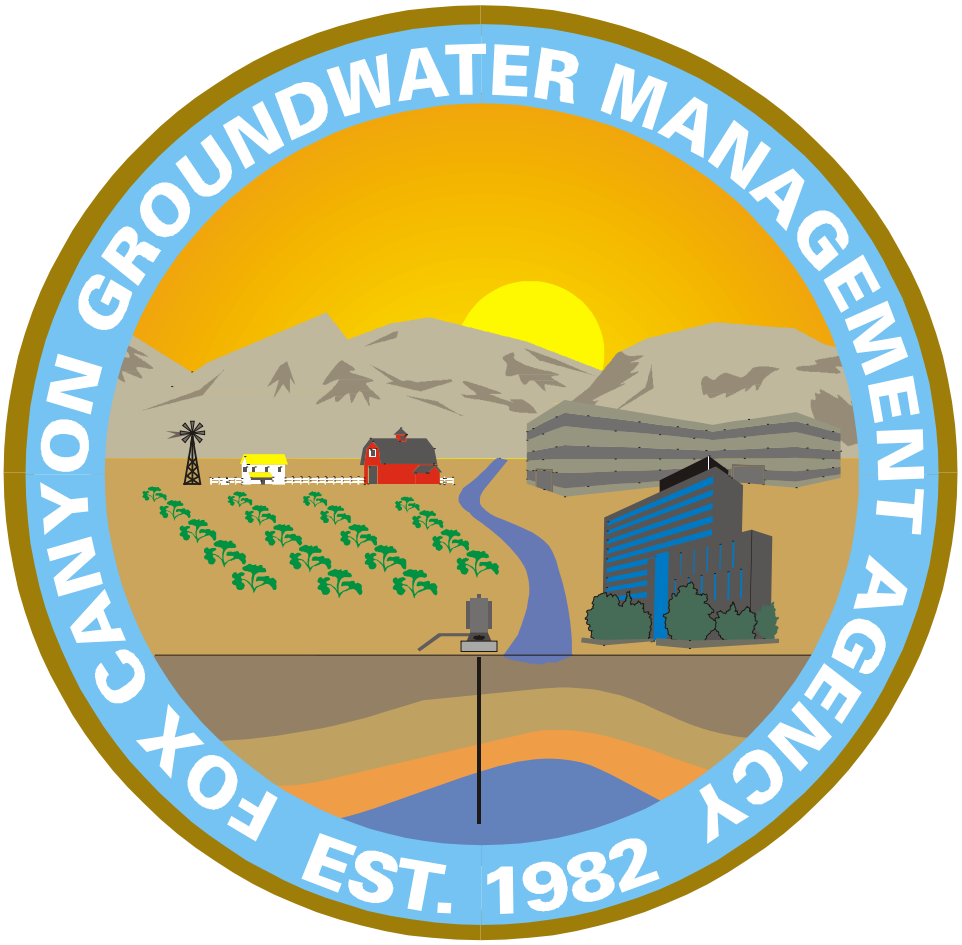

CALENDAR YEAR 2010

ANNUAL REPORT

FOX CANYON GROUNDWATER MANAGEMENT AGENCY

ANNUAL REPORT FOR CALENDAR YEAR 2010

2010 Board of Directors	Representing	Alternate Directors
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David Borchard	Agricultural & Farm Interests	David Schwabauer
Charlotte Craven, (Vice Chair)	Incorporated Cities	Neal Andrews
Dr. Michael Kelley	Small Water Districts	Sam McIntyre
Lynn Maulhardt, (Chair)	United Water Conservation District	Daniel Naumann

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EXECUTIVE SUMMARY

The Fox Canyon Groundwater Management Agency (FCGMA) is a State Legislature-chartered public agency created to manage groundwater resources in the southwestern portion of Ventura County, California. The FCGMA boundary covers most lands overlying the Fox Canyon aquifer, primarily from the coast at the City of Port Hueneme to inland areas northeast of the City of Moorpark.

During calendar year 2010, the Agency completed several tasks that began in previous years, as well as accomplished several new ones. California's three-year drought finally ended with better-than-average rainfall recorded toward the end of 2010 and continuing into early 2011. California Department of Water Resources (DWR) officials reported adequate snowpack in the Sierra Nevada mountains, with probable average to better-than-average water delivery allocations available to State Water Contract holders. The initial DWR water contract allocations announced in February 2010 were only 15% (DWR Press Release 02-23-2010), but were later increased to 50% by December 16, 2010 (Official DWR Notice to State Water Contractors, 12-16-2010). Court-mandated restrictions on Sacramento-San Joaquin Delta imported water to Ventura County remained in-place however with projected price increases relayed to local end users of imported water.

Increasing fees from water wholesalers and retailers led to some requests to drill new wells, especially in areas of the Agency that have come to rely on imported water as the main supply source such as the East, West, and South Las Posas Basins. The FCGMA Board adopted Emergency Ordinance D in February 2009 to restrict groundwater extractions in those Basins, and extended those Ordinance restrictions through calendar 2010.

Nearly two-thirds (approximately 65%) of the water used in Ventura County is typically obtained from local groundwater sources. Well extractions within the Agency during the first-half of the year (FCGMA Reporting Period 2010-01) were 51,664 acre-feet (AF), making this first-half the ninth highest 6-month extraction volume since Ordinance 5 went into effect in 1991. Groundwater extractions during the second half of the year (FCGMA Reporting Period 2010-02) reached 68,873 AF, making this the fifteenth highest second half 6-month extraction volume since 1991. Total annual groundwater withdrawals in calendar year 2010 of 120,537 AF made this year the eleventh highest total extraction year when all years are considered with a base year of 1991. At 120,537 AF, calendar 2010 annual extractions were very close (99%) to the 1991-2010 long-term average of 122,125 AF. The first half of the year showed well operators extracted 101% (51,664 AF) of the long-term average of 51,311 AF. The last half of 2010 experienced 97% (68,873 AF) of the long-term average of 70,814 AF.

Many significant actions took place during 2010. Specific accomplishments are listed in summary form. The body of this Annual Report along with the attached tables and figures provide a more detailed description of such activities.

Summary of Accomplishments and Significant Actions during 2010

- Completed the 2008 FCGMA Annual Report.
- Developed a Groundwater Supply Enhancement Assistance Program (GSEAP).
- Finalized a review of FCGMA's Irrigation Efficiency (I.E.) Program by Cal Poly San Luis Obispo's Irrigation Training and Research Center - Phase I and II Reports completed.
- Completed Phase I of the new FCGMA web-based online operating system – by Co. IT Services.
- Credit Program Evaluation – Study Session held with Board & discussion/input from SAG.
- FCGMA Ordinance 8.2 & 8.3 changes approved by Board.
- FCGMA Weather Station Contract Renewal (August 1, 2010 through July 31, 2013).
- UWCD Ferro Pit Purchase & credit use in Forebay (see FCGMA Resolution No. 2010-08).
- Initiated a Second Amendment to the Thornhill-Miller Settlement Agreement.
- City of Oxnard Emergency Injection Storage Program approval.
- Resolution of City of Ventura Saticoy Well CEQA issues.
- Regional Groundwater Flow Model Evaluation and Funding.
- DWR Local Groundwater Assistance Program (LGAP) Grant contract acceptance.
- Adopted a Tiered Surcharge Rate (see FCGMA Resolution No. 2010-07).
- Extended FCGMA's Emergency Ordinance D to help protect the Las Posas Valley basins.
- Quarterly Water Supply presentations.
- Initiated a Semi-Annual Newsletter to improve stakeholder outreach and communication.
- Received approval for a Draft Administrative Policies and Business Practices Manual.
- Provided Annual/Quarterly Budget and Workplan Development Reports.

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1.0 AGENCY BACKGROUND

1.1 Introduction

The Fox Canyon Groundwater Management Agency (FCGMA) is a public agency tasked with managing groundwater resources in the southwestern portion of Ventura County, California (see Figure 1 – Fox Canyon Groundwater Management Agency Boundary). Main water resource management goals are controlling seawater intrusion, and helping to restore aquifers to a state of safe-yield. The FCGMA is an independent State "Special District", separate from the County of Ventura or any city government, with jurisdiction over all lands lying above the Fox Canyon Aquifer. The Agency was created in 1982 by the California Legislature via the Fox Canyon Groundwater Management Agency Act [AB-2995] for the express purposes of regulating, conserving, managing, and controlling the use and extraction of groundwater to help preserve resources, and to counter seawater intrusion beneath the Oxnard Plain. Groundwater resources within the boundary of the FCGMA are used by the cities of Ventura, Oxnard, Port Hueneme, Camarillo, and Moorpark, along with the unincorporated communities of Saticoy, El Rio, Somis, Moorpark Home Acres, Nyeland Acres, and Montalvo. The FCGMA is funded solely by fees paid by those who extract groundwater within the Agency boundaries. These extraction fees are used by the Agency to administer and manage local groundwater resources within several aquifers beneath the Agency's boundary.

1.2 Purpose of this Report

The purpose of this report is to summarize the background and natural setting of the FCGMA, and to present a synopsis of the technical and administrative groundwater resource management activities for calendar year 2010. Since the Agency's fiscal year is not concurrent with the calendar year or technical reporting year, this report will not include a summary of financial activities. Fiscal data for the first reporting period(s) covering 2010 can be found in the Agency's Bi-Annual Audit and/or the quarterly fiscal reports to the Board of Directors.

1.3 Origin and History of the Fox Canyon Groundwater Management Agency (FCGMA)

The unique geographic and geologic characteristics of Southern California have created a significant and valuable groundwater resource in the near-coastal and inland valley portions of Ventura County. Winter storms associated with the warm Mediterranean climate move inland from the Pacific Ocean and drop precipitation over the region, with greater amounts falling in the first quarter of the year (January-February-March) than the last quarter (October-November-December). The topography and geology of the area allow surface run-off and percolating groundwater to flow south and westward towards the coastal Oxnard Plain where such water can percolate into permeable sandy alluvial aquifers that are vertically bounded by impermeable clays or compacted silts. Groundwater beneath the Oxnard Plain is contained in several named aquifers that are primarily rimmed by upland and recharge areas to the north and east, the relatively impermeable rocks of the Santa Monica Mountains to the south and southeast, and the Pacific Ocean to the west and southwest.

Although the early indigenous people primarily relied on natural springs and available surface water, groundwater was recognized as a reliable resource by European settlers beginning in the early to mid 1800's. Beginning with shallow hand-dug mostly windmill-driven wells, groundwater was soon developed to create one of the most prolific agricultural regions in California. In 2010, groundwater resources supported agricultural products valued at more than $1.5 billion in Ventura County (exact figures normally obtained from the 2010 Annual Crop Report, Ventura County Agricultural Commissioner's Office were not available at press time). Per verbal communication with the Ventura County Agricultural

Commissioner's Office, estimated publication of the 2010 Crop report will be sometime in the last quarter of 2011.

The FCGMA was created by the State of California (legislative branch) in response to local and persistent overuse of groundwater resources resulting in declining water quality (especially in the southern part of the Oxnard Plain) first recognized in the early 1940's (DWR, 1954). Prior to the creation of the FCGMA, the California State Water Resources Control Board (SWRCB), as a condition to a State grant for the Seawater Intrusion Abatement Project, directed the United Water Conservation District (UWCD) and Ventura County as grantees to develop a Groundwater Management Plan for the purpose of controlling extractions and balancing water supply and demand in both the Upper Aquifer System (UAS) and Lower Aquifer System (LAS). Because of continuing overdraft by groundwater users and resulting seawater intrusion into aquifers beneath the Oxnard Plain, the Fox Canyon Groundwater Management Agency Act (AB-2995, Imbrecht) passed on September 13, 1982, and became effective January 1, 1983. The Act (enabling legislation) is now contained in the State Water Code Appendix, Chapter 121 et seq. As directed by Article 2, Section 202 of that enabling legislation, the boundary of the FCGMA was established by Resolution of the Ventura County Board of Supervisors (VCBOS, 1982) on December 21, 1982 and became effective by recordation in the Ventura County Office of the Recorder (VCOR) on January 1, 1983. The boundary has been revised and legally re-recorded in 1996 and again in 2002 to reflect updated knowledge of the aquifer both geographically and to reflect subsequent hydrologic findings. (VCOR, 1996)

1.4 Mission Statement of the Agency

The original State legislation created the FCGMA to manage groundwater within Ventura County, specifically the land overlying the Fox Canyon aquifer. The objectives of the Agency are to preserve groundwater resources for agricultural, municipal, and industrial uses in the best interests of the public and for the common benefit of all water users, however up until 2006; no formal mission statement had ever been adopted. The FCGMA formally adopted the following mission statement in 2006:

> *"The Fox Canyon Groundwater Management Agency (Agency), established by the State Legislature in 1982, is charged with the preservation and management of groundwater resources within the areas or lands overlying the Fox Canyon aquifer for the common benefit of the public and all agricultural, municipal and industrial users."*

1.5 Agency Operations and Personnel

The FCGMA is directed by an elected five (5) member Board of Directors, and staffed by technical and administrative personnel provided by the Ventura County Watershed Protection District (Table 1 – Summary of FCGMA Personnel).

As required by its enabling legislation (the Fox Canyon Groundwater Management Agency Act of 1982 [AB-2995]), the Board of Directors for the FCGMA is composed of one member from each of the following four stakeholder groups:

- The Ventura County Board of Supervisors.
- The United Water Conservation District (UWCD) Board of Directors.
- The City Councils of the five incorporated cities that partially or totally overlie the FCGMA. These cities include Ventura, Oxnard, Camarillo, Port Hueneme, and Moorpark.

- The seven[1] existing mutual water companies and special districts within the FCGMA. They include the governing boards of the following mutual water companies and special districts not governed by the County of Board of Supervisors, which are engaged in water activities, and whose territory at least in part overlies the territory of the agency: (1) Alta Mutual Water Company, (2) Pleasant Valley County Water District, (3) Berylwood Mutual Water Company, (4) Calleguas Municipal Water District (CMWD), (5) Camrosa County Water District, (6) Zone Mutual Water Company, and (7) Del Norte Mutual Water Company.

These four stakeholder groups select the fifth Board Member from a list of at least five candidates nominated by the Ventura County Farm Bureau and Ventura County Agricultural Association acting jointly. This fifth member must reside in, and be "actively and primarily engaged in agriculture" within the territory of the Agency. The requirement "actively and primarily engaged in agriculture" means that farm members must derive at least seventy-five percent (75%) of their income from agriculture.

Five Alternate Board members are selected according to the same criteria and serve in the absence of the primary Board members. All Board members serve for a two-year term, unless reappointed. There are no limits to the number of terms a member can serve. In 2007, the Board offset the terms of the City Council and the Agricultural representatives from the remaining three representatives by one year to ensure continuity of Agency operations and to prevent a complete turnover of all FCGMA Directors at the same time.

The Board normally conducts monthly public meetings with additional public input received through various stakeholder-based committees and advisory groups. Two committees formed in 2007 to help implement the revised Groundwater Management Plan (GMP). Continuing to play an active support role throughout 2010 to function as the main stakeholder input source, the Strategic Advisory Group or SAG assist the FCGMA Board with policy decisions. The more scientific arm of the Technical Advisory Group or TAG meets and serves as needed to assist the SAG.

In addition to providing personnel, the technical, financial, and legal needs of the FCGMA are provided under contract with the Ventura County Watershed Protection District and the Office of the County Counsel. The United Water Conservation District (UWCD) provides additional technical resources to the Agency as needed. UWCD is a public wholesale and retail water agency that also provides groundwater basin management activities in the Santa Clara River Valley and northern or central Oxnard Plain. In accordance with the enabling legislation, the FCGMA is not authorized to involve itself in activities normally undertaken by member agencies. Such activities include the construction, operation, and maintenance of capital facilities. Many facilities such as dams, spreading grounds, pipelines, flood control structures, and surface water diversions are operated by UWCD, CMWD, Camrosa, and other member agencies both inside and outside the FCGMA boundary.

2.0 GROUNDWATER RESOURCE MANAGEMENT

2.1 Location and Geographic Description of the FCGMA

The FCGMA is located in the southern portion of Ventura County in the southwest-coastal part of Southern California. At the time of its definition, the boundary of the Agency was defined as "all land

[1] An eighth mutual water company or special district, Anacapa Mutual Water Company, active at the passage of the enabling legislation (AB-2995), is no longer in existence.

overlying the Fox Canyon aquifer" (CWC Appendix, Chapter 121, Section 102,), however to account for overlying or adjacent jurisdictions and/or political reasons, not all areas above the aquifer were included within the original boundary adopted by the Ventura County Board of Supervisors. The Agency encompasses a northeast-southwest oriented, wedge-shaped area of 183.2 square miles that widens to the west and is bounded to the north by the Santa Clara River and South Mountain. To the east, the Agency boundary is defined by uplifted Tertiary and Quaternary-age consolidated rocks north and east of the City of Moorpark. The southern edge of the Agency is bounded by the Bailey Fault and the uplifted Santa Monica Mountains (Dibblee 1990). With the western and southwestern limits geographically limited by the Pacific Ocean coastline.

