

**Resolution 2010-01**  
**of the**  
**Fox Canyon Groundwater Management Agency**

**A RESOLUTION CONCERNING ALLOCATION TRANSFER AND USE OF GOOD DEED  
CREDIT TRUST ACCOUNT IN CONJUNCTION WITH UNITED WATER CONSERVATION  
DISTRICT'S ACQUISITION OF ADDITIONAL GROUNDWATER RECHARGE BASINS**

**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 ("Management Plan") was updated and adopted in May 2007; and

**WHEREAS**, the 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 Management Plan finds that the Oxnard Plain Forebay Basin ("Forebay") is impaired by nitrate contamination from agricultural operations and septic sources, and concludes that preventing further nitrate contamination in the Forebay from potential agricultural activities within reclaimed gravel pits should be a high priority for the Agency; and

**WHEREAS**, the Management Plan identifies groundwater management strategies that are focused on increasing recharge into the Forebay so that additional water can be delivered to overdrafted areas within the Agency, and concludes that additional spreading facilities in the Forebay may be needed to implement such strategies; and

**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. UWCD's efforts in this regard are documented in the Management Plan and its ongoing responsibilities in monitoring aquifer conditions and regularly operating and updating the Ventura Regional Groundwater Model; and

**WHEREAS**, Vulcan Materials Company ("Vulcan") previously owned and operated certain gravel mining operations that overlie the Forebay, which included the Ferro Property, the Rose Property, and a Plant Site where the gravel materials are processed (collectively referred to as the "Vulcan Properties"); and

**WHEREAS**, UWCD has obtained title to the Ferro and Rose Properties from Vulcan and intends to convert some portion of these properties into groundwater recharge or spreading facilities; and

**WHEREAS**, UWCD's use of the Ferro and Rose Properties as spreading facilities will provide future benefit to the Forebay and the Oxnard Plain area generally by: (1) eliminating certain historical groundwater allocation and credits which reduce the overall groundwater extractions from the Forebay, (2) limiting water quality degradation associated with the expansion of agricultural activities, and (3) providing increased groundwater recharge from surface and/or recycled water; and

**WHEREAS**, as a part of the acquisition of the Ferro and Rose Properties, Vulcan has transferred to UWCD most of the historical allocation associated with the Vulcan properties, and retired over 12,000 acre-feet of conservation credits. UWCD also intends to eventually retire 1,437 acre-feet of historical allocation associated with the Vulcan properties; and

**WHEREAS**, UWCD has partially financed the purchase of the Ferro Property through the future delivery of supplemental water extracted from the Forebay or the transfer of allocation or credits to the City of Oxnard ("City") over a ten-year period, beginning January 1, 2010; and

**WHEREAS**, pursuant to Agency Resolution 2002-1, UWCD is authorized to accumulate storage credits through recharge of State Water Project water into the Forebay. These storage credits are to be used to resolve or contribute to the resolution of a unique groundwater issue of concern to both UWCD and the Agency. This program is referred to as the "Good Deed Credit Trust"; and

**WHEREAS**, UWCD currently holds 10,949 AF of storage credits in the Good Deed Credit Trust and will earn additional storage credits from the spreading of State Water Project water in 2007 and 2008; and

**WHEREAS**, UWCD proposes a program ("Program") to work with the City of Oxnard ("City") to partially finance the purchase of the Ferro Property through the use of the Good Deed Credit Trust credits and a temporary transfer of the historical allocation associated with the properties; and

**WHEREAS**, the Program will contribute to the resolution of a unique groundwater issue of concern to both UWCD and the Agency by eliminating the use of certain historical allocation and conservation credits, reducing potential water quality degradation from agricultural activities, and by providing additional spreading basins to increase recharge into the Forebay; and

1. **WHEREAS**, UWCD has provided Agency staff with detailed information and analysis regarding the groundwater use contemplated under the Program and has in place a monitoring and contingency plan (Attachment No. 1 - Monitoring and Contingency Plan for Pumping Associated with Transfer of Good Deed Trust Credits – Ferro & Rose Properties dated January 10, 2010) for the proposed pumping under the Program. In particular, UWCD has provided the Agency with the following:
  - a. Description of the proposed extraction locations and anticipated pumping schedules.
  - b. Description of potential impacts that may result from the proposed pumping, particularly during 2010 and 2011 based upon runs of the Ventura Regional Groundwater Model.

