OTAY WATER DISTRICT
ENGINEERING, OPERATIONS & WATER RESOURCES COMMITTEE MEETING
and
SPECIAL MEETING OF THE BOARD OF DIRECTORS

2554 SWEETWATER SPRINGS BOULEVARD
SPRING VALLEY, CALIFORNIA
Board Room

TUESDAY
February 15, 2011
11:30 A.M.

This is a District Committee meeting. This meeting is being posted as a special meeting in order to comply with the Brown Act (Government Code Section §54954.2) in the event that a quorum of the Board is present. Items will be deliberated, however, no formal board actions will be taken at this meeting. The committee makes recommendations to the full board for its consideration and formal action.

AGENDA

1. ROLL CALL

2. PUBLIC PARTICIPATION – OPPORTUNITY FOR MEMBERS OF THE PUBLIC TO SPEAK TO THE BOARD ON ANY SUBJECT MATTER WITHIN THE BOARD'S JURISDICTION BUT NOT AN ITEM ON TODAY'S AGENDA

DISCUSSION ITEMS

3. OCEAN DESALINATION OPINION SURVEY REPORT (REA & PARKER RESEARCH, INC.) [15 minutes]

4. REVIEW AND RECEIVE A SUMMARY OF THE DISTRICT'S CONSTRUCTION MANAGEMENT AND INSPECTION SERVICES PRACTICES (RIPPERGER) [10 minutes]

5. FISCAL YEAR 2011 SECOND QUARTER CAPITAL IMPROVEMENT PROJECT UPDATE REPORT (KAY) [10 minutes]

6. SAN DIEGO COUNTY WATER AUTHORITY UPDATE (WATTON) [10 minutes]

7. ADJOURNMENT

BOARD MEMBERS ATTENDING:
Jose Lopez, Chair
Gary Croucher

All items appearing on this agenda, whether or not expressly listed for action, may be deliberated and may be subject to action by the Board.

The Agenda, and any attachments containing written information, are available at the District's website at www.otaywater.gov. Written changes to any items to be considered at the open meeting, or to any attachments, will be posted on the District's website. Copies of the Agenda and all attachments are also available through the District Secretary by contacting her at (619) 670-2280.

If you have any disability that would require accommodation in order to enable you to participate in this meeting, please call the District Secretary at 670-2280 at least 24 hours prior to the meeting.

Certification of Posting

I certify that on February 11, 2011 I posted a copy of the foregoing agenda near the regular meeting place of the Board of Directors of Otay Water District, said time being at least 24 hours in advance of the meeting of the Board of Directors (Government Code Section §54954.2).

Executed at Spring Valley, California on February 11, 2011.

Susan Cruz, District Secretary

AGENDA ITEM 3

STAFF REPORT

TYPE MEETING:	Regular Board	MEETING DATE:	March 2, 2011
SUBMITTED BY:	Armando Buelna, Communications Officer	W.O./G.F. NO:	DIV. NO. All
APPROVED BY:			
SUBJECT:	Presentation of the Ocean Water Desalination Survey Report performed by Rea and Parker Research Inc.		

GENERAL MANAGER'S RECOMMENDATION:

That the Board of Directors receive the Ocean Water Desalination Survey Report performed by Rea and Parker Research Inc.

COMMITTEE ACTION: _____

See Attachment A.

PURPOSE:

To present the Board of Directors with the findings of the Ocean Water Desalination Survey Report performed by Rea and Parker Research Inc.

BACKGROUND:

The Otay Water District has conducted a statistically reliable telephone survey of its customers on the subject of ocean water desalination. The survey was performed by Rea and Parker Research Inc. for the purpose of validating earlier findings from focus group interviews on the subject of ocean water desalination. The telephone survey contacted 401 Otay Water District customers between November 11 and November 22, 2010.

In the telephone survey, customers were asked their opinion about desalinated ocean water as an alternate source of potable water. They were also asked a series of questions that tested

the effectiveness of messages with regard to the ability of the messages to communicate the advantages of desalination. In addition, customer opinions were solicited about a proposed international project that would distribute desalinated water from a facility located in Rosarito Beach, Mexico.

The sample size for this survey was selected to secure a margin of error not to exceed +/- 4.9 percent at a 95 percent confidence level. This means that there is a 95% chance that the "true" opinions of all Otay Water District customers are within +/- 4.9 percent of the observed results from this survey. Findings of the survey included the following:

- A substantial proportion of customers feel that the development of desalinated water is a good way for the District to serve its customers.
- Customers feel about one-half of the available water supply should be derived from desalination, including an ocean water desalination facility located in Rosarito Beach, Mexico.
- Customers do have some concern about the safety and security of the pipeline in Mexico, and show some preference for a United States location instead of Mexico. Customers feel it would bolster the local economy and create U.S. based jobs.
- More than half (54%) favor pursuing an international agreement to purchase desalination ocean water from a Rosarito Beach facility. Thirty-four percent do not favor such an agreement, with 12% having no opinion.

More significant findings from the survey are included in the attached PowerPoint presentation (Attachment B) and in the body of the full report (Attachment C).

The Ocean Water Desalination Survey Report validated the earlier findings from the focus group interviews. The results of this study will also be used to update the messages staff will use to communicate the benefits and opportunities available from ocean water desalination.

FISCAL IMPACT:

The cost of the Ocean Water Desalination Survey Report was $14,250 and was charged to CIP P2451. Budgeted funds are sufficient to cover the cost of this contract.

LEGAL IMPACT:

None.

General Manager

Attachments:

Attachment A - Committee Statement
B - Otay Water District Desalination Survey Findings
C - Otay Water Desalination Survey Report

ATTACHMENT A

SUBJECT/PROJECT:	Ocean Water Desalination Survey Report

COMMITTEE ACTION:

The Finance, Administration and Communications Committee reviewed this item at the meeting held on February 16, 2011.

Note:

The "Committee Action" is written in anticipation of the Committee moving the item forward for board approval. This report will be sent to the Board as a committee approved item, or modified to reflect any discussion or changes as directed from the committee prior to presentation to the full board.

Otay Water District Desalination Survey

November 2010 Customer Opinion Message Effectiveness

Otay Water District
Desalination Survey Findings

- A substantial proportion of customers feel that the development of desalinated water is a good way for the District to service its customers.
- Customers feel that about one-half of the available water supply should be derived from desalination, including an ocean water desalination facility in Rosarito Beach, Mexico.
- Customers are determined that the process of desalination not harm the ocean.

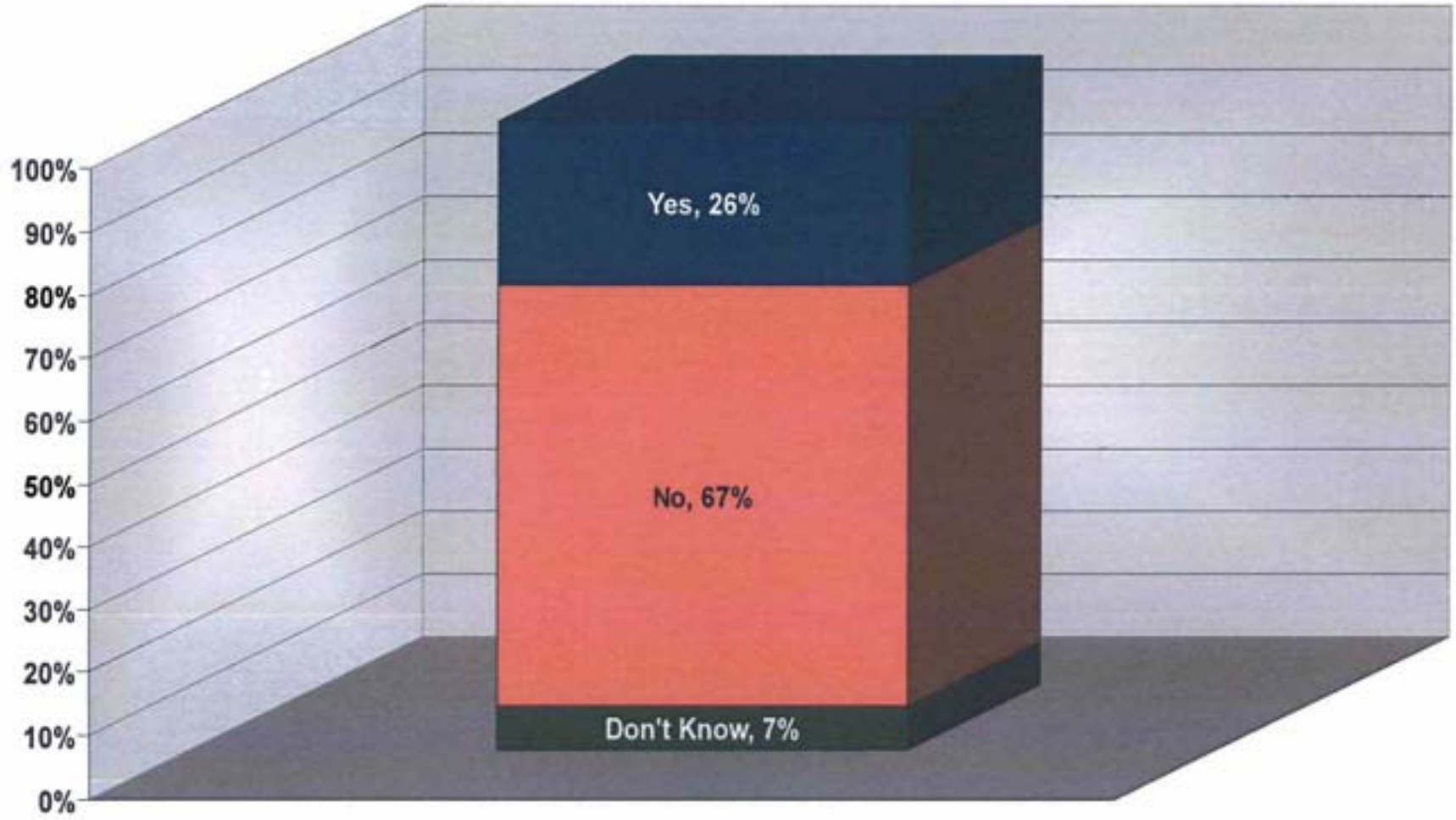
Desalination Survey Findings

- It is important that desalination achieve the objective of reducing our dependence on imported water.
- Customers do have some concern about the safety and security of the pipeline in Mexico.
- Customers also show some preference for a United States location instead of Mexico that would bolster the local economy and create U.S. based jobs.
  - Especially younger customers, Asians, and African-Americans

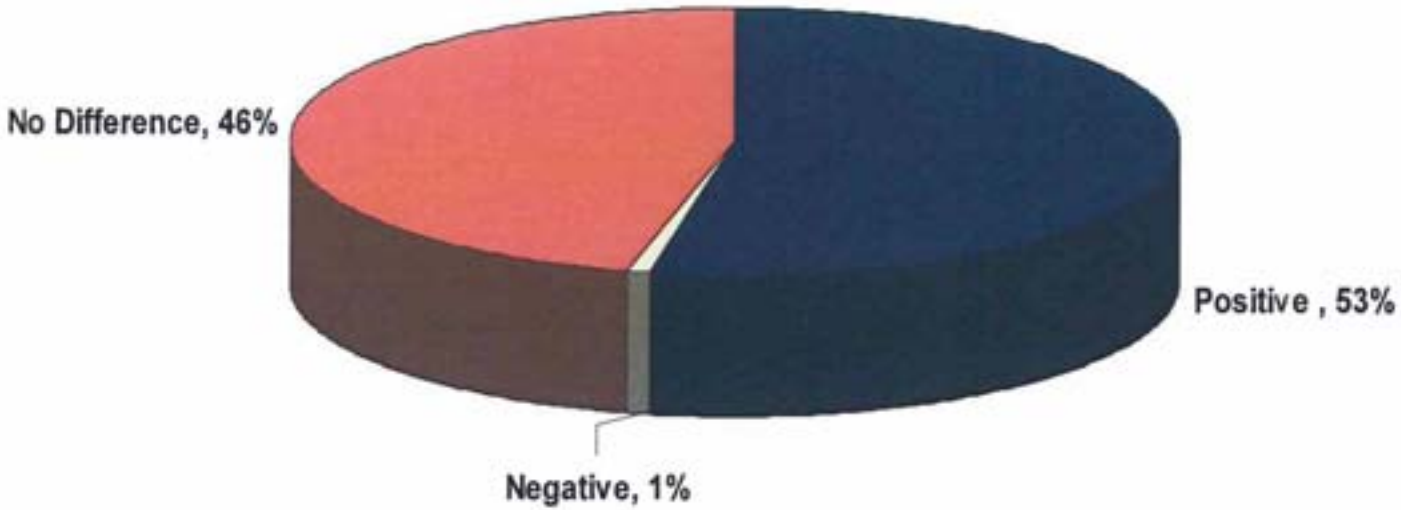
Effective Messages

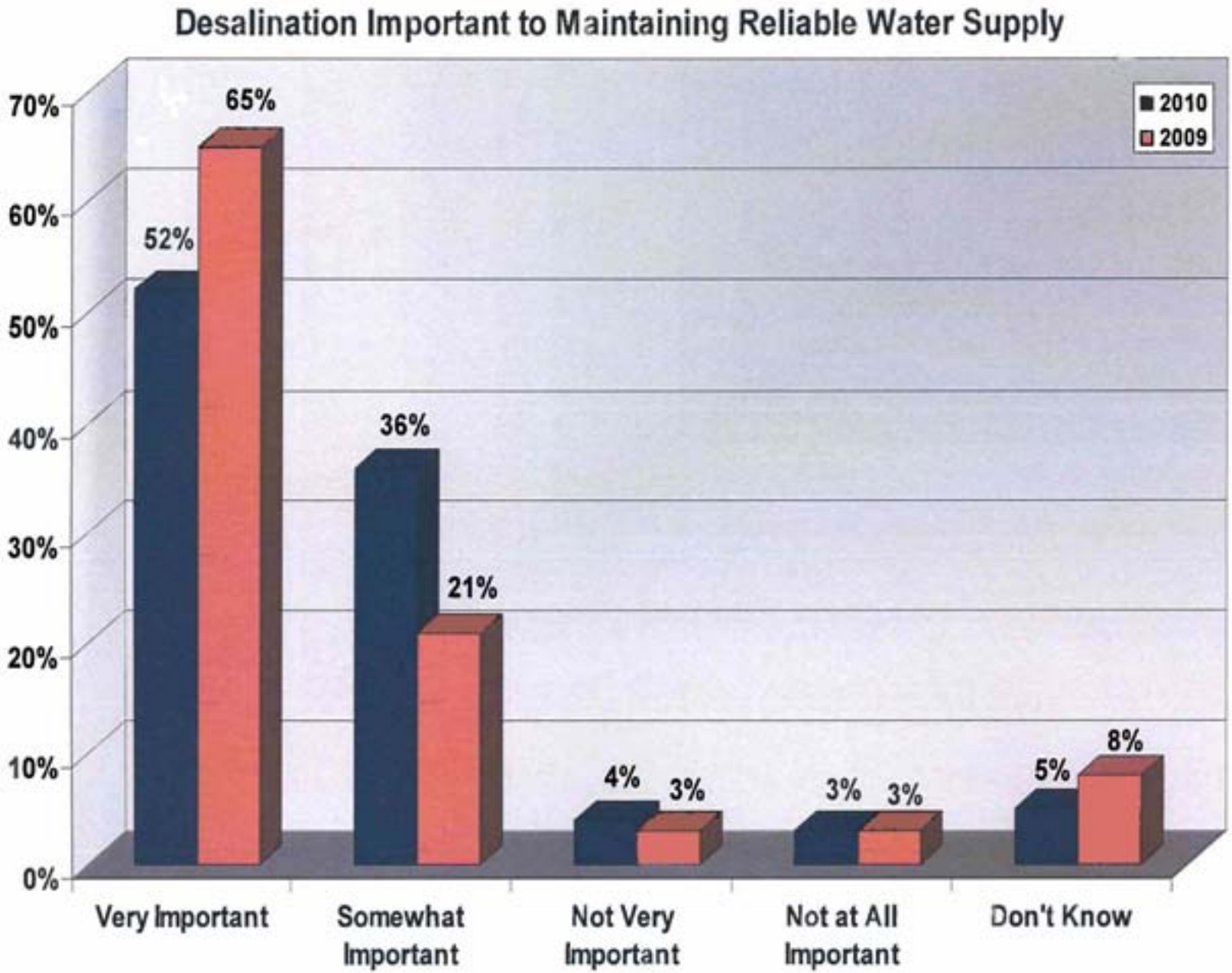
- Groups that most notably support a greater percentage of the water supply from desalination are:
  - Females
  - Middle income customers
  - Customers with less than a college degree
  - Latinos
  - Renters
  - Customers who already trust the District to provide a sufficient quantity of clean, safe, reliable water at a reasonable price.
- Important and effective messages:
  - "Desalination eases the potential effects of a water crisis."
  - "Desalination ensures a reliable, high quality supply of water for the future."
  - "Desalinated water will be closely monitored by the California Department of Public Health."
    - Younger customers are more influenced by these messages

Ever Used Desalinated Water?



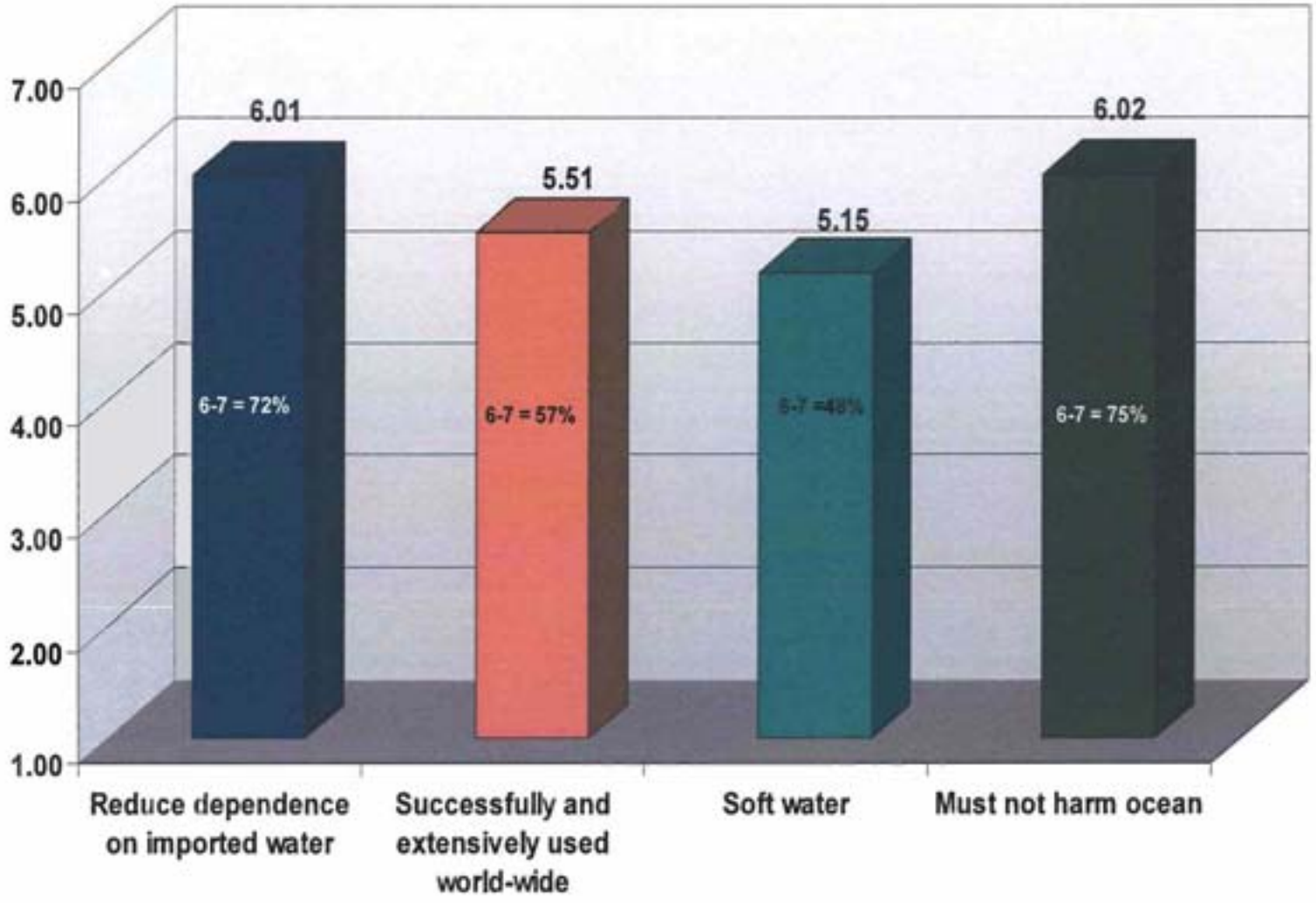
Experience with Desalinated Water Positive or Negative

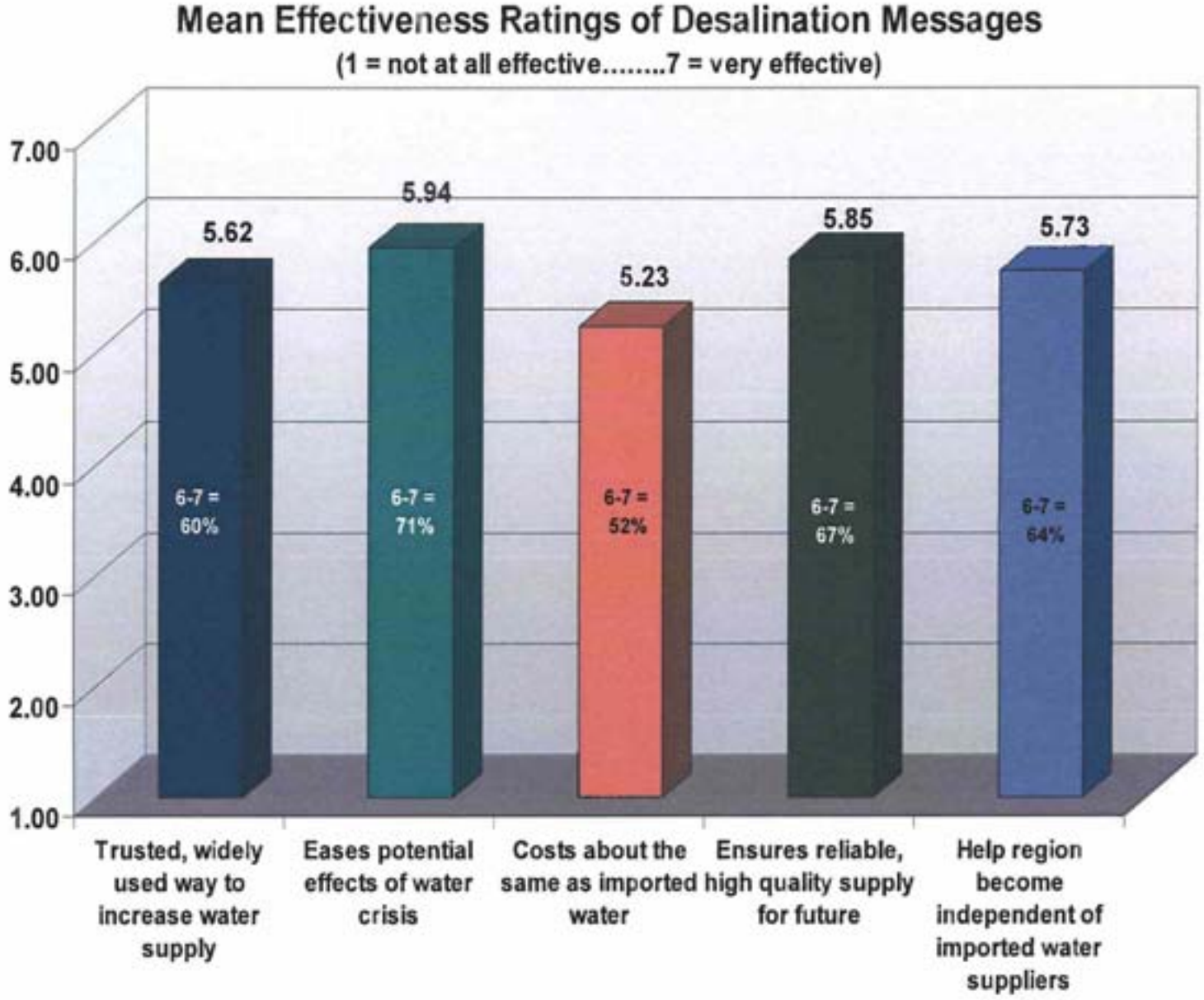



Desalination Important to Maintaining Reliable Water Supply
70%
60%
50%
40%
30%
20%
10%
0%
2010
2009
52%
65%
36%
21%
4%
3%
3%
3%
5%
8%
Very Important
Somewhat Important
Not Very Important
Not at All Important
Don't Know

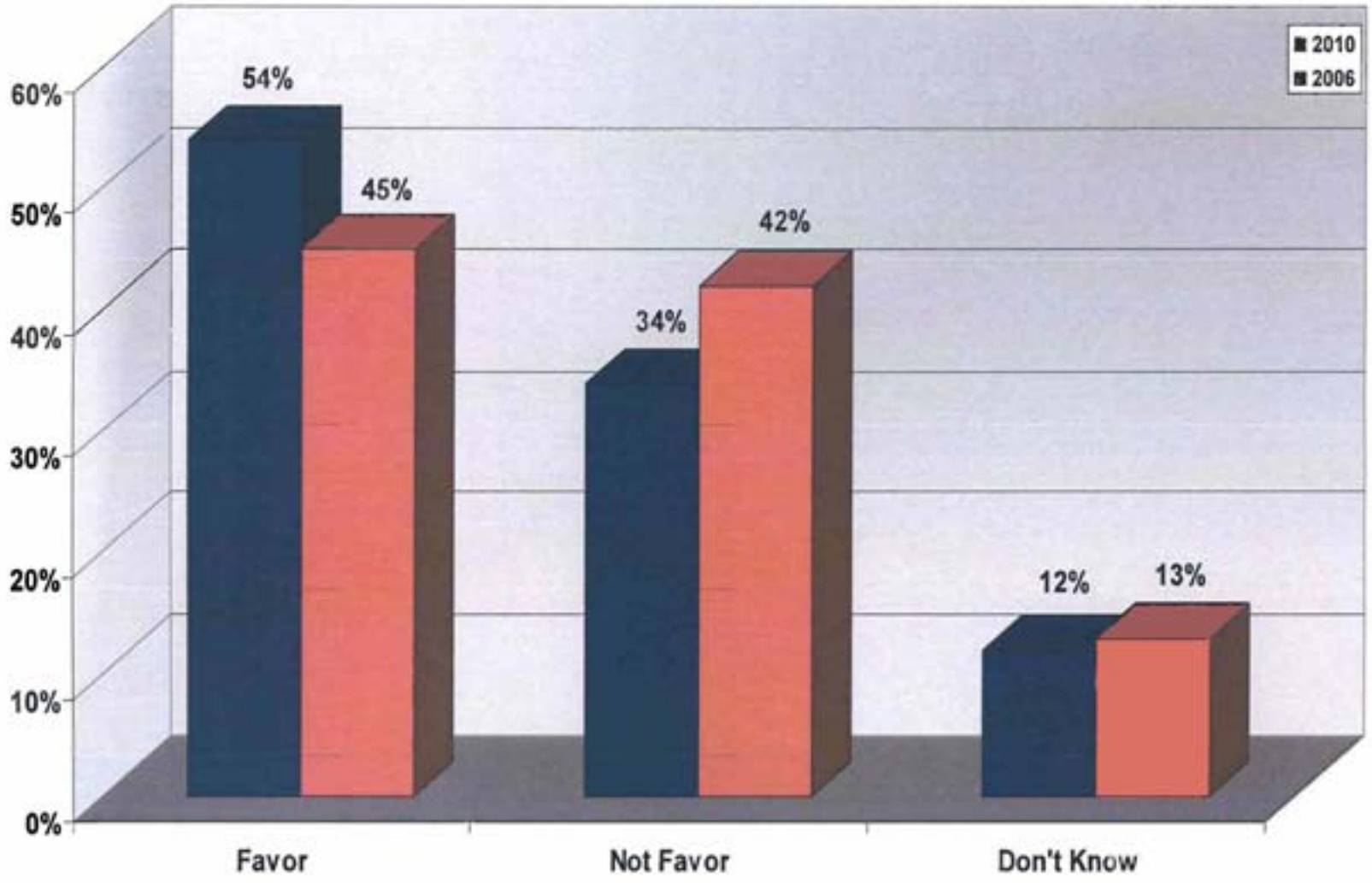
Mean Importance Ratings of Characteristics of Desalinated Water

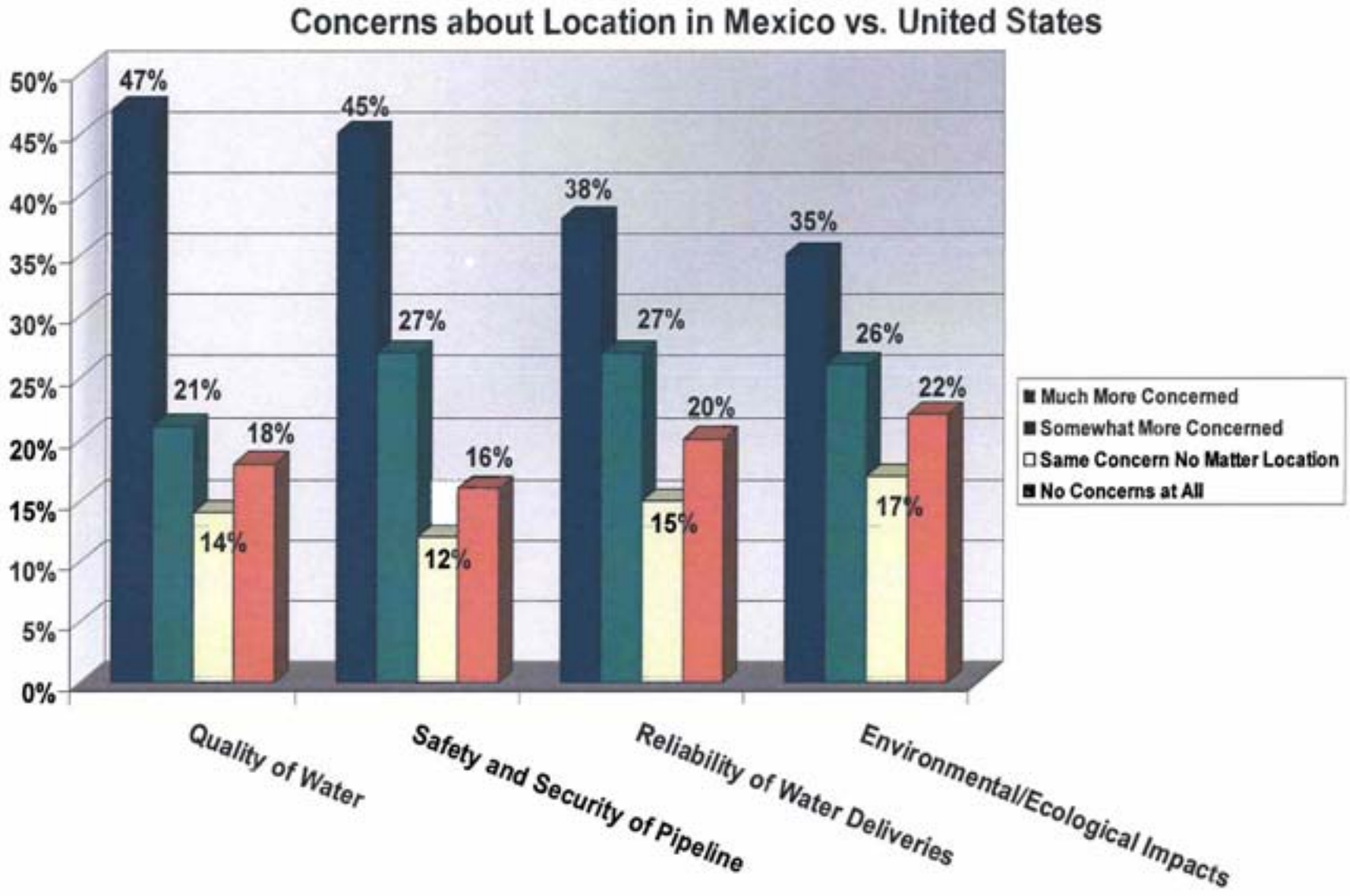
(1 = not important at all.....7 = highest importance)



