FINAL REPORT

2011 WATER RATE STUDY

ADOPTED BY THE BOARD OF DIRECTORS OF UNITED WATER CONSERVATION DISTRICT ON MAY 18, 2011

PREPARED BY:

UNITED WATER CONSERVATION DISTRICT

RESOURCE PLANNING AND FINANCE DEPARTMENTS

MAY 18, 2011

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INTRODUCTION

Since its formation in the 1950s, United Water Conservation District has developed a complex suite of water rates and charges to fund its various operations. United's operations encompass a wide range of activities, with benefits that vary among different constituents. For that reason, several separate "funds" have been created. The purpose of those funds is to ensure that water users who directly or indirectly benefit from United's operations pay a fair share of the costs. The use and disposition of those funds has evolved as United's operations have changed over the years. United's adopted rates must also satisfy a variety of legal and regulatory criteria that have arisen over the years as a result of laws, contracts, and legal settlements.

United's Board of Directors expressed an interest in reviewing United's current rate structure, to make any changes required to more effectively accomplish United's mission. In 2009, the District began a rate review process, including policy discussions by the Board and public hearings. As a culmination of that effort, this *Rate Study* report is intended to support and document the Board's policy findings.

The ultimate goal for this *Rate Study* is to serve as a comprehensive document, and to provide a future reference source for setting policies, educating constituents, and training staff. A considerable amount of historical material is available that explains how and why United's rate structure has been developed. To allow a rate policy review by the Board, this *Rate Study* is focused on the most important current issues that the Board may want to consider when setting policy and rates for Fiscal Year 2011-12. These major issues are discussed in some detail, along with supporting information. This Rate Study may be updated in the future to incorporate new information as it is developed or becomes available.

When setting rates and zones it is necessary to understand which areas benefit the most from United's various activities. For that reason, summaries of the groundwater impacts and benefits of those activities are also provided in this report.

This Rate Study is presented in three parts:

Part 1	Written report
Part 2	Summary of public rate study workshops
Part 3	District policy guidelines

Part 1 is an informational document that provides background information and discusses the pros and cons of various viewpoints. Part 2 is simply a summary of two public hearings that were held on United's water rate structure. Part 3 is the culmination of the Rate Study process, and summarizes board policy guidelines that have been established by the Board based on this

process. Those policy guidelines are intended only to provide guidance for future board decisions and may be revised or overruled by future board actions.

One of the challenges with this report is that it is a living document, subject to changes that have occurred concurrently with the completion of this report. Its completion coincides with the preparation of the FY 2011-12 budget, and there may be some minor inconsistencies between the two, depending on the final budget that is adopted within a few months.

List of Major Issues

The major policy-related issues covered within this Rate Study are listed below:

1) Should any changes be made to the way the District's existing funds pay for services and activities?

2) Should the current ratio of 3:1 for M&I to agricultural rates be changed to some other ratio within the legally allowed range of 3:1 to 5:1?

3) Should the District require the installation of water meters on all wells?

4) Should the current funding mechanism for the Saticoy Wellfield be changed?

5) How should master-planned projects and CIP's such as the purchase of the Ferro Basin, the Ferro-Rose Recharge Project, and a seawater intrusion barrier wellfield be funded?

6) How would United pay for a Santa Paula Basin Recharge Facility, if that is found to be feasible and useful?

7) What should happen to the Freeman Fund once the loans for the Freeman Diversion are paid off?

8) Should the existing Zone C within the City of Ventura be continued once the Freeman Diversion loans are paid off and our agreement with Ventura expires?

9) What should be the District's policy on increases in groundwater pumping or water diversions in the upstream basins?

10) How should United fund new facilities to convey water to the eastern/southern part of the Oxnard Plain?

11) Should a new Zone D be created in the eastern/southern Oxnard Plain?

12) Should the District provide funding for a share of the proposed Water TAP program, and how should such funding be raised?

13) Should PTP, PVCWD and/or Ocean View pipeline deliveries to agriculture be partially subsidized through a new Zone D or by any of United's other funds?

14) Should the District waive the in-lieu pump charges for agricultural deliveries of surface water?

15) Should a peaking surcharge be added to the PTP rates to discourage peaking by PTP customers and to fund facilities that would accommodate such peak demands? (Note: This has already been implemented.)

16) How should the cost of importing additional State Project water to recharge groundwater be funded?

17) Should the cost of importing additional State Project water be partially funded by customers of Calleguas MWD?

18) How should the cost of the Alternative Water Resource Management (AWRM) program, a joint project with L.A. County Sanitation District, be funded?

19) Should the District institute a program of regular annual rate increases, to prevent large increases after years of steady rates?

These issues, along with supporting information, are discussed in this Rate Study report. Public hearings were held in 2009 to receive input from United's constituents. Based on that input, United's Board and committees have met to establish relevant policy, which has been incorporated into this report.

Background Information

The District was formed under the State of California's *Water Conservation District Law of 1931,* and is organized as a governmental special district. It must conform to several sections of the California Water Code that relate to the authorization to levy groundwater fees.

Annual Groundwater Hearings

Every year, United's Board of Directors establishes groundwater zones, charges and fees at a public hearing held at its regular June meeting. Several notices are issued prior to the hearing, and input is requested from the public throughout the process. An annual report on groundwater conditions is made available for public review. The Board normally approves the District's annual budget at the same meeting in June.

A Proposition 218 process could be implemented that would allow the District to implement regular rate increases over a multiple year period. However, even if that were done the District would still need to hold its annual groundwater hearings.

RATE STUDY HEARINGS

Two public hearings were held to discuss United's water rates: one on September 2, 2009, in Oxnard and a second on October 7, 2009, in Fillmore. A summary of those meetings is provided in Part 2 of this report.

HOW TO USE THIS REPORT

This report provides information and discusses several controversial issues. To encourage dialogue, arguments are presented on both sides of those issues. In most cases, there is no clearly right or wrong viewpoint. In principle, United's Board of Directors may establish policies that they believe will best serve United's customers.

PART 1 – BACKGROUND REPORT

SECTION 1 – EXISTING FUNDS AND RATES

BACKGROUND INFORMATION

UWCD's activities are funded by a mixture of property taxes, pump charges, and water delivery fees. The District utilizes "fund accounting" to separately track certain activities. The separate funds are categorized as general, special revenue, and enterprise funds.

The District is a not-for-profit government agency with an elected Board of Directors. Hence, any revenue collected in one year that is not spent for designated purposes is carried forward to fund expenditures in future years.

EXISTING ZONES

The District currently has three groundwater finance zones – A, B, and C, as shown on the map in Figure 1-1. Zone A is District-wide, including the Oxnard Plain.

Zone B comprises those areas south of the Santa Clara River north bank which include the Oxnard Plain Basin, Oxnard Forebay Basin, Pleasant Valley Basin, and a portion of the West Las Posas Basin. Zone B and Zone C were established to pay for the Freeman Diversion. Zone B is the result of the settlement of a lawsuit filed by Newton H. Kellman and Arboleda Corporation against the District, which contended that groundwater extraction fees were illegal because they are a special tax which was not approved by qualified voters. The District agreed that expenses for District-wide activities would be charged to all groundwater users and expenses specifically related to the Freeman Diversion would only be charged to groundwater users in the Oxnard Plain.

Zone C comprises those areas north of the north bank of the Santa Clara River within the Oxnard Plain Basin and Oxnard Forebay Basin. Zone C is the result of the settlement of a lawsuit filed by the City of Ventura against the District whereby the District agreed to establish a Freeman Fund pump charge for the City, north of the Santa Clara River, that is less than or equal to the agricultural pump charge in Zone B, south of the river. It is important to note that this agreement terminates when the Federal Bureau of Reclamation loan for the Freeman Diversion is paid in full in April 2011. Further discussion of Zone C is provided in a later section.

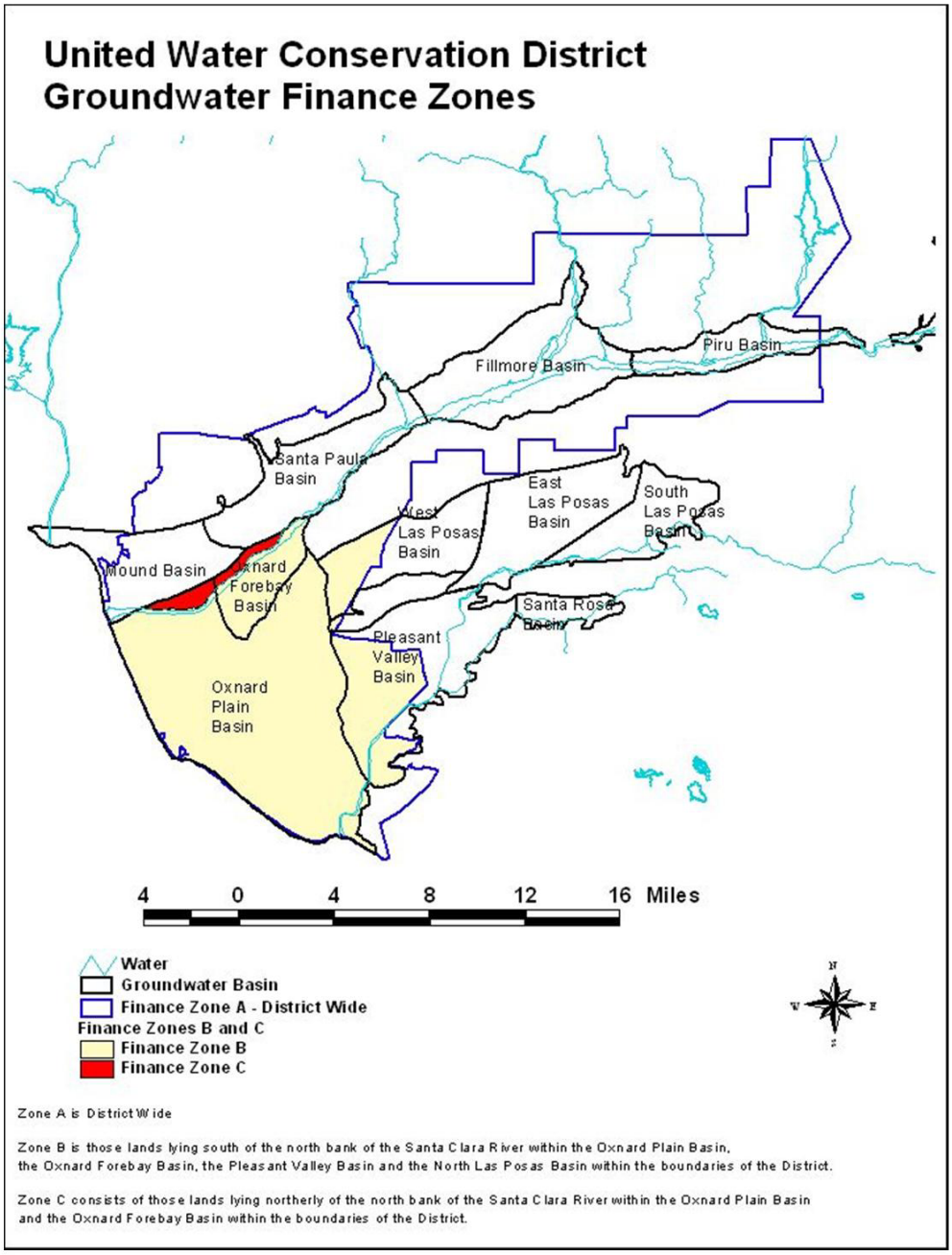

Figure 1-1
Map of United's Zones A, B and C. Zone A is District-wide.
Zones B and C pay for the Freeman Diversion

General Fund

The District's General fund pays for activities, facilities and operations that benefit, or are done on behalf of, all customers within United's service area. A core principle behind the General Fund is that every pumper within the District affects or is affected by every other pumper to some degree. For example, upstream pumpers use groundwater that would otherwise migrate downstream for the benefit of downstream pumpers. Examples of General Fund activities are the following:

- Santa Felicia Dam operation and maintenance
- Implementing all requirements of the renewed Federal Energy Regulatory Commission (FERC) license for Santa Felicia Dam, including numerous studies and plans.
- Costs associated with the Lake Piru recreation area.
- Operations and maintenance of the hydroplant at Santa Felicia Dam, including receipt of revenue from power sales to Southern California Edison.
- Operation and maintenance of Saticoy canals downstream of the Freeman Diversion Desilting Basin.
- Purchase of polymer for the Freeman flocc building, which reduces plugging in the Saticoy and El Rio spreading grounds.
- Operation and maintenance of all spreading ponds, groundwater recharge facilities, and associated pipelines and canals that recharge groundwater in Piru, El Rio, and Saticoy.
- Operation and maintenance of the surface water pipeline in Rose Avenue between Central Avenue and the El Rio spreading grounds. (The other reaches of that pipeline are funded from the PV Pipeline and PTP funds.)
- Operation and maintenance of the Piru Diversion and any future construction of a fish screen there.
- Purchase of land for new recharge basins in any part of the District; for example, the 1995 purchase of the Noble Basin in Saticoy and the 2009 purchase of the Ferro Basin.
- Debt service on bonds for General Fund projects.
- Debt service on the $250,000 bonds used to construct the Saticoy Wellfield.
- Water quality monitoring and testing of surface and groundwater within the District.
- Most activities of United's Groundwater Department, including District-wide monitoring and modeling.

- The activities of United's Engineering Department and other departments, for work on projects funded by the General Fund.
- Studies of environmental issues of District-wide importance, such as steelhead and arroyo toads.
- Preparation of a District-wide Section 10 Habitat Conservation Plan to comply with the Endangered Species Act.
- Any activities of the RWQCB's Ag Waiver program that are funded by United Water. (United's ongoing participation in this program is expected to be minimal.)
- The activities of the District's limited water conservation/education outreach program: providing information to irrigators and schools; conducting tours; and attending events such as science fairs, earth day, and "steelhead days" in Santa Barbara. These activities are expected to increase due to recent state laws on water conservation.
- District-wide public relations activities, including brochures, public relations consultants, press releases, newspaper inserts, and attendance at meetings.
- The cost of most lawsuits by or against the District. Examples include:

  CalTrout's lawsuit on Freeman Diversion fish passage

  Lawsuit over damages from the Piru fire

  Lawsuits over accidental drownings in Lake Piru
- Temporary loans to other funds during emergency conditions or due to special circumstances. (The General Fund reserves are the largest in the District.)
- A share of the cost of District field offices and yard facilities.
- A share of the Overhead Fund expenses.

The historical reasoning for the General Fund to pay for the above expenses is that these activities benefit, or are done on behalf of, the entire District and its constituents.

General Fund charges are collected in Zone A – comprising the entire District – as previously discussed. The General Fund accounts for all District financial resources that are not required to be accounted for in another fund, whether by law, administrative action, or Generally Accepted Accounting Principles (GAAP). The main sources of General Fund revenue in FY 2009-10 were property taxes – 27%, and surface water and groundwater charges – 67%. The remaining 7% of revenue sources are interest/investment income and some miscellaneous revenue sources such as the hydroplant at Santa Felicia Dam, when it is operational.

Pumpers on the Oxnard Plain pay for about 51% of the General Fund pump charge revenues.

The General Fund serves as the "bank" for some other District operations. For example, the expenses of operating the Saticoy Wellfield are paid from the General Fund. Reimbursement for those expenses is received via the Saticoy Wellfield pump charges paid by the PV and PTP customers. In the end, the General Fund is reimbursed by budget transfers from the other funds as appropriate.

There are pumpers outside of United's service area that affect the groundwater supply within United: for example, in Los Angeles County, Sisar Canyon, and the Las Posas Valley. To some extent, United keeps track of groundwater use in those areas and how it may affect United's constituents. However, United is not able to collect pump charges from pumpers outside its service area.

Enterprise Funds

The District has four enterprise funds, the Freeman Diversion Fund, Oxnard Hueneme Pipeline Fund, Pleasant Valley Pipeline Fund, and Pumping Trough Pipeline Fund. Each enterprise fund is operated similar to a private business. All expenses directly related to each enterprise fund are charged directly to that fund and are the basis for how rates are determined. Those expenses include direct operations and maintenance, capital costs, and personnel costs. For example, District employees fill out time cards to allocate their time between the various projects and funds, including the General Fund. Each enterprise fund has its own water delivery rates and fund balance, including a recommended fund reserve that should be maintained.

Freeman Fund

The Freeman Diversion Fund was originally established to develop and construct the Freeman Diversion Dam and associated facilities on the Santa Clara River. This was accomplished through the creation of Zones B and C as previously described. This fund is used to pay for operation and maintenance expenses of the diversion plus the debt service on the loans used to pay for its construction. This fund has also been used to pay for any improvements to the diversion including those that may be required for Endangered Species Act compliance.

The Freeman Fund pays for the following activities:

- The loans for the Freeman Diversion (Paid off in April 2011).
- Operation and maintenance of the Freeman Diversion from the dam to the Freeman Desilting Basin. (Operations and maintenance of the canal and other facilities downstream from the exit gate to the desilting basin are paid from the General Fund.)
- Operation of the Freeman flocculation building, but not including the purchase of polymer.

- Operations and maintenance of the fish passage facilities at the Freeman Diversion.
- Studies done of fish and other aquatic issues that are focused on the Freeman Diversion and its effects.
- The section 7 consultation for the Freeman Diversion, to comply with the Endangered Species Act, and associated studies (now completed).
- Water quality testing done to monitor the water diverted at the Freeman Diversion.
- A share of the cost of District field offices and yard facilities.
- A share of the Overhead Fund expenses.

OXNARD-HUENEME FUND

Water is delivered to the OH customers in accordance with a water supply agreement, *Water Supply Agreement for Delivery of Water Through the Oxnard/Hueneme Pipeline*. That agreement expires on June 30, 2036, and will be subject to renewal at that time.

The Oxnard Hueneme Pipeline Fund pays for all construction, operation and maintenance expenses of facilities used to deliver potable water to United's OH contractors under the terms of our OH Agreement. The following items are paid by the OH Pipeline customers:

- The operations and maintenance of OH System facilities, including 9 shallow aquifer wells at the El Rio Wellfield; the three deep aquifer wells along Rose Avenue; the two OH booster pump stations – one electric and the other powered by natural gas; the OH chloramination facility; two 8 million gallon reservoirs with plastic liners and floating covers; and various pipelines and appurtenances.
- Construction of new facilities and improvements required for the OH System.
- Debt service on construction bonds for OH System projects.
- Water quality monitoring and testing required by the Department of Public Health. (United does testing beyond the minimum requirements.)
- General Fund and Freeman Fund pump charges for water pumped from the OH wells.
- A well replacement charge to fund future OH replacement wells.

- Fox Canyon GMA pump charges for all water pumped from OH wells, which is 100% groundwater. (This is a pass-through cost.)

- A share of the cost of District field offices and yard facilities.

- A share of the Overhead Fund expenses.

It should be noted that the construction of OH Well Nos. 12, 13 and 14 was paid from a special assessment district created when the PTP System was constructed. The OH Fund did not pay for the original capital cost of those three wells.

The City of Oxnard, Port Hueneme Water Agency, and Cypress Mutual Water Company have a contractual right under the terms of the OH Agreement to withdraw from the OH Agreement on June 30, 2016.

PTP FUND

Water is delivered to PTP customers in accordance with agreements with each customer. The terms of those agreements are somewhat limited in scope. Most customers signed agreements when the PTP System was first implemented. Agreements with newer customers since then have varied somewhat over the years. The guiding philosophy behind connecting new customers has been that there are groundwater resource benefits to delivering as much water as possible through the PTP System – surface water deliveries reduce groundwater pumping in a critical part of the aquifer. In addition, the PTP System was originally designed to supply 12,000 AF/Yr, but has averaged less than that; in theory there should be reserve capacity to supply new customers.

The Pumping Trough Pipeline Fund accounts for all operation and maintenance expenses of the PTP System plus 50% of the cost of the moss screen facility. The water delivery rates historically have been determined by those expenses and are charged to the PTP customers who directly benefit from its water deliveries. The following items are funded by the PTP customers:

- Operations and maintenance of PTP facilities, including five wells, one 8 MG reservoir with a plastic liner and floating cover, a booster pump station, a hypochlorination station, and several miles of pipelines and appurtenances.

- 50% of the Pleasant Valley pipeline operations and maintenance costs between the Moss Screen and the PTP turnout; 50% of the costs of the TID (Total Irrigation Demand) meter south of Rose and Central Avenues.

- Construction of facilities and improvements for the PTP System.

- Half the cost of operations, maintenance and construction of any improvements to the Saticoy Moss Screen Facility.

- Payment of General Fund and Freeman Fund pump charges for water pumped from the PTP wells.

- An "in-lieu" pump charge – equivalent to the sum of the General Fund and Freeman Fund pump charges – for surface water delivered to the PTP System. (Note that the General and Freeman fund pump charges are paid for all water currently received by PTP customers – as a direct charge for *ground* water received and as an in-lieu charge for *surface* water received.)

- Payment for Saticoy Wellfield operations costs in proportion to water received.

- Energy cost of pumping from OH Well Nos. 12 and 13 into the PTP System during dry periods, in proportion to the water received from those wells.

- Fox Canyon GMA pump charges for all water pumped from PTP wells, or from supplemental wells. There is no in-lieu GMA pump charge for surface water.

- Water quality testing of PTP water.

- A share of the cost of District field offices and yard facilities.

- A share of the Overhead Fund expenses.

The construction of the PTP System was originally funded by property taxes within a special assessment district on the Oxnard plain. That assessment district has been retired.

It was originally intended for the PTP System to handle Fox Canyon Groundwater Management Agency (GMA) credits as follows: Each customer is notified on his monthly bills how much of the water he received was from surface water and how much was from groundwater. Each customer should then be responsible for reporting to the GMA every six months how much groundwater he used from the PTP system, plus whatever groundwater he pumped from his own wells. The customer would be responsible for staying within his GMA reduced allocation, or satisfying the GMA's irrigation efficiency standards. In that way, the PTP System would not need any GMA allocation for water pumped from the PTP wells or any supplemental wells. Instead, each customer would treat the groundwater he receives as if he pumped it himself.

Unfortunately, the process described above did not work within the administrative processes of the GMA. After 25 years of operating the PTP System, United and the GMA are still trying to work out a way to deal with GMA credits for that system. A resolution of this issue is beyond the scope of this Rate Study.

During dry periods, when there is little surface water in the Santa Clara River, OH Well Nos. 12 and 13 are sometimes pumped into the surface water pipeline at Rose and Central Avenues. The "gooseneck" near Rose and Central is a visible feature that prevents backwards contamination of raw surface water into the OH System. The wells' water and power meters are read at the beginning and end of those periods. The power cost of running the wells for that time are charged against the PTP and PVCWD systems in proportion to their use of that water. The PTP System also pays the General and Freeman fund pump charges for that water, as well as the pass-through GMA pump charge. No other charges to the PTP or PV funds are made for running those wells. The approximate energy cost of running those three OH wells for four months in 2004 was $73 per acre-foot. Although that cost may seem relatively high, the wells provide supplemental water when it is most needed.

