENT AGENCY

A STATE OF CALIFORNIA WATER AGENCY



## BOARD OF DIRECTORS

Lynn E. Maulhardt, Chair, Director, United Water Conservation District

Charlotte Craven, Vice Chair, Councilperson, City of Camarillo

David Borchard, Farmer, Agricultural Representative

Steve Bennett, Supervisor, County of Ventura

Dr. Michael Kelley, Director, Zone Mutual Water Company

## EXECUTIVE OFFICER

Jeff Pratt, P.E.

## NOTICE OF MEETING

NOTICE IS HEREBY GIVEN that the Fox Canyon Groundwater Management Agency (FCGMA) will hold an **Executive Committee Meeting** from **2:00 p.m. to 4:00 p.m.** on **Tuesday, May 7, 2013** in the **Atlantic Conference Room**, Main Plaza Level of the Ventura County Government Center, Hall of Administration Building, at **800 South Victoria Avenue, Ventura, California**.

## FCGMA EXECUTIVE COMMITTEE MEETING AGENDA

May 7, 2013

- Members:** Chair Lynn Maulhardt  
Co-Chair Charlotte Craven
- A. Call to Order**
  - B. Introductions**
  - C. Public Comment** - Audience members may speak about FCGMA-related matters not on today's Agenda.
  - D. Minutes** – Approve the minutes from the April 9, 2013 Executive Committee meeting.
  - E. City of Oxnard's Groundwater Recovery Enhancement and Treatment (GREAT) Project Review** – Discuss and provide feedback regarding the City of Oxnard's GREAT project.
  - F. Adjourn the Executive Committee Meeting** – Adjourn until the next Executive Committee meeting, to be scheduled at a later date.

## NOTICES

*The FCGMA Board strives to conduct accessible, orderly, and fair meetings where everyone can be heard on the issues. The Board Chair will conduct the meeting and establish appropriate rules and time limitations for each item. The Board can only act on items designated as Action Items. Action items on the agenda are staff proposals and may be modified by the Board as a result of public comment or Board member input. Additional information about Board meeting procedures is included after the last agenda item.*

**Administrative Record:** Material presented as part of testimony will be made part of the Agency's record, and 10 copies should be left with the Board Clerk. This includes any photographs, slides, charts, diagrams, etc.

**ADA Accommodations:** Persons who require accommodation for any audio, visual, or other disability in order to review an agenda or to participate in the Board of Directors meeting per the Americans with Disabilities Act (ADA), may request such accommodation in writing addressed to the Clerk of the FCGMA

Board, 800 So. Victoria Avenue, Location #1610, Ventura, CA 93009-1610, or via telephone by calling (805) 654-2014. Any such request should be made at least 48 hours prior to the meeting so staff can make the necessary arrangements.

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**Availability of Complete Agenda Package:** A copy of the complete agenda package is available for examination at the FCGMA office during regular working hours (8:00 a.m. to 5:00 p.m. Monday through Friday) beginning five days before the Board meeting. Agenda packet contents are also posted on the FCGMA website as soon as possible, and left there for archival retrieval in case reference is needed on previously considered matters. Questions about specific items on the agenda should be directed to the Agency's Executive Officer.

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**Continuance of Items:** The Board will endeavor to consider all matters listed on this agenda. However, time may not allow the Board to hear all matters listed. Matters not heard at this meeting may be carried over to the next Board meeting or to a future Board meeting. Participating individuals or parties will be notified of the rescheduling of their item prior to the meeting. Please contact the FCGMA staff to find out about rescheduled items.

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**Electronic Information and Updates:** Our web site addresses are [www.foxcanyongma.org](http://www.foxcanyongma.org) (for weather station data) or <http://www.fcgma.org> (for home page information). Information available online includes the Board's meeting schedule, a list of the Board members and staff, weather station data, general information, and various Agency forms. If you would like to speak to a staff member, please contact the FCGMA Clerk of the Board at (805) 654-2014.

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## MINUTES

Minutes of the Fox Canyon Groundwater Management Agency's (FCGMA) Executive Committee meeting held **Tuesday, April 9, 2013** in the Atlantic Conference Room at the Ventura County Government Center, Hall of Administration, 800 South Victoria Avenue, Ventura, California.

- A. **Call to Order** – The meeting commenced at 2:00 p.m.
- B. **Introductions** – In attendance were: (1) Lynn Maulhardt, FCGMA Executive Committee Chair; (2) Charlotte Craven, FCGMA Executive Committee Co-Chair; (3) Neal Andrews, FCGMA Executive Committee Alternate; (4) Daniel Naumann, FCGMA Executive Committee Alternate; (5) Gerhardt Hubner, WPD, Deputy Director; (6) Jessica Rivera, FCGMA Clerk of the Board; (7) Miranda Nobriga, FCGMA Clerk of the Board; (8) Henry Graumlich, Calleguas Municipal Water District (CMWD); (9) Robert Eranio, Crestview Mutual Water Company (CMWC) and Chair of Las Posas Users Group (LPUG); (10) Bill Miller, grower; (11) Monica Houweling, Houweling Nurseries; (12) Tom Vujovich, Pleasant Valley County Water District (PVCWD); (13) Rob Saperstein, representing City of Oxnard; (14) Gretchen Wenner, Ventura County Star; (15) Rob Roshanian, City of Oxnard; (16) Jurgen Gramckow, Southland Sod Farms; (17) James duBois, Reiter Bros.; (18) Shana Epstein, Ventura Water; (19) Steve Bachman, United Water Conservation District (UWCD); (20) David Souza, PVCWD; (21) Mike Solomon, UWCD; (22) Tony Emmert, City of Oxnard; and (23) Don Jensen, Jensen Design & Survey.