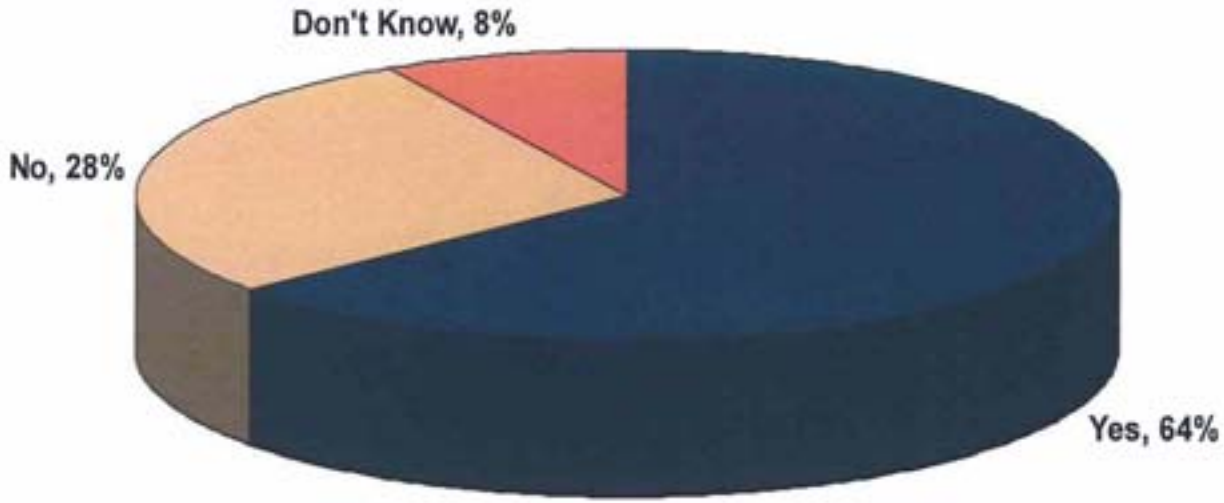

Mean Effectiveness Ratings of Desalination Messages
(1 = not at all effective.....7 = very effective)
7.00
6.00
5.00
4.00
3.00
2.00
1.00
5.62
5.94
5.23
5.85
5.73
6-7 = 60%
6-7 = 71%
6-7 = 52%
6-7 = 67%
6-7 = 64%
Trusted, widely used way to increase water supply
Eases potential effects of water crisis
Costs about the same as imported water
Ensures reliable, high quality supply for future
Help region become independent of imported water suppliers

Pursue International Agreement to Purchase Desalinated Ocean Water from Rosarito Beach Facility

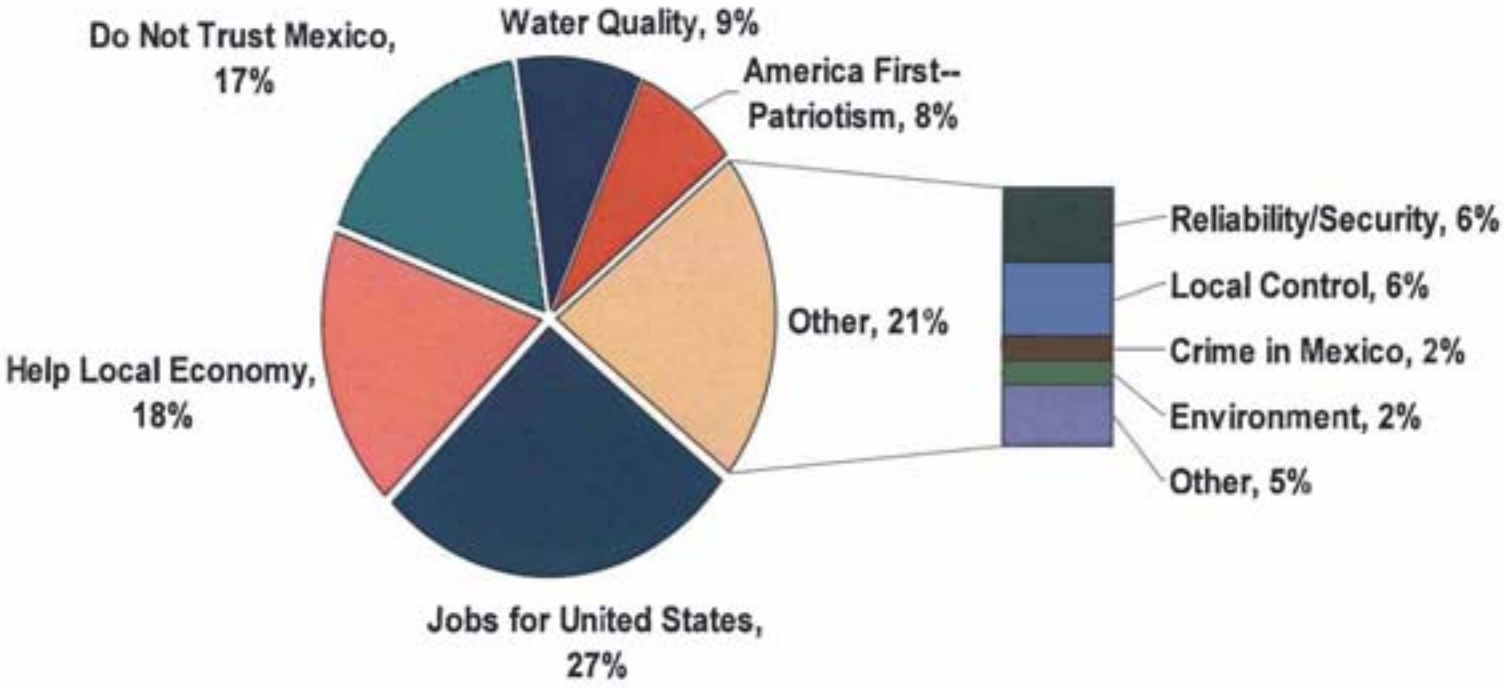



Concerns about Location in Mexico vs. United States
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
47%
21%
14%
18%
45%
27%
12%
16%
38%
27%
15%
20%
35%
26%
17%
22%
Much More Concerned
Somewhat More Concerned
Same Concern No Matter Location
No Concerns at All
Quality of Water
Safety and Security of Pipeline
Reliability of Water Deliveries
Environmental/Ecological Impacts

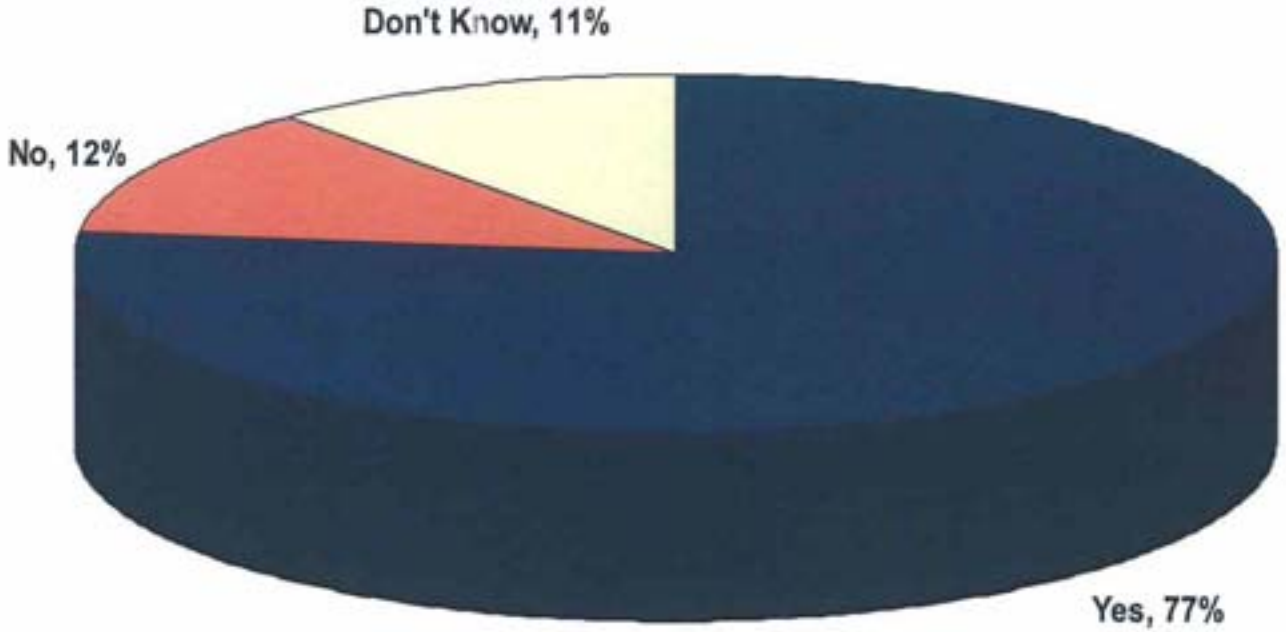
Prefer Desalination Plant in United States Even If 10-15 More Years are Required



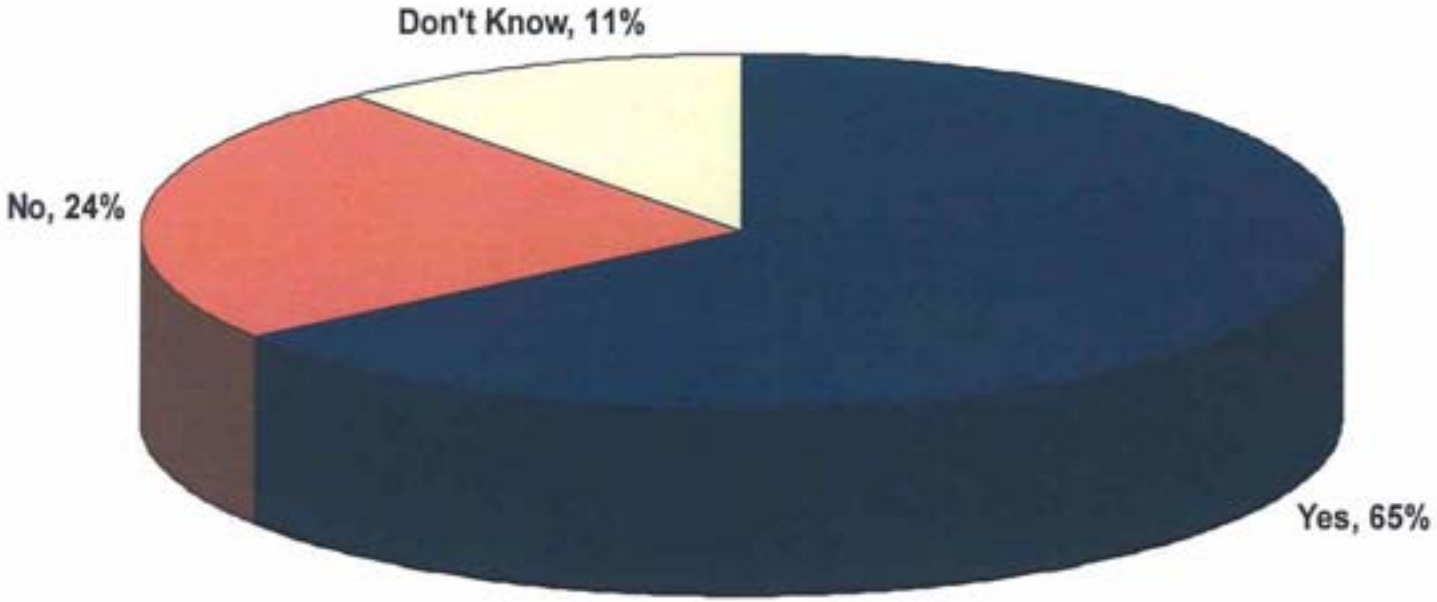
Reasons for Preferring United States Location



Favor Otay Water District Establishing Independent Water Source

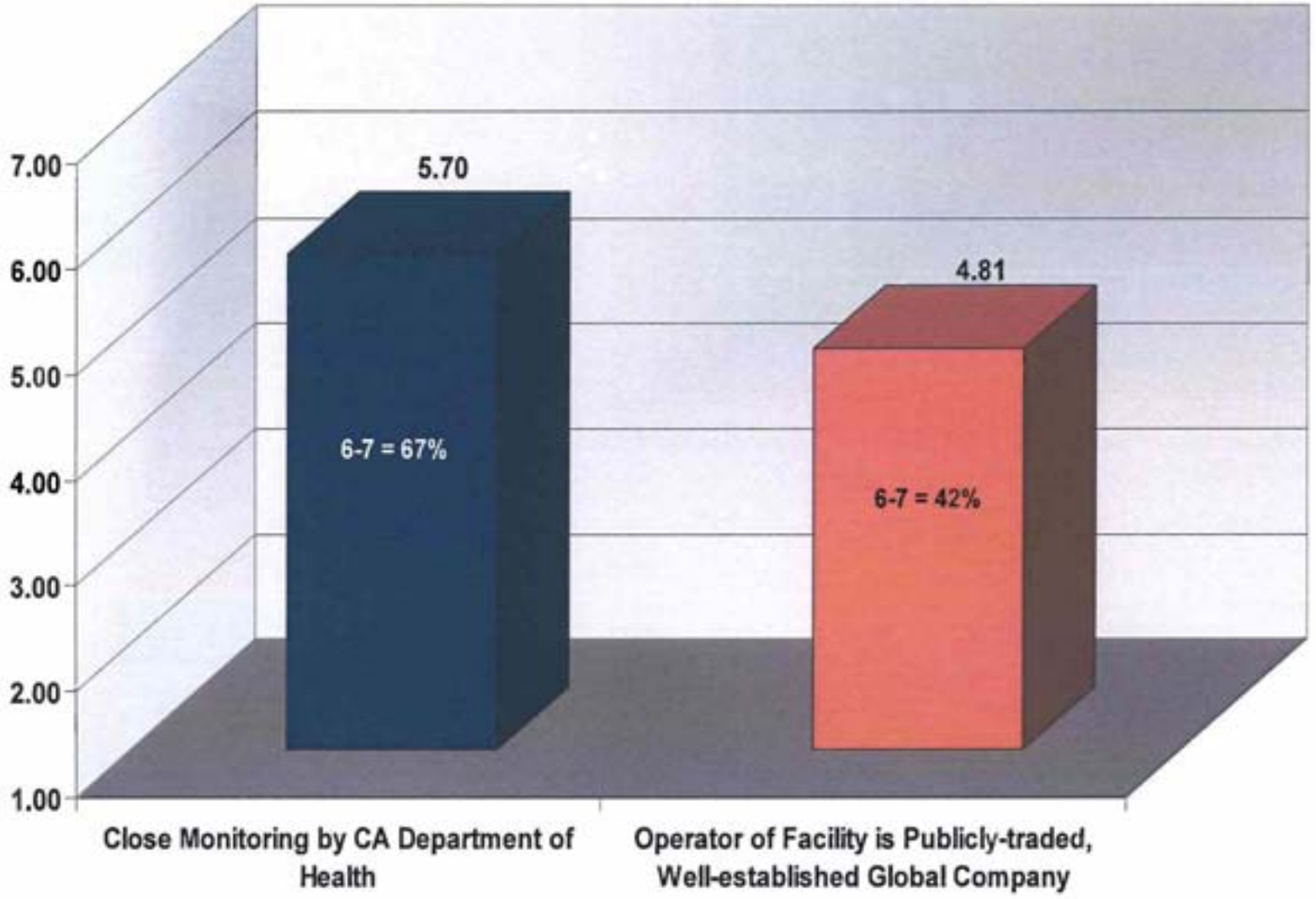


Experienced International Team Increases Confidence

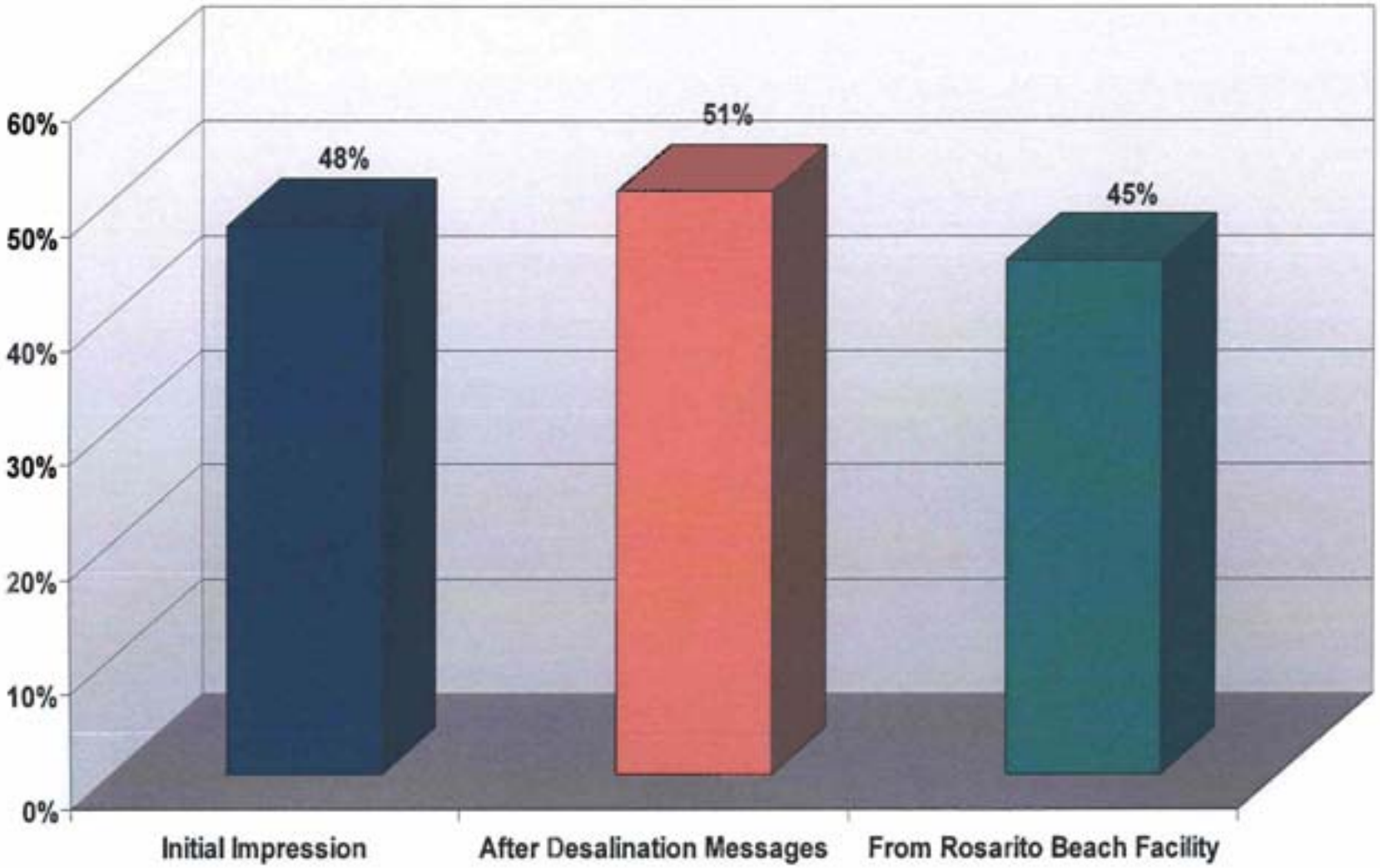


Effectiveness Ratings for Messages Pertaining to Rosarito Beach

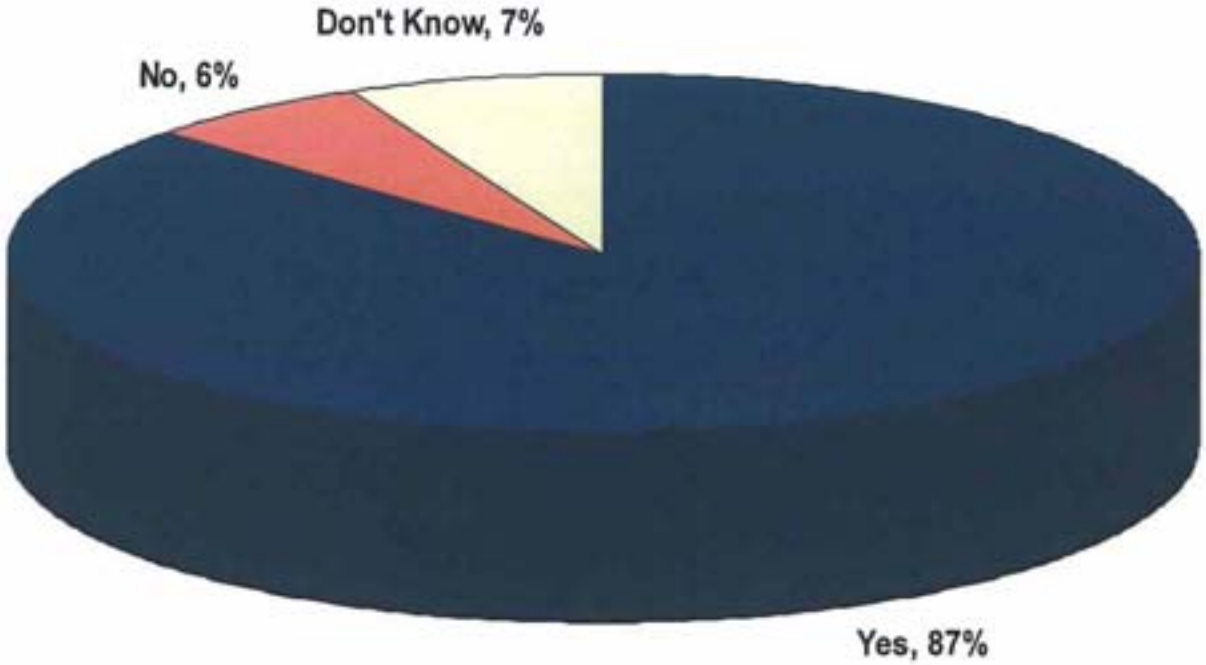
(1 = not at all effective.....7 = very effective)



Opinions about Mean Percentage of Household and Business Water that Should Come from Ocean Water Desalination



Desalinated Water is a Good Way for District to Serve Customers



Otay Water District

Ocean Water Desalination Opinion Survey Report

Prepared for

OTAYWATERDISTRICT

Otay Water District
2554 Sweetwater Springs Blvd.
Spring Valley, CA 91978

REA & PARKER RESEARCH
Survey/Market Research
Economic Consultants

Rea & Parker Research
P.O. Box 421079
San Diego, CA 92142
www.rea-parker.com

December, 2010

Table of Contents

Otay Water District

2010 Ocean Water Desalination Opinion Survey

Executive Summary

The Otay Water District elected to conduct a statistically reliable telephone survey among residential customers about the subject of desalinated water and the desalination process. The purpose of the survey was twofold: 1) customers were asked about their opinion about desalinated water as an alternative source of water, and they were asked to test the effectiveness of messages with regard to the ability of the messages to communicate the advantages of desalination; and 2) customers were asked their opinion about a proposed international project that would pipe desalinated water to the Otay Water District from a desalination facility in Rosarito Beach, Baja California Norte, Mexico that would provide the District with an alternative source of water.

This survey report has been divided into eight essential information components as follows:

- Demographic Statistics/Respondent Characteristics
- Use of Desalinated Water
- General Opinion about Desalinated Water and the Desalination Process
- Testing of Desalination Messages
- Issues about the Joint Venture in Mexico and the Rosarito Beach Facility
- Testing of Rosarito Beach Facility Messages
- Overall Satisfaction and General Opinion about the Use of Desalination Water
- Relationship between Trust in the Otay Water District and Opinion about Ocean Water Desalination

Use of Desalinated Water

- Three-fifths of the customers of the Otay Water District are familiar with the term "desalination." Among those who said they were familiar with the term, 96 percent correctly indicated that it pertained to removing salts and other impurities from water to make it useable for households. Nearly 90 percent of District customers feel that ocean water desalination can be substantially important in maintaining a reliable and sufficient supply of water for San Diego County and Otay Water District residents.
- This relatively high level of importance attributed to maintaining a reliable water supply was also exhibited by the District customers in the 2009 General Survey.
- Customers indicated that they do not have very much experience in using desalinated water. About two thirds have never used desalinated water for any purpose to the best of their knowledge.
- Among those who have used desalinated water, about three-fifths used it either on-board a ship while serving in the Navy or at a military base.
- Over one-half (53 percent) of customers who used desalinated water had a positive experience and 46 percent of customers stated that their use of desalinated water was not different from their use of traditional water sources.

- It is important to note that only 1 percent of customers who used desalinated water had a negative experience.
- Well over one-fourth (29 percent) regard taste as the dominant positive characteristic of desalinated water, with another one-fifth (18 percent) touting desalinated water as clean and pure.

General Opinions about Desalinated Water and the Desalination Process

- Customers accorded the highest importance rating to the concern that the desalination process must not harm the ocean (rating of 6.02 on a 7 point scale).
- This concern is closely followed in importance by the notion that desalinated water is an alternative source of water that can reduce dependence on imported water and precipitation (rating of 6.01 on a 7 point scale).
- In an initial impression, customers were generally supportive of the notion that desalinated water should become a substantial portion of the District's water supply. The recommended mean percentage of the total percentage of domestic water supply that should come from ocean water desalination is 48 percent.

Testing of Desalination Messages

- The message stating "Desalination eases the potential effects of a water crisis" has the greatest potential to communicate the advantages of desalination (overall rating of 5.94 on a 7 point scale).
- This is closely followed by the message that "Desalination ensures a reliable, high quality supply of water for the future" (overall rating of 5.85 on a 7 point scale).
- The opinion of customers regarding the percentage of water that should come from desalinated water was asked again after the desalination messages were tested. The mean percentage from this second iteration was 51 percent -- consistent with and slightly increased from the initial impression of 48 percent.

Issues about the Joint Venture in Mexico and the Rosarito Facility

- More than half (54 percent) of the customers favor an international agreement to purchase desalinated water from the proposed Rosarito Beach Facility in Mexico. This is comparable to the percentage reported in the 2009 General Survey where 58 percent indicated that they favored such a joint venture in Mexico.
- Customers are expressing some concern about locating the desalination facility in Mexico rather than in the United States. The most concern is focused on the security and safety of the pipeline (47 percent much more concerned about the location in Mexico and 27 percent somewhat more concerned).
- There is also notable concern about the quality of water from the facility located in Mexico (45 percent much more concerned about the Mexico location and 27 percent somewhat more concerned).
- Over three-fifths of customers (64 percent) prefer that the desalination project be built in the United States even if it took 10 -15 years or even longer than the Rosarito Beach plant to get the US plant operational.
- Customers prefer the location of the desalination plant in the United States for three primary reasons: create jobs for US residents (27 percent), the plant will help stimulate the local economy (18 percent), and there is lack of trust in the Mexican government (17 percent).

- Over three-fourths of the customers (77 percent) favor a plan such as this one that would establish an independent water source for the Otay Water District.
- Over three-fifths (65 percent) have more confidence in the desalination project because an experienced team of international experts is involved.

Testing of Rosarito Beach Facility Messages

- It is clear that the most effective message specific to the Rosarito beach facility is that "Desalinated water will be closely monitored by the California Department of Public Health" (rating of 5.70 on a 7 point scale).
- Of secondary importance is the message that "The operator of the Rosarito Desalination Facility is a publicly-traded, well-established, global company" (4.81 on a 7 point scale).
- After the two messages concerning the Rosarito Beach Facility were tested, customers were then asked to provide their opinion regarding the percentage of water available to the Otay Water District that should come from desalinated water produced at this project. The mean percentage of the water supply that comes from this third iteration is 45 percent – 6 percent lower than the mean percentage reported after testing the 5 desalination messages, but again still quite consistent with the overall pattern of favoring approximately half of the total supply from ocean water desalination.

Overall Satisfaction and General Opinion about the Use of Desalinated Water

- Customers of the Otay Water District demonstrate a high level of satisfaction with the District as their provider of water service. In fact, 54 percent rate the Otay Water District as either excellent (24 percent) or very good (30 percent). These ratings are consistent with those expressed in the 2009 Residential Customer Opinion and Awareness Survey.
- Nearly 9 out of 10 customers (87 percent) feel that the development of desalinated water is a good way for the District to serve its customers. This further demonstrates the overall satisfaction with the District and shows confidence in the District's efforts to find alternative sources of water.

Customer Trust and the Relationship between Trust and Opinion about Desalination

- Three-fourths of the customers have a substantial amount of trust in the ability of the Otay Water District to provide clean, safe water for its customers (31 percent indicated a great deal of trust and 44 percent a good amount of trust). These ratings are slightly higher than the ratings in the 2008 and 2009 General Surveys.
- One half of the District's customers (49 percent) have either a great deal of trust (17 percent) or a good amount of trust (32 percent) in the ability of the Otay Water District to obtain water at reasonable prices. These ratings represent a considerable increase in the trust level exhibited in the 2009 General Survey where 39 percent of customers indicated either a great deal of trust (10 percent) or a good amount of trust (29 percent).
- These aspects of trust are significantly related to opinions about desalination and the use of ocean water desalination to supplement the District's supply of water. Those customers who trust the District the most are also much more in favor of desalination in general and for the Rosarito Beach facility, in particular.

Introduction and Methodology

In 1956, the Otay Water District was authorized by the State Legislature and gained its entitlement to imported water. Today, the District serves the needs of over 191,500 people by purchasing water from the Metropolitan Water District of Southern California. The Otay Water District takes delivery of the water through several connections to large pipelines owned and operated by the San Diego County Water Authority. Since its inception, the Otay Water District also has collected and reclaimed wastewater generated within the Jamacha Drainage Basin and pumped the reclaimed water south to the Salt Creek Basin where it is used for irrigation and other non-potable uses. The District is considering alternative sources of water in order to reduce its dependence on imported water. To that end, it is seriously considering innovative ways to provide desalinated water to households and businesses in its service area. The desalinated water would comprise a portion of the overall water supply provided by the Otay Water District to its customers.

The Otay Water District is considering a partnership with a consortium of international desalination construction companies, operations specialists, and financiers to bring desalinated ocean water to the District. The purpose of this project is to replace and supplement water that is currently purchased from the San Diego County Water Authority, which, in turn, purchases water from the Metropolitan Water District of Southern California. The proposed project calls for building a desalination plant in Rosarito Beach, Baja California Norte, Mexico. The plant will be designed to produce 56,000 to 112,000 acre feet of desalinated seawater each year and would serve 112,000 to 224,000 households. It would be built adjacent to the Rosarito Beach Thermoelectric Plant and is scheduled for completion in 2013 or 2014.

The desalination plant will be constructed by a company that has built and installed over 40% of all desalination plants in the Middle East. The project will be financed by a European-based bank that is one of the largest and most solvent infrastructure banks in the world. The plant will be operated by a company that has 30 years of experience operating desalination plants and water distribution systems in several Caribbean countries.

The water will travel from the Rosarito Beach plant to the international border by way of a 24 mile pipeline. It would continue to travel another 3.2 miles by way of pipeline from the border to a pump station in Otay Mesa. The water would be held in a storage facility, where it would be tested to ensure that it meets or exceeds United States and California standards for water quality.

As a first stage in eliciting input from its customers regarding desalination issues in general and the proposed Rosarito Beach facility in particular, two focus groups were conducted in April 2010. The focus

groups provided valuable information about customer opinions and perceptions regarding these desalination issues. This information was used in the development of a formal, statistically reliable telephone survey among the residential customers of the Otay Water District. The purpose of this survey was to obtain data in the following areas of interest:

- Customers' knowledge of desalination
- Customers' experience (if any) using desalinated water
- Perceived advantages and disadvantages of desalinated water
- Relative importance of characteristics of desalinated water to customers
- Issues and concerns about the proposed Rosarito Beach facility
- Opinions about the effectiveness of certain test messages designed to communicate desalination issues to customers of the Otay Water District.
- Opinions regarding the effectiveness of certain test messages designed to inform customers about the Rosarito Beach project and to demonstrate that this joint venture is a reasonable way to expand the water supply
- Perceptions concerning the percentage of the Otay Water Districts' water supply that should come from desalinated water and from the Rosarito Beach facility
- Perceptions of confidence and trust in the Otay Water District and the relationship between that trust and opinions about desalinated water

Beyond these primary survey objectives, other purposes of the survey are as follows:

- Obtain demographic data about the population for use in descriptive analysis and crosstabulations of data that can result in new, optimally targeted and tailored public awareness programs.
- Compare the results of this survey with the results of surveys conducted by the District in previous years where the comparisons are appropriate and relevant.

Rea & Parker Research was selected to conduct this study.

Sample: The survey was conducted by a random telephone sample of 401 respondents in order to secure a margin of error not to exceed +/-4.9 percent @ 95 percent confidence. This figure represents the widest interval that occurs when the survey question represents an approximate 50 percent-50 percent proportion of the sample. When it is not 50 percent-50 percent, the interval is somewhat smaller. For example, in the survey findings that follow, 77.0 percent of respondent households favor the Otay Water District establishing an independent water source. This means that there is a 95 percent chance that the

true proportion of the total population of the District's service area that favors an independent water source is between 72.1 percent and 81.9 percent (77.0 percent +/- 4.9 percent).

Survey respondents were screened to exclude those who have not been customers of the Otay Water District for at least one year. When respondents asked about who was sponsoring the survey, they were told "this project is sponsored by the Otay Water District, and it is about issues related to the water supply in the San Diego County region." This information was provided to 57 percent of the respondents.

The survey was conducted in both English and Spanish. Spanish language respondents comprised slightly more than 1 percent of the survey population. The distribution of respondents according to gender was 54 percent male and 46 percent female.

The survey was conducted from November 11, 2010 to November 22, 2010. Cooperation/participation among eligible respondents who were actually contacted was 73.6 percent **(Table 1)**. The survey instrument is provided in the Appendix.

Table 1
Otay Water District 2010 Desalination Survey
Telephone Call Disposition Report

Unknown Eligibility	
No Answer	**584**
Busy	**36**
Answering Machine	**1425**
Not Home—Call Back	**439**
Language Barrier	**53**
Total Unknown	***2537***
Ineligible	
NQ <1 year	**1**
Disconnect	**361**
Refusal	**144**
Fax/Wrong Number	**146**
Total Ineligible	***652***
Eligible	
Complete	***401***
Total Attempts	**3,590**
Cooperation Rate (Complete/(Complete + Refusal))	**73.6%**

This report is divided into eight essential information components as follows:

- Demographic Statistics/Respondent Characteristics
- Use of Desalinated Water
- General Opinion about Desalinated Water and the Desalination Process
- Testing of Desalination Messages
- Issues about the Joint Venture in Mexico and the Rosarito Facility
- Testing of Rosarito Beach Facility Messages
- Overall Satisfaction and General Opinion about the Use of Desalinated Water
- **Customer Trust and the Relationship between Trust and Opinion about Desalination**

Each section of the report begins with a very brief abstract, or summary of highlights within the ensuing section, in order to orient the reader to what is to follow.