The eastern portion of the FCGMA bifurcates into two separate lobes east of the City of Camarillo. The longer northern lobe, which includes the Las Posas Valley, terminates east of the City of Moorpark near the central portion of the Happy Camp Syncline (Dibblee 1992b and 1992c). The furthest eastern extent of the Agency terminates in the County's Happy Camp Canyon Regional Park northeast of the City of Moorpark. The shorter southern lobe, which includes the western portion of Pleasant Valley, terminates approximately one-third of the distance into the Santa Rosa Valley (on the west end) (Dibblee 1990). These two valleys widen to the west and merge near the city of Camarillo to encompass the broader Oxnard Plain where the majority of groundwater extractions occur within the Agency. The Santa Clara River Valley intersects with the northeastern portion of the Oxnard Plain near the unincorporated area of Saticoy. The northern boundary of the Agency turns west-southwest across from South Mountain just north of the Santa Clara River at Saticoy, then parallels the river's course westward all the way to the Pacific Ocean. This latter stage of Santa Clara River flow is determined by the Oak Ridge Fault System, which also constitutes much of the northern Agency boundary line. Southwest of the City of San Buenaventura, the boundary crosses back to the south bank of the river just east of the Pacific Ocean.

2.2 Geology and Hydrogeology of the FCGMA

The FCGMA is located near the western margin of the Transverse Ranges Geologic Province in Southern California. This geologic province is characterized by east-west oriented mountain ranges separated by valleys, faults, and basins. The east-west trending folds and faults are common throughout the province and their surface expression is evident at many locations within the FCGMA boundary (see Figure 2 – Major Hydrologic Features and Groundwater Basins within the FCGMA). The water-bearing sediments that comprise the valley fill and alluvial plains within the FCGMA consist of significantly deep unconsolidated and semi-consolidated sediments that range from Pliocene to Recent (Holocene) time in geologic age. The geologic formations from oldest to youngest include the Plio-Pleistocene-age Santa Barbara Formation (includes the Grimes Canyon Aquifer), the Pleistocene-age San Pedro Formation (contains the Fox Canyon Aquifer), and semi-consolidated and unconsolidated sediments of Upper-Pleistocene and Recent (Holocene) ages (Hueneme, Mugu, Oxnard, and Perched Aquifers). Local and regional unconformities (i.e. gaps in the geologic sedimentation record caused by uplift and subsequent erosion) occur between each of these formations (DWR, 1976).

The topography in the eastern portion of the FCGMA consists of narrow steep sided canyons that open into the broader east-west trending Las Posas Valley and Pleasant Valley areas. Moderate relief (typically 300 to 1,500 feet difference) between the bordering mountain highlands and the westward-sloping valley floors is typical of the area. The canyons and valley floors are partially filled by colluvium, unconsolidated fluvial sediments, and coalesced alluvial fans (also called a bajada or compound alluvial fan) comprised of material eroded from the surrounding uplifted Tertiary and Quaternary-aged sedimentary rocks. The alluvial deposits in the eastern portion of the Agency are typically less than 600 feet in thickness, and most such layers thin out in close proximity to surface exposures of bedrock. In the western portion of the FCGMA, the topography primarily consists of the broad, alluvial Oxnard Plain. The Oxnard Plain gently slopes to the southwest and continues on beneath the Pacific Ocean. All of the

semi-consolidated rocks comprising the various freshwater aquifers outcrop beneath the ocean, and during periods of positive offshore pressure gradients, groundwater discharge has been documented in this offshore area (Izbicki, 1996a, 1996b, 1992). The thickness of the collective usable aquifer zone alluvial layers beneath the Oxnard Plain is typically greater than 1,200 feet.

Two main drainages lie within or form boundaries to the FCGMA. The Santa Clara River originates in the San Gabriel Mountains several miles east of Ventura County (in central Los Angeles County) and flows westward through the still largely natural Santa Clara River Valley, which lies north and northeast of the FCGMA. The Santa Clara River intersects the northwestern boundary of the FCGMA near the unincorporated area of Saticoy. The Santa Clara River supplies recharge to FCGMA aquifers by direct infiltration through the streambed, and via a large man-made drop structure extending across the river operated by UWCD called the Vern Freeman Diversion. Diverted river water is channeled to off-stream percolation ponds owned and operated by UWCD in the porous Oxnard Forebay Groundwater Basin. Because of near constant flows from wastewater treatment plants, urban runoff, and periodic releases from UWCD's Lake Piru, the Santa Clara River is now a perennial stream. The majority of river flows however, occur during runoff periods associated with winter storms, and this muddy, turbid water is difficult to capture and too silt-laden to be of any practical use. Calleguas Creek lies near the southern and southeastern boundaries of the FCGMA and also carries water during high-runoff periods as well as nearly continuous discharge from upstream wastewater treatment plants in Simi Valley, Moorpark, Thousand Oaks, and Camarillo. Additional water is contributed to these streams by irrigation return flows and urban runoff. The Conejo Creek Diversion facility exists on a tributary to Calleguas Creek and surface water diverted from this location primarily supplements agricultural groundwater extractions in the Pleasant Valley area south of the City of Camarillo. Some Conejo Creek water also helps to add irrigation supply to the western end of the Santa Rosa Valley portion of eastern Camarillo. Although there are a number of small private reservoirs and County Watershed Protection District (WPD) stormwater retention basins, there are no major surface water bodies within the FCGMA boundary of any importance and none used for water supply needs.

Seven distinct groundwater basins lie wholly or partially within the FCGMA. These include the Arroyo Santa Rosa Basin, East Las Posas Basin, West Las Posas Basin, South Las Posas Basin, Pleasant Valley Basin, Oxnard Forebay Basin, and the Oxnard Plain Pressure Basin[2]. Each basin has significant groundwater resources with unique physical and water quality characteristics (Izbicki, 2005). The majority of groundwater extractions occur within the Oxnard Plain Pressure Basin. We have assembled the data in figures and tables, please see Figure 6 – Ratio of Reported Groundwater Extractions by Basin, Table 4 – 2009 FCGMA Allocations & Wells by Basin, Table – 6 Summary of Groundwater Extraction and Credits by Groundwater Basin for Calendar Year 2009, and Table 7 – Summary of Reported Groundwater Extractions and Well Use Type within the FCMGA for Calendar Year 2009 for more detailed information. The remaining five basins contain incomplete hydrostratigraphic sections and thinner, less-extensive aquifers. Descriptions of the physical, hydrogeologic, and water quality characteristics of each of these groundwater basins are more extensively described in other documents.

Water-bearing strata (aquifers) occur within the geologic units described above (Section 2.2 on previous pages) and are identified based on their composition, stratigraphic location, and lateral continuity. Within the FCGMA boundary, there are six named aquifers, which include, from deepest depth of occurrence to shallowest, the Grimes Canyon Aquifer, the Fox Canyon Aquifer, the Hueneme Aquifer, the Mugu

[2] Historic references have segregated the southeastern portion of the Oxnard Plain into a separate basin identified as the Mugu Forebay Basin. This Basin is not shown in Figure 2 because like the Agency's Groundwater Management Plan, this document considers these areas as a single groundwater basin. Data and discussions included in this annual report treat all rainfall, extraction, and credit information from both the Oxnard Plain Pressure Basin and the Mugu Forebay Basin as one single basin.

Aquifer, the Oxnard Aquifer, and the Perched or Semi-Perched Zone (DWR, 1976). These aquifers have been combined into two main groups: the Lower Aquifer System (LAS), which includes the Grimes Canyon, Fox Canyon, and Hueneme Aquifers; and the Upper Aquifer System (UAS), which includes the Mugu and Oxnard Aquifers. The Semi-Perched zone is considered by some to be separate from the UAS because it is only locally extensive and of poorer quality than the deeper, more geographically extensive aquifers (Turner, 1975).

Faulting has significantly affected the local Tertiary and Quaternary-aged geologic formations, and the hydrogeology within the FCGMA reflects that fact in almost every instance and location. Significant faults that occur within or near the margins of the Agency include the Oak Ridge Fault, the Berylwood Fault, the Somis Fault, the Springville Fault, the Simi-Santa Rosa Fault Zones (includes Santa Rosa Fault, Northern Simi Fault, Southern Simi Fault), the Camarillo Fault, the Wright Road Fault, the Epworth Fault, and the Bailey Fault. Although the general groundwater flow direction in FCGMA aquifers is to the southwest, faults and other structural features may form partial or complete barriers to groundwater flow or cause local variability in flow direction. Studies conducted by the U.S.G.S. and UWCD have indicated anomalous groundwater elevations observed at wells screened in the Lower Aquifer System (LAS) of the Oxnard Plain suggesting a low-permeability feature (fault) that sub parallels the northeast extension of the Hueneme Canyon Fault (UWCD, 2004).

Some authors have suggested that the Hueneme Canyon Fault as the western extension of the more prominent Simi-Santa Rosa Fault system that enters the Oxnard Plain near the northeast corner of the Pleasant Valley Groundwater Basin. Geologically projecting the Simi-Santa Rosa Fault Zone beneath the alluvium of the Oxnard Plain may account for the subsurface division of the Oxnard Plain and Pleasant Valley Groundwater Basins. Existence of such a division is supported by varying groundwater levels on either side of the projected fault line. Groundwater elevations in LAS wells to the southeast of this extension are typically lower than those to the northwest supporting an inclined fault feature that restricts underflow from the northwestern part to the southeastern part of the Oxnard Plain. In all likelihood, another low-permeability feature separating the East and West Las Posas Groundwater Basins from north to south is simply a northern extension of the Bailey Fault, which separates the southeast Oxnard Plain from the adjacent uplifted Santa Monica Mountains. Similar anomalies exist elsewhere within the region, suggesting such geologic structures have a significant impact on subsurface groundwater flows. Ultimately, the effects these subsurface geologic structures have on groundwater flow can only be quantified through detailed hydrostratigraphic analysis, aquifer testing, and other methods such as geophysical reflection or refraction studies, etc. The Agency continues to work with its regional partners UWCD and CMWD to evaluate the impact of these features.

2.3 Groundwater Resource Management

The FCGMA's enabling legislation (now Appendix 121 of the California Water Code), established the ability of the FCGMA to perform groundwater management activities including, but not limited to, registration of extraction facilities (wells), control of groundwater extractions, regulation of extraction facility construction, prosecution of legal actions against unreasonable use of water resources, imposition of reasonable operating regulations, and collection of fees. Through this legislation and a series of ordinances the FCGMA has developed a groundwater management system (paper files and computer database) to record well facility owner/operator information; to collect and record extraction data; to regulate groundwater extraction through the application of an annual allocation system; to assign credits as an incentive for non-use of allocations and/or for direct replenishment actions; to collect civil penalties and surcharges for overuse of groundwater, and to collect management fees needed to sustain agency activities.

Data compiled by the Association of Water Agencies (AWA) based on 2007 information, revealed that overall Ventura County water needs were met by groundwater (approximately 60%) as the primary source, with local surface water (10%), reclaimed water from treatment plants or other recycle sources (1%), and water imported from outside the County by pipeline from the California State Water Project (29%) (AWA, 2007). A more updated query of the Agency database showed a localized (FCGMA vs. entire County) subset of 2010 water supply sources derived from 65% groundwater, 8% surface water, 1% recycled water, and 26% imported water.

There are three specific groundwater allocation methods used by the FCGMA to control the allowed volume of groundwater each well operator may extract in a given year (see FCGMA Ordinance Code Sections 5.2 and 5.6 for additional information). Allocation types include Historical Allocation (HA), Baseline Allocation (BA), and Irrigation Efficiency (IE). Although many operators are limited to the use of one allocation method in any particular year, other operators may use a combination of allocation methods. The type of allocation available depends upon the intended use of the groundwater, the type of operator, the ownership of the extraction facility, the history of land and water use, and the size of acreage served by a particular well or wells. The allocation methods and their specific rules for qualification and application are detailed in the FCGMA Ordinance Code (available online at www.fcgma.org or in hard copy form at the FCGMA offices).

Within the FCGMA, groundwater users have been divided into three general water use categories: agricultural (AG), municipal/industrial (M & I), and domestic (DOM). The definitions of each type of user or user's facility as specified in the Ordinance Code are as follows:

- **Agricultural Facility:** *"a facility whose groundwater is used on lands in the production of plant crops or livestock for market, and uses incidental thereto*." Agricultural facilities may be entitled to HA, BA, or IE depending on the age of their wells and history of land ownership. Agricultural facilities may use HA, BA, or HA and BA together in a given year if they hold such allocations. They can also accumulate credits on any unused HA[3] in a particular calendar year. If they choose to use the IE allocation method, they are not eligible to use either of the other allocation methods (HA or BA), or to accumulate groundwater extraction credits in that particular calendar year. In 2010, agricultural extraction facilities were responsible for approximately three fifths (about 57%) of the total groundwater extracted within the Agency (Table 4 and/or Table 7).

- **Municipal and Industrial User (M & I):** *"a person or other entity that used or uses water for any purpose other than agricultural irrigation"*. An *M & I Operator* is defined as *"an owner or operator that supplied groundwater for M & I use during the historical allocation period (1985-1989 inclusive), and did not supply a significant amount for agricultural irrigation during the historic period."* An *M & I Provider* is defined as *"an entity or person which provides water for domestic, industrial, commercial, or fire protection purposes within the boundaries of the Agency."* M & I users may be entitled to HA, BA, or HA and BA together and can accumulate extraction credits for any unused HA in a particular year. M & I users are not eligible for IE. In 2010, M & I facilities were responsible for about two fifths (42%) of the total groundwater extracted within the Agency during any given calendar year.

- **Domestic User or Domestic Extraction Facility:** Not specifically defined in Ordinance No. 8.1; however, the Agency has used the extraction facility metering requirements as a substitution for

[3] Unused Historical Allocation (HA) refers to the difference between the total HA held by a registered extraction facility including any adjustments made by the Agency, minus the actual reported groundwater extraction reported by that facility in a particular year.

this definition. According to FCGMA Ordinance No. 8.1, Sec. 3.1.1, *"a domestic extraction facility supplies a single family dwelling on one acre or less, with no income producing operations".* Typically, domestic users are responsible for a nominal pumping amount (less than 1%) of the total groundwater extracted within the Agency during any given calendar year.

Historically, the FCGMA has used various tools to facilitate groundwater management within its boundaries in accordance with its enabling legislation and established ordinances. During 2010, the Fox Canyon Groundwater Management Agency (FCGMA) initiated development of a web-based online billing and tracking system for the management of ground water in order to improve its ability to manage resources and to provide a higher level of services to its customers - the owners and operators of FCGMA wells. The new system will integrate with an e-commerce component for the collection of management fees, and with the County of Ventura Geographic Information System (GIS) for a visual display (maps) of FCGMA wells, basin boundaries, and other relevant spatial information.

For almost two decades, the FCGMA has utilized various commercially available relational database programs that had to be customized to suit the needs of the Agency. For all known groundwater extraction wells within its boundary, the Agency tracks groundwater use utilizing an operator-based system to record well identification (State Well Numbers or SWN's) and well location; the appropriate groundwater basin; applicable groundwater allocation methods; self-reported semi-annual extraction data, and a number of additional details such as available groundwater extraction credits, owner or operator address and contact information, or specific water flowmeter data.

As of year-end 2010, the FCGMA had a total of 906 State Well Numbers listed within its boundary: 635 wells were reported as active; 90 wells were listed as inactive; with 176 wells destroyed, and 5 additional well numbers assigned to permanent monitoring or cathodic protection wells. On an ongoing basis, FCGMA staff registers new wells permitted by the County of Ventura[4] and/or by the City of Oxnard. Constant updates to the status of existing wells are completed according to information self-reported by the well owners or operators. Staff also has an ongoing special investigation to identify previously unregistered wells using a combination of County well records review and cooperative documentation and enforcement efforts with the VCWPD and other agencies like UWCD, the City of Oxnard and various retail water suppliers.

All extraction facility (well) operators are required to report their groundwater extraction on a semi-annual basis using a staff-provided Semi-Annual Statement (SAS). The two six-calendar-month SAS reporting periods cover January 1 through June 30 (-01 Period), and July 1 through December 31 of each year (-02 Period). Each SAS summarizes a list of all wells under a particular operator code, any available allocations, the reported groundwater extraction (acre-feet) for each well, the application of any available credits, and the specific allocation method being used to calculate the permitted groundwater extraction (see description of available allocation methods in Section 2.3 above). Based on the groundwater extraction reported, each operator is required to calculate the management fees due, plus and any surcharges, interest, or late fees associated with their user account and then remit payment to the FCGMA along with the completed SAS form.

[4] Refers to wells permitted in accordance with the County of Ventura Ordinance No. 4184. All permitting in accordance with this ordinance is performed by the Ventura County Watershed Protection District. The City of Oxnard is the only other entity in Ventura County that issues water well permits.