It was originally intended that when OH Well Nos. 12 and 13 are pumped into the PTP System, the GMA credits for those amounts would be reported in the same way as for the PTP wells: the amounts of groundwater pumped would be included in the monthly water bills, and each PTP customer would be responsible for reporting that usage to the GMA. The important point is that pumping Wells 12 and 13 to agriculture should not reduce the GMA credit balance for the OH System. However, that approach did not work within the GMA's administrative process and United is currently working with GMA staff to develop a resolution of GMA credits for the PTP system. (Beyond the scope of this Rate Study.)

PLEASANT VALLEY PIPELINE FUND

In 1995, PVCWD executed a 35 year contract with United entitled *Water Delivery Contract Between United Water Conservation District and Pleasant Valley County Water District*. The contract entitles PVCWD to receive 12.22% of the surface water diverted at the Freeman Diversion as surface water deliveries, as a supplemental water supply. In consideration of the benefits of reducing pumping in the Pleasant Valley area, United has not set any limits on deliveries to PVCWD, and has attempted to deliver as much water to them as reasonably available, subject to the water needs of other customers. The amount delivered normally exceeds the contractual minimum, except during very wet periods when PVCWD cannot use 12.22% of the diverted amount.

The Pleasant Valley Pipeline Fund pays for a share of the operation and maintenance expenses of the PV pipeline plus 50% of the moss screen facility. The water delivery rates to PVCWD have historically have been determined by the expenses of operating the pipeline and related facilities. Through its PV Pipeline Fund rates, PVCWD and its customers pay for the following activities:

- The operation and maintenance of Pleasant Valley Pipeline facilities, including the following: 50% of the PV pipeline from the Saticoy Moss Screen Facility to the PTP branch near Central Avenue and Highway 101, 50% of the TID (Total

Irrigation Demand) meter at the intersection of Rose and Central Avenue, 50% of the head control valve in Rose Avenue just south of Central Avenue, 100% of the pipeline from the PTP branch to the PV reservoirs, a valve vault near Central Avenue and Highway 101, a buried meter vault at a Texaco Station near Las Posas Road, and two earthen reservoirs at PVCWD's headquarters on Las Posas Road.

- Half of the cost of operations, maintenance and construction of any improvements to the Saticoy Moss Screen Facility.

- The construction of new facilities required as part of the PV pipeline system. As an example, the construction of the second Pleasant Valley Reservoir in 1999 was paid from the PV Pipeline Fund.

- Debt service on loans or bonds for construction projects for the PV System.

- An "in-lieu" pump charge – equivalent to the sum of the General Fund and Freeman Fund pump charges – for surface water delivered to PVCWD and its customers. (Note that the General and Freeman fund pump charges are paid for all water received by PV Pipeline customers, as a direct charge for any groundwater received including the Saticoy Wellfield [typically a small amount] and as an in-lieu charge for surface water received.)

- Any Saticoy Wellfield operations costs in proportion to water received.

- Payment of the GMA pump charge for any well water received – from the Saticoy Wellfield or from OH Well Nos. 12 and 13.

- Energy cost of pumping from OH Wells Nos. 12 and 13 during dry periods, in proportion to the water received from those wells. This cost is charged directly to the PV Pipeline fund and is not itemized on the customers' bills. Therefore, these energy costs are paid through the PV Pipeline rate.

- Weed clearing activities by United Water staff at the site of the PV reservoirs. (Weed clearing done by PVCWD staff is not charged to the fund, and is funded directly by PVCWD.)

- A share of field offices and yard facilities.

- A share of the Overhead Fund expenses.

As previously discussed for the PTP System, the PV System pays for the energy costs of pumping OH Well Nos. 12 and 13 when those wells are used in dry periods to supplement limited surface water supplies. The approximate energy cost of running those OH wells for four

months in 2004 was $73 per acre-foot. Afterwards, an equal amount of GMA credits are transferred from PVCWD to the OH System so that the OH customers do not lose any of their credits for pumping water to agriculture. PVCWD also pays for the General and Freeman fund pump charges for that water, as well as the pass-through GMA pump charge.

It should be noted that there is no "in-lieu" GMA pump charge on the Oxnard Plain. GMA pump charges apply only to water pumped from wells, and not to surface water.

The water delivered to PVCWD is not disinfected, at their request.

In addition to PVCWD, there are four irrigation customers who have turnouts on the PV Pipeline, who are outside the boundaries of PVCWD. United bills them directly for their water use at the PV Pipeline rate, plus the cost of any water delivered to them from OH Wells Nos. 12 and 13. Due to their location along the pipeline and the lack of backup wells for that reach, the PV Pipeline provides only a supplemental supply for those customers.

State Water Import Fund

The District has one Special Revenue Fund, the State Water Import Fund. This fund is used to pay for all expenditures directly related to the District's annual State Water Project 'Table A' allocation and is funded through a special property tax assessment. No revenue for that fund is derived from either pump charges or pipeline deliveries.

The property tax assessment for State Water is distributed among all properties within United except for the City of Oxnard. Oxnard was excluded because they are receiving State Water directly from Calleguas MWD. The assessment pays for the 'fixed cost' of the full 5,000 AF per year of United's Table A allocation, which are paid whether or not any of the water is received; plus the variable costs for up to 3,150 AF/Yr in years when it is imported. Port Hueneme Water Agency leases 1,850 AF/Yr of United's State Water, which they receive via Calleguas MWD and Metropolitan Water District. Although PHWA pays for the variable costs of that water directly to United, the fixed costs for that water continue to be paid by the property tax assessment, which includes residents of Port Hueneme.

The State Water Import fund pays only for the direct cost of importing State Project water, such as paying invoices from Casitas MWD or DWR. It does not pay for United's personnel costs related to this fund. For example, when United's staff orders State water each year, their time and related expenses are charged to the Overhead Fund.

Overhead Fund

The District's Overhead Fund is used to account for administrative costs such as salaries of office personnel and expenses of the Santa Paula headquarters office. Specific operating funds of the District incur a pro-rata share of the administrative costs calculated by an allocation

method approved by the Board of Directors and United's customers. That share is published within the District's annual budget each year.

The Overhead Fund costs are allocated among the District's funds based on a formula that includes the following variables: total number of billings, total labor hours, total number of payments made, and revenue. Based on that formula, the District's funds are budgeted to share the Overhead Fund costs in FY 2009-10 as follows:

Table 1-1

Distribution of Overhead Fund Costs in FY 2009-10

Fund	Budgeted Percent	Budgeted Amount
General Fund	50.1%	$1,101,849
Freeman Fund	15.7%	$344,355
OH Pipeline Fund	18.3%	$402,590
PV Pipeline Fund	4.4%	$96,472
PTP Pipeline Fund	11.5%	$252,279
TOTAL	**100%**	**$2,197,545**

Among other activities, the Overhead Fund pays for the following:

- Administrative costs of ordering water and managing United's contracts for the State Water Project. This does not include the purchase of that water, which is paid from the State Water Import Fund.

Since the recent changes at the Recreation Area went into effect, the Recreation Fund no longer contributes separately to the Overhead Fund, except as part of the General Fund.

CURRENT WATER RATES

For comparison, the adopted rates for FY 2010-2011 were as follows:

General Fund	$19.50 for agriculture $58.50 for M&I
Freeman Diversion	$18.00 per acre foot for agriculture $54.00 per acre foot for M&I
Saticoy Wellfield	$30.00 per AF for delivery charge $4.00 per AF for GMA pump charge

	$34.00 per AF total for Saticoy Wellfield
PV Pipeline	$35.00 per AF for operations and maintenance
	$18.00 per AF for in-lieu Freeman charge
	$19.50 per AF for in-lieu General fund pump charge
	$72.50 per AF total
PTP Pipeline	$125.00 per acre foot for operations and maintenance
	$18.00 per AF for in-lieu Freeman charge
	$19.50 per AF for in-lieu General fund pump charge
	$4.00 per AF for GMA pump charge
	$166.50 per AF total
OH Pipeline	$23,252 fixed cost per unit of peak capacity
	$155.50 per AF variable rate
	$80.85 per AF marginal rate
	$18.00 per AF for in-lieu Freeman charge
	$19.50 per AF for in-lieu General fund pump charge
	$4.00 per AF for GMA pump charge
	$14.08 per AF – Well replacement fund, (Paid on 75% of base allocation.)
	$304.00 per AF approximate overall unit rate
Supplemental M&I	$144.00 per AF – Calleguas MWD surcharge
Water Program	$12.00 per AF – United surcharge
(2009-10)	$156.00 per AF – Total for Calleguas customers
	$225.00 per AF – Calleguas MWD surcharge
	$12.00 per AF – United surcharge
	$237.00 per AF – Total for non-member agencies

The cost of water delivered to PVCWD is lower than the cost of water sold from the PTP System because the water delivered to PVCWD is mostly surface water, delivered without pumping. Deliveries to PVCWD are supplemental. The rates that PVCWD charges its customers are higher than the cost of surface water delivered to PVCWD by United. The current water rate in PVCWD is $110 per AF.

The overall cost per acre-foot for OH water depends on how much water is used. For general comparison, if Oxnard uses 75% of its suballocation, as is allowed by this year's (2010-11) GMA reductions, the overall cost for that water would be around $304 per AF.

No Payments for the Value of Water

Within the water rates established by United, there is no explicit amount added for the value of the water itself. Rates and charges are established to pay for facilities and operational costs to produce and deliver that water. The rates are determined solely by those costs. No additional cost is added to represent the "value" of the water.

Historical Water Rate Trends

To keep the District's current water rate trends in perspective, the District's historical water rates are summarized on the following figures. Trends in the General Fund pump charge are shown in Figure 1-2 below.

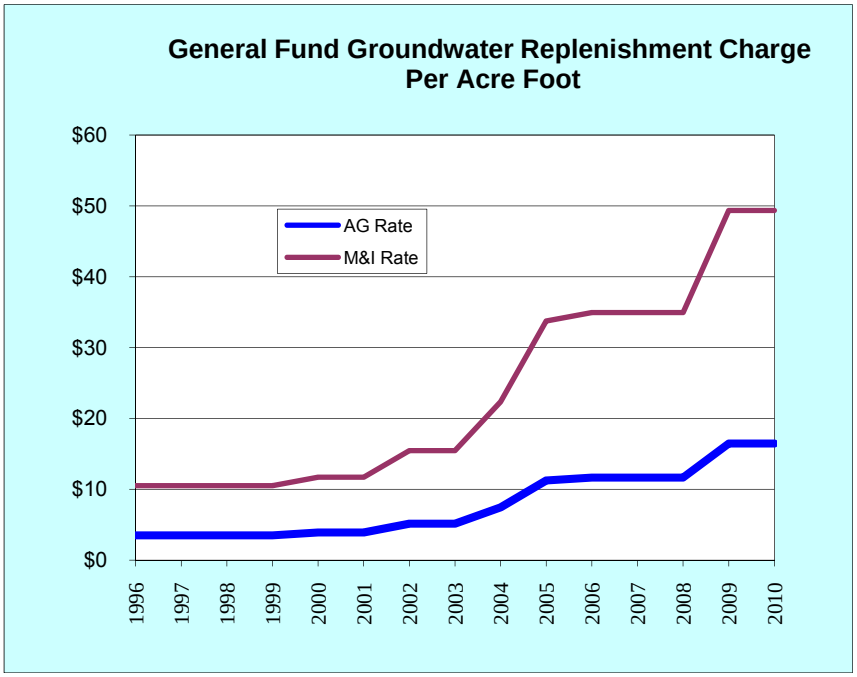

Figure 1-2
District-wide pump charge since 1996 (Zone A)

Trends in the Freeman Fund pump charge are shown in Figure 1-3. There has only been one increase in the rate in past 18 years, required primarily to address Federal fish issues.

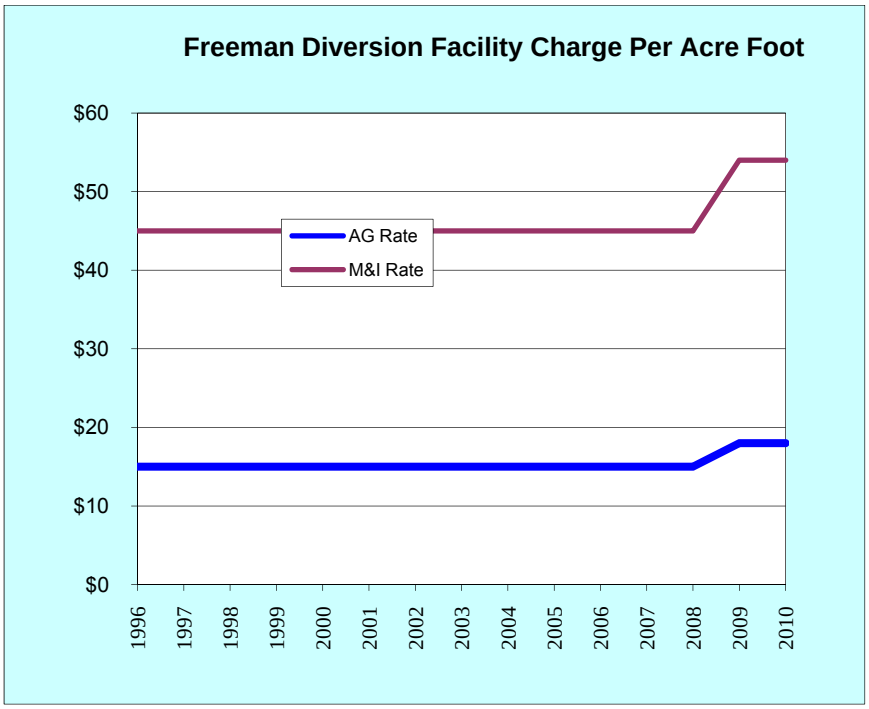

Figure 1-3

Trends in the Pleasant Valley pipeline rate since 1996 are shown in Figure 1-4.

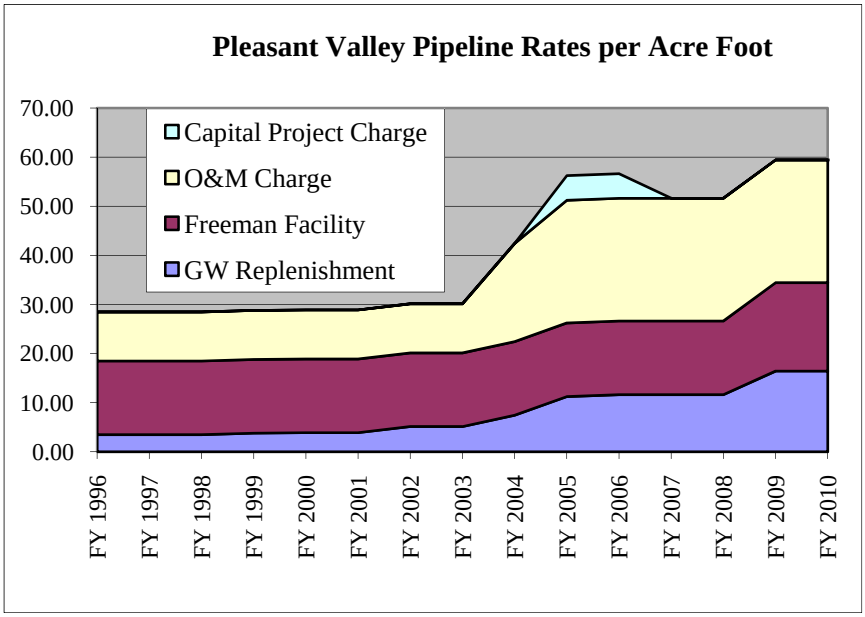

Figure 1-4

Trends in the PTP rate are shown in Figure 1-5 below.

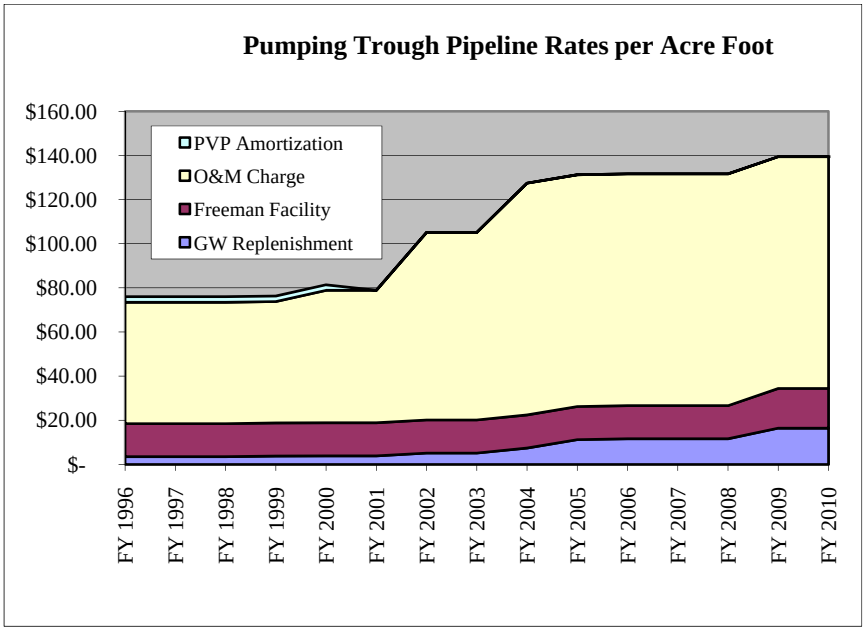

Figure 1-5

The increases in the PTP and PVCWD rates around 2004 were partly caused by the repairs to the Moss Screen Facility and by the conversion of the PTP gas-driven engines to electric motors.

WHY HAVE RATES INCREASED DISTRICT-WIDE?

During the last few years, the District has incurred increased costs due to environmental issues related to the Endangered Species Act, legal costs related to environmental issues, and compliance issues such as the costs associated with the Federal Energy Regulatory Commission (FERC) relicensing of the Santa Felicia Dam. We do not anticipate that these costs will decrease in the future, and the District will need to set its rates with these factors in mind.

A few specific examples of how regulatory issues have affected United's rates are summarized below:

1) We must now pay prevailing wages for all construction work, even for small projects.

2) Total costs for receiving and complying with our FERC license have been $1,846,000 through June 2009. There is no end in sight to the high costs for FERC compliance. Projected environmental compliance costs for FY 2011-12 are approximately $1.5 million, a large part for FERC license conditions.

3) New regulations by the Ventura County Air Pollution Control District (APCD) required the five PTP wells driven by natural gas engines to be converted to electric motors. (Note: After United complied with the new rules, they were rescinded, making United's timely compliance and investment unnecessary.)

4) Ten years of Section 7 consultation with the Federal government over endangered steelhead trout at the Freeman Diversion ended without receiving a permit.

5) Dealing with endangered species issues has required United to hire an environmental supervisor and two full-time biologists. More environmental and regulatory staff will undoubtedly be required.

Comparison with Rates of Other Agencies

An informal survey performed by John Dickenson found the following pump charges at other groundwater conservation agencies:

Table 1-2
2009 groundwater pump charges at other agencies

	Pump charge per AF	
	Agricultural pumping	**M&I pumping**
Orange County Water District	N/A	$249
Stockton East WD	$4.41	$4.41
Santa Clara Valley WD	$15.50	$255 or $475 (In 2 zones)
Main San Gabriel Basin	None	$130 to $270
Mojave Water Agency	$4.55	$4.55
San Diego Water Authority	$258	$258
Pajaro Valley WMA	$80	$80

Note that some agencies do not follow the requirement to maintain specific ratios of M&I to Ag pump charges. The survey responses indicate that some agencies may not be aware of that legal requirement or operate under different regulations that may be applicable.

The recent water rates charged by Calleguas MWD are relevant to some of our customers, as summarized on the table below:

Table 1-3
2009 Imported water rates in Ventura County

Agency	Tier 1	Tier 2
Metropolitan Water District	$579/AF	$695/AF
Calleguas Municipal Water District	$769/AF	$885/AF

Tier 1 rates are based on a formula with a 10-year rolling average of an agency's water demand. Tier 2 rates are for water usage in excess of what is allowed under Tier 1.

From a state-wide perspective, United's rates appear to be reasonable.

"KELLMAN" SETTLEMENT 1981

In deliberating on how to set pump charges in different zones, it is relevant to consider the Kellman lawsuit settlement of 1981.

At that time, some Santa Clara Valley pumpers brought suit against UWCD's new pump-charge, asserting it was a tax, which required a vote of the people. The plaintiffs' primary concern was for the then-proposed payment for the Seawater Intrusion Abatement Project, which included the Pumping Trough Pipeline and the Freeman Diversion improvements. The suit was settled "with prejudice to re-filing at a later date" provided that United acts in several prescribed manners. A summary of these actions are described below:

1. Paragraph 3 requires United to develop an annual budget which delineates expenditures which "confer benefits on a general District-wide basis." Allowable District-wide expenses are specified to include the operation and maintenance of Santa Felicia Dam; Piru, Saticoy and El Rio Spreading Grounds; and the then-existing Saticoy Diversion (replaced by the Freeman Diversion in 1991). It also allowed District-wide expenses to include general operation and administrative costs as well as any project evaluations, feasibility studies, EIR's and preliminary plans.

2. Paragraph 4 requires United to exhaust its ad valorem tax revenue prior to expending funds acquired from pump charges.

3. Paragraph 5 requires United to determine the benefit to "various areas of the district" of "any major new construction projects," and to levee pump-charges only in proportion to benefit.

4. Paragraph 6 requires United to set and maintain the OH, PV and Recreation budgets as self-sustaining enterprise funds.

The remainder of the settlement deals with issues that are no longer relevant.

Of particular importance today is the last sentence of Paragraph 10, in which the provisions of Paragraphs 3, 4 and 6 (discussed above) terminate. In accordance with the settlement agreement, those provisions expired on June 30, 1989. Accordingly, the only remaining operative principle in effect today is the requirement to levee pump-charges for major construction based upon zones of benefit. That, of course, is one of the issues that must be decided by the Board for each new construction project.

Overall, the Kellman settlement supports the concept of distributing charges among separate zones that directly benefit from funded projects.

JUSTIFICATION AND METHODS FOR DISTRIBUTING COSTS AMONG FUNDS

In order to establish equitable rates it is important to consider the benefits that result from the District's various activities. First, there are direct benefits to those who take and use water from District facilities, such as pipelines. Second, those who rely on groundwater pumping directly benefit from UWCD's recharge and groundwater management programs. These benefits accrue not only to the aquifer (or basin) in which a specific activity occurs, but also to neighboring aquifers and the entire District. Finally, there are real, if less-tangible, benefits resulting from UWCD's activities, including the regional benefits of a more secure water supply.