Charts have been prepared for each of these major components depicting the basic survey results. Subgroup analyses for different age groups, various levels of education, gender, home ownership/rental status, household size, residential tenure in the community, different income categories, and ethnicity of residents of the service area are presented in succinct bulleted format when statistical significance and relevance warrants such treatment.

Frequency distributions as well as lists of open-ended responses to survey questions are contained in the Appendices.

Survey Findings

Demographic Statistics/Respondent Characteristics

Table 2 presents selected demographic and sampling characteristics of the survey respondents. Respondents are predominantly White (44 percent) and Hispanic/Latino (29 percent) and earn an annual median household income of $85,600 (36 percent earning $100,000 or more and 10 percent earning under $25,000). They have a median age of 53 years and have been customers of the Otay Water District for a median of 9 years. Among these respondents, 58 percent possess a Bachelor's degree or more, with 12 percent having a high school education or less. Survey respondents are largely homeowners (85 percent) with a mean household size of 3.67.

Table 2 Respondent Characteristics					
Characteristic	2010	2009	2008	2006	2005
Ethnicity					
White	44%	55%	52%	55%	54%
Hispanic/Latino	29%	28%	30%	29%	24%
Asian/Pacific Islander	15%	8%	8%	9%	15%
Black/African-American	8%	6%	6%	6%	5%
Native American/Other	4%	3%	4%	1%	2%
Annual Household Income					
Median	$85,600	$75,700	$83,500	$77,500	$85,000
% over $100,000	36%	26%	30%	33%	34%
% under $25,000	10%	8%	5%	6%	2%
Age					
Median	53 years	53 years	47 years	49 years	47 years
Years Customer of Otay Water District					
Median	9 years	12 years	8 years	10 years	--
Education					
High School or Less	12%	17%	22%	22%	14%
At Least One Year College, Trade, Vocational School	30%	32%	28%	24%	33%
Bachelor's Degree	41%	39%	33%	35%	25%
At Least One Year of Graduate Work	17%	12%	17%	19%	28%
Own/Rent					
Home Owner	85%	91%	88%	90%	92%
Renter	15%	9%	12%	10%	8%
Persons Per Household					
Mean	3.67	3.28	2.88	3.27	3.43

Respondent characteristics for the Customer Satisfaction surveys conducted in 2005, 2006, 2008, and 2009 differ from the 2010 respondent characteristics in the current survey in the following fundamental ways:

- Since 2006, the White population has declined and the Asian/Pacific Islander population has increased.
- The median incomes in 2010 (current survey), 2005 and 2008 are similar but the median income levels are lower in the 2006 and 2009 surveys.
- The median age of customers has shown a slight upward trend over the years.
- The percentage of households earning an annual income over $100,000 was 36 percent in 2010 compared to 26 percent in 2009 and 30 percent in 2008.
- Education level has increased, with 58 percent of respondents having a Bachelor's Degree or higher in contrast to earlier years that ranged from 50-to-54 percent.
- The average household size in 2010 is higher than the average household sizes in all previous survey periods -- 2005, 2006, 2008, and 2009.

Use of Desalinated Water

***SUMMARY**: Three-fifths of the customers of the Otay Water District are familiar with the term "desalination." Among those who said they were familiar with the term, 96 percent correctly indicated that it pertained to removing salts and other impurities from water to make it useable for households. Nearly 90 percent of District customers feel that ocean water desalination can be substantially important in maintaining a reliable and sufficient supply of water for San Diego County and Otay Water District residents.*

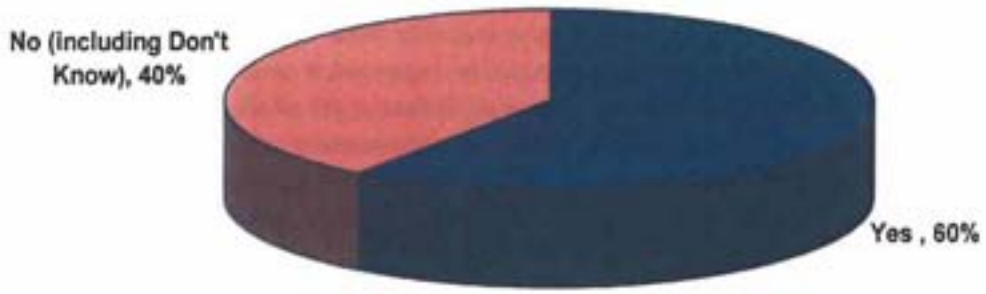
Customers indicated that they do not have very much experience in using desalinated water. About two thirds have never used desalinated water for any purpose to the best of their knowledge. Among those who have used desalinated water, about three-fifths used it either on-board a ship while serving in the Navy or at a military base. Over one-half (53 percent) of customers who used desalinated water had a positive experience and 46 percent of customers stated that their use of desalinated water was not different from their use of traditional water sources. It is important to note that only 1 percent of customers who used desalinated water had a negative experience. Well over one-fourth (29 percent) regard taste as the dominant positive characteristic of desalinated water, with another one-fifth (18 percent) touting desalinated water as clean and pure.

Chart 1 shows that 60 percent of the customers of the Otay Water District are familiar with the term "desalination." Among those who said they were familiar with the term, 96 percent correctly indicated that it pertained to removing salts and other impurities from water to make it useable for households. Others incorrectly thought that the term "desalination" refers to the softening of the water, removing contaminants for drinking and other uses, and chemical purification to potable water.

The following subgroups tend to be familiar with the term "desalination."

- Older customers are more familiar with the term "desalination" than are younger customers (age 45 and over – 70 percent; age 34 and under – 34 percent).
- Familiarity with the term increases with education (high school graduate or less – 38 percent; some graduate work – 74 percent).
- Males (74 percent) are more familiar with the term than are females (43 percent).
- Whites (73 percent) are more familiar with the term than are Latinos (54 percent), Asians (45 percent), and African-Americans (31 percent).
- Familiarity with the term increases with income (under $25,000 – 29 percent; $150,000 or more – 74 percent).
- Homeowners (64 percent) are more familiar with the term than are renters (40 percent).
- Smaller households are more familiar with the term than are larger households (1-2 persons – 71 percent versus 5 or more persons – 51 percent).
- Longer term customers of the Otay Water District are more familiar with the term than are newer customers (customers of 10 years or more – 70 percent; customers of fewer than 10 years – 50 percent).

Chart 1
Familiar with Term "Desalination"

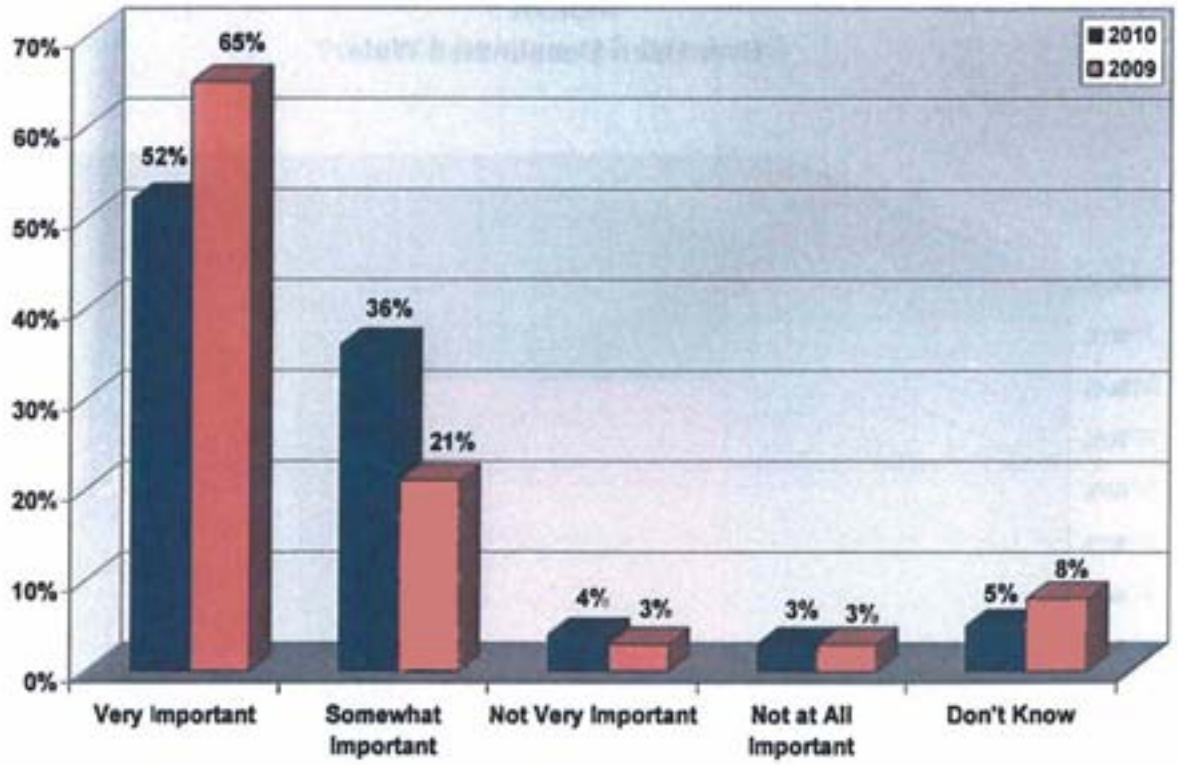


96% of those who indicated that they were familiar with the term "desalination" correctly indicated that it pertained to removing salts and other impurities from water to make it useable for households.

Chart 2 indicates that a considerable proportion of District customers (88 percent) feel that ocean water desalination can be substantially important in maintaining a reliable and sufficient supply of water for San Diego County residents (52 percent – very important and 36 percent – somewhat important). This relatively high level of importance attributed to maintaining a reliable water supply was also exhibited by the District customers in the 2009 General Survey (86 percent).

- Customers who have used desalinated water previously feel that ocean water desalination is very important to maintaining a reliable and sufficient supply of water for San Diego County residents more so than do those who have not used desalinated water (68 percent – users; 47 percent – non-users).

Chart 2
Desalination Important to Maintaining Reliable Water Supply



Customers indicated that they do **not have** very much experience in using **desalinated** water. For example, about two thirds (67 percent) have never used desalinated water for any purpose to the best of their knowledge (**Chart 3**). Among those who have used desalinated water, over three-fifths (61 percent) used it either on-board a ship while serving in the Navy (57 percent) or at a military base (4 percent). Another 13 percent have used desalinated water in other countries and 9 percent on a cruise ship (**Chart 4**).

The following subgroups are more likely to have used desalinated water:

- More educated customers are more likely to have used desalinated water than are lesser educated customers (at least one year of graduate school – 42 percent and college graduates – 30 percent versus less than a college graduate -- 23 percent).
- Males (44 percent) are more likely to have used desalinated water than have females (9 percent).
- Higher income customers are more likely to have used desalinated water than are lower income customers ($100,000 or more – 37 percent and $50,000 and under $100,000 – 28 percent versus under $50,000 --11 percent).

Chart 3
Ever Used Desalinated Water?

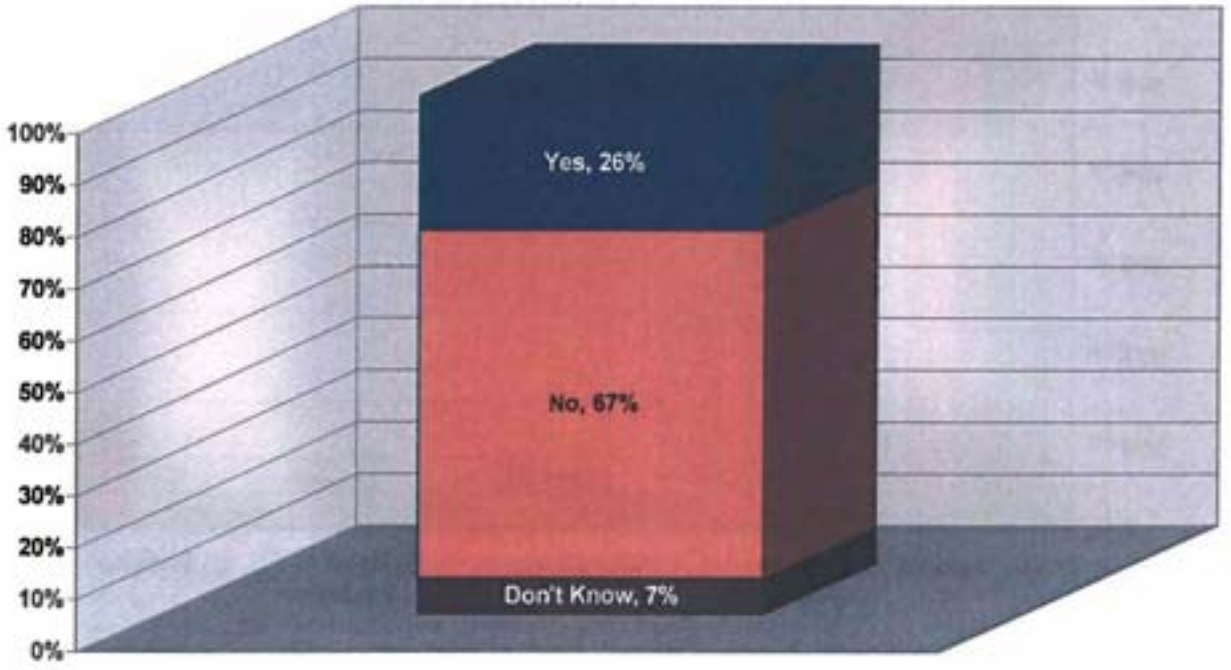


Chart 4
Where Used Desalinated Water

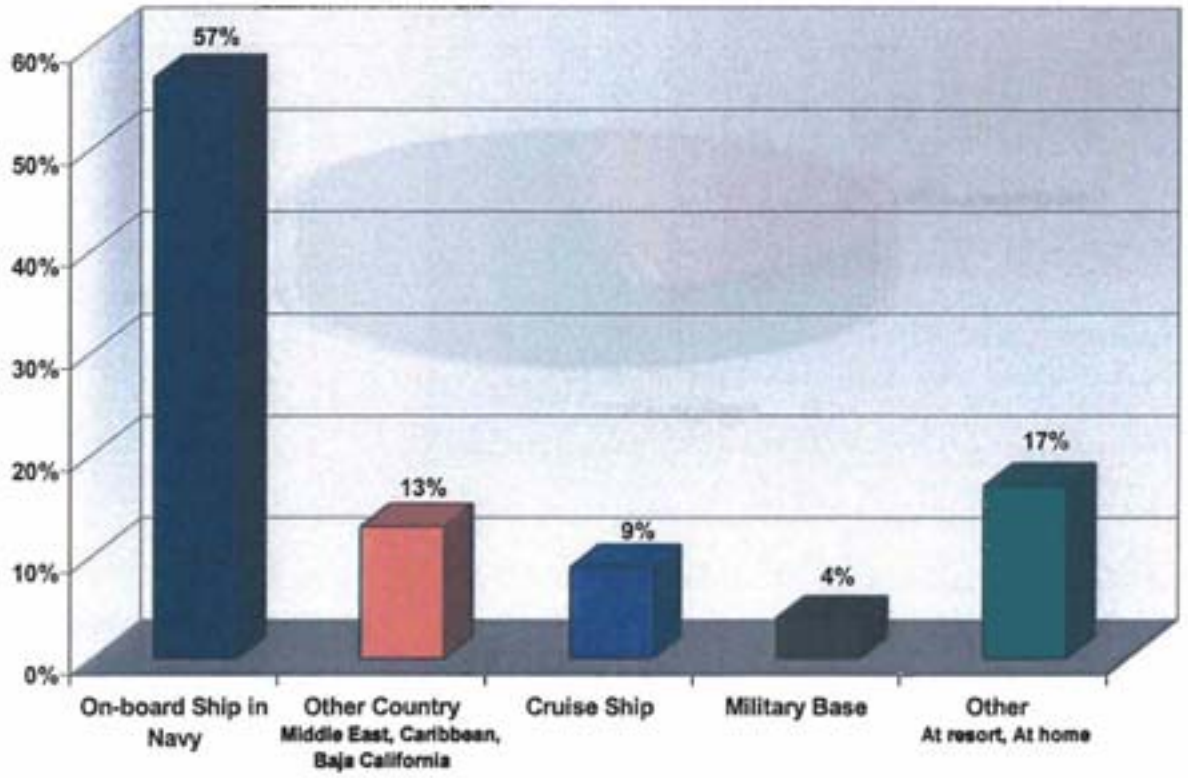


Chart 5 shows that over one-half (53 percent) of customers who have used desalinated water had a positive experience and 46 percent of customers stated that their use of desalinated water was not different from their use of traditional water sources. It is important to note that only 1 percent of customers who have used desalinated water had a negative experience. It is indicated in **Chart 6** that well over one-fourth (29 percent) regard taste as a positive characteristic of desalinated water, followed by 18 percent who indicate that desalinated water is clean and pure. Others noted that desalinated water is plentiful (13 percent) and drinkable (11 percent). One fifth of those who have used desalinated water made general positive comments about desalinated water that revolve around the notion that it is not noticeably different from traditional water and that it has widespread use from cleaning and washing to drinking.

Chart 5
Experience with Desalinated Water Positive or Negative

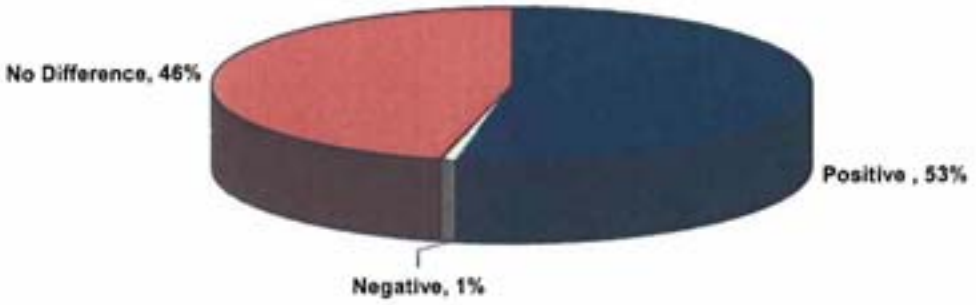
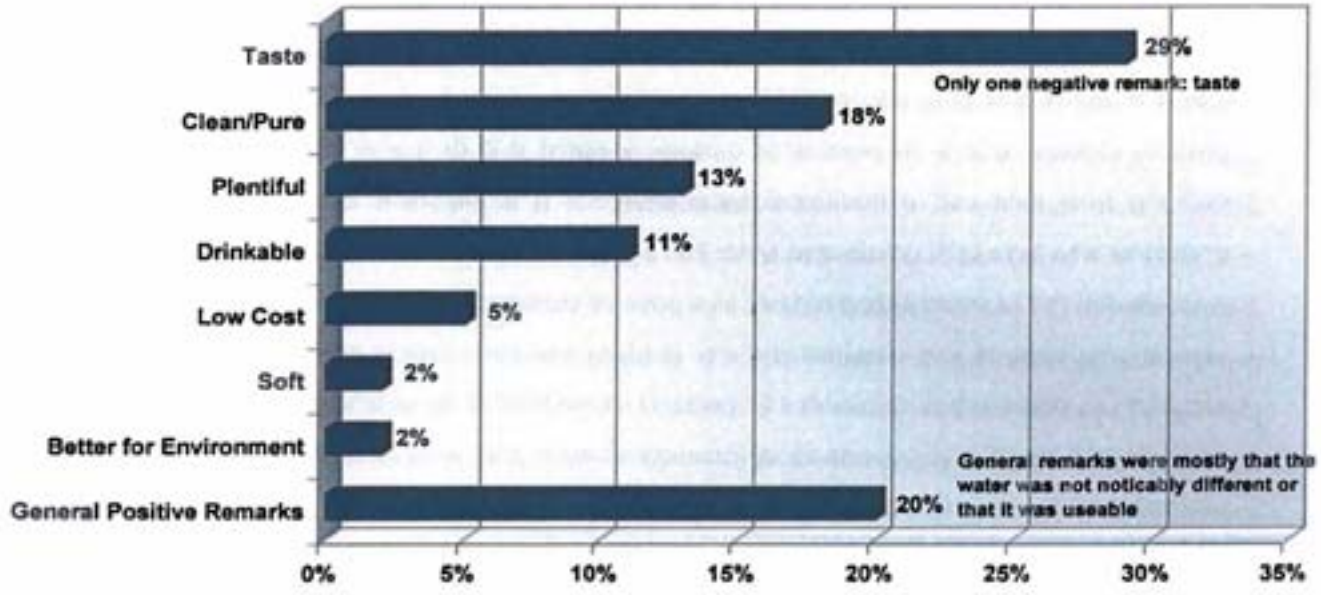


Chart 6
Positive Characteristics of Desalinated Water



General Opinions about Desalinated Water and the Desalination Process

***SUMMARY:** Among various characteristics of ocean water desalination, on a 7 point scale where 1 is not at all important and 7 is of the highest importance, customers accorded the highest importance rating of characteristics to the concern that the desalination process must not harm the ocean (rating of 6.02). This concern is closely followed in importance by the notion that desalinated water is an alternative source of water that can reduce dependence on imported water and precipitation (rating of 6.01). Older, more educated customers with some desalinated water experience find these characteristics to be of particular importance*

In an initial impression, customers were supportive of the notion that desalinated water should become a substantial portion of the District's water supply. The recommended mean percentage of the total domestic water supply that should come from ocean water desalination was 48 percent.

Customers rated characteristics of desalinated water on a 7 point scale where 1 is not at all important and 7 is of the highest importance. According to **Chart 7**, the highest rating is associated with the concern that the desalination process must not harm the ocean (mean rating of 6.02 with 75 percent indicating a rating of 6 or 7). This concern is closely followed in ranking by the notion that desalinated water is an alternative source of water that can reduce dependence on imported water and precipitation (mean rating of 6.01 with 72 percent indicating a rating of 6 or 7). Customers are somewhat impressed that desalinated water is used extensively in other parts of the world (mean rating of 5.51 with 57 percent indicating a rating of 6 or 7.) Respondents are least influenced by desalinated water being soft water that eliminates the need for water softening measures (mean rating of 5.15 with 48 percent indicating a rating of 6 or 7). It is noteworthy that each of these mean ratings is well above the scale midpoint of 4.0 demonstrating a good deal of importance pertaining to desalination issues.

The following customer subgroups find certain characteristics of desalinated water to be particularly important. Mean importance ratings are on a scale of 1 to 7, where 1 = not at all important and 7 = highest importance. The pattern is clear that older, educated customers with some desalinated water experience find these characteristics to be of particular importance.

Desalinated water reduces dependence on imported water

- Older customers (6.36 – 65 and over)
- More educated customers (6.22 – at least one year of graduate school).
- Higher income customers (6.34 -- $150,000 and over).
- Customers who have used desalinated water (6.26).

Desalinated water is extensively used in other parts of the world.

- Customers with a higher level of education (5.62 – college graduates and 5.61 -- at least one year of graduate school).
- Asians (5.90.

- Customers who have used desalinated water (5.89).

Desalinated water is soft water and eliminates the need for water softeners.

- Customers with a higher level of education (5.45 – college graduates)
- Asians (6.04), Blacks (5.63), and Latinos (5.24) regard water softening as more important than Whites (4.61).
- Customers who have used desalinated water (5.43).

The desalination process must not harm the ocean.

- Females are more concerned than males about the ocean (6.30 – females; 5.79 –males).

Chart 8 shows customers' initial impression of a reasonable goal for the percentage of water used in the homes and businesses of the Otay Water District that should come from desalinated water. Customers are generally supportive of the notion that desalinated water should become a substantial portion of the District's water supply. The recommended mean percentage is 48 percent with 29 percent indicating a range of 61 to 100 percent. About one fifth (22 percent) feel that less than 20 percent of the overall water supply should come from desalinated water.

The following subgroups prefer to have a relatively substantial percentage of the total water supply derive from desalinated sources (preferences reflect initial impressions).

- Middle income customers prefer that a greater percentage of the water supply come from desalinated sources more so than do lower income customers (53.1 percent -- $50,000-$75,000 and 51.3 percent -- $25,000 - $50,000 versus 34.8 percent – under $25,000).
- Customers who are not familiar with the term "desalination" tend to prefer that a greater percentage of the water supply derive from desalinated sources than do those who are familiar with the term (52.5 percent—not-familiar; 44.5 percent – familiar). This would imply that there is potential support for desalination among customers who are relatively new to the concept.

Testing of Desalination Messages

SUMMARY: ***Based on a scale of 1 to 7, where 1 = not at all effective and 7 = very effective, customers feel that the message stating "Desalination eases the potential effects of a water crisis" has the greatest potential to communicate the advantages of desalination (overall rating of 5.94). This is closely followed by the message that "Desalination ensures a reliable, high quality supply of water for the future (overall rating of 5.85). The opinion of customers regarding the percentage of water that should come from desalinated water was asked again after the desalination messages were tested. The mean percentage from this second iteration – 51 percent -- is slightly higher and generally consistent with the initial impression of 48 percent).***

Chart 7
Mean Importance Ratings of Characteristics of Desalinated Water
(1 = not important at all.....7 = highest importance)

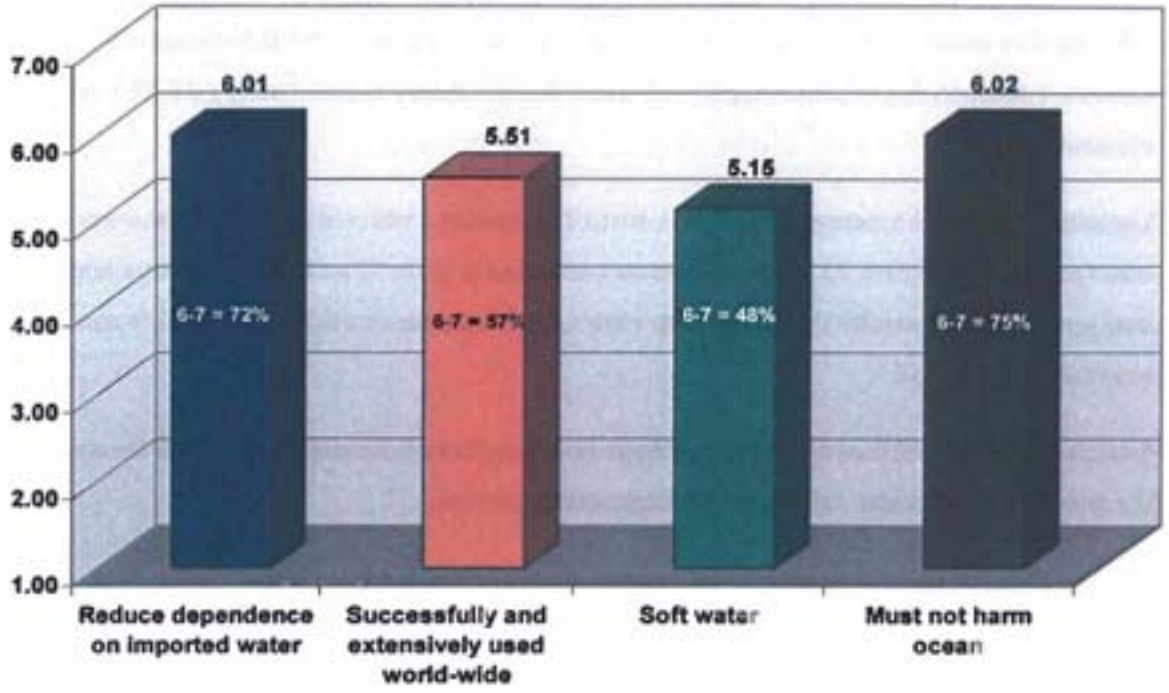


Chart 8
Initial Impression of Percentage of Household and Business Water that Should Come from Desalination (mean = 48%)

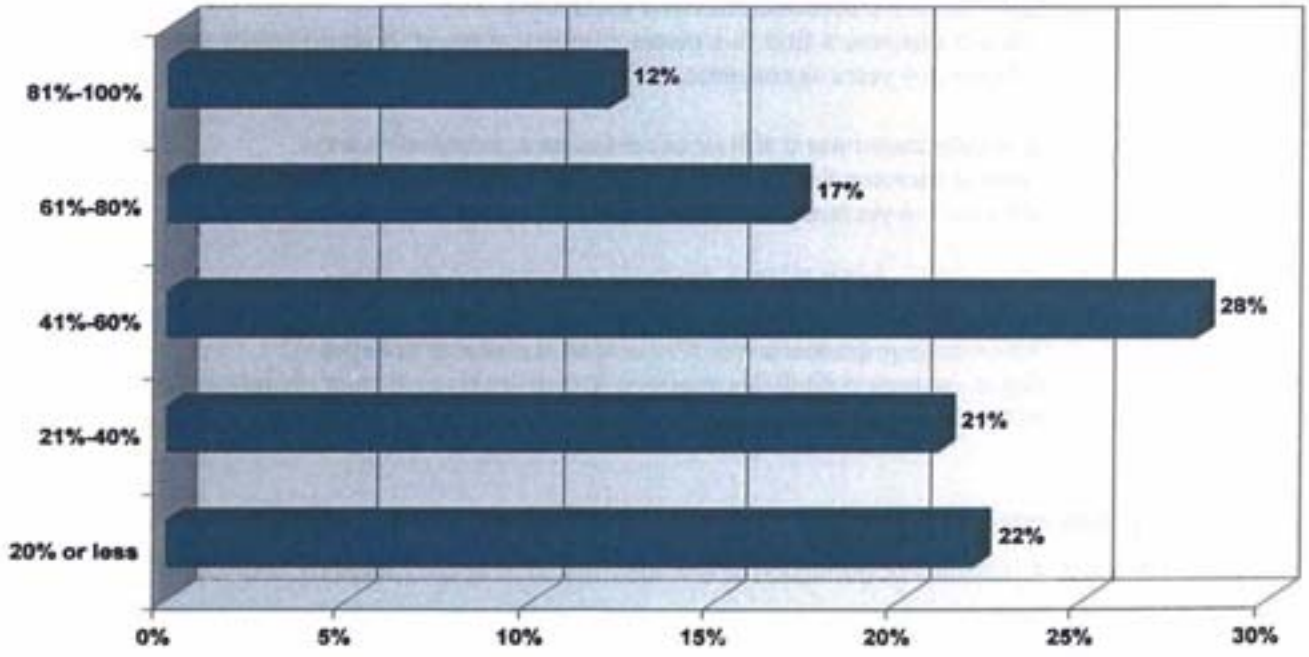


Chart 9 indicates the customer ratings of 5 messages that are designed to communicate the advantages of seawater desalination. The ratings are based on a scale of 1 to 7, where 1 is not at all effective and 7 is very effective. Customers feel that the message stating "Desalination eases the potential effects of a water crisis" has the greatest potential to communicate the advantages of desalination (overall rating of 5.94 with 71 percent indicating a 6 or 7). This is closely followed by the message that "Desalination ensures a reliable, high quality supply of water for the future (overall rating of 5.85 with 67 percent indicating a 6 or 7).

Customers regard the message that "The cost of desalinated water will be about the same as imported water (overall rating of 5.23 with 67 percent indicating a 6 or 7) as least effective among the 5 test messages. It is noteworthy that customers view all 5 messages as effective with all mean ratings well above the midpoint of 4.

The characteristics of the customers that regard each desalination message as effective in communicating the advantages of seawater desalination are summarized below.

- Desalination is a trusted, widely used way to increase water supply.
  - Older customers regard this message as particularly important (5.98 – 65 and over versus 4.63 – 18-24).
  - The newest customers as well as the longest term customers find this message effective (5.99 – 15 or more years as customer and 5.81 – 1-4 years as customer).
  - Asians (6.12) find this message most effective.
  - Customers who have used desalinated water (5.94).

- Desalination eases the potential effects of a water crisis.
  - Newer customers find this message effective more so than do longer term customers (6.16 – 1-4 years as customer; 5.65 – 10-14 years as customer).

- The cost of desalinated water will be about the same as imported water.
  - Newer customers find this message effective more so than do longer term customers (6.16 – 1-4 years as customer; 5.65 – 10-14 years as customer).

- Desalination ensures a reliable, high quality supply of water for the future.
  - Customers with higher levels of education feel that this message is particularly effective (5.93 – college graduates and 5.99 -- at least one year of college).
  - Newer customers find this message effective more so than do longer term customers (6.06 – 1-4 years as customer; 5.62 – 10-14 years as customer).

Chart 10 again reports the opinion of customers regarding the percentage of water that should come from desalinated water. Customers responded to this inquiry just after they rated the 5 desalinated messages. The mean percentage from this second iteration – 51 -- percent is slightly higher but generally consistent

with the initial impression (mean of 48 percent). Also, over one-third (34 percent) indicate a percentage range of 61 – 100 percent – about 5 percent higher than demonstrated in the initial impression.

The following subgroups prefer to have a relatively substantial percentage of the total water supply derive from desalinated sources (preferences expressed after testing desalination messages). In general, percentages are lower for better educated and more knowledgeable groups.

