



# AGENDA

## Cost of Service and Rate Design Citizen Advisory Committee

John Mundy, Chair  
Irene Henry, Vice Chair  
Clint Crowell, Committee Member  
Diane de Mailly, Committee Member  
Sarah LeClaire, Committee Member

Robert McCord, Committee Member  
Marty Melvin, Committee Member  
Don Mills, Committee Member  
Alejandro Robles, Committee Member

### SPECIAL MEETING

WEDNESDAY, OCTOBER 26, 2011 6:00 P.M.

VENTURA WATER MAINTENANCE YARD, 336 SANJON ROAD, VENTURA

1. RULES AND PROCEDURES
  2. GENERAL MANAGER'S REPORT
  3. 20 % WATER CONSERVATION GOAL
  4. SUB-METERING ORDINANCE
  5. OUT OF AREA WATER SERVICE - TOBOCK WATER
  6. SANTA CLARA RIVER ESTUARY SETTLEMENT BRIEFING
  7. PUBLIC COMMENT – *(For items not listed on this agenda, but within the jurisdiction of the Committee. Note that no general discussion of such items, or action on such items, may be taken by the Committee. At this time, the Committee will provide an opportunity for the public to address them on any subject, which is not scheduled on this Agenda but is within the jurisdiction of the Committee. Comments are limited to three (3) minutes.)*
6. ADJOURN

Minutes relating to this agenda are available in the Ventura Water Office, 336 Sanjon Road, Ventura, during normal business hours as well as on the City's Web Site – [www.venturawater.net](http://www.venturawater.net). Materials related to an agenda item submitted to the Ventura Water Department after distribution of the agenda packet are available for public review at the Ventura Water Office.

This agenda was posted on Thursday, October 20, 2011 at 5:00 p.m. in the Ventura Water Office, City Clerk's Office, on the City Hall Public Notices Board, and on the Internet.

In compliance with the Americans with Disabilities Act, if you need assistance to participate in this meeting, please contact the Ventura Water Office at (805) 652-4503 or the California Relay Service at (866) 735-2929. Notification by Monday, October 10, 2011, at 5:00 p.m. will enable the City to make reasonable arrangements for accessibility to this meeting.



# ADMINISTRATIVE MEMO

Date: October 26, 2011

Agenda Item No.: 1

Meeting Date: October 26, 2011

**To: COST OF SERVICE AND RATE DESIGN CITIZEN ADVISORY COMMITTEE**

**From: SHANA EPSTEIN, GENERAL MANAGER**

**Subject: RULES AND PROCEDURES**

## **RECOMMENDATION(S)**

It is recommended that the Committee adopt the rules and procedures as submitted.

## **DISCUSSION**

At the first meeting of the Committee, staff was directed to bring back rules and procedures for the Committee to adopt in order to establish a decorum for the meetings. The attached rules and procedures are similar to what the City Council uses. The procedures outline when meetings will be held, how committee members may request items to be placed on the agenda and length of public comment.

Staff has put forth this document as a recommendation. The Committee may make any modifications at the meeting before adopting.

## **ATTACHMENT**

Cost of Service and Rate Design Citizen Advisory Committee Rules and Procedures

# **Cost of Service and Rate Design Citizen Advisory Committee Rules and Procedures**

## **Meeting Location, Time and Dates**

The Cost of Service and Rate Design Citizen Advisory Committee Rules and Procedures meetings will be held at the Ventura Water maintenance yard facility assembly room located at 336 Sanjon Road, Ventura commencing at 6:00 p.m. on November 16<sup>th</sup>, December 14<sup>th</sup>, January 18<sup>th</sup>, February 20<sup>th</sup>, and on dates as the Committee may request. SPECIAL MEETINGS, public notice shall be given as appropriate.

If by reason, the Chair may elect to meet at another location within the City and shall give public notice of the change in location.

If a scheduled meeting is canceled, public notice shall be given.

## **Action Agenda**

The action agenda must be posted at least 72 hours in advance of a regular meeting and 24 hours before a special meeting (in accordance with the Ralph M. Brown Act).

The Committee may not take action on any item that did not appear on the posted Committee agenda 72 hours prior to the Committee meeting or 24 hours before a special Committee meeting.

## **Order of Business**

The business of the Committee at its meetings will generally be conducted in accordance with the following order of business unless otherwise specified.

ROLL CALL

AGENDA ITEMS

PUBLIC COMMUNICATIONS

ADJOURNMENT (Standard adjournment: The Committee establishes 9:00 p.m. as the hour of adjournment and will not continue beyond 9:00 p.m. without a majority vote of the Committee).

## **Speaker Cards**

Persons wishing to address the Committee on an agenda item are requested to fill out a speaker card and submit it to Sylvia Lopez, Recording Secretary.

When called upon, speaker is asked to please state their name and address for the record, and if speaking for an organization or other group, to identify the organization or group represented.

The Chair has been delegated the responsibility to control the debate and the order of speakers. Speakers will generally be called upon in the order in which the speaker card is received.

A single communication comment on any agenda item may be no longer than 3 minutes with a cumulative total of 5 minutes for all agenda items.

## **Comment Cards**

Members of the public, who do not orally address the Committee during a meeting, may complete a comment card and submit it to Sylvia Lopez, Recording Secretary.

During the public testimony of the item, the Chair will indicate that the Committee has received comment cards from (name of person) in support of the issue and comment cards from (name of person) in opposition of the issue.

## **Action Minutes**

Action minutes will be kept of all Committee meetings that are open to the public. Action minutes will include the final motions with votes.

The minutes will also reflect the names of public speakers and receipt of comment cards in opposition and support of an item.

Committee and staff discussion and comments will not normally be included in the minutes. If a Committee member or staff desires for a comment to be included in the minutes, it is his or her responsibility to indicate that the statement is **“for the record”** before making the comment.

Such minutes will be taken by the recording secretary and will generally be submitted to the Committee within two weeks for approval, and will be made available to the general public for review.



# ADMINISTRATIVE MEMO

Date: October 20, 2011

Agenda Item No.: 3

Meeting Date: October 26, 2011

**To: COST OF SERVICE AND RATE DESIGN CITIZEN ADVISORY COMMITTEE**

**From: SUSAN RUNGREN, PRINCIPAL ENGINEER**

**Subject: 20% WATER CONSERVATION GOAL**

## **RECOMMENDATION(S)**

Information only

## **DISCUSSION**

In response to your question regarding the 20% Water Conservation Goal, please see the attached memo that provides a summary of the City's requirement to meet consumption reduction goals set by the state legislature. Staff will give a brief presentation on how the City will meet the 20% water conservation goal.

## **ATTACHMENT**

Discussion of 2010 Urban Water Management Plan Water Conservation Targets dated June 22, 2011

6/22/11

## Discussion of 2010 Urban Water Management Plan

### Water Conservation Targets

The City is required to meet conservation reduction goals set by the state legislature in SBX7-7 and AB1420, by the Demand Management Measures section of the UWMP Act, and as a signatory to the California Urban Water Conservation Council (CUWCC) MOU.

SBX7-7 includes a goal of a 20 percent per capita reduction in urban water use statewide by 2020. Using DWR approved methods, the period from 2000 through 2009 was chosen to represent the City's Base Daily Per Capita Water Use because it is the most representative of our overall demand trends. Base Daily Per Capita Water Use is the average of the Daily Per Capita Water Uses within the base period. Daily Per Capita Water Use is calculated by dividing gross water use by the population served by the distribution system, for each year in the base period. Gross water use is defined as the total volume of water, treated or untreated, entering the distribution system of an urban retail water supplier, excluding: recycled water; net volume of water placed into long-term storage; and water conveyed to another urban water supplier.

In addition, urban retailers such as the City must report daily per capita water use for a five-year period within the range January 1, 2003 to December 31, 2010. The 5-year period from 2003 through 2007 (which includes a dry period) was chosen because it results in a maximum demand reduction target that is feasible for the City to attain.

In addition to calculating base gross water use, SBX7-7 requires the City to identify its demand reduction targets for 2015 and 2020 by utilizing one of four options:

- Method 1. 80 percent of baseline gpcd water use (i.e., a 20 percent reduction). For the City this, with a baseline use of 162 gpcd, would set a goal of 130 gpcd by 2020.
- Method 2. The sum of performance standards for indoor residential use; plus landscape use; plus a 10 percent reduction in baseline commercial, industrial institutional use by 2020. This method requires data not collected by the City so it was not selected.
- Method 3. 95 percent of the applicable state hydrologic region target as set in the DWR 20x2020 Water Conservation Plan (finalized in April 2009).
- Method 4. Savings by Water Sector: this provisional method, developed by DWR, identifies water savings obtained through identified practices and subtracts them from the base daily per capita water use value identified for the water supplier. This method is not advantageous to the City.

The City selected compliance Method 3 as the most feasible option to set its Urban Water Use Target. The Baseline Daily Per Capita Water Use is 162 gpcd. The City is

located in the South Coast hydrologic region as defined by DWR and the hydrologic region target is 149 gpcd. The Urban Water Use Target using Method 3 is 95 percent of the hydrologic region target, or 142 gpcd. The 2015 target is defined as the point halfway between the baseline and the 2020 Target, and is 152 gpcd. Thus the City must go from the current 162 gpcd to 152 gpcd by 2015, and to 142 gpcd by 2020.

It should be noted that the City is able to select Method 3 because of its water efficient usage and savings already achieved by City customers.

In addition to its SBX7-7 goal, the City has to comply with the Demand Management Measures (DMM) identified in UWMP, which for CUWCC signatories mimic the BMPs. In 2008, the CUWCC's MOU was revised; a key intent of the revision was to provide retail water agencies with more flexibility in meeting requirements and allow them to choose program options most suitable to their specific needs. Therefore, as alternatives to the traditional Programmatic BMP requirements, agencies may also implement the MOU Flex Track or GPCD options.

Under the Flex Track option, an agency is responsible for achieving water savings greater than or equal to those it would have achieved using only the BMP list items. The CUWCC has developed three Flex Track Menus — Residential, CII, and Landscape — and each provides a list of program options that may be implemented in part or any combination to meet the water savings goal of that BMP. Custom measures can also be developed and require documentation on how savings were realized and the method and calculations for estimating savings.

The GPCD option sets a water use reduction goal of 18 percent reduction from the Base Daily Per Capita Water Use by 2018. The MOU defines the variables involved in setting the baseline and determining final and interim targets. This Base Daily Per Capita Water Use is calculated the same way as the SBX7-7 Base Daily Per Capita Water use, but is based on the base period of 1997 through 2006. The GPCD option and requirements track well with the requirements of SBX7-7.

To comply with the DMMs, the City is choosing the GPCD approach to BMP implementation. This new option allows the City to have maximum flexibility over the design of its conservation programs and is relatively consistent with the SBX7-7 targets. The City's use in 2009 was 139 gpcd, which already meets its SBX7-7 goal of 142 gpcd in 2020 and is 1 gpcd away from the DMM goal of 138 gpcd for 2018.

## COMPLIANCE TARGETS

|         | Target (GPCD)   |             |             |             |
|---------|-----------------|-------------|-------------|-------------|
|         | Baseline<br>[a] | 2015<br>[b] | 2018<br>[c] | 2020<br>[d] |
| DMM/BMP | 168             |             | 138         |             |
| SBX7-7  | 162             | 152         |             | 142         |

a] SBX7-7 Baseline is the total volume of water entering the distribution system (excluding recycled water) divided by population for the years 2000-2009. DMM Baseline is the same calculation, but for the years 1997-2006.

[b] The midway point between Baseline GPCD and 2020 GPCD.

[c] 18% reduction from the DMM Baseline.

[d] Based on Method 3, 95% of the hydrologic region target for the South Coast Region (149 GPCD).

In addition to the City's conservation efforts, a combination of several factors over the past few years including mild climatic conditions and economic recession have contributed to a recent 20 percent declines in per capita water. Given that the City has effectively already met its DMM and SBx7-7 targets, the focus of the conservation programs should focus on maintaining these gains and ensuring that demand does not increase.

While our community has met these reduction targets, we are now focusing on maintaining these reductions and increasing our collective water and energy efficiency through greater conservation efforts. Also we are looking at the future reliability of our supply. As part of the Urban Water Management Plan we looked at single and multiple dry year impacts to our future water supply. The analysis identified that we would need to rely on 600 acre-feet of our groundwater credits to meet demands in the third year of a drought, if the drought were to begin in 2025. Although we have a large credit bank available to us at this time, it is uncertain that banked credits will be available in the future and if available, would the City be able to rely on this supply.

In addition, the City not only faces increased risks to our water supply from drought, but also from potential environmental restrictions, groundwater quality concerns, and litigation actions. In response staff has developed a Water Efficiency Plan to provide a road map to buffer the City from these potential impacts and improve the reduction targets we have already attained.