2.3.1 Current and Historic Groundwater Extraction in the FCGMA

For the calendar year 2010, a total of 120,537 acre-feet[5] (AF) of groundwater extraction was reported to the FCGMA; with 51,664 AF extracted for January 1 through June 30 (2010-01 period); which was the ninth highest since 1991. The last half of calendar year 2010 experienced 68,873 AF of groundwater extractions from July 1 through December 31 (significantly less than the latter half of 2009 making this the fifteenth highest 2010-02 period in the last 20 years). Extraction data is presented in Table 2 – Summary of Reported Extractions, located near the end of this report. When compared to the historic range of reported groundwater extractions within the FCGMA, the total annual reported groundwater extraction for 2010 was 1% below the long-term average. By contrast, 2009 was 16% above the long-term average. Table 3 – Comparison of Year 2010 Groundwater Extractions to Historic Groundwater Extractions in the FCGMA provide more detail. The total annual extraction for 2010 was the eleventh highest annual extraction observed since 1991 as shown in Table 2. The number of Irrigation Efficiency (I.E.) filings varies each year. The bar graph designated Figure 8 – Annual Irrigation Efficiency Filings provides a quick look at annual fluctuations.

The higher than average precipitation recorded during 2010 (22.49 inches when all five FCGMA weather stations are referenced) has been attributed as the main reason for a significant drop in groundwater extractions compared to 2009 (see Table 2 for reference extractions). Groundwater extractions in the second half of the year are usually higher than in the first half. This is especially true if annual rainfall varies by more than 20% from the average amount (see Figure 4 – Rainfall and Reported Groundwater Extraction in the FCGMA for the -01 Reporting Period 1985-2010 and Figure 5 – Rainfall and Reported Groundwater Extraction in the FCGMA for the -02 Reporting Period 1985-2010). Since total rainfall of 22.49 inches within the FCGMA for 2010 was 51% above the Agency's 1985-2010 average of 14.89 inches, a lower variance in groundwater extraction was expected. Groundwater extractions in any given calendar year are inversely proportional to rainfall (i.e., lower precipitation results in higher groundwater extractions and vice-versa).

Other factors also affect groundwater extraction within the Agency. Data from the FCGMA's weather stations (described more fully in Section 2.3.2 below) shows that higher-than-average rainfall equates to lower atmospheric temperatures and thus lower evapotranspiration values observed in 2010 vs. 2009 (44.34" average ETo in 2010 vs. 47.77" average Eto in 2009, or a 3.43" decrease when all five FCGMA weather station annual totals are compared). Lower evapotranspiration in 2010 translated into less water need for crops. Lower volumes of groundwater extraction in 2010 (approximately 21,755 AF less in 2010 than 2009) are shown in Table 2 near the end of this report. Other factors that affect groundwater extraction include meteorological effects (i.e., wind speeds, solar radiation, cloud cover, etc.), along with availability of surface water and the delivery of imported water (both surface diversions and imported supply sources continued to be limited in 2010). Additional factors include changes in land use, variable water demand from non-agricultural water users, changes in crop-types and/or agricultural irrigation practices, costs, market conditions, variations in cost and availability of energy and State imported water, and supplies of recycled water or surface water (stream) diversions.

2.3.2 Rainfall and Evapotranspiration

In support of the FCGMA's overall groundwater management efforts, the Agency funds the operation and collection of meteorological data from five (5) weather stations. Information from an additional six (6) private weather stations within the FCGMA (available at no additional monthly cost) helps to supplement

[5] 1 acre-foot (AF) equals 325,851 U.S. gallons at Standard Temperature and Pressure (STP).

data postings on the Agency website. Each station captures meteorological data such as air temperature, rainfall, humidity, wind velocity, wind direction, dew point, and solar radiation at 30-minute intervals and calculates daily[6] location-specific evapotranspiration (ETo)[7] values according to a Modified Penman formula (Pruitt and Doorenbos, 1977). The main FCGMA-designated stations (Airport [Camarillo], Moorpark, Etting Road [Oxnard], Saticoy, and Somis) are operated and maintained by Investment Signals, LLC, of Atkinson, NH. Historically, the number of stations has varied due to Agency funding levels, and station locations have also varied due to changes in property ownership. Measured precipitation is detailed in Figure 3 – 2010 Annual Rainfall and Reported Groundwater Extractions in the FCGMA. Semi-Annual rainfall and Reported Extraction details can be found in Figures 4 & 5 covering the 1985 through 2010 period.

The meteorological data collected from the weather stations can be used for several purposes. Rainfall and weather station-derived evapotranspiration (ETo) values are used by FCGMA staff and well operators in the calculation of the annual Irrigation Efficiency (or I.E.), and to establish extraction allocations for agricultural well operators as provided for in the FCGMA Ordinance Code. Weather station data can also be used to estimate the amount of water a particular crop will need so the proper volume of water can be applied during each irrigation cycle to save water and energy, and to enhance a crop's development as well as to control overall water and energy costs. The amount of allowed water varies by crop-type, acreage, and factors like observed rainfall that all equate to the ETo number. Operators who do not meet the associated FCGMA specified irrigation efficiency standards may be subject to financial penalties (over-pumping surcharges) according to FCGMA Ordinance Code requirements. Weather data can also be used to help calculate regional or groundwater basin hydrologic budgets. Measured rainfall is considered a contributor to groundwater recharge and plant water needs, while ETo represents water loss through plant uptake and evaporation.

As mentioned in Section 2.3.1 above, data collected at FCGMA weather stations showed rainfall for calendar year 2010 (January 1 through December 31) was 66% above the 14.89 inch average observed from 1985 through 2010. The annual rainfall observed at each of the stations ranged from a high of 23.74 inches at the Somis station to a low of 21.50 inches at the Etting Road station, with an overall average of 22.49 inches for the values observed at the five stations (Table 4). Higher average annual rainfall values measured at the five FCGMA weather stations caused an increase in the average annual rainfall of 0.71 inches over the previous 14.18 inches observed during the FCGMA timeline between 1985 and 2009.

Data collected at the FCGMA weather stations also indicates that the average five-station evapotranspiration (ETo) value of 44.34 inches for calendar year 2010 (January 1 through December 31) was slightly below the average of 44.49 inches observed from 1993 through 2010. Annual ETo observed at each of the stations during 2010 ranged from a high of 49.19 inches at the Somis station to a low of 39.46 inches at the Camarillo Airport station. This all adds up to a total average annual ETo value for 2010 that was less than 1% below the 44.49 inch long-term average (1993 through 2010).

[6] Currently data are collected at 30-minute intervals and daily ETo summary values are calculated based on some measurements being averaged over the midnight to midnight 24-hour period (e.g. wind speed), and others (rainfall, ETo) aggregated over the same time period.

[7] Evapotranspiration (ET) is a term used to describe the sum of evaporation and plant transpiration from the earth's land surface to the surrounding atmosphere. Evaporation accounts for the movement of water to the air from sources such as the soil, the plant coverage, leaf canopy interception, and exposed (uncovered) water bodies. Transpiration accounts for the movement of water within a plant and the subsequent loss of water as vapor through stomata (tiny holes or pores) in its leaves.

2.3.3 Credits for Non-Use of Groundwater Resources

Well owners or operators with a Historical Allocation can take advantage of a credit system for non-use of the groundwater resources initiated within the FCGMA beginning in 1991. Although well operators previously had to submit a credit application form after the end of each calendar year, since 1998[8] credits have been automatically granted to operators through the FCGMA database. Well operators are thus rewarded for extracting less groundwater during the past calendar year than their allowed historical allocation available to the well group (these are called conservation credits to designate how they were earned). Operators that recharge aquifers within the FCGMA boundary through direct injection of "foreign water" as defined in the Agency's Ordinance Code, earn injection credits. In summary, credits are granted on an AF basis and are meant to be used in future years to offset use of the groundwater resource in excess of the adjusted historical extraction allocation. In addition, one AF of credit is granted for each one AF of water injected into FCGMA aquifers per calendar year[9]. Conservation and Injection Credits can be traded for imported water, thereby converting them into In-Lieu Credits. When previously earned credits are transferred to UWCD to offset excess groundwater extractions, they are called Supplemental Credits.

For 2010, a net total of 24,058 AF of credits were earned by operators within the Agency (see Table 5-Summary of Groundwater Extraction Credits Accumulated in the FCGMA since 1991). This figure is 12,446 AF greater than what was earned in 2009 and 51,365 AF less than what was earned in 2008. At the end of 2010, an aggregate total of 689,051 AF of credits were available to well operators within the FCGMA. Reduced redemption of earned credits to avoid surcharge penalties reflects the significant decrease in groundwater extractions that occurred during 2010. Table 5 details the historical growth of accumulated credits since the initiation of the FCGMA credit system in 1991, and Figure 7 Accumulation of FCGMA Credits graphically shows the exponential growth resulting from annual accumulations of banked credit balances. The accumulation of credits represents a long-term resource management challenge for the Agency and its stakeholders. Should there be an extended period with limited groundwater recharge and high groundwater demands, a significant number of credits could be used that have the potential to over stress aquifer resources. Some institutional controls exist for credit transfers however. Thus, although the credit system represents additional groundwater allocation to assist individual operators during extended dry periods, it also represents a potential cumulative threat to the regional groundwater resource depending on certain factors.

The effect of any large-scale credit use would be significant. For example, even a modest 5% use of the total credits available in year 2010 could result in a 34,453 AF increase in extraction. Given the average annual groundwater extraction observed from 1991 through 2010 (approximately 122,125 AF), this additional 34,453 AF extraction based on credit usage would represent a net 28.2% increase in annual extractions. One documented consequence of groundwater over-extraction, is groundwater basin overdraft in both the UAS and LAS groundwater elevations (UWCD, 2004), land subsidence (Hanson, 1992), and seawater intrusion (Izbicki, 1996 a, b; 1992; UWCD, 2004; and others). One of the goals of the Agency's 2007 Groundwater Management Plan is to assist FCGMA stakeholders in developing new groundwater management strategies, groundwater replenishment/replacement programs, conservation incentive programs, and stakeholder education that will increase their water-use efficiency and decrease overuse of the resource.

[8] Prior to 1998, operators were required to request credits from the FCGMA Board. The policy change resulted from the passage of FCGMA Ordinance 5.7 in 1998.

[9] Credits are granted to well operator accounts on a per acre-foot or part thereof basis to a resolution of 0.001 acre-feet.

2.3.4 Extractions and Credits by Groundwater Basins within the Agency

In 2010, the Oxnard Plain Pressure Basin had the greatest single basin share of reported extractions (38%) within the Agency, the most gross credits earned (83.4%), and well operator accounts in that basin collectively hold the largest net accumulated credit balance (300,970 AF) (see Table 6 for basin comparisons). The Oxnard Forebay Basin, East Las Posas Basin, Pleasant Valley Basin, and West Las Posas Basin as a group account for nearly all of the remaining extraction within the Agency. The collective extraction in these four basins accounted for 60% of the total Agency extraction but only 11.5% of the gross credits earned in 2010. Individually, the Pleasant Valley Basin reported 10% of the 2010 total extraction, the Oxnard Forebay Basin 19%, the East Las Posas Basin 22%, and the West Las Posas Basin 9%. The South Las Posas Basin and Arroyo Santa Rosa Basin each accounted for approximately 1% of the total 2010 extractions, and yet 5.1% of the gross credits earned in 2010 were associated with these two basins.

2.3.5 Groundwater Use in the FCGMA

Ventura County relies on groundwater as the primary source for its water needs with lesser amounts derived from surface water, reclaimed water from wastewater treatment plants, and water imported from outside the County via the California State Water Project. Although it is impossible to precisely quantify the demand for groundwater in the FCGMA, it is possible to examine the agency-wide use of groundwater by volume extracted for each type of operator (see Table 4). Within the FCGMA, groundwater users have been divided into three general categories: agricultural, municipal, and industrial (M&I), and domestic wells.

FCGMA 2010 data (see Table 7) indicates there were 631 wells registered as agricultural facilities, 216 wells registered by M&I users, and 114 wells listed as domestic users. For 2010, agricultural operators collectively reported 69,694 AF of extractions (down from 81,173 AF in 2009 and 85,028 AF in 2008). M & I operators reported 50,531 AF of extractions (down more than 9,677 AF from 60,208 AF in 2009 and 2,671 AF less than the 53,202 AF of M & I extractions reported in 2008). The reported annual extraction by domestic well operators was approximately 675 AF compared to the 911 AF in 2009, and the 636 AF of domestic extraction reported in 2008. Domestic well owners are not required to use flowmeters (even though many do) to report groundwater extraction; however, their total annual extractions are not considered to be a significant percentage (0.56%) in the annual groundwater total use within the Agency. If needed, a water consumption per capita estimate is utilized based on the number of people known to reside in a residence supported by a domestic well. The FCGMA has always tried to use a value of 0.2 AF per person per year, or 1.0 AF per dwelling per 6-month period[10] when estimates of groundwater consumption are required.

The FCGMA extraction data can also be used to reflect groundwater use in each basin (Table 7). The basins have been divided into three classifications based on groundwater use during 2010. These primary classifications are described as follows:

- **Agricultural-Use Basins:** The primarily agricultural-use basins include the Arroyo Santa Rosa, East Las Posas, South Las Posas, and West Las Posas Basins. These basins have the vast majority of groundwater extraction by agricultural operators, minimal domestic extractions, and only limited M&I extractions. As a group, the total extractions in these four basins accounted for approximately 32.8% of the total Agency extraction (all use types), 22.3% of the total Agency

[10] Per dwelling water use estimates are based on four people residing within each single-family residence

agricultural extractions, 10.4% of the total Agency M&I extractions, and less than 1% of the total Agency domestic extractions in 2010.

- **Mixed-Use Basins:** The larger mixed-use basins include the Oxnard Plain Basin and the Pleasant Valley Basin. These two basins have significant groundwater extraction by both agricultural and M&I operators in roughly similar amounts and relatively little domestic extraction. As a group, the total extraction in these two basins in 2010 accounted for 53.5% of the total Agency extractions (all use types), 30.6% of the total Agency agricultural extractions, 17.5% of the total Agency M&I extractions, and 0.5% of the total Agency domestic extractions. In the Pleasant Valley Basin, the amount of agricultural extractions were only slightly more than the M&I extractions. In the Oxnard Plain Basin, the agricultural extractions were almost double the M&I extractions; however, the M&I portion did account for 12.8% of the total Agency extractions (i.e., all use types) and over 33.4% of the total basin M & I extractions.

- **M & I-Use Basin:** The Oxnard Forebay Basin yields the majority of its groundwater to M&I operators, a lesser amount to agricultural extraction, and only nominal volumes to domestic demands. In 2010, Forebay M&I extractions were almost three times the agricultural extractions. This basin accounted for approximately 18.7% of the total estimated Agency groundwater extractions in 2010 (from all uses), but only 4.7% of the total Agency agricultural extractions, 13.9% of the Agency M&I extractions, and less than 0.2% of the total Agency domestic extractions for the calendar year.

3.0 ADMINISTRATIVE ACTIONS FOR CALENDAR YEAR 2010

3.1 Significant Administrative Actions

3.1.1 Adopted Resolutions

The FCGMA Board of Directors formally adopted six Resolutions during calendar year 2010, all of which are attached in the **Appendix** and summarized as follows:

- Resolution No. 2010-01: Superseded Resolution No. 2009-07, approving the transfer of 867 AF of historical allocation from Vulcan's Main Plant wells to UWCD's Ferro Property wells, approved the redemption of 11,000 AF of credits from UWCD's Good Deed Credit Trust.

- Resolution No. 2010-02: Nominated Ms. Elaine Freeman of the Conejo Recreation and Parks District to fill the vacancy for the unexpired term of 1/1/2009 - 1/1/2013 for the regular special district member of the Ventura Local Agency Formation Commission (LAFCO), and also nominated Mr. Bruce Dandy of the United Water Conservation District to fill a new term of 1/1/2011 - 1/1/2015 for the LAFCO alternate special district member.

- Resolution No. 2010-03: Proposed *(but never adopted)* at the March 24, 2010 FCGMA Board meeting to not bill Nyeland Acres Mutual Water Company for the full amount owed to the Agency of $96,696.88 for surcharges incurred during calendar years 2006, 2007, and 2008 resulting from excess groundwater extractions. This issue was continued to a future meeting.

- Resolution No. 2010-04: Honored County Attorney Noel Klebaum for over 20 years of legal advice and oversight to the FCGMA upon his retirement.

- Resolution No. 2010-05: Certified Ms. Elaine Freeman of the Conejo Recreation and Parks District to fill the vacancy for the unexpired term of 1/1/2009 - 1/1/2013 for the regular special district member of the Ventura Local Agency Formation Commission (LAFCO), and named Mr. Bruce Dandy of the United Water Conservation District to fill a new term of 1/1/2011 - 1/1/2015 for the LAFCO alternate special district member.

- Resolution No. 2010-06: Established guidelines, criteria and funding in the amount of $500,000 for the Groundwater Supply Enhancement Assistance Program (GSEAP).

- Resolution No. 2010-07: Established a Tiered Surcharge Rate effective on January 1, 2011 at the following levels:

  Tier I: A surcharge rate of $1,105.00 per acre-ft shall be imposed on all groundwater extractions that exceed the combined allocation for all water wells within the Agency by 25 acre-feet or less.

  Tier II: An additional surcharge of $250.00 per acre-foot shall be imposed on all groundwater extractions that exceed the combined allocation for all water wells within the Agency by more than 25 acre-feet but less than 100 acre-feet.