In setting its rate structure, the Board should consider the following approaches and perspectives:

"POSTAGE STAMP" APPROACH

The postage stamp approach is named after the U.S. Postal Service, which charges the same price for mailing a letter no matter where it is sent. Many water agencies adopt a similar approach to water pricing, since it is impossible to calculate exactly how much it costs to deliver water to every single customer, which may also change from day to day. Where feasible, a single unit cost per acre-foot is used for all customers.

The creation of United's General Fund was based on the postage stamp approach to water pricing. Justification for the postage stamp approach is provided by the hydrology of local groundwater. Anyone who pumps water affects someone else upstream or downstream. For example, several years ago a pumper in Santa Paula Canyon objected to paying the District's pump charge, since they don't directly benefit from United's recharge operation. But their pumping reduces the amount of groundwater that

is recharged downstream, requiring United to recharge the affected aquifers. Those pumpers still pay the pump charges to mitigate for the effects of their pumping.

Groundwater Perspective

From a groundwater perspective, United's service area can be divided into four regions: (1) The upstream riverbed basins – in Piru, Fillmore, and Santa Paula – are at or near balance, though the Santa Paula Basin is showing signs of stress. The major impact from upstream pumpers is that they deplete water that would otherwise flow downstream and recharge groundwater on the Oxnard Plain. (2) The Mound Basin in Ventura, which receives little benefit from United's recharge operations, in contrast to the other basins managed by United. (3) The western part of the Oxnard Plain, relatively easy to recharge from the Freeman Diversion. (4) The eastern/southern part of the Oxnard Plain, which is more difficult to recharge due to the slow eastward movement of groundwater recharged into the Oxnard Forebay.

How the groundwater basins function together can provide a rationale for setting pump charges in various zones, as is discussed later. Different interpretations of the performance of the aquifer system are possible, and should allow the Board some flexibility in setting zones and rates.

Adjudication Perspective

An inability to solve regional groundwater problems could result in adjudication of local groundwater basins. The potential outcome of an adjudication could guide the District's policy on how to distribute costs among customers.

One of the first steps in an adjudication process is for a judge to decide upon the area to be adjudicated. Although this process is unpredictable, the tendency is to start with a large area, and then impose area-specific remedies.

Based on low groundwater levels, it is possible that a judge would impose stricter pumping restrictions in the eastern/southern Oxnard Plain, where levels are the lowest. Since the aquifer is confined, there would be an immediate benefit from reduced pumping there. Since groundwater levels are higher in the west, pumping restrictions there could be less stringent. Since the water in the west is slowed in migrating to the east, pumping restrictions in the west would likely provide a less-than-immediate benefit to the eastern part of the aquifers.

It is unlikely that an adjudication process would limit pumping in the upstream basins, as evidenced by the adjudication process for the Santa Paula Basin, which did not affect pumping outside that area.

The likely outcome of adjudication supports the concept of different zones to fund problems that are unique to each area.

Tiered Pump Charges not Allowable

There has been some consideration as to whether tiered pump charges could be used to promote water use efficiency. However, that option appears to be precluded by the California Water Code. Section 75592 of the code requires the following of pump charges:

> The charge shall be computed at a fixed and **uniform** rate per acre-foot for agricultural water, and at a fixed and uniform rate per acre-foot for all water other than agricultural water. However, a different fixed and uniform rate per acre-foot may be used to compute the charge for all water other than agricultural water used for irrigation purposes on parks, golf courses, schools, cemeteries, and publicly owned historical sites. [Emphasis added.]

The requirement for a *uniform rate per acre-foot* may preclude the use of a tiered rate for groundwater pumping. Additional legal investigation would be required before considering tiered groundwater rates.

Recent Customer Payments

For reference, information on recent payments by United's top customers is presented below. United's ten largest customers in FY 2007-08 are summarized on the following table:

Table 1-4
United's Ten Largest Customers in FY 2007-08

Customer	Water Use (AF)	Revenues
City of Oxnard	19,137	$2,940,355
PHWA	4,950	$981,295
PVCWD	16,301	$651,550
City of Ventura	10,982	$481,107
City of Santa Paula	6,285	$197,806
Ca Dept. of Fish and Game	12,471	$145,286
Southland Sod Farms	4,772	$127,175
Farmers Irrigation Company	8,312	$96,840
Del Norte Water Company	2,792	$76,514
Sespe Agricultural Water	4,864	$56,661
TOTAL	**90,866**	**$5,754,589**

The payments listed in the above table include the General Fund pump charge, the Freeman Fund pump charge, and applicable water rates from the OH or PV systems.

In response to a request by the Board, information on recent deliveries to the City of Oxnard, as well as payments by Oxnard to United, are summarized in Table 1-5.

Table 1-5
CITY OF OXNARD
WATER DELIVERIES
FISCAL YEARS 2003-04 through 2007-08

Fiscal Year	Groundwater Acre-Feet Pumped	OH Pipeline Acre-Feet Delivered	Total Local Water Use (AF)	Total in-lieu Pump Charges & Pipeline O&M
2003-04	11,203	5,894	17,097	$ 1,860,965
2004-05	12,899	2,513	15,412	$ 1,556,375
2005-06	13,455	4,502	17,957	$ 2,612,219
2006-07	9,287	10,347	19,634	$ 3,285,748
2007-08	5,644	13,493	19,137	$ 2,940,355
TOTALS	**52,488**	**36,749**	**89,237**	**$ 12,255,662**

The above payments by Oxnard do not include the costs of the Supplemental M&I Water Program, which are passed through to Calleguas MWD. As can be seen from the table, Oxnard is United's top paying customer.

SECTION 2 – RATIO OF M&I TO AGRICULTURAL RATES

BACKGROUND

Section 75594 of the California Water Code requires that groundwater fees for M&I user be not less than three nor more than five times the rate charged to agricultural users. The relevant wording in the code is as follows:

> Except as provided in Section 75595, any ground water charge in any year shall be established at a fixed and uniform rate for each acre-foot for water other than agricultural water which is not less than three times nor more than five times the fixed and uniform rate established for agricultural water.

Note that the referenced Section 75595 deals with population and does not apply to Ventura County.

Municipal and Industrial use includes most urban uses for water, including all treated drinking water served by cities and mutual water companies. Industrial uses include water use associated with manufacturing, food and industrial process water, refineries, cooling towers, and other commercial uses. Landscape irrigation and the watering of golf courses, parks and athletic fields are considered municipal use. Water use from private domestic wells is also included in this classification.

Agricultural uses include all water used for the production of food and commercial crops. Common food crops include citrus, avocado, berries, tomatoes, a wide variety of fruits and vegetables, and watercress. Additional agricultural uses include nursery stock, cut flowers, and various grains for waterfowl forage, irrigated pasture, alfalfa, and sod production. Watering of livestock and aquaculture (fish stock) are additional agricultural water uses.

AVAILABLE OPTIONS

The District has never set its groundwater replenishment charges for M&I use higher than the 3:1 ratio. However, the District has the option, as a policy matter, to set the ratio to any value between 3:1 and 5:1, inclusive.

Another option would be to set a different ratio in different zones. For example, the ratio could be set at 5:1 in Zone B and 3:1 everywhere else.

EFFECTS OF CHANGING THE RATIO

Changing the ratio from 3:1 would increase rates for M&I pumpers and decrease rates for agricultural users.

To raise the same amount of revenue as projected in the FY 2009-10 budget, the adoption of different ratios within the General Fund would have the effects summarized in Table 2-1 below. Increasing the ratio from 3:1 to 5:1 would result in a 24% decrease in the General Fund pump charge for agriculture, subsidized by a 26% increase in the charge for M&I.

Table 2-1

General Fund Groundwater Replemishment Charge per Acre Foot
Change in Rate Generated by Increase in M&I to Ag Ratio

Ratio	Ag Rate	M&I Rate	Revenue
3.00	$16.45	$49.35	$4,655,277
3.50	$15.24	$53.34	$4,655,277
4.00	$14.19	$56.76	$4,655,277
4.50	$13.28	$59.76	$4,655,277
5.00	$12.48	$62.40	$4,655,277

To raise the same amount of revenue as projected in the FY 2009-10 budget, the adoption of different ratios within the Freeman Fund would have the effects summarized in Table 2-2 below. Increasing the ratio from 3:1 to 5:1 would result in a 26% decrease in the Freeman pump charge for agriculture, subsidized by a 24% increase in the charge for M&I.

Table 2-2

Freeman Diversion Facility Charge per Acre Foot
Change in Rate Generated by Increase in M&I to Ag Ratio

Ratio	Zone B Ag	Zone B M&I	Revenue
3.00	$18.00	$54.00	$2,777,914
3.50	$16.55	$57.93	$2,777,914
4.00	$15.32	$61.28	$2,777,914
4.50	$14.26	$64.17	$2,777,914
5.00	$13.34	$66.70	$2,777,914

In both the General Fund and the Freeman Fund, M&I rates would increase by about the same percentage as agriculture rates would be reduced. That would also apply to ratios between 3:1

and 5:1. Basically, the costs of the District's operation would be partly shifted from agriculture to M&I.

Another consideration for changing the ratio of M&I to Ag on the Oxnard Plain is that the M&I pump charge in Zone C must be the same or less than the Ag pump charge in Zone B. Using a ratio higher than 3:1 would have the effect of reducing the pump charges paid by the City of Ventura, if the existing Zone C is kept in place.

The above comparison is based on collecting the same amount of revenue with a different ratio. If it were necessary to increase revenues, the proportions would remain about the same, since pumping would not change.

Arguments for Maintaining a 3:1 ratio

One reason for maintaining the current ratio is that the largest M&I pumpers on the Oxnard Plain are already doing their share to limit overdraft by using costly imported water. In addition, M&I pumpers within the Fox Canyon GMA are subject to more stringent pumping restrictions than agriculture, which can receive the water it needs through the efficiency provisions of GMA ordinances. Increasing the burden on M&I above the present 3:1 ratio under this scenario may not be supportable.

A second reason for maintaining the current ratio is that the majority of the overdraft in the Oxnard plain aquifers has been caused by agricultural pumping in the eastern/southern part of the plain. Most of the M&I wells on the Oxnard Plain are located in the less-impacted north-western portion of the aquifer.

Possibility of Changing the 3:1 ratio in the future

If, as a result of long-range planning efforts by United and the Fox Canyon GMA, a long-term solution to groundwater overdraft is found that would require a substantial increase in pumping charges, and if such a project would provide substantial benefits to M&I constituents, one way to obtain 'buy-in' from agricultural interests would be to increase the ratio above the present 3:1. With that approach, the current ratio would remain in effect for now; a higher ratio could be offered as a "carrot" to agricultural interests to obtain their support for some major project, such as a recycled water distribution system in the eastern Oxnard Plain.

However, there is another side to the discussion: One way to help the aquifers is to deliver recycled water to agriculture in the east. If that were partially funded by an Oxnard Plain pump charge, then M&I would be contributing to the delivery of water to agriculture. That benefits all pumpers, including both Ag and M&I. But that would make it more difficult to argue for an increase in the present 3:1 ratio.

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SECTION 3 – WATER METERS ON ALL WELLS

BACKGROUND

Well owners are required to report well water usage as either agricultural or as M&I, which includes municipal, industrial and domestic uses. Usage from a single well may be distributed among those two classes of use.

REPORTING METHODS

District customers have different options to report their usage, including self-reporting and State Water Resources Control Board (SWRCB) recordation. When semi-annual groundwater production statements are returned to UWCD, water use must be quantified by various means. These include flow meters, electric meters, and crop factors. If a well does not have a flow meter installed, water use may be estimated based on electrical power consumption or a list of crop factors that approximate annual water use based on typical irrigation practices for various crops. Some of these options are discussed below:

METER MEASUREMENTS

Water meters are the most accurate means of measuring well output. The Fox Canyon GMA requires meters on all production wells within its management area, with the exception of small domestic wells with minor production. UWCD prefers, but does not require, the installation of flow meters on production wells within its boundaries.

For comparison, the Fox Canyon GMA recently established requirements for flow meter calibration every three years.

ELECTRIC METERS

Groundwater production from a well can be estimated from electrical power consumption if the efficiency of the well is known. Testing techniques have been developed to measure well discharge and energy consumption. Throttling of well discharge may be used to simulate pumping under lower water table conditions.

Southern California Edison offers well performance evaluations to well owners, and similar tests are also available from private contractors. SCE offers these tests free of charge, with the hope that a poor-performing well will be repaired by the well owner in order to conserve power and reduce energy use. The accuracy of well production estimates based on power efficiency declines as damage or wear progresses in the well, or when pumping water levels differ from conditions at the time of the testing.

CROP FACTORS

Well production not measured by a flow meter or approximated by electrical power consumption can be approximated based on typical local irrigation demands for various crops. These "crop factors" are based on consultation with local representatives from the University of California Agricultural Extension, and from typical irrigation requirements published in California Department of Water Resources Bulletin No. 113-4. Crop factors are listed for a single crop. If more than one crop is cultivated per reporting period, as is common with many vegetable crops, water use for double- or triple-cropping must be reported on UWCD's water production statement. These crop factors are not adjusted annually for variable weather conditions during the reporting period, but UWCD's crop factors do project higher irrigation rates for inland areas than for coastal areas. United's crop factors are presented below:

Table 3-1

Cropping factors used to estimate water use

(AF/Acre for 6 months)

Crop	Coastal Region	Inland Region
Alfalfa (hay)	3.50	4.50
Barley/small grains	1.00	1.40
Field (corn, broccoli, cauliflower, etc.)	2.40	2.40
Pasture (improved)	4.00	5.00
Subtropical orchard (citrus/ avocados)	1.00	1.25
Tomatoes (market)	1.80	2.20
Truck (vegetables, e.g. celery, onions)	3.20	3.20
Strawberries	2.65	2.65

Note: Inland regions include all areas along the Santa Clara River south of Wells Road.

The above crop factors are generous and, unless an orchard is using flood irrigation practices, any pumpers using this table are probably over-reporting their real annual usage. We recently asked the Ventura County Ag Extension to review the above factors, and were advised that they still appear to be reasonable.

However, the above table does not offer a crop factor for ornamental nursery stock, a crop that has seen considerable expansion in the Santa Clara River Valley in recent years. Plants grown at area nurseries range from ground cover to large boxed tree specimens, and include a diverse range of potted plants, ornamental shrubs and agricultural tree stock. A range of irrigation practices is utilized for the various plant

varieties, and irrigation practices often vary between operators. In addition, some operations collect and reuse runoff from plant production areas. As such, water use is difficult to characterize. Conversations with irrigators from several local nurseries indicate that water use varies from approximately 2.0 to 6.5 feet of applied water per year. Some nursery operations estimate their water use at approximately 3 feet per year, which might be considered typical water use based on the limited number of nursery growers interviewed.

A 1999 study by Fugro West done for the Count of Ventura, and titled *Planning Inventory, Greenhouse and Related Nursery Operations Water Use Practices* (April 1999) found the following unit water use by nursery facilities in 1997:

Table 3-2
Water use by nursery facilities in 1997

Facility type	1997 Unit Water Use (AF/Acre per year)
Greenhouse	2.7
Shade house	2.4
Nursery	1.0
Flower fields	1.2

The latest trend for modern greenhouses is towards a very high duty factor, up to 10 feet of applied water per year (10 AF per acre per year). The GMA has recently collected information on water use by greenhouses on the Oxnard Plain. Water demands for high water-use greenhouses is an issue the GMA is attempting to address.

The "crop factor" for livestock is estimated as 0.0085 AF (2760 gallons) per animal per 6-month reporting period.

DOMESTIC WELLS

In similar fashion, estimates for household water use may be used to estimate pumping from small domestic wells. Such use is reported as a minimum of 0.5 acre-feet per household per reporting period, or as 0.2 AF per person for each six-month reporting period.

WHAT REPORTING METHODS ARE BEING USED MOST

The amounts of water pumped within various portions of the District in 2007, distributed among the various reporting methods, are summarized in Table 3-3 below:

Table 3-3
Amount of water pumped vs. reporting method
By groundwater basin in 2007

Basin	Method	Reported Pumping (AF)	Percent of Basin
Piru	Crop Factor	3,640	21.96%
	Electrical Usage	4,035	24.34%
	Flow Meter	8,900	53.69%
	Total	16,576	
Fillmore	Crop Factor	7,553	16.22%
	Electrical Usage	24,202	51.98%
	Flow Meter	14,808	31.80%
	Total	46,563	
Santa Paula	Crop Factor	2,466	8.74%
	Electrical Usage	2,085	7.39%
	Flow Meter	23,655	83.87%
	Total	28,206	
Mound	Crop Factor	679	7.47%
	Electrical Usage	621	6.83%
	Flow Meter	7,789	85.70%
	Total	9,088	
Oxnard Forebay	Crop Factor	53	0.16%
	Electrical Usage	128	0.38%
	Flow Meter	33,509	99.46%
	Total	33,690	
Oxnard Plain and PV	Crop Factor	468	0.73%
	Electrical Usage	907	1.41%
	Flow Meter	62,748	97.86%
	Total	64,122	

The amounts of water reported by each reporting method, within the entire District, are summarized on Table 3-4 below:

Table 3-4
Amount of water pumped vs. reporting method
In the District as a whole in 2007

Method	AF	Percent
Crop Factor	14,859	7.50%
Electrical Usage	31,978	16.13%
Flow Meter	151,408	76.37%
Total	198,245	

The 2007 pumping records summarized in the above tables show that meters are used to quantify water use for nearly all of the water pumped from the Oxnard Forebay, Oxnard Plain, and the portion of the Pleasant Valley Basin within UWCD's service area. These basins are within the jurisdiction of the Fox Canyon GMA, and the high percentage of metered pumping reflects the Fox Canyon GMA's metering requirements.

The distribution of reporting methods is similar for the Mound and Santa Paula Basins, with metered pumping in 2007 representing nearly 86% and 84% of basin production, respectively. The remainder of the pumping in these basins is roughly shared between crop factor and electrical meter reporting methods.

In the Fillmore Basin, slightly more than half of the pumping is reported by electrical usage. Pumping at the Fillmore Fish Hatchery, as well as several high-producing wells operated by irrigation mutual water companies, are reported by electrical usage. Of the 264 active wells in this basin, 54 reported by electrical usage in 2007. The remaining pumping from this basin is reported based on flow meters (32%) and crop factors (16%).

In the Piru Basin, nearly 54% of groundwater extractions are reported based on flow meters. Crop factors were used for 22% of the pumping in 2007, and electrical meters were used for the remaining 24% of pumping.

Table 3-4 shows that in the District as a whole, groundwater production reported by crop factor totaled 14,859 AF in 2007, which is only 7.5% of the reported pumping within the District. Crop factor reporting is most common in the Piru Basin, followed by the Fillmore Basin.

Options to Consider

The Board could consider several options related to water reporting methods:

1) Require that all users have meters installed on wells with annual production exceeding some minimum level. The District could phase meters in over a 3 to 5 year period.

2) Provide an incentive for customers to install meters, such as a reduced rate for some period of time.

3) Change the crop factors used to estimate pumping, including the addition of a crop factor for nurseries. New factors could be added to reflect changes in farming practices.

4) Charge nurseries at the M&I rate for the General and Freeman fund pump charges.

Legal Authority

United's enabling legislation, the *Water Conservation District Law of 1931*, allows the District to require meters on its customers' wells. Although we can legally do so, this would require a public relations campaign and substantial work with the affected well owners, in addition to adopting an ordinance. We would have to spend considerable staff time to answer questions and to develop a procedure to deal with violations of the ordinance.

Santa Paula Basin

The settlement of the adjudication process for the Santa Paula Basin was based on present methods of determining water use. If the District were to require meters, a method would need to be found to convert the established allocations to metered quantities. Inevitably, some inconsistencies would arise and would need to be dealt with.

Standing Board Policy on Meters

As part of the Rate Study dialogue, the Board of Directors referred the issue of water meters to a Planning Committee meeting. At an October 11, 2010 Planning Committee meeting, the directors elected not to require meters on customers' wells. They determined that the extra burden on United's ratepayers was not warranted at this time. However, they did recommend that the District consider voluntary incentives to encourage installation of well meters.

SECTION 4 – SATICOY WELLFIELD

BENEFITS OF THE SATICOY WELLFIELD

To determine how to fund the operation of the Saticoy Wellfield, it is important to understand its benefits. The project provides several benefits:

1) The wellfield allows temporary storage of surface water from the Santa Clara River – not otherwise diverted – that is pumped during dry periods to supplement surface and ground water.

2) By bringing down the groundwater "mound" in Saticoy after wet years, more water can be recharged into the Forebay in subsequent years, increasing the yield of the Freeman Diversion. This benefit accrues to the entire Oxnard Plain aquifer system.

3) By delivering more water to the eastern/southern part of the Oxnard Plain, pumping can be reduced in areas difficult to recharge directly. This benefits the eastern part of the aquifer.

4) If necessary, water can be delivered to the El Rio spreading grounds to dilute any nitrate contamination or to mitigate any other water quality problem in the OH Wellfield and El Rio area.

The desired outcome of the operation of the Saticoy Wellfield is for the wells to be pumped when necessary to reduce mounding and for water to be delivered to the east to reduce pumping there. The only users in the east who can receive the water are the PTP System, PVCWD, and several other PV Pipeline customers along Central Avenue.

CURRENT FUNDING MECHANISM

The construction of the Saticoy Wellfield, formally called the "Groundwater Storage Management Project," was funded by a State Proposition 13 grant, plus some matching funds provided by United's General Fund and by PVCWD. Matching funds were provided as follow:

A $250,000 use of bond proceeds paid from the General Fund.

A $75,000 payment from PVCWD.

The General Fund payment was made in consideration of the benefit to the aquifer of reducing mounding effects. Debt service for the General Fund contribution is still being paid from the General Fund. The contribution from PVCWD was made due to their wish to reduce pumping their wells. Neither the PTP nor PV funds reimburse these construction costs or associated interest payments. As a result, current surface water users are not paying for the initial

construction costs as part of their rates for water received. (They do pay through their in-lieu pump charges.)

When water is pumped from the Saticoy Wellfield and delivered to the PTP and PV Pipeline customers, those customers pay the costs attributable to the Saticoy Wellfield on a separate itemized bill. This peculiar methodology is used because of limitations in the District's billing/accounting software.

The operations and maintenance costs of the Saticoy Wellfield are currently paid by PTP customers, PVCWD and PV Pipeline customers in proportion to the amount of pumped water they use. It is at United's sole discretion when to pump the Saticoy Wellfield, based on best groundwater management principles. When the Saticoy Wellfield is in operation, it is assumed that the same blend of ground and surface water (if any) is delivered to all customers. (In dry periods, no surface water may be available, in which case groundwater is 100% of the supply.) The wellfield operating costs are pro-rated between the PTP customers, PVCWD, and PV Pipeline customers in direct proportion to the amounts of water delivered through the pipeline to those users. That is to ensure that customers pay for the water they actually receive from the Saticoy Wellfield.