- Females (54.4 percent) prefer that a greater percentage of water come from desalinated sources more so than do males (47.9 percent).
- Middle income customers would like to have a greater percentage of the overall water supply derive from desalinated sources than do younger customers (58.3 percent –versus those with incomes under $25,000 = 41.0 percent)
- Customers with somewhat less education prefer that a higher percentage of water come from desalinated sources than do customers with more education (55.3 percent – at least one year of college; 45.4 percent – at least one year of graduate work).
- Renters (61.6 percent) prefer that a greater percentage of water be represented by desalinated sources than do owners (40.1 percent).
- Customers who are not familiar with the term "desalination" would like to see a greater percentage of water come from desalination sources more so than those who are familiar with the term (57.7 percent – not familiar; 46.6 – familiar).

The following customer subgroups exhibit significant changes (from initial impression to opinion after hearing desalination messages) in their assessment of the percentage of the water supply that should come from desalinated sources.

- Younger customers exhibit a greater change in percentage points from initial impression to opinion after desalination messages than do older customers (change of +13.57 percentage points – 18-24 years of age, change of +5.61 percentage points – 25–34 years of age, and change of +5.34 percentage points – 55-64 years of age versus -2.13 percentage points – 65 and over.
- Both the largest and smallest household sizes exhibit a smaller change in percentage points than do medium household sizes. For example, there is a change of +.38 percentage points for household sizes of 1-2 persons and a change of +1.52 percentage points for household sizes of 5 or more. This contrasts with a change of +6.47 percentage points for household sizes of 3-4 persons.

Chart 9
Mean Effectiveness Ratings of Desalination Messages
(1 = not at all effective.....7 = very effective)

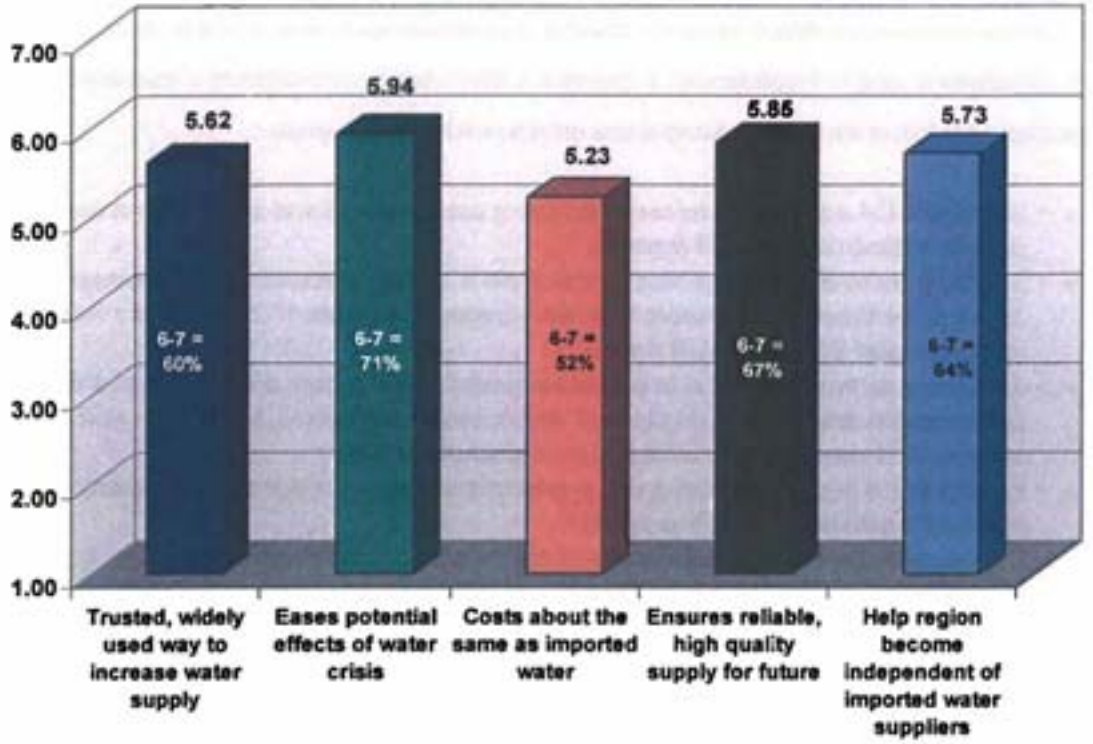
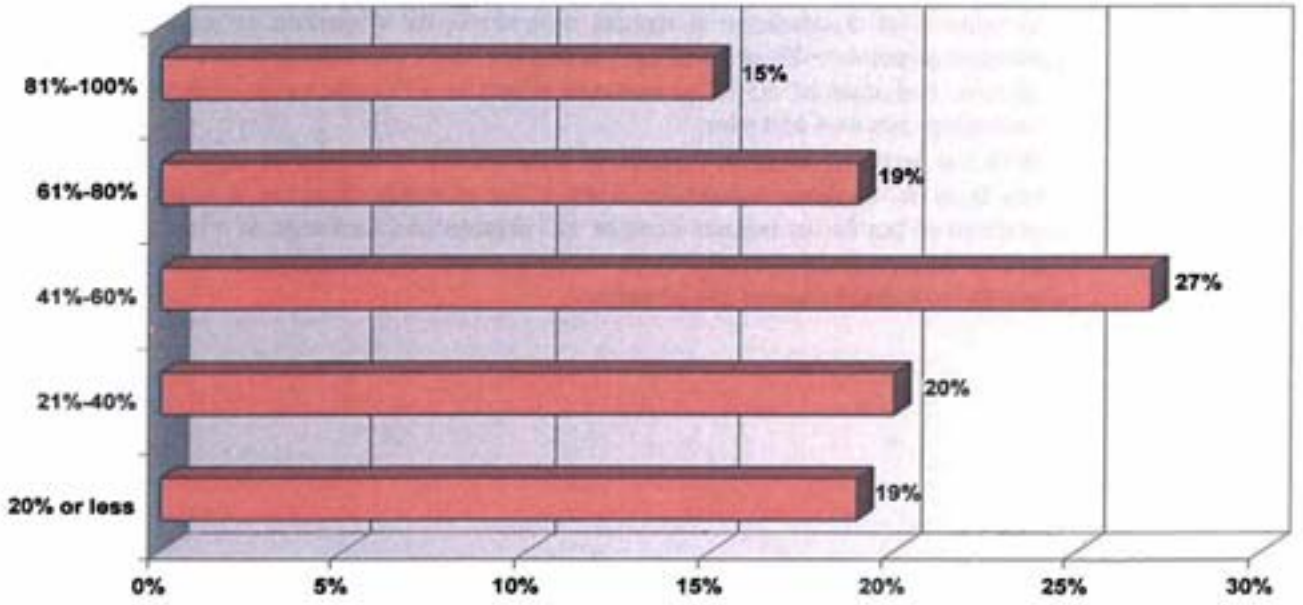


Chart 10
After Hearing Desalination Messages: Percentage of Household and Business Water that Should Come from Desalinated Water (mean = 51%)



Issues about the Joint Venture in Mexico and the Rosarito Facility

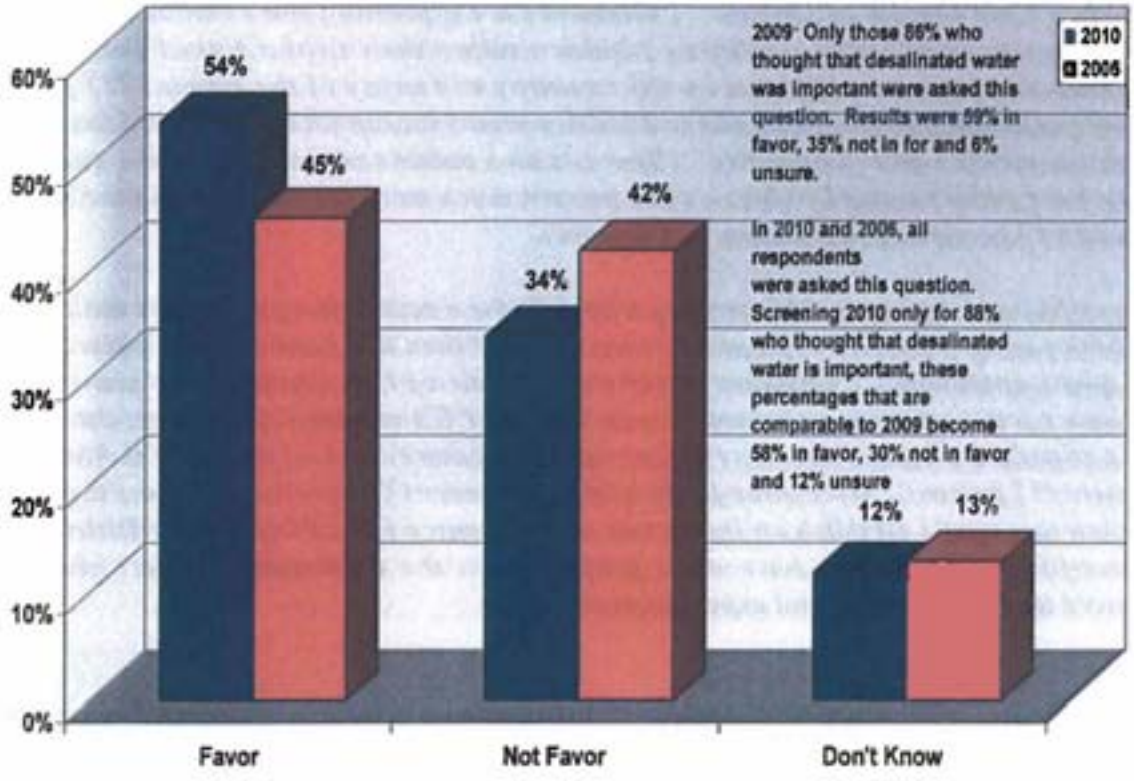
***SUMMARY**: More than half (54 percent) of the customers favor an international agreement to purchase desalinated water from the proposed Rosarito Beach Facility. This is comparable to the percentage reported in the 2009 General Survey where 58 percent indicated that they favored such a joint venture in Mexico. Customers are expressing some concerns, however, about locating the desalination facility in Mexico rather than in the United States. The greatest amount of concern is focused on the security and safety of the pipeline (47 percent much more concerned about the location in Mexico versus locating it in the United States and 27 percent somewhat more concerned). There is also notable concern about the quality of water from the facility located in Mexico (45 percent much more concerned about the Mexico location and 27 percent somewhat more concerned).*

Over three-fifths of customers (64 percent) prefer that the desalination project be built in the United States even if it took 10 -15 years or even longer than the Rosarito Beach plant to get the US plant operational. Customers prefer the location of the desalination plant in the United States for three primary reasons: create jobs for US residents (27 percent), the plant will help stimulate the local economy (18 percent), and there is lack of trust in the Mexican government (17 percent). Over three-fourths of the customers (77 percent) do favor the aspect of this plan that would establish an independent water source for the Otay Water District, and over three-fifths (65 percent) have more confidence in the desalination project given the experienced team of international experts involved.

Chart 11 shows that more than half (54 percent) of District customers favor an international agreement to purchase desalinated water from the proposed Rosarito Beach Facility in Mexico. This is comparable to the percentage reported in the 2009 General Survey where 58 percent indicated that they favored such a joint venture in Mexico. Both of these percentages well exceed the percentage recorded in the 2006 General Survey where 45 percent felt that such a joint venture in Mexico was a good idea.

Chart 12 exhibits the concern that District customers are expressing about locating the desalination facility in Mexico rather than in the United States. The greatest degree of concern is focused on the security and safety of the pipeline (47 percent much more concerned about the location in Mexico than in the United States and 27 percent somewhat more concerned). There is also notable concern about the quality of water from the facility to be located in Mexico (45 percent much more concerned about the Mexico location and 27 percent somewhat more concerned). Lesser levels of concern are expressed about the reliability of water deliveries from Mexico and environmental/ecological impacts that could result from a location in Mexico. However, these issues still merit consideration since over three-fifths of District customers voice either much more concern or somewhat more concern about these issues regarding the Mexico location.

Chart 11
Pursue International Agreement to Purchase Desalinated Ocean Water from Rosarito Beach Facility



The following customer subgroups exhibit significant relationships regarding their concern about the location of the proposed desalination plant in Rosarito Beach. These subgroups are organized according to four specific characteristics/possible concerns of the plant/project. The mean concern ratings are based upon a four point scale where 1 = no concerns at all and 4 = much more concerned.

- Quality of the water
  - Females are more concerned about the quality of the water (3.22 – females; 2.74 – males).
  - Younger customers are more concerned about the quality of the water (3.26 – 25-34 years of age versus 2.74 – 65 and over).
  - Lower income customers are more concerned than middle-to-higher income customers (3.00 -- $25,000 - $50,000 versus 2.68 -- $75,000 - $100,000).
  - Customers who are not familiar with the term "desalination" have more concern (3.14 –not familiar; 2.58 – familiar).
  - Customers who have not used desalinated water are more concerned (mean of 3.06 – non-user; mean of 2.80 – users).

- Safety and security of the pipeline
  - Females (3.22) are more concerned about the safety of the pipeline than are males (2.84).

- Reliability of Water Deliveries
  - Females (3.00) are more concerned about the reliability of water deliveries than are males (2.68).

- Environment/ecological impacts
  - Middle-aged customers are more concerned about the environment and ecological impacts than are older customers (2.88 -- 45 -54 and 2.83 – 55-64 versus 2.38 – 65 and over).
  - Asians (3.13) are more concerned about ecological impacts than are Whites (2.51).
  - Customers with lower income levels are more concerned about the environmental impacts than are customers with higher income levels (3.05 -- $25,000 to $50,000 and 2.83 -- $50,000 to $75,000 versus 2.37 -- $100,000 to $150,000).
  - Longer term customers of the Otay Water District are more concerned about ecological impacts than are newer customers (2.96 – customers of 10-14 years versus 2.57 – customers of 5-9 years).

Chart 12
Concerns about Location in Mexico vs. United States

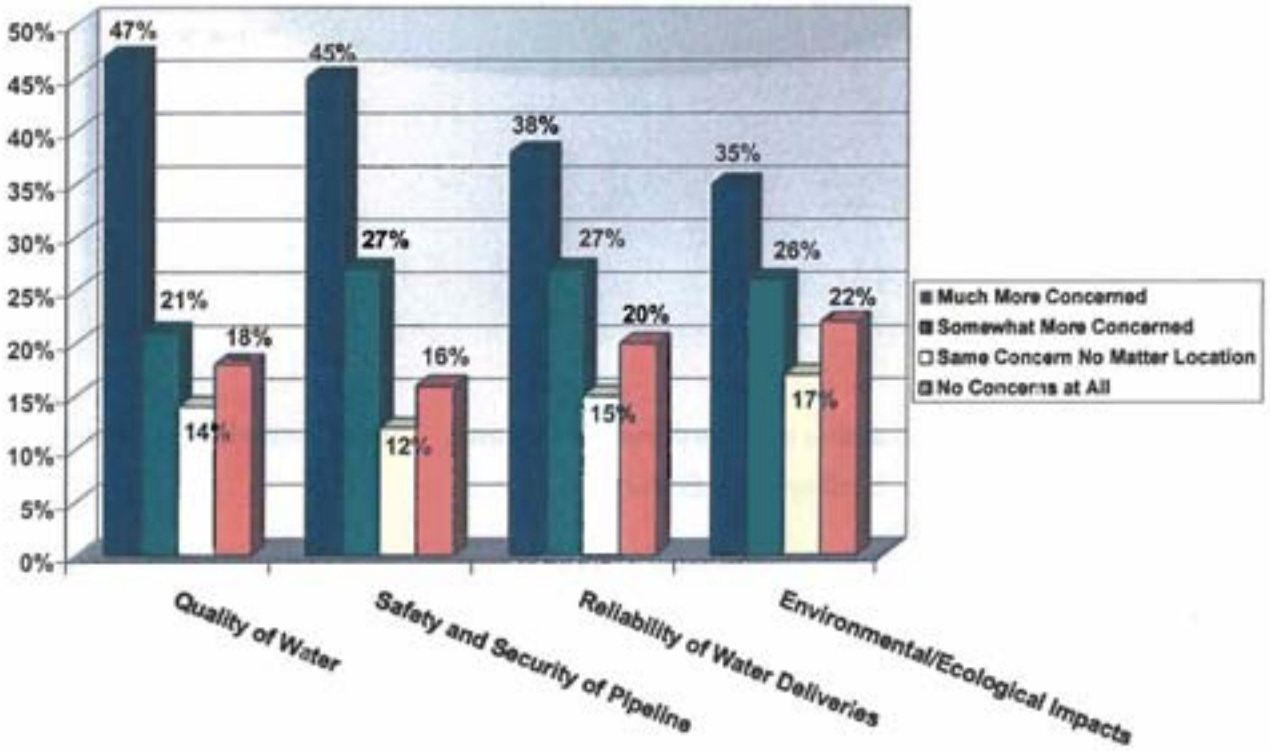


Chart 13 indicates that over three-fifths of customers (64 percent) prefer that the desalination project be built in the United States even if it took 10 -15 years or even longer than the Rosarito Beach plant to get the US plant operational. Customers prefer the location of the desalination plant in the United States for three primary reasons: create jobs for US residents (27 percent), the plant will help stimulate the local economy (18 percent), and there is lack of trust in the Mexican government (17 percent) (**Chart 14**).

Chart 13
Prefer Desalination Plant in United States
Even If 10-15 More Years are Required

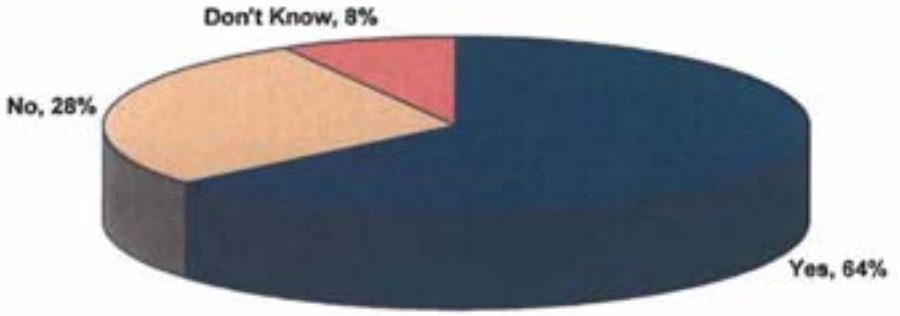


Chart 15 shows that over three-fourths of the customers (77 percent) favor this planned establishment of an independent water source for the Otay Water District.

The following subgroups prefer that the plant be built in the United States as opposed to Mexico.

- Younger customers (25-34 – 79 percent versus 65 and over -- 46 percent)
- Asians (95 percent) and Blacks (79 percent) versus Latinos (59 percent) and Whites (53 percent).
- Customers not familiar with the term "desalination" (70 percent) versus those who are familiar with the term (61 percent).
- Customers who have used desalinated water in the Navy or on a military base (80 percent) as opposed to those who have used desalinated water in various other places (54 percent)

The following subgroups encourage the Otay Water District to establish a source of water for its customers that is independent of the other agencies in the region.

- Younger customers versus older customers (under 65 – 80 percent; 65 and over – 61 percent).

Chart 14
Reasons for Preferring United States Location

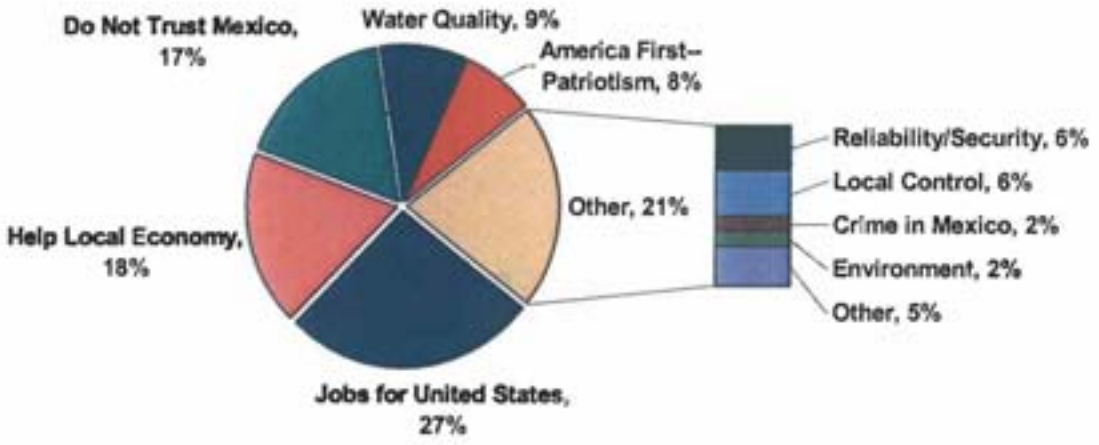


Chart 16 shows that over three-fifths (65 percent) have more confidence in the desalination project with the experienced team of international experts involved.

- Younger customers are more likely to have confidence in the Rosarito Project than are older customers with the involvement of the experienced team of international experts (under 35 years – 77 percent versus 35 – 64 years – 66 percent and 65 and over – 57 percent).
- Latinos (77 percent) are most likely to feel confident with the presence of the international team, followed by Blacks (69 percent), and Whites and Asians (each 62 percent).
- Renters (81 percent) versus owners (63 percent).

Chart 15
Favor Otay Water District Establishing Independent Water Source

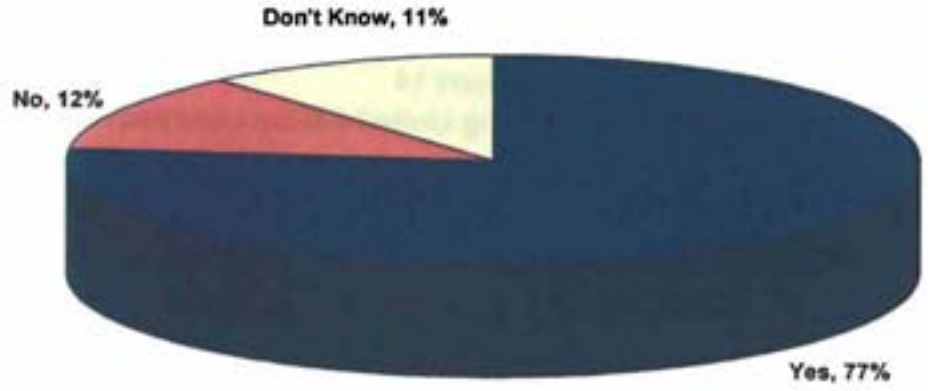
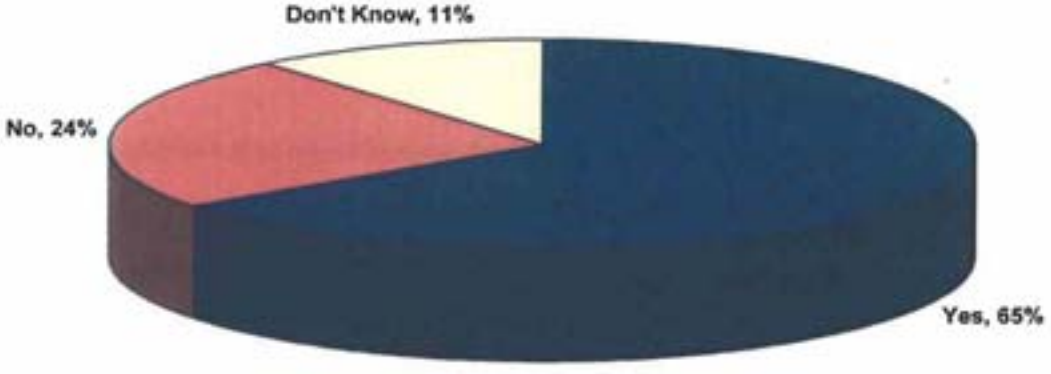


Chart 16
Experienced International Team Increases Confidence



Testing Messages about the Rosarito Beach Facility

SUMMARY: ***Two messages were tested concerning their ability to communicate effectively the advantages of the Rosarito Beach ocean water desalination facility to provide an alternative water source. The customer ratings of these messages are based upon a scale from 1 to 7, where 1 is not at all effective and 7 is very effective. It is clear that the more effective message is that "Desalinated water will be closely monitored by the California Department of Public Health" (rating of 5.70). Of secondary importance is the message that "The operator of the Rosarito Desalination Facility is a publicly-traded, well-established, global company" (4.81).***

After the two messages concerning the Rosarito Beach Facility were tested, customers were then asked to provide their opinion, once again, regarding the percentage of water available to the Otay Water District that should come from desalinated water produced at this project. Knowledge about the proposed desalination project in Mexico did not induce customers to change their opinion very much about the percentage of available water that should come from desalinated water at the Rosarito Facility. Specifically, the mean percentage of the water supply that comes from this third iteration is 45 percent – 6 percent lower than the mean percentage reported after the testing of the 5 desalination messages and 3 percent lower than the initial opinion—all three iterations indicate support for approximately one-half of the District's water supply to come from the Rosarito beach desalination project.

The District tested two messages that are being considered in an effort to inform its customers about the proposed Rosarito Beach Facility and to inform its customers that the construction and operation of the Rosarito Beach desalination project is a reasonable way to expand the water supply. **Chart 17** displays the customer ratings of the two tested messages in terms of their ability to communicate effectively – ratings based on a scale of 1 to 7, where 1 is not at all effective and 7 is very effective. It is clear that the message that is rated as most effective is that "Desalinated water will be closely monitored by the California Department of Public Health" (a rating of 5.70 with 67 percent indicating a score of 6 or 7). Of secondary importance is the message that "The operator of the Rosarito Desalination Facility is a publicly-traded, well-established, global company" (a rating of 4.81 with 42 percent indicating a score of 6 or 7).

The following subgroups find the Rosarito Beach messages particularly effective. The ratings are on a scale from 1 to 7, where 1 = not at all effective and 7 = very effective.

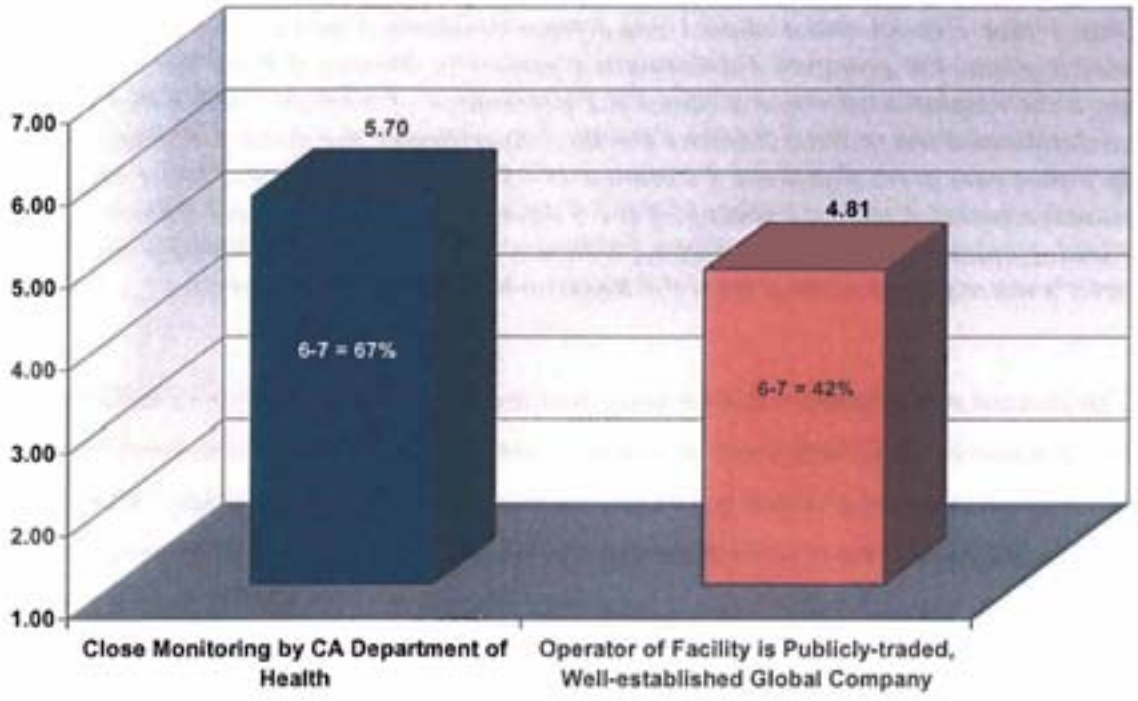
Desalinated water will be closely monitored by the California Department of Public Health.

- Newer customers of the Otay Water District find this message more effective than longer term customers (5.92 – customers of 1-4 years; 5.39 – customers of 10-14 years).
- Customers who have not used desalinated water find this more effective than customers who have used desalinated water (5.83 – non-user; 5.36 – user).

The operator of the Rosarito Desalination facility is a publicly-traded, well-established, global company.

- Whites (4.98) and Latinos (5.18) find this message more effective than do Asians (4.30).
- Longer term customers of the District find this message more effective than do newer customers (5.67 – customers of 15 or more years and 5.39 – customers of 10-14 years versus 5.22 -- 5-9 years and 5.09 – 1-4 years.)
- Customers who have not used desalinated water find this message more effective than those who have (5.01 – non-users; 4.48 – users).

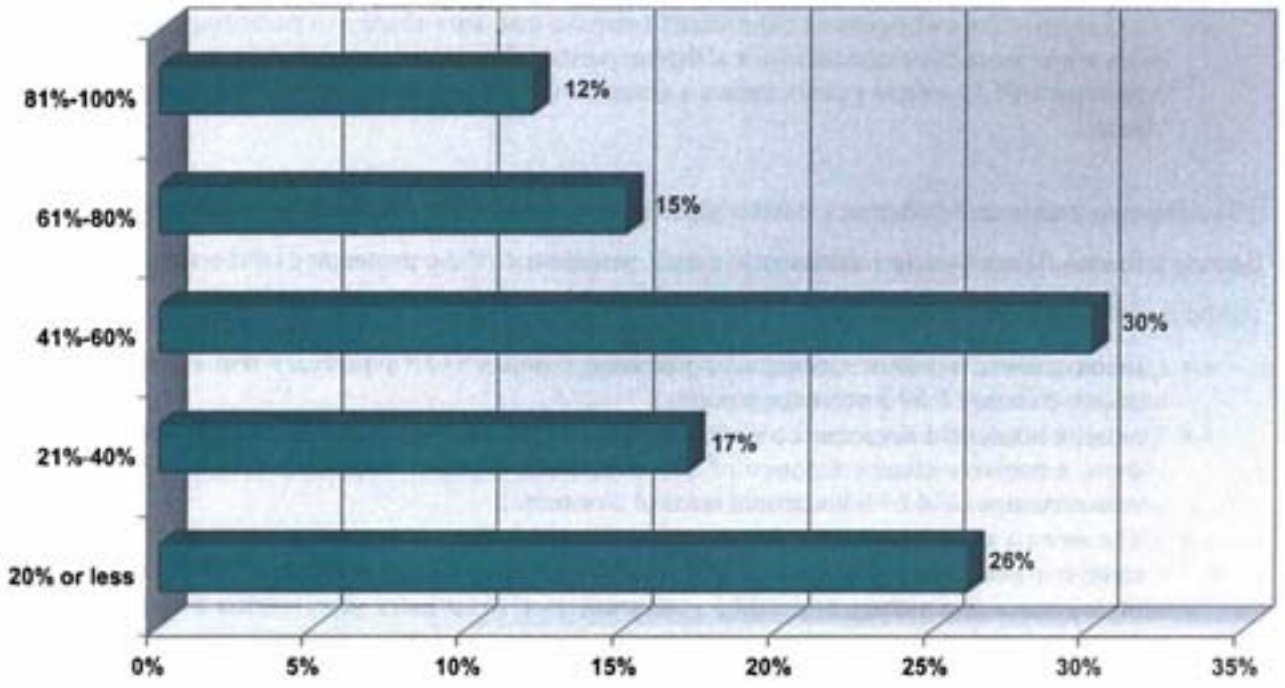
Chart 17
Effectiveness Ratings for Messages Pertaining to Rosarito Beach
(1 = not at all effective.....7 = very effective)



After the two messages concerning the Rosarito Beach Facility were tested, customers were then asked to provide their opinion of the percentage of water available to the Otay Water District that should come from desalinated water produced at this project (**Chart 18**). Also, 27 percent indicate a percentage range of 61 – 100 percent –5 percent lower than demonstrated in the impression after the second iteration

Knowledge about the proposed desalination project in Mexico is does not alter the findings from the previous iterations of this question much at all. Specifically, the mean percentage of the water supply that comes from this third iteration is 45 percent – 6 percent lower than the mean percentage reported after the testing of the 5 desalination messages and 3 percent lower than the first iteration; however, all three indicate that approximately one-half of the Otay Water District water supply should come from this facility (**Chart 19**).

Chart 18
Percentage of Household and Business Water that Should Come from Desalinated Water from Rosarito Beach Facility (mean = 45%)



The following subgroups prefer to have a relatively substantial percentage of the total water supply derive from the Rosarito Beach facility.

- Latinos (52.4 percent) prefer that a greater percentage of the water supply derive from desalinated water produced at the proposed Rosarito facility more so than do Whites (43.0 percent).
- Middle income customers prefer that a greater percentage of water come from Rosarito Beach than do lower income customers (50.7 percent -- $50,000 - $75,000 and 50.2 percent -- $25,000 - $50,000 versus 32.1 percent – under $25,000).
- Renters (54.0 percent) tend to prefer a greater percentage of water to come from Rosarito Beach than do owners (44.1 percent).
- The newer customers (50.2 percent – customers from 1-4 years) and the longest term customers (52.5 percent – customers for 15 or more years) prefer that a greater percentage of water come from Rosarito Beach than do customers of 10-14 years (38.8 percent).
- Customers who are not familiar with the term "desalination" prefer a greater proportion of water to derive from Rosarito Beach than do those who are familiar with the term (51.2 percent – not-familiar; 41.9 percent – familiar).