  Tier III: An additional surcharge of $500.00 per acre-foot shall be imposed on all groundwater extractions that exceed the combined allocation for all water wells within the Agency by 100 acre-feet or more.

- Resolution No. 2010-08: Repealed FCGMA Resolution No. 2010-01. This Resolution approved the transfer of 867 AF of historical allocation from Vulcan's Plant site wells to UWCD's Ferro Property wells, approved the redemption of 11,000 AF of credits from the Good Deed Credit Trust for use in the Program, named UWCD as the lead agency for Program CEQA compliance. Required UWCD annual reporting to the Agency regarding basin-wide conditions, including an evaluation of any impacts directly associated with the pumping approved under this Program to be provided to the Agency by March 31 each year. Stipulated that extractions shall be from UWCD's El Rio well yard facility Upper Aquifer System wells only, or from City of Oxnard extraction facilities (i.e. Rice Avenue facilities and/or the City's Water Yard).

3.1.2 **Strategic and Technical Advisory Groups (SAG & TAG)**

Adoption of an update (FCGMA, 2007) to the original Groundwater Management Plan (GMP) (FCGMA, 1985) in mid 2007 led to creation of specialized SAG and TAG committees (see Section 1.5 for previous mention of SAG and TAG). SAG and TAG groups allow public participation while helping to implement the many ambitious strategies needed to improve groundwater quality and quantity that are listed in the GMP. The TAG members are charged with evaluating and examining the technical details of each specific strategy listed in the GMP. Completed TAG projects are sent to SAG whose activities focus on policy decisions and review. It is the SAG's responsibility to recommend finalized strategies for evaluation, adoption, or funding to the FCGMA Board of Directors.

3.2 FCGMA Board Members and Staff

There were no personnel changes during 2010.

3.3 Project Reviews Performed in 2010

In 2010, the Groundwater Section of the Ventura County Watershed Protection District performed approximately 60 reviews of proposed development projects (51 Conditional Use Permits or CUP's and nine Subdivision/Parcel Maps) as part of the County Planning Division's implementation of the General Plan and Zoning Ordinance. Of these total water-related projects, 17 involved proposed or active projects within the FCGMA boundary (15 CUP's and two Subdivision/Parcel Map projects). In addition, one joint comment letter was sent from the FCGMA/County Water & Environmental Resources Division to the City of Oxnard concerning their 2030 General Plan reliance on FCGMA conservation credits as part of the City's future water supply portfolio. Typically, proposed development projects are reviewed to identify the following groundwater-related issues: changes to the well ownership/operator, property-use changes that may affect or impact FCGMA extraction allocations, changes to land or crops, potential short or long-term impacts to water quality and/or water quantity, alterations or modifications in well status, changes to water distribution systems, and construction of structures that might impair infiltration of water to FCGMA aquifers. Ultimately, these projects are approved with no further action needed, denied, or approved with conditions and/or modifications based in part on potential impacts to the FCGMA groundwater resources.

3.4 Permitting and Registration of Wells

Agency staff assists the Ventura County Watershed Protection District (VCWPD) in groundwater management within the larger scope of the county via review of installation plans for new wells, and with abandonment permits for old wells within the FCGMA boundary. New wells are required to meet the State of California Well Standards (DWR, 1991) and Ventura County Well Ordinance No. 4184 (BOS, 1999). The FCGMA Ordinance Code also requires registration of all groundwater extraction facilities in addition to semi-annual reporting of extraction volumes and payment of extraction fees. During 2010, a total of 143 Ventura County well permits were issued. Of that number, eight permits were issued within the FCGMA. Two of those FCGMA permits were for new well installations, two were for repairs to existing wells, and four permits were issued for five well destructions within the Agency boundary (two wells were destroyed under one permit). The continuation of a moratorium on installation of new wells in the Las Posas Valley imposed by FCGMA's Emergency Ordinance "D" caused only a slight change in well permit activity.

3.5 Other Activities Performed in 2010

The FCGMA performed a number of other administrative activities during 2010. These included the following:

- Enforcement Program – Successfully concluded six cases with in-house staff, and contracted with The Source Group to assist.

- FCGMA Allocation Transfer Requests – Examined and approved two significant requests.

- Initiated the last scheduled 5% reduction to Historical Allocations (original HA minus 25%) on January 1, 2010 that had originally been planned for that date by the Board of Directors but had potentially been delayed by an extension of the 20% phase.

- Restructured the Strategic and Technical Advisory Group (SAG & TAG) roles.

- Stepped up the Basin Specific Management Planning activities for the West, South, and East Las Posas Groundwater Basins. Additional meetings of the Las Posas Basin User Group were held, and meeting length increased.

3.6 Progress of the Groundwater Metering Program

The FCGMA Ordinance Code requires the use of flowmeters for all extraction facilities except inactive wells and facilities supplying a single-family dwelling on one acre or less providing that property has no income producing operations (domestic wells). The use of accurate flowmeters for reporting groundwater extractions is critical to the FCGMA for a number of reasons. First, it provides a relatively uniform method of reporting for all stakeholders. Second, it increases the efficiency of data management. Third, it allows FCGMA staff to analyze the extraction and use of the groundwater resources to help make meaningful recommendations to the Board regarding its use. Fourth, it is the most effective way to link extraction data to management fees.

Officially launched via a revision of Chapter 3.0 in Ordinance 8.1 (July 2005), and the initial passage of Resolution No. 2006-01 (adopted in March 2006). However the water flowmeter calibration program began in earnest in 2007, continued into 2009 and officially concluded before year-end. Staff continued to enforce meter calibration requirements throughout 2010, but only accepted passing calibration test results from those few well operators who were holdouts from the original program or from those who submitted subsequent voluntary meter change or repair information. Resolution No. 2008-04 (adopted May 2008) replaced the original Resolution No. 2006-01 to clarify the methods and rules governing the meter calibration program: Resolution No. 2008-04 was again revised at the September 24, 2008 Board meeting, however was not superseded or renumbered. Meter use has been summarized in Table 8 – Summary of Extraction Reporting Methods Used During 2009.

The status of wells using meters or reporting groundwater extractions using recognized measurement methods is summarized in Table 8. This data indicates approximately 858 (about 67%) of the 1,280 State Well Numbers listed in the FCGMA database were actively being used in 2010. In the past, well extractions were reported using water flowmeters, electrical power meters, or a consumptive-use method that estimated annual water use volume for domestic or farm use based on number of people in a home, or to help gauge water use by comparing the acres irrigated times average water use for a specific crop. Because of a concerted effort by the FCGMA, the only known wells within the Agency that still use consumptive use methods to report extractions are a couple of dozen domestic wells. In order to increase the effectiveness of the metering program, the FCGMA took the following actions in 2010, which helped increase the compliance rate for calibrated Agricultural well, and M&I well meters:

- Staff stepped up enforcement of the metering requirement and to assure meters had been calibrated if required on specific wells. A new form was developed to help operators report when a meter broke down, when it was replaced or repaired, what method of estimating was used during the down time, and what the serial numbers, units of measurement were for any new meter. A total of twelve (12) meter repair-replacements were reported by operators using this new *Flowmeter Repair-Replacement Update Form* in the last 6-months of 2010.

- Staff also performed field visits to verify if 10 additional wells had meters, or whether those meters were being reported properly. These filed visits resulted in four new meters being installed (none before), and the correction of reported extractions from three existing well operators to resolve both FCGMA and UWCD payment irregularities. The remaining three well meters were found to be in good working order and were being reported properly.

- Assessed penalties for those well operators who had not responded to the meter calibration program, or who had not complied with the requirements to show proof of a calibrated flowmeter by the designated due date(s). Enforcement letters mailed to four operators helped resolve two of those cases by year-end.

- Focused on those operators who had never reported extractions, or who had inconsistent reporting over the last several years to ensure these wells had been properly metered, that the well operator was reading and interpreting the meter totalizer values correctly. Staff made sure Semi-Annual Groundwater Extraction Statements were submitted for all missing or incorrect 6-month periods.

- Staff field verification of well status, proper meter install, and correct well identification helped to clear up any possible confusion where accounts had more than one well. Failing meter calibration tests also required more staff follow-up and additional notifications to repair/replace and retest these out-of-tolerance meters.

3.7 FCGMA Groundwater Management Plan

Upon passage in 1982, the enabling legislation for the FCGMA (AB-2995, Imbrecht, 1982) required the Agency develop a Groundwater Management Plan (GMP) to control extractions from the Oxnard and Mugu aquifers within three years. In addition, the Agency was required to develop a plan to manage future groundwater extraction from the lower aquifer system (LAS). In 1985, the Agency completed its first GMP. By 2004, significant regional land use changes, the need for additional water supply, emerging water quality and quantity challenges, and developing stakeholder groundwater utilization projects caused the Agency to evaluate the need for an update to its original GMP. The goal of the GMP evaluation/update was to develop new groundwater strategies and to amend previously existing strategies with recent data and more rigorous groundwater flow model information to better assist the Agency in bringing the groundwater basins into balance by year 2010. In June 2005, the Board set aside funds for UWCD staff (primarily Dr. Steve Bachman) to revise the regional groundwater model and allotted time for Agency staff to work with UWCD, CMWD, and the FCGMA stakeholders to develop a comprehensive document that incorporated the model results and the proposed strategies.

In June 2006, the first draft of the GMP was completed and presented for public review and comment. The FCGMA held three public workshops by year-end to solicit and address public comments. The final working draft was available by February 2007. The Board held a special meeting on March 9, 2007 where final Board and public comments on proposed strategies were heard. A completely revised and updated FCGMA Groundwater Management Plan (GMP) was formally adopted by the Board on May 23, 2007.

The GMP contains a background of the FCGMA, a brief overview of the regional hydrogeology, and summarizes the groundwater quality and quantity issues currently facing the Agency. The main components of the GMP include:

- Presentation of Basin Management Objectives (quantitative groundwater quality and quantity targets used to measure and evaluate the “health” of the basins and the potential effectiveness of various groundwater management strategies);

- An estimate of groundwater yield from basins within the FCGMA;

- A description of historic and current groundwater management strategies;

- Brief summary of six groundwater management strategies currently under development;
- Summary of strategies that could potentially be developed and/or implemented in the future;
- A listing of Best Management Practices (BMP's) as recommendations to well operators;
- Overview of an action plan to attain Basin Management Objectives; and
- Appendices containing plots of the estimated progress of seawater intrusion beneath the South Oxnard Plain, discussion of estimates and results of the quantitative groundwater modeling efforts (Ventura Regional Groundwater Model [VRGM]), and a proposed management plan for the East Las Posas Basin, in addition to many maps, tables, and graphs.

The GMP identifies a series of short-term and long-term groundwater management projects and strategies designed to address the current imbalance between water supply and demand. Most activity involved ranking of strategies via a custom matrix process by the TAG, and discussion of costs and importance of such strategies by the SAG committees.

During 2010, the focus was on getting the FCGMA stakeholders to implement some of the top priority or higher ranked management strategies. Feedback from these well operators revealed that financial help was the most important aspect needed to begin work on effective management ideas evaluated in the GMP. To facilitate funding assistance, the FCGMA began to formulate ideas that would help lead toward channeling penalty or surcharge funds collected by the Agency into viable projects built and run by the individual FCGMA stakeholders.

3.8 Financial Status of the Agency for 2010

The FCGMA's fiscal year begins July 1st and ends on June 30th of the next calendar year. Accordingly, the financial status information contained in this 2009 Annual Report covers the Fiscal Year period beginning July 2009 and ending on June 30, 2010. Fiscal administration and oversight of the Agency's financial transactions is performed by Agency management in consultation with the Fiscal Services Section Central Services Department within the Ventura County Public Works Agency pursuant to an existing and ongoing contractual arrangement between the Agency and the County of Ventura.

Quarterly and year-end budget to actual performance reports are presented to the FCGMA Board of Directors for their information, review, and where necessary, adjustments. The information below highlights key fiscal performance metrics reported by Agency management during the 2009-10 Fiscal Year period.

Fiscal Year Ended June 30, 2010

- FCGMA revenues received in 2009-10 totaled $1,395,242. An amount that reflected a $595,901 or 30% *decrease* versus 2008-09 actual revenues received.
- FCGMA expenditures incurred in 2009-10 totaled $980,316. An amount that reflected a $386,450, or 65% *increase* above 2008-09 actual expenditures incurred by the Agency.
- FCGMA *operating gain/(loss)* on June 30, 2010 totaled $435,212. An amount that was $40,856 greater than the $394,356 operating gain figure experienced on June 30, 2009.
- FCGMA *net assets* at June 30, 2010 totaled $3,301,819 [$3,429,132 in total assets minus $127,313 in liabilities]. Of the net asset amount, $212,489 reflected the GEMES Fund portion [the proceeds of which are *restricted* for extraordinary groundwater enforcement

activities authorized solely by the Board of Directors]. In addition, $3,089,330 reflected the *unrestricted and undesignated* portion of the Agency's net assets that were available for *subsequent year financing* of Agency operations.

3.9 **Financial Audits**

Pursuant to the Section 26909, the audit requirements applicable to FCGMA are found in the Minimum Audit Requirements and Reporting Guidelines for California Special Districts, as published by the Division of Accounting and Reporting, Office of the State Controller. Essentially, the minimum requirements reflect Generally Accepted Auditing Standards (GAAS), as described in the American Institute of Certified Public Accountants publication, Audits of State and Local Governmental Units.

Under GAAS, the FCGMA, which is a special purpose government engaged in the preservation and management groundwater resources for the common benefit within its boundary, is required to prepare its financial statements in an enterprise format. The FCGMA is funded primarily through user extraction charges (set at $4.00 per acre-foot throughout the duration of the audit), and is operated on a cash-accounting basis. The only other income to the Agency is from surcharge fees, civil penalties, and accumulated interest earnings on Agency funds on deposit with the County Treasurer's Pooled Investment Fund.

Poindexter and Company, Certified Public Accountants, were selected by the County Auditor-Controller's Office to complete the Agency's current biennial audit reports. The independent auditors found that Agency's financial statements presented fairly, *in all material respects*, the financial position of the FCGMA as of June 30, 2009 and June 30, 2010. Further, the auditors found that the respective changes in financial position and cash flows as presented in the financial statements for the above referenced two fiscal years *were in conformity with generally accepted accounting principles.* Copies of the Agency's biennial audit reports are available upon request.

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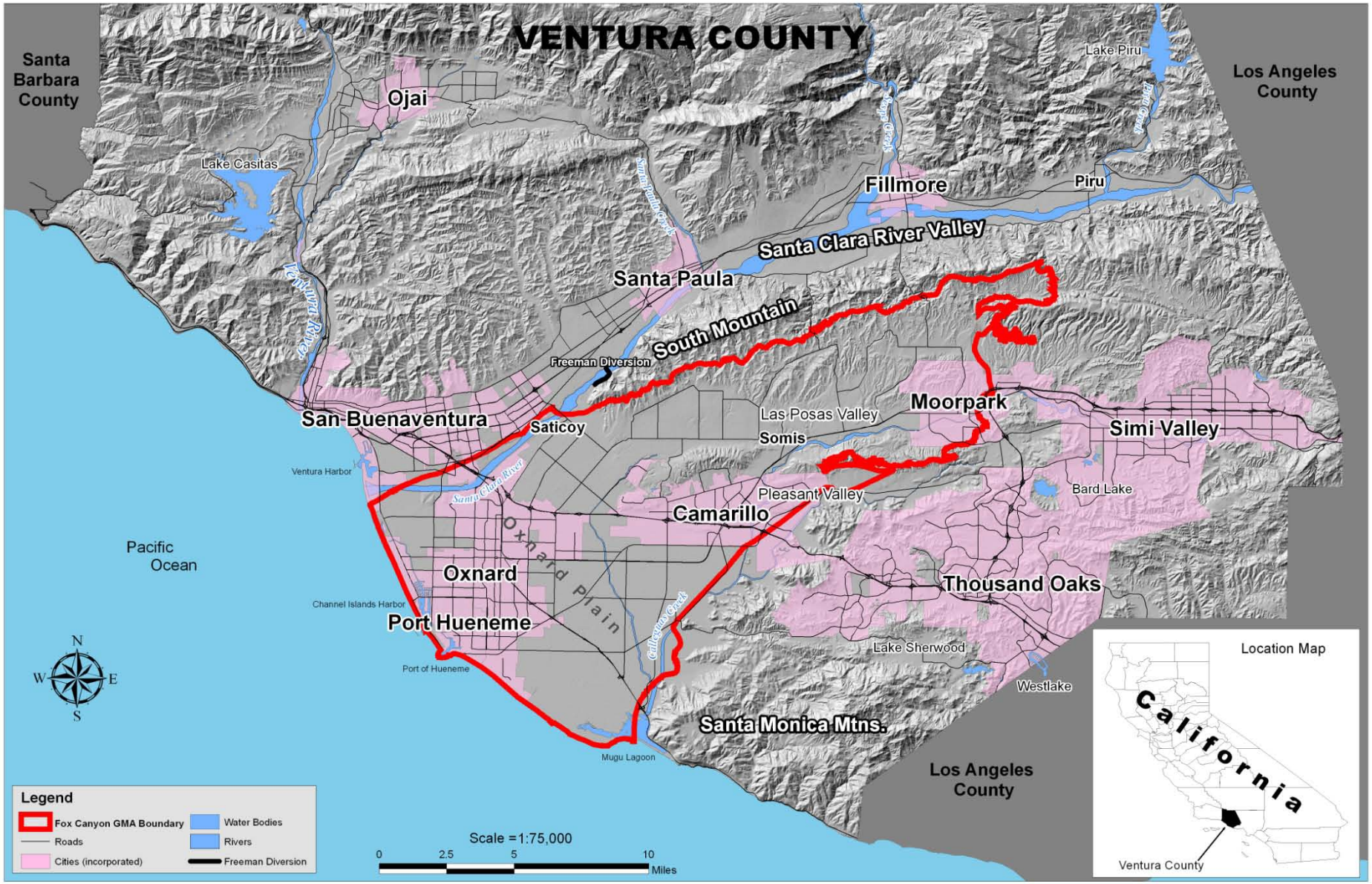