The General Fund serves as the "bank" for the Saticoy Wellfield. Expenses for operating the wellfield are paid from the General Fund reserves. Payments received from irrigation customers for the Saticoy Wellfield charges are deposited into the General Fund. The Saticoy pumping charges are set so that the net cost to the General Fund for operating the Saticoy wells will be zero over the long-term. (Note that capital costs are being paid from the General Fund as previously described.)

The General Fund, Freeman Fund, and the GMA pump charges for water pumped from the Saticoy Wellfield are paid as part of the normal water rates for the PTP, PT Pipeline and PVCWD. In other words, the pass-through costs of the Saticoy Wellfield are treated as just another source of groundwater on their regular water bills.

One possible use for the Saticoy Wellfield is to pump water to the El Rio spreading grounds to reduce high nitrates there. When the Saticoy Wellfield delivers water to the El Rio Spreading Grounds for that or any other reason, the General Fund pays its pro-rata share of the cost of pumping the Saticoy Wellfield. This option has been exercised since the Saticoy Wellfield was constructed.

The rates for the Saticoy Wellfield were set at $14.00/AF in 2004-05, based on estimated pumping costs at that time. Now that we have actual experience running the wells, the charge for water from the Saticoy Wellfield was changed to $30.00 per AF in Fiscal Year 2010-11 (not including the $4.00/AF GMA charge). This reflects a change in information resulting from current electric power costs, actual pump efficiencies, drawdown, labor costs, and other factors; rather than a change in policy.

FACTORS SUPPORTING THE PRESENT COST MECHANISM

So long as the water is delivered to the east, the Saticoy Wellfield is operating as intended. Therefore it is important to price the water so it will be used by those customers.

Fortunately, since construction costs are not being paid through water rates, and since pumping depths are more favorable than alternate sources of water, the water pumped from the Saticoy Wellfield is sold at an affordable cost. The water should be less costly to PVCWD than pumping their own wells.

Similarly, pumping from the Saticoy Wellfield to the PTP system is less costly than pumping PTP wells. Although the cost is added to their water bills, the bottom line is that PTP customers should pay less overall for their water when the Saticoy Wellfield is being pumped. That is because the PTP rate is established to pay for the PTP operation without the use of the Saticoy wells, on the average. Over time, pumping the Saticoy Wellfield should allow the PTP base rate to remain lower. Since pumping the Saticoy wells is less costly than pumping the deeper PTP wells, the total water cost should be lower on the average.

Therefore, the present pricing structure of the Saticoy Wellfield should encourage its use. We have heard no complaints from PVCWD about the cost of that water. In fact, they appear to be glad to have it during dry periods.

OTHER WAYS TO FUND THE SATICOY WELLFIELD

If the Board wishes to subsidize pumping to agriculture, an argument could be made that the Saticoy Wellfield benefits the entire Oxnard Plain through increased recharge in the Forebay, by creating more available storage prior to recharge events. That could justify paying part or all of the operating cost of the wellfield from either the Freeman Fund or the General Fund. Other issues would have to be addressed in either case: whether the Freeman Fund could be used for that purpose, and whether upstream pumpers should subsidize agriculture in the eastern Oxnard Plain.

GMA CREDITS FOR THE SATICOY WELLFIELD

Since the Saticoy Wellfield was constructed after the GMA's 1985-89 allocation period, it has no baseline allocation or accumulated credits. United and the GMA are working on securing GMA credits for the Saticoy Wellfield for surface water stored, less any State Water. Originally it was intended for customers to report their Saticoy Wellfield deliveries as water pumped by *them*. Unfortunately, those arrangements between United and the GMA with regards to the intended pumping reporting methods at the Saticoy Wellfield were not able to be implemented by the GMA. As a result, the Saticoy Wellfield has accumulated GMA surcharges.

Nevertheless, the project is good for the aquifers and we expect the GMA to allow us to operate it. An option of transferring credits from United's customers has been considered, but would be unwieldy. A final resolution of GMA credits for the Saticoy Wellfield is still pending.

SECTION 5 – FUNDING FOR MASTER-PLANNED PROJECTS

Over the next several years, beginning in FY 2011-12, the District may pursue long-range projects intended to improve the health of the aquifers, as described in the GMA's *Groundwater Management Plan* and the District's draft *Water Management Plan*, both available on the Internet. As part of that process, decisions on how to fund those projects must be made.

The District could consider a surcharge on its water rates or increased rates to fund certain types of projects such as construction and improvements. This has been done with certain projects in the past. Such a surcharge would require a Proposition 218 procedure.

The funding of future projects will be considered on a case-by-case basis, and will be subject to approval by our constituents. Potential methods of funding planned projects are summarized below:

1) Ferro Basin

The Ferro Basin will function as a recharge basin similar to the Piru, Saticoy, and El Rio spreading grounds. Funding for constructing and operating those existing facilities was provided by the General Fund. For comparison, the Noble Basin was purchased in 1995 using funding from the General Fund. Groundwater recharge is a District-wide activity that should be funded by the General Fund. That is why purchasing the Ferro Basin is being done from the General Fund. In late 2009, the District purchased the Ferro Basin with revenues to be raised from the General Fund.

2) Ferro-Rose Recharge Project

The Ferro-Rose Recharge Project is essentially an extension of the Freeman Diversion Project. It includes an extension of the existing Freeman canals to the Ferro Basin and possibly to the Riverpark Basins. The project is described in detail in the District's draft *Water Management Plan*.

Since the project is an extension of the Freeman Diversion Project, an argument can be made that it should also be funded by the Freeman Fund. This financial burden is easier now that the loans for the existing Freeman Diversion were paid off in April 2011. A precedent has already been established by the funding of the original Freeman Diversion, which should be given consideration.

Within the District's Capital Improvement Projects list is Project 864, the Forebay Recharge Project. This is also called the "Ferro-Rose Recharge Project." It is a General

Fund CIP, with the EIR to be funded from the General Fund. The Board will decide in the future how to fund the actual construction of the project.

3) Seawater Intrusion Barrier Wellfield

A seawater intrusion barrier has been identified as an important potential project for helping to bring the aquifers into long-term balance. The project is proposed in both the GMA and United's planning documents. Such a barrier project would start as a single pilot well, injecting potable water for about 5 years. A barrier project is beneficial whether or not recycled water is used for injection. If the full-scale project is constructed for injection of either potable or recycled water, it would benefit the entire Oxnard Plain aquifer system.

This project could be funded by the District's Freeman Fund. However, since almost all of the seawater intrusion is occurring in the east, an argument might also be made that it should be partly funded by a new Zone D to the east, as discussed later.

As an exploratory test program, the first seawater pilot well is planned to be funded from the General Fund. However, since seawater intrusion is not an issue in the upstream basins, staff believes that the full-scale project should not be funded by the General Fund. The Board will confirm its policy on the funding of the pilot well project as part of the FY 2011-12 budget. The funding source for a future barrier wellfield has yet to be determined.

4) Importing Additional State Water

As previously discussed, the cost of importing United's present 5,000 AF/Yr Table A State Water allocation is funded by a property tax special assessment. It is recommended that that arrangement be continued.

As part of its long-range planning process, the District could decide to import additional State water from Ventura and/or Casitas MWD's unused State Water Project allocation. Additional funding would need to be raised to pay for the additional State water.

In determining who should pay for the additional water, the Board should consider who would benefit from that water. The importation of additional State water via Pyramid Lake and Piru Creek would benefit all customers of the District to varying degrees. Pumpers in the upstream basins would benefit from improved water quality and elevated groundwater levels. The downstream effects of their pumping would be partially mitigated by the additional water. Some of the water would reach the Freeman Diversion for recharging coastal aquifers and direct deliveries to agriculture. All pumpers would benefit from higher reliability against severe drought conditions.

Several options are available for distributing the cost of importing additional State water:

Increase the property tax assessment. Research would be needed to determine whether the wording of the present authorization for that assessment would allow it to pay for additional water. If not, a supplemental Proposition 218 ballot or some other process would be needed.

Pay for the additional State water importation through the General Fund pump charge. (Note Oxnard Plain pumpers supply about 51% of the General Fund pump charge revenues.)

Pay for additional State water importation via the Freeman Fund pump charge.

Distribute the costs between the General and Freeman funds in some proportion, based on a hydrogeological estimate of the long-term yields in the upstream basins and the Oxnard Plain aquifers.

The planning process for importing additional State water is in the early stages, and it is too early to make a decision on this issue. If a detailed plan is developed, more information would be brought to the Board for a final decision on whether to acquire additional water allocation and how to fund it.

At present, property owners within the City of Oxnard do not contribute tax revenue to the importation of United's 5,000 AF allocation of State water. The reason for this is that Oxnard is a customer of Calleguas MWD, a member agency of Metropolitan Water District of Southern California (MWDSC). Calleguas and its customers are currently prohibited by their agreements with MWDSC from contracting separately for State water.

Nevertheless, if United acquires additional State water allocation and uses it to recharge groundwater that benefits Oxnard, it could be argued that Oxnard water users should be able to contribute towards that benefit through their pump charges. This issue would require research and discussions with Calleguas MWD and MWDSC to ascertain whether Oxnard's customers would be legally allowed to contribute to United's importation of additional State water. Considering that MWDSC is now encouraging its member agencies to develop their own local water supplies, United's operation could assist MWDSC's strategic plan. We understand that MWCSC is now allowing its customers to receive their own State water supplies. Further study and dialogue are needed on this topic.

It must be emphasized that, if additional State water is received by United, and if Oxnard were to contribute to the program, such contributions would apply only to additional water received, above United's current 5,000 AF/Yr allocation. It is proposed that the current property tax arrangements for paying for the existing allocation would remain in place.

5) Piru Diversion Fish Screen Upgrade

The Piru Diversion recharges the Piru groundwater basin, which in turn recharges the other basins downstream. Therefore, any improvements or upgrades to the Piru Diversion would likely be paid from the General Fund.

6) Delivery of Recycled Water to PTP and/or PVCWD

Delivery of recycled water from the City of Oxnard's GREAT program to the PTP System or to PVCWD could be partially subsidized by United's pump charges, since all pumpers on the Oxnard Plain would benefit from reduced pumping by others. How to fund this project will be the subject of further discussion as more information becomes available.

7) Santa Paula Basin Recharge Facilities

The District's Water Management Plan recommended that United prepare a study of the feasibility of recharging the Santa Paula Basin using surface recharge ponds. That study was completed in September 2010. It appears that a new recharge facility in Santa Paula is only marginally feasible from a cost perspective. Another consideration is that increasing the recharge in Santa Paula may reduce the yield of the Freeman Diversion by some amount.

Pumpers in the Santa Paula Basin pay General Fund pump charges. Although the District focuses heavily on seawater intrusion, the Santa Paula Basin is our second-most area of concern. It is the only adjudicated basin within the District. Reduced connectivity between the basin and the Santa Clara River reduces the effective recharge of the Santa Paula Basin from United's upstream activities – releases from Santa Felicia Dam and recharge in Piru.

For that reason, if United's constituents in Santa Paula request the District to pursue a new recharge facility, the Board could decide to fund the project from the General Fund. A second option to fund a recharge basin in Santa Paula would be to create a new Zone E within that basin. A third option would be to raise part or all of the funding from the City of Santa Paula and developers. Those options have not been discussed with City staff.

Santa Paula Basin Hydrogeologic Summary

When determining how to fund projects in the Santa Paula area or to set pumping charges there, it is important to understand the unique character of the Santa Paula groundwater basin.

Structural impediments to Santa Clara River recharge caused by the Oakridge Fault exist in the Santa Paula Basin, which are not present in the Piru and Fillmore basins. Thus, unlike the Piru and Fillmore basins, groundwater levels in the Santa Paula Basin do not return to historic highs following significant wet years.

The 1984 to 1991 drought resulted in the 1996 Santa Paula Basin Judgment. The Judgment assigned pumping allocations and drought cutback provisions for all basin pumpers. The base allocations are 27,500 acre-feet for the Santa Paula Basin Pumpers Association and 3,000 acre-feet for the City of Ventura. A Santa Paula Technical Advisory Committee (TAC) was established that oversees the management of the basin. The TAC committee consists of United Water, the City of Ventura and the Santa Paula Basin Pumpers Association.

Note: Some claim that the Santa Paula Basin has not truly been adjudicated because the lawsuit resulted in a Judgment. Rather than split hairs, this report uses the more familiar term "adjudication" to describe that process. Please see a lawyer if a strict legal interpretation or definition is needed.

In 2003, a basin yield study, by experts from the three agencies, determined that the lower end of the operational yield of the basin is 26,000 acre-feet per year and that the basin was not then in overdraft. These conclusions were based on the average amount of pumping and groundwater level response from 1983 to 1995, a period of zero cumulative departure from average precipitation and streamflow (Santa Paula Basin Experts Group, July 2003).

Average pumping amounts have not changed substantially since the operational yield was determined in the basin yield study. This is despite the introduction of strawberries into the basin in recent years and 2007 being a record low precipitation year. Groundwater levels in 2009 were down throughout the basin but are not nearly as low as they were in 1990 and 1991. This includes levels in the west end where basin replenishment is most inhibited. As of early 2011, however, groundwater levels have not recovered as well as hoped.

Because average pumping has not changed significantly from the operational yield, and since groundwater levels were above 1990 and 1991 lows it was decided by the Technical Advisory Committee at an April 2009 meeting that no changes in allocations will be made at that time. This was noted in a 2010 update to the Court, subsequently approved by the judge.

Physical ways to enhance the Santa Paula Basin yield have been evaluated. Among these is integrated water management with the Piru and Fillmore basins. This would take advantage of the health of the Piru and Fillmore basins to supply water to the Santa Paula Basin. Also, the feasibility of diverting water from Santa Paula Creek to potential recharge basins was evaluated in a September 2010 report by AECOM entitled *Santa Paula Creek Recharge Study*. The City of Santa Paula has completed a recycled water master plan which proposes two phases of implementation. Phase I provides pipeline capacity for 350 acre-feet of recycled water to

existing customers and an additional 1,700 acre-feet to expansion areas. Phase II provides up to 2,500 acre-feet of recycled water to Limoneira Company for irrigation use.

Drought surcharge on the Oxnard Plain

One option the Board could consider for raising additional funds to pay for facilities to solve overdraft on the Oxnard Plain would be to add a "Drought Surcharge" to the Freeman pump charge. The way that would work is as follows: When the groundwater level in the Oxnard Forebay drops below 80,000 AF of available storage, a surcharge would be added to the Freeman pump charge. It is during those periods when the rate of seawater intrusion is the greatest, and it is the most essential to reduce pumping. A surcharge would both provide an incentive to reduce pumping and would collect revenue to construct new projects to help solve overdraft.

SECTION 6 – FUTURE DISPOSITION OF THE FREEMAN FUND

BACKGROUND

A major change to the Freeman Fund financing will occur in 2011, when the loans for the Freeman Diversion are paid off. At that time, the Freeman pump charge for agriculture could, in theory, be reduced from $18 to an estimated $7 per AF (and from $54 to $21 per AF for M&I pumpers). However, that estimate does not include a costly new fishway that will almost certainly be required to meet federal mandates. Nevertheless, the termination of loan payments provides an opportunity for new ways to handle the Freeman Fund.

PRIOR COMMITMENTS FOR THE FREEMAN FUND

In the 1980s, while the District was generating support for the construction and financing of the Freeman Diversion, some of our constituents were advised that the Freeman pump charge would be used only to fund the construction of the Freeman Diversion, and that the charge would disappear after the loans were paid off. Our information on these assertions is anecdotal – Director Lynn Maulhardt has the sharpest recollections on this issue. We have not dug through old correspondence to find out exactly what was agreed in writing.

These statements may have committed the District to some course of action not clearly defined today. Nevertheless, times change, Boards change, policies change, groundwater conditions change – for the worse; and each Board has the right to set policies that conform to law, good ethics, and prior written agreements; subject to renewed support from United's constituents.

A MAJOR REHABILITATION OF THE FREEMAN PROJECT

The Freeman Diversion has been in use for nearly 20 years. Some large storms have occurred, causing moderate erosion of the dam face. Some cracks have also developed in the dam crest. Although not a dangerous condition, those cracks could lead to increased degradation and maintenance over time. The flushing channel floor has previously seen up to 9 inches of concrete erosion. Recoating of the concrete, first done in 1999, will likely need to be repeated within a few years.

Therefore, a major rehabilitation project of the Freeman Diversion, to bring it back into "like new" condition, should be done some time after the Freeman loans are paid off. This could be funded by maintaining the Freeman pump charge for a couple of years to collect sufficient revenue to pay for the rehab project.

OPTIONS FOR THE FREEMAN FUND

Some time after the Freeman Diversion loans are repaid in 2011, the District could consider several options, as discussed below:

1) OPTION 1

The Freeman Fund could be retired and replaced with a new "Safe Yield Fund". The Safe Yield Fund would pay for facilities and operations that benefit only the over-drafted Oxnard Plain aquifers. These activities could include the following:

- Ongoing operations and maintenance of the Freeman Diversion and its fish passage facilities,
- Construction of any new facilities intended to convey water from the Freeman Diversion to existing or new recharge areas on the Oxnard Plain. For example, extending the Freeman Diversion conveyance facilities to deliver water to new gravel basins (the Ferro, Rose and possibly the Riverpark basins) could be funded by the Safe Yield Fund.
- Projects to enhance or extend the performance of the Freeman Diversion,
- New fishways or fish passage facilities at the Freeman Diversion,
- Activities that increase recharge in the Oxnard Forebay, and projects to inject water into the Oxnard Plain aquifers. For example, a seawater intrusion barrier could be paid from the Safe Yield Fund, subject to Board approval.

2) OPTION 2

The Freeman Fund and pump charge could be left in place solely to pay for ongoing operations and maintenance of the Freeman Diversion as it exists. The Freeman pump charge would drop from $18 per AF to around $7 once the loans are repaid (not considering expected environmental compliance costs including a new fishway). If new facilities are constructed, such as the incorporation of new recharge basins or the construction of a seawater barrier wellfield, a second, new "Safe Yield Fund" would be created. The Safe Yield Fund would pay for new facilities and operations beyond the existing Freeman Diversion, which benefit only the over-drafted Oxnard Plain aquifers. Pumpers on the Oxnard Plain would then pay two separate pump charges: the Freeman Fund pump charge and the Safe Yield Fund pump charge. Costs could be distributed between the two funds as follows:

Freeman Fund Pump Charge

- Ongoing operations and maintenance of the Freeman Diversion and its fish passage facilities.
- Major repairs or improvements needed to maintain its effectiveness.
- New fishways or fish passage facilities at the Freeman Diversion.

Safe Yield Fund Pump Charge

- Construction of any new facilities intended to convey water from the Freeman Diversion to existing or new recharge areas on the Oxnard Plain.
- Projects to enhance or extend the performance of the Freeman Diversion.
- Activities that increase recharge in the Oxnard Forebay, and projects to inject water into the Oxnard Plain aquifers. For example, extending the Freeman Diversion conveyance facilities to deliver water to new gravel basins (the Ferro, Rose, and possibly the Riverpark basins) could be funded by the Safe Yield Fund. A seawater intrusion barrier could also be paid from the Safe Yield fund.

3) Option 3

The third option is that the Freeman Fund and pump charge could be allowed to continue, and would pay for not only the operations and maintenance of the existing Freeman Diversion facilities, but whatever new facilities the Board decides to pursue to meet its groundwater management responsibilities. In this case, the Freeman Fund pump charge would pay for the same activities described in Option 1 for the new "Safe Yield Fund," but the name "Freeman Fund" would remain in place. No Safe Yield Fund would be created. This option would require redefinition of the Freeman Fund and its name would no longer be descriptive.

Table 6-1
Options for the Freeman Fund after 2011

	Freeman O&M	New fishways	Freeman projects	Gravel pit project	Seawater barrier	Reclaimed water	Water TAP share
Option 1							
Safe Yield fund	✓	✓	✓	✓	✓	✓	✓
Option 2							
Freeman fund	✓	✓	✓				
Safe Yield fund				✓	✓	✓	✓
Option 3							
Freeman fund	✓	✓	✓	✓	✓	✓	✓

DISCUSSION OF THESE OPTIONS

If necessary to obtain the support of our constituents and to keep promises made decades ago, we could change the name of the Freeman Fund to the Safe Yield Fund. But in the end, we must obtain the support of our constituents for any new projects the District pursues on their behalf. Once we obtain their support for our projects and any needed funding, the name of the fund would be of little import. On the other hand, if Zone B is used in the future to pay for projects not related to the Freeman Diversion itself, it might be more descriptive to change the name to Safe Yield Fund. We could take the opportunity of the loans being paid off to make the name change. Arguments can be made for or against each option and, in the end, this will be a board policy decision.

SECTION 7 – FUTURE OF EXISTING ZONE C

As discussed previously, Zone C was created as a result of a lawsuit settlement with Ventura. Consequently, pumpers in Zone C – both agriculture and M&I – pay only one-third the pump charge that the Zone B pumpers pay. The legal requirement to maintain a separate Zone C expires once the Freeman loans are paid off in 2011.

The District is considering eliminating Zone C in FY 2011-12 and combining that area into an expanded Zone B. This section provides information supporting that step.

SAN BUENAVENTURA V. UWCD SETTLEMENT 1987

In considering the future disposition of Zone C, it is important to understand the outcome of the 1987 lawsuit by Ventura.

In 1983 the City of Ventura sued United over pump charges in general, and Freeman Diversion charges more specifically. The case progressed over several years, during which period Ventura refused to pay their pump charges. Much of the deliberations and expert testimony surrounded the degree to which United's operations benefit the Mound Basin. In 1987 the subject changed and Ventura wanted to address the benefits and obligations to their "Golf Course Wells." These wells extract water from the Fox Canyon Aquifer. Accordingly, United was very much opposed to excluding these wells from the Freeman repayment zone, as a similar argument regarding benefit could be made by all lower aquifer extractors. However, the Judge in the case strongly encouraged the final settlement by suggesting that the settlement terms were likely to be very similar to his ultimate ruling should the case be forced to conclusion. A settlement agreement was executed on June 30, 1987. The settlement sets out the following terms:

1. Mound Basin extractions are excluded from Freeman charges (both capital and operations and maintenance).

2. A new and separate zone was established for wells that are both within the Oxnard Plain Basin and northerly of the Santa Clara River. In this new zone (now called Zone C), the M&I pump charge cannot exceed the agricultural pump charge for those wells southerly of the river. (Note: Since the ratio of M&I to Ag rates is currently set at 3:1, that results in the Zone C M&I rate being set at 1/3 the M&I rate in Zone B. That ratio would also change if the ratio of M&I to Ag rates is changed.)

3. Should Ventura's Zone C extractions exceed 6,300 AF/Y for three consecutive years, then after ten more years all Zone C extractions beyond 6,300 AF/Y can be charged at the M&I pump charge for those wells southerly of the Santa Clara River.

4. Ventura shall pay the District-wide pump charge to support United's general operation and maintenance costs, which can include the average (1983-1987) Freeman Diversion O&M costs, which can be increased by the Consumer Price Index.