(Reference: City of Ventura, 2010 Urban Water Management Plan, pages 7-7 to 7-9)



# ADMINISTRATIVE MEMO

Date: October 20, 2011

Agenda Item No.: 4

Meeting Date: October 26, 2011

**To: COST OF SERVICE AND RATE DESIGN CITIZEN ADVISORY COMMITTEE**

**From: SUSAN RUNGREN, PRINCIPAL ENGINEER**

**Subject: SUB-METERING ORDINANCE**

## **RECOMMENDATION(S)**

Information only

## **DISCUSSION**

In response to your question regarding the Sub-Metering Ordinance; The 2004-008 ordinance requires the sub-metering of new multi-unit buildings. This ordinance was passed and adopted by Council on April 19, 2004 and has been incorporated into the Municipal Code as Section 22.130.015. Chapter 22.130 - Master Meters, which includes Section 22.13.015 - Required sub-meter. Staff will give a brief presentation on how this ordinance has been implemented.

## **ATTACHMENT**

San Buenaventura, California, Code of Ordinance – DIVISION 22 – PUBLIC UTILITIES – Chapter 22.130 – Water Meters

## Chapter 22.130 - Water Meters

Sec. 22.130.010. - Meters required.

Sec. 22.130.015. - Required sub-meters.

Sec. 22.130.020. - Bimonthly readings.

Sec. 22.130.030. - Moving meters and services.

Sec. 22.130.040. - Vacating property.

Sec. 22.130.050. - Testing for users.

Sec. 22.130.060. - Keeping uncovered.

Sec. 22.130.070. - Ownership; replacement; repairs, etc.

Sec. 22.130.080. - Meter installation charges.

### **Sec. 22.130.010. - Meters required.**

- A. *Installation.* A separate meter shall be placed upon each separate service connection except as established by water rights contracts, and the rate to be paid shall be computed separately upon each meter. The department may in lieu of a single meter and where special operating or service conditions require, install such number of meters on a service connection as shall be necessary to equal the capacity of such a single meter. For billing purposes, the consumption as registered by a battery of meters installed pursuant to this section shall be combined and charged for at such rate as though the water were supplied through a single meter.
- B. *Bypassing.* Where metered services are installed, the water shall pass through the meter, regardless of whether the meter is a primary meter or a sub-meter, and no bypass or connection between the main and the property shall be made, maintained or permitted except as provided in subsection C.
- C. *Bypass meters.* There shall be installed on all fire line connections a check valve of a type approved by the department and equipped with a bypass meter. Such installations shall be made at the expense of the owner of the property.

(Code 1971, § 4531; Ord. No. 2004-008, § 1, 4-19-04)

**Sec. 22.130.015. - Required sub-meters.**

- A. All multi-unit buildings constructed after July 1, 2004 that receive potable water from the city water system, shall be equipped with sub-meters that separately measure the quantity of hot and cold water consumed by, or for the benefit of, the occupants of each individual unit. All such sub-meters, together with any piping associated therewith shall be constructed and installed at the building owners expense prior to the issuance of a certificate of occupancy, and thereafter owned and maintained, all at the building owners sole cost and expense.
- B. When a multi-unit building is equipped with a sub-meter in the manner required by this section, the owner shall monitor the sub-meter in the manner and at such times and frequency as the owners deems appropriate, and City shall have no duty or responsibility to monitor the sub-meter at any time. Moreover, when a multi-unit building is equipped with a sub-meter, the city water charges for water provided to the building will nevertheless remain the building owner's responsibility and will be based on the water provided to all units in the building, as measured by the city owned and maintained meter or meters on the water service connecting the building to the city water system, and not on the quantity of water supplied to each unit in the building as measured by the sub-meters for a building unit. The owner of a multi-unit building equipped with submitters shall be entitled to pass on a pro rata portion of the owner's cost of the city water service to each occupant of a building unit receiving or otherwise benefiting from the water service.
- C. All sub-meters required by this section, together with all piping associated therewith, shall be considered "plumbing fixtures" for purposes of the building and plumbing standards adopted by Division 12 of this Code or any other applicable building or plumbing standards applicable thereto.

(Ord. No. 2004-008, § 1, 4-19-04)

**Sec. 22.130.020. - Bimonthly readings.**

All meters other than a sub-meter required by Section 22.130.015 of this Chapter shall be read at intervals of approximately two months, or as near thereto as convenient operation will permit, and the interval between two successive meter readings shall be deemed to be two months for the purpose of chapter 22.160. Where it is to the benefit of the city or consumer monthly readings may be substituted for bimonthly readings. Bills shall be computed by applying the rates prescribed in this part to water consumed during the two-month period.

(Code 1971, § 4532; Ord. No. 2004-008, § 1, 4-19-04)

**Sec. 22.130.030. - Moving meters and services.**

When a meter or service, other than a sub-meter installed in a multi-unit building has been installed as provided for in this chapter, and it is found necessary or advisable, and requested by the consumer, to move same on account of the construction of a driveway, sidewalk, or for any other reason, the work shall be done by the department and a charge made against the property served through said meter or service. The consumer shall deposit the estimated cost of said work with the department prior to moving said meter. Upon totaling the final costs plus 20 percent overhead the department will refund or bill for the difference between the deposit and final costs.

Where a sub-meter is moved to a new location in the building, the relocation of the meter must be authorized by a permit issued pursuant to Division 12 of this Code or any other building or plumbing regulation applicable thereto.

(Code 1971, § 4533; Ord. No. 2004-008, § 1, 4-19-04)

**Sec. 22.130.040. - Vacating property.**

Whenever a consumer, other than a sub-metered unit consumer, vacates any premises, the consumer shall immediately give written notice thereof to the utility billing section. Upon the receipt of such notice, the department shall shut off the water from the premises and immediately present to the consumer all unpaid bills for water furnished by the city to the consumer up to that time, and said consumer shall thereupon pay said bills.

Until such notice and payment shall have been made, said premises shall be deemed occupied by such consumer and the consumer's liability continued for unpaid water bills.

(Code 1971, § 4534; Ord. No. 2004-008, § 1, 4-19-04)

**Sec. 22.130.050. - Testing for users.**

Any consumer served by the city water system, including any occupant of a unit in a multi-unit building receiving city water service through a sub-meter, may have the accuracy of the City owned water meter through which water is being furnished to the consumer's premises examined and tested by the city in the presence of the consumer. Sub-meters will not be tested by the City. The testing of sub-meters is the responsibility of the building owner. Consumers that desire for testing of the City owned meter shall make application to the city water division for such test and pay a fee of \$30.00 or a fee as otherwise established by a resolution of the City Council. Upon receipt of such application and fee, the city shall examine and test such meter. If a meter, other than a sub-meter, registers more than three percent in excess of the actual quantity of water passing through it on an average of three test ranges (low, medium and high), such meter shall be removed and another meter installed and the fee shall be returned to the consumer and the consumer's water loss for the current billing period corrected accordingly. If the meter tests within said limits, said fee shall be retained by the city.

A service charge of \$50.00 shall be charged for monitoring fire flow tests conducted for the purpose of complying with the Uniform Fire Code as adopted by the city. In order to ensure test results are provided to the city water division, the consumer shall pay an additional deposit charge of \$50.00 to be returned upon division's receipt of the test results.

If a meter other than a sub-meter fails to register during any period while in use or is known to register inaccurately, the consumer shall be charged with an average consumption as shown by the meter when in use and registering accurately.

*(Code 1971, § 4535; Ord. No. 2004-008, § 1, 4-19-04)*

**Sec. 22.130.060. - Keeping uncovered.**

It shall be the duty of each consumer to keep the space about the meter or shutoff box serving the consumer's property, free and clean of trash, garbage, barrels or boxes, dirt, oil, building material or other obstructions which may in any way interfere with the free access to same by the employees of the department at any time. Upon failure to do so, the superintendent may give notice in writing or in person to the owner or occupant of the property to remove such obstruction within 24 hours, and on failure to do so the said obstruction may be removed by the department and the cost thereof, plus 20 percent overhead, charged against the consumer. Said cost shall be due and payable at the same time and in the same manner as other charges provided in [chapter 22.160](#).

*(Code 1971, § 4536; Ord. No. 2004-008, § 1, 4-19-04)*

**Sec. 22.130.070. - Ownership; replacement; repairs, etc.**

All service connections and meters other than a sub-meter installed in a multi-unit building shall remain at all times the property of the city and shall be maintained, repaired and renewed by the department when rendered unserviceable through reasonable use. Where replacements, repairs or adjustments are necessary by the act of negligence or carelessness of the consumer, or any member of the consumer's household or person in his employ, any expense caused to the city thereby shall be charged and collected from the consumer.

*(Code 1971, § 4537; Ord. No. 2004-008, § 1, 4-19-04)*

**Sec. 22.130.080. - Meter installation charges.**

A meter installation undertaken by the city shall consist of a meter, meter box and other appurtenances contained within the meter box. Charges shall be at cost of labor, materials and equipment plus 20 percent overhead.

*(Code 1971, § 4538; Ord. No. 2004-008, § 1, 4-19-04)*



# ADMINISTRATIVE MEMO

Date: October 20, 2011

Agenda Item No.: 5

Meeting Date: October 26, 2011

**To: COST OF SERVICE AND RATE DESIGN CITIZEN ADVISORY COMMITTEE**

**From: SUSAN RUNGREN, PRINCIPAL ENGINEER**

**Subject: OUT OF AREA WATER SERVICE – TOBOCK WATER**

## **RECOMMENDATION(S)**

Information only

## **DISCUSSION**

In response to public comment regarding Tobock Ranch Water Distribution Association; Tobock Ranch presented a letter at the Oct. 12 Advisory Committee Meeting. A copy of the letter is attached. The City's Consultant will review, evaluate and perform a cost-of-service analysis for Ventura Water as part of the scope of work for the Cost of Service and Rate Design Study. The Consultant will recommend changes to the current Water and Wastewater rate structure to enhance equity, revenue stability and defendability consistent with the policy decisions and pricing objectives. The Consultant will be addressing Tobock Ranch's concern presented in their Oct. 7, 2011 letter during the study. Staff will address the public comment in a brief presentation.

## **ATTACHMENTS**

Letter dated October 7, 2011 from Tobock Ranch Water Distribution Association addressed to the City of San Buenaventura, Ventura Water and Wastewater Rate Advisory Committee

Section 4.02(a), pages 12 and 13 – To Provide Service to the Public (Agreement for Sale of Saticoy Water Company Water System)

**TOBOCK RANCH WATER DISTRIBUTION ASSOCIATION**  
**(a California nonprofit mutual benefit corporation)**

October 7, 2011

City of San Buenaventura  
Ventura Water and Wastewater Rate Advisory Committee

Subject: Approval to Represent Tobock Ranch Water Distribution Association  
Water Rate Correction Per Original Agreement With Saticoy Water Company

Sirs:

Approval is hereby given by the officers of the Tobock Ranch Water Distribution Association (Tobock) for William Jaeger, Member, to represent Tobock on its behalf. Tobock, which provides residential water distribution to its members, seeks to have water rates charged by the City of San Buenaventura, properly adjusted and on par with other residential rates within the City of Ventura. The city currently is charging Tobock a multiple of the normal residential rates. Support for this consideration is the original sales agreement, dated July 22, 1968 between the City of San Buenaventura and the Saticoy Water Company, then serving the members of Tobock.

Section 4.02a of the 1968 agreement states that: "*City agrees that from and after the Closing Date it will serve water without unfair and unreasonable discrimination to all customers in the area wherein seller is certified to provide water service by the California Public Utilities Commission whether the such customers are located within or without the territorial boundaries of the City and will continue to serve all of such customers.*"

Tobock does not seek any retroactive adjustment of rates, but does seek to have all future rates charged to Tobock on an equal basis with all Ventura residences in accordance with the 1968 agreement.

Respectfully submitted,



Harry P. Barnum  
Vice President, Tobock Ranch Water Distribution Association

plish this purpose.

Provided, however, that any sales tax collectible on motor vehicles shall be paid by the City.

(f) Agreement Not to Sell Assets. No part of said water works in excess of \$500.00 and no water rights and easements will be voluntarily sold, transferred or encumbered by seller without the prior written consent of City.

(g) Access to Records, Documents. As and when from time to time requested by City, whether before or after the date of closing, seller will give to the City and its counsel, accountants and other representatives full access, in such manner as does not interfere with the operation of seller's business during normal business hours, to all the properties, contracts, documents, maps and records of seller which in any way pertain to said Water System and customer accounts, and will furnish City all such documents and copies of documents and records and information with respect to said Water System, including, without limitation, copies of seller's corporate minutes, material to this sale, as City may from time to time reasonably request.