FOX CANYON GROUNDWATER MANAGEMENT AGENCY (A State Of California Water Agency)
800 S. Victoria Avenue
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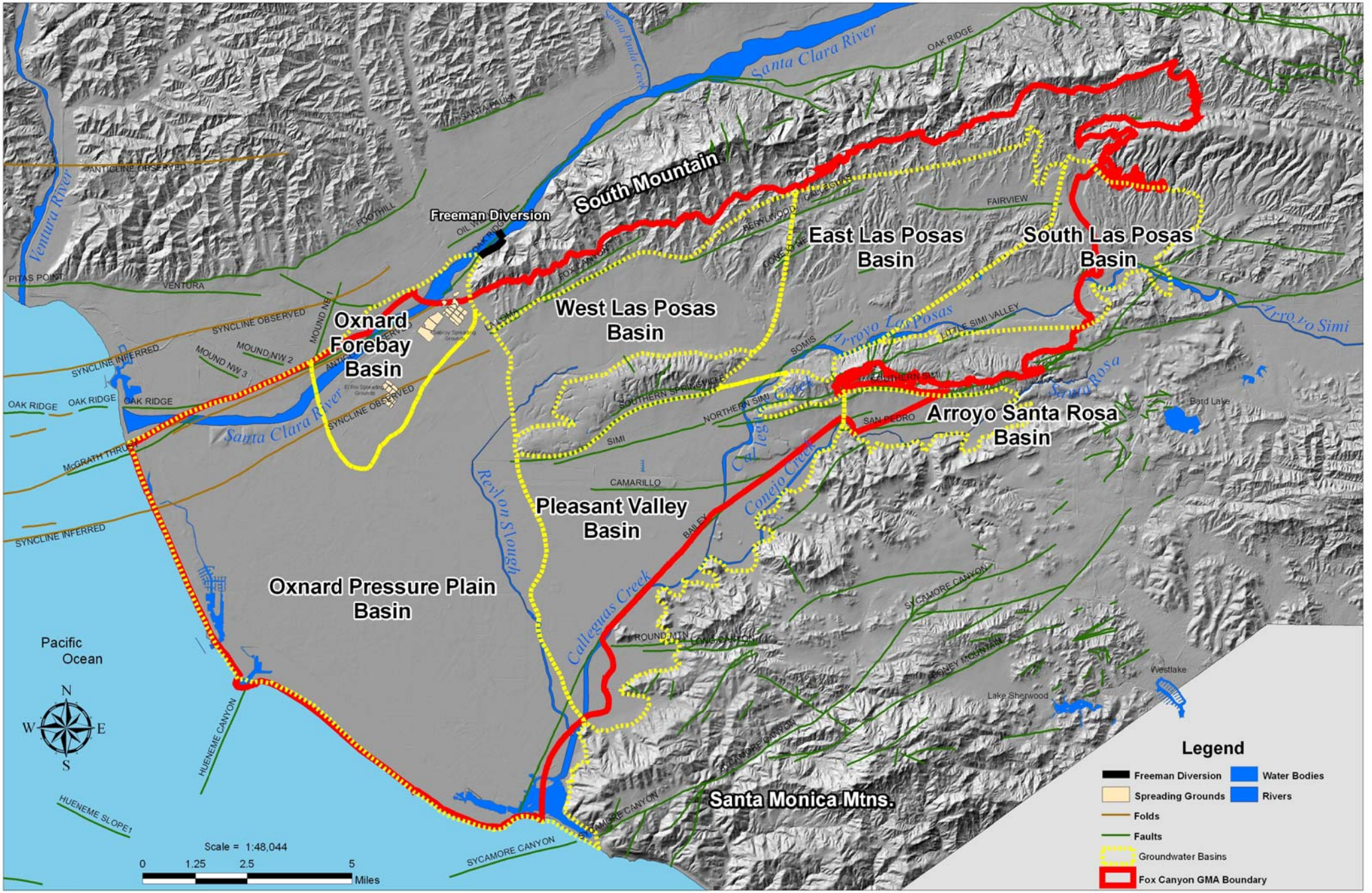
www.foxcanyongma.org
www.publicworks.countyofventura.org/fcgma

Prepared By: JPD January, 2007
Revised By: JPD January, 2009
Reviewed By: DJP
Date Prepared: January, 2009

1. City limits: Ventura County Geographic Information Sysytems, 2007
2. FCGMA Boundary VCBOS, 1992; Revised 1996.

Figure 1: Fox Canyon Groundwater Management Agency Boundary



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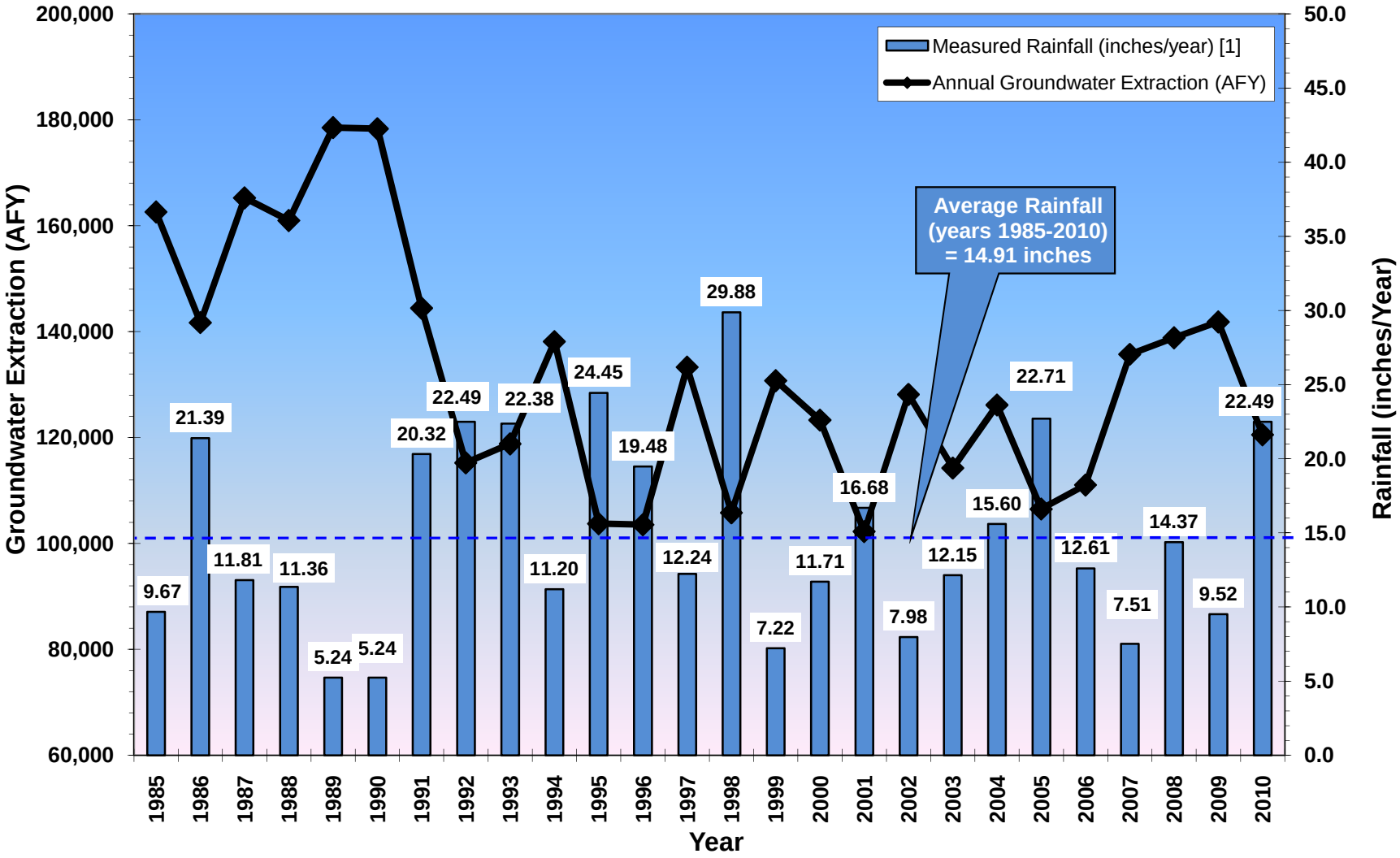
Prepared By: JPD
Reviewed By: DP
Date Prepared: January, 2011
Date Reviewed: January, 2011

1. City limits: Ventura County Geographic Information Sysytems, 2007
2. FCGMA Boundary VCBOS, 1992; Revised 1996.
3. Faults & Folds compiled from multiple sources including Dibblee, 1990; 1992a; 1992b; 1992c; USGS - various sources

Figure 2: Major Hydrogeologic Features and Groundwater Basins Within the FCGMA

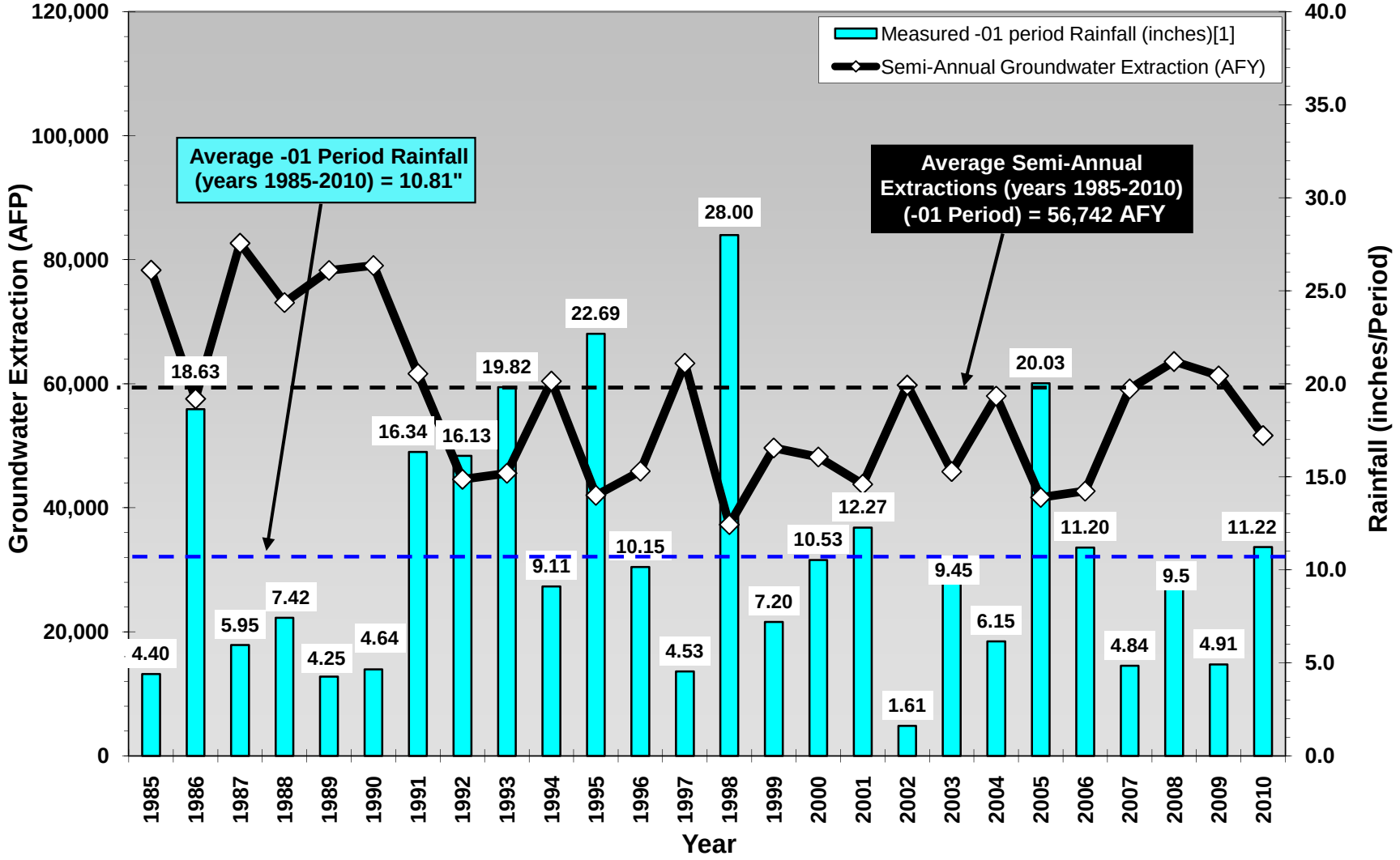
K:\GWG\RMap Database\Map Master Copies\FCGMA_ANNUAL_Report\2005_Figure2.pdf

FIGURE 3
2010 Annual Rainfall and Reported Groundwater Extractions in the FCGMA



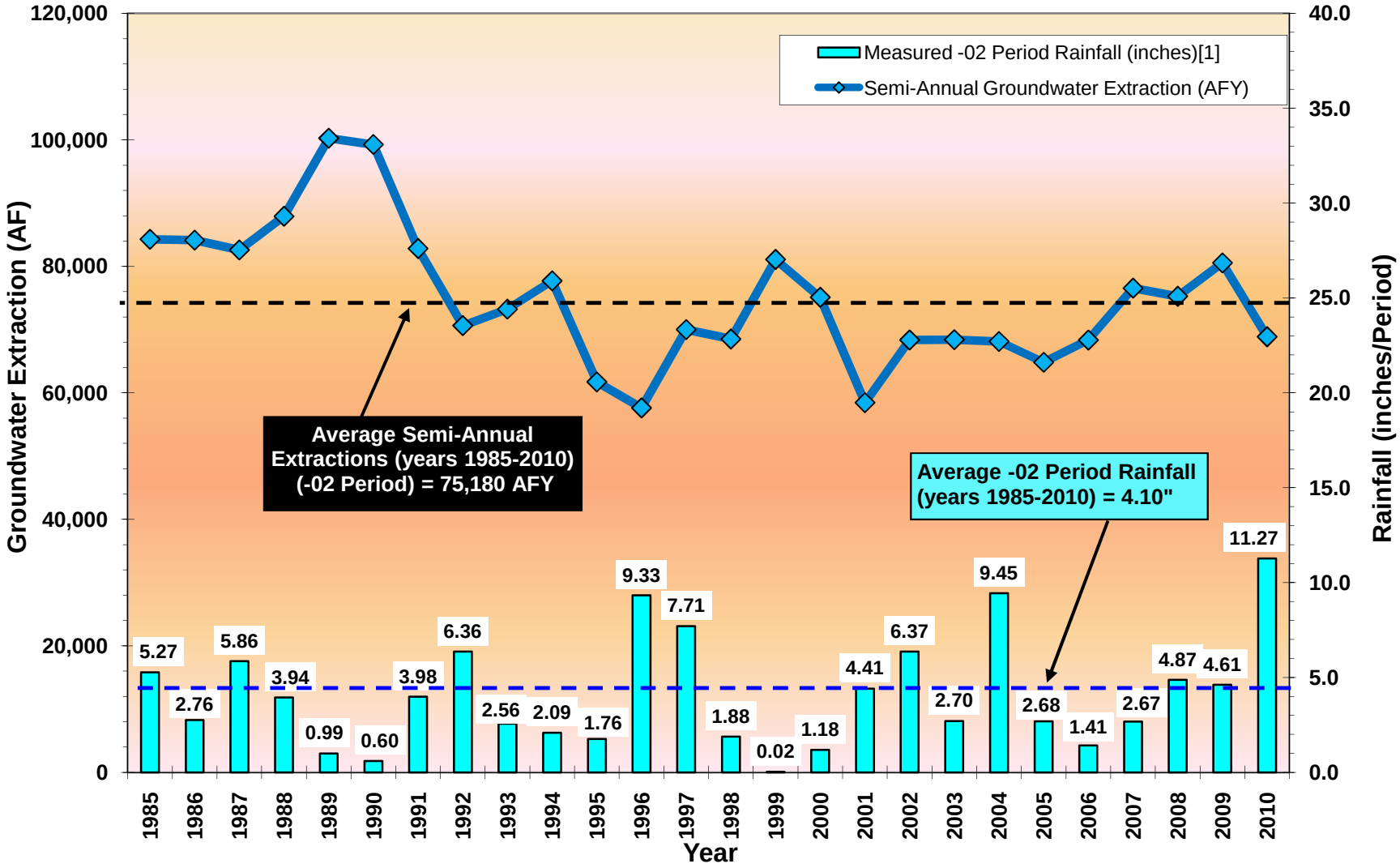
[1] - Measured rainfall is the average of FCGMA weather station annual recorded precipitation. There were 6 stations between 1991 and 2006, and 5 between years 2007-2010. County gauges used for 1985-1990.