There are other provisions regarding future cooperation, water rights, etc. that do not directly relate to pump charge rates. It should be noted that the validation of this settlement involved legal notice to all pumpers on the Oxnard Plain. No complaint was filed within the statutory period. However, following partial completion of the first phase of Freeman construction, Pleasant Valley Water District sued, in part seeking a deal similar to the Ventura Settlement. This was later settled out of court, without relaxation of PVWCD's pump charges.

Item 21 of the settlement agreement states that, "This agreement shall terminate upon final payment of the loan contract between United and the federal government." That happened in April 2011.

OPTIONS TO CONSIDER

The District could consider two principle options for the future disposition of Zone C, as follows:

ZONE C – OPTION 1: STATUS QUO

The existing Zone C would remain in effect, using the existing pump-charge ratios. Zone C primarily benefits the City of Ventura. Maintaining this zone is consistent with the previously mentioned settlement agreement between the District and the City, which expires when the Federal Bureau of Reclamation loan for the Freeman Diversion is paid off in April 2011. One justification for maintaining Zone C for now is that the City of Ventura has an unused entitlement to State Project water, which could be leased or purchased by United. This potential benefit could be considered should United negotiate with the City over the State Water contract. Another reason to maintain Zone C as it exists would be simply to maintain the status quo.

ZONE C – OPTION 2: UNIFORM ZONE B

Hydrogeologically, as is discussed later, Zone C is not much different from Zone B. Groundwater within Zone C recharges easily from the river, but that groundwater in turn migrates underground toward the south and east. Both zones benefit from the Freeman Diversion. It can be argued that different pumpers at different locations within the Oxnard Plain receive slightly different benefits in the amount of recharge they receive from the Freeman Diversion. However, it is impossible to allocate benefits exactly, and therefore one could use the postage stamp approach to argue that all pumpers on the Oxnard Plain should pay the same.

POLICY ON ZONE C

If the Board decides on Option 2, we could eliminate Zone C and merge it with Zone B in FY 2011-12 or later. That would allow time to discuss this issue with City staff and council.

A hydrogeologic study and report was completed to determine whether both Zones B and C benefit equally from the Freeman Diversion. That report, entitled *History of the Zone C Settlement Agreement and Discussion of Groundwater Elevation Records in and Around this Zone*, has been prepared by United's Groundwater Department, dated December 2010. The study concludes that there is no hydrogeological justification for a separate Zone C. The City of Ventura is conducting its own review and response to the report.

Based on the FY 2009-10 proposed budget, eliminating Zone C and merging it with the rest of Zone B while raising the same revenue would have approximately the following effects on pump charges within Zones B and C, as shown on Table 7-1:

Table 7-1
Effects on Freeman Fund If Zone C is Merged with Zone B

Freeman Fund	Current rates	Rates w/o Zone C
Zone B Ag	$18.00	$16.76
Zone B M&I	$54.00	$50.28
Zone C Ag	$6.00	$16.76
Zone C M&I	$18.00	$50.28

As can be seen from Table 7-1, the Freeman Fund pump charge in Zone B would drop by 7%, while costs for pumpers in Zone C, including the City of Ventura, would increase by 179%.

The numbers in Table 7-1 are based solely on the FY 2009-10 budget, and on maintaining the same revenue; for comparison purposes only. In the proposed FY 2011-12 budget, a rate decrease is not included because of predicted future expenditures to fund a new fishway at the Freeman Diversion. Rather than decrease rates for a few years, followed by an increase to fund the fishway, rates will be kept constant in the interim to build reserves to fund the fishway.

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SECTION 8 – PUMPING IN UPSTREAM BASINS

BACKGROUND

Pumping in the upstream basins has an effect on the amount of groundwater available for pumping in downstream basins. As water demand increases in the upstream Santa Clara River valley, less water could ultimately become available for the Oxnard Plain, for instance. To protect downstream water uses in Ventura County, United participated with Ventura County in a successful lawsuit against Newhall Land and Farming to limit increased pumping that could affect downstream recharge.

This issue is only indirectly related to water rates. When making the argument that upstream pumping affects downstream pumping, the District should also consider its policy toward increases in water use upstream. For example, as the cities of Fillmore and Piru grow, their pumping will increase, affecting downstream water availability. (The Santa Paula Basin is adjudicated and pumping there is regulated.)

EFFECTS OF UPSTREAM PUMPING

There is a tendency among upstream pumpers – those from Santa Paula to Piru – to think that the overdraft on the Oxnard Plain is not their problem. It does not appear to affect them directly. But what if their pumping is partly causing the overdraft downstream? A water user's location upstream from another water user does not automatically absolve the upstream user from responsibility for his water use.

United has developed surface and groundwater models of the Santa Clara River and its associated groundwater basins. We ran those models to answer the question: What would happen to the overdraft on the Oxnard Plain if there were no pumping in the upstream basins? In that case, the Piru, Fillmore and Santa Paula Basins would refill, and their overflow would contribute to increased flows in the Santa Clara River. That, in turn, would increase recharge to the Oxnard Forebay via the Santa Clara River and by increased diversions at the Freeman Diversion. Increased river flows would also benefit fish, reducing impacts to the Forebay of fish releases.

Quantitatively, our models predicted that halting upstream pumping would increase recharge of the Oxnard Plain by an amount of of 19,000 to 35,000 AF per year. With an average overdraft of the aquifers of 26,000 AF per year, it can be seen that upstream pumping has a significant effect on the overdraft of the Oxnard Plain.

The results of this analysis support a postage stamp approach under which upstream pumpers contribute to regional solutions through United's General Fund. It is not the intent of this analysis to propose any sort of limits on upstream pumping.

UNITED'S POLICY ON UPSTREAM PUMPING

In prior years, United has commented on projects that would increase up-river water use. We should be consistent in our approach towards upstream pumping increases.

Three approaches could be considered:

OPTION 1: REMAIN NEUTRAL ON UPSTREAM CHANGES

United could acknowledge that cities have the right to grow and increase their groundwater pumping in non-adjudicated basins, within the limits imposed by any AB3030 groundwater plans. It is not United's role to regulate growth, and the District has no legal authority to do so. If less water becomes available in some areas due to long-term changes in urbanization, we will have to deal with the outcome by building new facilities or adjusting our operations. We would not comment extensively on EIRs or planning documents. With this approach, the District would stay out of controversial growth issues.

OPTION 2: ADVOCATE PUMPING LIMITS

With this option, United would become an advocate for maintaining pumping at today's levels, expending a higher level of effort than at present. We would comment on EIRs and planning documents, noting that there is a limited supply of water and that for one pumper to increase his pumping will affect other existing pumpers. We would become "watchdogs" of water pumping within our service area and upstream.

OPTION 3: INTERMEDIATE APPROACH

With the intermediate option, United would continue its practice of commenting on EIRs and developments when they would have a substantial effect on groundwater. We would become involved only on higher impact projects. But there would be no 'single blanket' approach, and we would choose our battles on a case by case basis.

Which approach the Board selects would be a policy matter. Arguments can be made in support of all three approaches, or some combination.

Recommended Policy - As part of the Rate Study process, the directors have elected the intermediate approach towards upstream pumping – Option 3. United will continue to monitor EIRs and provide comments on projects that could substantially affect the water supply of United's constituents. But the District will remain neutral on issues that have a small effect on water resources.

AB 3030 Groundwater plan in the Fillmore and Piru Basins

When considering United's policy on increases in upstream pumping, it is relevant to consider the status of the AB3030 process there, which provides a justification for United not taking sides on future water uses in that area, except through the AB3030 process. The AB3030 process is summarized below:

The Groundwater Management Act, more commonly referred to as AB3030, of the California Water Code came into effect in 1992. The Act was designed to give local public agencies more control of groundwater management, which is of importance to the Piru and Fillmore basins. These are the two healthiest basins within United Water Conservation District and there are no current or foreseeable restrictions on pumping. Groundwater levels consistently return to historic highs after significant wet years. However, despite the good health of the two basins, they are part of the Ventura Central Basin which was determined in DWR Bulletin 118-80 to be in critical overdraft. Thus in 1994, an MOU agreeing to an AB3030 Plan was signed among United Water, the City of Fillmore, local water companies, and pumpers. United Water, as the lead agency, formally adopted the Plan.

Notwithstanding the adequate quantity of groundwater in the Piru and Fillmore basins, there are water quality concerns in the eastern Piru Basin, due to upstream wastewater discharges that high in chloride. The Los Angeles County Sanitation Districts proposed an Alternative Water Resources Management (AWRM) Project to improve that condition. However, due to lack of political will to fund that project, the project is in abeyance, pending pressure from the Regional Board.

The Piru/Fillmore Groundwater Management Plan includes the following components:

a. Control of saline water intrusion
b. Identification and management of wellhead protection areas and recharge areas
c. Regulation of the migration of contaminated groundwater
d. Administration of a well abandonment and well destruction program
e. Mitigation of conditions of overdraft
f. Replenishment of groundwater extracted by water producers
g. Monitoring of groundwater levels and storage
h. Facilitating conjunctive use operations
i. Identification of well construction policies
j. Construction and operation of various recharge, storage, and extraction projects
k. Development of relationships with state and federal regulatory agencies
l. Review of land use plans and coordination with land use planning agencies

All modifications to the Plan must be approved by United Water's Board of Directors. United Water cannot adopt a modification unless at least four members of the AB3030 Council approve. One has to be an overlying member. The Council includes two Fillmore City Council

representatives, two private pumpers, two pumpers from mutual water companies, investor owned utilities or other water companies, and one United Board member.

An Annual Report is published each year that includes information on hydrogeology, precipitation, streamflow, groundwater recharge, groundwater pumpage, water quality, chloride TMDLs, wastewater reclamation plants, Toland Landfill and crop type changes.

AB3030 Groundwater Council meetings are held at least once a year. At these meetings the Annual Report is discussed. Also discussed are pertinent issues such as drought planning and the AWRM chloride mitigation plan. In recent years many of the orange trees in both basins have been replaced by avocado, row crop and high water use tree nurseries.

Upper Basin Pumping and Santa Clara River Flows

To understand how upstream pumping affects downstream aquifers, the following hydrogeologic summary is provided.

The primary recharge mechanisms for the Piru, Fillmore and Santa Paula groundwater basins are mountain-front recharge and recharge from the major streams flowing through these basins. The deep percolation of rainfall in the upland areas adjacent to the river valley eventually flows into the lowland areas of valley fill. Small drainages in the foothills also contribute water to the groundwater basins. Significant groundwater recharge is also attributed to Piru Creek, Sespe Creek, Santa Paula Creek and the Santa Clara River, the major streams in the Santa Clara River Valley. The groundwater benefits from United Water's annual conservation releases from Lake Piru can be clearly seen in groundwater elevation hydrographs for wells in the Piru, Fillmore and Santa Paula basins.

Groundwater in the groundwater basins generally flows underground toward the down-gradient area of the basin.

Near their down-gradient boundaries, where the basins constrict and groundwater flows upwards, the Piru and Fillmore basins both discharge groundwater into the Santa Clara River, contributing to its flows. Groundwater pumping in these basins lowers the water table, resulting in less discharge at the basin boundaries, especially in average and dry years. Groundwater discharge from these basins provides much of the river's flow during dry periods. The Piru and Fillmore basins refill rapidly in significant wet years, resulting in significant groundwater discharge near the lower boundaries of the basins. Most of this basin filling comes during the first four or five months of the water year, and high base flows in the Santa Clara River are common in the spring and summer following a very wet winter.

Recharge to the Santa Paula Basin from the Santa Clara River is restricted by geologic structure and stratigraphy, except in the eastern portion of the basin near Santa Paula Creek. Thus, unlike the Piru and Fillmore basins, the Santa Paula Basin does not completely refill after

a significant wet year. In the western portion of the Santa Paula Basin, water level records from many wells suggest confined aquifer conditions. The Santa Paula Basin does not discharge back to the Santa Clara River at its western end, an area characterized by complex geologic structure and extensive faulting.

Wells pumping in locations where the groundwater is in hydraulic connection with streams likely reduces surface flow downstream to the Freeman Diversion. Wells pumping in locations where the capture zone of the well does not intersect the stream also influence groundwater flow and storage in the basins, but their influence on surface water flows are less pronounced. The location, magnitude and timing of the groundwater pumping in these upper basins variably affect flows in the Santa Clara River.

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SECTION 9 – FUNDING PROJECTS TO MOVE WATER EAST

PROBLEMS IN THE EAST

The aquifers in the southeastern Oxnard Plain are not in good shape. There is still water left to pump, for now. But present levels of groundwater pumping there are not sustainable. The Fox Canyon Groundwater Management Agency's *Groundwater Management Plan* estimates that pumping in that area would need to be reduced by 85% to reach a sustainable yield.

Existing surface water deliveries to the eastern Oxnard Plain by United Water and PVCWD have helped reduce groundwater pumping in this critical area. Even pumpers who are not connected to those supplies benefit from higher groundwater levels. Nevertheless, even more water is needed in the southern/eastern Oxnard Plain.

Figure 9-1 shows groundwater levels in the Oxnard Plain, in the Lower Aquifer System. Notice that some "troughs" in the east are over 80 feet below sea level. And this is after two relatively wet decades. (Note that the buried fault shown in the figure is no longer thought to exist.)

Saline intrusion appears to be getting worse in the eastern Oxnard Plain. The land area intruded by saline water in the Mugu area is increasing in both the upper and lower aquifers. Even far from the coast, groundwater quality has been degraded by overpumping. Higher chloride levels have been recorded in one of PVCWD's wells, one mile south of Camarillo. The upwelling of deep brine is believed to be the source of this chloride.

This information confirms what United Water's experts have been saying for years: Current levels of groundwater pumping in the southern/eastern Oxnard Plain are not sustainable, and the next drought could have significant impacts.

GROUNDWATER CONDITIONS AND CHARACTERISTICS

Groundwater conditions in the eastern/southern Oxnard Plain should be considered when setting zones and pump charges within the District.

Until about a year ago, it was believed that a buried obstruction in the Oxnard Plain was created by an underground fault separating the lower aquifer system there, impairing groundwater flow towards the east and south. The groundwater levels in the lower aquifer system, showing the location of the formerly-hypothesized buried fault, are shown in Figure 9-1.

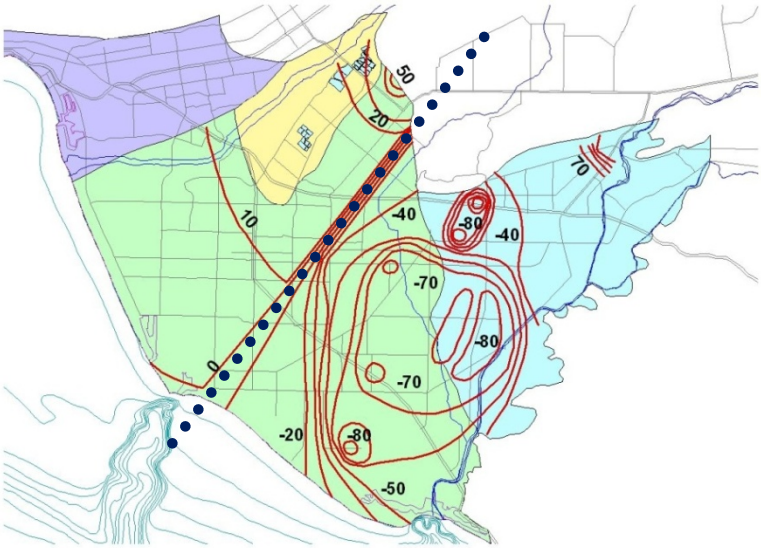

Figure 9-1

Groundwater levels in the Lower Aquifer System relative to sea level in 2007, showing troughs as low as 80 feet below sea level in some areas to the east and south. Formerly it was thought that a buried fault or other type of restriction was located along the dotted line, where the lines are close together, indicating a sharp drop in water levels. Recently it has been determined that the contours in that area were an artifice caused by improperly including wells perforated in multiple zones.

However, more recent studies indicate that the hypothesized fault zone does not really exist. The groundwater levels shown in Figure 9-1 were based partly on wells that were perforated in both the upper and lower aquifers, which skewed the contours. When only wells that are known to be perforated in the lower aquifer are considered, the buried fault zone is no longer observed. That result has relevance to a possible future Zone D, as discussed later in this report.

The Pleasant Valley Basin in the eastern part of the Oxnard Plain is a separate basin, defined where the upper aquifer system is absent, as shown in Figure 9-2 below.

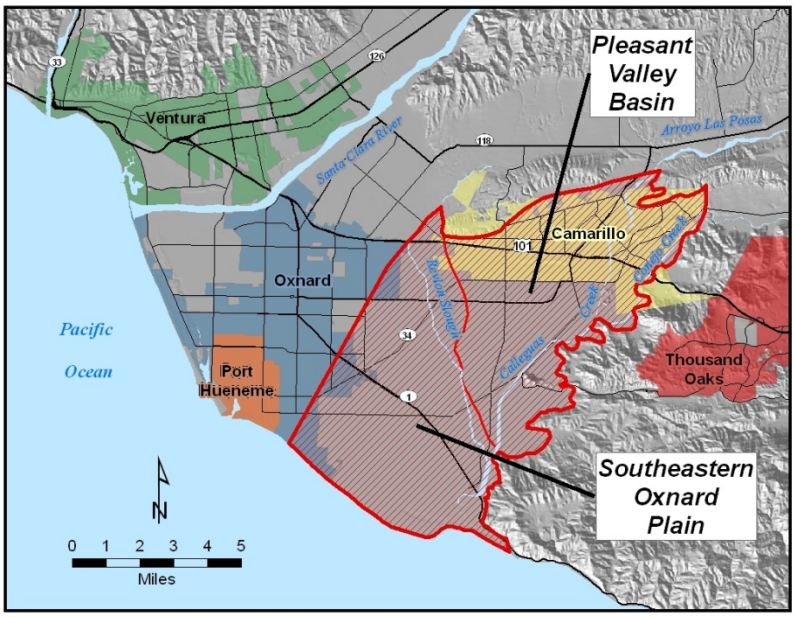

Figure 9-2

Location of the Pleasant Valley Basin relative to the Southeastern Oxnard Plain.

In a sense, the Pleasant Valley Basin is an extension of the lower aquifer system, but without an overlying upper aquifer.

The Upper Aquifer System (UAS) is apparently not isolated by any buried fault or obstruction. The groundwater levels in the UAS in 2004 are shown in Figure 9-3 below:

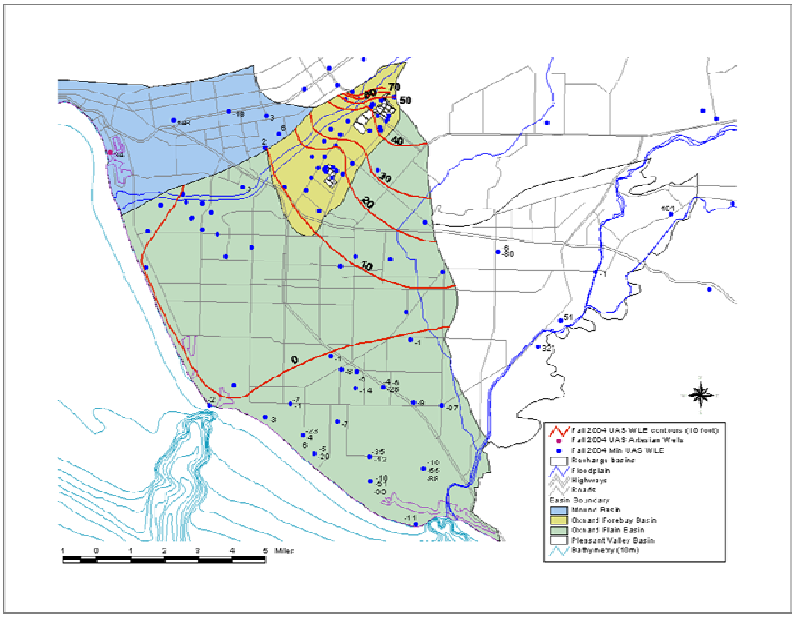

Figure 9-3

Groundwater levels in the Upper Aquifer system in 2004. Note the lack of effects from any buried fault. (That year was dry.)

Notwithstanding the contours in Figure 9-3, there are locally low groundwater levels in the Mugu area in the upper aquifer system.

THE EAST IS UNIQUE

Of all the basins United manages, the eastern/southern Oxnard Plain is the most unique. It receives limited recharge from existing facilities. Yet United's current operations and long-range planning efforts are focused heavily on that area. It is the area that is most intruded by seawater.

For example, in the fall of 2009 United scheduled its fall release from Santa Felicia Dam to coincide with the planting of strawberries in the eastern Oxnard Plain. As was done in 2008, all of United's facilities were utilized to optimize the benefits to a single area: A release from Lake Piru, Diversions at the Freeman Diversion, supply via the PV pipeline, and delivery through the PTP System. No other part of the District receives so much attention and effort. Of course, other basins also benefitted from the release as well.

In addition, PVCWD, the PTP customers and the PV Pipeline customers receive more of their share of State water than would be proportional to the property taxes paid in those areas.

The basic principle behind the General Fund, that any pumper within the District will affect or be affected by other pumpers, applies to a lesser degree to the eastern Oxnard Plain. Lower aquifer groundwater levels in the east are somewhat isolated from groundwater levels in the west by the slow movement of water underground.

The relative isolation of the eastern/southern Oxnard Plain could provide some justification for a new zone there to pay for facilities to solve problems unique to that area.

POTENTIAL NEW ZONE D

A new Zone D could be created, subject to Board approval and a customers' vote, to pay for facilities that convey water for direct delivery or in-lieu recharge of the critically over-drafted south/eastern Oxnard Plain aquifers. The creation of any new finance zone would require the District to follow Proposition 218 ballot procedures. A new Zone D could pay for projects and programs such as Water Transfer Across the Plain (TAP), an extension of the PTP system, pipelines to increase water supplies within the new zone, and/or construction and operation of injection wells in the eastern zone. The boundaries of a new Zone D could approximately be as shown on the map in Figure 9-4.

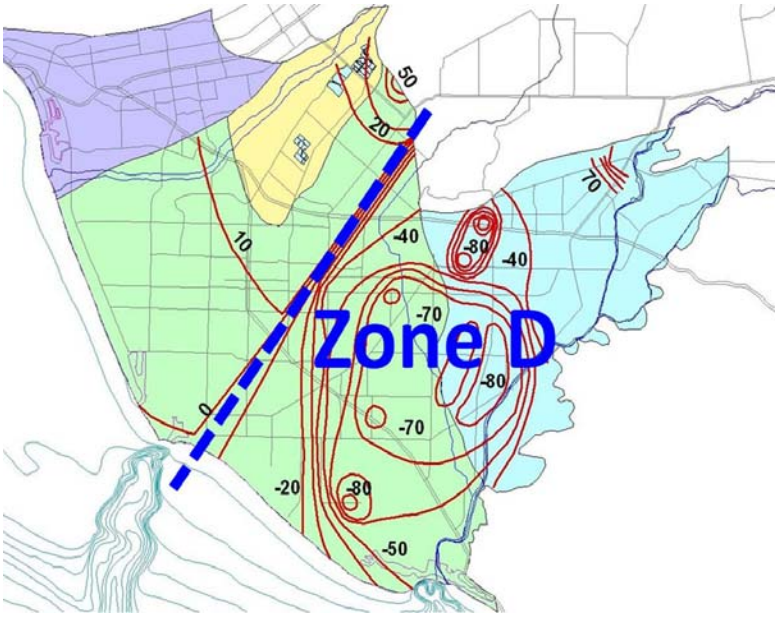

Figure 9-4
Map of a possible future Zone D, to fund projects that move water from the northwest to the southern and eastern parts of the Oxnard Plain.