#### IV.

#### COVENANTS OF THE CITY

##### 4.01 - To Pay Purchase Price.

The City promises to pay the Purchase Price to the seller on the Closing Date.

##### 4.02 - To Provide Service to the Public.

(a) Continuation of Service. City agrees that from and after the Closing Date it will serve water without unfair or unreasonable discrimination to all customers in the area wherein seller is certificated to provide water service by the California Public Utilities Commission whether such customers are located within or without the territorial boundaries of the City and will continue to so serve all of such customers.

(b) Rates. City agrees that for a period of 60 days following the Closing Date it will not alter the rates being charged any customer of the Water System, provided, however, the City may change such rates as may be deemed necessary in order to provide revenue sufficient to adequately secure payments on any revenue bonds issued. City reserves the right to alter said rates in its best judgment at any time subsequent to the expiration of said 60-day period.

4.03 - Seller's Accounts Receivable and Unbilled Charges.

Billed Accounts. All pre-payments deposited with seller for water service (other than deposits to establish credit provided for in Section 2.07 hereof) subsequent to the Closing Date shall be paid over by the seller to the City at the time of such transfer and City shall assume the seller's liability as to all such pre-payments so paid over to it insofar as such pre-payments cover service rendered after the Closing Date.

City agrees to use its best efforts to collect seller's customer's accounts receivable billed by seller and unbilled charges for water served prior to the Closing Date. The City need not make any effort to collect accounts more



# ADMINISTRATIVE MEMO

Date: October 26, 2011

Agenda Item No.: 6

Meeting Date: October 26, 2011

**To: COST OF SERVICE AND RATE DESIGN CITIZEN ADVISORY COMMITTEE**

**From: SHANA EPSTEIN, GENERAL MANAGER**

**Subject: SANTA CLARA RIVER ESTUARY SETTLEMENT BRIEFING**

## **RECOMMENDATION(S)**

No action is required. This information is being given in order for the Committee to have context of what future expenses may be in the financial planning documents that result in determining revenue requirements.

## **SUMMARY**

In August 2011, the City announced a settlement with Heal the Bay and Wishtoyo/Ventura Coastkeeper. The settlement surrounded the issues of what if anything should be discharged to the estuary and then what should we do with the Wastewater Reclamation Plant effluent. Three outcomes were defined in the settlement:

- Goals of how much discharge to divert from being released into the Santa Clara River Estuary
- The process to define how much discharge should be diverted and when it will be diverted
- A price cap

In addition, the settlement allows for 120 days of public outreach before the City Council ratifies the agreement in a public meeting. That ratification is scheduled for December 12, 2011.

## **DISCUSSION**

At the last Committee meeting, the Committee requested more information on how the \$55 million dollars would be spent to address the settlement. The City has been involved with a number of studies over the past ten years.

Two are pertinent to plausible solutions as the City moves forward. The first was a recycled water market study to determine who would be potential customers. This study will be further evaluated in phases to define potential costs and customers.

The second study was just completed and is entitled the "Special Studies for Santa Clara River Estuary." The presentation that was given to regulatory and non-governmental entity stakeholders about this study is attached. This study has been finalized and submitted to the Regional Water Quality Control Board.

Over the fourteen years of this settlement agreement there are opportunities to define further the solutions but in general the preferred solutions are create a reclaimed water market and develop wetlands to remove more nutrients from the effluent before it reaches the estuary.

During the cost of service study, staff has recommended most of the funds to be spent in years outside of the ten-year financial planning horizon, but to begin collecting funds for those expenditures. The Committee will begin seeing those financial figures at the November 16, 2011 meeting.

## **ATTACHMENT**

City of Ventura Press Release Dated August 17, 2011  
Frequently Asked Questions  
Special Studies for Santa Clara River Estuary Presentation

CITY OF VENTURA  
**NEWS RELEASE**

501 Poli Street  
Ventura, CA 93001



**For Immediate Release**

August 17, 2011

Contact: Shana Epstein, 805-652-4518

Nancy Broschart, 805-223-4378

Kelly Flanders, 805-677-3993

Mati Waiya, Wishtoyo Foundation/Ventura Coastkeeper, 805-794-1248

Jason Weiner, Staff Attorney Wishtoyo/Ventura Coastkeeper, 805-823-3301

Christopher Sproul, Attorney Wishtoyo/Ventura Coastkeeper, 415-533-3376

Matthew King, Heal the Bay, 310-451-1500

**Ventura Water and Public Interest Groups Protect  
Santa Clara River Estuary with Settlement**

Heal the Bay, Wishtoyo Foundation's Ventura Coastkeeper Program and Ventura Water today announced a Memorandum of Settlement that outlines the terms of a proposed agreement to resolve legal actions associated with the City's wastewater facility discharges of tertiary treated water into the Santa Clara River Estuary. The Ventura City Council is expected to vote on a final settlement and consent decree following a 120-day extensive public outreach effort that will conclude in December 2011.

"We as a community will have to have a discussion about the terms of the settlement and the long-term environmental benefits of the proposed plan as well as the cost impacts to rates," said Mayor Bill Fulton. "We feel that this agreement, in the end, aligns with Ventura's deeply-held commitment to preserve and protect our natural heritage."

"We applaud Ventura for its commitment to protect the Santa Clara River's natural cultural resources that the Chumash People and all of the County's current and future residents depend upon," said Mati Waiya, Chumash Ceremonial Elder and Executive Director of the Wishtoyo Foundation and its Ventura Coastkeeper Program. "Our Foundation is excited about what this will provide for the endangered "Isha'kowoch" (Chumash name for Southern California Steelhead), and the revitalization of all native wildlife in the Estuary and the watershed."

This historic agreement leads the region in promoting the use of reclaimed water, while establishing a process to alter the current discharge practice to create optimal

conditions for the sensitive species and environmental resources of the Santa Clara River Estuary. The major deal points of the three-party settlement include:

- A commitment to attempt to divert a minimum of 50% and up to 100% of tertiary treated water from direct discharge to the Estuary to reclaimed water uses, and to send all tertiary treated water not reclaimed through a treatment wetland designed to further treat the effluent;
- Creation of a process and schedule to determine how much tertiary treated water can be diverted to reclaimed uses and how much can be discharged through the treatment wetland to the Santa Clara River Estuary to protect its ecology;
- Creation of a technical process and schedule to select a preferred infrastructure alternative(s) to divert more water to reclaimed uses and treatment wetlands.
- Commitment to design, environmentally review, permit and construct the diversion infrastructure by 2025;
- Commitments to establish a budget and obtain funding sources to implement the diversion infrastructure by 2025; and
- Creation of a more solid and integrated working relationship amongst the environmental community and Ventura Water.

Settlement negotiations began in response to an administrative challenge filed by Heal the Bay and a lawsuit filed by Wishtoyo Foundation and its Ventura Coastkeeper Program against the City of Ventura for, among other things, releasing tertiary treated water to the Santa Clara River Estuary, which those groups assert is harmful to its sensitive aquatic species. The City of Ventura has had a permit authorizing release of treated water to the Estuary since the 1970's, but for at least 10 years, regulators, environmental groups and the City have disagreed about the volume of discharge that should be released to the Estuary to protect its ecological resources, including the endangered, threatened and sensitive species that occupy the Estuary, and about the volume of discharge that should be reclaimed.

All three parties see this settlement as a first step in a long and close relationship to protect water resources in Ventura. "This agreement is critical to the health of the Estuary's species and the River's ecosystem, Santa Clara River steelhead restoration efforts, and the provision of water supply and security for a plethora of beneficial uses in the City and in the watershed," said Jason Weiner, Staff Attorney for Wishtoyo Foundation and its Ventura Coastkeeper Program. "It's a win for the City, the County, the watershed's residents, businesses, and visitors."

"The solution will result in a healthier estuary, the creation of new wetland habitat, and increased water recycling", said Heal the Bay President, Mark Gold. "All parties worked together to develop innovative beneficial solutions to a chronic environmental problem."

####

Ventura Water, a City of Ventura organization, provides integrated water, wastewater and stormwater services to 109,000+ customers with 32,000 service connections.

Ventura's drinking water sources are all local and its reclamation facility treats more than nine million gallons from homes and businesses daily.

Heal the Bay is a nonprofit environmental organization dedicated to making Southern California coastal waters and watersheds, including Santa Monica Bay, safe, healthy and clean. The volunteer-driven organization uses research, education, community action and advocacy to pursue its mission.

The Wishtoyo Foundation is a 501(c)(3) non-profit public interest organization with over 700 members consisting of Ventura County's diverse residents and Chumash Native Americans. Wishtoyo's mission is to preserve and protect Chumash culture, the culture of Ventura County's diverse communities, and the environment that our current and future generations depend upon. Ventura Coastkeeper, a program of the Wishtoyo Foundation is dedicated to protecting the ecological integrity and water quality of Ventura County's inland and coastal waterbodies.

This press release is available on the City of Ventura's website at [www.cityofventura.net](http://www.cityofventura.net). ###



## **Santa Clara River Estuary Settlement Commonly Asked Questions and Answers**

- 1. Why is this settlement only tentative?** Although Ventura Water, Heal the Bay and Wishtoyo Foundation's Ventura Coastkeeper Program have agreed on the terms of the settlement, the Ventura Council must approve the final agreement after a public process.
- 2. How does this settlement protect water resources?** In several ways, for example, it will increase the amount of reclaimed water available for use at a time when water supplies are constrained and growing more limited. It moves the City to the forefront of statewide policy initiatives to improve and increase recycled water uses. And, at the same time, it protects and optimizes Ventura Water's discharge schedule to better support the sensitive environmental resources of the Santa Clara River Estuary.
- 3. How much will this settlement cost Ventura Water customers?** The total costs of these projects are estimated at \$55 million, which could possibly result in a cost \$3.52 per month per average household until 2055. The exact cost is not certain because Ventura Water just began its cost of service and rate design study that will evaluate how to pay for this settlement. A nine-member citizen committee is being formed to be part of the cost of service and rate design study. In addition, staff will continue to look for grants and other funding sources over the term of this settlement. Of note, increased water reclamation should eventually bring revenue to the City, which may help offset the capital costs.
- 4. Should tertiary treated wastewater continue to be released into the Santa Clara River Estuary?**

**What impacts will continuing to release tertiary treated wastewater to the Estuary have on its aquatic resources?**

**What impacts will reducing the volume of tertiary treated wastewater to the Estuary have on its aquatic resources?**

At this time, all these questions are being studied and examined by Stillwater Sciences; scientists from UCLA, California State University Channel Islands, and southern California; and scientists from State and Federal Resources Agencies, including National Marine Fisheries Service, the U.S. Fish and Wildlife Service, the California Department of Fish and Game and the Regional Water Quality Control Board. Science is still providing answers and the parties, Resources Agencies and other stakeholders must continue to evaluate those scientific answers to determine the volume of treated wastewater that should be released into the Estuary and the way it should be released. At this point, while Ventura Water, Heal the Bay, and



Wishtoyo Foundation's Ventura Coastkeeper Program have differing opinions as to these answers based on the available science, these three parties have been able to agree that, at a minimum, the science indicates that a significant portion of the effluent may need to be removed from the Estuary, which makes it prudent to identify, evaluate, and ultimately implement a preferred diversion infrastructure alternative.

- 5. If the science and Resources Agencies determine that a specified volume of tertiary treated wastewater should still be released into the Estuary, what additional assurances are there that the releases will protect the Estuary and its species?** At the most basic level, the settlement agreement establishes a process that should maximize the likelihood that all stakeholders have confidence in the scientific conclusions reached regarding the volume and method of continuing releases of tertiary treated water to, or diverting releases away from the Estuary.

In addition, the agreement provides that the City will attempt to divert all treated wastewater that is not removed from the Estuary and reclaimed to a treatment wetland that, in combination with treatment unit processes, will be designed to further ensure that the wastewater discharge will not cause or contribute to a violation of any applicable receiving waterbody water quality objectives, impair any receiving waterbody beneficial uses, or contain nitrate in concentrations greater than 4.0 mg/L as a monthly average. Finally, regardless of the settlement agreement, the Resources Agencies charged with protecting the environmental resources of the Estuary retain all their jurisdiction and authority to oversee, review, permit and/or disallow releases of tertiary treated flows to the Estuary as they determine, based on the best available scientific evidence, to be appropriate for protection of its ecology.

- 6. How much tertiary treated wastewater is currently released to the Estuary daily?** On a sunny day, 7 to 8 million gallons per day; and on a rainy day, 9 to 10 million gallons per day.
- 7. How was the City harming the estuary with the releases?** State and federal laws recognize and protect estuary environments, which are extremely sensitive. The science is still not entirely clear in the case of the Santa Clara River Estuary, but, for example, tertiary treated discharges to the Estuary may be resulting in changes in estuary salinity, introduction of a new and emerging contaminants that are not yet well understood but may be dangerous to aquatic species, higher nutrient concentrations, and lower levels of dissolved oxygen and unwanted algae blooms, which, over time, might adversely affect the ecology of the Estuary. What remains to be scientifically determined is the degree to which water quality in the Estuary can be improved by adjusting the discharge regime without any unintended significant adverse impacts on the sensitive resources of the Estuary.