FIGURE 4
Rainfall and Reported Groundwater Extraction in the FCGMA for the -01 (January 1 to June 30) Reporting Periods 1985-2010

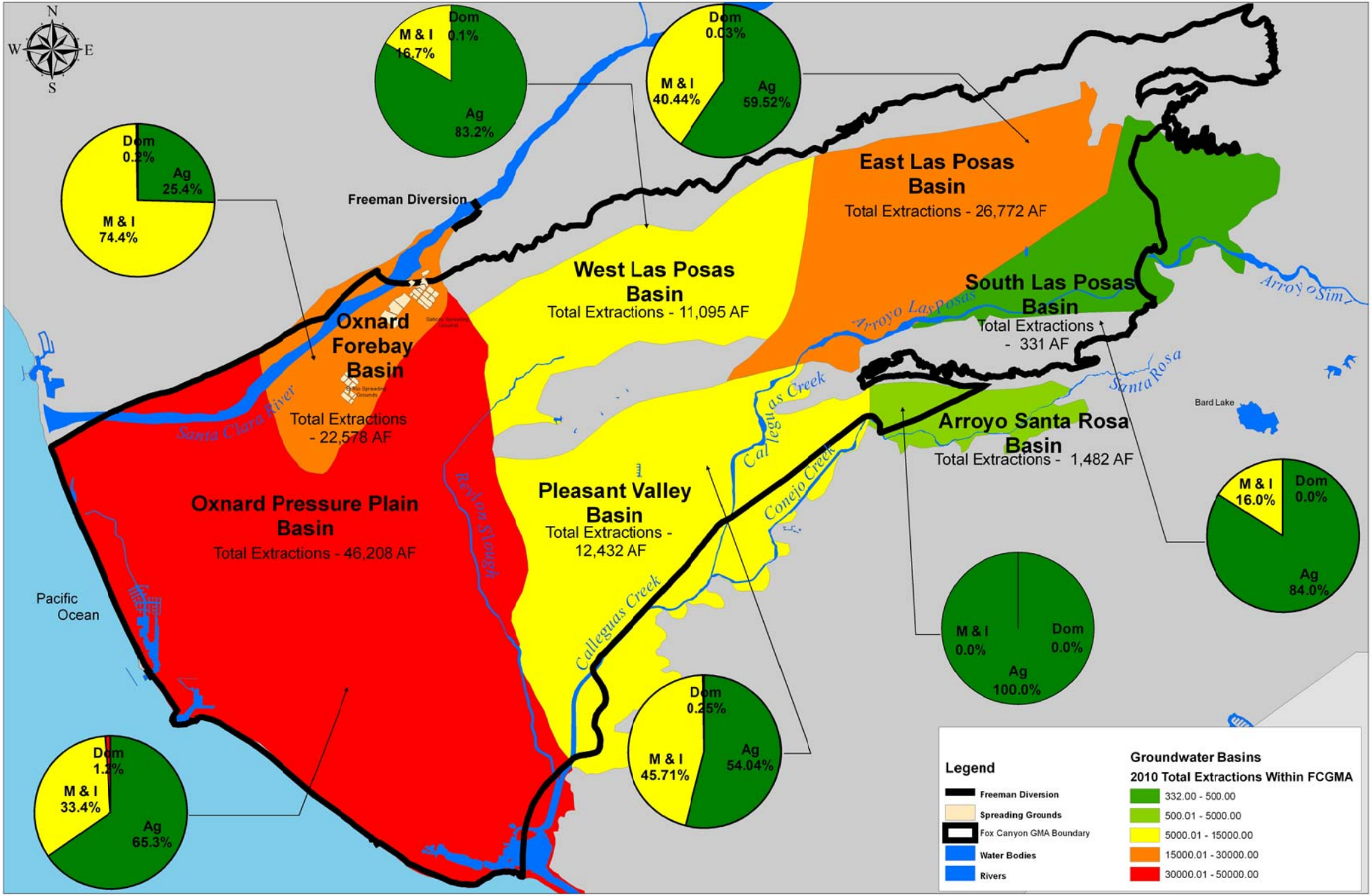


[1] - Measured rainfall is the average of FCGMA weather station -01 period recorded precipitation. There were 6 stations between 1991-2006, 5 between 2007-2010. County rain gauges used for 1985-1990.

FIGURE 5
Rainfall and Reported Groundwater Extraction in the FCGMA for the -02 (July 1 to December 31) Reporting Periods 1985-2010



[1] - Measured rainfall is the average of FCGMA weather station -02 period recorded precipitation. There were 6 stations between 1991-2006, and 5 between years 2007-2010. County gauges used for 1985-1990.



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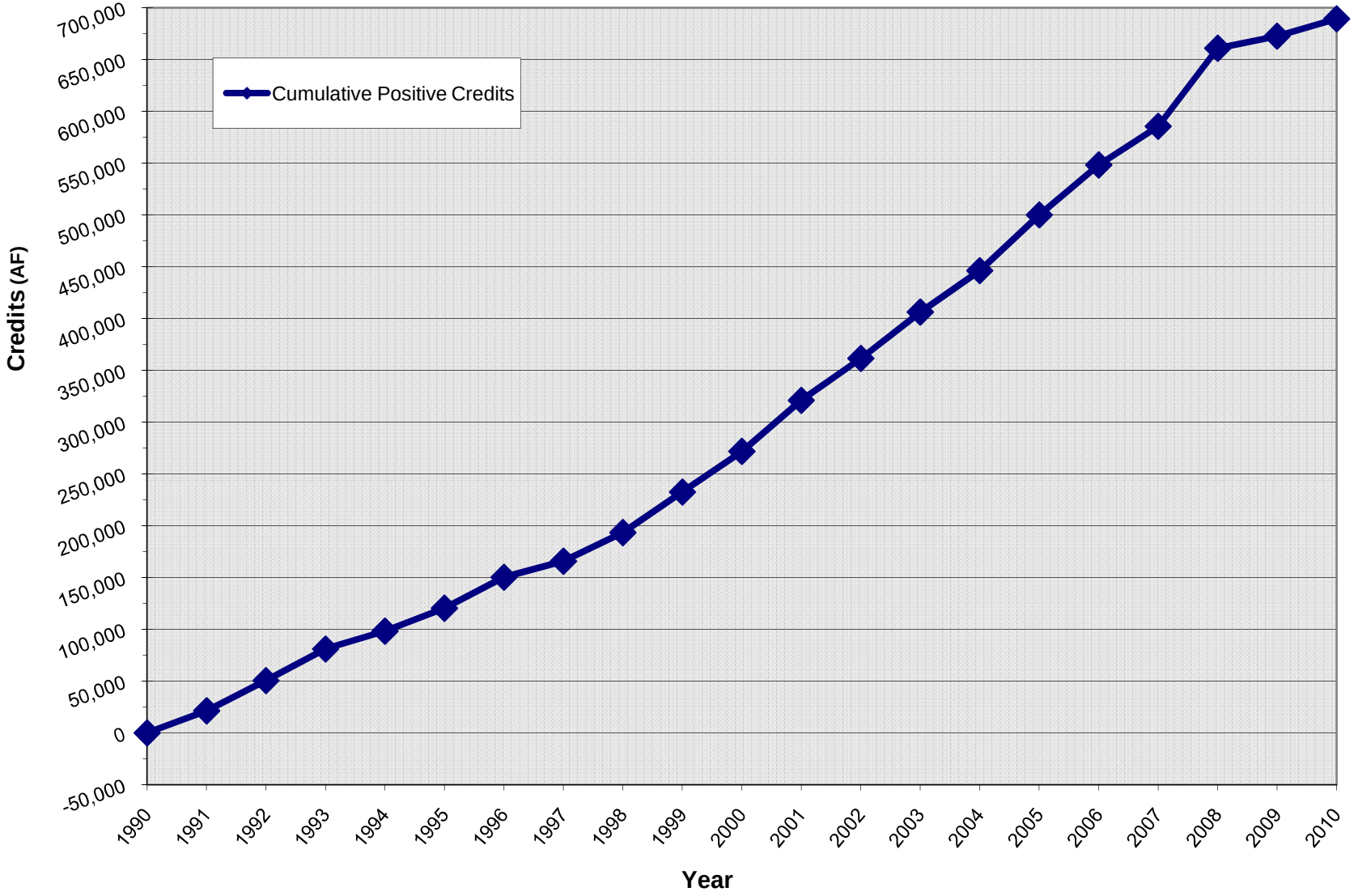
Prepared By: JPD
Reviewed By: DJP
Date Prepared: April, 2011
Date Reviewed: April, 2011

Scale = 1:42,000
0 1.25 2.5 5 Miles

Figure 6: Ratio of Reported Groundwater Extractions By Basin 2010

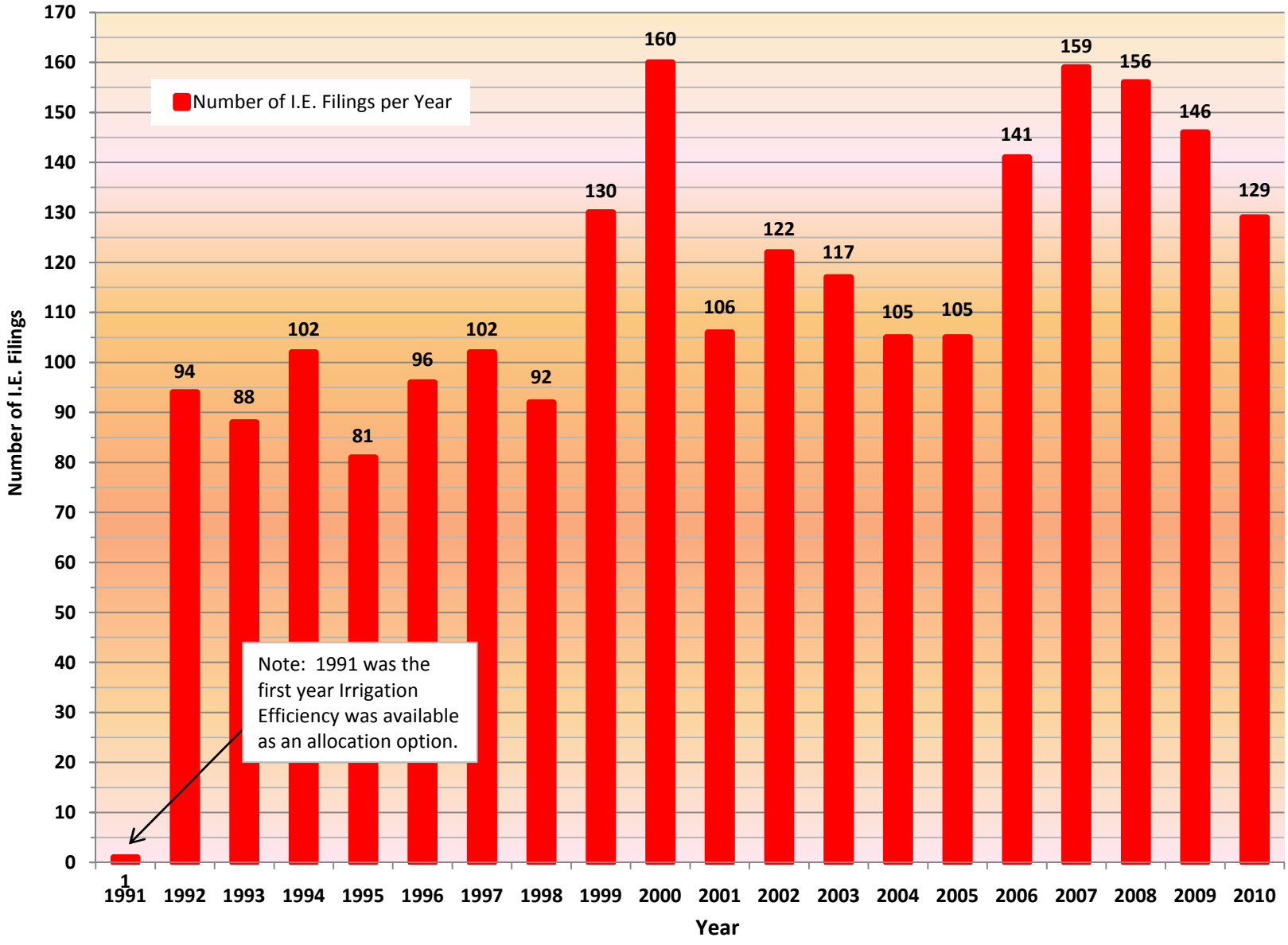
FIGURE 7

Accumulation of FCGMA Credits (values in acre-feet) [1]



[1] FCGMA database statistics for year end credit totals in each category.

FIGURE 8
FCGMA ANNUAL IRRIGATION EFFICIENCY FILINGS[1]



[1] Years with a higher number of I.E. filings are typically also below normal rainfall years.

TABLE 1
SUMMARY OF FCGMA PERSONNEL
FOR CALENDAR YEAR 2010

NAMES	AFFILIATION	CONTACT NUMBER
DIRECTORS		
Steve Bennett[1]	Representing the Ventura County Board of Supervisors	(805) 654-2226
David Borchard	Representing the Farming Interests	(805) 485-3525
Charlotte Craven (Vice Chair)	Representing the Five Cities within the Agency	(805) 482-4730
Dr. Michael Kelley[1]	Representing the Small Water Districts within the Agency	(805) 890-6095
Lynn Maulhardt (Chair)[1]	Representing the United Water Conservation District	(805) 485-5728
ALTERNATE DIRECTORS		
Neil Andrews	Cities	(805) 654-7827
Sam McIntyre[1]	Small Water Districts	(805) 484-1779
Daniel Naumann[1]	United Water Conservation District	(805) 488-1424
David Schwabauer	Farmers	(805) 432-9375
John Zaragosa[1]	Ventura County Board of Supervisors	(805) 654-2613
STAFF		
Alberto Boada	Agency Legal Counsel	(805) 654-2578
Bryan Bondy, CHg.[2]	UWCD-FCGMA Associate Hydrogeologist	(805) 658-4373
Tammy Butterworth	Agency Deputy Clerk of the Board	(805) 654-2002
Gerhardt Hubner, P. G.	Deputy Director, WPD, Water & Environmental Resources	(805) 654-5051
Gerard Kapuscik	Special Programs & Projects Manager	(805) 648-9284
Sheila Lopez	Agency Engineering Technician	(805) 645-1372
Miranda Nobriga[2]	Agency Clerk of the Board	(805) 654-2014
David Panaro, P.G.	Agency Staff Geologist	(805) 654-2327
Jeff Pratt, P.E.	Agency Executive Officer	(805) 654-2040
Rick Viergutz, C.E.G.	County Groundwater Manager	(805) 650-4083

Notes:

1. Table lists active Board Members and Alternates at the end of 2010. Since Director and Alternate terms are staggered, the Farmer and City representative seats were up for renewal in 2010. The seated Farmer and City Board and Alternate members remained unchanged and were re-appointed to serve as FCGMA representatives during 2010 and 2011.

2. The only notable staff changes for 2010 included a trading of duties with Miranda Nobriga taking over the role as Clerk of the Board on a full-time basis for the Agency, and Tammy Butterworth stepping down to assume the part-time Deputy Clerk of the Board position on an as-needed Agency employee basis.

TABLE 2

SUMMARY OF REPORTED GROUNDWATER EXTRACTIONS WITHIN THE FCGMA SINCE 1983

Calendar Year	-01 Period Extractions [in AFY][1,2,3]	-02 Period Extractions [in AFY][1,2,3]	Total Annual Extractions [in AFY][1,2,3]	Historical Allocation Reduction Percent[4]
2010	51,664	68,873	120,537	25%
2009	61,741	80,551	142,292	20%
2008	63,695	75,360	139,055	15%
2007	59,604	77,337	136,941	15%
2006	43,655	69,457	113,113	15%
2005	41,692	64,906	106,597	15%
2004	59,357	70,805	130,161	15%
2003	46,122	69,540	115,662	15%
2002	61,642	70,515	132,158	15%
2001	43,703	58,497	102,200	15%
2000	48,203	75,022	123,225	15%
1999	49,659	81,130	130,788	10%
1998	37,316	68,530	105,846	10%
1997	63,322	70,014	133,335	10%
1996	45,907	57,636	103,543	10%
1995	42,028	61,738	103,766	10%
1994	60,484	77,720	138,205	5%
1993	45,574	73,274	118,849	5%
1992	44,589	70,636	115,225	5%
1991	61,638	82,843	144,481	0%
1990	79,074	99,262	178,336	0%
1989	78,301	100,251	178,553	NA
1988	73,102	87,909	161,010	NA
1987	82,682	82,586	165,268	NA
1986	57,585	84,137	141,722	NA
1985	78,339	84,281	162,620	NA
1984	36,377	35,506	71,883	NA
1983	285	28,984	29,269	NA
Totals =	**1,517,339**	**2,027,301**	**3,544,640**	

Notes:

AF = Acre-feet; 1 acre-foot equals 325,851 gallons

AFY = Acre-feet per year

1. Table summarizes groundwater extractions reported to the FCGMA. Additional groundwater extractions may exist (i.e. groundwater extraction that occurred within the boundary of the FCGMA, but was not reported to the FCGMA). Shaded rows indicate first year credits and Irrigation Efficiency (I.E.) were initiated by the Agency.