With a new Zone D, the costs of facilities would be distributed among the funds within the District based on the following simple guidelines:

General Fund – pay for facilities and operations that recharge groundwater, or provide a District-wide benefit.

Freeman Fund – pay for facilities and operations related to the Freeman Diversion
AND/OR
Safe Yield Fund – pay for facilities and operations that benefit the entire Oxnard Plain

Zone D – pay for facilities to move water from the Forebay toward the eastern/southern Oxnard Plain.

Costs for specific projects could be allocated among funds in some proportion at the discretion of the Board.

UPDATE ON ZONE D

The original hydrogeological justification for considering a Zone D is no longer valid. The absence of any underground fault or obstruction means that all pumpers in the Oxnard Plain are drawing from the same aquifers. A Zone D now has a more limited use: to fund specific facilities that would benefit only the areas to the east.

WATER TAP PROGRAM

An example of a project that could be funded by Oxnard Plain pumpers is the Water TAP Program. That program, if it proceeds, would be a partnership between four local water agencies to deliver more water from the Conejo Creek Diversion to agriculture on the eastern Oxnard Plain.

Conejo Creek water has its origin many miles upstream in the City of Thousand Oaks, which releases highly treated recycled water into Conejo Creek. To make this water available, new facilities must be constructed within Camrosa Water District, which must also import more water from Calleguas MWD.

The Water TAP program would result in an additional 3,000 to 7,000 AF/Yr of water delivered to PVCWD. Besides PVCWD's customers, all pumpers in the eastern Oxnard Plain would benefit from the higher groundwater levels that would result from decreased pumping by PVCWD. To distribute costs among those who would benefit the most, a new Zone D could help fund the program. Another option would be to distribute costs between Zones B, C and D in some proportion. A third option would be to pay for Water TAP from the Freeman Fund based on a postage stamp approach for the Oxnard Plain. The Board may not want to create a distinction

within the Oxnard Plain on the basis that if you create one subzone, some pumpers may want several more zones, in an area that is strongly interconnected.

2011 Update: The Water TAP Project is no longer being actively pursued by its participants. The program depended heavily on the City of Oxnard's participation. However, Oxnard is focused instead on its GREAT program, and the Water TAP program is not economical without Oxnard's participation. If a new configuration is proposed by Camrosa Water District, United's Board can consider whether and how United should participate.

Land Values in the eastern/southern Oxnard Plain

In considering whether to create a new Zone D, it is relevant to consider the possible effects of seawater intrusion on land values in the eastern Oxnard Plain. The latest data from coastal monitoring wells indicate that approximately an additional 250 acres of land per year is being intruded by underlying saline water in the Mugu area. The appraised value of prime agricultural land in the Oxnard Plain is around $70,000 per acre. The loss of 250 acres per year represents a land value of $18 million dollars a year. Presumably, the land has value partly due to the availability of water.

The approximately 20,000 acres of land in the southeastern Oxnard Plain has a value of around 1.4 billion dollars. Maintaining that value should provide an incentive to spending a fraction of that amount to address groundwater problems there. This view provides a further justification for a new Zone D.

Similarities between Zones B and D

When considering how to pay for facilities that move water from the west to the east, the Ventura lawsuit that resulted in the creation of Zone C is relevant. Just as Ventura successfully argued that they benefited less from the Freeman Diversion, pumpers in the western part of the Oxnard Plain may argue that they would not benefit from facilities to pump water to the east. In fact, pumpers in the west will be adversely affected when more pumping from the Forebay results in lower groundwater levels there. This view provides another argument in favor of a new Zone D as discussed above.

Limits to Oxnard Forebay Pumping

Most of the planned projects that help the eastern/southern Oxnard Plain provide for increased pumping from the Oxnard Forebay. Even the Forebay has limits to how much can be pumped there. This is an issue that must be addressed as these various projects are developed.

BOARD POLICY

There is sufficient uncertainty in groundwater conditions that arguments can be made for or against any method of distributing costs between zones and funds. It is impossible to account for every molecule of water and every acre-foot of benefit. Arguments made in this draft Rate Report on either side are for information only, and are not intended to represent any final conclusion. In the end, it is a Board policy decision how to set zones and charges.

See Part 3 of this Rate Study for the adopted Board policy on a potential Zone D.

SECTION 10 – SUBSIDIES FOR AGRICULTURAL DELIVERIES

UNITED'S GROUNDWATER MANAGEMENT GOALS

Water supply to agriculture plays an important role in achieving United's water management goals. By delivering water to growers in critical areas, they pump less from their wells, providing "in-lieu" recharge where direct recharge is difficult.

Therefore, ensuring that farmers are willing to receive water from United is essential for United to meet its goals. This will benefit not only agricultural pumpers, but M&I pumpers as well, who rely on healthy aquifers.

United cannot force farmers to purchase our water; we can only offer it at an affordable price. If our water is over-priced, farmers may drill and pump their own wells.

WHAT IS A "DEATH SPIRAL?"

Ocean View MWD was an agricultural water district supplied from the OH System through the City of Oxnard. As the price for Ocean View water increased, farmers stopped using the water and returned to pumping their own wells. As fewer customers remained on the Ocean View pipeline, rates increased to pay for fixed expenses. Eventually, the water became so expensive that Ocean View MWD defaulted on its water bills. That process is called a "death spiral." The City of Oxnard took over operation of the Ocean View pipeline and Ocean View MWD was dissolved.

The dissolution of Ocean View MWD is an example of how higher water rates for farmers can work against good groundwater management. Today, there are farmers pumping from the critically overdrafted portions of the aquifer when they should be taking OH water pumped from the Forebay. That works to the detriment of the aquifers. Yet, we cannot force those pumpers to take more expensive water.

The need to encourage farmers to take water from United provides some justification for subsidizing deliveries to agriculture. All pumpers could benefit.

OPTIONS FOR SUBSIDIZING AGRICULTURAL DELIVERIES

The District could consider the following options:

1) SUBSIDIZING THROUGH PUMP CHARGES

To date, United's philosophy for setting rates has been that the PTP system pays for its own operational costs through water rates. Deliveries to PVCWD are also handled the

same way. Perhaps the most effective way to subsidize water deliveries to agriculture is to use pump charges to pay part of the costs of delivering water to agriculture.

When a grower stops taking water from United or PVCWD and starts pumping his own well, he takes advantage of low pump charges. He also benefits from the higher groundwater levels caused by United's water deliveries to his neighbors.

One way to discourage such pumping is to move part of the cost of water delivery to the pump charge. That would have the effect of increasing pump charges and decreasing water delivery rates. It would encourage growers to remain on the PTP and PVCWD systems, and would discourage pumpers from using their own wells. This provides an incentive for growers to help United meet its water management goals.

Therefore, the Board could consider moving some of the cost of delivering water to PTP and PVCWD onto the pump charge. The construction of new facilities should especially be considered for that approach. A new Zone D would be one way of accomplishing that.

2) Waive-in-lieu pump charges

At present, the PTP and PVCWD funds pay "in-lieu pump charges" for each acre-foot, equal to the General Fund pump charge plus the Freeman Fund pump charge. This was instituted years ago to ensure that everyone paid for the construction of the Freeman Diversion. It was thought that customers who receive water directly from the diversion should help pay for its construction and operation via the in-lieu pump charge.

Nevertheless, one way to subsidize direct deliveries to agriculture would be to waive their in-lieu pump charges – either the Freeman Fund, the General Fund, or both. The result would be that the Freeman and General Fund pump charges would have to increase slightly to compensate for the loss in revenue. As a result, the other pumpers would partly subsidize surface water deliveries to agriculture, which are an important component in United's water management strategy.

Another option would be to waive the Freeman in-lieu pump charge in 2011, after the Freeman loans are paid off. In that way, PTP and PV systems will have paid their share of the construction of the Freeman Diversion.

The effect of waiving the in-lieu pump charges for both PTP and PVCWD systems, and for agriculture in the OH system, is summarized in the following table:

Table 10-1
Effects of waiving In-Lieu pump charges for Agriculture

Fund/Type	2010 rates	Rates if In-lieu charges waived
General Fund		
Ag	$16.45	$17.79
M&I	$49.35	$53.37
Freeman Fund		
Ag	$18.00	$20.88
M&I	$54.00	$62.64

As can be seen, if in-lieu pump charges are waived, the General Fund pump charges would increase by 8% and the Freeman Fund pump charges would increase by 16%. In effect, the other groundwater pumpers would be subsidizing direct deliveries to agriculture. As can be seen, the effect on the two pump charges would be modest.

3) Ocean View subsidy

The Ocean View (OV) pipeline formerly supplied around 3,000 AF/Yr to agriculture along Hueneme Road, east of Oxnard. Due to increasing costs of the potable-quality OH water delivered through the pipeline, many growers switched to pumping their own wells rather than purchase water from the pipeline. As a result, Ocean View pipeline deliveries have declined to around 1,500 AF/Yr.

Compared to other projects that move water from the Forebay to the coast, one of the most cost-effective options would be to subsidize deliveries to the OV Pipeline, to encourage growers to take that water and stop pumping their wells. That would have the effect of moving pumping from the coast to the more easily recharged Forebay. The way that would work would be that Oxnard Plain pumpers would pay a higher Freeman or Safe Yield fund pump charge and that money would be used to reduce purchase cost of OV water.

It is assumed that the OV customers would pay around the same for OV water as the PTP rate. United would supply the demand to agricultural customers based on the OH marginal rate, and subsidize the difference between the PTP rate and the $307 Oxnard currently charges for that water (2009).

One sensitive issue is that it would be difficult to subsidize new customers only, while continuing to charge a higher rate for existing customers. We would have to make the subsidized rate contingent on several factors:

- It would apply only to agriculture.

- Customers would have to make an application for the lower rate.
- The proximity to United's Seawater Barrier Pilot Well would be considered.
- Historical demand would be considered.
- The types of agricultural use would also be considered.

This program would move pumping away from the coast and would protect United's future seawater barrier wellfield. The cost is estimated to be around $1 per AF added to the Freeman or Safe Yield pump charges.

4) The Saticoy Moss Screen Facility

Another potential method for subsidizing deliveries to agriculture would be to have the General or Freeman funds contribute to the cost of operating the moss screen facility.

The moss screen facility removes algae and particulate matter from surface water diverted at Freeman. Agricultural customers are affected by stuff in their water, which plugs sprinkler heads and filters.

The moss screen is designed to filter 225 CFS, of which 75 CFS flows to agriculture and 150 CFS to the El Rio spreading grounds. It is impossible to separate the water going to agriculture from that going to the spreading grounds. Since algae and critters do not affect our ability to recharge water, the District has historically charged the entire cost of the moss screen operation to the agricultural customers.

Nevertheless, the moss screen must filter the 150 CFS that goes to El Rio. The Board could set a policy that the General Fund, or Freeman Fund, should pay the cost of filtering water used for spreading. That would reduce the moss screen costs paid by our agricultural customers. The net effect would be that other pumpers would subsidize surface water deliveries to agriculture. The justification would be that those other pumpers benefit when their neighbors take surface water and reduce pumping.

The Board could consider three options for sharing moss screen costs to reduce the burden on PTP and PVCWD customers:

a) Proportion costs by the amount of water delivered through the moss screen each month to agriculture and recharge.

b) Proportion costs by the design capacity of the moss screen: 75 CFS to agriculture and 150 CFS to groundwater recharge. With that method, the General Fund would pay about 2/3 the moss screen costs.

c) Place all of the moss screen costs in the Freeman or Safe Yield Funds, and treat the cost of the moss screen as part of the operation of the Freeman Diversion.

Moss screen costs are significant. The recent rehab/repair project cost $588,000. The annual O&M costs in the past six years are summarized below:

Fiscal Year	Annual cost	
2003-04	$93,456	
2004-05	$62,150	
2005-06	$99,131	
2006-07	$85,419	
2007-08	$87,496	
2008-09	$87,371	(to date)

Paying for part of these costs from the General or Freeman funds would decrease costs to the PTP and PV customers, though it would increase the pump charges for the other pumpers in those zones.

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SECTION 11 – PTP PEAKING SURCHARGE RATE

BACKGROUND

As more of United's PTP customers switch to growing strawberries, demands in the month of October have increased, as shown in the following figures:

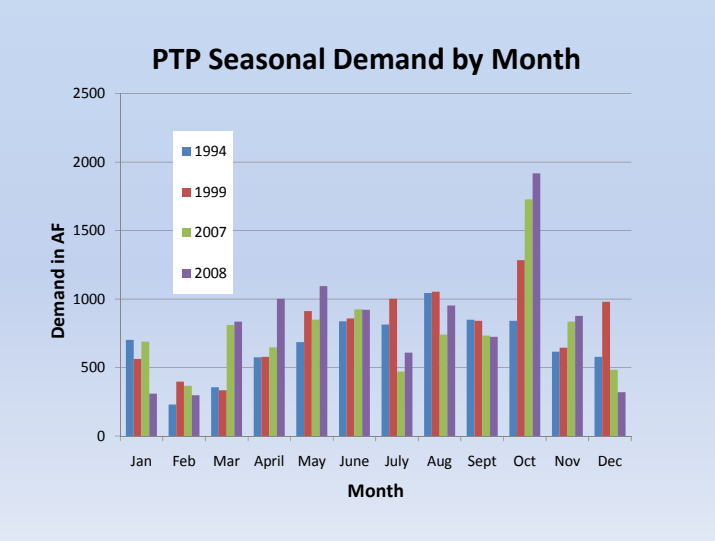

Figure 11-1

Monthly demand in the PTP System, increases in October demands in recent years.

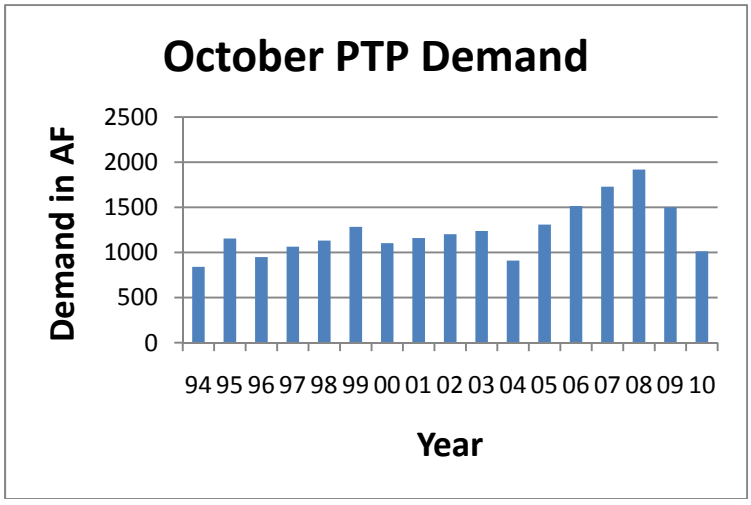

Figure 11-2

Increases in October PTP water demand between 1994 and 2008. Fortunately, October demands dropped in 2009 and 2010 due to favorable weather and improved irrigation methods.

The reason for this increase in October demands is that most strawberries are transplanted in October. The young plants must be heavily irrigated until their roots become established. This problem is exacerbated by strong east winds in October. Once the roots reach the drip tape installed in the raised beds, the irrigation process becomes highly efficient, and water demand declines.

The District held a meeting with its PTP customers on January 22, 2009, to explain this problem. A second meeting on this topic on April 20, 2009, was hosted by the Ventura County Agricultural Association.

PEAKING SURCHARGE RATE

At the January 22 PTP customers' meeting, we discussed the option of implementing a peaking surcharge rate for the PTP system. The surcharge is useful for the following reasons:

1) Make our customers aware of the problems caused by excessive peaking.

2) Discourage peaking during critical periods.

3) Collect revenue to allow the District to construct future facilities, such as additional wells and a booster pump station, which will accommodate higher peak demands.

The intent is that the folks who are doing the most peaking would pay for the facilities needed to supply those peak demands.

FUNDS TO BE KEPT SEPARATE

Funds collected from a PTP peaking surcharge are kept in a "Designated Reserve," and are dedicated only for constructing facilities to accommodate peak demands, or to provide incentives to customers to pump their own wells during peaks when requested.

EXAMPLE OF A PEAKING SURCHARGE RATE

An example of how a PTP surcharge could work is summarized as follows:

Each PTP customer's turnout would be assigned an allowable monthly water use based on the following:

1) Any customer could pump up to 5 AF per month without incurring a surcharge, no matter how high his/her peaking factor. This allows small customers to not worry about peaking.

2) At each turnout, the amount of usage in any month exceeding 1.5 times the higher of the following averages would be assessed the peaking surcharge rate:

The average monthly delivery to that turnout between 2004 and 2008, inclusive.

The average monthly delivery to that turnout in 2008.

3) Notwithstanding any historical usage, the amount of usage in any month that exceeds 40 AF at each turnout would be subject to the surcharge rate.

A spreadsheet was developed that allowed the above criteria to be varied, based on actual demands by our PTP customers between 2004 and 2008. The various parameters can be adjusted in the spreadsheet.

If a surcharge of $50 per AF is charged under the above rules, an additional annual revenue of $65,646 would be raised, based on 2008 water deliveries. Out of 62 turnouts, 15 would see no increase in cost, 34 would see 5% or less increase in cost, 5 would see an increase between 5% and 10%, and 8 would see an increase of 10% or more. The greatest increase would be 24%, experienced by a customer who is using his PTP turnout primarily to receive water during peaks.

The effects of a $50/AF surcharge, as described above, on each of our PTP customers, denoted by turnout number, is summarized on the following table:

Table 11-1

Impacts on PTP Customers from a $50/AF Peaking Surcharge Based on 2008 Water Usage

Allowed peak = 1.50
Min AF/Month = 5
Max AF/Month = 40

Base rate = $143
Surcharge rate = $50

Turn-out No.	Historical Annual Demand 2004	2005	2006	2007	2008	2004-08 Average	Allowed Monthly Use	Over in 2008	High Month 2008	Peak Factor	Customer Water Cost Base cost	Sur-charge Cost	Add'l Pcnt
080-0100	27.6	55.0	66.1	78.9	85.8	62.7	10.7	17.3	28.1	2.6	$12,271	$867	7%
080-0101	135.3	143.5	138.1	123.8	119.6	132.1	16.5	0.0	14.0	0.8	$17,103	$0	0%
080-0102	15.4	14.5	4.4	7.3	14.4	11.2	5.0	0.0	3.1	0.6	$2,056	$0	0%
080-0103	18.8	22.9	35.1	23.5	25.1	25.1	5.0	0.0	3.1	0.6	$3,584	$0	0%
080-0104	118.6	26.5	3.8	4.8	14.7	33.7	5.0	0.0	2.1	0.4	$2,098	$0	0%
080-0105	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	$0	$0	0%
080-0106	36.8	21.5	46.1	67.0	76.2	49.5	9.5	3.2	11.4	1.2	$10,889	$160	1%
080-0107	124.3	97.6	62.6	88.6	87.9	92.2	11.5	24.3	25.5	2.2	$12,575	$1,215	10%
080-0108	12.5	12.8	9.8	24.0	19.7	15.8	5.0	0.0	3.0	0.6	$2,814	$0	0%
080-0109	305.7	265.4	282.2	319.6	349.3	304.4	40.0	25.7	48.3	1.2	$49,953	$1,287	3%
080-0110	267.5	304.0	316.0	317.3	341.0	309.1	40.0	36.7	75.0	1.9	$48,762	$1,834	4%
080-0111	0.0	0.0	0.0	0.0	47.0	9.4	5.9	23.0	24.1	4.1	$6,722	$1,152	17%
080-0112	362.1	209.7	242.2	293.4	269.7	275.4	34.4	17.3	51.7	1.5	$38,570	$863	2%
080-0113	27.4	21.7	28.5	88.9	59.2	45.1	7.4	22.0	16.2	2.2	$8,471	$1,102	13%
080-0114	17.1	7.7	17.1	27.6	27.8	19.5	5.0	0.0	4.8	1.0	$3,980	$0	0%
080-0115	85.8	78.1	91.9	99.6	111.6	93.4	14.0	2.6	16.1	1.2	$15,965	$131	1%
080-0116	15.0	11.6	0.0	76.4	272.7	75.1	34.1	37.9	60.3	1.8	$38,993	$1,896	5%
080-0117	185.7	159.4	175.6	185.9	166.0	174.5	21.8	17.6	38.8	1.8	$23,744	$880	4%
080-0118	47.9	50.3	96.4	6.0	19.3	44.0	5.5	13.1	18.6	3.4	$2,758	$655	24%
080-0119	127.8	110.2	120.6	126.4	131.1	123.2	16.4	15.3	31.7	1.9	$18,747	$765	4%
080-0120	252.3	294.4	187.0	303.1	250.6	257.5	32.2	61.3	93.5	2.9	$35,836	$3,065	9%
080-0121	129.1	136.7	105.2	125.6	122.9	123.9	15.5	25.1	30.0	1.9	$17,570	$1,255	7%
080-0122	31.8	19.6	27.0	47.5	52.7	35.7	6.6	7.5	13.2	2.0	$7,529	$377	5%
080-0123	166.9	172.3	190.1	223.1	260.0	202.5	32.5	33.7	66.2	2.0	$37,184	$1,686	5%
080-0124	255.3	193.7	300.4	357.0	397.9	300.8	40.0	42.1	72.4	1.8	$56,901	$2,103	4%
080-0125	118.7	138.4	194.0	237.3	232.5	184.2	29.1	23.0	52.1	1.8	$33,245	$1,152	3%
080-0126	57.0	3.1	0.3	3.6	0.0	12.8	5.0	0.0	0.0	0.0	$0	$0	0%
080-0127	63.9	47.6	51.4	61.0	60.7	56.9	7.6	5.7	10.0	1.3	$8,680	$284	3%
080-0128	0.6	0.0	0.0	0.5	0.0	0.2	5.0	0.0	0.0	0.0	$0	$0	0%
080-0129	116.2	71.0	35.6	27.8	132.5	76.6	16.6	75.8	58.0	3.5	$18,943	$3,792	20%
080-0130	40.7	131.9	49.7	56.7	62.4	68.2	8.5	0.2	8.7	1.0	$8,916	$8	0%
080-0131	209.0	210.8	206.3	206.0	228.5	212.1	28.6	23.8	42.4	1.5	$32,680	$1,191	4%
080-0132	98.2	87.8	114.4	111.0	103.0	102.9	12.9	2.6	14.4	1.1	$14,733	$129	1%
080-0133	4.2	0.0	0.0	53.8	0.0	11.6	5.0	0.0	0.0	0.0	$0	$0	0%
080-0134	57.3	40.1	48.5	73.2	80.0	59.8	10.0	11.2	21.2	2.1	$11,434	$562	5%
080-0135	224.8	218.9	258.5	301.4	232.8	247.3	30.9	22.6	44.2	1.4	$33,295	$1,130	3%
080-0136	171.3	188.0	192.8	231.6	253.5	207.4	31.7	45.5	67.1	2.1	$36,248	$2,277	6%
080-0138	225.8	228.7	225.4	257.3	237.3	234.9	29.7	40.1	68.3	2.3	$33,938	$2,003	6%
080-0139	175.5	93.2	157.6	134.4	107.8	133.7	16.7	13.8	27.3	1.6	$15,418	$688	4%
080-0140	164.4	218.9	478.8	364.8	330.6	311.5	40.0	51.6	68.2	1.7	$47,272	$2,581	5%
080-0141	152.2	205.5	139.0	228.0	204.1	185.8	25.5	18.1	32.6	1.3	$29,191	$905	3%
080-0142	234.6	274.7	269.4	299.5	354.0	286.4	40.0	34.2	68.5	1.7	$50,619	$1,709	3%
080-0143	186.5	186.8	202.7	184.7	196.3	191.4	24.5	25.2	41.4	1.7	$28,069	$1,260	4%
080-0144	195.2	144.8	133.4	247.5	297.7	203.7	37.2	0.6	37.8	1.0	$42,573	$30	0%
080-0145	214.7	224.6	271.2	283.0	262.7	251.3	32.8	0.0	31.2	0.9	$37,565	$0	0%
080-0146	91.0	29.7	51.7	38.6	17.4	45.7	5.7	1.6	7.3	1.3	$2,488	$79	3%
080-0147	199.8	182.7	174.1	177.0	244.7	195.6	30.6	10.0	37.0	1.2	$34,988	$500	1%
080-0148	56.7	39.4	44.2	31.4	49.8	44.3	6.2	4.0	10.3	1.6	$7,126	$201	3%
080-0149	304.8	392.2	507.0	444.9	520.5	433.9	40.0	141.4	108.4	2.7	$74,430	$7,072	10%
080-0150	9.4	17.9	19.4	18.6	25.5	18.2	5.0	0.0	3.9	0.8	$3,642	$0	0%
080-0151	14.7	1.8	5.3	8.9	30.4	12.2	5.0	1.1	5.7	1.1	$4,346	$54	1%
080-0152	256.2	227.5	238.5	274.2	297.8	258.9	37.2	36.3	73.5	2.0	$42,587	$1,814	4%
080-0153	590.5	522.4	502.5	602.6	592.1	562.0	40.0	193.4	153.0	3.8	$84,670	$9,671	11%
080-0154	49.6	39.9	1.3	0.1	34.5	25.1	5.0	4.5	6.6	1.3	$4,934	$224	5%
080-0155	278.9	233.9	204.5	241.5	246.5	241.1	30.8	22.9	53.7	1.7	$35,254	$1,146	3%
080-0156	41.8	70.4	79.2	96.1	174.3	92.3	21.8	2.9	24.7	1.1	$24,925	$145	1%
080-0157	13.8	3.2	8.0	12.7	11.7	9.9	5.0	0.0	2.1	0.4	$1,677	$0	0%
080-0158	452.9	531.6	491.4	390.1	307.2	434.7	40.0	4.9	43.6	1.1	$43,930	$247	1%
080-0159	233.4	254.1	273.3	298.6	256.7	263.2	32.9	26.2	45.7	1.4	$36,704	$1,309	4%
080-0160	4.0	0.0	23.9	0.0	0.0	5.6	5.0	0.0	0.0	0.0	$0	$0	0%
080-0161	283.0	288.8	286.6	277.6	351.2	297.4	40.0	34.2	63.7	1.6	$50,220	$1,711	3%
080-0162	0.0	0.0	0.0	0.3	15.3	3.1	5.0	9.7	14.7	2.9	$2,192	$484	22%