**8. Why should customers want to pay for this environmental improvement?** Not only does the City need to comply with State and Federal laws regulating releases of tertiary treated flows to the Estuary and protecting its complex ecosystem and sensitive environmental resources, including endangered and threatened species, but it is also in the community's and county's best interest to:

- Protect its coastal resources like the Estuary, and the substantial number of sensitive shoreline and wetland invertebrate, fish, avian, and terrestrial species it supports, including the federally protected tidewater goby, Southern California Steelhead, and western snowy plover, and the state and federally protected California least Tern; and
- Begin making use of a water supply that is readily available instead of using drinking water for irrigation and other non-potable uses. Replacing reclaimed water for irrigation and other non-human digestion uses allows Ventura Water and other water providers to better manage the groundwater basins to insure a sustainable future for farmers, businesses, families and visitors.

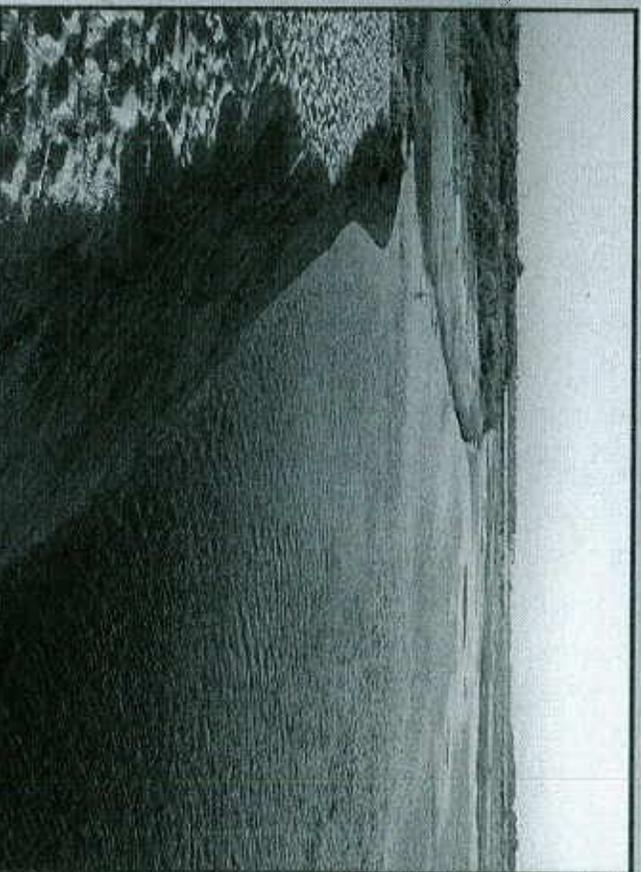
**9. How soon will the environmental fee go into effect to pay for these changes?**

The actual fee will be part of the cost of service and rate design study. The study will include a citizen advisory group that will evaluate where the revenue should come from to cover these costs. Once the study is complete it will be presented to City Council in February 2012 and then if the recommendations are accepted, any rate adjustments would be noticed to the community prior to City Council considering the rates for adoption. The earliest possible date for any rate to go into effect would be July 1, 2012.

**10. Why were environmental groups taking administrative and legal action**

**regarding the City's wastewater discharge?** Heal the Bay, Wishtoyo Foundation, and Wishtoyo's Ventura Coastkeeper Program are concerned that the continued discharge of over 9 million gallons per day of treated wastewater to the Estuary is impacting water quality and aquatic habitat. They pursued administrative and legal recourse in order to improve aquatic habitat and move the City to increased water reclamation.

CITY OF  
**VENTURA**



**Special  
STUDIES** for Santa Clara River Estuary  
**PRESENTATION**

August 2011

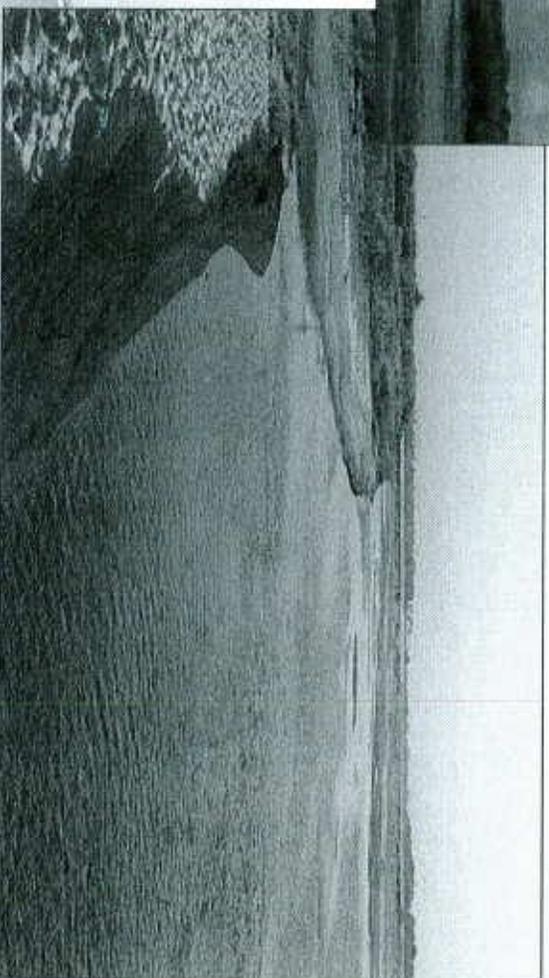
**Carollo**  
*Engineers Working Wonders With Water*



**Siltwater Sciences**

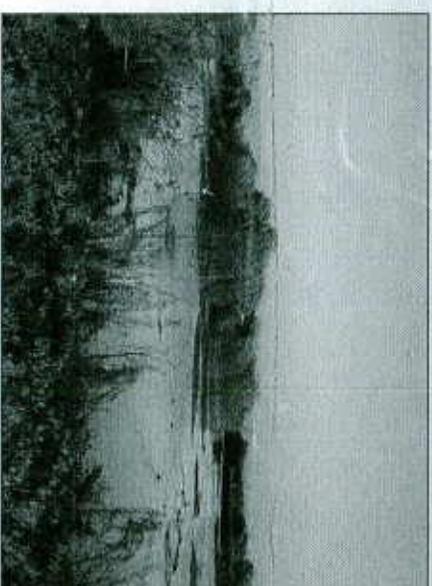
# **Intent of the special studies is to answer...**

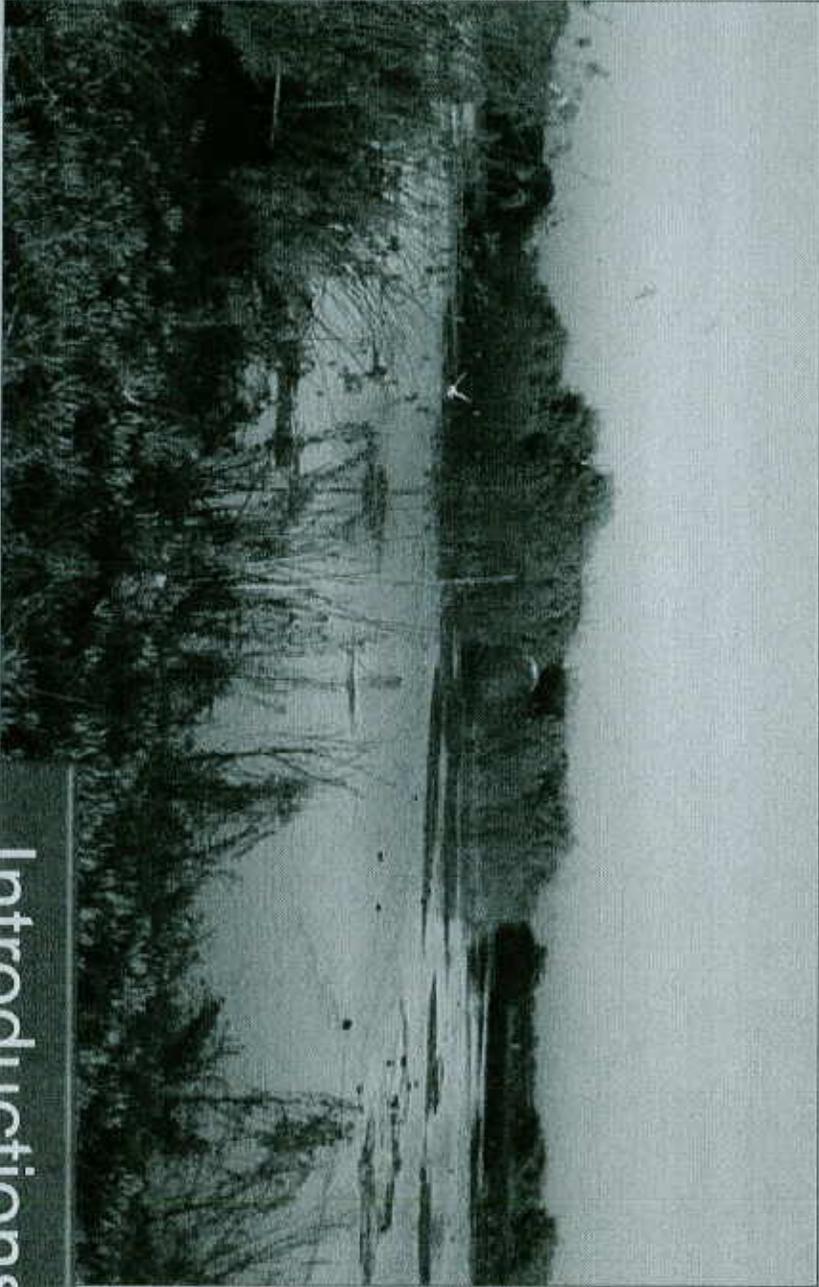
... What is the best use of the treated water resources from the Ventura Water Reclamation Facilities to protect the health of the Santa Clara River Estuary?



# Agenda for the day

- Introductions
- Status updates
- Estuary Subwatershed Study
  - Brief review of previously presented major findings
  - Characterization of comments received
  - New information to be added to the report
- Stakeholder input on alternatives
- Stakeholder input on data gaps to be filled
- Questions and Next Steps





# Introductions/ Status Update

# **Please introduce yourself...**

- **Name**
- **Organization Representing**

- **Interest**

## **Status Update - Since the last Stakeholder Workshop in February 2011:**

- Time extension on comments
- Comments received
- Time extension on revised report
- Outstanding lawsuits settled

# City has agreed to optimize the discharge

- Ventura Water wants to go beyond enhancement
  - Identify and implement the best feasible discharge alternative
  - On balance promotes beneficial uses,
  - Protects listed species and Estuary habitat as required by the Endangered Species Act
  - Provides more water for reclaimed water uses