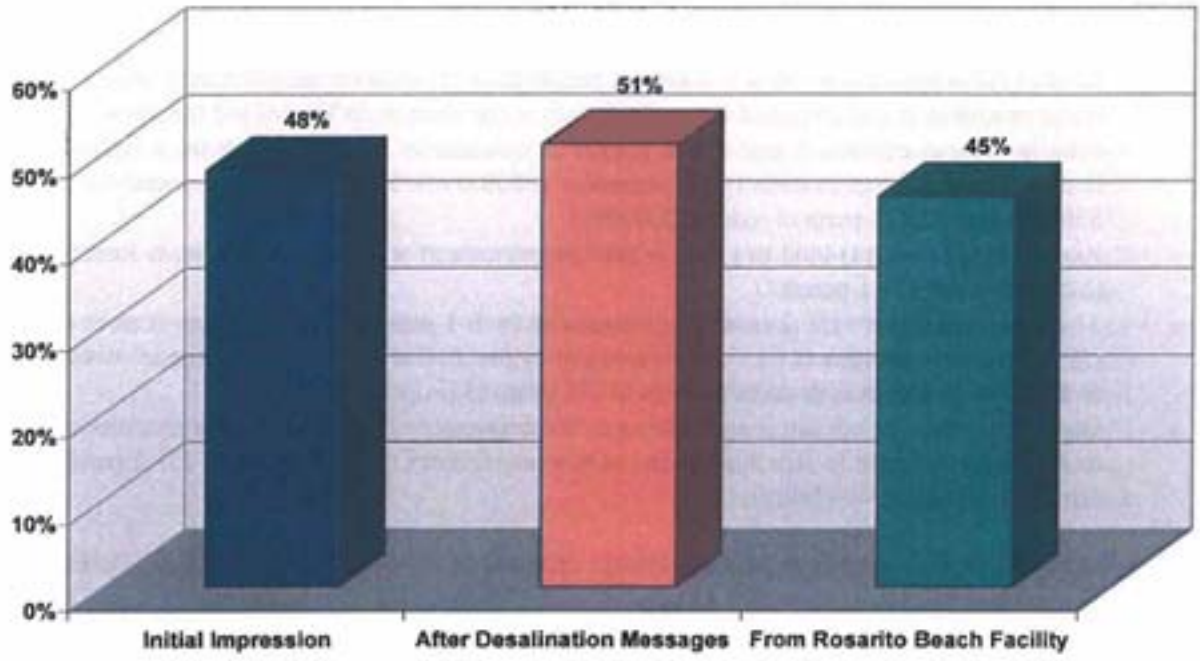
The following customer subgroups exhibit significant changes (from opinions after hearing desalination messages to opinions after hearing Rosarito Beach project messages) in their assessment of the percentage of the water supply that should come from desalinated sources.

- Older residents exhibit a positive change in percentage points while middle-aged customers exhibit negative changes in percentage points (change of +1.21 percentage points – 65 and over versus a change in percentage points of -10.37 – 55-64 years of age and a change of -7.61 percentage points – 45-54 years of age.
- Asians (-11.78 percentage point change) show a greater change (decline) in opinion than Whites (-3.41 percent change).
- The longest term customers of the District exhibit a smaller change in percentage points than do those who have been customers for a shorter period of time (a change of -0.11 percentage points – customers of 15 or more years versus a change of -8.09 percentage points – customers for 10-14 years).

The following customer subgroups exhibit significant changes (from initial impression to opinion after hearing Rosarito Beach project messages) in their assessment of the percentage of the water supply that should come from desalinated sources.

- Latinos show a positive change in percentage points (+3.18 percent) while Asians show a negative change (-5.69 percentage points).
- Smaller household sizes show a positive change in percentage points while larger household sizes show a negative change (change of +2.15 percentage points – household sizes of 3-4 persons versus change of -4.67 – household sizes of 5 or more).
- The newest customers in the District as well as the longest term customers exhibit a positive change in percentage points while others exhibit a negative change (change of +2.95 – customers of 1-4 years and a change of +2.05 – customers of 15 or more years versus a change of -5.80 percentage points for customers of 10-14 years.)

Chart 19
Opinions about Mean Percentage of Household and Business Water that Should Come from Ocean Water Desalination



Overall Satisfaction and General Opinion about the Use of Desalinated Water

***SUMMARY**: Customers of the Otay Water District demonstrate a high level of satisfaction with the District as their provider of water service. In fact, 54 percent rate the Otay Water District as either excellent (24 percent) or very good (30 percent). These ratings are consistent with those expressed in the 2009 Residential Customer Opinion and Awareness Survey. Nearly 9 out of 10 customers (87 percent) feel that the development of desalinated water is a good way for the District to serve its customers. This further demonstrates the overall satisfaction with the District and shows confidence in the District's efforts to find alternative sources of water.*

Chart 20 shows that customers of the Otay Water District demonstrate a high level of satisfaction with the District as their provider of water service. In fact, 54 percent rate the Otay Water District as either excellent (24 percent) or very good (30 percent). These ratings are consistent with those expressed in the 2009 Residential Customer Opinion and Awareness Survey. However, both the current survey and the 2009 survey demonstrate a slight decline in the level of confidence from the 2006 and 2008 surveys. For example, in 2008, 63 percent of customers rated the Otay Water District as either excellent or very good. It is indeed quite possible that customers are still responding to the increase in water rates and/or restrictions in water use.

- Lower income customers tend to express a decreased level of satisfaction with the Otay Water District as a water service provider than do all other customers(3.88 for those earning less than $25,000 per year versus 4.50 -- $150,000 and over, 4.62 -- $100,000 - $150,000, 4.80 -- $75,000 - $100,000, and 4.75 -- $50,000 - $75,000. The ratings are based on a 6 point scale where 1 = very poor and 6 = excellent).

Nearly 9 out of 10 customers (87 percent) feel that the development of desalinated water is a good way for the District to serve its customers. This further demonstrates the overall satisfaction with the District and shows confidence in the District's efforts to find alternative sources of water (**Chart 21**).

The following subgroups feel that having desalinated water as a portion of the water supply provided by the Otay Water District is a good way for the District to serve its customers.

- Customers who earn $50,000 or more (96 percent) versus those who earn under $50,000 (82 percent).
- Customers with household sizes of 5 or more (99 percent) as opposed to all other household sizes (91 percent).

Chart 20
Overall Satisfaction with Otay Water District as Water Service Provider

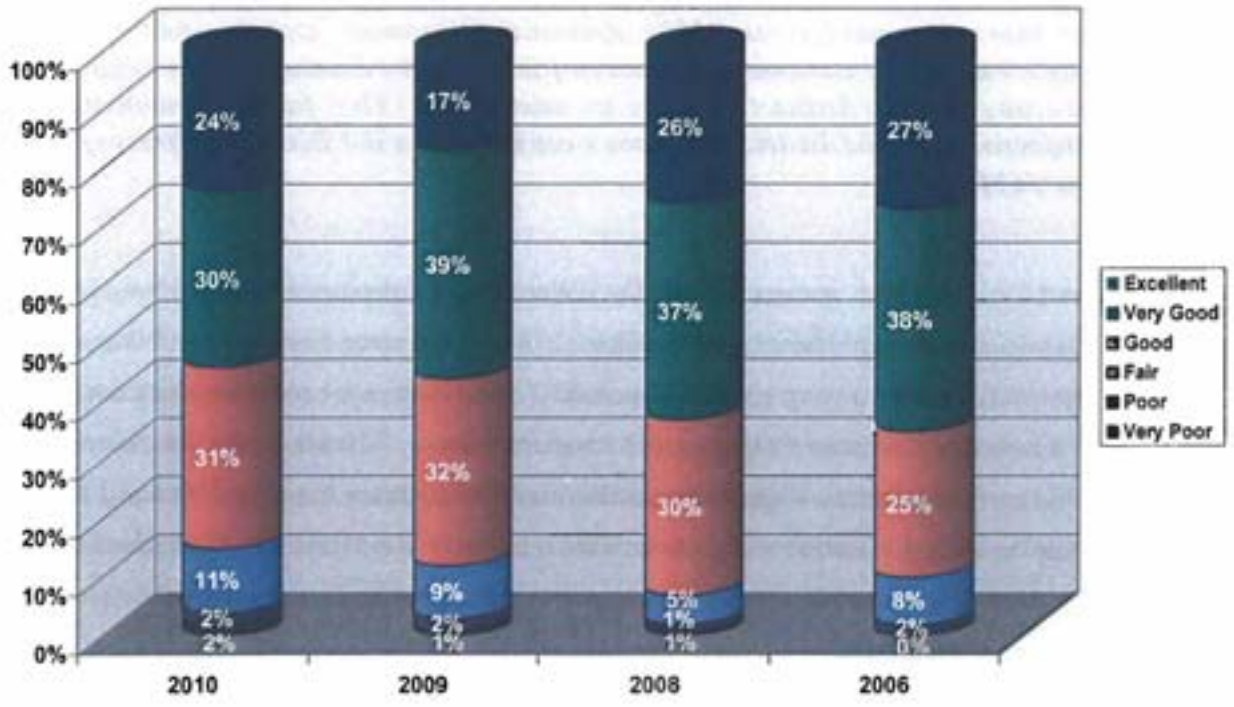
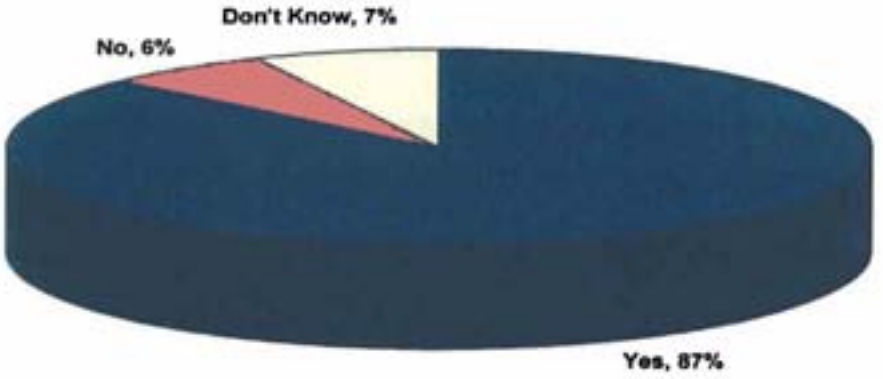


Chart 21
Desalinated Water is a Good Way for District to Serve Customers



Customer Trust and the Relationship between Trust and Opinion about Desalination

SUMMARY*: *Three-fourths of the customers have a substantial amount of trust in the ability of the Otay Water District to provide clean, safe water for its customers (31 percent indicated a great deal of trust and 44 percent a good amount of trust). These ratings are slightly higher than the ratings in the 2008 and 2009 General Surveys. One half of the District's customers (49 percent) have either a great deal of trust (17 percent) or a good amount of trust (32 percent) in the ability of the Otay Water District to obtain water at reasonable prices. These ratings represent a considerable increase in the trust level exhibited in the 2009 General Survey where 39 percent of customers indicated either a great deal of trust (10 percent) or a good amount of trust (29 percent).

The 2009 Residential Customer Opinion and Awareness Survey demonstrated a significant relationship between the importance of desalination for maintaining a reliable water supply and confidence and trust in the ability of the District to provide a clean, safe water supply as well as the ability to obtain water at a reasonable price. The District decided to pursue this relationship more fully in the current 2010 Desalination survey. This section of the report pursues the relationship between customer trust in the District providing clean, safe water at a reasonable price and the importance of desalination.

Chart 22 indicates that 75 percent of Otay Water District customers have a substantial amount of trust in the ability of the Otay Water District to provide clean, safe water for its customers (31 percent indicated a great deal of trust and 44 percent a good amount of trust). Only 4 percent expressed a lack of trust (2 percent not much trust and 2 percent no trust at all). These ratings are slightly higher than the ratings in the 2008 and 2009 General Surveys where 72 percent and 68 percent respectively expressed some level of trust in the ability of the District to provide clean, safe water.

- Customers who are college graduates (4.09) tend to have more trust than do those with one year of college (3.77) in the ability of the Otay Water District to provide clean, safe water. Ratings are based upon a scale of 1 to 5, where 1 = no trust at all, 2 = not much trust, 3 = some trust, 4 = a good amount of trust, and 5 = a great deal of trust).

Chart 22
Trust in Ability of Otay Water District to Provide Clean, Safe Water

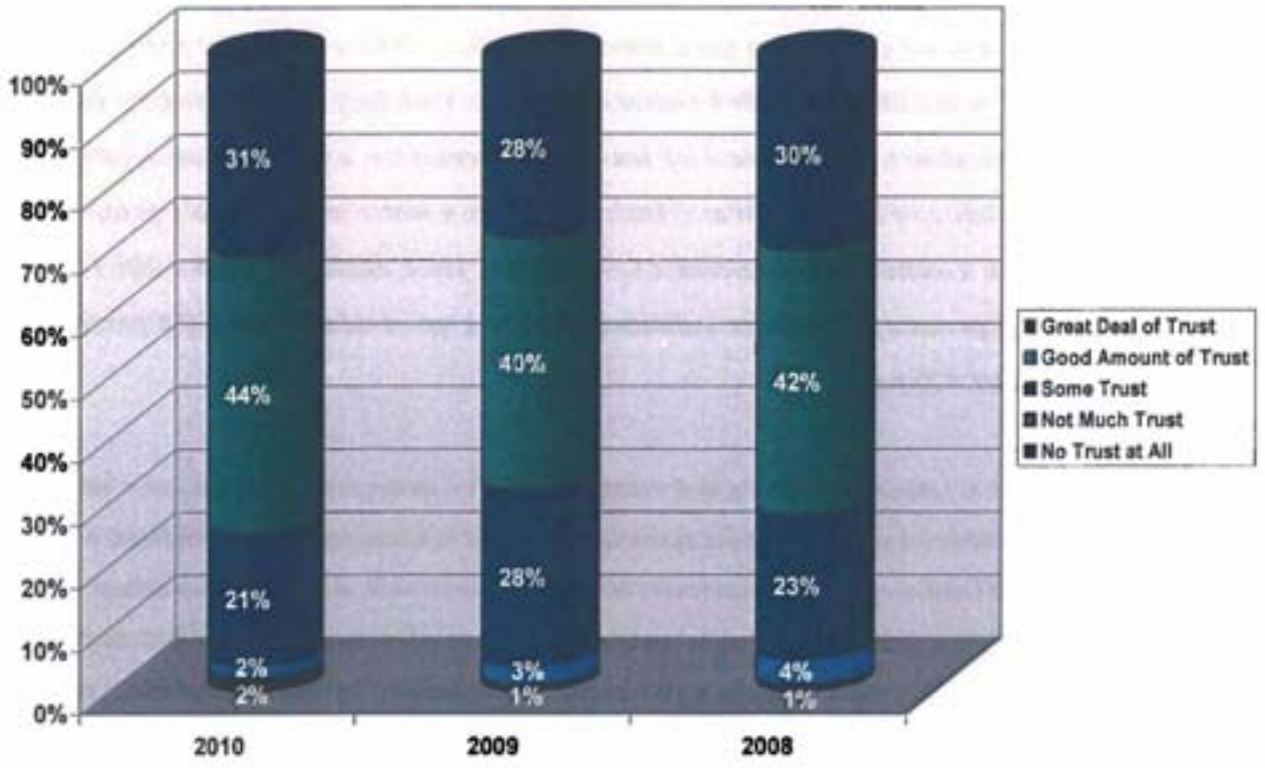
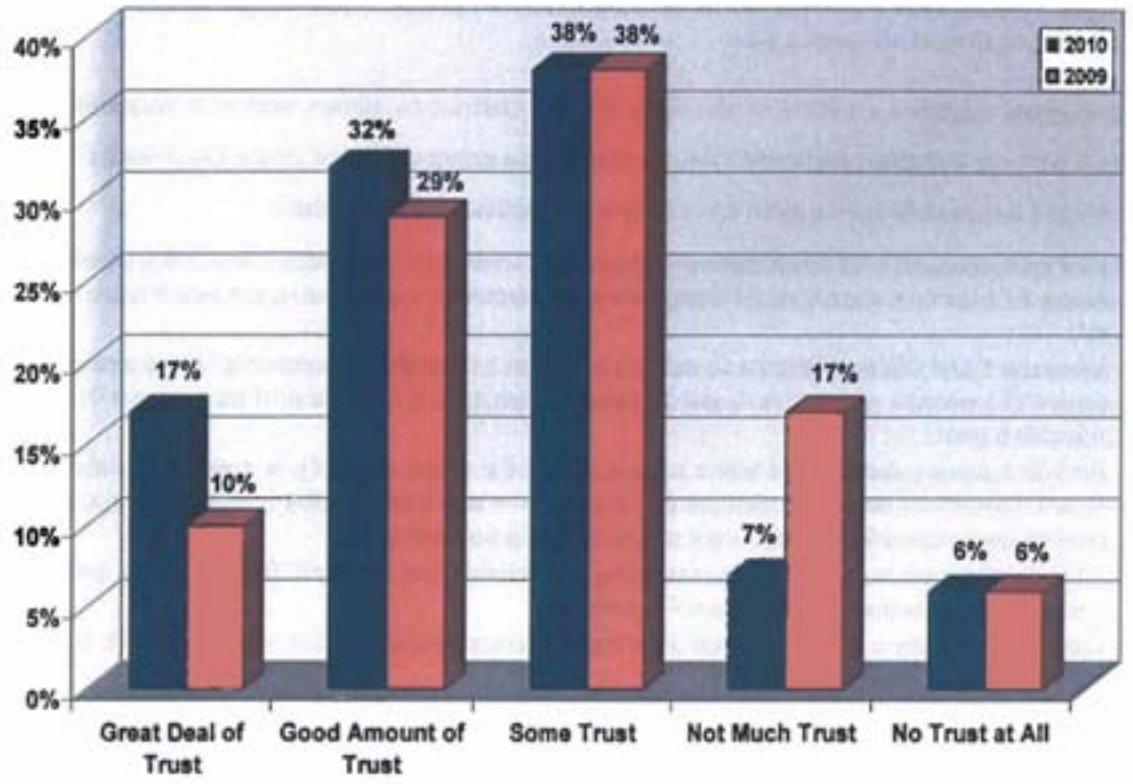


Chart 23 shows that nearly one half of the District's customers (49 percent) have either a great deal of trust (17 percent) or a good amount of trust (32 percent) in the ability of the Otay Water District to obtain water a reasonable prices – not much trust (7 percent) and no trust at all (6 percent). These ratings represent a considerable increase in the trust level from those exhibited in the 2009 General Survey where 39 percent of customers indicated either a great deal of trust (10 percent) or a good amount of trust (29 percent). In 2009, 17 percent of customers expressed not much trust in the ability of the District to obtain water at reasonable prices – 10 percent more than who expressed this sentiment in the current survey.

- Customers with middle-to-higher income levels have more trust than do those with lower income levels in the ability of the District to provide water at a reasonable price ($25,000-$50,000 = 3.18 versus $50,000 - $75,000 = 3.80, and $75,000 - $100,000 = 3.72, on a scale where 1 = no trust at all, 2= not much trust, 3 = some trust, 4 = a good amount of trust, and 5 = a great deal of trust.

Chart 23
Trust In Otay Water District to Obtain Water at Reasonable Price



Trust-based Significant Relationships

Customers who have indicated that they have a substantial amount of trust in the Otay Water District to provide clean, safe water demonstrate more favorable opinions about desalination in general and about Rosarito Beach, specifically than do those who trust the District less to provide clean, safe water. In particular,

- Positive experiences in using desalinated water (65 percent – good amount of trust or a great deal of trust versus – 45 percent -- some trust, not much trust, or no trust at all)
- Favor an agreement with international companies to develop desalinated water (62 percent – a good amount of trust or a great deal of trust versus 36 percent – some trust, not much trust, or no trust at all)
- Encourage Otay Water District to establish a source of water independent of the agencies in the region (80 percent – some trust, good amount of trust, or great deal of trust versus 33 percent – not much trust)
- Feel that having desalinated water as a portion of the water supply is a good way for the Otay Water District to serve its customers (97 percent – good amount of trust or a great deal of trust versus 83 percent – some trust, not much trust, or no trust at all).

- Feel desalination is important in maintaining a reliable water supply (65 percent – great deal of trust versus 44 percent – some trust, not much trust, or no trust at all)
- Prefer project in the United States (60 percent – great deal of trust or a good amount of trust versus 78 percent – some trust, not much trust, no trust at all).
- Overall satisfaction with the District as water service provider (5.14 – great deal of trust versus 2.50 – no trust at all—scale 1-6)

The same pattern applies to trust in the Otay Water District to obtain water at reasonable prices. Customers who have indicated that they have a substantial amount of trust in the Otay Water District to obtain water at a reasonable price exhibit the following significant relationships:

- Favor an agreement with international companies to develop desalinated water (66 percent – good amount of trust or a great deal of trust versus 46 percent – some trust, not much trust, no trust at all)
- Encourage Otay Water District to establish a source of water independent of the agencies in the region (83 percent – some trust, good amount of trust, or a great deal of trust versus 47 percent – not much trust)
- Feel that having desalinated water as a portion of the water supply is a good way for the Otay Water District to serve its customers (96 percent – some trust, good amount of trust, or a great deal of trust versus 76 percent – not much trust and no trust at all)
- Feel desalination is important in maintaining a reliable water supply (68 percent -- great deal of trust or good amount of trust versus 45 percent).
- Overall satisfaction with the District as water service provider (5.38 – great deal of trust versus 2.83 – no trust at all—scale 1-6)

Characteristics of Desalinated Water (significant relationships)

Customers who have a substantial amount of trust in the Otay Water District to provide clean, safe water exhibit the following importance ratings with regard to characteristics of desalinated water—scale 1-7, with 7 being very important:

- Desalinated water reduces dependence on imported water (6.16 – great deal of trust and 6.06 – a good amount of trust versus 4.89 – not much trust)
- The desalination process must not harm the ocean (6.17 – great deal of trust and 6.19 – good amount of trust versus 5.58 -- some trust, 5.67 – not much trust, and 5.00 no trust at all)

Customers who have a substantial amount of trust in the Otay Water District to obtain water at a reasonable price exhibit the following importance ratings with regard to characteristics of desalinated water (same 1-7 scale):

- Desalinated water reduces dependence on imported water (6.17 – great deal of trust and 6.21 – good amount of trust versus 5.50 – not much trust)
- The desalination process must not harm the ocean (6.23 – good amount of trust versus not much trust – 5.48 and 5.36—no trust at all)

Testing of Desalination Messages (significant relationships)

Customers who have a substantial amount of trust in the Otay Water District to provide clean, safe water exhibit the following ratings of effectiveness with regard to the testing of desalination messages (scale 1-7, with 7 being very effective):

- Desalination is a trusted, widely used way to increase water supply (5.87 –great deal of trust and 5.75 – good amount of trust versus 4.00 – no trust at all)
- Desalination eases the potential effects of a water crisis (6.10 – great deal of trust and 6.06 – good amount of trust versus not much trust – 5.10)
- The cost of desalinated water will be about the same as imported water (5.52 – good amount of trust and 5.29 –great amount of trust versus 2.80 – no trust at all)
- Desalination ensures a reliable, high quality supply of water for the future (6.11 – great amount of trust and 5.95 – good amount of trust versus 5.33 – not much rust and 5.14 – no trust at all)
- Desalination will help the region become independent from imported water (5.83 – good amount of trust, 5.82 – great deal of trust, and 5.68 – some trust versus 4.38 – no trust at all).

Customers who have a substantial amount of trust in the Otay Water District to obtain water at a reasonable price exhibit the following ratings of effectiveness with regard to the testing of desalination messages (same 1-7 scale):

- Desalination is a trusted, widely used way to increase water supply (6.12 – great deal of trust and 5.84 – good amount of trust versus 4.91 – not much trust and 4.88 – no trust at all)
- Desalination eases the potential effects of a water crisis (6.31 – great deal of trust and 6.22 – good amount of trust versus 5.81 – some trust, 5.56 – not much trust, and 5.26 – no trust at all)
- The cost of desalinated water will be about the same as imported water (5.68 – great deal of trust, 5.44 – good amount of trust, 5.11 – some trust versus 3.89 – no trust at all)
- Desalination ensures a reliable, high quality supply of water for the future (6.32 --- great deal of trust and 6.04 – good amount of trust versus 4,48 – no trust at all)
- Desalination will help the region become independent from imported water (6.12 – good amount of trust versus 5.67 – some trust, 5.54 – not much trust, and 5.30 – no trust at all)

Issues and Concerns about Locating the Desalination Plant in Mexico

Customers who have a diminished level of trust in the Otay Water District to provide clean, safe water exhibit the following significant relationships with regard to concerns about locating the facility in Mexico instead of the United States (scale 1-4, with 4 being much more concerned with Mexico location):

- Water quality (3.67 – not much trust and 3.21 – some trust versus 2.75 – great deal of trust)
- Safety and security of the pipeline (3.60 – not much trust versus 2.89 – great deal of trust)
- Reliability of deliveries (3.60 – not much trust versus 2.89 – a great deal of trust)

- Environmental/ecological issues (3.56 -- not much trust versus 2.46 – great deal of trust and 2.67 – a good amount of trust)

Customers who have a diminished level of trust in the Otay Water District to obtain water at a reasonable price exhibit the following significant relationships with regard to concerns about locating the facility in Mexico (same 1-4 scale):

- Water quality (3.43 – not much trust versus 2.75 – great deal of trust)
- Reliability of deliveries (2.92 – all levels of trust (except great deal) versus 2.40 – a great deal of trust)
- Environmental/ecological issues (2.81 – all levels of trust (except great deal) versus 2.39 – great deal of trust)

Testing of Rosarito Beach Facility Messages

Customers who have substantial trust in the ability of the Otay Water Authority to provide clean, safe water exhibit the following significant ratings of effectiveness with regard to the testing of messages about the Rosarito Beach facility (scale 1-7, with 7 being very effective):

- Desalinated water will be closely monitored by the CA Department of Public Health (6.13 – great deal of trust, 5.84 – good amount of trust, and 5.31 -- some trust -- versus 4.14 – no trust at all and 3.56 – not much trust).
- The operator of the Rosarito Beach Desalination Facility is a publicly-traded, well-established, global company (5.33 – great deal of trust, 4.93 – good amount of trust, and 4.49 – some trust versus 2.50 – no trust at all and 2.63 – not much trust).

Customers who have substantial trust in the ability of the Otay Water District to obtain water at a reasonable price exhibit the following significant ratings of effectiveness with regard to the testing of messages about the Rosarito Beach facility (same 1-7 scale):

- Desalinated water will be closely monitored by the CA Department of Public Health (6.22 – great deal of trust and 6.02 – good amount of trust versus 4.54 – no trust at all and 4.92 – not much trust).
- The operator of the Rosarito Desalination Facility is a publicly-traded, well-established, global company (5.38 – great deal of trust 5.19 – good amount of trust, and 4.69 – some trust versus 2.79 – no trust at all).

Customers who have substantial trust in the ability of the Otay Water District to provide clean, safe water exhibit the following significant relationships regarding the recommended percentage of the overall supply of water customers feel should come from desalinated sources:

- Initial impression: (53.7 percent – great deal of trust versus 28.0 percent – not much trust)

- After testing desalination messages: (56.4 percent – great deal of trust versus 49.7 – good amount of trust, 47.7 – some trust, 38.9 not much trust, and 33.4 percent – no trust at all)
- After testing messages about Rosarito Beach facility: (56.6 percent – great deal of trust versus 4.20 percent – no trust at all and 37.9 percent – some trust)

Customers who have substantial trust in the ability of the Otay Water District to obtain water at a reasonable price exhibit the following significant relationships regarding the recommended percentage of the overall supply of water customers feel should come from desalinated sources:

- Initial impression: (52.8 percent – great deal of trust versus 39.1 percent – not much trust)
- After testing desalination messages: (56.3 percent – great deal of trust versus 40.0 percent – no trust at all)
- After testing messages about Rosarito facility: (55.6 percent – great deal of trust, 49.6 percent – good amount of trust, and 38.0 –some trust versus 20.2 percent – no trust at all)

Conclusions

Consistent with previous surveys conducted by the Otay /Water District, there is a high level of satisfaction with the District as a provider of water service. Further, customers have considerable trust in the District to provide clear, safe water and to obtain water at a reasonable price.

A substantial proportion of customers feel that the development of desalinated water is a good way for the District to service its customers. Customers feel that about one-half of the available water supply should derive from desalinated sources, including an ocean water desalination facility in Rosarito Beach, Mexico. Customers are determined that the process of desalination not harm the ocean and that it is important that desalination achieve the objective of reducing our dependence on imported water. Customers do have some concern about the safety and security of the pipeline in Mexico and also show some preference for a United States location instead of Mexico that would bolster the local economy and create U.S. based jobs.

Trust in the Otay Water District to provide clean, safe water and to do so at reasonable prices is significantly related to opinions about desalination and the use of ocean water desalination to supplement the District's supply of water. Those customers who trust the District the most are also much more in favor of desalination in general and for the Rosarito Beach facility, in particular.

Important and effective messages that customers responded most favorably to are the following:

- "Desalination eases the potential effects of a water crisis."
- "Desalination ensures a reliable, high quality supply of water for the future."
- "Desalinated water will be closely monitored by the California Department of Public Health."

APPENDICES

Questionnaire
Survey Frequencies

Desalination Questionnaire
Otay Water District
October 2010

INT. Hello, my name is _____. I'm calling on behalf of the Otay Water District. We're conducting a study about some issues having to do with the water supply in the San Diego County region and we're interested in your opinions. **[IF NEEDED:]** Are you at least 18 years of age or older? **[IF 18+ HOUSEHOLDER NOT AVAILABLE NOW, ASK FOR FIRST NAME AND MAKE CB ARRANGEMENTS]**

VER. **[VERSION OF INTERVIEW:]** 1 - VERSION A 2 - VERSION B*

* = RESPONSE OPTIONS REVERSED ON VERSION B FOR ALL QUESTIONS INDICATED

IC. Let me assure you that no names or addresses are associated with the telephone numbers, and all of your responses are completely anonymous. The questions take about eight minutes. To ensure that my work is done honestly and correctly, this call may be monitored. Do you have a few minutes right now?

[IF ASKED ABOUT MONITORING:] My supervisor randomly listens to interviews to make sure we're reading the questions exactly as written and not influencing answers in any way.

TOP. **[ONLY IF ASKED FOR MORE INFORMATION ABOUT TOPIC OR WHO'S SPONSORING IT?:]** This project is sponsored by the Otay Water District, and it's about some issues related to the water supply in the San Diego County Region. **[IF SPONSOR INFORMATION GIVEN TO RESPONDENT, *"TOPIC"=1*]**

CUST. How long have you been a customer of the Otay Water District? **[IF LESS THAN ONE YEAR, THANK AND CODE *NQR-RES*]**

_____ YEARS
0 ----------> ***"NQR-RES"***
99 - DK/REF, BUT AT LEAST ONE YEAR

SEX. **[RECORD GENDER OF RESPONDENT:]**

1 - MALE

2 - FEMALE

---------- ***QUALIFIED RESPONDENT: QUOTAS CHECKED; DATA SAVED*** ----------

LP. **[IF INDICATED BY ACCENT:]** Would you prefer that we speak in...

1 - English or
2 – Spanish?

Use of Desalinated Water

I WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT DESALINATION.

1. Are you familiar with the term "desalination."

    1. YES
    2. NO (include DK/REF) **[GO TO Q2]**

Q1a. [IF Q1 = 1]. How would you describe what desalination is?

_____

[NOTE: Code all responses that refer to making water for household use from ocean or other salty water as 1. List the rest verbatim.]

[IF Q1 = 1, THEN ADD "AS YOU INDICATED," BEFORE READING NEXT SENTENCE] DESALINATION IS THE PROCESS OF MAKING DRINKING WATER AND WATER FOR OTHER HOUSEHOLD AND BUSINESS USES FROM OCEAN WATER. DESALINATION IS A PROCESS THAT FORCES WATER THROUGH A VERY FINE SCREEN THAT IS DESIGNED TO REMOVE OCEAN SALTS AND OTHER IMPURITIES FROM THE OCEAN WATER.

Q2. Do you believe that ocean water desalination can be important to maintaining a reliable and sufficient supply of water for San Diego County residents? **[REVERSE 1-4]**

4- Yes, very important

3- Yes, somewhat important

2- No, not very important

1- No, not at all important

9- **DK/REF---[DO NOT READ—ONLY IF VOLUNTEERED]**

Q3. To your knowledge, have you ever used desalinated water for any purpose?

1 – Yes

2 – No **(GO TO Q6)**

9 - DK/REF [DO NOT READ] (GO TO Q6)

Q4a-b. Where were you when you used desalinated water?

[DO NOT READ--Want geographical location—one response only]

1. on-board ship in Navy

2. country or other location _____Q4b

3. military base in _____Q4b

4. other _____Q4b

Q5. Was your overall experience with desalinated water positive, negative, or did it make no difference from traditional water sources?

1. Positive **(Go to Q5a)**
2. Negative **(Go to Q5b)**
3. No difference **(Go to Q6)**
4. **DK/REF [DO NOT READ] (Go to Q6)**

Q5a. [IF Q5 = 1] What did you like about the desalinated water that you used?

_____

[Go to Q6]

Q5b. [IF Q5 = 2] What did you dislike about the desalinated water that you used?