OTHER SURCHARGE OPTIONS

Other options for a surcharge rate are provided in the table below, where the effects of changes from the preceding "base case" are summarized.

Table 11-2

Options for a PTP Peaking Surcharge Rate

Option	Allowed Minimum (AF/Mo.)	Allowed Peaking Factor	Maximum per month (AF/Month)	Surcharge Rate ($/AF)	Add'l Revenue	Average Increase	No. of TO's w/o increase	Max Increase	Comments
1	5	1.5	40	$50	$65,600	5%	14	24%	Base case
2	0	1.5	40	$50	$66,500	5%	11	24%	
3	5	1.5	100	$50	$52,300	4%	15	24%	
4	5	2.0	40	$50	$51,200	4%	24	22%	
5	5	1.5	40	$100	$131,300	9%	14	47%	
6	5	2.0	100	$50	$27,500	2%	26	22%	Soft approach
7	5	2.0	100	$100	$55,100	4%	26	44%	

Changes from the base case are outlined

A minimum monthly maximum of 100 AF/month per turnout is not exceeded by any PTP customers; that option would effectively eliminate any surcharge for exceeding some pre-set level at one turnout. A peaking factor of 2.0 instead of 1.5 would affect fewer customers, but would result in less revenue if rates are increased in the future. The Board has many options to consider.

ONLY A FIRST STEP

The surcharge options described above represent only a first step towards bringing peak demands into balance with supply. The revenues received will not be sufficient to entirely fund a future well. This surcharge will only be a stop-gap measure, serving to make our customers aware of the problem and make a down payment on a well. With any luck, our customers will voluntarily take steps to reduce their peak demands.

DISCUSSION

A PTP surcharge as described was be implemented in the FY 2009-10 budget. The extra revenue raised will build a designated reserve to help pay for future facilities to accommodate the peaking. Such additional facilities could include new wells and a booster pump station.

Without additional facilities, we anticipate that, in a future drought, we will have to notify our PTP customers in April that we would not be able to meet their peak water demands the following October.

WELL DEMAND RELIEF PROGRAM

One option that has been discussed with our PTP customers is the option to ask some customers with wells to use their own wells during peak demand periods. We have surveyed our PTP customers, and several of them have wells with sufficient flows to make a difference. The way this process would work is as follows:

1) We would prepare and execute contracts with selected customers who have wells. The specifics of the contracts have yet to be worked out.

2) When PTP demands exceed the available system capacity, for example during east winds in October, those customers would be called by phone and asked to reduce their PTP water use and to turn on their wells.

3) United's staff would read the participating customers' PTP meters and well meters at the beginning and end of the declared shortage emergency.

4) United would provide a financial incentive for the use of well water during the shortage emergency. The details have yet to be worked out. No penalty would be imposed for non-compliance.

The procedures must be developed in a way to avoid paying customers for using wells that they would have used anyway.

This program would be similar to Southern California Edison's "Demand Relief Program," which United has participated in for many years. Under that program, we contract with SCE, through an intermediary, to participate in the program. When a brown-out is threatened, we receive a call from SCE to request us to stop using our OH electric booster pumps. At that time, we turn off our electric motors and turn on our natural-gas engine-driven OH booster pumps. We pump using natural gas during the brown-out. At the end of the shortage condition, we resume pumping using our electric motors. We receive a financial payment from SCE for the amount of energy we don't use, based on our average demand in previous years. The details of this program are somewhat complex.

In order to make a similar program work for the PTP System, we must offer a financial incentive to stop taking PTP water. To do so, the proposed PTP surcharge rate would provide additional funds for that purpose.

ADOPTED SURCHARGE RATE

In FY 2009-10, the District adopted a PTP Tier 2 rate. That plus our outreach program has reduced October water demands in 2009 and 2010. However, those years also experienced milder weather and some rain. Ultimately, the full impact on October demands will not be known until the next time we have a dry October with high winds.

NOTICE

****New PTP Peaking Rate Adopted****

This notice was sent to PTP customers in 2009, describing the peaking rate adopted in FY 2009-10.

Peaking rate adopted
At its June 10, 2009, regular meeting, the Board of Directors of United Water Conservation District adopted a new peaking rate for PTP irrigation customers. The peaking rate will add $50 per acre-foot to the standard PTP rate of $143/AF, for excess water used in any month.

Statement of the problem
As more of United's PTP customers switch to growing strawberries, water demands in the month of October have increased. If present trends continue, United may be unable to meet irrigation demands in October even in a normal rainfall year. The purpose of a PTP peaking rate is to:

- Discourage peaking during critical periods
- Collect revenues to fund new wells and other facilities to serve peaks

The additional funds raised will be placed in a designated reserve and used to help fund a new PTP well and/or other facilities to be built by October 2010 to help meet peaks and to provide backup well capacity.

Prior meetings
United discussed this problem with our PTP customers at a meeting in Oxnard on January 22, 2009. This was followed by a meeting on this topic hosted by the Ventura County Agricultural Association on April 20. One option discussed at both meetings was to impose a peaking rate on high demands.

Feel free to provide us with your comments
We are a customer-driven agency. Feel free to call Jim Kentosh at 525-4431, or email us at *JimK@UnitedWater.org* if you have any questions or comments. If you feel you have unique conditions we should consider, please let us know.

PTP Peaking Rate
How it will work for you

How much can you pump without paying the peaking rate?

Each customer's turnout has been assigned an allowable monthly water use based on the following:

1) Any customer can pump up to 5 AF per month from each turnout without incurring the additional charge, no matter how high his/her peaking factor. This means that small customers will not have to worry about peaking.

2) At each turnout, any amount of usage in any month exceeding 1.5 times the higher of the following historical average deliveries will be assessed the peaking surcharge rate:

The average monthly delivery to that turnout between 2004 and 2008, inclusive.

The average monthly delivery to that turnout in 2008.

3) Notwithstanding any historical usage, the amount of usage in any month that exceeds 40 AF at each turnout will be subject to the peaking rate.

Based on the above method, your allowable monthly water use at each turnout without paying the additional peaking charge is summarized below:

Your allowable monthly use without paying the peaking charge

Customer name	Turnout No.	Allowable Monthly use without a peaking rate (Acre-feet)

Peaking rate

The peaking rate for Fiscal Year 2009-10 has been set at $50/AF. This additional rate will apply only to excess water usage per turnout per month, above the limit provided in the above table, and will be added to the normal PTP rate of $143/AF, which includes the General Fund, Freeman Fund, and Fox Canyon GMA pump charges.

SECTION 12 – AWRM FUNDING

BACKGROUND ON AWRM

The Alternative Water Resources Management Program (AWRM) is an innovative watershed-wide and stakeholder-supported program to comply with the Upper Santa Clara River Chloride TMDL adopted by the Los Angeles Regional Water Quality Control Board. The program would manage chloride in the Santa Clara River and underlying groundwater basins and, as originally envisaged, would involve: (1) reducing chloride levels in recycled water through automatic water softener removals and conversion to ultraviolet light disinfection processes; (2) small-scale advanced treatment of wastewater with local brine disposal; (3) supplemental water to reduce chloride levels in the river; (4) alternative water supplies to protect salt-sensitive groundwater; and (5) facilities to remove high chloride groundwater in Ventura County from the watershed. The project would include a wellfield in Ventura County and a water supply pipeline from Los Angeles County to Ventura County. The stakeholders have entered into a Memorandum of Understanding for the implementation of the AWRM Program.

The AWRM Program would benefit all of United's service area with higher quality surface and ground water – restored to former ambient levels. Chloride levels in the Piru groundwater basin would be improved relative to their currently degraded condition. Additional water supplies would remain available for upstream and downstream basins.

The majority of the AWRM Program would be funded by Los Angeles County Sanitation District. United will pick up a smaller share of the project costs, including some modeling and some operational costs, to be determined. Considering that United's constituents would benefit from the program, compared to doing nothing, it appears to be appropriate to pay for United's share from the General Fund.

STATUS AS OF APRIL 2011

The Los Angeles County Sanitation Districts, in particular Santa Clarita Valley Sanitation District, have balked at the price tag for the AWRM Project. Their board has declined to impose the rate increase needed to start the project. They have advised the Regional Board that they do not intend to implement the chloride TMDL as adopted by the Regional Board. They are exploring other options, which are not yet well defined. As a consequence, it is too early to begin evaluating any effect of the AWRM Project on water rates. Background information is provided below to support any future dialogue on the AWRM Project.

The Regional Board may consider action against LACSD within the next few months.

RECHARGE TO THE PIRU BASIN

To understand the benefits of the AWRM Project, consider the following summary of upstream recharge to the Piru Basin.

Major surface water recharge locations for the Piru Basin include the Santa Clara River, Piru Creek, and Hopper Creek. The flow regime of Piru Creek was modified by the construction of Santa Felicia Dam in 1954, and by the importation of modest volumes of State Project water which is received upstream of Lake Piru. Over the past 30 years, rapid urban development in Santa Clarita and the surrounding communities in Los Angeles County have had a large impact on groundwater conditions in the Piru Basin. Beginning in 1980, the Castaic Lake Water Agency began to import water from the State Water Project. Volumes of imported water have increased steadily since that time, exceeding 40,000 AF annually in recent years. Increased water use in Santa Clarita has resulted in increased surface water flow in the Santa Clara River near the County line. Base flows of 20-30 CFS are now common in the Santa Clara River at the upper end of the Piru Basin. The high percolation capacity of the near-surface sediments in the Piru Basin often allow the entire flow of the Santa Clara River to infiltrate in the area east of Piru Creek. A "dry gap" in the river bed typically extends some five miles downstream to the vicinity of Cavin Road, east of the Fillmore Fish Hatchery.

Wastewater flows sourcing from Los Angeles County provide a significant and continuous source of groundwater recharge to the Piru Basin. The benefits of this recharge was apparent during the drought of the late 1980s, when water level in the Piru Basin remained above those recorded in a lesser drought in the late 1970s. The historic range in groundwater elevations in the central portion of the Piru Basin is on the order of 200 feet, but during the shorter dry periods in recent years, groundwater elevation have shown a range of approximately 75 feet. Historical documentation of surface water flow at the downstream end of the Piru Basin is rather poor, but higher water levels in the Piru Basin result in greater groundwater discharge to the Fillmore Basin. In a sense, a full Piru Basin acts as a reservoir, slowly discharging water to the lower reaches of the Santa Clara River Valley.

For a number of years the quality of Santa Clara River water entering Ventura County was relatively stable. Nitrogen concentrations increased with urbanization in Santa Clarita, but the installation of nitrogen removal facilities at the Valencia treatment plant remedied this problem in the early 2000s. A distinct trend of increasing chloride began in 1999, as self-regenerating water softeners gained popularity and SWP imports continued to grow. Beginning in the summer of 1999 chloride concentrations routinely exceeded 120 mg/l, and chloride values in the Santa Clara River peaked near 150 mg/l in 2004. Record rainfall was recorded in 2005, and the increased runoff and groundwater discharge from the upper watershed temporarily diluted chloride concentrations at Blue Cut (a stream gauging station near the county line). Since that time, ordinances in Los Angeles County have reduced the number of water softeners adding chloride to the wastewater in Santa Clarita. A chloride TMDL was developed for the upper Santa Clara River valley, which included treatment measures and conjunctive use facilities to

mitigate chloride loading to the Piru Basin. TMDL implementation appears to have stalled for now, as funding for the project has not been authorized. Chloride degradation continues in the eastern and central Piru Basin, with groundwater concentrations exceeding 130 mg/l recently recorded west of Piru Creek.

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SECTION 13 – AUTOMATIC ANNUAL RATE INCREASES

BACKGROUND

One ongoing problem with setting water rates is that there is a tendency to hold rates steady for several years, followed by a larger increase when it cannot be postponed any longer. These sudden jumps in rates can be disruptive to our customers, and create perception problems. An alternate would be for the Board to adopt regular automatic rate increases to prevent sudden spikes in rates.

Increases in both groundwater extraction and water delivery rates could be tied to the Consumer Price Index (CPI). Since groundwater extraction increases require that the District follow Proposition 218 guidelines, tying them to the CPI could allow for increases over multiple years with only one Proposition 218 ballot in advance of that period. Due to Proposition 218 requirements, the District may also want to consider increasing groundwater extraction rates by specific amounts over a specified period of time, such as an incremental increase over a 3 to 5 year period.

Although a single Proposition 218 proceeding would allow the District to raise rates for several years without repeating that process, it is important to note that the District would still need to undergo its annual groundwater hearing process to comply with State law governing procedures for noticing groundwater extraction charges.

WHICH RATES ARE SUBJECT TO PROPOSITION 218?

Of United's various water rates, the General Fund and the Freeman Fund are subject to Proposition 218 requirements. Water delivered under a contract is not subject to those requirements, including: OH Pipeline rates, PTP rates, PV Pipeline rates. The State Water Fund is not subject to Proposition 218 so long as we remain within the scope of the original property tax assessment. (It would take some more research to determine that original scope.)

PROCESS FOR CHANGING RATES

The Board could consider the following options for raising water rates in the future:

OPTION 1 – PROPOSITION 218 PROCEDURES

The District must abide by Proposition 218 if it wants to increase groundwater extraction charges to users. Proposition 218 requires that written notice be sent to all property owners/users that would be affected by the proposed rate increase at least 45 days prior to a public hearing before the Board of Directors. If a majority protest is received within this 45 day period, the Board would not be able to implement the proposed groundwater

extraction charge increase. If a majority protest is not received, the Board can proceed with a public hearing and vote to implement the proposed increases. Proposed pipeline delivery rate increases do not fall under Proposition 218 regulations as the users have service agreements with the District.

OPTION 2 – ELECTION TO INCREASE RATES

Anecdotal evidence suggests that Proposition 218 favors the ability of agencies to increase rates. It is difficult get 50% of any constituency to respond to forms to fill out, even if their money is at stake. One alternate the Board could consider is to use some form of election to obtain approval from our constituents to raise rates. This may be particularly applicable to an election to create a new zone, such as a potential new Zone D. Under this scenario, at least 50% of respondents would have to reply that they are willing to accept a rate increase. In fact, it would be at the Board's discretion whether to use a 50% acceptance level, or even 2/3 acceptance level before adopting an increased rate or new zone. This election process could be done in a way to accommodate both a fair election and a Proposition 218 process.

SECTION 14 – DIRECTOR'S SURVEY FORM

Note: This survey was not conducted, at the recommendation of District counsel.

The information in this report is intended to support Board decisions on future water rates within the District. It is evident that a large number of difficult issues are available for deliberation. The discussion of these issues continued beyond the adoption of the FY 2009-10 budget. To help us prioritize which of these issues we should focus on first, one option would be to provide a survey form for each director to select his priorities for future consideration and discussion.

On the survey form, each issue is presented briefly, along with a reference to where it is discussed in this *Preliminary Report*. Certain issues can be rated with one of the following categories:

Rating	Priority
3	High priority
2	Medium priority
1	Low priority
0	Should not be considered further

The fourth category, "should not be considered further" has also been characterized in previous planning efforts as "no way in hell," "over my dead body," or "dead on arrival."

Each director's individual rating would be kept confidential. A summary would be prepared of all the directors' ratings, which will provide the highest rating, lowest rating, and average rating for each issue. This may help the directors decide which issues staff should focus on in the next year.

The directors may also ask for more supporting information or more study on specific issues.

SURVEY NOT CONDUCTED

District counsel advised staff that asking United's directors to complete this survey form would be a violation of the Brown Act. Therefore, the survey was never conducted. It is included here for information only.

Non-Binding Directors' Survey

(Not conducted due to Brown Act restrictions)

Note: This survey was intended to help set priorities for future work by United's staff. The results of this survey would not commit United to any specific action. Formal Board approval at a future public meeting would be required before any of these policy issues is adopted or implemented.

Name_____ Date_____

Priority levels: 3 = High; 2 = Medium; 1 = Low; 0 = Should not be considered.

1) Should changes be made to the way the District's existing funds pay for services and activities? [1] Priority _____ Further study needed: Yes____ No____
Comments _____
_____
Note: the number in brackets is the section number in the draft Rate Study.

2) Should the current ratio of 3:1 for M&I to Ag be increased? [2]
Yes ____ No____ Priority for this issue _____

3) Should the District require meters on all wells? [3]
Yes____ No____ Priority_____

4) Should the District change its crop duty factors for estimating water usage? [3]
Yes____ No____ Priority____ Further Study needed? Yes____ No____

5) Should the way the District finances the Saticoy Wellfield operations be changed? [4]
Yes____ No____ Priority____

6) How should the Ferro Basin purchase be funded? [5]
General Fund____ Freeman Fund____ Priority_____
(Note: Freeman Fund could represent a new fund with the same geographic area.)

7) How should the Forebay Recharge Project be funded? [5]
General Fund____ Freeman Fund____ Priority____

8) How should a pilot well for the seawater barrier be funded? [5]
General Fund____ Freeman Fund____ New Zone D____ Priority____

9) How should additional importation of State water be funded? [5]
General Fund_____ Property taxes____ More information needed____
Costs shared between General and Freeman funds____

10) Should Oxnard contribute to additional importation of State water? [5]
Yes____ No____ Priority____ Need more information____

11) How should a Santa Paula Basin Recharge Facility be funded? [5]
General fund_____ New Zone in Santa Paula____ City or developer_____
OR
Wait for feasibility report _____

12) What should happen to the Freeman Fund after the loans are paid off and the Freeman Diversion is refurbished? [6]

Continue the same fund name but use it only for Freeman O&M costs____
Continue the same fund name but use it to also finance future projects____
Change the name to "Safe Yield Fund" to fund O&M and future projects____
Use both a Freeman Fund and a Safe Yield Fund____

13) What should be done with Zone C after the Freeman loans are paid off? [7]
Maintain the Status quo____ Merge Zones B and C____ Priority____

14) What should be the District's policy on increases in upstream pumping? [8]
Stay out of growth issues____ Oppose major pumping increases____
Handle growth issues through the AB3030 process____ Priority____

15) How should United pay for projects to deliver water to the eastern Oxnard Plain? [9]
Freeman Fund____ General Fund____ New Zone D in the east____
Need more information____

16) Should a new Zone D be created to solve problems in the east/south plain? [9]
Yes____ No____ Priority____

17) Should water deliveries to PTP or PVCWD be subsidized by pump charges? [10]
Yes____ No____ Priority____

18) Should United waive in-lieu pump charges for agricultural deliveries through the PTP, PV or OH Systems? [10] Yes____ No____ Priority____

19) Should the moss screen be partly funded by the General Fund? [10]
Yes____ No____ Priority____

20) Should a peaking surcharge rate be charged to PTP customers? [11]
Yes____ No____ Priority____

21) How should United's share of the AWRM Project be funded? [12]
General Fund____ Shared by the Freeman and General Funds____

22) Should the District implement a program of regular rate increases? [13]
Yes____ No____ Priority____

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PART 2 – SPECIAL BOARD MEETING AND PUBLIC RATE STUDY WORKSHOPS

Two special board meetings/public workshops were held to present the results of the Rate Study, to receive input from United's constituents, and to develop recommendations from United's directors. The board meetings and comments received are summarized below:

FIRST BOARD WORKSHOP

The first board workshop (a combined board meeting and public workshop) was held on September 2, 2009, in Oxnard. The meeting was duly noticed, and invitations were mailed to key United constituents. About 32 people attended the meeting. Notes of the meeting are provided below:

Special Board Meeting
Workshop to Review United's Water Rate Structure
September 2, 2009

Called to order by President Bruce Dandy at 8:00 a.m.