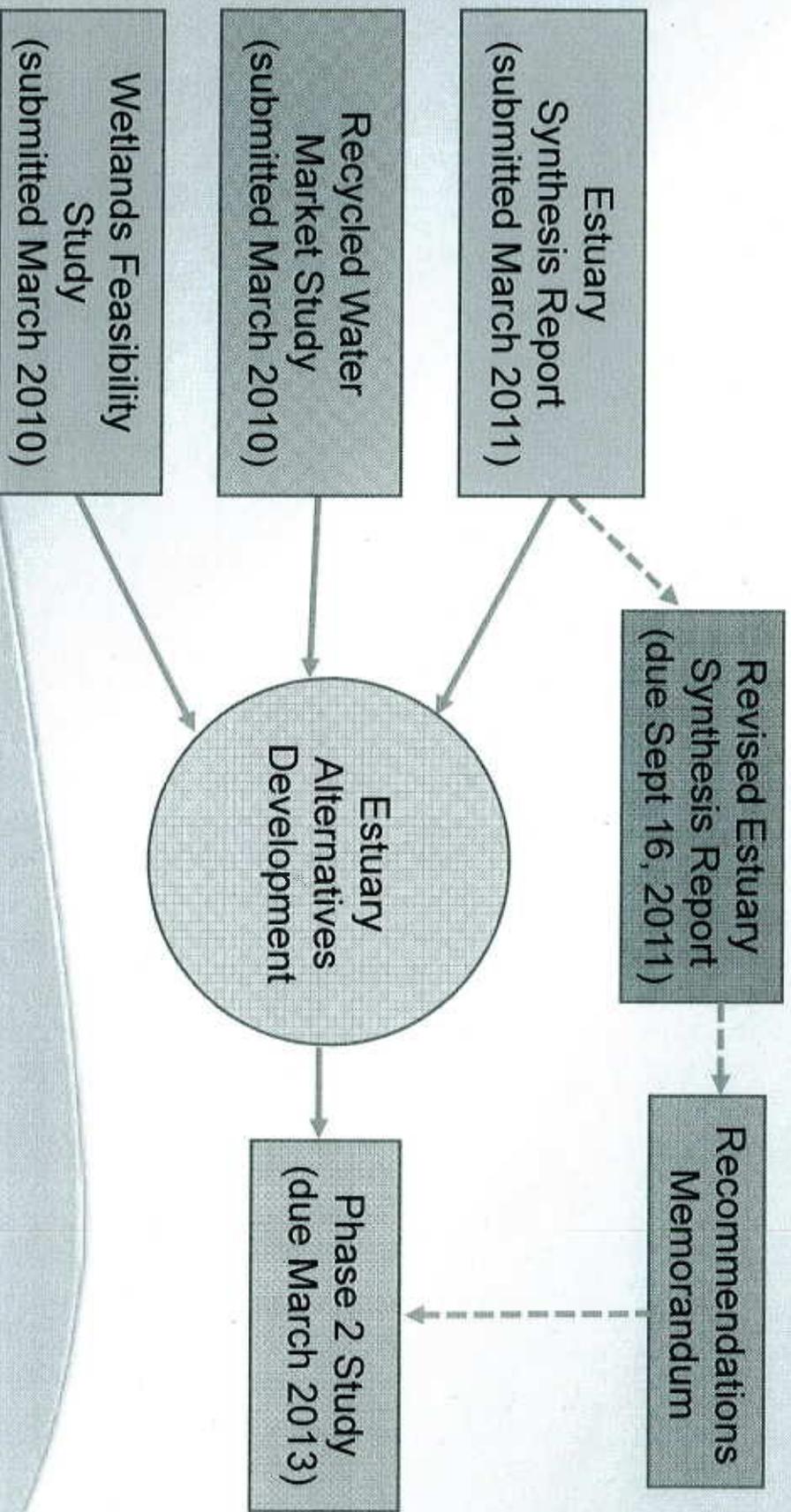
## **Settlement Agreement and Phase 2 Study**

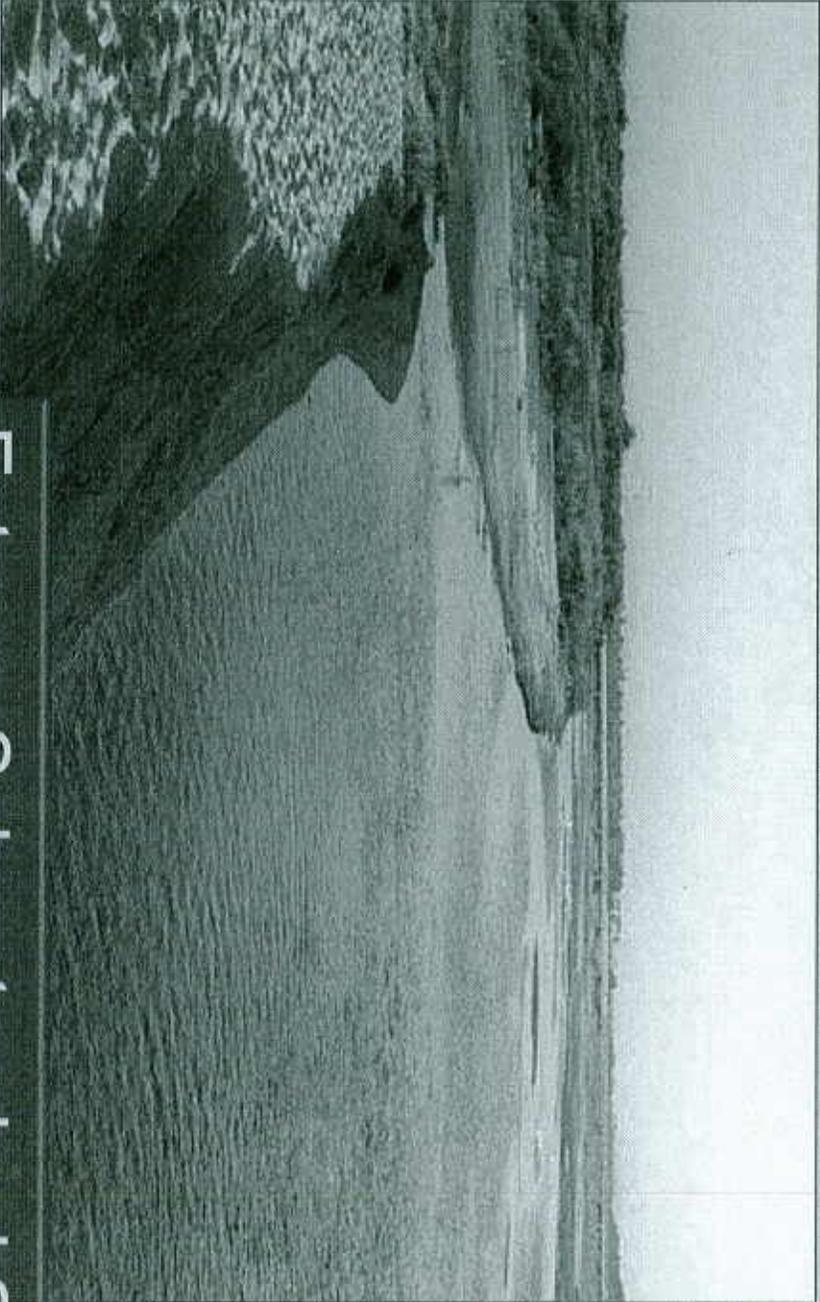
- Provides a framework and schedule for attaining the optimization goal with extensive stakeholder input
- Recognizes the critical nature of ongoing stakeholder input and consensus, as well as the regulatory and permitting authority of the Resources Agencies (NMFS, USFWS, CDFG, RWQCB, etc.)

# Project Schedule has been revised

| Task Description                     | 2009                    | 2010 | 2011 |
|--------------------------------------|-------------------------|------|------|
|                                      | J F M A M J J A S O N D |      |      |
| Estuary Subwatershed Study           |                         |      |      |
| Recycled Water Study (Phase 1)       |                         |      |      |
| Treatment Wetlands Feasibility Study |                         |      |      |
| Stakeholder Workshops                |                         |      |      |

# The three studies required by the NPDES permit lead to the next step (Phase 2)





# Estuary Subwatershed Study - Final Synthesis Report

# Estuary Subwatershed Study Approach

Data Review and Collection



Estuary  
Water  
Balance

Estuary  
Physical/Biological  
Condition

Estuary  
Ecosystem  
Function

Climate Change

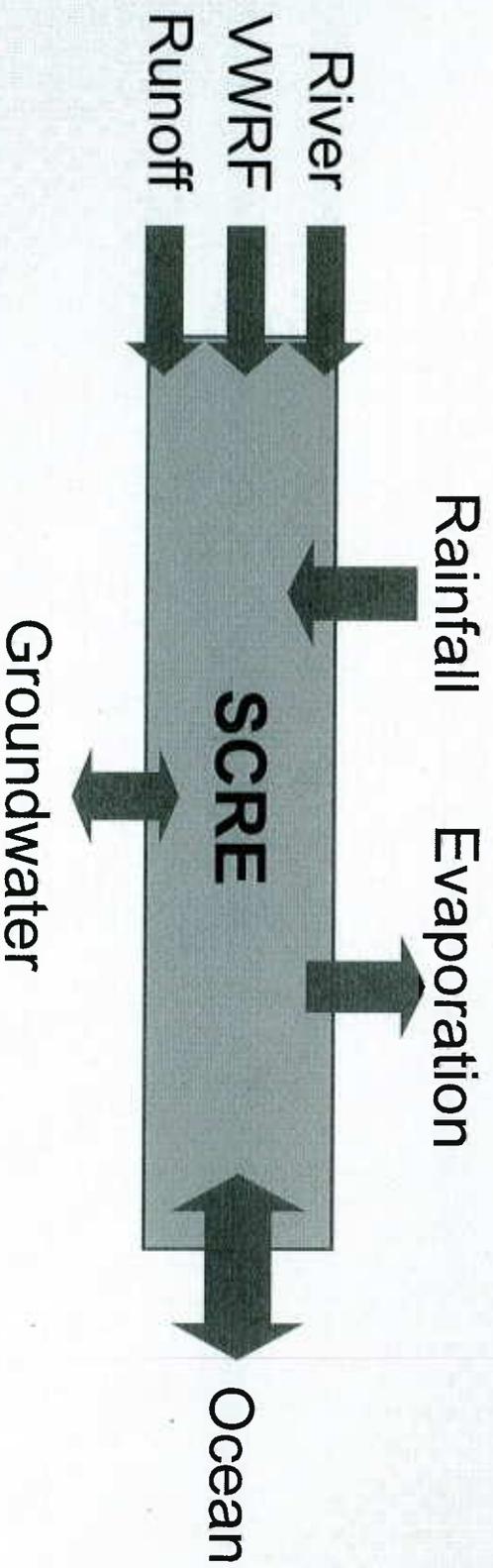


Develop/Optimize  
Discharge Scenarios

# Discharge scenarios were developed based on stakeholder input

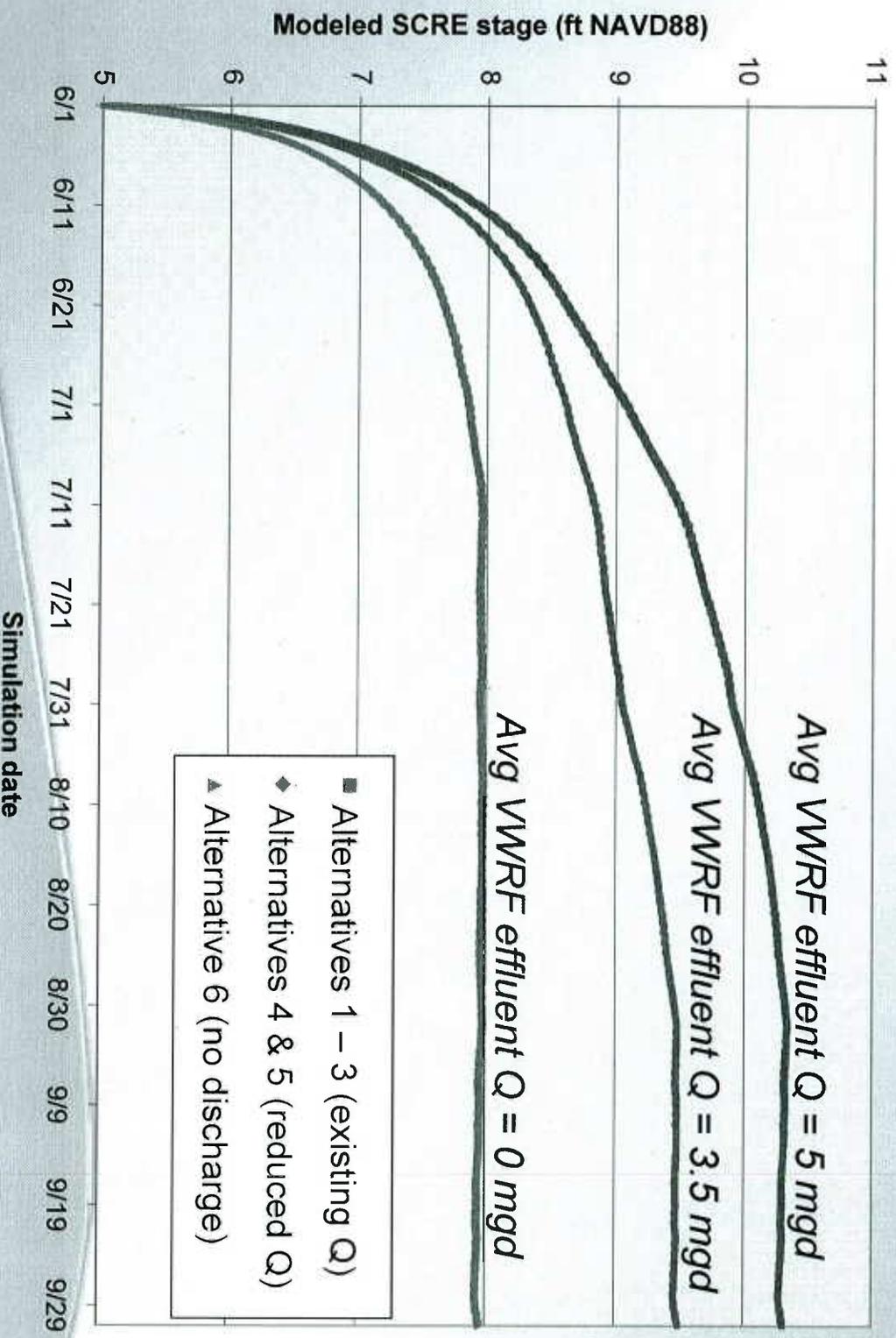
|               | WWRf Effluent Discharge |         |      | WWRf Effluent WQ |                  |                          |      |
|---------------|-------------------------|---------|------|------------------|------------------|--------------------------|------|
|               | Existing                | Reduced | None | Existing         | Planned Upgrades | Enhanced Denitrification | None |
| Alternative 1 | ✓                       |         |      | ✓                |                  |                          |      |
| Alternative 2 | ✓                       |         |      |                  | ✓                |                          |      |
| Alternative 3 | ✓                       |         |      |                  | ✓                | ✓                        |      |
| Alternative 4 |                         | ✓       |      |                  | ✓                |                          |      |
| Alternative 5 |                         | ✓       |      |                  | ✓                | ✓                        |      |
| Alternative 6 |                         |         | ✓    |                  |                  |                          | ✓    |