2. Reporting Periods are: (1) Jan. 1 - June 30; (2) July 1 - Dec. 31 of each Calendar Year

3. Data for reporting periods 1983-1, 1983-2, 1984-1, and 1984-2 provided by UWCD. Data determined to be incomplete due to low extraction values and low number of registered operators compared to proceeding years.

4. Historical Allocation (HA) is one of three methods employed by the FCGMA to allocate groundwater extraction (1990-present) (See text Section 2.3). Reductions stipulated by FCGMA Ordinance and Resolutions. 1985-1989: Historical Allocation Determination Period.

TABLE 3

COMPARISON OF YEAR 2010 GROUNDWATER EXTRACTIONS TO HISTORIC GROUNDWATER EXTRACTIONS IN THE FCGMA

	Annual Extraction (AF/Year)[2]	Extraction for -01 Periods (AF/Period)[2]	Extraction for -02 Periods (AF/Period)[2]
Current Year (2010) Extractions	**120,537**	**51,664**	**68,873**
Average Extractions[3] (1991 - 2010)	122,125	51,311	70,814
Comparison of Current Year (2010) Extractions to Average Extractions (1991 - 2010)[3] (reported as %)	99%	101%	97%
Rank Comparing Current Year Extraction to Annual Extraction[4] (1991 - 2010)	11	9	15

Notes:

AF = acre-feet; (1 acre-foot equals 325,851 gallons)

1. **Table** summarizes groundwater extractions reported to FCGMA. Other groundwater extractions may exist (i.e., groundwater extraction that occurred within the boundary of the FCGMA, but was not reported to the FCGMA).

2. **Reporting Periods** are: (-01) January 1 - June 30; and (-02) July1 - December 31 of each Calendar Year.

3. **Average** reported Agency-wide groundwater extractions per period and year from 1991 through 2010. Prior to 1991 there were no credits, scheduled reductions to Historical Allocations, Baseline Allocations, etc. Such focused groundwater management actions were detailed in Ordinance 5.0 (adopted by the FCGMA Board of Directors on August 24, 1990), which became effective on January 1, 1991.

4. **Priority Ranking** from largest to smallest (in acre-feet) when 2010 reported annual extractions are compared to the annual extractions reported from 1991-2010; For this analysis the largest extaction value for the 1991-2010 time period is 1.

TABLE 4

2010 FCGMA ALLOCATIONS vs. EXTRACTIONS by WELL TYPE

Groundwater Basin	Historical Allocations (AF) (for *all wells in each basin)* [1]	Well Use Type [2]	Historical Allocation by Well Type (AF)	Reduced Historical Allocation [3] (AF)	Assigned Baseline Allocations (AF)	2010 Total Available Allocation [4] (AF)	2010 Reported Extractions by Type per Groundwater Basin (AF) [5]
Arroyo Santa Rosa (ASR)	846	AG	846	635	0	635	1,482
		DOM	0	0	0	0	0
		M&I	0	0	0	0	0
Oxnard Plain Forebay (FOR)	29,678	AG	9,490	7,118	135	7,253	5,738
		DOM	552	414	15	429	52
		M&I	19,635	14,726	66	14,792	16,789
Oxnard Plain Pressure Basin (OXP)	76,298	AG	59,745	44,809	45	44,854	30,178
		DOM	2,950	2,213	57	2,270	576
		M&I	13,603	10,202	2,161	12,363	15,454
Pleasant Valley (PV)	21,936	AG	16,156	12,117	12	12,129	6,719
		DOM	540	405	14	419	31
		M&I	5,240	3,930	1,383	5,313	5,683
East Las Posas (ELP)	17,490	AG	14,348	10,761	325	11,086	15,935
		DOM	138	104	14	118	9
		M&I	3,004	2,253	62	2,315	10,827
West Las Posas (WLP)	12,887	AG	11,296	8,472	25	8,497	9,363
		DOM	12	9	14	23	7
		M&I	1,581	1,186	465	1,651	1,725
South Las Posas (SLP)	2,105	AG	1,563	1,172	42	1,214	279
		DOM	0	0	0	0	0
		M&I	541	406	0	406	53
Totals	**161,240**		**161,240**	**120,930**	**4,835**	**125,765**	**120,898**

NOTES: (totals or subtotals may not be exact due to rounding)

1) Year-end 2010 total includes Historical Allocation (HA) as averaged after the 1985-1989 Base Period along with any adjustments and before any scheduled reductions.

2) Although many wells serve as both domestic and agricultural sources, or municipal and agricultural sources, etc., only the main use of each well has determined the category here.

3) Effective 01-01-2010 the Scheduled Reduction Rate was 75% of original Historical.

4) The Historical Allocation minus scheduled reductions, plus any Baseline Allocation, equals Total Available Allocation for year 2010.

5) Reported groundwater extractions may be higher or lower than than total available allocations due to use of Credits or an Irrigation Efficiency (I.E.) allowance.

TABLE 5

SUMMARY OF GROUNDWATER EXTRACTION CREDITS ACCUMULATED IN THE FCGMA SINCE 1991[1]

Year	Net Annual Credits Earned[2, 4] (AF)	Agency Aggregate Total Positive Credit Balance[3] (+ AF)
2010	24,058	689,051
2009	11,612	672,324
2008	75,423	660,712
2007	37,252	585,288
2006	48,166	548,037
2005	53,829	499,871
2004	39,893	446,042
2003	44,763	406,149
2002	40,396	361,386
2001	49,355	320,990
2000	39,132	271,635
1999	39,178	232,502
1998	27,632	193,324
1997	15,464	165,693
1996	29,903	150,228
1995	22,036	120,326
1994	17,283	98,290
1993	30,593	81,007
1992	50,414	50,414
1991	21,345	21,345
1990	0	0

Notes:

AF = acre feet of water; 1 Acre-foot = 325,851 US gallons of water @ STP

1. Credit Program initiated in 1991. Credits are granted for difference between yearly extractions and available annual Historical Allocation if extractions are less than available Historical.

2. Net Annual Credits Earned = Net credits earned each year after application to any reported overpumping that year. Prior to 1998, operators were required to apply for credits. For 1999-2010 (present), credits are automatically earned for groundwater use of less than available Historical allocation or for groundwater injected. Credits did not exist prior to 1990.

3. Aggregate Total Positive Credit Balance: Sums current year (2010) and previous historic credits (1991-2009) for all FCGMA Operator accounts with positive credit balance at the end of 2010.

4. Net Credits Earned value is substantially greater for 2008 than 2007 due to reconciliation of Calleguas Municipal Water District's FCGMA account. 2010 value is less than average.

TABLE 6
SUMMARY OF GROUNDWATER EXTRACTION AND CREDITS BY GROUNDWATER BASIN FOR CALENDAR YEAR 2010

Groundwater Basin	2010 Total Reported Groundwater Extraction (AF/Year)[1]	2010 Basin Share of Total Agency Extraction (%)	2010 Gross Credits Earned (AF)[2]	Basin Share of Total Credits Earned in 2010 (%)	Credits Redeemed in 2010 per Basin (AF)[3]	2010 Net Basin Credit Balance (AF)[4]
Oxnard Plain Pressure Basin	46,208	38%	17,262	83.4%	0	300,970
Oxnard Plain Forebay Basin	22,578	19%	5,228	25.3%	0	64,420
Pleasant Valley Basin	12,432	10%	4,847	23.4%	312	105,994
West Las Posas Basin	11,095	9%	929	4.5%	5	20,462
East Las Posas Basin	26,772	22%	(8,626)	-41.7%	0	96,884
South Las Posas Basin	331	0%	1,196	5.8%	0	6,311
Arroyo Santa Rosa Basin	1,482	1%	(143)	-0.7%	0	1,857
Totals	**120,898**	**100%**	**20,693**	**100%**	**317**	**596,898**

Notes:

AF = Acre-feet; 1 acre-foot equals 325,851 gallons

1. Groundwater extractions reported to FCGMA. Other groundwater extraction may exist (i.e. groundwater extraction that occurred within the boundary of the FCGMA, but was not reported to the FCGMA).

2. FCGMA Operator total available Historical Allocation minus Reported Extraction equal Gross Credits Earned (Note: Extraction greater than Historical Allocation, or Credit Transfers can equate to credits redeemed).

3. FCGMA credits redeemed to avoid a financial surcharge that would have otherwise been assessed for extraction exceeding an available Historical Allocation.

4. Sums current and historic credits by groundwater basin for all FCGMA Operator Accounts to get a cumulative credit balance at the end of Calendar Year 2010.

TABLE 7

SUMMARY OF REPORTED GROUNDWATER EXTRACTIONS AND WELL USE-TYPE WITHIN THE FCGMA FOR CALENDAR YEAR 2010[1]

Groundwater Basin	Groundwater Use-Type	Total Reported Groundwater Extractions for 2010 (AF/Year)[2]	Percent of Individual Groundwater Basin Extractions	Portion of 2010 Groundwater Extractions (%)	Total Number of FCGMA Wells[4]	Active Wells in Basin[5] (by use type)	Active Wells in Basin by Use (%)
Arroyo Santa Rosa	**Basin Total**	**1,482**	**100%**	**1.2%**	**17**	**9**	**52.9%**
	Agricultural	1,482	100.0%	1.2%	17	9	52.9%
	Domestic	0	0.0%	0.0%	0	0	0.0%
	M & I	0	0.0%	0.0%	0	0	0.0%
East Las Posas	**Basin Total**	**26,772**	**100%**	**22.1%**	**174**	**137**	**78.7%**
	Agricultural	15,935	59.5%	13.2%	118	88	50.6%
	Domestic	9	0.0%	0.0%	13	12	6.9%
	M & I	10,827	40.4%	9.0%	43	37	21.3%
South Las Posas	**Basin Total**	**331**	**100%**	**0.3%**	**21**	**15**	**71.4%**
	Agricultural	279	84.3%	0.2%	10	7	33.3%
	Domestic	0	0.0%	0.0%	7	7	33.3%
	M & I	53	16.0%	0.0%	4	1	4.8%
West Las Posas	**Basin Total**	**11,095**	**100%**	**9.2%**	**77**	**55**	**71.4%**
	Agricultural	9,363	84.4%	7.7%	59	42	54.5%
	Domestic	7	0.1%	0.0%	5	4	5.2%
	M & I	1,725	15.5%	1.4%	13	9	11.7%
Oxnard Plain[3]	**Basin Total**	**46,208**	**100%**	**38.2%**	**453**	**307**	**67.8%**
	Agricultural	30,178	65.3%	25.0%	303	208	45.9%
	Domestic	576	1.2%	0.5%	62	49	10.8%
	M & I	15,454	33.4%	12.8%	88	50	11.0%
Pleasant Valley	**Basin Total**	**12,432**	**100%**	**10.3%**	**97**	**65**	**67.0%**
	Agricultural	6,719	54.0%	5.6%	67	42	43.3%
	Domestic	31	0.2%	0.0%	20	16	16.5%
	M & I	5,683	45.7%	4.7%	10	7	7.2%
Oxnard Plain Forebay	**Basin Total**	**22,578**	**100%**	**18.7%**	**122**	**83**	**68.0%**
	Agricultural	5,738	25.4%	4.7%	57	42	34.4%
	Domestic	52	0.2%	0.0%	7	6	4.9%
	M & I	16,789	74.4%	13.9%	58	35	28.7%
	2010 Totals	**120,898**	**100%**	**100%**	**961**	**671**	**70%**

Notes:

AF = Acre-feet; 1 acre-foot equals 325,851 gallons

M & I - Municipal and Industrial

1. Table summarizes groundwater extraction reported to FCGMA. Other undocumented groundwater extraction may exist.
2. Reporting Periods are: (1) Jan. 1 - June 30; (2) July 1 - Dec. 31 of each Calendar Year.
3. Oxnard Plain Basin includes area formerly identified as Mugu Forebay Groundwater Basin.
4. Total number of wells ever registered with the FCGMA in each basin (includeds inactive and destroyed wells).
5. Wells reported as being used in each basin during 2010.

TABLE 8

SUMMARY OF WELL REPORTING METHODS USED DURING 2010

Main Well Use[1]	Well Status[2]	No. of Wells by Category	No. of Wells with Meters	Calibrated Meters[3] (%)	Meter Required
Agricultural	Active	435	435	100.0	Yes
	Inactive	109	80	73.4	No
Domestic	Active	118	57	48.3	No
	Inactive	13	7	53.8	No
Municipal-Industrial	Active	144	144	100.0	Yes
	Inactive	39	39	100.0	No
Totals		858	762	88.8	

Notes:

1) Some wells may serve more than one purpose, however only the main use for each well has determined the category here.
2) Does not include destroyed wells, wells not yet in service, monitoring wells, or anode-cathode wells.
3) Percent of water flowmeters in compliance with the FCGMA meter calibration program even where a meter is not required.

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 27th 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.

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1
Miles
Ferro Pit
Rose Pit
LOS ANGELES AVE
ROSE AVE
VINEYARD AVE
Oxnard Blending Station No. 3
OXNARD BLVD
101
City Water Yard
Legend
UWCD El Rio Well (Upper Aquifer System)
City of Oxnard Well

Resolution 2010-02
of the
Fox Canyon Groundwater Management Agency

A RESOLUTION NOMINATING *Ms. Elaine Freeman of the Conejo Recreation and Parks District* TO FILL THE VACANCY FOR THE UNEXPIRED TERM OF *1/1/2009 - 1/1/2013* FOR THE REGULAR SPECIAL DISTRICT MEMBER OF THE VENTURA LOCAL AGENCY FORMATION COMMISSION (LAFCO)
AND
TO NOMINATE *Mr. Bruce Dandy of the United Water Conservation District* TO FILL A NEW TERM OF *1/1/2011 - 1/1/2015* FOR THE LAFCO ALTERNATE SPECIAL DISTRICT MEMBER

WHEREAS, the Executive Officer of the Ventura Local Agency Formation Commission (LAFCO) has notified the Agency of a vacancy on the LAFCO Board for a Regular Member representing the Independent Special Districts in Ventura County to fill an unexpired term of *1/1/2009 -1/1/2013* and has issued a call for nominations to be submitted in writing pursuant to California Government Code Section 56332(c); and

WHEREAS, the Executive Officer of the Ventura Local Agency Formation Commission (LAFCO) has also notified the Agency of a vacancy on LAFCO's Board for an Alternate Member representing the Independent Special Districts in Ventura County to fill a four-year term from *1/1/2011* to *1/1/2015,* and has issued a call for nominations to be submitted in writing pursuant to California Government Code Section 56332(c); and

WHEREAS, the Ventura County Independent Special District Selection Committee has adopted Rules and Regulations concerning vacancies on LAFCO and the time for consideration of candidates for appointment; and

WHEREAS, the Rules and Regulations of the Ventura County Independent Special District Selection Committee require that nominations shall be by resolution, and candidates nominated shall submit a resume or candidate statement; and

WHEREAS, at the time and in the manner required by law, the Fox Canyon Groundwater Management Agency having one vote for each LAFCO position as a member of the Special Districts in Ventura County met on March 24, 2010 to consider the call for nominations by the LAFCO Executive Officer;

NOW, THEREFORE, IT IS HEREBY RESOLVED AND ORDERED, that the Fox Canyon Groundwater Management Agency Board of Directors adopts the following:

1) Ms. Elaine Freeman of the Conejo Recreation and Parks District is hereby nominated to fill the unexpired term of *01/01/2009 - 01/01/2013* as a Regular Member of the Ventura LAFCO representing Independent Special Districts in Ventura County.

2) Mr. Bruce Dandy of the United Water Conservation District is hereby nominated to fill a new term beginning *1/1/2011* and expiring *1/1/2015* as the Altemate Member of the Ventura LAFCO representing Independent Special Districts in Ventura County.

3) The Agency Executive Officer shall transmit a signed copy of this Resolution and a copy of the resume or candidate statements for *Ms. Elaine Freeman and Mr. Bruce Dandy* to the Ventura LAFCO Executive Officer.

On motion of Director Bennett and seconded by Director Naumann, the foregoing Resolution was passed and adopted on this 24th day of March 2010 by the following vote.

AYES – Chair Craven and Directors Bennett, Kelley, Naumann, and Schwabauer
NOES - None
ABSTAINS - None
ABSENT – None

Charlotte Craven, Acting Chair, Board of Directors
Fox Canyon Groundwater Management Agency

ATTEST: I hereby certify that the above is a true and correct copy of Resolution No. 2010-02.