- c. Analysis of potential impacts, including, but not limited to:
  - i. Quantification of the estimated increase in the areal extent and magnitude of the cone of depression in the vicinity of the proposed pumping locations.
  - ii. Analysis of the potential change in elevations and groundwater gradient in the Oxnard Forebay and Oxnard Plain Basins as it relates to potential sea water intrusion.
- d. UWCD has in place a groundwater monitoring program consisting of water level and water quality monitoring that is designed to detect ongoing conditions within the basin, including the Oxnard Forebay. This monitoring program is designed to collect data that is used to assess the calibration of the Ventura Regional Groundwater Model. In the normal course of its basin-wide monitoring, UWCD may add additional monitoring locations and/or more frequent monitoring at currently monitored locations.
- e. UWCD has in place restrictions on Forebay pumping based on monitoring and groundwater level triggers, including actions that may be taken to address or mitigate potential impacts.
- f. UCWD's basin-wide monitoring is approved and overseen by a State of California Licensed Professional Geologist or Engineer.; and

**WHEREAS**, UWCD's proposed use of the Good Deed Credit Trust as set forth herein represents a unique, non-precedent setting use of credits to improve water quality and water supply conditions in the Forebay.

**NOW, THEREFORE, IT IS HEREBY PROCLAIMED AND RESOLVED AS FOLLOWS:**


1. The Board of Directors of the Fox Canyon Groundwater Management Agency hereby repeals Resolution No. 2009-07.
2. The Agency approves the transfer of 867 AF of historical allocation from Vulcan's Plant site wells to UWCD's Ferro Property wells.
3. The Agency approves the redemption of 11,000 AF of credits from the Good Deed Credit Trust for use in the Program, subject to the conditions described below.
4. Notwithstanding the approval granted herein, the Agency and UWCD acknowledge that:
  - a) the UWCD is the lead agency for the Program for compliance with CEQA; and b) approval of any future projects that may be proposed for the Ferro or Rose Properties is subject to compliance with CEQA, and any required mitigation and monitoring. Nothing in this resolution is intended to limit the Agency's rights under CEQA as a responsible agency to participate in the CEQA compliance process for any future projects.
5. The Agency grants its approval of the Program based on the finding that it will result in no net detriment to any basin, subbasin or aquifer within the Agency boundaries.
6. As part of UWCD's annual reporting to the Agency regarding basin-wide conditions, UWCD shall provide an evaluation of any impacts directly associated with the pumping approved under this Program. This information will be provided to the Agency by March 31 each year.

7. Extractions associated with this Program shall be from UWCD El Rio Upper Aquifer System facilities or City extraction facilities (i.e. Rice Avenue facilities and the City's Water Yard) located within the Forebay or in the Oxnard Plain Basin, as shown on Attachment No. 2 and described in the monitoring and contingency plan.
8. Use of the Good Deed Credit Trust Account shall be limited to a total of 11,000 AF of credits to be used to offset the first two-years of the program's 5,500 AF annual groundwater extractions. Use of historical allocations transferred and acquired from Vulcan to UWCD shall be limited to a total of 8,000 acre-feet for use by the City and an annual limit of 80 AF by UWCD for site operations (i.e. irrigation of landscape, dust control, etc.) and to meet the current commitment of the existing agricultural leasee. This existing agricultural lease will be terminated in mid-2010. No more than 5,580 AF of groundwater shall be extracted per year under this Program, unless approved by the Agency and UWCD Boards.
9. The Good Deed Credit Trust Account and allocations transferred and acquired from Vulcan to UWCD shall not be used for any purposes other than as authorized through this Resolution (i.e. supplemental water deliveries to the City for a ten-year period and on-going UWCD operational uses).
10. This Program shall be completed on or before December 31, 2019 at which time the Agency will retire the 1,437 acre-feet of allocations transferred and acquired from Vulcan to UWCD. Yearly extensions may be granted subject to Agency Board approval.
11. Neither UWCD, nor the City shall earn conservation credits against any historical allocations transferred from Vulcan to UWCD.
12. All conservation credits held by Vulcan, including any that were earned during the 2009 calendar year were retired upon the transfer of the Ferro Property from Vulcan to UWCD in December 2009. Vulcan may continue to use its historical allocation retained (133.33 AF) after the real property transfer, pursuant to Agency ordinances, rules and regulations.