# Estuary stage and habitat area was modeled using the water balance

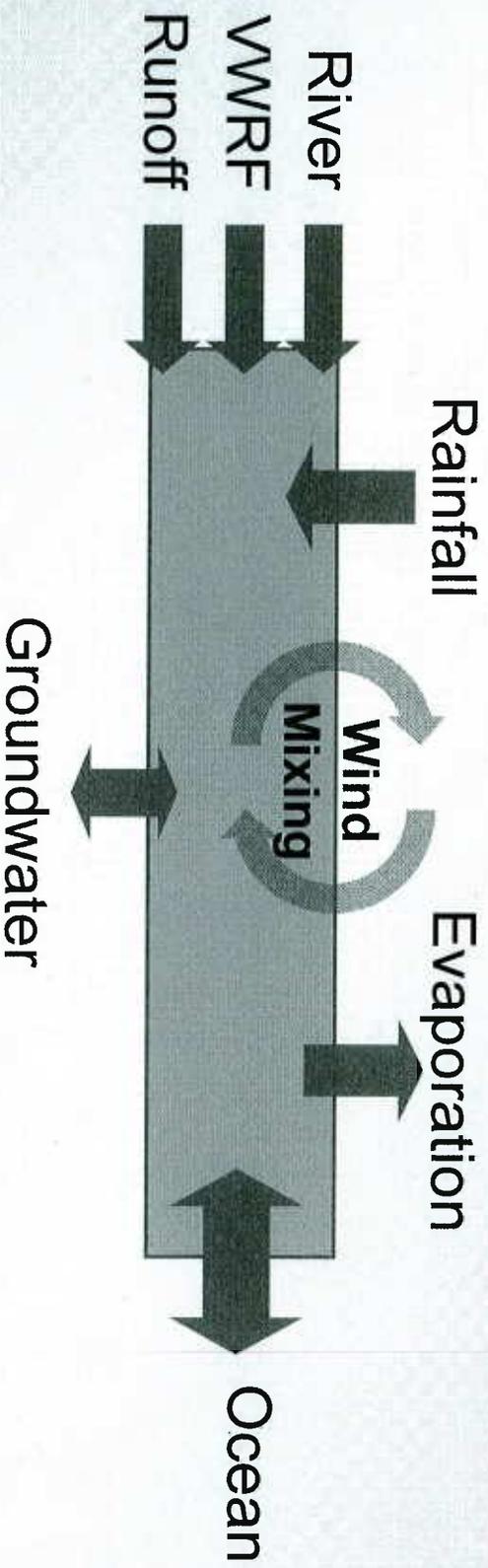


Estuary Volume → Stage (Depth) → Habitat Area

# Modeled estuary stage for each alternative



# Water quality was estimated using the nutrient balance model



$$\text{Concentration} = \frac{[\text{River} + \text{WWRF} + \text{Runoff} + \text{Rain} + \text{GW}(\text{in}) - \text{GW}(\text{out}) - \text{Ocean}]/\text{Volume}}$$

# Modeled N conc. for each alternative

|               | SCRE Area, Acres | Total N load, ppd | Natural N uptake, ppd | Estimated range of N, mg/l |
|---------------|------------------|-------------------|-----------------------|----------------------------|
| Alternative 1 | 174              | 750               | 78 - 160              | 10 - 15                    |
| Alternative 2 | 174              | 500               | 78 - 160              | 4 - 9                      |
| Alternative 3 | 174              | 300               | 78 - 160              | 2 - 6                      |
| Alternative 4 | 151              | 390               | 68 - 140              | 3 - 9                      |
| Alternative 5 | 151              | 200               | 68 - 140              | 2 - 6                      |
| Alternative 6 | 131              | 30                | 63 - 130              | 2 - 6                      |

# Alternatives Assessment

|  | Focal Species Habitat |           |                       |                          |     |    | Recreational Opportunity |
|--|-----------------------|-----------|-----------------------|--------------------------|-----|----|--------------------------|
|  | Habitat Area          |           |                       | Water Quality Conditions |     |    |                          |
|  | Tidewater goby        | Steelhead | Plover & Tern Nesting | Tern Foraging            |     |    |                          |
| <u>Alternative 1</u><br>Existing Conditions                          | =                     | =         | =                     | =                        | =   | =  | =                        |
| <u>Alternative 2</u><br>Planned upgrades                             | =                     | =         | =                     | =                        | ↑   | =  | =                        |
| <u>Alternative 3</u><br>enhanced denitrification                     | =                     | =         | =                     | =                        | ↑↑  | =  | =                        |
| <u>Alternative 4</u><br>flow reduction                               | =                     | ↓         | ↑                     | =                        | ↑   | ↑  | ↑                        |
| <u>Alternative 5</u><br>flow reduction with enhanced denitrification | =                     | ↓         | ↑                     | =                        | ↑↑↑ | ↑  | ↑                        |
| <u>Alternative 6</u><br>Complete effluent removal                    | =                     | ↓↓        | ↑                     | =                        | ↑↑↑ | ↑↑ | ↑↑                       |

# What can we conclude from the report?

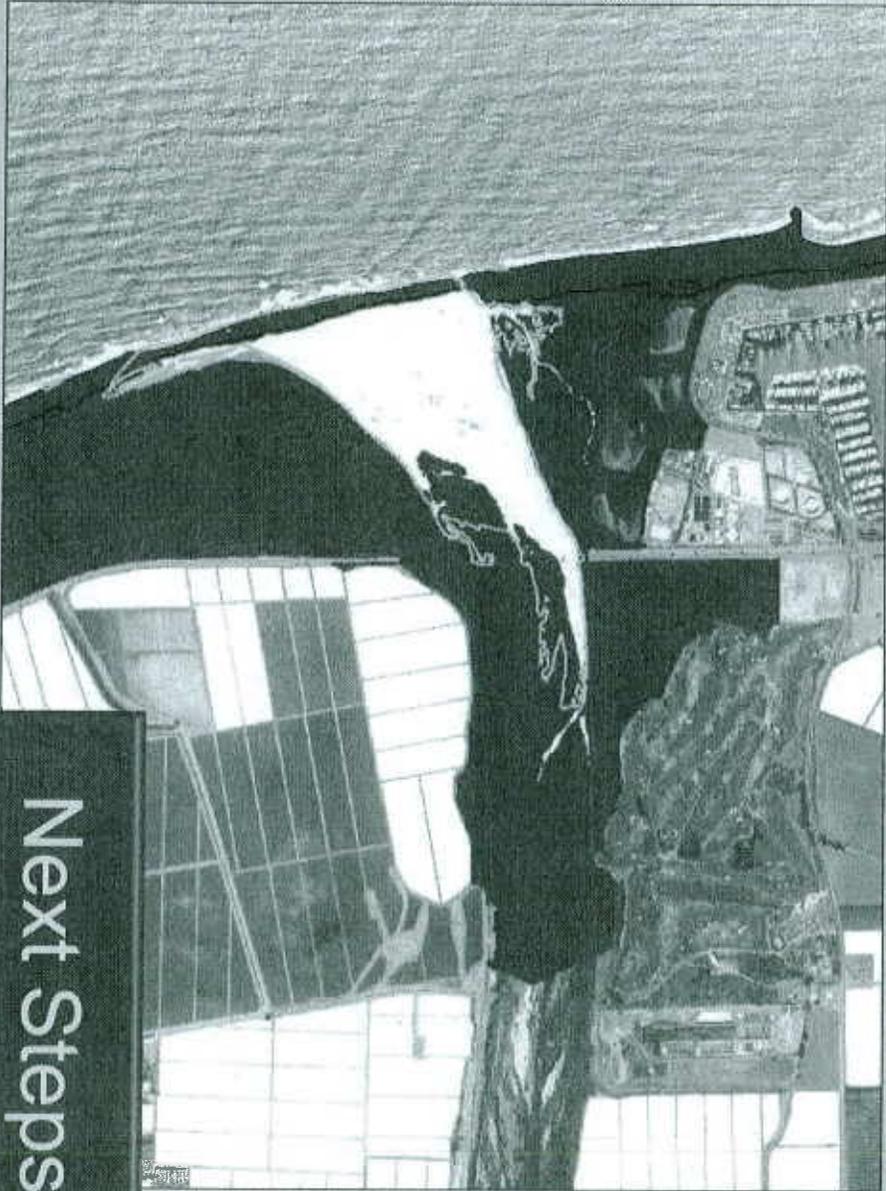
- Question of enhancement:
  - Definition of enhancement: is any beneficial use improved with discharge as compared to absence of discharge?
  - Steelhead beneficial use affected by absence of discharge (less habitat provided and less depth)
- What can be done to optimize the discharge regime and volume?
  - Less flow in summer to reduce unseasonal breaching
  - Improve water quality to reduce nutrients
- Others?

## **Comments received on Synthesis Report fell into several categories:**

1. Species evaluated and habitat needs for those species
2. Water balance issues
  - Breaching
  - Confidence in model and data
3. Water quality as pertains to suitable habitat
4. Preference for particular alternatives
5. Additional data needs/other recommendations

# Updated Estuary Study

- Text additions/clarifications
- Measured and modeled water depths
  - Relationship between stage and average depth
  - Water depth range for given stage
- Model sensitivity
  - Modeled SCRE stage for decreased mouth berm length and estuary area (i.e., more 'average' conditions)