C. **Public Comments** – None.

D. **Meeting Minutes**

Co-Chair Craven made the motion to approve the minutes, and Chair Maulhardt seconded the motion.

E. **City of Oxnard's Groundwater Recovery Enhancement and Treatment (GREAT) Project Review**

Mr. Gerhardt Hubner, WPD, Deputy Director, gave a presentation regarding the City of Oxnard's GREAT Program Phase I, RW Agreement and Draft GMA Resolution.

Discussions arose regarding the timeframe of the Annual Agency Coordination Meeting and whether it should take place in March of each year, as presented, or May. It was decided that an April or May Annual Agency Coordination Meeting would be acceptable.

Mr. Henry Graumlich questioned the effect the "No Recycled Water Pumping Allocations (RWPA) that Displaces Surface Deliveries" condition would have on the Conejo Creek Project. Although

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many attendees believed there would be no effect on the Conejo Creek Project, Chair Maulhardt asked the parties to meet with each other to discuss the condition further and make the intent clear in the document to avoid any confusion.

The group continued by discussing the 5,000 acre-feet per year (AFY) maximum that could be pumped in any one calendar year in the RW Plan presented. Mr. Rob Saperstein stated he believed the number needed to be higher to allow for flexibility. Mr. Steve Bachman stated 8,000 AFY may be a more suitable number as it had been tested and no detriment had been found. Chair Maulhardt requested they meet to work out the language and bring it back for review.

Chair Maulhardt addressed how the cap of 4.0 AFY was determined. He asked the group if they felt a cap should be included at all, responses varied. Chair Maulhardt stated he believed a cap was needed; however, this may not be the appropriate forum, it should be revisited again in the future possibly through the Oxnard Plain Users Group (OPUG).

The RW Plan Term presented raised questions as to when the Plan would be evaluated for its effectiveness by all parties and if the Plan had a 10 or 12 year term. It was decided that the two (2) year evaluation date of January 1, 2016 presented should be replaced with "two (2) years after first delivery date" and the 10 year term would begin after the two year evaluation.

After deliberations, it was decided that the "net zero impact" presented in the Impacts of the Program should be replaced with "no net detriment" to be consistent with GMA documents.

Chair Maulhardt gave each attendee an opportunity to provide feedback regarding the RW Agreement and Draft GMA Resolution presented, directed Agency staff to make the suggested revisions, and requested an Executive Committee meeting be scheduled shortly after the April 24, 2013 Board meeting to allow the Committee an opportunity to review another draft prior to the May 22, 2013 Board meeting.

**F. Adjourn the Executive Committee Meeting**

The meeting adjourned at 3:52 p.m.

Submitted by:



Miranda Nobriga  
Clerk of the Board

**Draft May 3, 2013**

**Resolution 2013-02  
of the Fox Canyon Groundwater Management Agency**

**A RESOLUTION CONCERNING THE IMPLEMENTATION OF FIRST PHASE OF  
THE CITY OF OXNARD'S GREAT PROGRAM AND THE ASSOCIATED RECYCLED  
WATER MANAGEMENT PLAN**

**WHEREAS**, the Fox Canyon Groundwater Management Agency ("Agency") was established to preserve the integrity of the quality and quantity of groundwater resources within its boundaries; and

**WHEREAS**, the Agency exercises its regulatory authority through ordinances, resolutions, and implementation of its adopted groundwater management plan; and

**WHEREAS**, the current Agency groundwater management plan ("GMA Management Plan") was updated and adopted in May 2007; and

**WHEREAS**, the GMA Management Plan provides an extensive evaluation of the varying conditions in aquifers within the Agency, and an assessment of the water management strategies that various entities propose for implementation within the Agency; and

**WHEREAS**, the City of Oxnard ("City") is in the final stages of constructing the first phase of its Groundwater Recovery Enhancement and Treatment Program ("GREAT Program"), through which the City will make available approximately 7,000 acre-feet per year ("AFY") of advanced treated recycled water ("RW) for use within the City, the Oxnard Plain and Pleasant Valley area; and

**WHEREAS**, the GMA Management Plan describes the use of RW generated from the GREAT Program as an important management strategy that will result in improvements to water supply reliability and water quality conditions within the Agency; and

**WHEREAS**, the primary benefits of the GREAT Program include: (a) generation of approximately 7,000 AFY of new water supplies for the region; (b) increased use of supplemental water supplies and the concomitant reduced groundwater pumping in the areas of the Oxnard Plain and Pleasant Valley subbasins; (c) introduction of RW into the PTP and PVCWD systems which will increase UWCD's ability to recharge surface water to the Forebay under certain conditions; (d) shifting groundwater pumping from the coastal and Pleasant Valley areas that are most difficult to recharge, to the Forebay, which is easily recharged; (e) overall increase in groundwater recharge; and (f) the removal of tons of salts from the Oxnard Plain and Forebay groundwater; and