_____

Q6a-d. Please indicate how important the following characteristics of desalinated water are to you. Use a scale of 1 to 7, where 7 is of the highest importance and 1 is not important at all **[RANDOMIZE]**

Characteristics of Desalinated Water	**Not at all Important 1**	**2**	**3**	**4**	**5**	**6**	**Highest Importance 7**
a. Desalinated water is an alternative source of water that can reduce our dependence on imported water and precipitation							
b. Desalinated water is extensively and successfully used in many parts of the world.							
c. Desalinated water is soft water and							

eliminates the need for water softening measures							
d. The desalination process must not harm the ocean							

Q7. Just off the top of your head and whether you know much about desalinated water or not, what is your initial impression of a reasonable goal to set for the percentage of water used in Otay Water District homes and businesses that should come from desalinated water?

Allow for volunteered response, but if needed, offer the following choices as Q7a and RECORD 999 for Q7

1. **80-100%**
2. **60-79%**
3. **40-59%**
4. **20-29%**
5. **less than 20%**

Testing of General Desalination Messages

Q8a-e. I would like to ask what you think of some messages that the Otay Water District is considering using in its effort to communicate the advantages of seawater desalination to its customers.

On a scale of 1 to 7, where 7 is very effective and 1 is not at all effective, please rate the following messages in terms of their ability to communicate the advantages of seawater desalination. **[RANDOMIZE]**

Desalination Messages	**Not at all Effective 1**	**2**	**3**	**4**	**5**	**6**	**Very Effective 7**
a. Desalination is a trusted, widely used way to increase water supply.							
b. Desalination eases the potential effects of a water crisis.							
c. The cost of desalinated water will be about the same as imported water.							
d. Desalination ensures a reliable, high quality supply of water for the future.							
e. Desalination will help the region become independent from imported water suppliers.							

Q9. Now, after hearing these messages, what is your opinion of the percentage of water used in Otay Water District homes and businesses that should come from desalinated water?

Q9a. Allow for volunteered response, but if needed, offer the following choices as Q9a and RECORD 999 for Q9

1. **80-100%**
2. **60-79%**
3. **40-59%**
4. **20-29%**
5. **less than 20%**

Issues about the Joint Venture in Mexico and the Rosarito Facility

I'd like to share some potential news with you. An ocean water desalination plant is tentatively planned for the City of Rosarito Beach in Mexico, and the Otay Water District has the opportunity to purchase some of that water starting in 2014 or 2015. This project would be financed and operated by international companies with considerable experience in ocean water desalination.

The water would be piped through an underground pipeline from the Rosarito Beach north to the Otay Water District distribution facility, north of the border, where it would be tested and treated as necessary to meet the water quality standards of the District and the State of California.

Q10. Based upon this information about the potential desalination project, do you think that you would be in favor of pursuing such an agreement with these international companies to develop additional supplies of water from desalination of ocean water?

1. Yes
2. No
3. **DK/REF.[DO NOT READ]**

Q11. Please indicate if any of the following characteristics of the water from this potential desalination plant in Rosarito Beach cause you more concern than they would if the plant were located in the United States. Would you say that your level of concern is the same no matter where the plant is located, that you are somewhat more concerned with the Rosarito Beach location, that you are much more concerned with the Rosarito Beach

location or that you are not concerned at all regarding...**[REVERSE Levels of concern and RANDOMIZE characteristics]** .

Characteristics	No Concerns at all 1	Same Concern—no matter location 2	Somewhat More Concerned 3	Much More Concerned 4
a. Quality of the water				
b. Safety and Security of the Pipeline				
c. Reliability of Water Deliveries				
d. Environmental/ Ecological Impacts				

Q12. Would you prefer that the project be built in the United States even if it took 10-15 or even more years longer than the Rosarito Beach plant to get the US plant operational?

1. Yes
2. No **[GO to Q13]**
3. **DK/REF.[DO NOT READ] [Go to Q13]**

Q12a. [Q12 = 1] What is the main reason that you want the plant located in the US?

RECORD ONE RESPONSE--DO NOT READ

RECORD Up to Two RESPONSES--DO NOT READ

1. **Jobs**
2. **Spend money locally/help local economy**
3. **Do not trust Mexico**
4. **Crime in Mexico**
5. **Use for drug smuggling**
6. **Patriotism/America First**
7. **Other, _____**

Q13. The Otay Water District has taken the lead in this venture versus participation by a

broader group of regional water agencies. Do you like that the Otay Water District is establishing a source of water for its customers that is independent of the other agencies in the region?

1. Yes
2. No
3. **DK/REF.[DO NOT READ]**

Q14. How do you feel about working with an international team of desalination experts? Would you say that the experienced international team increases your confidence in the project?

1. Yes
2. No
3. **DK/REF.[DO NOT READ]**

Testing Messages about the Joint Venture in Mexico

Q15a-b. I would like to ask you what you think about two more messages that the Otay Water District is considering in an effort to inform its customers about this project and to demonstrate to customers that the construction and operation of the Rosario Beach desalination project is a reasonable way to expand the water supply. On a scale of 1 to 7, where 7 is very effective and 1 is not at all effective, please rate the following messages.

Rosarito Beach Messages	**Not at all Effective 1**	**2**	**3**	**4**	**5**	**6**	**Very Effective 7**
a. Desalinated water will be closely monitored by the CA Department of Public Health.							
b. The operators of the Rosarito Desalination facility are a publicly-traded, well-established, global company.							

Q16. One last time and more specifically, what is your opinion of the percentage of water that is provided by the Otay Water District to the homes and businesses in the area that should come from desalinated water produced at this project?

Allow for volunteered response, but if needed, offer the following choices as Q17a and RECORD 999 for Q17

1. **80-100%**

2. **60-79%**

3. **40-59%**

4. **20-29%**

5. **less than 20%**

Confidence in the Otay Water District

Q17. How much trust do you have in the ability of the Otay Water District to provide clean, safe water to the district? Would you say...* **[REVERSE]**

5 – a great deal of trust,

4 – a good amount of trust,

3 – some trust,

2 -- not much trust,

1 – no trust at all?

9 -- not sure [INCLUDES DK/REF]

Q18. How much trust do you have in the Otay Water District to obtain this water for you at a reasonable price? Would you say**...[REVERSE]**

5 – a great deal of trust,

4 – a good amount of trust,

3 – some trust,

2 -- not much trust,

1 – no trust at all?

9 -- not sure [INCLUDES DK/REF]

Q19: How would you rate your overall satisfaction with the Otay Water District as your water service provider? **[REVERSE]**

6---Excellent

5---Very Good

4—Good

3---Fair

2—Poor

1---Very Poor

7—DK/REF [DO NOT READ]

Q20. Do you feel that having desalinated water as a portion of the water supply provided by the Otay Water District is a good way for the District to serve its customers?

1. Yes
2. No
3. **DK/REF.[DO NOT READ]**

ASK ALL:

In closing, these questions are for comparison purposes only.

PPH. How many persons, including yourself, live in your household?

_____

99. **DK/REF.[DO NOT READ]**

TEN. Is your residence owned by someone in your household, or is it rented?

1 - OWN

2 - RENT/OTHER STATUS

3 - **DK/REF.[DO NOT READ]**

EDU. What is the highest grade or year of school that you have completed and received credit for...

1 - high school or less,

2 - at least one year of college, trade or vocational school,

3 - graduated college with a bachelor's degree, or

4 - at least one year of graduate work beyond a bachelor's degree?

5 - **DK/REF [DO NOT READ]**

AGE. Please tell me when I mention the category that contains your age...

1 - 18 to 24,

2 - 25 to 34,

3 - 35 to 44,

4 - 45 to 54,

5 - 55 to 64, or

6 - 65 or over?

7 - **DK/REF.[DO NOT READ]**

ETH. Which of the following best describes your ethnic or racial background...

1 - white, not of Hispanic origin;

2 - black, not of Hispanic origin;

3 - Hispanic or Latino;

4 - Asian or Pacific Islander;

5 - Native American; or

6 - another ethnic group? [SPECIFY:] _____

7 - **DK/REF.[DO NOT READ]**

INC. Now, we don't want to know your exact income, but just roughly, could you tell me if your annual household income before taxes is...

1 - under $25,000,

2 - $25,000 up to but not including $50,000,

3 - $50,000 up to (but not including) $75,000,

4 - $75,000 up to (but not including) $100,000, or

5 - $100,000 up to but not including $150,000?

6 - **DK/REF.[DO NOT READ]**

LAN. **[LANGUAGE OF INTERVIEW:]** 1 - ENGLISH 2 - SPANISH

Frequency Table

Familiar with term "desalination?"

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	240	60.0	60.0	60.0
	No	160	40.0	40.0	100.0
	Total	400	100.0	100.0	

Description of desalination

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Remove salts and impurities from water for household use	231	57.8	97.5	97.5
	Other	6	1.5	2.5	100.0
	Total	237	59.3	100.0	
Missing	No Answer	3	.8		
	System	160	40.0		
	Total	163	40.8		
Total		400	100.0		

Other descriptions of desalinated water

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		392	98.0	98.0	98.0

A purification method (probe) Nothing else	1	.3	.3	98.3
Charcoal. Take the impurities out. Whatever filtration systems you have, big plants near the sea	1	.3	.3	98.5
Chemical purification to potable water	1	.3	.3	98.8
Cleaning the water isnt it?	1	.3	.3	99.0
It has something to do with using salt water. probe-That is about it. Actually I think it has to do with converting salt water into drinking water.	1	.3	.3	99.3
Same as drinking deionized water	1	.3	.3	99.5
Softening of the water	1	.3	.3	99.8
The removing of contaminates for drinking and other uses.	1	.3	.3	100.0
Total	400	100.0	100.0	

Importance of ocean water desalination

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No, not at all important	14	3.5	3.5	3.5
	No, not very important	16	4.0	4.0	7.5
	Yes, somewhat important	144	36.0	36.0	43.5
	Yes, very important	207	51.8	51.8	95.3
	DK/REF	19	4.8	4.8	100.0
	Total	400	100.0	100.0	

Ever used desalinated water?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	104	26.0	26.0	26.0

	No	266	66.5	66.5	92.5
	DK/REF	30	7.5	7.5	100.0
	Total	400	100.0	100.0	

Where used desalinated water?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	On-board ship in navy	57	14.3	57.0	57.0
	Other country	13	3.3	13.0	70.0
	Military base	4	1.0	4.0	74.0
	Cruise ship	9	2.3	9.0	83.0
	Other	17	4.3	17.0	100.0
	Total	100	25.0	100.0	
Missing	DK/REF	4	1.0		
	System	296	74.0		
	Total	300	75.0		
Total		400	100.0		

Country where used desalinated water

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		394	98.5	98.5	98.5
	Aruba	1	.3	.3	98.8
	Baja California	1	.3	.3	99.0
	Isreal	1	.3	.3	99.3
	Saudi Arabia	2	.5	.5	99.8

	Saudi Arabia, Cabo San Lucas	1	.3	.3	100.0
	Total	400	100.0	100.0	

Location of Military base

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		399	99.8	99.8	99.8
	Army	1	.3	.3	100.0
	Total	400	100.0	100.0	

Other location

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		378	94.5	94.5	94.5
	At a resort	1	.3	.3	94.8
	Cruise ship	3	.8	.8	95.5
	Cruise ships	1	.3	.3	95.8
	Have a filter	1	.3	.3	96.0
	Have done it at work	1	.3	.3	96.3
	Home	1	.3	.3	96.5
	In the house	1	.3	.3	96.8
	My house	1	.3	.3	97.0
	On a boat	1	.3	.3	97.3
	On a boat cruise	1	.3	.3	97.5
	On a cruise ship	1	.3	.3	97.8
	On a ocean cruise	1	.3	.3	98.0

On a trip at a hotel	1	.3	.3	98.3
People were giving it away	1	.3	.3	98.5
San Diego, CA	1	.3	.3	98.8
Santa Barbara, CA	1	.3	.3	99.0
Traveling by cruise ship to Alaska & back	1	.3	.3	99.3
Up in Del Mar	1	.3	.3	99.5
Used for business on a project	1	.3	.3	99.8
When I lived in Key West	1	.3	.3	100.0
Total	400	100.0	100.0	

Overall experience with desalinated water

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Positive	53	13.3	53.0	53.0
	Negative	1	.3	1.0	54.0
	No difference	46	11.5	46.0	100.0
	Total	100	25.0	100.0	
Missing	DK/REF	4	1.0		
	System	296	74.0		
	Total	300	75.0		
Total		400	100.0		

Positives of desalinated water

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	plentiful	6	1.5	13.3	13.3

	taste	13	3.3	28.9	42.2
	soft	1	.3	2.2	44.4
	lower cost	2	.5	4.4	48.9
	drinkable	5	1.3	11.1	60.0
	better for environment	1	.3	2.2	62.2
	clean and pure	8	2.0	17.8	80.0
	other	9	2.3	20.0	100.0
	Total	45	11.3	100.0	
Missing	System	355	88.8		
Total		400	100.0		

Negatives of desalinated water

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	taste	1	.3	100.0	100.0
Missing	System	399	99.8		
Total		400	100.0		

Other positives of desalinated water

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		355	88.8	88.8	88.8
	Available	1	.3	.3	89.0
	Clean	1	.3	.3	89.3
	Cleaner	1	.3	.3	89.5
	Didn't have salt	1	.3	.3	89.8

Free	1	.3	.3	90.0
Good clean water	1	.3	.3	90.3
I did not have an opinion although the experience was positive	1	.3	.3	90.5
I feel more comfortable with it on my skin and scalp. Taste is better	1	.3	.3	90.8
I was on a ship cruise and I like the fact that we would not run out of water, and that the water was coming from the sea	1	.3	.3	91.0
Impurities removed and better tasting	1	.3	.3	91.3
It had no salt	1	.3	.3	91.5
It is plenty of it	1	.3	.3	91.8
It is really clean and pure. The water is cleaner than the water we already use and get now.	1	.3	.3	92.0
It tasted good, quenched my thirst!	1	.3	.3	92.3
It tasted much better! Very good.	1	.3	.3	92.5
It tasted pretty good right out of the tap!	1	.3	.3	92.8
It tastes a lot better.	1	.3	.3	93.0
It was just as good	1	.3	.3	93.3
It was like regular water	1	.3	.3	93.5
It was the purest water on earth	1	.3	.3	93.8
It wasn't as hard as the water we have now from the Colorado River.	1	.3	.3	94.0
It's good	1	.3	.3	94.3
It's just water	1	.3	.3	94.5
Mainly for flavor coordinated	1	.3	.3	94.8
No answer	1	.3	.3	95.0

Nothing really.	1	.3	.3	95.3
Plentiful	1	.3	.3	95.5
Plentiful. The reverse osmosis can make up to 1500 gallons per hour. For a crew of 400, we could take a shower every day, nice and long. We didn't have to worry about running out of water.	1	.3	.3	95.8
Plenty of ocean water, we won't run out of water	1	.3	.3	96.0
Positive, very good drinking water.	1	.3	.3	96.3
So I don't need to be buying water bottles, and it is better for recycling.	1	.3	.3	96.5
Tastes good.	1	.3	.3	96.8
That it is drinkable	1	.3	.3	97.0
That we were using sea water and not regular water being that it was for a project and not drinking	1	.3	.3	97.3
The flavor	1	.3	.3	97.5
The purification of seawater	1	.3	.3	97.8
The ship we had a reverse water osmosis unit	1	.3	.3	98.0
The taste	1	.3	.3	98.3
The taste of it is much more different than tap water.	1	.3	.3	98.5
Water bill would go down hopefully	1	.3	.3	98.8
We were able to use the water to take showers and to do the dishes.	1	.3	.3	99.0
Without chemical background would not know the differences	1	.3	.3	99.3
You can use and drink the water from the ocean	1	.3	.3	99.5
You could drink it	1	.3	.3	99.8

	You could use it	1	.3	.3	100.0
	Total	400	100.0	100.0	

Other negatives of desalinated water

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		399	99.8	99.8	99.8
	It doesn't taste clean. It tastes a little minerally.	1	.3	.3	100.0
	Total	400	100.0	100.0	

Importance: Desalinated water is an alternative source of water that can reduce our dependence on imported water and precipitation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all Important	7	1.8	1.8	1.8
	2	5	1.3	1.3	3.1
	3	12	3.0	3.1	6.2
	4	19	4.8	4.9	11.1
	5	66	16.5	17.1	28.2
	6	80	20.0	20.7	49.0
	Highest Importance	197	49.3	51.0	100.0
	Total	386	96.5	100.0	
Missing	DK/REF	14	3.5		
Total		400	100.0		

Importance: Desalinated water is extensively and successfully used in many parts of the world

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all Important	14	3.5	4.2	4.2
	2	11	2.8	3.3	7.6
	3	15	3.8	4.5	12.1
	4	27	6.8	8.2	20.2
	5	76	19.0	23.0	43.2
	6	61	15.3	18.4	61.6
	Highest Importance	127	31.8	38.4	100.0
	Total	331	82.8	100.0	
Missing	DK/REF	69	17.3		
Total		400	100.0		

Importance: Desalinated water is soft water and eliminates the need for water softening measures

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all Important	29	7.3	8.4	8.4
	2	12	3.0	3.5	11.8
	3	23	5.8	6.6	18.5
	4	32	8.0	9.2	27.7
	5	83	20.8	24.0	51.7
	6	53	13.3	15.3	67.1
	Highest Importance	114	28.5	32.9	100.0
	Total	346	86.5	100.0	
Missing	DK/REF	54	13.5		

Total		400	100.0		

Importance: The desalination process must not harm the ocean

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all Important	18	4.5	4.7	4.7
	2	5	1.3	1.3	6.0
	3	13	3.3	3.4	9.4
	4	20	5.0	5.2	14.6
	5	39	9.8	10.2	24.7
	6	53	13.3	13.8	38.5
	Highest Importance	236	59.0	61.5	100.0
	Total	384	96.0	100.0	
Missing	DK/REF	16	4.0		
Total		400	100.0		

q7 and q7arec combined

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	8	2.0	2.2	2.2
	1	3	.8	.8	3.0
	4	2	.5	.6	3.6
	5	6	1.5	1.7	5.3
	6	1	.3	.3	5.5
	7	2	.5	.6	6.1
	9	1	.3	.3	6.4

	10	21	5.3	5.8	12.2
	15	6	1.5	1.7	13.9
	20	31	7.8	8.6	22.4
	25	22	5.5	6.1	28.5
	30	33	8.3	9.1	37.7
	33	1	.3	.3	38.0
	35	4	1.0	1.1	39.1
	40	16	4.0	4.4	43.5
	50	87	21.8	24.1	67.6
	60	15	3.8	4.2	71.7
	65	3	.8	.8	72.6
	70	24	6.0	6.6	79.2
	75	14	3.5	3.9	83.1
	80	18	4.5	5.0	88.1
	85	2	.5	.6	88.6
	90	7	1.8	1.9	90.6
	100	34	8.5	9.4	100.0
	Total	361	90.3	100.0	
Missing	System	39	9.8		
Total		400	100.0		

Effectiveness: Desalination is a trusted, widely used way to increase water supply

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all effective	12	3.0	3.2	3.2

	2	11	2.8	3.0	6.2
	3	15	3.8	4.1	10.3
	4	33	8.3	8.9	19.2
	5	78	19.5	21.1	40.3
	6	68	17.0	18.4	58.6
	Very effective	153	38.3	41.4	100.0
	Total	370	92.5	100.0	
Missing	DK/REF	30	7.5		
Total		400	100.0		

Effectiveness: Desalination eases the potential effects of the water crisis

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all effective	13	3.3	3.4	3.4
	2	6	1.5	1.6	5.0
	3	11	2.8	2.9	7.9
	4	17	4.3	4.5	12.3
	5	61	15.3	16.0	28.3
	6	79	19.8	20.7	49.1
	Very effective	194	48.5	50.9	100.0
	Total	381	95.3	100.0	
Missing	DK/REF	19	4.8		
Total		400	100.0		

Effectiveness: The cost of desalinated water will be about the same as imported water

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all effective	28	7.0	7.9	7.9
	2	16	4.0	4.5	12.4
	3	17	4.3	4.8	17.2
	4	32	8.0	9.0	26.3
	5	76	19.0	21.5	47.7
	6	61	15.3	17.2	65.0
	Very effective	124	31.0	35.0	100.0
	Total	354	88.5	100.0	
Missing	DK/REF	46	11.5		
Total		400	100.0		

Effectiveness: Desalination ensures a reliable, high quality supply of water for the future

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all effective	12	3.0	3.1	3.1
	2	6	1.5	1.6	4.7
	3	17	4.3	4.5	9.2
	4	18	4.5	4.7	13.9
	5	73	18.3	19.2	33.1
	6	67	16.8	17.6	50.7
	Very effective	188	47.0	49.3	100.0
	Total	381	95.3	100.0	
Missing	DK/REF	19	4.8		

Total		400	100.0		

Effectiveness: Desalination will help the region become independent from imported water suppliers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all effective	17	4.3	4.5	4.5
	2	8	2.0	2.1	6.6
	3	14	3.5	3.7	10.3
	4	23	5.8	6.1	16.4
	5	76	19.0	20.1	36.4
	6	61	15.3	16.1	52.5
	Very effective	180	45.0	47.5	100.0
	Total	379	94.8	100.0	
Missing	DK/REF	21	5.3		
Total		400	100.0		

q9 and q9arec combined

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	7	1.8	1.9	1.9
	1	3	.8	.8	2.7
	4	1	.3	.3	3.0
	5	10	2.5	2.7	5.8
	6	2	.5	.5	6.3
	7	2	.5	.5	6.9
	10	19	4.8	5.2	12.1

	15	6	1.5	1.6	13.7
	20	19	4.8	5.2	19.0
	25	20	5.0	5.5	24.5
	30	32	8.0	8.8	33.2
	33	1	.3	.3	33.5
	35	4	1.0	1.1	34.6
	40	17	4.3	4.7	39.3
	45	3	.8	.8	40.1
	50	78	19.5	21.4	61.5
	51	1	.3	.3	61.8
	52	1	.3	.3	62.1
	55	1	.3	.3	62.4
	60	14	3.5	3.8	66.2
	65	4	1.0	1.1	67.3
	70	21	5.3	5.8	73.1
	75	18	4.5	4.9	78.0
	80	27	6.8	7.4	85.4
	85	3	.8	.8	86.3
	90	8	2.0	2.2	88.5
	95	2	.5	.5	89.0
	100	40	10.0	11.0	100.0
	Total	364	91.0	100.0	
Missing	System	36	9.0		

Total	400	100.0		

Combined increase or decrease in percentage of desalinated water after messages about desalination

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	-95	1	.3	.3	.3
	-80	1	.3	.3	.6
	-70	2	.5	.6	1.1
	-50	3	.8	.8	2.0
	-45	1	.3	.3	2.2
	-40	2	.5	.6	2.8
	-35	1	.3	.3	3.1
	-30	4	1.0	1.1	4.2
	-25	5	1.3	1.4	5.6
	-20	10	2.5	2.8	8.4
	-18	1	.3	.3	8.7
	-15	1	.3	.3	9.0
	-10	12	3.0	3.4	12.4
	-5	4	1.0	1.1	13.5
	-3	1	.3	.3	13.8
	-2	1	.3	.3	14.0
	0	192	48.0	53.9	68.0
	1	3	.8	.8	68.8
	5	18	4.5	5.1	73.9
	10	18	4.5	5.1	78.9

	15	9	2.3	2.5	81.5
	19	1	.3	.3	81.7
	20	22	5.5	6.2	87.9
	25	6	1.5	1.7	89.6
	30	20	5.0	5.6	95.2
	35	3	.8	.8	96.1
	40	4	1.0	1.1	97.2
	46	1	.3	.3	97.5
	50	2	.5	.6	98.0
	55	2	.5	.6	98.6
	60	1	.3	.3	98.9
	70	2	.5	.6	99.4
	71	1	.3	.3	99.7
	80	1	.3	.3	100.0
	Total	356	89.0	100.0	
Missing	System	44	11.0		
Total		400	100.0		

Favor agreement with international companies to develop desal at Rosarito Beach

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	217	54.3	54.3	54.3
	No	134	33.5	33.5	87.8

	Don't Know	49	12.3	12.3	100.0
	Total	400	100.0	100.0	

Concern about location in Mexico: water quality

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No concerns at all	68	17.0	17.3	17.3
	Same concern in U.S. or Mexico	55	13.8	14.0	31.3
	Somewhat more concerned	85	21.3	21.6	52.9
	Much more concerned	185	46.3	47.1	100.0
	Total	393	98.3	100.0	
Missing	DK/REF	7	1.8		
Total		400	100.0		

Concern about location in Mexico: safety and security of pipeline

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No concerns at all	61	15.3	15.5	15.5
	Same concern in U.S. or Mexico	49	12.3	12.4	27.9
	Somewhat more concerned	108	27.0	27.4	55.3
	Much more concerned	176	44.0	44.7	100.0
	Total	394	98.5	100.0	
Missing	DK/REF	6	1.5		
Total		400	100.0		

Concern about location in Mexico: reliability of water deliveries

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	No concerns at all	80	20.0	20.6	20.6
	Same concern in U.S. or Mexico	57	14.3	14.7	35.2
	Somewhat more concerned	104	26.0	26.7	62.0
	Much more concerned	148	37.0	38.0	100.0
	Total	389	97.3	100.0	
Missing	DK/REF	11	2.8		
Total		400	100.0		

Concern about location in Mexico: environmental/ecological impacts

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No concerns at all	86	21.5	22.3	22.3
	Same concern in U.S. or Mexico	65	16.3	16.9	39.2
	Somewhat more concerned	100	25.0	26.0	65.2
	Much more concerned	134	33.5	34.8	100.0
	Total	385	96.3	100.0	
Missing	DK/REF	15	3.8		
Total		400	100.0		

Prefer project in U.S. even if took additional 10-15 years?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	258	64.5	64.5	64.5
	No	111	27.8	27.8	92.3
	Don't Know	31	7.8	7.8	100.0
	Total	400	100.0	100.0	

Reason #1 for preferring plant in U.S.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Jobs	77	19.3	30.7	30.7
	Spend money locally/help local economy	33	8.3	13.1	43.8
	Do not trust Mexico	43	10.8	17.1	61.0
	Crime in Mexico	5	1.3	2.0	62.9
	Patriotism/America first	16	4.0	6.4	69.3
	Control	19	4.8	7.6	76.9
	Water Quality	21	5.3	8.4	85.3
	Reliability-Security	16	4.0	6.4	91.6
	Environment	5	1.3	2.0	93.6
	OSHA standards	1	.3	.4	94.0
	National Security	1	.3	.4	94.4
	Other	14	3.5	5.6	100.0
	Total	251	62.8	100.0	
Missing	DK/REF	6	1.5		
	System	143	35.8		
	Total	149	37.3		
Total		400	100.0		

Reason #2 for preferring plant in U.S.

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Jobs	23	5.8	18.4	18.4
	Spend money locally/help local economy	33	8.3	26.4	44.8
	Do not trust Mexico	21	5.3	16.8	61.6
	Crime in Mexico	3	.8	2.4	64.0
	Will use for drug smuggling	1	.3	.8	64.8
	Patriotism/America first	14	3.5	11.2	76.0
	Control	5	1.3	4.0	80.0
	Water Quality	11	2.8	8.8	88.8
	Reliability-Security	8	2.0	6.4	95.2
	Environment	1	.3	.8	96.0
	OSHA standards	1	.3	.8	96.8
	Other	4	1.0	3.2	100.0
	Total	125	31.3	100.0	
Missing	DK/REF	5	1.3		
	System	270	67.5		
	Total	275	68.8		
Total		400	100.0		

Other reason for preferring plant in U.S.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		295	73.8	73.8	73.8
	Accessible to the environmental laws of the US and security	1	.3	.3	74.0
	Accountability and safer	1	.3	.3	74.3

America has higher quality standards.	1	.3	.3	74.5
Because of safety and would feel more safe about the water being cleaner	1	.3	.3	74.8
Better control and inspection is better	1	.3	.3	75.0
Better quality in the U.S.	1	.3	.3	75.3
California has higher standards than any other state	1	.3	.3	75.5
Cheaper to produce over here and purity of water	1	.3	.3	75.8
Cleaner water	1	.3	.3	76.0
Control	2	.5	.5	76.5
Control and quality	1	.3	.3	76.8
Control and Responsibility	1	.3	.3	77.0
Control and security	1	.3	.3	77.3
Control over quality of water	1	.3	.3	77.5
Cost measures only	1	.3	.3	77.8
Cost would be less	1	.3	.3	78.0
Developing technology here rather than abroad	1	.3	.3	78.3
Do not want to pay foreign countries for resources	1	.3	.3	78.5
Easier to monitor here	1	.3	.3	78.8
Economic impact	1	.3	.3	79.0
Environmental concerns	1	.3	.3	79.3
Environmental reasons	1	.3	.3	79.5
Eventually there should be one built here	1	.3	.3	79.8
For security of the community in case they	1	.3	.3	80.0

contaminate				
For US customers should be built in the US	1	.3	.3	80.3
Guarantee water and safety	1	.3	.3	80.5
Guidelines and the regulations, security of the project	1	.3	.3	80.8
Have our own, independent supply	1	.3	.3	81.0
I like it built here to keep it here in the US	1	.3	.3	81.3
I trust the water quality more in the US there is a lot of corruption in Mex	1	.3	.3	81.5
I'm concerned about Mexico standards	1	.3	.3	81.8
I'm concerned about the sewage in Rosarito.	1	.3	.3	82.0
If its water people are drinking it is a concern if it's coming from Mexico	1	.3	.3	82.3
Independence and reliability of the water	1	.3	.3	82.5
It would be better to be controlled by the US than international	1	.3	.3	82.8
It would be nice to have it close by and we can be self sufficient	1	.3	.3	83.0
It would be safer and cleaner	1	.3	.3	83.3
Maintenance and easy access	1	.3	.3	83.5
Managed well	1	.3	.3	83.8
More control	1	.3	.3	84.0
More control here	1	.3	.3	84.3
More control if in our own country	1	.3	.3	84.5
More control over what is in the backyard	1	.3	.3	84.8
More local control and not having to do with another government bureaucracy.	1	.3	.3	85.0

More reliable	1	.3	.3	85.3
More restrictions here than in other countries as far as safety goes.	1	.3	.3	85.5
More trust	1	.3	.3	85.8
My whole concern is the pipeline	1	.3	.3	86.0
National security	1	.3	.3	86.3
Need to invest in our own infrastructure	1	.3	.3	86.5
OSHA laws more strict	1	.3	.3	86.8
OSHA standards	1	.3	.3	87.0
Our system is much more reliable and safety concerns	1	.3	.3	87.3
Quality and safety	1	.3	.3	87.5
Quality control	3	.8	.8	88.3
Quality in the water, concerned about Mexico and low standards	1	.3	.3	88.5
Quality of water security	1	.3	.3	88.8
Regulations	1	.3	.3	89.0
Safer	2	.5	.5	89.5
Safety	4	1.0	1.0	90.5
Safety and cleanliness of the water	1	.3	.3	90.8
Safety and full control	1	.3	.3	91.0
Safety and quality	1	.3	.3	91.3
Safety and security	1	.3	.3	91.5
Safety environmental impact	1	.3	.3	91.8
Safety of the water and no food and drink regulations	1	.3	.3	92.0

Sanitation	1	.3	.3	92.3
Security	4	1.0	1.0	93.3
Security and quality	1	.3	.3	93.5
Security of the water supply	1	.3	.3	93.8
Security quality	1	.3	.3	94.0
Sewage spillage	1	.3	.3	94.3
So the agents can monitor the quality of the water	1	.3	.3	94.5
So we remain independent of outside sources.	1	.3	.3	94.8
Standards and quality	1	.3	.3	95.0
Standards are higher	1	.3	.3	95.3
Stricter guide lines and safety	1	.3	.3	95.5
Stricter regulations	1	.3	.3	95.8
Stringent rules and regulations more oversight	1	.3	.3	96.0
Supervision	1	.3	.3	96.3
Supposedly more responsible	1	.3	.3	96.5
The lack of water supply, our lack of water supply	1	.3	.3	96.8
The standards would higher	1	.3	.3	97.0
They have better inspection of the water in the US than in Mexico	1	.3	.3	97.3
To be handled in U.S	1	.3	.3	97.5
Trust the quality of the water more	1	.3	.3	97.8
Water quality in Rosarito is really bad.	1	.3	.3	98.0
Water safety and more research and	1	.3	.3	98.3

	domestic water would more cost effective				
	We have better monitoring and we put fluoride and different chemicals in wat	1	.3	.3	98.5
	We might run out of water	1	.3	.3	98.8
	We need the industry here	1	.3	.3	99.0
	We should monitor and govern our selves	1	.3	.3	99.3
	We would have more control of it	1	.3	.3	99.5
	We would have more control over the standards & quality of the water.	1	.3	.3	99.8
	We'd control of it	1	.3	.3	100.0
	Total	400	100.0	100.0	

Like OWD establishing water source indedendent of other water agencies

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	309	77.3	77.4	77.4
	No	48	12.0	12.0	89.5
	Don't Know	42	10.5	10.5	100.0
	Total	399	99.8	100.0	
Missing	System	1	.3		
Total		400	100.0		

Experienced international team increases confidence?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	261	65.3	65.3	65.3
	No	94	23.5	23.5	88.8
	Don't Know	45	11.3	11.3	100.0

	Total	400	100.0	100.0	

Effectiveness: Desalinated water will be closely monitored by CA Dept. of Public Health