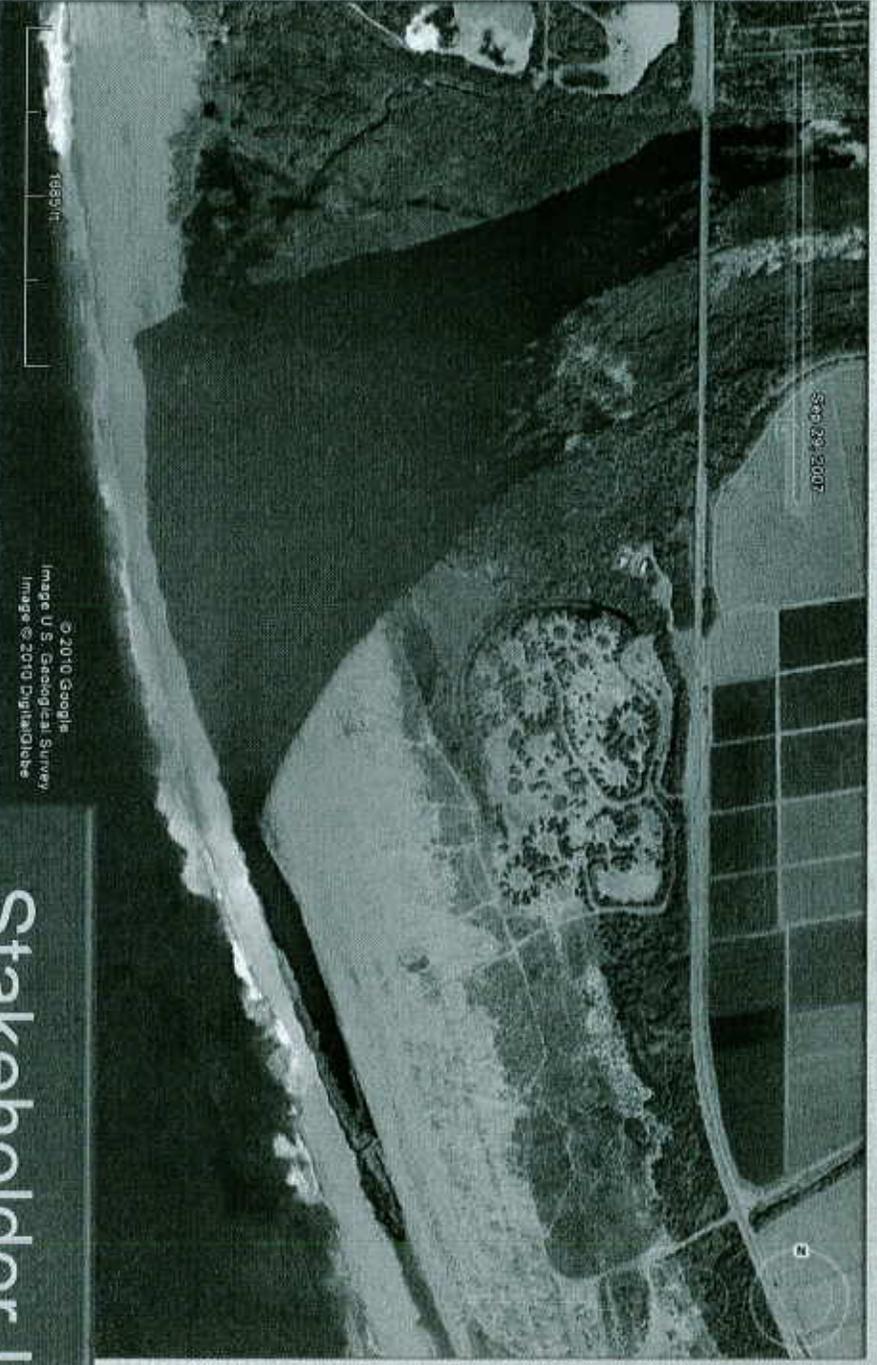
# Next Steps

# Next steps

- Updated Estuary Study due Sept. 16, 2011:
  - Updated *text revisions* and clarifications to March 2011 submission draft of the “Final Synthesis Report”
  - *Responses to Comments* on March 2011 submission draft of “Final Synthesis Report”
  - *Recommendations/Next Steps Memo*
    - To list the additional data needs/next steps for Phase 2 Study
    - Based on Comments on March 2011 submission draft of “Final Synthesis Report and **Input from YOU**”
    - Another stakeholder meeting to discuss recommendations memo – date TBD

## Next Steps

- Phase 2 Study Report due Feb 10, 2013 per NPDES permit
  - Two Stakeholder Workshops budgeted
  - Should additional time and workshops be added given optimization goal?
  - Workplan may need to be revised per Memo of Recommendations



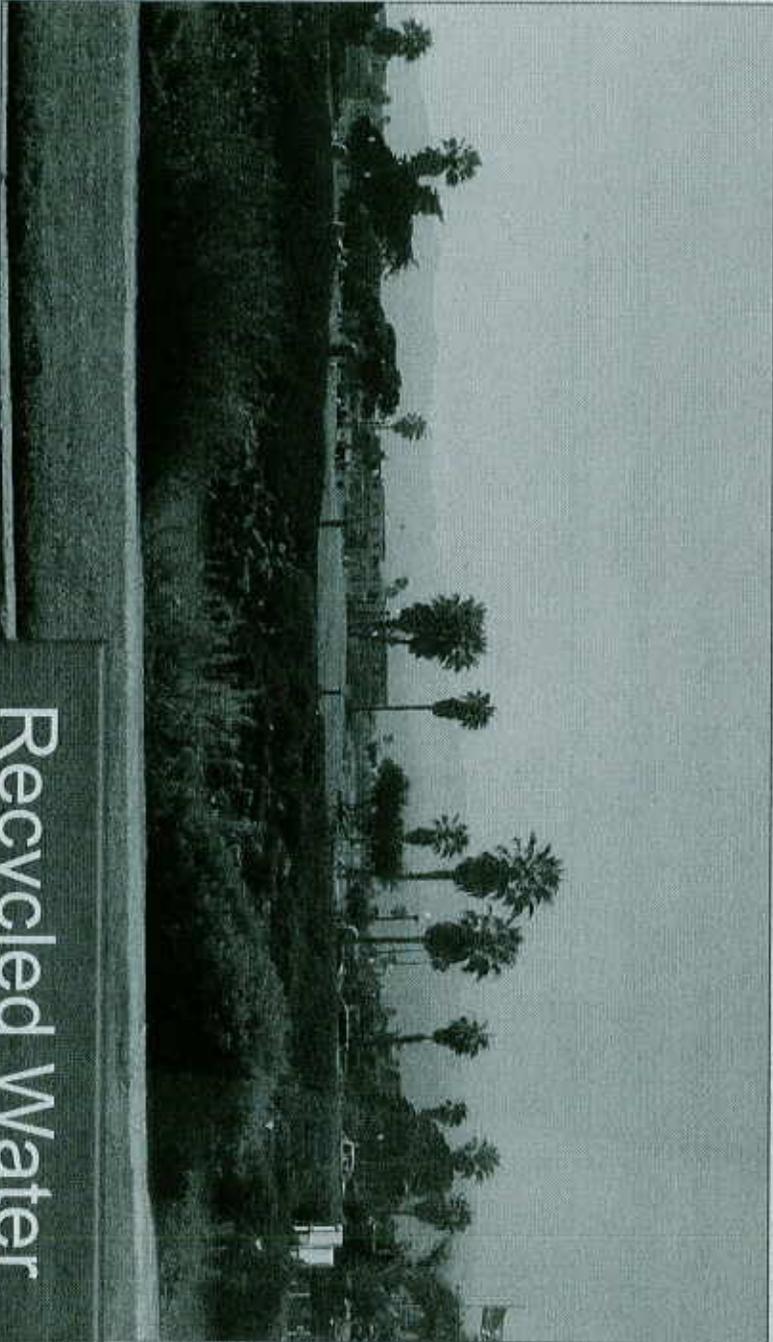
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Image U.S. Geological Survey  
Image © 2010 DigitalGlobe

# Stakeholder Input

## **We want your input for Phase 2 ....**

1. What can we do to reach consensus on optimal discharge regime and competing goals reflected in comments on the “Final Synthesis Report.”
  - a) Which alternatives do you want to pursue?
  - b) What modifications or new alternatives would you support considering?
  - c) What additional information do you need to see to increase your confidence in determination of the optimal discharge regime?
2. What “Safety Measures” or “Time and Manner” restrictions for implementing optimal discharge should be explored

# Extra Slides

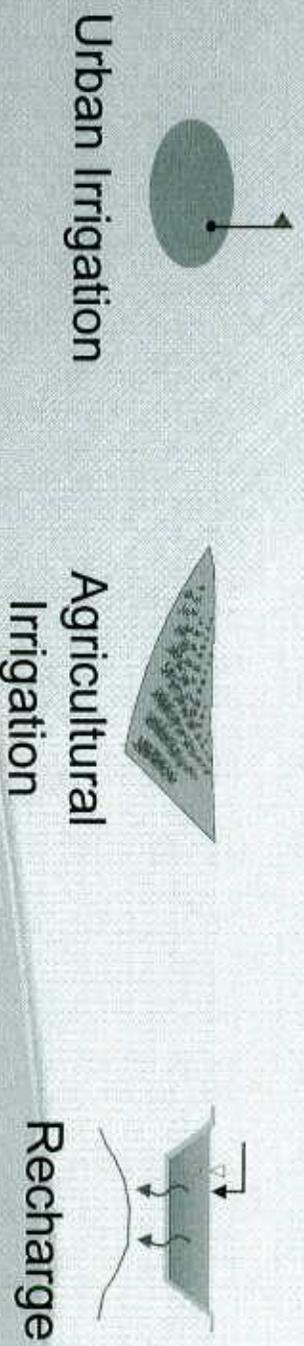


# Recycled Water Market Study

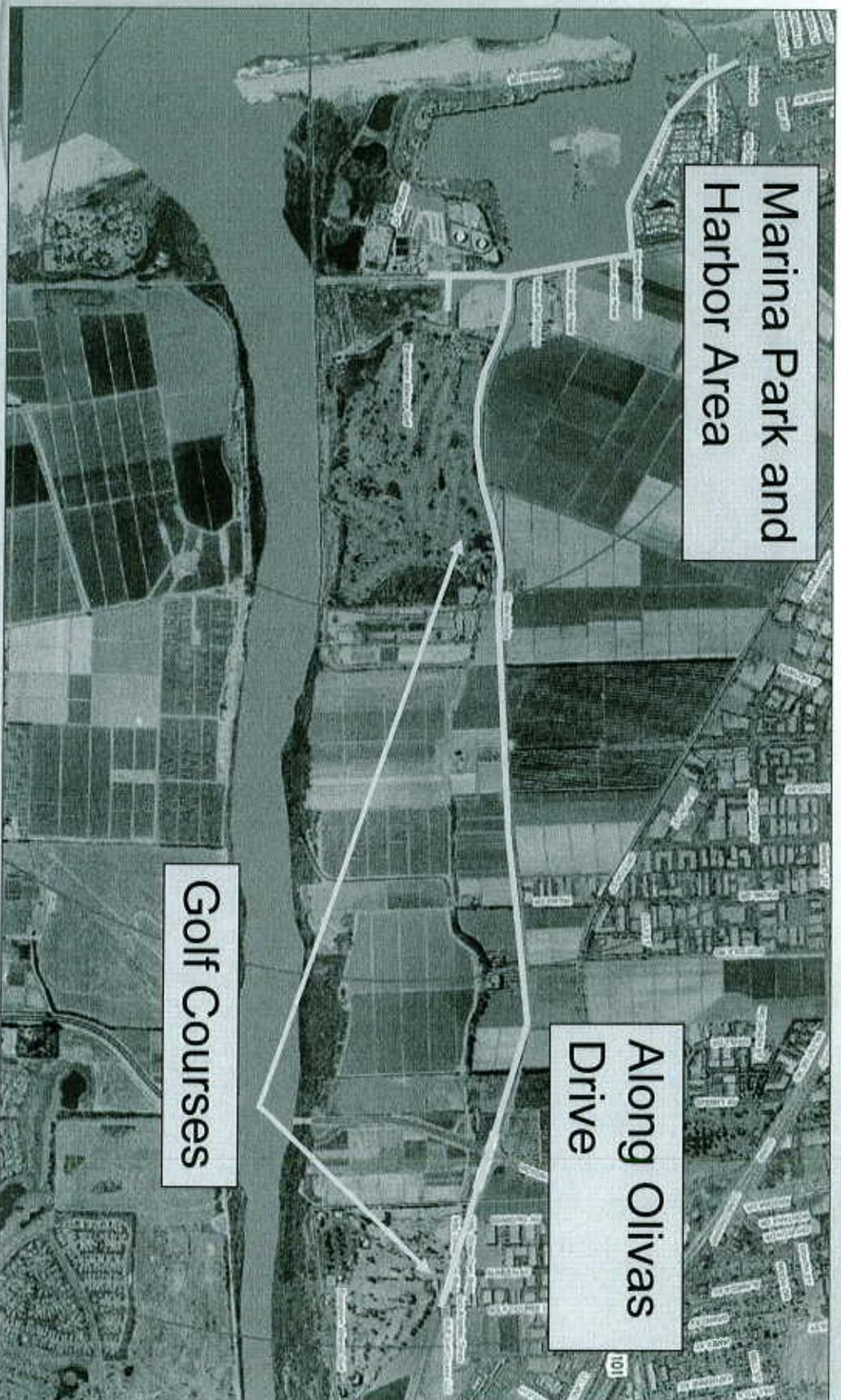
# NPDES Permit and Work Plan goals for Phase 1 Recycled Water Study:

- Address macro-level supply and demand issues
  - expansion of the City's service area
  - other areas within five miles of the WWRF.