**WHEREAS**, the Agency adopted Resolutions Nos. 2003-4, and 2003-5 in support of the implementation of the GREAT Program; and

**Draft May 3, 2013**

**WHEREAS**, United Water Conservation District’s (“UWCD”) mission is to manage, protect, conserve and enhance the water resources of the Santa Clara River, its tributaries, and associated aquifers; and

**WHEREAS**, UWCD has and continues to serve an integral role in evaluating groundwater conditions within the Agency jurisdiction and developing strategies to optimize the management and use of water resources within the region. United’s efforts in this regard are documented in the GMA Management Plan and its ongoing responsibilities in monitoring aquifer conditions and regularly operating and updating Ventura Regional Groundwater Model; and

**WHEREAS**, UWCD, Pleasant Valley County Water District (“PVCWD”) and the City have developed a plan to utilize RW within the UWCD Pumping Trough Pipeline (“PTP”) and PVCWD (“PV”) distribution systems, along with direct delivery of RW to certain agricultural users along the pipeline alignment (collectively, “RW users”). The RW users have documented this plan to use RW through an agreement titled, “Full Advanced Treatment Recycled Water Management and Use Agreement” entered into by and between the City, PVCWD, UWCD, Houweling Nurseries, Reiter Affiliated Companies and Southland Sod (“RW Agreement”). The RW Agreement is an attachment to the Agency staff report accompanying this Resolution; and

**WHEREAS**, the City, UWCD and PVCWD will oversee and coordinate the ongoing delivery of RW to agricultural users in the Pleasant Valley and Oxnard Plain subbasins; and

**WHEREAS**, as a component of the RW Agreement, the City, UWCD and PVCWD have developed a “Recycled Water Management Impact Analysis Plan” (“RWIA Plan”) pursuant to which basin conditions will be monitored and analyzed, and criteria set under which the City will be able to pump groundwater from City owned wells and the UWCD Oxnard-Hueneme system (“OH System”). The RWIA Plan is set forth in this Resolution; and

**WHEREAS**, the use of RW and the implementation of the RWIA Plan will contribute to the improvement of groundwater supply and quality issues within the Agency; and

**WHEREAS**, from 2006 to present the City, UWCD and PVCWD collaborated on the implementation of the Conejo Creek – Supplemental M&I Water Program. This program provided PVCWD approximately 6,000 AFY of additional surface water supplies. All or some portion of the groundwater pumping by PVCWD displaced by this additional surface water was then transferred to the Forebay through extraordinary groundwater delivered to UWCD’s Oxnard-Hueneme Pipeline customers, including the City. The intent of this program was to shift groundwater pumping from the Pleasant Valley subbasin to the Forebay. Currently 10,477 AF of credits from this Program are on account with UWCD; and

**WHEREAS**, the data obtained from the implementation of the Supplemental M&I Water Program is valuable in assessing the capabilities and impacts of shifting additional pumping to the Forebay as documented in the RWIA Plan (Attachment A); and

**WHEREAS**, the reduction of pumping from the Forebay associated with the Supplemental M&I Water Program eliminates Forebay pumping of approximately the same magnitude as that associated with this RWIA Plan; and

**WHEREAS**, the Groundwater Recovery Enhancement and Treatment (GREAT) Program Final Environmental Impact Report (SCH #2003011045) assessed the potential environmental impacts associated with Phase 1 of the GREAT Program and this RWIA Plan, and was certified in September, 2004, concurrent with the City's approval of the construction of Phase 1 of the GREAT Program.

**WHEREAS**, the Agency has considered the environmental effects of the RWIA Plan as shown in the GREAT Program Final Environmental Impact Report and made the findings required by California Environmental Quality Act Guidelines section 15091.

**NOW, THEREFORE, IT IS HEREBY PROCLAIMED AND RESOLVED AS FOLLOWS:** The Agency grants its approval of the RWIA Plan subject to the following conditions:

1. This Resolution supersedes and restates in its entirety Resolution No. 2003-5.
2. The UWCD has provided an RW Impact Analysis Plan (RWIA Plan) for the proposed groundwater pumping allowed pursuant to this Resolution. The RWIA Plan is included as Attachment A to this Resolution and contains the following:
  - a. A description of groundwater monitoring program consisting of water level and water quality monitoring that is designed to detect ongoing conditions within the Pleasant Valley subbasin, the Oxnard Plain subbasin, and the Forebay. The RWIA Plan shall collect data on an ongoing basis for use to assess basin conditions and provide for the ongoing use of the Ventura Regional Groundwater Model in evaluating basin conditions.
  - b. An assessment of historic and current conditions in the Forebay, Oxnard Plain and Pleasant Valley subbasins and anticipated impacts to those subbasins associated with the implementation of the RWIA Plan.
  - c. Limitations or restrictions on Forebay pumping based upon groundwater level triggers and hydrologic conditions.
  - d. Annual, or more frequent, coordination meetings and reporting between the City, UWCD, PVCWD and the Agency regarding the annual report and implementation of the RWIA.
  - e. All monitoring and reporting shall be overseen and approved by a State of California Licensed Professional Geologist or Engineer.
3. The Agency, the City, UWCD, and PVCWD shall meet during the first week of May of each year ("Coordination Meeting"), and more frequently as necessary, to discuss any needed refinements to the implementation of this RWIA Plan, the current accounting of RWPA, and any expected limitations on the City's use of Recycled Water Pumping Allocation ("RWPA") because of Forebay water levels and then existing hydrologic