By: _____
Tammy Butterworth, Deputy Clerk of the Board

Resolution 2010-04

Fox Canyon Groundwater Management Agency

HONORING

Noel A. Klebaum

WHEREAS, Ventura County Counsel Noel A. Klebaum has contributed his knowledge and expertise in all matters legal involving Ventura County and Fox Canyon Groundwater Management Agency issues for more than 20 years and was instrumental in assigning a dedicated attorney to specifically provide legal guidance and advice or to address water-specific issues, and

WHEREAS, Mr. Klebaum has been a key behind-the-scenes contributor and participant since his first FCGMA encounter as Chief Assistant County Counsel helping to draft the original Ordinance 5, then subsequently reviewing or helping to develop many rules, regulations, policies, and proceedings associated with regulating groundwater, and

WHEREAS, Mr. Klebaum used his considerable common sense and knowledge of politics, parliamentary procedures, and water management acumen to guide the Fox Canyon GMA Board through many varied tasks required of a water management agency, and

WHEREAS, during his tenure and through his personal expert legal advisory capacity or by supervising other attorneys, Mr. Klebaum has contributed to the accomplishments of the FCGMA in many ways that added to the successful operation of the Agency.

THEREFORE, BE IT RESOLVED, that the Board of Directors of the Fox Canyon Groundwater Management Agency take great pleasure in thanking and publicly honoring **Ventura County Counsel Noel A. Klebaum** for his dedicated, distinguished, and honorable service toward water resource protection within Ventura County, and especially to this Agency, and wish him well in retirement. We thus confer special recognition upon him by officially adopting this resolution.

ADOPTED AND PRESENTED BY THE FCGMA BOARD OF DIRECTORS THIS 26th DAY OF MAY 2010.

Lynn Maulhardt, Chair | Director Steve Bennett | Director David Borchard | Director Charlotte Craven | Director Michael Kelley

Resolution 2010-05
of the
Fox Canyon Groundwater Management Agency

A RESOLUTION CERTIFYING ELAINE L. FREEMANTO FILL THE VACANCY FOR THE UNEXPIRED TERM OF *1/1/2009 - 1/1/2013* FOR THE REGULAR SPECIAL DISTRICT MEMBER OF THE VENTURA LOCAL AGENCY FORMATION COMMISSION (LAFCO)
AND
TO NAME BRUCE DANDY TO FILL A NEW TERM OF *1/1/2011 - 1/1/2015* FOR THE LAFCO ALTERNATE SPECIAL DISTRICT MEMBER

WHEREAS, the Executive Officer of the Ventura Local Agency Formation Commission (LAFCO) has notified the Agency of a vacancy on the LAFCO Board for a Regular Member representing the Independent Special Districts in Ventura County to fill an unexpired term of *1/1/2009 -1/1/2013* and having issued a call for nominations pursuant to California Government Code Section 56332(c) is now requesting a ballot vote to fill that unexpired term; and

WHEREAS, the Executive Officer of the Ventura Local Agency Formation Commission (LAFCO) has also requested the Agency hold a vote to fill a vacancy on LAFCO's Board for an Alternate Member representing the Independent Special Districts in Ventura County to fill a four-year term from *1/1/2011* to *1/1/2015*, from a list of nominated candidates pursuant to California Government Code Section 56332(c); and

WHEREAS, the Ventura County Independent Special District Selection Committee has adopted Rules and Regulations concerning vacancies on LAFCO and the time for consideration of candidates for appointment; and

WHEREAS, the Rules and Regulations of the Ventura County Independent Special District Selection Committee allow for acceptance of mail-in ballots that have been certified by a resolution from each voting Special District; and

WHEREAS, at the time and in the manner required by law, the Fox Canyon Groundwater Management Agency having one vote for each LAFCO position as a member of the Special Districts in Ventura County met on June 23, 2010 at a regular monthly Board meeting to cast a ballot as received from the LAFCO Executive Officer; so

NOW, THEREFORE, IT IS HEREBY RESOLVED AND ORDERED, that the Fox Canyon Groundwater Management Agency Board of Directors adopts the following:

1) *Elaine Freeman* was hereby chosen to fill the unexpired term of *01/01/2009 - 01/01/2013* as a Regular Member of the Ventura LAFCO representing Independent Special Districts in Ventura County.

2) *Bruce Dandy* was hereby chosen to fill a new term beginning *1/1/2011* and expiring *1/1/2015* as the Altemate Member of the Ventura LAFCO representing Independent Special Districts in Ventura County.

3) The Agency Executive Officer shall certify by signature below that all balloting procedures specified by LAFCO were handled properly and according to adopted protocols, and the Agency Clerk of the Board shall transmit a signed copy of this Resolution with an attached copy of the FCGMA Board-sanctioned LAFCO Ballot to the Ventura LAFCO Executive Officer.

On motion of Director Charlotte Craven and seconded by Chair Lynn Maulhardt, the foregoing Resolution was passed and adopted on this 23th day of June 2010 by the following vote.

AYES – 5
NOES - 0
ABSTAINS – 0
ABSENT – 0

Chair Lynn Maulhardt, Board of Directors
Fox Canyon Groundwater Management Agency

ATTEST: I hereby certify that all required protocols and chain-of-custody procedures involving handling and processing of the LAFCO Ballot were proper and unbroken.

By: _____
Jeff Pratt, FCGMA Executive Officer

ATTEST: I hereby certify that the above is a true and correct copy of Resolution No. 2010-05.

By: _____
Miranda Nobriga, FCGMA Clerk of the Board

OFFICIAL BALLOT

INDEPENDENT SPECIAL DISTRICT SELECTION COMMITTEE
Ventura LAFCO Regular Member & Alternate Member

Fox Canyon Groundwater Management Agency

For those LAFCos that have representation from independent special districts, Section 56325(c) of the California Government Code provides for the selection of special district members by the Independent Special District Selection Committee. The Committee, which shall consist of the presiding officer of the legislative body of each independent special district, "is encouraged to make selections that fairly represent the diversity of the independent special districts in the county, with respect to population and geography."

This is the official ballot for the Independent Special District Selection Committee to determine the following three (3) matters:

1. Elect one regular special district member to the Ventura LAFCo for an unexpired term that began January 1, 2009 and ends January 1, 2013;
2. Elect one alternate special district member to the Ventura LAFCo for a term beginning January 1, 2011 and ending January 1, 2015; and
3. Determine whether or not to amend the current *Rules and Regulations* of the Ventura County Independent Special District Selection Committee allowing the LAFCo special district alternate member to complete the term of a regular special district member in the event that a regular special district member fails to complete a term of office.

VIA CERTIFIED MAIL, PLEASE RETURN THIS SIGNED BALLOT, AND A SIGNED COPY OF A BOARD RESOLUTION REPRESENTING THE VOTE OF YOUR DISTRICT to the Ventura LAFCo 800 S. Victoria Avenue, Ventura, CA 93009-1850. All Ballots MUST be accompanied by a signed board resolution and be received by 5 P.M. Friday, June 25, 2010 in order to be considered.

As the President, Chair, or Presiding Officer, I duly certify that the Fox Canyon Groundwater Management Agency does hereby cast its ballot as follows:

1. REGULAR LAFCo SPECIAL DISTRICT MEMBER FOR AN UNEXPIRED TERM WHICH BEGAN JANUARY 1, 2009 AND ENDS JANUARY 1, 2013
(Vote for one)

☒ Elaine L. Freeman	Rancho Simi Recreation and Park District
☐ Manuel M. Lopez	Oxnard Harbor District
~~George M. Lange~~ (Withdrew Nomination)	Conejo Recreation and Park District

2. ALTERNATE LAFCo SPECIAL DISTRICT MEMBER FOR A TERM TO BEGIN JANUARY 1, 2011 AND END JANUARY 1, 2015
(Vote for one)

☒ Bruce E. Dandy	United Water Conservation District
☐ Al E. Fox	Camrosa Water District
☐ George Galgas	Ojai Valley Sanitary District
☐ Susan Paxton Koesterer	Channel Islands Beach Community Services District
☐ George M. Lange	Conejo Recreation and Park District

3. AMENDMENT TO THE RULES AND REGULATIONS OF THE VENTURA COUNTY INDEPENDENT SPECIAL DISTRICT SELECTION COMMITTEE

(Vote Yes or No)

Should the "Vacancies" Section of the rules and regulations of the Ventura County Independent Special District Selection Committee be amended to delete the following provision: "If a voting [special district] commissioner fails to complete the term of office, the alternate [special district] commissioner shall move in the voting commissioner's position and complete that term of office."

☒ Yes
☐ No

Lynn E. Maulhardt
Board President/Chair (Print name)

Board President/Chair (Signature)

6/23/10
Date

Resolution 2010-06
of the
Fox Canyon Groundwater Management Agency

A RESOLUTION ADOPTING GROUNDWATER SUPPLY ENHANCEMENT ASSISTANCE PROGRAM (GSEAP) CRITERIA

WHEREAS, the Fox Canyon Groundwater Management Agency, established by the State Legislature in 1982, is charged with the preservation and management of groundwater resources within the areas or lands overlying the Fox Canyon aquifer for the common benefit of the public and all agricultural, municipal and industrial users;

WHEREAS, at the June 23, 2010 Board meeting, the Board adopted its Fiscal Year 2010-11 Workplan and Budget which established funding in the amount of $500,000 for the Groundwater Supply Enhancement Assistance Program (GSEAP);

WHEREAS, GSEAP was created to facilitate and assist local water agencies with funds to promote groundwater supply enhancement projects;

WHEREAS, the Agency intends to work cooperatively with local water agencies, identify specific project needs, and potentially fund a component of an eligible water project that promotes increased groundwater supply within the FCGMA;

WHEREAS, Agency's Enabling Legislation states that: *"The Agency shall not involve itself in activities normally and historically undertaken by its member agencies, such as the construction and operation of dams, spreading grounds, pipelines, flood control facilities, and water distribution facilities, or the wholesale and retail sale of water, but shall limit its activities to planning, managing, controlling, preserving, and regulating the extraction and use of groundwater within the territory of the Agency"*; thus, the Agency itself is precluded from actually building and/or operating water supply projects;

WHEREAS, the Agency can assist in the following General Category/Types of Projects**:** Plan Development, Studies, Research, Data Collection, Monitoring, Environmental Review/CEQA, Permitting, Design, Public Outreach; and

WHEREAS, the guidelines and criteria contained within this Resolution are intended to create a level playing field for project proponents, with equitable and consistent criteria applicable to all interested in applying.

NOW, THEREFORE, IT IS HEREBY RESOLVED AND ORDERED, that the Fox Canyon Groundwater Management Agency Board of Directors adopts the following regarding GSEAP:

Program Guidelines

1. Each Project be completed within four years, with a potential one year extension with Board approval;
2. Each Project be funded up to a maximum of $250,000 with $1 to $1 matching funds;

3. The total amount available for each Fiscal Year is $500,000 (subject to funding or revision by the Board each year); and
4. Applications are due November 30th of each year for funds available in the following fiscal year (July 1st).

Application Submittal

1. Name of Applicant and Project;
2. Total Cost of Project, and amount of any Matching Funds;
3. Project Schedule;
4. Project Tasks and Milestones;
5. Institutional Capacity, Resources, and Staffing for the Project;
6. How a Proposal/Project meets the FCGMA's GSEAP criteria;
7. CEQA Compliance (if applicable); and
8. Any specific requests by staff.

General GSEAP Eligibility and Ranking Criteria

1. Consistent with Agency's Goal of Achieving Safe Yield, GMA's Groundwater Management Plan, and Meeting the Basin Management Objectives
2. Enhanced Water Supply and Quality, and/or Water Conservation Focus
3. Region-wide/Integrated Water Resource Benefit
4. Geographic Nexus to a Critical Overdrafted Area
5. Leveraging Value of Funds
6. Institutional Stability and Capacity to Complete Project

On motion of Director Craven, and seconded by Director Bennett, the foregoing Resolution was passed and adopted on this 22nd day of September 2010.

Lynn E. 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 No. 2010-06.

By: Miranda Nobriga
Miranda Nobriga, Clerk of the Board

Resolution 2010-07
of the
Fox Canyon Groundwater Management Agency

A RESOLUTION ADOPTING TIERED GROUNDWATER EXTRACTION SURCHARGE RATES

WHEREAS, the mission of the Fox Canyon Groundwater Management Agency (Agency) includes the protection and preservation of groundwater resources within the boundary of the Agency; and

WHEREAS, the Agency is charged with bringing the groundwater basins within its jurisdiction into safe yield; and

WHEREAS, the Agency is authorized to establish an extraction allocation for each groundwater extraction facility located within the Agency, and to impose extraction surcharges for extractions in excess of a facility's extraction allocation; and

WHEREAS, extraction surcharges are necessary to eliminate overdraft caused by excess pumping from the aquifer systems within the Agency and to bring the groundwater basins within the Agency to safe yield; and

WHEREAS, extraction surcharges are intended to discourage the use of groundwater beyond the extraction allocation and are not taxes, user charges or user fees; and

WHEREAS, the Agency is authorized to set the extraction surcharge rate at an amount that is necessary to achieve safe yield; and

WHEREAS, the Agency Ordinance Code provides that the extraction surcharge rate shall be based on: (1) the cost to import potable water from the Metropolitan Water District of Southern California (MWD), or other equivalent water sources that can or do provide non-native water with the Agency; and (2) the current groundwater conditions within the Agency; and

WHEREAS, Calleguas Municipal Water District (CMWD) is a member agency of MWD and is the largest purveyor of imported water within the Agency; and

WHEREAS, MWD's imported water supplies are being diminished due to ongoing drought conditions, competing claims for water from the Colorado River, and pumping restrictions in the Sacramento-San Joaquin Delta; and

WHEREAS, CMWD has set its Tier 2 supply rate at $1,105 per acre-foot which rate is equivalent to MWD's cost of developing additional supply; and

WHEREAS, the groundwater basins within the Agency continue to be in overdraft condition; and

WHEREAS, the existing groundwater surcharge rate is not sufficient to deter over pumping or excessive groundwater extractions when compared to the ability an operator or well owner has to purchase alternative retail or imported water, or to treat otherwise unusable water; and

WHEREAS, certain operators continually exceed their extraction allocation by over two-hundred percent; and

WHEREAS, an economic disincentive is deemed the best means to discourage over over pumping of groundwater and a single tier surcharge rate has not been effective with respect to those operators who greatly exceed their extraction allocation; and

WHEREAS, the Agency Ordinance Code provides for setting groundwater extraction surcharge rates by Resolution and provides that such rates may be tiered; and

WHEREAS, this Resolution is exempt from the provisions of the California Environmental Quality Act as an action taken to assure the maintenance, restoration, or enhancement of a natural resource and the environment.

NOW, THEREFORE, IT IS HEREBY RESOLVED AND ORDERED THAT:

1. The Board of Directors hereby finds and determines that the foregoing recitals are true and correct and are incorporated herein.

2. Tiered Surcharge Rates are hereby established as follows:

   Tier I: A surcharge rate of $1,105.00 per acre-ft shall be imposed on all groundwater extractions that exceed the combined allocation for all water wells within the Agency by 25 acre-feet or less.

   Tier II: An additional surcharge of $250.00 per acre-foot shall be imposed on all groundwater extractions that exceed the combined allocation for all water wells within the Agency by more than 25 acre-feet but less than 100 acre-feet.

   Tier III: An additional surcharge of $500.00 per acre-foot shall be imposed on all groundwater extractions that exceed the combined allocation for all water wells within the Agency by 100 acre-feet or more.

3. These groundwater extraction Tiered Surcharge Rates shall become effective on January 1, 2011 and will remain in force until changed by the Agency's Board of Directors, or by a change to the Agency's Ordinance Code.

On a motion by Director Craven and seconded by Director Kelley, the foregoing Resolution was duly passed and adopted by the Board of Directors at a regularly scheduled meeting of the Board held on this 1st day of December 2010 in Ventura, California.

Lynn E. 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 No. 2010-07.

By: _____
Miranda Nobriga, Clerk of the Board

Resolution 2010-08
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 1,333 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. 2010-01.

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 AF for use by the City (1,000 AF annually from 2012 through 2019) and 200 AF in 2010 and 158 AF annually thereafter by UWCD for on-site uses including site operations (i.e. irrigation of landscape, dust control, etc.) and existing and future commitments to its agricultural tenant(s). Under this program, no more than 5,700 AF of groundwater shall be extracted in 2010, 5,658 AF in 2011, 1,158 annually from 2012 through 2019, and 158 annually thereafter 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 1,333 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.

13. UWCD shall make reasonable efforts to protect on-site future artificial recharge areas (reclaimed gravel pits) against potential water quality impacts that may result from the agricultural operations. UWCD will comply with the Los Angeles Regional Water Quality Control Board (LARWQCB) Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands (Ag Waiver). UWCD will take reasonable measures to prevent surface and subsurface discharge of irrigation water into the gravel pits and protect future recharge opportunities. UWCD will take reasonable measures, including, but not limited to standard agriculture best management practices and monitoring, to prevent nutrient and pesticide loading into groundwater.

On motion by Director Craven, seconded by Director Kelley, the foregoing resolution was passed and adopted on this 27th day of October, 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 No. 2010-08.

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 2010-08 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.

Attachment No. 2 – Extraction Facilities Associated with Resolution No. 2010-01