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all effective	32	8.0	8.3	8.3
	2	9	2.3	2.3	10.6
	3	15	3.8	3.9	14.5
	4	18	4.5	4.7	19.2
	5	52	13.0	13.5	32.6
	6	47	11.8	12.2	44.8
	Very effective	213	53.3	55.2	100.0
	Total	386	96.5	100.0	
Missing	DK/REF	14	3.5		
Total		400	100.0		

Effectiveness: Operator of Rosarito Desalination facility is public traded, well-established global company

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all effective	52	13.0	14.6	14.6
	2	10	2.5	2.8	17.4
	3	25	6.3	7.0	24.4
	4	39	9.8	11.0	35.4
	5	79	19.8	22.2	57.6
	6	43	10.8	12.1	69.7
	Very effective	108	27.0	30.3	100.0

	Total	356	89.0	100.0	
Missing	DK/REF	44	11.0		
Total		400	100.0		

q16 and q16arec combined

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	29	7.3	8.0	8.0
	1	6	1.5	1.7	9.7
	2	1	.3	.3	9.9
	3	1	.3	.3	10.2
	4	1	.3	.3	10.5
	5	8	2.0	2.2	12.7
	6	1	.3	.3	13.0
	7	2	.5	.6	13.5
	9	1	.3	.3	13.8
	10	20	5.0	5.5	19.3
	15	4	1.0	1.1	20.4
	20	19	4.8	5.2	25.7
	25	14	3.5	3.9	29.6
	30	30	7.5	8.3	37.8
	33	1	.3	.3	38.1
	35	4	1.0	1.1	39.2
	40	14	3.5	3.9	43.1
	45	5	1.3	1.4	44.5

	50	90	22.5	24.9	69.3
	55	1	.3	.3	69.6
	60	14	3.5	3.9	73.5
	65	2	.5	.6	74.0
	70	17	4.3	4.7	78.7
	75	10	2.5	2.8	81.5
	76	1	.3	.3	81.8
	78	1	.3	.3	82.0
	80	22	5.5	6.1	88.1
	85	1	.3	.3	88.4
	90	14	3.5	3.9	92.3
	95	1	.3	.3	92.5
	100	27	6.8	7.5	100.0
	Total	362	90.5	100.0	
Missing	System	38	9.5		
Total		400	100.0		

Combined increase or decrease in percentage of desalinated water after messages about Mexico

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	-100	5	1.3	1.4	1.4
	-90	1	.3	.3	1.7
	-75	1	.3	.3	2.0
	-74	1	.3	.3	2.3
	-68	1	.3	.3	2.6

-65	1	.3	.3	2.8
-60	2	.5	.6	3.4
-55	1	.3	.3	3.7
-50	8	2.0	2.3	6.0
-49	1	.3	.3	6.3
-45	2	.5	.6	6.8
-40	4	1.0	1.1	8.0
-30	6	1.5	1.7	9.7
-26	1	.3	.3	9.9
-25	10	2.5	2.8	12.8
-20	14	3.5	4.0	16.8
-19	1	.3	.3	17.0
-15	5	1.3	1.4	18.5
-10	16	4.0	4.5	23.0
-9	1	.3	.3	23.3
-8	1	.3	.3	23.6
-5	11	2.8	3.1	26.7
-2	1	.3	.3	27.0
-1	2	.5	.6	27.6
0	204	51.0	58.0	85.5
2	1	.3	.3	85.8
5	9	2.3	2.6	88.4
9	1	.3	.3	88.6
10	19	4.8	5.4	94.0

	15	1	.3	.3	94.3
	18	1	.3	.3	94.6
	20	4	1.0	1.1	95.7
	25	1	.3	.3	96.0
	30	1	.3	.3	96.3
	35	2	.5	.6	96.9
	40	1	.3	.3	97.2
	45	3	.8	.9	98.0
	50	4	1.0	1.1	99.1
	54	1	.3	.3	99.4
	70	1	.3	.3	99.7
	75	1	.3	.3	100.0
	Total	352	88.0	100.0	
Missing	System	48	12.0		
Total		400	100.0		

Combined increase or decrease in percentage of desalinated water from beginning to end

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	-100	2	.5	.6	.6
	-99	1	.3	.3	.9
	-80	1	.3	.3	1.1
	-75	3	.8	.9	2.0
	-70	2	.5	.6	2.6
	-60	1	.3	.3	2.9

-56	1	.3	.3	3.2
-55	1	.3	.3	3.4
-50	11	2.8	3.2	6.6
-45	2	.5	.6	7.2
-43	1	.3	.3	7.5
-40	3	.8	.9	8.3
-39	1	.3	.3	8.6
-35	1	.3	.3	8.9
-30	6	1.5	1.7	10.6
-25	6	1.5	1.7	12.4
-20	14	3.5	4.0	16.4
-18	1	.3	.3	16.7
-15	5	1.3	1.4	18.1
-10	11	2.8	3.2	21.3
-9	1	.3	.3	21.6
-5	2	.5	.6	22.1
-2	1	.3	.3	22.4
-1	1	.3	.3	22.7
0	168	42.0	48.3	71.0
5	14	3.5	4.0	75.0
10	27	6.8	7.8	82.8
15	2	.5	.6	83.3
18	1	.3	.3	83.6
20	19	4.8	5.5	89.1

	25	6	1.5	1.7	90.8
	30	11	2.8	3.2	94.0
	35	3	.8	.9	94.8
	40	4	1.0	1.1	96.0
	45	1	.3	.3	96.3
	46	1	.3	.3	96.6
	50	3	.8	.9	97.4
	55	1	.3	.3	97.7
	61	1	.3	.3	98.0
	65	1	.3	.3	98.3
	70	5	1.3	1.4	99.7
	75	1	.3	.3	100.0
	Total	348	87.0	100.0	
Missing	System	52	13.0		
Total		400	100.0		

Trust OWD to provide clean, safe water to district?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No trust at all	8	2.0	2.1	2.1
	Not much trust	10	2.5	2.6	4.6
	Some trust	80	20.0	20.6	25.3
	Good amount of trust	169	42.3	43.6	68.8
	Great deal of trust	121	30.3	31.2	100.0
	Total	388	97.0	100.0	

Missing	DK.REF	12	3.0		
Total		400	100.0		

Trust in OWD to obtain water at reasonable price

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No trust at all	23	5.8	6.0	6.0
	Not much trust	26	6.5	6.8	12.9
	Some trust	144	36.0	37.8	50.7
	Good amount of trust	124	31.0	32.5	83.2
	Great deal of trust	64	16.0	16.8	100.0
	Total	381	95.3	100.0	
Missing	DK.REF	19	4.8		
Total		400	100.0		

Overall satisfaction with OWD as water service provider

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very poor	8	2.0	2.0	2.0
	Poor	9	2.3	2.3	4.3
	Fair	43	10.8	10.9	15.3
	Good	121	30.3	30.8	46.1
	Very Good	116	29.0	29.5	75.6
	Excellent	96	24.0	24.4	100.0
	Total	393	98.3	100.0	
Missing	DK/REF	7	1.8		

Total	400	100.0		

Desalinated water is a good way to serve customers?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	348	87.0	87.0	87.0
	No	24	6.0	6.0	93.0
	Don't Know	28	7.0	7.0	100.0
	Total	400	100.0	100.0	

Persons per household

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	24	6.0	6.0	6.0
	2	87	21.8	21.9	28.0
	3	61	15.3	15.4	43.3
	4	113	28.3	28.5	71.8
	5	67	16.8	16.9	88.7
	6	31	7.8	7.8	96.5
	7	10	2.5	2.5	99.0
	8	3	.8	.8	99.7
	9	1	.3	.3	100.0
	Total	397	99.3	100.0	
Missing	DK/REF	3	.8		
Total		400	100.0		

Own/rent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Own	339	84.8	85.4	85.4
	Rent/Other	58	14.5	14.6	100.0
	Total	397	99.3	100.0	
Missing	DK/REF	3	.8		
Total		400	100.0		

Highest grade/year of school completed

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High school or less	45	11.3	11.6	11.6
	At least one year of college, trade or vocational school	116	29.0	29.9	41.5
	Bachelor's degree	161	40.3	41.5	83.0
	At least one year of gradutae work	66	16.5	17.0	100.0
	Total	388	97.0	100.0	
Missing	DK/REF	12	3.0		
Total		400	100.0		

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-24	9	2.3	2.3	2.3
	25-34	47	11.8	12.0	14.2
	35-44	100	25.0	25.4	39.7
	45-54	112	28.0	28.5	68.2

	55-64	71	17.8	18.1	86.3
	65 and over	54	13.5	13.7	100.0
	Total	393	98.3	100.0	
Missing	DK/REF	7	1.8		
Total		400	100.0		

Ethnicity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	White, not of Hispanic origin	165	41.3	44.0	44.0
	Black, not of Hispanic origin	29	7.3	7.7	51.7
	Hispanic or Latino	107	26.8	28.5	80.3
	Asian or Pacific Islander	58	14.5	15.5	95.7
	Native American	6	1.5	1.6	97.3
	Other ethnic group	10	2.5	2.7	100.0
	Total	375	93.8	100.0	
Missing	DK/REF	25	6.3		
Total		400	100.0		

Annual household income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Under $25,000	17	4.3	5.2	5.2
	$25,000 up to but not including $50,000	41	10.3	12.4	17.6
	$50,000 up to but not including $75,000	73	18.3	22.1	39.7

	$75,000 up to but not including $100,000	80	20.0	24.2	63.9
	$100,000 but not including $150,000	85	21.3	25.8	89.7
	$150,000 or more	34	8.5	10.3	100.0
	Total	330	82.5	100.0	
Missing	DK/REF	70	17.5		
Total		400	100.0		

Sex of respondent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	217	54.3	54.3	54.3
	Female	183	45.8	45.8	100.0
	Total	400	100.0	100.0	

How long customer of OWD

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	32	8.0	8.1	8.1
	2	27	6.8	6.8	14.9
	3	17	4.3	4.3	19.1
	4	14	3.5	3.5	22.7
	5	23	5.8	5.8	28.5
	6	24	6.0	6.0	34.5
	7	17	4.3	4.3	38.8
	8	32	8.0	8.1	46.9
	9	19	4.8	4.8	51.6

10	56	14.0	14.1	65.7
11	17	4.3	4.3	70.0
12	24	6.0	6.0	76.1
13	10	2.5	2.5	78.6
14	10	2.5	2.5	81.1
15	11	2.8	2.8	83.9
16	2	.5	.5	84.4
17	4	1.0	1.0	85.4
18	1	.3	.3	85.6
20	16	4.0	4.0	89.7
21	2	.5	.5	90.2
22	2	.5	.5	90.7
23	1	.3	.3	90.9
25	10	2.5	2.5	93.5
26	1	.3	.3	93.7
28	1	.3	.3	94.0
30	10	2.5	2.5	96.5
31	1	.3	.3	96.7
32	2	.5	.5	97.2
33	2	.5	.5	97.7
35	3	.8	.8	98.5
40	3	.8	.8	99.2
45	1	.3	.3	99.5
53	1	.3	.3	99.7

	70	1	.3	.3	100.0
	Total	397	99.3	100.0	
Missing	DK/REF but at least one year	3	.8		
Total		400	100.0		

Language of interview

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	English	395	98.8	98.8	98.8
	Spanish	5	1.3	1.3	100.0
	Total	400	100.0	100.0	

Descriptives

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Importance: Desalinated water is an alternative source of water that can reduce our dependence on imported water and precipitation	386	1	7	6.01	1.350
Importance: Desalinated water is extensively and successfully used in many parts of the world	331	1	7	5.51	1.645
Importance: Desalinated water is soft water and eliminates the need for water softening measures	346	1	7	5.15	1.863

Importance: The desalination process must not harm the ocean	384	1	7	6.02	1.617
Valid N (listwise)	295				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
q16 and q16arec combined	362	0	100	45.44	29.602
q7 and q7arec combined	361	0	100	47.53	28.021
q9 and q9arec combined	364	0	100	50.81	28.954
Valid N (listwise)	345				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Effectiveness: Desalination is a trusted, widely used way to increase water supply	370	1	7	5.62	1.580
Effectiveness: Desalination eases the potential effects of the water crisis	381	1	7	5.94	1.488
Effectiveness: The cost of desalinated water will be about the same as imported water	354	1	7	5.23	1.866
Effectiveness: Desalination ensures a reliable, high quality supply of water for the future	381	1	7	5.85	1.516
Effectiveness: Desalination will help the region become independent from imported water suppliers	379	1	7	5.73	1.627
Valid N (listwise)	327				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Effectiveness: Desalinated water will be closely monitored by CA Dept. of Public Health	386	1	7	5.70	1.894
Effectiveness: Operator of Rosarito Desalination facility is public traded, well-established global company	356	1	7	4.81	2.071
Valid N (listwise)	351				

Elapsed Time	00:00:00.000

Elapsed Time	00:00:00.000

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Persons per household	397	1	9	3.67	1.537
Valid N (listwise)	397				

AGENDA ITEM 4

STAFF REPORT

TYPE MEETING:	Engineering, Operations, and Water Resources Committee	MEETING DATE:	February 15, 2011
		PROJECT/ SUBPROJECT:	Various DIV. NO. All
SUBMITTED BY:	Daniel Kay DK Associate Civil Engineer Ron Ripperger RR Engineering Manager		
APPROVED BY: (Chief)	Rod Posada Chief, Engineering		
APPROVED BY: (Asst. GM):	Manny Magaña Assistant General Manager, Engineering and Operations		
SUBJECT:	Informational Item - Construction Management and Inspection Services Practices		

GENERAL MANAGER'S RECOMMENDATION:

This is an informational item for the Engineering, Operations, and Water Resources Committee to review and receive a summary of the District's Construction Management and Inspection Services Practices.

COMMITTEE ACTION:

None.

PURPOSE:

To update the Engineering, Operations, and Water Resources Committee about the District's Construction Management practices.

ANALYSIS:

This staff report was prepared in response to a Board member's inquiry about how the District performs Construction Management and Inspection Services (CMIS). Attachment A of the staff report is

a binder which details the methods the District uses to implement CMIS. It includes a memorandum, a history of the District's CIP projects since 2007, comparisons to "industry standard," and other attachments representing the benefits of CMIS. Please see Attachment A for specific information.

FISCAL IMPACT:

None.

STRATEGIC GOAL:

This Project supports the District's Mission statement, "To provide the best quality of water and wastewater service to the customers of the Otay Water District in a professional, effective, and efficient manner," and the District's Strategic Goal to, "Design and construct new infrastructure - satisfy current and future water needs for Potable, Recycled, and Wastewater Services."

LEGAL IMPACT:

None.

General Manager

P:\WORKING\Ripper\Construction Management Manual Update\Construction Management Practices Memo\EO&W Committee Meeting 02-15-11, Staff Report, Construction Management Practices, (DK-RR).doc

DK/RR:jf

Attachments: Attachment A - Construction Management & Inspection Services Practices Binder

Presentation

ATTACHMENT A

SUBJECT/PROJECT:	
Various	Informational Item - Construction Management and Inspection Services Practices

SEE ATTACHED BINDER

Quality Assurance Approval Sheet

Subject: Informational Item – Construction Management and Inspection Services Practices

Project No.: Various

Document Description: Staff Report for the February 15, 2011 Engineering, Operations, and Water Resources Committee Meeting

Author: _____ 2/8/11
Signature Date

Daniel Kay
Printed Name

QA Reviewer: _____ 2/8/11
Signature Date

Gary Silverman
Printed Name

Manager: _____ 2/8/11
Signature Date

Ron Ripperger
Printed Name

The above signatures attest that the attached document has been reviewed and to the best of their ability the signers verify that it meets the District quality standard by clearly and concisely conveying the intended information; being grammatically correct and free of formatting and typographical errors; accurately presenting calculated values and numerical references; and being internally consistent, legible and uniform in its presentation style.

CONSTRUCTION MANAGEMENT & INSPECTION SERVICES (CMIS)

FEBRUARY 15, 2011

ENGINEERING & OPERATIONS COMMITTEE MEETING

CMIS METHODS

- Method 1 – In-House
- Method 2 – CM Consultant, In-house Inspection
- Method 3 – CMIS Consultant

	Const. Manager	Inspection	Const. Budget	No. of Projects	% Method Used	Avg. Const. Value
Method 1	District Staff	District Staff	< $2.5 Million	11	61%	$729,146
Method 2	Consultant	District Staff	< $5.0 Million	3	17%	$1,454,114
Method 3	Consultant	Consultant	> $5.0 Million	4	22%	$14,569,371
Totals				**18**	**100%**	**$80,550,767***

Project History

- Eighteen (18) Projects Since 2007 (Attachment 1)
- CMIS Cost as a % of Project Budget
  - Consultant CMIS
  - District Staff CMIS
  - Total CMIS
- Change Order Incident Rate
- Comments

Project History - Summary

		Total CMIS Cost as a % of Construction Value	Total CMIS Cost as a % of Total Project Budget	Change Order as a % of Construction Cost
Method 1	Average Value	20%	11%	6.9%
Method 2	Average Value	16%	10%	-4.1%
Method 3	Average Value	8%	6%	-3.5%

- Industry Standard (Attachment 3)
  - Method 1 0.63% to 14.44%
  - Method 2 & 3 2.03% to 10.11%
- District Results
  - Overall 6% CMIS cost to Project Budget
  - Fifteen (15) Projects Within Range

Continuing Education

- High Priority
  - Improve In-house skills/abilities
- Training Log (Attachment 2)
  - CMAA Seminars/Events
  - Consultants Providing Training
  - Safety Training
  - Materials/Products/Technology
- Engineering/Inspection Staff
  - Average 12 hrs/person/year

Summary

- Method Determination
  - Project Complexity, Size, Cost, Duration, Staff, Availability, Experience
- Project History
  - Overall Successful
  - Range of Methods Used
  - Project Achievement Awards
    - CMAA, ASCE, APWA
- Primary Goal
  - Provide Most Cost Effective and Efficient Method Possible


Questions?

AGENDA ITEM 5

STAFF REPORT

TYPE MEETING:	Regular Board	MEETING DATE:	March 2, 2011
SUBMITTED BY:	Daniel Kay DK Associate Civil Engineer	PROJECT:	Various DIV. NO. ALL
	Ron Ripperger Engineering Manager		
APPROVED BY: (Chief)	Rod Posada Chief, Engineering		
APPROVED BY: (Asst GM)	Manny Magaña Assistant General Manager, Engineering and Operations		
SUBJECT:	Informational Item - Second Quarter Fiscal Year 2011 Capital Improvement Program Report		

GENERAL MANAGER'S RECOMMENDATION:

That the Otay Water District (District) Board of Directors (Board) accepts the Second Quarter Fiscal Year 2011 Capital Improvement Program (CIP) Report for review and receives a summary via PowerPoint presentation.

COMMITTEE ACTION:

Please see Attachment A.

PURPOSE:

To update the Board about the status of all CIP project expenditures and to highlight significant issues, progress, and milestones on major projects.

ANALYSIS:

To keep up with growth and to meet our ratepayers' expectations to adequately deliver safe, reliable, cost-effective, and quality water, each year the District Staff prepares a six-year CIP Plan that identifies the District infrastructure needs. The CIP is comprised of four categories consisting of backbone capital facilities, replacement/renewal projects, developer's reimbursement projects, and capital purchases.

The Second Quarter Fiscal Year 2011 update is intended to provide a detailed analysis of progress in completing these projects within the allotted time and budget. Expenditures through the Second Quarter totaled approximately $8.0 million. Approximately 28% of the Fiscal Year 2011 expenditure budget was spent.

FISCAL IMPACT: RCP

None.

STRATEGIC GOAL:

The CIP supports the District's Mission statement, "To provide the best quality of water and wastewater service to the customers of the Otay Water District, in a professional, effective, and efficient manner," and the District's Strategic Goal, in planning for infrastructure and supply to meet current and future potable water demands.

LEGAL IMPACT: _____

None.

General Manager

F:\CIP\CIP Quarterly Reports\2011\Q2\Staff Report\BD 03-02-11, Staff Report, Second Quarter FY 2011 CIP Report, (RR-RP).doc
RR/RP:jf

Attachments: Attachment A - Committee Action
Presentation

ATTACHMENT A

SUBJECT/PROJECT:	Informational Item - Second Quarter Fiscal Year 2011 Capital Improvement Program Report
Various	

COMMITTEE ACTION:

The Engineering, Operations, and Water Resources Committee reviewed this item at a meeting held on February 15, 2011. The Committee supported Staff's recommendation.

NOTE:

The "Committee Action" is written in anticipation of the Committee moving the item forward for Board approval. This report will be sent to the Board as a Committee approved item, or modified to reflect any discussion or changes as directed from the Committee prior to presentation to the full Board.

Quality Assurance Approval Sheet

Subject: Informational Item – Second Quarter Fiscal Year 2011 Capital Improvement Program Report

Project No.: Various

Document Description: Staff Report for March 2, 2011 Board Meeting

Author: _____ Signature _____ 2/8/11 Date

Daniel Kay
Printed Name

QA Reviewer: _____ Signature _____ 2/8/11 Date

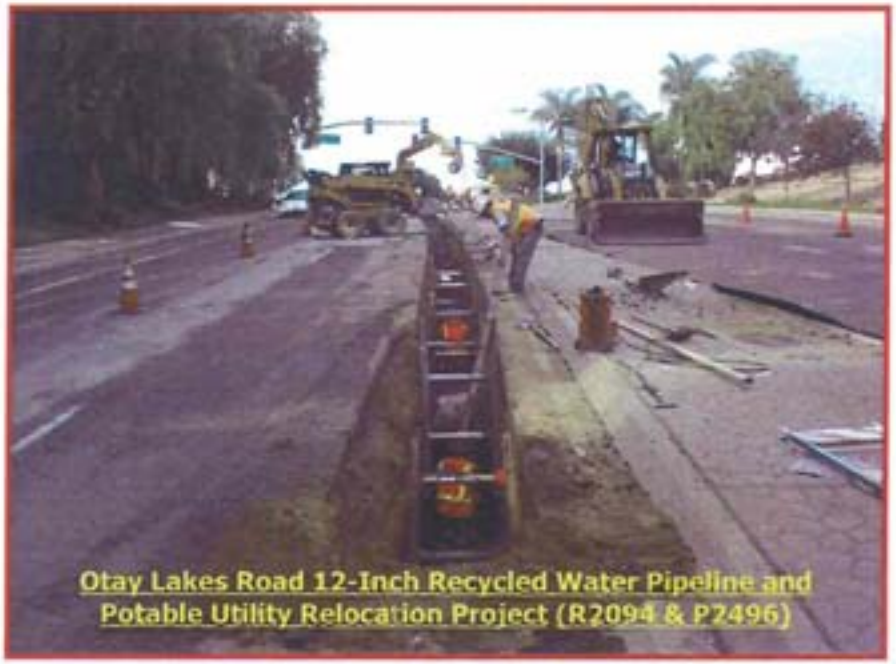
Gary Silverman
Printed Name

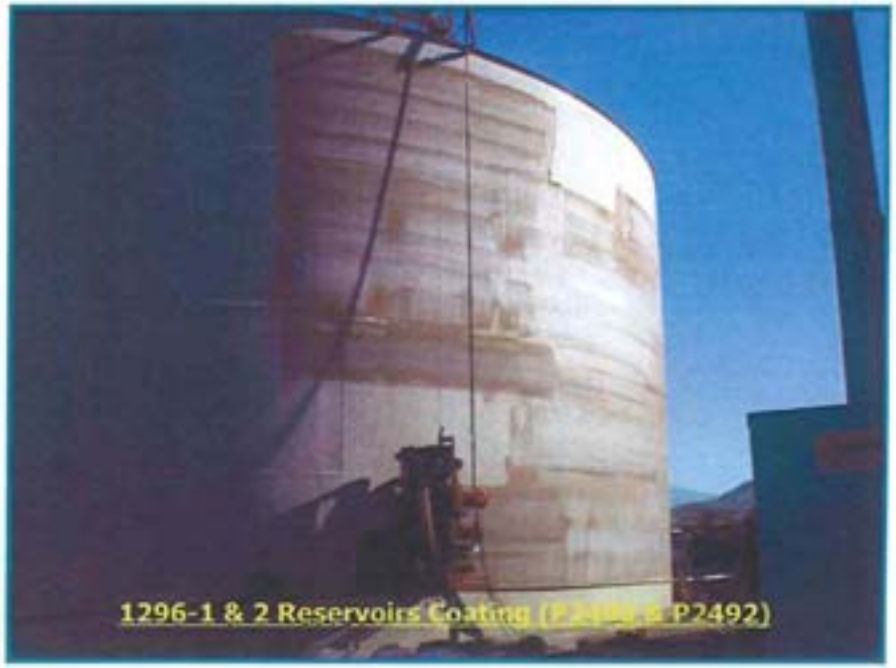
Manager: _____ Signature _____ 2/8/11 Date

Ron Ripperger
Printed Name

The above signatures attest that the attached document has been reviewed and to the best of their ability the signers verify that it meets the District quality standard by clearly and concisely conveying the intended information; being grammatically correct and free of formatting and typographical errors; accurately presenting calculated values and numerical references; and being internally consistent, legible and uniform in its presentation style.

CAPITAL IMPROVEMENT PROGRAM


Otay Lakes Road 12-Inch Recycled Water Pipeline and Potable Utility Relocation Project (R2094 & P2496)


1296-1 & 2 Reservoirs Coating (P2492)

Second Quarter Fiscal Year 2011

(through December 31, 2010)

Background

The approved CIP budget for Fiscal Year 2011 consists of 82 projects that total $28.5 million. These projects are broken down into four categories:

1.	Capital Facilities:	$ 16.2 million
2.	Replacement/Renewal:	$ 10.0 million
3.	Capital Purchases:	$ 2.3 million
4.	Developer Reimbursement:	$ 0.0 million

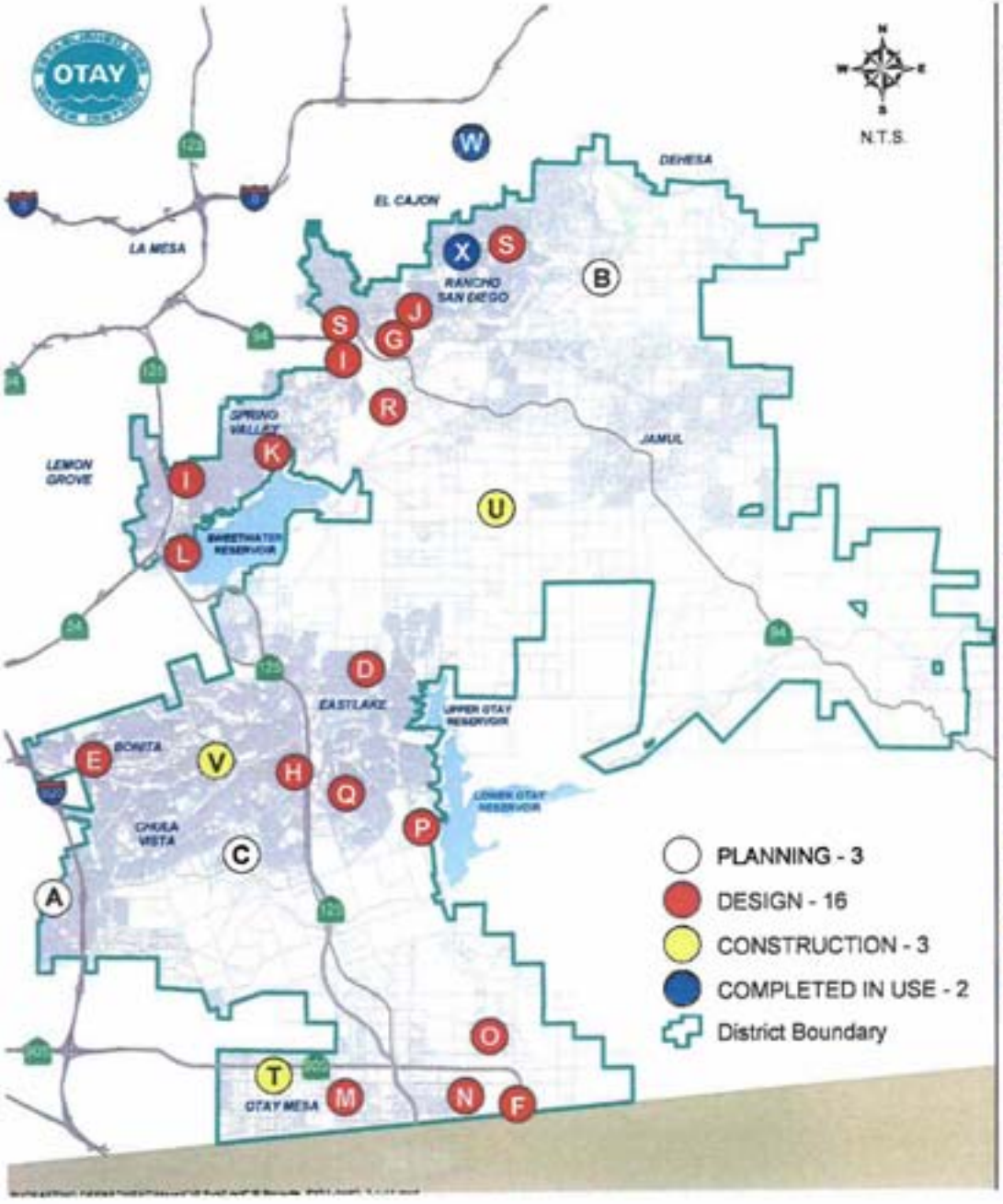
Overall expenditures through the Second Quarter Fiscal Year 2011 totaled $8.0 million, which is 28% of our fiscal year budget through the second quarter.

Fiscal Year 2011 Report

(through December 31, 2010)

CIP CAT	Description	FY 2011 Budget	FY 2011 Expenditures	% FY 2011 Budget Spent	Total Life-to-Date Budget	Total Life-to-Date Expenditures	% Life-to-Date Budget Spent
1	**Capital Facilities**	**$16,181,000**	**$5,004,000**	**31%**	$180,969,000	$45,186,000	25%
2	**Replacement/ Renewal**	**$10,006,000**	**$2,362,000**	**24%**	$44,053,000	$16,822,000	38%
3	**Capital Purchases**	**$2,249,000**	**$656,000**	**29%**	$13,450,000	$6,413,000	48%
4	**Developer Reimbursement**	**$12,000**	**$0**	**0%**	$7,882,000	$1,000	0%
	Total:	**$28,448,000**	**$8,022,000**	**28%**	$246,354,000	$68,422,000	28%

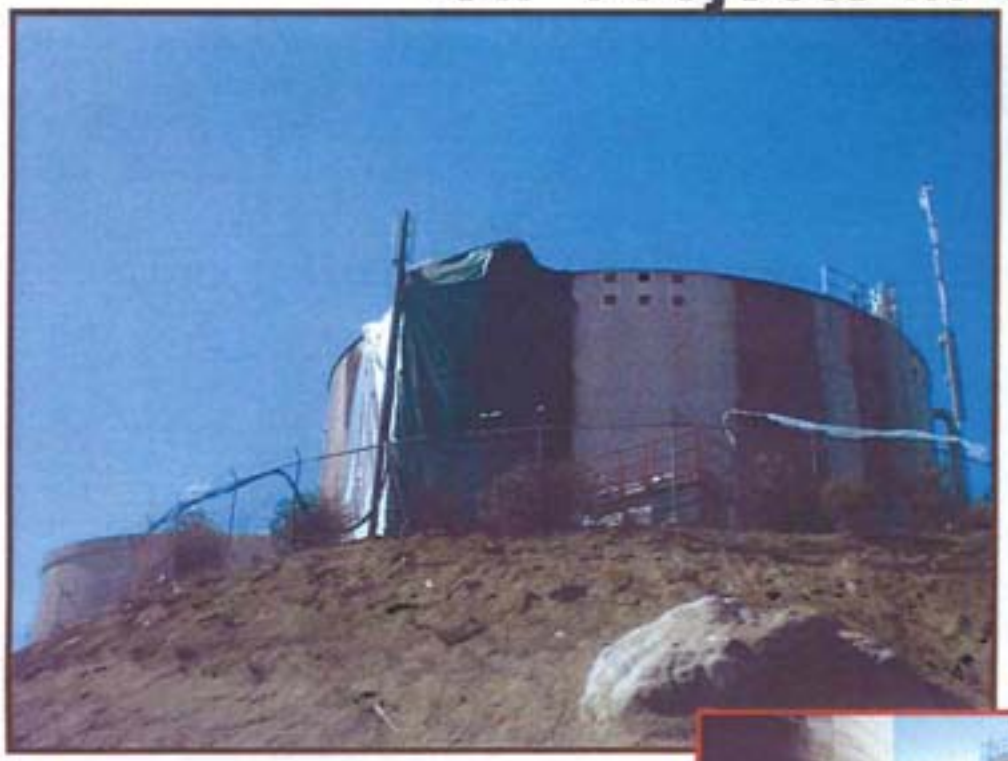
Major CIP Projects



MAJOR CIP PROJECTS

- (A) P2467 – San Diego Formation Groundwater Feasibility Study
- (B) P2481 – Middle Sweetwater River Basin Groundwater Well
- (C) R2094 – Potable Irrigation Meter to Recycle Water Conversions
- (D) P2399 – PL-30", 980 Reservoirs to Hunte Parkway
- (E) P2434 – Rancho Del Rey Groundwater Well
- (F) P2451 – Otay Mesa Conveyance and Disinfection System
- (G) P2466 – Regional Training Facility
- (H) P2473 – 711-1 Pump Station Improvements
- (I) P2488 & P2489 – Helix WD & Otay WD Agency Interconnections
- (J) P2502 & P2503 – 803-1 and 850-2 Pump Station Modifications
- (K) P2505 & P2506 – 657-1 & 657-2 Reservoir Coating
- (L) P2511 – North District / South District Interconnection System
- (M) R2048 – Otay Mesa Distribution Pipelines and Conversions
- (N) R2058 – Airway Rd Recycled Water Pipeline
- (O) R2077 – Alta Rd Recycled Water Pipeline
- (P) R2087 – Wueste Rd Recycled Water Pipeline
- (Q) R2091 – 944-1R Recycled Water Pump Station Upgrade
- (R) R2096 – Ralph W. Chapman Water Reclamation Facility - Upgrades and Modifications
- (S) S2019, S2020 & S2022 – Sanitary Sewer Replacement
- (T) P2440 – SR905 Utility Relocations
- (U) P2490 & P2492 – 1296-1 & 2 Reservoir Coating
- (V) P2496 – Otay Lakes Road Utility Relocations
- (W) P2009 – PL-36" SDCWA Otay FCF No. 14 to OWD Regulatory Site
- (X) S2021 – Jamacha Rd 8-inch Sanitary Sewer Replacement

CIP Projects in Construction



1296-1 & 2 Reservoirs Coating (P2490 & P2492)

This project was awarded to West Coast Industrial Coating, Inc. in February 2010.
This project includes an assessment of the facilities to assure compliance to all applicable codes and OSHA standards as well as for the interior and exterior coatings of the 1296-1 & 2 Reservoirs.