On motion by Director Craven, seconded by Director Zaragoza, the foregoing resolution was passed and adopted on this 27<sup>th</sup> day of January 2010.

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 2010-01

By:   
 Miranda Nobriga, Clerk of the Board

Attachments:

1. Monitoring and Contingency Plan for Pumping Associated with Transfer of Good Deed Trust Credits – Ferro & Rose Properties
2. Extraction Facilities Associated with 2010-01 Program

## **Monitoring and Contingency Plan for Pumping Associated with Transfer of Good Deed Trust Credits – Ferro & Rose Properties**

**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 Ave. facility. For the first two years of the project, 5,500 AFY are planned to be pumped, with the amount decreasing to 1,000 AFY for years three through ten.

**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. These impacts can be divided into local and regional effects. Local effects include lowered groundwater levels and/or water quality changes in nearby wells. Regional effects include overall lowered groundwater levels that could extend to the coastline and affect seawater intrusion. Evidence of any of these effects would likely occur in the first two years, when pumping rates are the highest.

**Analysis of Potential Impacts:** United Water has modeled this pumping using the Ventura Regional Groundwater Model. The model simulations suggested that the impact to groundwater elevations in the Upper Aquifer System is a lowering by several feet during the two years of the significant pumping for this project, if there is normal or below-normal rainfall and recharge to the aquifer. During wet rainfall/recharge years, this effect is either muted or so small as to be immeasurable in the model. The impact to the Upper Aquifer is likely to persist until a wet year, when the model suggests full recovery of groundwater elevations. During the latter years of small project pumping, the effects of the pumping are not discernable against the background of current pumping patterns in the basins.

The regional groundwater gradient in the vicinity of this project is towards the west, parallel to the Santa Clara River. The groundwater modeling did not indicate discernable changes in this gradient caused by the project – the Forebay and adjacent areas already have significant pumping as a background, so this project created a relatively small incremental change. This was especially true following the first two years of pumping.

Significant 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 during which no significant impacts to nearby wells has occurred. 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 are not expected near Oxnard's Water Yard or Oxnard's Rice Avenue facility

because the nearest active wells are located over 4,000 feet and over 1,600 feet away, respectively.

**Monitoring:** United Water currently monitors scores of wells in the Forebay and Oxnard Plain basins. 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 the 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 United Water's groundwater elevation database for analysis. Groundwater quality is sampled from a subset of these wells, generally on a quarterly basis, and entered into United Water'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 United's water quality database. United Water regularly adjusts its monitoring program to address differing conditions, and will continue to do so with this project.

**Mitigation of Potential Effects:** The groundwater model suggests that groundwater elevations will be depressed during the first two years of pumping, with full recovery coming when recharge during a subsequent wet year refills the basin. There is no method to mitigate this transient effect as it occurs. The project does have significant long-range mitigation, however. First, about 1,000 AFY of groundwater allocation will be retired permanently by United Water at the end of this project. Second, the acquisition of the Ferro pit will allow United Water to construct recharge facilities in the future to take peak flows from the Santa Clara River and recharge them in the Forebay. The yield of this type of recharge facility has been calculated by United Water to be about 3,000 AFY. Thus, short term effects will be more than offset by the long-term increase in available groundwater in the Forebay.

Groundwater elevations and water quality will continue to be monitored on the existing schedules during the pumping phases of this project. The monitoring results will be analyzed at least twice a year for unexpected effects of the pumping. If unexpected effects are detected that could produce undesirable consequences in the basin, pumping patterns 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 at the end of each calendar year by United Water. Water level and water quality results will be graphed and mapped for ease of examination. These data become part of United Water's normal annual reporting on the groundwater basins. However, the annual reports take some time to compile and prepare after the end of the year, so the results of monitoring specific to this pumping will be prepared first in the sequence of United Water's annual analyses and provided to the Fox Canyon Groundwater Management Agency in a timely manner.