Directors Present:
- Dick Richardson
- Roger Orr
- Robert Eranio
- Lynn Maulhardt
- Bruce Dandy

United Water staff Present:
- Brian Bondy
- Christine Williams
- Karon Webb
- Mary Lindley
- Mike Solomon
- Jim Kentosh
- Michael Kinnun
- Tony Morgan
- Tony Blankenship

Director Dandy provided an introduction, stating that this was an informational meeting and we were there to discuss:

1. Rate Structure.
2. What can the District legally accomplish?
3. What are the District's anticipated expenses?

Acknowledgements and Disclaimer:

Mr. Kentosh began with acknowledgement of all departments who participated in the draft Rate Study, cited a disclaimer, and directed the public to the District's web site if they would like to read the draft Rate Study report. (The disclaimer is cited at the end of the introductory comments in the Rate Study, located under the heading "how to use this report.")
He stated that this meeting was intended to provide information to the Board. He noted that no decisions would be made today and today's workshop would be discussed at the September 9th Board meeting, at which time direction would be given to staff.

Mr. Kentosh discussed the workshop format and historical factors affecting rates. Mr. Kentosh pointed out that one of the key decisions for the District was the Kellman Lawsuit/Settlement of 1981 when the District was proposing to build the PTP System and the Freeman Diversion. The key outcome of this lawsuit was that pump charges should be established in proportion to benefit; and the OH, PV and Recreation activities should be accounted for in separate funds.
He reviewed the District zones, type of funds, and the core principles of the General Fund and associated expenditures. He also reviewed why rates have increased over the past decade.

Discussions were opened to the public regarding the present use of the General Fund:

Q -Director Mulhardt: How much more money will the FERC relicense cost and when will it be completed?

A- Kentosh: Our license requires more studies and they will not go away. For example we will have to do an annual toad survey, habitat surveys, and deal with elimination of bullfrogs, etc.

A-Solomon: Our license relates to operation of the hydroplant and if we no longer operated the hydroplant, the District would have to deal with other entities that could affect the SFD. The license is for a period of 30 years.

A-Director Mulhardt: Stated the District has entered into a settlement agreement with CalTrout regarding ESA issues. Some modification to Freeman will likely have to occur. The District has expended $1.0 million in the last nine months.

A-Solomon: The District has expended $300,000 on a fish panel we had to hire for advice.

A-Director Mulhardt: The District will make their decisions based on good science.

A-Kentosh: The District previously entered into a Section 7 consultation, which might have required a half-width rock ramp at a cost of $28 million or a full-width rock ramp at a cost of $60 million.

A-Solomon: Until the fish panel makes its recommendations, the District cannot predict costs at this time.

A-Director Mulhardt: Stated that when he first joined the District, 50% to 75% of the Board's/District's time was dealing with getting projects on line. Now 50% of the District's/Boards time is spent on dealing with regulatory agencies at the federal and state level and environmental groups. UWCD does not own its own destiny. The District is currently dealing with a whole different set of rules. The above-mentioned items have had a direct impact on increases. He feels the costs to the General Fund are fair and reasonable.

Q-Director Eranio: What are the other revenue sources for the General Fund and can property taxes be taken?

A-Solomon: Prop 1A will be taking 8% from the District revenues which equates to approximately $150,000. But the District does have an option to receive this revenue from another source but will have to forfeit interest.

A-Director Orr: The District now relies heavily on pump charges vs. property taxes historically.

Enterprise Funds

Mr. Kentosh reviewed the District's enterprise funds in particular the Freeman Fund:

Discussions were opened to the public regarding the Enterprise Funds and System Rates:

Q-Director Dandy: Do we have contracts with everyone we delivery water to?

A-Staff: Yes

A-Solomon: This District has a contract with all the OH Contractors with a take-or-pay feature.

Q-Director Eranio: Do we have any other contracts that are take-or-pay other than the OH?

A-Staff: No

A-Director Mulhardt: Delivering surface water vs. groundwater. Customers have flexibility to match cost to groundwater. It is significant from a water conservation standpoint that UWCD gets pumpers off the area most impacted in the county. Setting rates to keep pumpers off is a contributing factor. Outside factors are forcing us to increase rates.

Q-Director Dandy: What are the advantages of the Saticoy Well Field?

A-Kentosh: Wet years create a mound and we are limited in how much water we can recharge because of this mound. The SWF brings the mound down and as a result we can recharge more water.

State Water Fund

Mr. Kentosh described the State Water Fund.

Q-Director Dandy: What are fixed costs?

A-Solomon: We have to pay fixed costs whether we actually take delivery of water or not. The fixed costs cover capital construction costs and ongoing operations and maintenance. These costs insure the future availability of water.

Overhead Fund

Mr. Kentosh described the Overhead Fund. No discussions ensued.

Discussions were opened to the public regarding the rates and ratio of M&I to AG:

Ratio of M&I to AG

Q-Michelle Romney City of Oxnard: Slide only shows generating the same revenue? What if the District wants to generate additional revenue?

A-Solomon: The District could raise more revenue. We don't have to stay flat. We could have a combination.

Q-Public: What is the ratio in terms of volume?

A-Solomon: Groundwater Department may have the data.

A-Kentosh: Roughly 70% to 80% Ag and 20 % M&I.

A-Director Mulhardt: Quoted District's mission while explaining that the GMA created "safe yield" to bring the aquifers into balance. The bulk of the GMA's service area includes the Oxnard Plain and the major user is the Ag community. The GMA governs pumping within their boundaries only. We do not want to create a war between Ag and M&I.

A-Director Richardson: Fillmore and Santa Paula are already contributing due to their treatment plants which costs around $50 to $60 million. We hate to pass on additional costs to them. They are already preserving water quality by these treatments.

Q- Michelle Romney, City of Oxnard: Which is the priority? Water/Benefit Code or Prop 218?

A-Solomon: We would have to obtain a legal opinion.

A-Director Mulhardt: Stated accomplishments of the Freeman:

1. Stabilized Santa Clara River.
2. UWCD mission to deliver local water to recharge the aquifers (State mandate).

He stated weakness:

1. Overdrafts.
2. Not enough storage capacity.

A-Tom McGrath: Stated he felt option 3 for the Freeman Fund was the best (continue using the Freeman fund for present and future expenses).

A– Dan Pinkerton: His historical perspective is that:

1. UWCD has an exceptional history of exceeding expectations with resource of water.
2. Government agencies only exist because constituents support.
3. SFD – we put an end to property taxes.
4. District needs to consider another component: The District cannot ignore the recession because of the District's visions and the District must look at all areas that run up costs.

A- Jim Passanisi, City of Ventura: Suggested using more positive names than overdraft, i.e. "Safe Yield fund." Michelle Romney suggested the name "sustainability fund."

A -Director Mulhardt is of the opinion that the Freeman Fund should be retired and a new fund created.

A-Tom McGrath: He is with a small water District suffering from mounting costs and they need to build up its reserves. He would like some relief passed on to growers.

Ferro Basin Purchase

Mr. Kentosh described the purchase of the Ferro Basin from Vulcan.

Mr. Solomon indicated that due to the BuRec loan being paid off in 2011 there would be no rate increases for this purchase.

Q- Public: How much is the purchase going to cost?

A-Solomon: Approximately $13.5 million plus fencing for 237 acres of property for a 30 year financing. Approximately $70,000 an acre. Vulcan will also be donating 120 acres of the adjacent Rose Basin.

A-Director Dandy: This purchase would not be feasible without the City of Oxnard making this possible.

Q-Michelle Romney, City of Oxnard: Legal setting or sunset?

A-Solomon: No, it just ends.

Q-Public: Some have concerns that upstream users will not benefit from this purchase.

A-Director Richardson: You benefit from the recharge and the Noble Basin. It helps accomplish the Districts mission as follows:

1. Seawater Intrusion.
2. What we completed upstream.
3. Fillmore and Piru basins fill first.
4. General Fund should fund this purchase.

Q-Frank Brommenshenkel: As part of the approval process, wasn't it stated what would happen after the loans were paid off?

A-Staff: Yes, operation, maintenance and capital costs would continue.

A-Director Richardson: The District is obligated to:

1. Retire Freeman charge.
2. Sell project District-wide as Dan Pinkerton stated.

A-Director Orr: He sees the most difficult issue as allocating cost based on benefit:

1. He is not sure if he agrees that improvements to the Oxnard Plain should be paid by the General Fund.
2. Feels that the Kellman decision was fair. Constituents should pay for benefits based on benefits received.
3. The District should determine what's fair.
4. Upper basins do get some benefit.

A-Solomon: Stated that the District uses its best estimate for determining cost allocation benefits.

Q-Director Richardson: Has the District ever done a benefit study on who benefits from the dam the most? He thinks upstream users benefit.

A -Director Eranio: Stated that he believes the Ferro Basin purchase is not part of our normal operations.

A-Director Dandy: Stated that Director Eranio's comments are only based on one project. We have multiple projects and we need to look at all resources.

A-Solomon: Stated that we could do a whole analysis but we need to use a realistic accounting approach.

Q-Michelle Romney, City of Oxnard: Could you use a "sustainability fund" to capture all of these projects?

A-Director Mulhardt: No place to put water if it's lost. We don't want to debate molecule for molecule and put all of our basins under a microscope. The Gravel basins are different from the Freeman project. He is fearful of breaking down our system.

Q- Frank Brommenshenkel: Why are the Fillmore and Piru basins in such good shape? County line? Where did it come from? How much water is recharged in the Piru basins?

A-Solomon: The District does not have the recharge number but the groundwater department can supply this at a later time.

A-Director Mulhardt: Jeff Pratt of the GMA thinks we will be fighting over carbon and water in the future.

Q-Public: What is the working life of the basins?

A-Solomon: Unknown

Q-Dan Pinkerton: Stated who benefits and pays:

1. Upper River should get benefits.
2. We have done capital improvements.
3. Potential million of dollars in lawsuits if constituents don't think we do the right thing.
4. Common pool concept won't work.
5. He feels/hears the constituents are not currently supporting UWCD.

Q-Jim Passinisi, City of Ventura: Questions whether the District should show the constituents how the pumpers affect each other. Does United have sub basins? If not, UWCD needs to tell the constituents that.

A-Director Mulhardt: Every year the District holds the annual groundwater hearings. The Water Code specifically states that we do not have to show each person's benefit to set our rates. We have to ask ourselves if the District activities benefits us as a whole. We need to do outreach for our constituents to buy in.

Q-Public Upper River: I do not understand how the upstream users will benefit from the Ferro Basin?

A-Director Mulhardt: The Ferro Basins are a tank of water with a line to that tank of water.

Mr. Kentosh concluded with a summary of topics not covered:

1. Well meters
2. New Zone D
3. Seawater Barrier
4. Possible subsidy for previous Oceanview customers
5. Ag subsidies
6. Fund Additional State Water
7. Drought Surcharge
8. Possible incremental rate increases
9. Director Survey

Mr. Solomon concluded with there will be a Workshop #2 and thanked Mr. Kentosh for such a great job.

Director Dandy concluded that this is a good start. We need to schedule other meetings and we are interested in any rumblings within the community.
Director Dandy adjourned the meeting at 10:35 AM.

SECOND BOARD WORKSHOP

The second special Board meeting and public workshop on the Rate Study was held on October 7, 2009, in Fillmore:

Special Board Meeting
Workshop to Review United's Water Rate Structure
October 7, 2009

Called to order by President Bruce Dandy at 9:00 a.m.

Directors Present:
- Bruce E. Dandy, President, Division 5
- Robert Eranio, Vice President, Division 3
- Daniel C. Naumann, Secretary/Treasurer, Division 6
- Sheldon G. Berger, Division 7
- Roger E. Orr, Division 2

Directors Absent:
- F.W. Richardson, Division 1
- Lynn Maulhardt, Division 4

Staff Present:
- E. Michael Solomon, General Manager
- Anthony Trembley, General Counsel
- Nancy Kierstyn Schreiner, General Counsel
- Steve Bachman, Groundwater Policy Manager
- Ken Breitag, Executive Coordinator, Clerk of the Board
- John Dickenson, Engineering Department Manager
- Jim Kentosh, Resource Planning Manager
- Michelle Kinnun, Assistant to General Manager
- Mary Lindley, Administrative Services Manager
- Tony Morgan, Groundwater Department Manager
- Christine Williams, Controller

Visitors Present:
- Bert Rapp
- Yvonne Quiring
- Dan Mathews
- John Dickenson
- Frank Brommenschenkel
- Reder Staeld
- David Schwabauer
- Anthony Emmert
- Michelle Romney
- Andres Santamaria
- Robert Morris
- Bob Kennedy
- Pete Fallini
- Bobbie De Armond

Notes, comments and observations during the workshop are summarized below:

1) Jim Kentosh gave a slide presentation on the Rate Study issues not covered at the first workshop.

2) Pete Fellini objected to the General Fund paying for the Ferro Basin. He thought it only benefits the Oxnard Plain.

3) Roger Orr did not support the idea that United should require meters on wells. Robert Eranio said he was not sure on that issue. Frank B suggested that meters would pay for themselves through more efficient water use. On the issue of whether United should also require meter calibration, Robert Eranio suggested that we should wait at least 10 years before implementing such a measure. Dan Naumann said that meters were good and saved money – you could save three times what you paid for it.

4) Roger Orr noted that the Santa Paula adjudication is based on unmetered well usage. If well meters are required, the adjudication baseline might need adjustment.

5) Roger Orr expressed doubts about the reliability of State Water purchases. There is not a lot of support for the idea of buying Ventura's State Water entitlement.

6) Bruce doesn't like the idea of a Zone D. Steve Bachman argued against the hydrogeological justification for a Zone D. Robert Eranio suggested that this issue be put before the Oxnard Plain Users Group. The need for new projects may justify new zones to pay for them. Dan Naumann wants us to proceed with the OPUG process. Roger Orr salutes the OPUG process; says it's pumpers taking control of their own destiny.

7) Dan Naumann questioned the purpose of the seawater intrusion barrier. There was consensus that the first pilot well would be paid from the general fund. A bigger project would have to wait to decide how to fund it. We would need additional information. Dave Souza of PVCWD suggested that the barrier benefits everyone on the Oxnard Plain and its costs should be more widely distributed. Robert Eranio's first read was that the full barrier would be paid from the Freeman/Sustainability fund, not the general fund. Roger said we would have to take a hard look at who benefits, then make a decision in the future on the seawater barrier. To clarify his views, Roger said the first well would be from the general fund, then when we move forward, we would re-evaluate it.

8) On the idea of a drought surcharge, Roger Orr said he dislikes surcharges. Dan Naumann thought the bar chart in the presentation was confusing. Michelle and Tony Emmert of Oxnard were opposed to the surcharge. Robert thought the surcharge was 'regulatory', and doesn't like the idea. He said we should let the GMA do it. Dan Naumann doesn't like the surcharge idea. Steve Bachman also seemed to speak against the idea of a surcharge. Overall, the drought surcharge idea appears to be dead.

9) On the issue of future growth, the consensus was that United should keep doing what we are doing: not making a big issue of growth, but continuing to comment on EIRs and the like. Bruce Dandy commented that growth and increased water use will be with us in the future, and things will not stay the same. Robert Eranio is OK with us continuing to comment on EIRs, similar to what we did with Newhall Land and Farming. We have watchdog responsibilities. We should be aware of future threats, and of growth issues. Roger Orr agreed that we need to be a watchdog for water issues.

10) On the issue of upstream/downstream basins, Bruce Dandy thinks we need more information from Steve Bachman and the groundwater model on how they affect each other.

11) On the future of Zone C, there was general consensus that we should abolish the present special Zone C when the Freeman loans are paid off. However, we should proceed slowly and cautiously, notifying Ventura with plenty of time for them to provide input and comments.

12) On the issue of subsidies for agriculture, the directors requested more specifics to be brought to them in the future. For example, staff could make suggestions in the next budget cycle.

13) The concept of a Zone D is not quite dead, but could be carried forward for a time as part of the OPUG process.

14) On the issue of automatic annual rate increases, there was more discussion supporting the concept than opposed.

15) No one was eager to jump ahead on issues that are not far enough along to make a decision: the Piru Diversion fish screen, AWRM, Water TAP.

16) District counsel advised that, due to the Brown Act, we could not ask the directors to fill out a non-binding survey, as proposed in the draft Rate Study report.

17) Near the end, Pete Fellini of Canyon Irrigation mentioned his concern about the long-term trend of water rates. The General Fund rate has increased from $3.50/AF to $11.00/AF to $16.45/AF. He has a problem with affordability to the mutual water companies.

PART 3 – DISTRICT POLICY GUIDELINES

This *Rate Study* covers a number of policy issues and decisions that wil) serve as general guidelines by the Board of Directors of United Water Conservation District. These policy guidelines are intended only to provide guidance for future Board decisions and may be revised or overruled by future Board actions. The covered policy issues/decisions are divided into four categories:

A) Policy issues for which no changes are required to current District policies.

B) Policy issues for which Board consensus has been achieved. (Note: Consensus may not be unanimous.)

C) Policy issues for which more Board discussion is required. These policy guidelines are not adopted at this time but may be considered in the future.

D) Policy issues which will be given no further consideration by the Board at this time.

By adopting this Rate Study, the Board confirms that it is in general agreement with the described policy findings as described within this Part 3. This policy information will assist United's constituents in understanding the likely direction of future Board policy decisions. Separate Board approvals will be needed for specific projects, programs and associated actions when they are actually implemented, including approval of budgets, determination of funding sources, formal establishment of specific policies, approval of agreements, adoption of CEQA documents, authorization of construction, etc.

The relevant policy issues adopted by the Board are described below:

A) POLICY ISSUES FOR WHICH NO CHANGES ARE REQUIRED

1) The current ratio of 3:1 M&I to Agricultural pumping charges will remain in effect.

2) The present methods of funding the Saticoy Wellfield will remain in effect, subject to approval by the Fox Canyon GMA of United's proposed method of handling credits for the wellfield.

3) United will continue to comment on EIRs and other matters that are substantially relevant to future water demands, to protect its constituents' interests. United will continue with its activities in AB3030 planning, working with the Fox Canyon GMA, and assisting with the Santa Paula Basin. There will be no significant expansion of United's present role in monitoring the use of local water resources by local entities.

4) United will continue the Tier 2 peaking rate policy for the PTP System, which appears to be working as intended.

B) Policy issues on which Board consensus has been achieved

1) The purchase cost of the Ferro Basin will be paid from the General Fund, in conformance with the District's past policy for purchasing land to be used for groundwater recharge (for example, the Noble Basin in 1995).

2) The construction and operation of the first seawater barrier pilot well on Hueneme Road will be paid from the General Fund. The funding source of any future expansion of a seawater barrier program, if implemented, would be determined by a future Board decision.

3) The Freeman Fund will be continued after the Freeman loans are repaid in April of 2011. Beyond April 2011, the Freeman Fund will be used to pay for normal operations and maintenance costs of the Freeman Diversion, any major repairs to the Freeman Diversion and related facilities, cleanouts of the desilting basin, and construction of any new fish passage facilities at the Freeman Diversion.

4) After the Freeman loans are repaid, Zones B and C will be combined into a single zone, effective July 1, 2011. Sufficient time will be provided for advance notification so that discussions can be held with the City of Ventura and other Zone C pumpers.

5) A new "Safe-Yield Fund" will be created within Zone B on the Oxnard Plain, which will pay for the construction/implementation of any new projects/programs that help solve overdraft conditions on the Oxnard Plain. Such projects may include delivery of recycled water for irrigation on the Oxnard Plain, construction of the Ferro-Rose Recharge Project, an Ocean View subsidy, and the ultimate seawater barrier wellfield after completion of the initial pilot program. The Safe Yield Fund will be formed utilizing standard financial accounting principles and may be handled as a 'designated reserve' within the Freeman Fund.

6) The District will not require all pumpers to have water meters on their wells. The use of electric meters or cropping factors to estimate water usage will continue to be allowed. However, in recognition that meters are a cost-effective way to manage water use, staff should consider developing incentives for pumpers to install meters on their wells on a voluntary basis.

7) Staff will develop and propose specific measures that would provide additional financial support to agriculture on the Oxnard Plain, to prevent water infrastructure there from being under-utilized in the event rising costs cause pumpers shift to their own wells. An example of these measures would be an Ocean View subsidy, as described in Part 1

of this *Rate Study*. Those measures are to be brought before the Finance Committee, followed by the full Board, as part of the budgeting process for future fiscal years.

8) The Board supports the concept of regular annual cost-of-living rate increases to mitigate the potential for higher rate increases that build up over several years.

9) The cost of studies to determine whether the District should import additional State Water will be funded by the District's General Fund. This applies to potential water deliveries from Pyramid Lake in excess of 3,150 AF/Yr.

C) Policy issues on which future Board deliberation will be required

Some projects and programs are not sufficiently developed to establish rate policies at this time. Those include the following:

1) Should the construction of a Ferro-Rose Basins Recharge Project (construction of pipelines etc.) be funded from Zone B?

2) If United's constituents in the Santa Paula area request the District to help fund new recharge facilities in that area, how should they be funded?

3) Should the District consider the long-term purchase or lease of some of Ventura/Casitas MWD's State Water entitlement and how would it be funded?

4) How should United's share of any future AWRM program (Alternative Water Resources Management) facilities be funded? The agencies in Los Angeles County must make further progress on this program before United can make a decision.

D) Policy issues which will be given no further consideration

1) United's financial participation in the current configuration of the Water TAP program.

2) A drought surcharge added to pumping rates on the Oxnard Plain.

3) A potential future Zone D in the eastern/southern Oxnard Plain. Recent hydrogeologic information indicates that the entire Oxnard Plain aquifer system behaves as a single unit, reducing the justification for a separate Zone D. However, if the Oxnard Plain Users Group participants were to propose the concept of a new zone to fund and construct facilities solely for their benefit, staff could bring that option back to the Board for further consideration at some future time.

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FIGURES

Part 1 – Section 11

Figure 11-1

Monthly demand in the PTP System, increases in October demands in recent years

Figure 11-2

Increases in October PTP water demand between 1994 and 2008. Fortunately, October demands dropped in 2009 and 2010 due to favorable weather and improved irrigation methods.

TABLES