CIP Projects in Construction

- ***1296-1&2 Reservoirs Coating Projects***

Key Component: Interior and exterior coatings on the 1296-1 & 2 Reservoirs.

Schedule: A construction contract was awarded to West Coast Industrial Coating, Inc., on February 3, 2010. Project is approximately 70% complete. Project completion is anticipated for March 2011.

Cost: The combined FY 2011 project budgets for CIPs P2490 and P2492 are $680,000, of which $466,000, or 69% was spent. The life-to-date project budgets are $900,000, of which $678,000, or 75%, have been spent.

Significant Issues: Contractor's production has been slower than the submitted schedules. Staff is monitoring the contractor's progress to address the production issues.

Highlights: None.

CIP Projects in Construction

Otay Lakes Road 12-Inch Recycled Water Pipeline and Potable Utility Relocation Project (R2094 & P2496)

This project consists of installing a 12-inch recycled pipeline along Otay Lakes Rd., from Telegraph Canyon Rd. to Bonita Vista High School on 'H' Street. This will provide recycled water to Southwestern College, a condo complex, and Bonita Vista High School. This project also includes relocating a few District facilities for the City of Chula Vista's road improvement project.

CIP Projects in Construction

- ***Potable Irrigation Meters to Recycled Water Conversions***

Key Component: Installation of a 12-inch recycled pipeline along Otay Lakes Rd. and converting existing potable water irrigation systems to use recycled water.

Schedule: Construction started in May 2010. Southland Paving completed the installation of the 12-inch recycled water main (approx. 4,200 LF). They are currently working on punchlist items. Project completion is anticipated for February 2011.

Cost: A Reimbursement Agreement, executed between the City of Chula Vista (City) and the District dated March 2, 2010, required the District to submit a deposit to the City for the estimated construction costs of $1,100,000 (which includes a 10% contingency).

The combined FY 2011 project budgets for CIPs R2094 and P2496 are $695,000, of which $139,000, or 20% was spent. The life-to-date project budgets are $3,350,000, of which $2,510,000, or 75%, have been spent.

Significant Issues: None.

Highlights: None.

Consultant Contract Status

(through December 31, 2010)

Consultant	CIP No.	Project Title	Original Contract Amount	Total Change Orders	Revised Contract Amount	Approved Payment To Date	% Change Orders	% Project Complete	Date of Signed Contract	End Date of Contract
PLANNING										
AECOM	P2434	RANCHO DEL REY GROUNDWATER WELL DEVELOPMENT	$ 1,561,625.00	$ -	$ 1,561,625.00	$ 1,292,224.50	0.0%	82.7%	1/20/2010	12/31/2010
MWH AMERICAS INC.	P2010	NORTH-SOUTH SERVICES AREA INTERTIE STUDY	$ 119,505.00	$ 11,500.00	$ 131,005.00	$ 118,314.41	9.6%	90.3%	10/22/2009	6/30/2011
SALVADOR LOPEZ-CORDOVA	P2451	DESALINATION PROJECT	$ 45,000.00	$ -	$ 45,000.00	$ 2,012.90	0.0%	0.0%	9/15/2010	8/14/2011
TRAN CONSULTING ENGINEERS	S1201	SANITARY SEWER CCTV INSPECTION AND CONDITION ASSESSMENT	$ 560,025.00	$ -	$ 560,025.00	$ 334,095.32	0.0%	59.7%	1/20/2010	6/30/2013
DESIGN										
CALIFORNIA CENTER FOR SUSTAINABLE ENERGY	Varies	SOLAR POWER FEASIBILITY STUDY	$ 34,400.00	$ -	$ 34,400.00	$ 2,700.00	0.0%	7.8%	5/18/2010	6/30/2011
CPM PARTNERS	Varies	AS-NEEDED SCHEDULING SERVICES	$ 175,000.00	$ -	$ 175,000.00	$ 78,472.50	0.0%	44.8%	5/18/2010	6/30/2012
DARNELL & ASSOCIATES	Varies	AS-NEEDED TRAFFIC ENGINEERING SERVICES FOR FY2010 AND FY2011	$ 175,000.00	$ -	$ 175,000.00	$ 137,097.50	0.0%	78.3%	1/20/2010	6/30/2011
ENGINEERING PARTNERS INC, THE	Varies	ELECTRICAL SERVICES	$ 100,000.00	$ -	$ 100,000.00	$ 85,930.00	0.0%	85.9%	3/19/2007	6/30/2011
ENGINEERING PARTNERS INC, THE	Varies	AS-NEEDED ELECTRICAL DESIGN SERVICES	$ 100,000.00	$ -	$ 100,000.00	$ 54,320.00	0.0%	54.3%	10/7/2009	6/30/2011
HDR	Varies	TEMPORARY LABOR SERVICES	$ 150,000.00	$ 35,000.00	$ 185,000.00	$ 167,475.00	23.3%	90.5%	6/30/2010	6/30/2011
HVAC ENGINEERING INC	P2502, P2503	HVAC SERVICES FOR 850-2 PS & 803-1 PS	$ 19,421.00	$ -	$ 19,421.00	$ -	0.0%	0.0%	9/17/2010	12/31/2011
LEE & RO INC	P2009	DESIGN OF 36-INCH PIPELINE	$ 580,183.00	$ 61,629.00	$ 641,812.00	$ 627,786.00	10.6%	97.8%	9/11/2008	6/30/2011
LEE & RO INC	Varies	AS-NEEDED ENGINEERING DESIGN SERVICES	$ 175,000.00	$ -	$ 175,000.00	$ 20,692.50	0.0%	11.8%	6/30/2010	6/30/2012
LEE & RO INC	P2511	NORTH DISTRICT/SOUTH DISTRICT INTERCONNECTION	$ 2,769,119.00	$ -	$ 2,769,119.00	$ 22,891.63	0.0%	0.8%	11/4/2010	12/31/2015
MTGL INC.	Varies	AS-NEEDED GEOTECHNICAL CONSULTING SERVICES	$ 175,000.00	$ -	$ 175,000.00	$ 21,460.00	0.0%	12.3%	6/23/2010	6/30/2012
MWH AMERICAS INC.	R2096, R2095, S2018	RWCWRF UPGRADE PROJECT	$ 458,813.00	$ 122,048.00	$ 580,861.00	$ 244,456.28	26.6%	42.1%	10/14/2009	6/30/2011
PBS&J	Varies	HYDRAULIC MODELING SERVICES	$ 45,000.00	$ -	$ 45,000.00	$ 32,298.55	0.0%	71.8%	11/20/2009	6/30/2011
PBS&J	P2511	HYDRAULIC ANALYSIS	$ 5,000.00	$ -	$ 5,000.00	$ -	0.0%	0.0%	12/9/2010	6/30/2012
PHOTO GEODETIC CORPORATION	P2399	SURVEYING SERVICES	$ 3,425.63	$ -	$ 3,425.63	$ 3,150.00	0.0%	92.0%	8/24/2010	9/29/2010 COMPLETE
REPROHAUS	Varies	AS-NEEDED REPROGRAPHIC SERVICES	$ 20,000.00	$ -	$ 20,000.00	$ 7,345.81	0.0%	36.7%	2/16/2010	12/31/2011
SCHIFF & ASSOCIATES	Varies	PROFESSIONAL CORROSION SERVICES	$ 250,000.00	$ 36,000.00	$ 286,000.00	$ 187,910.37	14.4%	65.7%	11/20/2009	6/30/2011
SOUTHERN CALIFORNIA SOIL	Varies	AS-NEEDED GEOTECHNICAL SERVICES	$ 175,000.00	$ 11,761.37	$ 186,761.37	$ 177,823.83	6.7%	95.2%	10/7/2009	6/30/2011
S.R. BRADLEY & ASSOCIATES, INC.	P2434	ARCHITECTURAL SERVICES	$ 5,100.00		$ 5,100.00	$ 5,100.00	0.0%	100.0%	10/11/2010	12/8/2010 COMPLETE
SUPERIOR TANK SOLUTIONS	P2491	803-2 Reservoir Visual Inspection	$ 250.00	$ -	$ 250.00	$ 250.00	0.0%	100.0%	7/15/2010	8/11/2010 COMPLETE

Consultant Contract Status
(continued)

Consultant	CIP No.	Project Title	Original Contract Amount	Total Change Orders	Revised Contract Amount	Approved Payment To Date	% Change Orders	% Project Complete	Date of Signed Contract	End Date of Contract
CONSTRUCTION SERVICES										
BRADLEY CONSULTING GROUP	P2172	1485-1 PUMP STATION - TREE CONSULTING SERVICE	$ 500.00	$ -	$ 500.00	$ 500.00	0.0%	100.0%	9/7/2010	9/8/2010 COMPLETE
MWH CONSTRUCTORS INC	Varies	TEMPORARY LABOR SERVICES	$ 150,000.00	$ 130,000.00	$ 280,000.00	$ 274,050.00	86.7%	97.9%	1/5/2009	12/31/2010 COMPLETED
PROWEST APPRAISALS	P2172	APPRAISAL SERVICES	$ 2,827.50	$ -	$ 2,827.50	$ 2,600.00	0.0%	92.0%	8/13/2010	8/25/2010 COMPLETE
RBF CONSULTING	P2009	36-INCH PIPELINE	$ 1,088,785.00	$ 46,995.00	$ 1,135,780.00	$ 1,129,658.75	4.3%	99.5%	1/28/2008	3/1/2011
RBF CONSULTING	R2058, R2077, R2087	CONSTRUCTION MANAGEMENT SERVICES FOR THE OTAY MESA RECYCLED WATER SUPPLY LINK	$ 708,560.00		$ 708,560.00	$ 13,960.00	0.0%	2.0%	3/24/2010	12/31/2011
RBF CONSULTING	S2019, S2021	CONSTRUCTION MANGAGEMENT	$ 5,000.00	$ -	$ 5,000.00	$ 5,000.00	0.0%	100.0%	8/5/2010	10/6/2010 COMPLETED
VALLEY CONSTRUCTION MANAGEMENT	Varies	AS-NEEDED CONSTRUCTION MANAGEMENT AND INSPECTION SERVICES	$ 175,000.00		$ 175,000.00	$ 92,670.00	0.0%	53.0%	3/17/2010	6/30/2012
ENVIRONMENTAL										
A.D. HINSHAW	Varies	CONSULTING SERVICES FOR JWA's CEQA	$ 34,625.25	$ -	$ 34,625.25	$ 6,865.83	0.0%	19.8%	3/25/2010	6/30/2012
BRG CONSULTING INC	P2143	1296-3 RESERVOIR ENV SVCS	$ 125,000.00	$ -	$ 125,000.00	$ 124,498.54	0.0%	99.6%	4/11/2006	12/31/2010 COMPLETED
FORENSIC ENTOMOLOGY SERVICES	P2494	SCIENCE ADVISOR REVIEW	$ 4,000.00	$ -	$ 4,000.00	$ -	0.0%	0.0%	9/30/2010	6/30/2011
ICF INTERNATIONAL (aka JONES & STOKES ASSOCIATES)	P1253	SAN MIGUEL HABITAT MANAGEMENT AREA	$ 987,807.00	$ -	$ 987,807.00	$ 636,694.98	0.0%	64.5%	2/3/2009	12/31/2011
ICF INTERNATIONAL (aka JONES & STOKES ASSOCIATES)	R2058/ R2077/ R2087	OTAY MESA RECYCLED WATER SUPPLY LINK PIPELINES	$ 213,087.00	$ 9,115.00	$ 222,202.00	$ 222,143.98	4.3%	100.0%	5/1/2009	6/30/2011
ICF INTERNATIONAL (aka JONES & STOKES ASSOCIATES)	Varies	AS-NEEDED ENVIRONMENTAL CONSULTING SERVICES	$ 375,000.00	$ -	$ 375,000.00	$ 36,028.39	0.0%	9.6%	9/9/2010	6/30/2013
DR. MARY ANNE HAWKE	P2494	SCIENCE ADVISOR REVIEW	$ 4,350.00	$ -	$ 4,350.00	$ -	0.0%	0.0%	9/9/2010	6/30/2011
PHOTO GEODETIC CORPORATION	R2096	AERIAL MAPPING	$ 2,400.00	$ -	$ 2,400.00	$ 2,400.00	0.0%	100.0%	9/15/2010	10/12/2010 COMPLETE
RAHN CONSERVATION CONSULTING	P2494	ADVISOR REVIEW	$ 4,000.00	$ -	$ 4,000.00	$ 3,000.00	0.0%	75.0%	9/15/2010	6/30/2011
RECON	P1253	PREPARATION OF THE SUBAREA PLAN	$ 270,853.00	$ -	$ 270,853.00	$ 161,861.61	0.0%	59.8%	3/28/2008	3/28/2011
TECHNOLOGY ASSOCIATES	Varies	CONSULTING SERVICES FOR JWA's NCCP	$ 34,625.25	$ -	$ 34,625.25	$ 28,731.52	0.0%	83.0%	4/5/2010	6/30/2012
WATER RESOURCES										
AECOM	P2481	MIDDLE SWEETWATER RIVER BASIN GROUNDWATER WELL PILOT PROJECT	$ 1,065,037.00	$ -	$ 1,065,037.00	$ 265,085.15	0.0%	24.9%	5/21/2009	5/31/2011
CAMP DRESSER & McKEE INC	P2451	BI-NATIONAL DESALINATION FEASIBILITY STUDY	$ 94,552.00	$ 18,005.00	$ 112,557.00	$ 98,577.34	19.0%	87.6%	3/19/2008	6/30/2011
CITY OF CHULA VISTA	R2093	WASTEWATER RECLAMATION FACILITY STUDY	$ 150,000.00	$ -	$ 150,000.00	$ 86,900.50	0.0%	57.9%	9/24/2009	2/28/2011
MICHAEL R. WELCH	P2481	ENGINEERING PLANNING SVCS.	$ 40,000.00	$ -	$ 40,000.00	$ 19,440.00	0.0%	48.6%	3/25/2009	6/30/2011
PUBLIC SERVICES										
AEGIS ENGINEERING MANAGEMENT	Varies	RECYCLED WATER PLAN CHECKING, RETROFIT, AND INSPECTION SERVICES FOR DEVELOPER PROJECTS	$ 300,000.00	$ -	$ 300,000.00	$ 143,947.09	0.0%	48.0%	1/20/2010	6/30/2012
AEGIS ENGINEERING MANAGEMENT	Varies	RECYCLED WATER PLAN CHECKING, RETROFIT, AND INSPECTION SERVICES FOR DEVELOPER PROJECTS	$ 300,000.00	$ -	$ 300,000.00	$ 4,407.50	0.0%	1.5%	11/3/2010	6/30/2013
		TOTALS:	$ 6,136,009.00	$ 204,115.00	$ 6,340,124.00	$ 3,359,021.18	3.3%			

Construction Contract Status

(through December 31, 2010)

CIP NO.	PROJECT TITLE	CONSTRUCTION CONTRACTOR	ORIGINAL CONTRACT AMOUNT	TOTAL CHANGE ORDERS	REVISED CONTRACT AMOUNT	TOTAL EARNED TO DATE	% OF CHANGE ORDERS *	% PROJECT COMPLETE	EST. COMP. DATE
P2009/ P2038	Jamacha Rd. 36-Inch Pipeline & 12-Inch Pipeline Replacement	CCL Contracting	$16,189,243	($1,781,299)	$14,407,944	$14,407,944	-11.00%	100%	September 2010
S2021	Jamacha Rd. 8-Inch Sewer Replacement	A.B. Hashmi	$91,320	($2,226)	$89,094	$89,094	-2.44%	100%	September 2010
P2490 & P2492	1296-1 & 1296-2 Reservoir Coating & Upgrades	West Coast Industrial	$690,000	$2,580	$692,580	$454,690	0.37%	66%	March 2011
	TOTALS:		***$16,970,563***	***($1,780,945)***	***$15,189,618***	***$14,951,728***	-10.49%		

Expenditures

(through December 31, 2010)

($000)

			FISCAL YEAR-TO-DATE, 12/31/10				LIFE-TO-DATE		
CIP No.	Description	Project Manager	FY 2011 Budget	Expenses	Balance	Expense to Budget %	Budget	Balance	Comments
	CAPITAL FACILITY PROJECTS								
P2009	PL - 36-Inch, SDCWA Otay FCF No. 14 to Regulatory Site	Ripperger	$ 2,200	$ 2,543	$ (343)	116%	$ 21,000	$ 1,517	Construction is complete; project close-out in process.
P2033	PL - 16-Inch, 1296 Zone, Melody Road - Campo/Presilla	Ripperger	-	-	-	0%	1,826	1,821	Developer driven.
P2038	PL - 12-Inch, 978 Zone, Hidden Mesa Road	Kay	130	30	100	23%	2,378	196	Construction complete (Part of P2009).
P2083	PS - 870-2 Pump Station Replacement (28,000 GPM)	Ripperger	50	-	50	0%	12,581	12,001	Moved to Phase III.
P2143	Res - 1296-3 Reservoir 2 MG	Kay	5	106	(101)	2120%	3,540	59	Construction complete.
P2172	PS - 1485-1 Pump Station Replacement	Ripperger	5	10	(5)	200%	2,495	26	Finalizing remaining easements.
P2191	Res - 850-4 Reservoir 2.2 MG	Kay	5	27	(22)	540%	3,410	(9)	Project complete.
P2267	36-Inch Main Pumpouts and Air/Vacuum Ventilation Installations	Munoz	-	-	-	0%	435	201	N/A
P2318	PL - 20-Inch, 657 Zone, Summit Cross-Tie and 36-Inch Main Connections	Cameron	100	2	98	2%	600	527	Preliminary design complete; begin design.
P2357	PS - 657-1/850-1 Pump Station Demolition	Kennedy	50	7	43	14%	300	293	In design; to be combined with P2471.
P2370	Res - Dorchester Reservoir and Pump Station Demolition	Kennedy	67	-	67	0%	150	137	In design; to be combined with P2471.
P2391	PS - Perdue WTP Pump Station (10,000 GPM)	Peasley	5	21	(16)	420%	11,900	11,854	Rosarito Desal project precludes the need for this project hence no expenditures are planned for FY 2011.
P2399	PL - 30-Inch, 980 Zone, 980 Reservoirs to Hunte Parkway	Silverman	200	67	133	34%	3,600	797	In design.
P2431	Res - 980-4 Reservoir 5 MG	Kay	5	-	5	0%	5,900	5,900	Moved to Phase III.
P2434	Rancho Del Rey Groundwater Well Development	Peasley	1,000	873	127	87%	4,250	2,111	The Board authorized execution of a professional services agreement and change order number one for engineering and development of the Rancho del Rey Groundwater monitoring and production well. Well drilling activities have been completed. AECOM has completed all the work and the AECOM contract is essentially complete as well.
P2451	Rosarito Desalination Facility Conveyance and Disinfection System	Kennedy	1,000	179	821	18%	30,000	29,346	FY-11 budget revised. Project on hold until fourth quarter FY-11.
P2466	Regional Training Facility	Coburn-Boyd	24	13	11	54%	252	3	This project budget has been expended; may be increased to cover some minor future expenses.
P2467	San Diego Formation Groundwater Feasibility Study	Peasley	600	-	600	0%	1,800	1,041	This project is jointly funded by SWA and Otay. The SDCWA awarded a LISA grant to SWA to fund up to 50% of the cost of the effort. Monitoring wells in the Otay River have been completed by USGS. Data gathering on well information within the San Diego Formation continues. Otay River participation agreement between SWA and Otay has been approved by the Board.

Expenditures
(Continued)
($000)

CIP No.	Description	Project Manager	FISCAL YEAR-TO-DATE, 12/31/10 FY 2011 Budget	Expenses	Balance	Expense to Budget %	LIFE-TO-DATE Budget	Balance	Comments
	CAFITAL FACILITY PROJECTS								
P2471	850/657 PRS at La Presa Pump Station	Silverman	240	7	233	3%	310	255	In design.
P2472	Water Supply Feasibility Studies	Peasley	30	-	30	0%	175	149	This project budget is for water supply feasibility study efforts. MWH completed the preparation a brief study including cost estimates for supply from the SWA Perdue WTP and the North District to South District Interconnection.
P2473	PS - 711-1 Pump Station Improvement	Kay	200	27	173	14%	500	428	Purchasing equipment.
P2474	Fuel Storage Covers and Containment	Kennedy	50	16	34	32%	120	83	PDR complete.
P2475	Pump Station Fire Hydrant Installations	Kennedy	45	10	35	22%	55	2	Project complete.
P2481	Middle Sweetwater River Basin Groundwater Well Feasibility	Peasley	50	33	17	66%	1,820	1,414	Groundwater development planning efforts have
P2488	Del Rio Road Helix and Otay Agency Interconnection	Kay	120	11	109	9%	150	78	Project awarded for Construction in January.
P2489	Gillispie Drive Helix and Otay Agency Interconnection	Kay	135	29	106	21%	150	91	Project awarded for Construction in January.
P2497	Solar Power Feasibility Study	Kennedy	150	10	140	7%	260	210	Preparing draft RFP for review.
P2502	803-1 Pump Station Modifications	Silverman	50	24	26	48%	200	176	PDR updated; HVAC design in process.
P2503	850-2 Pump Station Modifications	Silverman	150	32	118	21%	650	618	PDR updated; HVAC design in process.
P2510	Operations Yard Improvements	Kay	25	-	25	0%	370	370	PDR complete.
P2511	North District - South District Interconnection System	Silverman	800	146	654	18%	37,300	37,154	Project in preliminary design.
R2034	RecRes - 860-1 Reservoir 4 MG	Kay	200	-	200	0%	3,800	3,776	Project on hold.
R2048	RecPL - Otay Mesa Distribution Pipelines and Conversions	Kay	250	122	128	49%	2,200	2,006	In design.
R2058	RecPL - 16-Inch, 860 Zone, Airway Road - Otay Mesa/Alta	Kennedy	1,000	128	872	13%	3,500	2,431	Reimbursement Agreement will consume most of this budget.
R2077	RecPL - 24-Inch, 860 Zone, Alta Road - Alta Gate/Airway	Kennedy	1,750	92	1,658	5%	4,500	3,699	Reimbursement Agreement will consume most of this budget.
R2087	RecPL - 24-Inch, 927 Zone, Wueste Road - Olympic/Otay WTP	Kennedy	3,378	108	3,270	3%	7,000	6,175	Easement acquisition budget for the City of Chula Vista and the City of San Diego. Revise budget to $300 for FY11.
R2088	RecPL - 30-Inch, 860 Zone, County Jail - Roll Reservoir/860-1 Reservoir	Kennedy	240	6	234	3%	3,500	3,437	Revise Budget to $20K for FY-11.
R2091	RecPS - 927-1 Pump Station Upgrade (10,000 GPM) and System Enhancements	Ripperger	1,250	120	1,130	10%	3,950	3,582	90% design complete.
R2092	Dis - 450-1 Reservoir Disinfection Facility	Kay	2	(16)	18	-800%	742	3	In warranty.
R2093	MBR City of Chula Vista Feasibility Study	Peasley	120	100	20	83%	210	65	The City of Chula Vista City counsel and the Otay WD Board of Directors have approved the MBR participation agreement to focus on the treatment facility and related requirements. The City of Chula Vista awarded a consulting contract to RMC to accomplish the scope of work which is well underway. A draft report has been prepared and the City and Otay WD staffs have provided RMC with review comments.
R2094	Potable Irrigation Meters to Recycled Water Conversions	Charles	500	121	379	24%	3,100	1,760	On budget.
	Total Capital Facility Projects	Total:	16,161	5,004	11,177	31%	180,969	135,783	

Expenditures

(Continued)

($000)

CIP No.	Description	Project Manager	FISCAL YEAR-TO-DATE, 12/31/10 FY 2011 Budget	Expenses	Balance	Expense to Budget %	LIFE-TO-DATE Budget	Balance	Comments
	REPLACEMENT/RENEWAL PROJECTS								
P2366	APCD Engine Replacements and Retrofits	Rahders	442	1	441	0%	3,213	1,453	Pending board approval, planning $333,000 purchase in this category in March or April.
P2382	Safety and Security Improvements	Munoz	102	94	8	92%	1,635	227	Plan to spend the full amount.
P2416	SR-125 Utility Relocations	Kennedy	50	-	50	0%	963	49	GCR collecting from SBX.
P2440	I-905 Utility Relocations	Silverman	100	42	58	42%	1,600	36	95% construction complete.
P2453	SR-11 Utility Relocations	Kay	50	1	49	2%	155	151	CalTrans driven.
P2456	Air and Vacuum Valve Upgrades	Acuna	450	286	164	64%	2,722	384	On track.
P2458	AMR Manual Meter Replacement	Keeran	1,500	407	1,093	27%	10,448	8,024	On track.
P2477	Res - 624-1 Reservoir Cover Replacement	Kennedy	5	1	4	20%	450	422	On budget and on schedule.
P2484	Large Water Meter Replacement Program	Keeran	100	107	(7)	107%	535	307	On track.
P2485	SCADA Communication System and Software Replacement	Stalker	350	51	299	15%	1,326	992	Plan to spend the full amount.
P2486	Asset Management Plan Condition Assessment and Data Acquisition	Stevens	600	140	460	23%	1,150	775	Plan to spend the full amount.
P2490	1296-1 Reservoir Interior/Exterior Coating	Kay	240	98	142	41%	350	192	Project under construction.
P2491	850-3 Reservoir Exterior Coating	Kay	10	1	9	10%	300	298	Project to be done in FY-12.
P2492	1296-2 Reservoir Interior/Exterior Coating	Kay	440	368	72	84%	560	30	Project in construction.
P2493	624-2 Reservoir Interior Coating	Kay	5	-	5	0%	950	949	Project to be done in FY-12.
P2494	Multiple Species Conservation Plan	Coburn-Boyd	170	123	47	72%	830	166	This budget will be spent this fiscal year.
P2495	San Miguel Habitat Management/Mitigation Area	Coburn-Boyd	250	104	146	42%	1,725	1,343	This budget will be spent this fiscal year.
P2496	Otay Lakes Road Utility Relocations	Kay	195	18	177	9%	250	133	Project under construction.
P2504	Regulatory Site Access Road and Pipeline Relocation	Cameron	200	1	199	1%	600	599	Developer driven.
P2505	657-1 Reservoir Interior/Exterior Coating	Cameron	325	26	299	8%	375	349	Award complete, Construction starts Q3.
P2506	657-2 Reservoir Interior/Exterior Coating	Cameron	325	22	303	7%	375	353	Award complete, Construction starts Q3.
P2507	East Palomar Street Utility Relocation	Cameron	20	7	13	35%	500	493	CalTrans driven.
P2508	Pipeline Cathodic Protection Replacement Program	Kennedy	50	-	50	0%	150	150	Selection for Cathodic As-Needed consultant required to start.
P2509	R.J. Donovan Prison Water Meter Upgrade	Ripperger	-	-	-	0%	60	60	No funding in this FY. Part of Ops budget. Meter will be replaced next quarter.
R2096	RWCWRF - Upgrades and Modifications	Coburn-Boyd	1,200	232	968	19%	2,500	2,028	The project schedule has changed so that not all of the projected budget will be spent this fiscal year.
S2012	SVSD Outfall and RSD Replacement and OM Reimbursement	Peasley	642	1	641	0%	4,392	3,798	The SVSD expenditures are typically billed by SVSD and paid within the fourth quarter of the fiscal year.
S2019	Avocado Boulevard 8-inch Sewer Main Improvement	Cameron	1,515	95	1,420	6%	1,730	1,491	Design complete; acquiring easements.
S2020	Calavo Drive 8-Inch Sewer Main Replacement	Cameron	360	6	354	2%	420	378	Design complete; acquiring easements.
S2021	Jamacha Road 8-Inch Sewer Main Replacement	Kay	40	109	(69)	273%	160	4	Project complete.
S2022	Hidden Mesa Drive 8-Inch Sewer Main Rehabilitation	Cameron	120	5	115	4%	150	132	Design complete; acquiring easements.
S2023	Calavo Drive Sewer Main Utility Relocation	Cameron	50	2	48	4%	65	54	County of San Diego driven.
S2024	Campo Road Sewer Main Replacement	Cameron	75	2	73	3%	3,250	3,248	To be assessed in the Sewer Master Plan.
S2025	Wieghorst Way Sewer Main Replacement	Cameron	25	12	13	48%	175	163	County Project.
	Total Replacement/Renewal Projects	Total:	10,006	2,362	7,644	24%	44,053	27,231	

Expenditures
(Continued)
($000)

			FISCAL YEAR-TO-DATE, 12/31/10				LIFE-TO-DATE		
CIP No.	Description	Project Manager	FY 2011 Budget	Expenses	Balance	Expense to Budget %	Budget	Balance	Comments
	CAPITAL PURCHASE PROJECTS								
P2282	Vehicle Capital Purchases	Rahders	540	79	461	15%	4,945	2,862	Currently $252,847 encumbered against account awaiting delivery of vehicles.
P2285	Office Equipment and Furniture Capital Purchases	Dobrawa	-	-	-	0%	481	42	N/A
P2286	Field Equipment Capital Purchases	Rahders	201	109	92	54%	1,527	680	Plan 100% expense in this category.
P2443	Information Technology Mobile Services	Jenkins	250	40	210	16%	1,552	664	Plan to spend the full amount by year end.
P2461	Records Management System Upgrade	Stevens	150	-	150	0%	406	201	Plan to spend the full amount by year end.
P2469	Information Technology Network and Hardware	Jenkins	300	132	168	44%	1,921	1,052	Plan to spend the full amount by year end.
P2470	Application Systems Development and Integration	Stevens	408	180	228	44%	2,218	1,252	Plan to spend the full amount by year end.
P2501	Telecommunications Equipment Upgrade	Jenkins	400	116	284	29%	400	284	Plan to spend the full amount by year end.
	Total Capital Purchase Projects	Total:	2,249	656	1,593	29%	13,450	7,037	
	DEVELOPER REIMBURSEMENT PROJECTS								
P2104	PL - 12-Inch, 711 Zone, La Media Road - Birch/Rock Mountain	Charles	-	-	-	0%	833	833	N/A
P2107	PL - 12-Inch, 711 Zone, Rock Mountain Road - La Media/SR 125	Charles	-	-	-	0%	722	722	N/A
P2325	PL - 10" to 12" Oversize, 1296 Zone, PB Road - Rolling Hills Hydro PS/PB Bndy	Charles	1	-	1	0%	50	50	Awaiting Developer's request for reimbursement.
P2402	PL - 12-Inch, 624 Zone, La Media Road - Village 7/Otay Valley	Charles	-	-	-	0%	444	444	N/A
P2403	PL - 12-Inch, 624 Zone, Heritage Road - Olympic/Otay Valley	Charles	-	-	-	0%	925	925	N/A
R2028	RecPL - 8-Inch, 680 Zone, Heritage Road - Santa Victoria/Otay Valley	Charles	-	-	-	0%	600	600	N/A
R2042	RecPL - 8-Inch, 927 Zone, Rock Mountain Road - SR-125/EastLake	Charles	-	-	-	0%	140	140	N/A
R2047	RecPL - 12-Inch, 680 Zone, La Media Road - Birch/Rock Mountain	Charles	-	-	-	0%	450	450	N/A
R2082	RecPL - 24-Inch, 680 Zone, Olympic Parkway - Village 2/Heritage	Charles	5	-	5	0%	1,747	1,747	Awaiting Developer's request for reimbursement.
R2083	RecPL - 20-Inch, 680 Zone, Heritage Road - Village 2/Olympic	Charles	5	-	5	0%	400	400	Awaiting Developer's request for reimbursement.
R2084	RecPL - 20-Inch, 680 Zone, Village 2 - Heritage/La Media	Charles	1	-	1	0%	971	970	Awaiting Developer's request for reimbursement.
R2085	RecPL - 20-Inch, 680 Zone, La Media - State/Olympic	Charles	-	-	-	0%	600	600	N/A
	Total Developer Reimbursement Projects	Total:	12	-	12	0%	7,882	7,881	
	GRAND TOTAL		$ 28,448	$ 8,022	$ 20,426	28%	$ 248,354	$ 177,932	