**Draft May 3, 2013**

conditions. As a result of these annual meetings, the Agency, the City and UWCD shall establish the locations and volume of RWPA that shall be available to the City for pumping through the following year. To the extent the Agency, the City and UWCD do not agree on restrictions on the use of RWPA for any given year, based on the then existing and anticipated hydrologic circumstances, the City shall use the RWPA consistently with UWCD Board of Directors' determination in consultation with the Agency. This provision shall not prevent the parties from meeting more frequently to consider alterations to the implementation of the RWIA Plan given changing hydrologic conditions.

4. Concurrently with the Coordination Meeting, the City and UWCD will provide the Agency with an Annual Report by April 1st. The report shall include an assessment of conditions, including water level/water quality data and analysis in the Forebay, Oxnard Plain and Pleasant Valley subbasins and an evaluation of any impacts directly associated with the pumping approved under this Resolution. GMA staff will annually review and report to the Agency Board on compliance and effectiveness of this Resolution.
5. The City shall accrue a RWPA, which allows the City to obtain groundwater in a volume and subject to the conditions provided in this Resolution.
6. The City will receive 1 acre-foot of RWPA for each acre-foot of RW use that results in 1 acre-foot decrease in groundwater pumping by RW users. Further, the City will receive RWPA only in the instance that the reduced groundwater pumping by RW users was groundwater that would have been pumped based upon a Historical Allocation or Irrigation Efficiency/Allowance Allocation.
7. To the extent practical, PVCWD shall prioritize its water use as follows, from highest to lowest priority: (a) Conejo Creek Project supplemental water: (b) RW; (c) surface water from UWCD; and (d) groundwater. However, the Agency acknowledges that Camrosa Water District and PVCWD are currently reevaluating the future availability of water from the Conejo Creek Project. This Resolution creates no obligation for PVCWD to continue purchasing water through the Conejo Creek Project; provided however, if PVCWD does continue to have access to that supply, it should rely on it as a first priority. Further, the Agency recognizes that Camrosa Water District has and may continue to rely on the Conejo Creek Project supplies for use within its district. The volume of water available to PVCWD has and may continue to be reduced as Camrosa uses more and more of that supply within the Camrosa service area. This prioritization of use under this provision shall be documented through the Annual Report required under Section 4.
8. No RWPA will accrue to the City for RW use that displaces groundwater pumping that would have been subject to Agency surcharges.
9. No RWPA shall accrue to the City for RW use that displaces UWCD surface water deliveries to those same users, when and if UWCD is concurrently physically not capable



**Draft May 3, 2013**

of diverting that volume of surface water to UWCD recharge basins because the recharge basins and the Forebay are full.

10. RW users shall not earn conservation credits on unused Historical Allocation associated with reduced groundwater pumping resulting from use of RW.
11. The City will report annually to the Agency and UWCD the quantity of RW delivered to each RW user. Prior to receipt of any RW, each RW user shall develop a protocol and format acceptable to the RW user, the Agency and the City, to account for the RW user's annual water use, including RW.
12. RW users will report their water use to the Agency on semi-annual extraction reports as required under Agency rules and procedures, and otherwise consistent with the requirements provided in Section 11 above.
13. City shall pump the RWPA from City owned wells and UWCD's O-H system.
14. Unless otherwise authorized pursuant to the Coordination Meetings, the City shall not pump its RWPA from the Forebay when evacuated groundwater from storage in the Forebay reaches 80,000 acre-feet (as regularly determined by UWCD), or groundwater levels in the Forebay reach 19 feet above mean sea level. Resumption of pumping of RWPA from the Forebay shall occur as authorized pursuant to the Coordination Meetings as provided in Section 3 above.
15. Each year's RWPA shall expire 60 months from the end of the calendar year in which the RWPA accrued. No more than a total of 25,000 acre-feet of RWPA shall accrue and no more than 5,000 AFY will be utilized or pumped in any one calendar year under this Resolution. However, the accrual period and maximum accrual amount **may (or shall?)** be extended to account for any restrictions in pumping of RWPA as may be imposed pursuant to this Section. Similarly, the annual RWPA pumping limitation may be modified pursuant to the Coordination Meetings provided in this Resolution.
16. City shall be deemed to pump its RWPA before its Historical Allocation.
17. The City may not transfer or assign all or any portion of its RWPA, except to facilitate its use of the RWPA in coordination with UWCD so that RWPA may be pumped from either City owned wells or UWCD's O-H Pipeline facilities.
18. Except as expressly provided in this Resolution, the RWPA does not create a new Agency allocation or credit.
19. Only RW delivered to RW users who have filed all required extraction reports with and have paid all required fees and charges due and payable to the Agency and UWCD shall be eligible to generate a RWPA for the benefit of the City.