Types of recycled water considered:

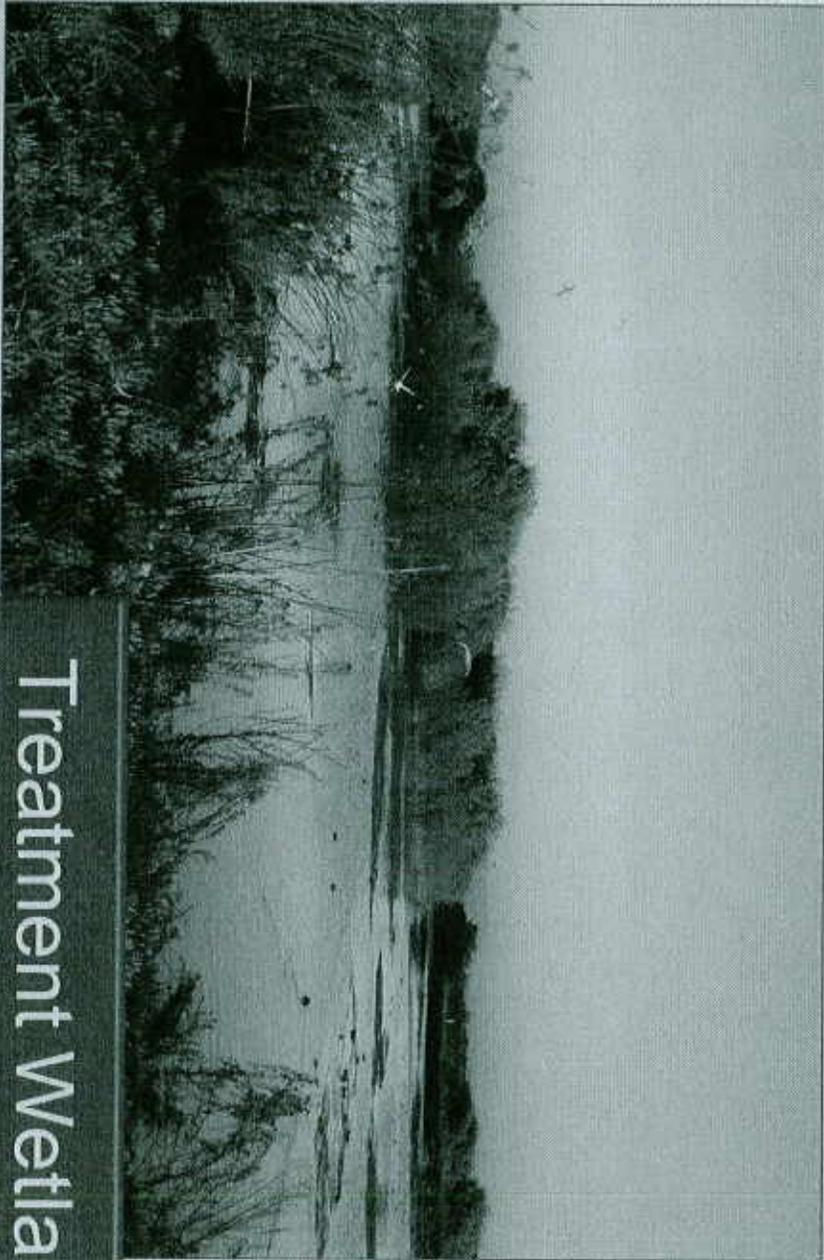


# Existing recycled water pipeline extends from harbor to golf course



# Summary of opportunities and challenges to implementing reuse

| Alternative          | Opportunity   | Challenge  |
|----------------------|---|--|
| Urban Users          | <ul style="list-style-type: none"> <li>Potential demand varies seasonally from 1.1 to 3.7 mgd</li> <li>No additional treatment</li> </ul> | <ul style="list-style-type: none"> <li>Cost = \$62 Million (Pipes, pump stations)</li> <li>Extensive pipe network</li> <li>Feasibility of serving Oxnard golf course unknown (~1 mgd annual average demand)</li> </ul>   |
| Agricultural Users   | <ul style="list-style-type: none"> <li>Potential demand (north of Estuary) varies seasonally from 1.6 to 11 mgd</li> </ul>                | <ul style="list-style-type: none"> <li>Cost = \$145 Million (Pipes, pump stations, MF/RO)</li> <li>Requires additional treatment and brine disposal</li> <li>Requires conversion of ponds to storage or construction of alternative storage</li> <li>Requires agreement by growers</li> </ul>  |
| Groundwater Recharge | <ul style="list-style-type: none"> <li>Potential seasonal demand up to 12 mgd</li> </ul>  | <ul style="list-style-type: none"> <li>Cost = \$36 Million (Pipes, pump stations)                             <ul style="list-style-type: none"> <li>Does NOT include treatment costs</li> </ul> </li> <li>Regulatory feasibility uncertain</li> <li>Additional treatment may be required</li> <li>Requires agreement with UWCD</li> </ul> |

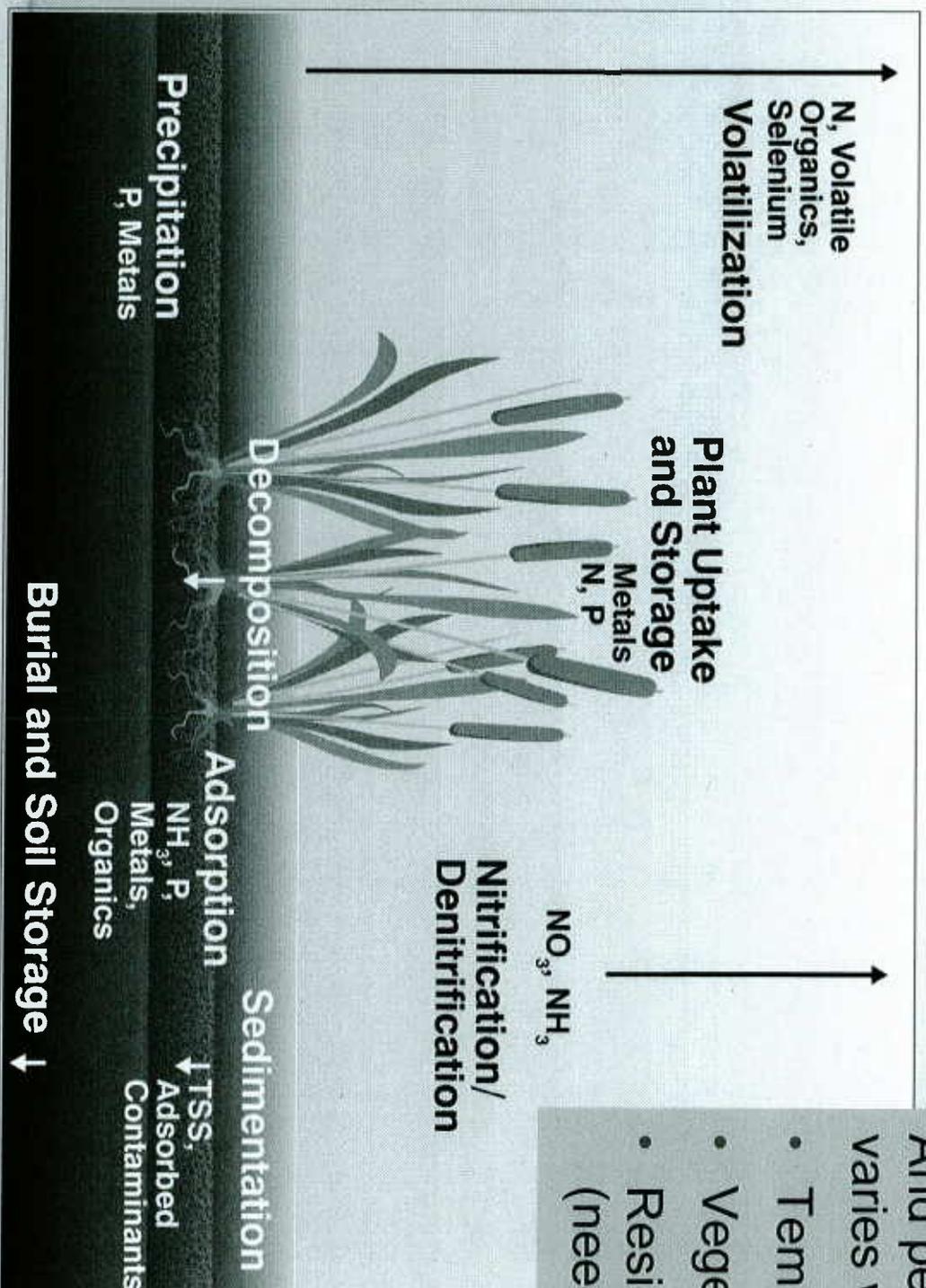


# Treatment Wetlands Feasibility Study

# **Work Plan goals for Treatment Wetlands Feasibility Study**

- Identify and evaluate a potential location, treatment capability, and cost of a treatment wetland for water quality improvement purposes within proximity of the WWRF discharge.

# Based on water quality, reduction of nitrates is primary goal for wetlands



- And performance varies with:
- Temperature
  - Vegetation
  - Residence time (need 4-12 days)

# Onsite and offsite opportunities were identified as potential treatment wetland sites

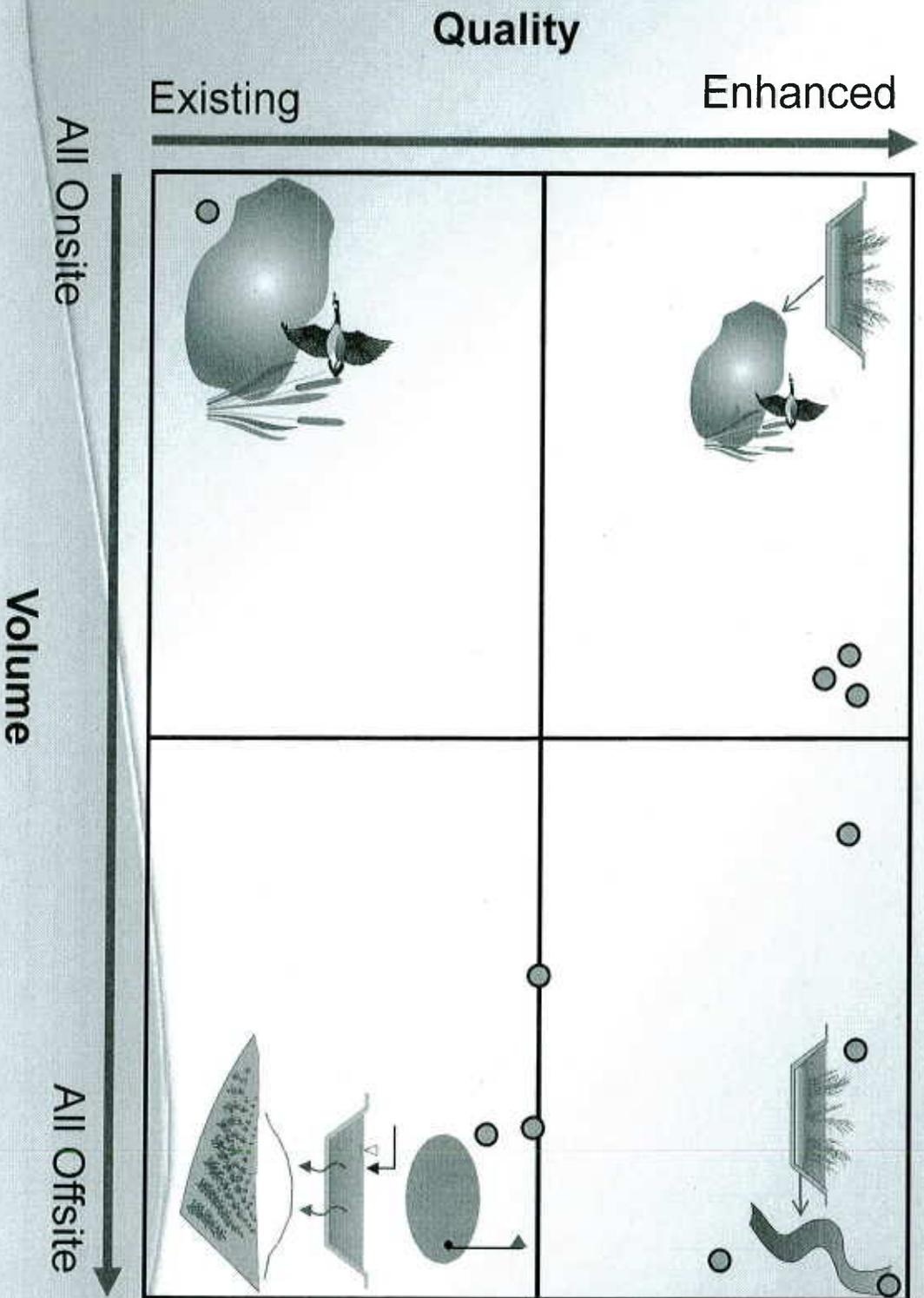


# Summary of the potential onsite and offsite treatment wetland opportunities

|                                   | Wet Area at 85% Use, acres | HRT, days <sup>1</sup> (existing to future flow) | Total Project Costs, millions |
|-----------------------------------|----------------------------|--|-------------------------------|
| Onsite (Ponds 1 & 2) <sup>2</sup> | 12.4                       | 1.7 to 0.9                                       | \$2.8                         |
| Offsite <sup>3</sup>              |                            |  |                               |
| City-Owned                        | 29                         | 4.9 to 2.3                                       | \$11.4                        |
| Berry                             | 92                         | 15.6 to 7.3                                      | \$30.3                        |
| McGrath/TNC                       | 120                        | 20.4 to 9.5                                      | \$44.6                        |

1. Assumes average water depth of the offsite opportunities is 2.5 feet.
2. Existing flow to onsite = 5.9 mgd and future flow = 11.4 mgd.
3. Existing flow to offsite (less evaporation from ponds) = 4.8 mgd, future = 10.3 mgd.

# Stakeholders provided input on alternatives for recycled water and wetlands treatment



**And the preferred locations for the potential treatment wetlands...**