**Draft May 3, 2013**

20. The Agency Board may reconsider and modify any provision of this Resolution under the following circumstances: (a) concurrently with the expiration of the "Performance Test" (no later than 2 years after 1<sup>st</sup> RW Delivery) as provided in the RW Agreement; (b) a material modification in the terms and conditions set forth in the RW Agreement; (c) to make this Resolution consistent with provisions of any update to the GMA Management Plan that has been approved by the Agency Board; or (d) a finding by the Agency Board that the implementation of this Resolution is having a net detrimental impact on the water resources in the Forebay, Oxnard Plain and Pleasant Valley subbasins. The Agency shall provide a minimum of six months advance notice to the RW users before implementing any material change to this Resolution.
21. Based upon the RWIA provided in Attachment A, 8,000 AFY of groundwater extraction can be accommodated in the Forebay with little if any effect on Forebay depletion. 5,200 AFY of pumping are proposed as substitute to the M&I Supplemental Program as part of this Resolution. Therefore, in order to remain below this impact threshold no more than 2,800 AFY of these credits in any one year can be utilized by UWCD from this account.
22. Except for the pumping of any accrued RWPA, this Resolution terminates on the date in which the first 10 year term of the RW Agreement. Subsequent to the termination, the City shall pump its remaining RWPA pursuant to the terms and conditions of the Resolution.

On motion by Director \_\_\_\_\_, seconded by Director \_\_\_\_\_,  
the foregoing resolution was passed and adopted on this \_\_\_\_\_, 2013.

By: \_\_\_\_\_  
Lynn Maulhardt, Chair, Board of Directors  
Fox Canyon Groundwater Management Agency

ATTEST: I hereby certify that the above is a true and correct copy of Resolution 2013-02

By: \_\_\_\_\_  
-----, Clerk of the Board

Attachment A – Recycled Water Management Plan Impact Analysis (RWIA) for Phase I of the  
City of Oxnard's GREAT Program

## **Recycled Water Management Plan Monitoring and Contingency Plan**

**Proposed Extraction Locations and Pumping Schedules:** The pumping is proposed to be shared between three sites - UWCD's El Rio facility, Oxnard's Water Yard, and Oxnard's Rice Avenue facility. The El Rio facility is in the Forebay basin and pumps largely from the Upper Aquifer. The Water Yard and Rice Ave facilities are located in the Oxnard Plain basin, near the boundary with the Forebay basin. The Oxnard facilities pump largely from the Upper Aquifer.

**Potential Impacts from Pumping:** Although the Forebay basin can tolerate significant pumping because it is easily recharged during wet periods, decreased water levels in the Forebay basin and adjacent portions of the Oxnard Plain basin can create temporary impacts. Because Oxnard's facilities are between the Forebay and the coast, there could be potential impacts at the coastline. These impacts can be divided into local and regional effects. Local effects include lowered groundwater levels and/or water quality changes in nearby wells. For instance, nitrates commonly increase at El Rio during dry periods when there is less recharge and groundwater elevations drop in the Forebay. Regional effects include overall lowered groundwater levels that could extend to the coastline and affect seawater intrusion, which is most likely during successive dry years, when Forebay recharge is significantly reduced while pumping continues. In particular, care must be taken not to pull the Hueneme plume of salty groundwater further inland.

The Fox Canyon Groundwater Management Agency ("FCGMA") has previously approved two programs which authorized increased reliance on Forebay pumping. The results of these programs – the Conejo Creek / Supplemental M&I Program and the Ferro Pit recharge basin acquisition program (FCGMA Resolution 2010-08) – have demonstrated that increased pumping from the Forebay can be managed successfully and without any negative consequences.

It is important to note that Oxnard has eliminated its use of the Conejo Creek / Supplemental M&I Program, so much of the pumping in the Forebay that is part of that program will be eliminated. Whereas PVCWD may continue to receive some water from the Conejo Creek project, the transfer of pumping to the Forebay will be significantly decreased. Historically, the Conejo Creek project has produced approximately 5,000 AFY of yield with that groundwater pumping shifted to the Forebay. This program has demonstrated that the Forebay can accommodate this level of increased pumping without negative consequences.

It is also important to note that whereas the GREAT Program will deliver approximately 5,000 AFY of advanced treated recycled water ("RW") which will be eligible for a Recycled Water Pumping Allocation ("RWPA"), the availability of RW for use within PVCWD and the PTP system will enable UWCD to retain some additional surface water to recharge the Forebay. Hence, the impact of pumping the RWPA from the Forebay and the adjacent areas of the Oxnard Plain basin will be mitigated to some extent by the enhanced recharge of the Forebay.

**Analysis of Potential Impacts:** UWCD has evaluated various pumping scenarios based on historic water uses. In particular, the implementation of the Conejo Creek / Supplemental M&I Program and the Ferro Pit recharge basin acquisition program provide very recent data regarding the Forebay's ability to accommodate various pumping stresses. Attachment A indicates that as much as 8,000 AFY of additional Forebay pumping under these programs has had minimal effect on the strong correlation between river flow/diversions and groundwater elevations. The Forebay has historically accommodated cycles of lowering water levels during drier years and recharge and rebound of water levels during wetter years.

Thus, the Forebay appears to be able to accommodate RWPA pumping of the magnitude of the supplemental water programs.

Despite the historical accommodation of the Forebay to dry periods, groundwater elevations reach sea level during these periods. Thus, potential impacts of low groundwater elevations during dry periods must be monitored carefully. For instance, if groundwater elevations in the Forebay reach critical depletion levels (80,000 AFY of available storage), the low groundwater elevations could potentially create a landward gradient that pulls seawater further into the aquifers. It would be prudent to reduce pumping of RWPA water during this time of low water levels.

The regional groundwater gradient in the vicinity of the Forebay is towards the west, parallel to the Santa Clara River. Data evaluation does not indicate discernable changes in this gradient caused by any increase in Forebay pumping. The Forebay and adjacent areas already have significant pumping as a background. The added anticipated pumping associated with this project should impose only a relatively small incremental change.

Material local effects, including lowered groundwater levels and/or water quality changes in nearby wells, are not expected to result from the proposed pumping. UWCD has a long history of operations at the El Rio facility which has been accommodated by other pumpers in the area. The high transmissivity of the aquifers in the Forebay tends to mute cones of depression, with the effects of current pumping in the El Rio wellfield only evident during very dry periods. The other mitigating factor is that surface water is spread at El Rio, creating a recharge mound that at times overwhelms and completely masks any cone of depression from the El Rio wells. As described below, UWCD carefully monitors groundwater conditions near the El Rio facility and will be able to detect unexpected effects before causing undesirable consequences. Localized effects would occur in the aquifer due to the increased pumping at the Water Yard and Rice Avenue facilities, but those effects are not likely to impact other currently active production wells that are located over 4,000 feet and over 1,600 feet away.

**Monitoring:** UWCD currently monitors dozens of wells in the Forebay, Pleasant Valley, and Oxnard Plain subbasins. The monitoring points are a combination of production wells and dedicated monitoring wells, which are generally monitored on a quarterly schedule for groundwater elevations. A portion of these monitoring points also have recording transducers in the wells to measure groundwater levels, with sampling intervals varying from several minutes to several hours. In some producing wells with transducers, real-time data transfer is accomplished through a SCADA system, whereas data from the other transducers are manually downloaded regularly. The groundwater elevation data are regularly entered into UWCD's groundwater elevation database for analysis.

Groundwater quality is sampled from a subset of these wells, generally on a quarterly basis, and entered into UWCD's water quality database for analysis. In addition, the results of water quality sampling from other public water supply wells are downloaded regularly from California Department of Public Health digital records into UWCD's water quality database. UWCD regularly adjusts its monitoring program to address differing conditions, and will continue to do so with this project.

**Mitigation of Potential Effects:** Given that the reduction in the pumping resulting from the decrease in the Supplemental M&I Program may partially or fully offset anticipated RWPA pumping, aquifer conditions may not change as a result of this project. Forebay groundwater elevations will likely continue to cycle through wet and dry conditions, with full recovery coming when wet-period recharge fills the Forebay subbasin. An uncertainty, however, is the effect of reduced diversions during some years because of future fish flow requirements. The increased recharge to the Forebay from flows diverted from the PV and PTP pipelines to Forebay spreading basins may partially or wholly mitigate this loss to fish flows.

UWCD will continue to pump the Forebay consistent with its historical operations in the Forebay. That is, when Forebay levels are materially depressed and it appears that dry conditions will persist such that Forebay water levels may decline below UWCD's threshold low water level trigger, pumping of supplemental water such as RWPA may be reduced or suspended until UWCD determines the low water level conditions are or will be ameliorated. As with the M&I Supplemental Water program, UWCD will determine in April-May of each year the amount of RWPA that can be pumped in the following water year (October 1 to September 30) at the three extraction locations. This decision will be based on trends of groundwater elevations and other factors that could influence groundwater elevations, in consultation with FCGMA and the City of Oxnard. Of prime concern in this determination is whether RWPA pumping in the following year could lower groundwater elevations below those that correspond to 80,000 AF of available storage. However, if groundwater elevations drop further than expected during the year and threaten to go below the 80,000 AF depletion level, then mid water-year meeting(s) among parties will be held to determine whether the RWPA pumping schedule should be modified.

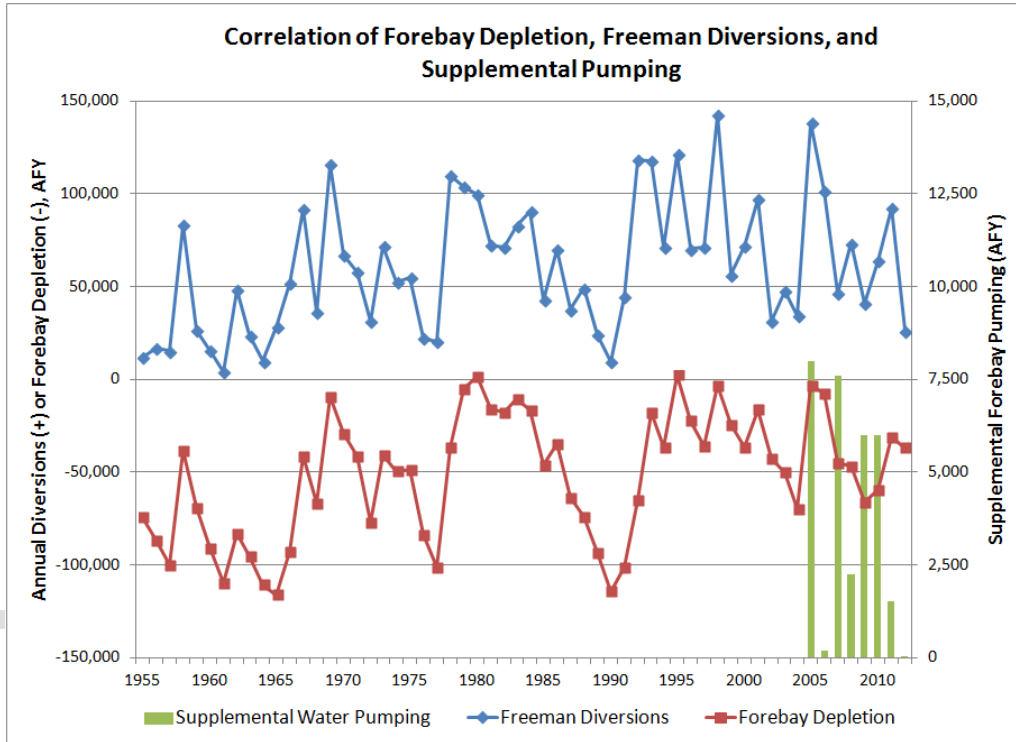
To monitor and potentially mitigate any impact of pumping RWPA water from the facilities outside the Forebay (Water Yard and Rice Ave) during a dry period that could pull salty water inland from the Hueneme seawater plume, the Upper Aquifer groundwater gradient between these facilities and the coast will be calculated after each monitoring event of the coastal monitoring wells, but not less than semiannually. If it is established that there is a landward gradient that could pull the Hueneme plume further landward, then UWCD, FCGMA, and Oxnard will meet to discuss altering pumping locations and/or pumping amounts until a seaward gradient is re-established.

Groundwater elevations and water quality will continue to be monitored on the existing schedules by UWCD and the County of Ventura. The monitoring results will be analyzed by UWCD at least twice a year for unexpected effects of the pumping. If unexpected effects are detected that could produce undesirable consequences in the basin, UWCD, FCGMA, and Oxnard will meet to discuss how pumping patterns/amounts will be adjusted to prevent the potential undesirable consequences. Because the pumping will be distributed among several wells within three separate locations, there is significant ability to alter pumping patterns. Undesirable consequences are considered to include drawdown below historical low groundwater elevations at the pumping location, interference with other pumping wells that exceeds normal levels and could cause nearby well owners to lower pump bowls in their well(s), and unexpected water quality changes that impact beneficial uses of the groundwater.

**Monitoring Results and Reporting:** The results of the project monitoring will be summarized following the end of each calendar year by UWCD. Water level and water quality results will be graphed and mapped for ease of examination. The results will be summarized in a memo and circulated to FCGMA and Oxnard.



Attachment A



There is a strong correlation between Forebay depletion (available storage) and diversion of surface water at the Freeman Diversion. Thus, Forebay groundwater elevations are largely driven by climatic factors. When as much as 8,000 AFY of pumping was added to the Forebay as part of the M&I Supplemental and Ferro programs (shown as columns), there was little if any effect on Forebay depletion.



Fox Canyon GMA  
Executive Committee Meeting  
May 7, 2013

**City of Oxnard GREAT Program Phase I,  
RW Agreement and Draft GMA Resolution**

Presentation by:  
Gerhardt Hubner, Deputy Director  
Watershed Protection District

# Update on Recent Progress – Draft Resolution Development

- Based upon the agreed upon April 9, 2013 Executive Committee Meeting principles and concepts, City Legal staff modified the draft Resolution and redistributed,
- Subsequently Agency staff completed its review and made the following changes to the Resolution:
  - Term RW Plan changed to RW Impact Analysis (RWIA) throughout to better describe its purpose;
  - Revised Finding to describe current state of Supplemental M&I Water Program and outstanding credits;
  - Additional CEQA Whereas/Finding;

# Update on Recent Progress – Draft Resolution Development

- Additional Language in Provision No. 3 per UWCD's request regarding final determination on RWPA use. Consultation with Agency added and Coordination Meeting date of 1<sup>st</sup> week in May stated;
- Provision No. 4 - Annual Report date submittal April 1<sup>st</sup>,
- Provision No. 7 - Prioritization of Conejo Creek Water – Provision added back, with documentation in Annual Report;
- Provision No. 20 - Reconsideration -Added no later than 2 years after 1<sup>st</sup> RW Delivery;
- Additional Provision No. 22 on M&I Supplement Water Program Credits annual usage; and
- Clarification language added/redundancy eliminated throughout.

# Update on Recent Progress – Draft Resolution Development

- A subsequent conference call on May 3, 2013 between Agency staff, UWCD and the City clarified all (except one) of the remaining issues, resulting in a May 3<sup>rd</sup> Draft Version of the Resolution.
- Issue - Provision No. 15 – Question of whether accrual period and maximum accrual amount “will” be extended or “may” be extended.



# Next Steps – What's Needed

1. Short Description of Monitoring Program, with Figures and/or Maps - Action Item for UWCD and GMA/County staff;
2. Copy of Full Advance Treatment Recycled Water Management and Use Agreement; and
3. Reuter Brothers Account Reconciliation– Progress. Significant staff effort.

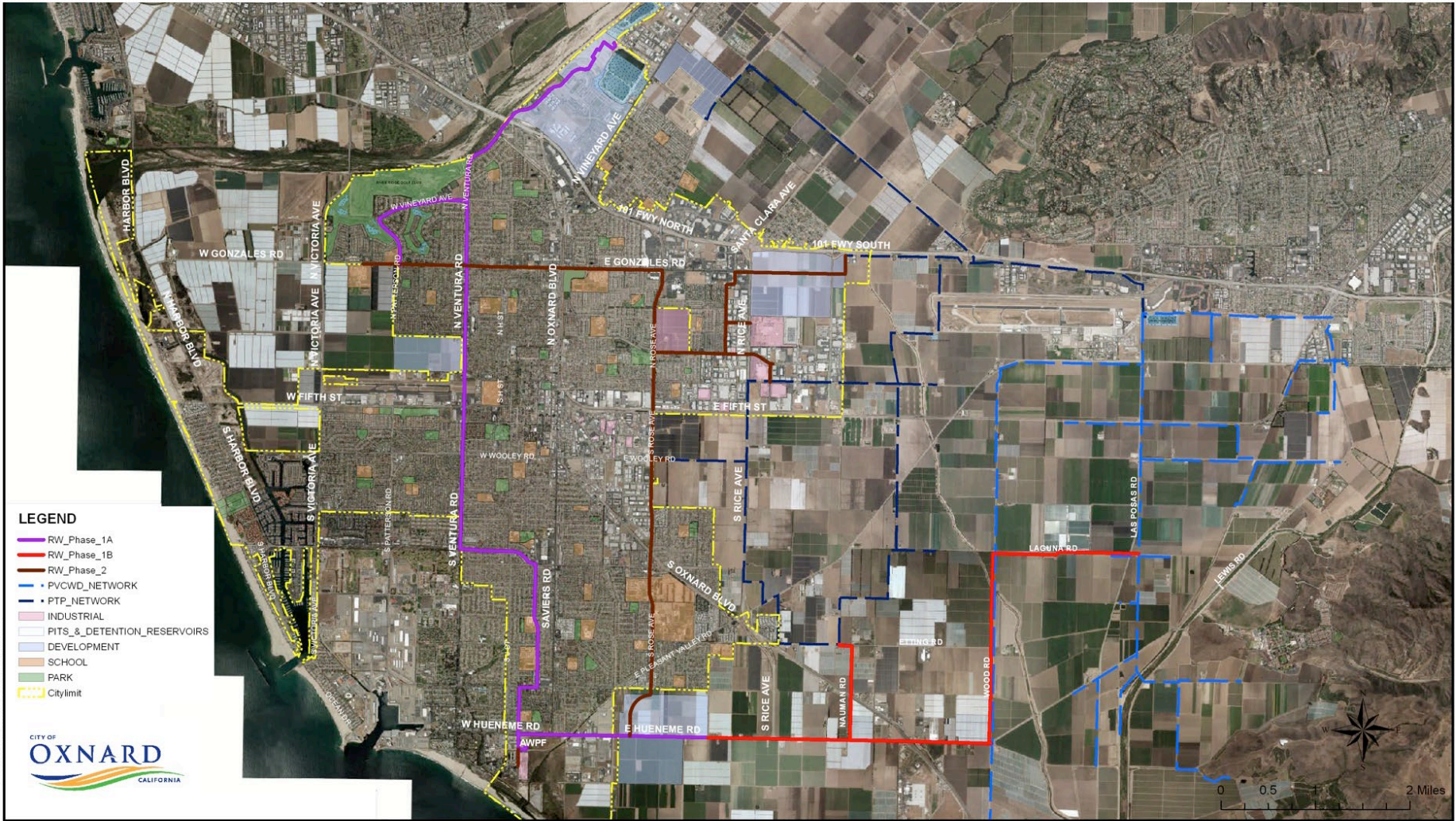
## CEQA Compliance

1. County Council drafting one page CEQA attachment for GMA Board to act in its capacity as a responsible agency;
2. Distribute to the Board relevant portions of the City's FEIR for GREAT (such as the Water Resources section).

# FEEDBACK?

- On Target for May 2013 GMA Board meeting consideration

- LEGEND**
- RW\_Phase\_1A
  - RW\_Phase\_1B
  - RW\_Phase\_2
  - PVCWD\_NETWORK
  - PTP\_NETWORK
  - INDUSTRIAL
  - PITS & DETENTION RESERVOIRS
  - DEVELOPMENT
  - SCHOOL
  - PARK
  - City limit



# Recycled Water Distribution System



# Recycled Water Management Agreement

Priority	Initial Price (\$/Acre-Foot) (No Groundwater Exchange)	Initial Price (\$/Acre-Foot) (With Groundwater Exchange)
1	1,365	NA
2	1,445	465
3	1,285	365
4	1,285	250 (\$365 – \$115 Management Discount)

- Annual Price Adjustment
  - CPI
  - Pump Charges