

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

THURSDAY
February 16, 2012
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. APPROVE CHANGE ORDER NO. 1 TO THE EXISTING CONTRACT WITH NEWest CONSTRUCTION, INC. FOR THE RALPH W. CHAPMAN WATER RECLAMATION FACILITY UPGRADE PROJECT, IN AN AMOUNT NOT-TO-EXCEED \$17,896 (KAY) [5 minutes]
4. AWARD A CONSTRUCTION CONTRACT TO SEPULVEDA CONSTRUCTION FOR THE 30-INCH POTABLE WATER PIPELINE IN HUNTE PARKWAY IN AN AMOUNT NOT-TO-EXCEED \$1,212,257.13 (KAY) [5 minutes]
5. AWARD A CONSTRUCTION CONTRACT TO ADVANCED INDUSTRIAL SERVICES, INC. (AIS) AND AUTHORIZE AN AGREEMENT WITH AIS FOR THE 850-3 RESERVOIR EXTERIOR COATING AND UPGRADES PROJECT IN AN AMOUNT NOT-TO-EXCEED \$293,300 (CAMERON) [5 minutes]
6. APPROVE THE WATER SUPPLY ASSESSMENT REPORT DATED JANUARY 2012 FOR THE HAWANO PROJECT (KENNEDY) [5 minutes]
7. UPDATE ON THE 2ND QUARTER OF FISCAL YEAR 2012 CAPITAL IMPROVEMENT PROGRAM REPORT (KAY) [5 minutes]
8. SAN DIEGO COUNTY WATER AUTHORITY UPDATE (WATTON) [10 minutes]

9. ADJOURNMENT

BOARD MEMBERS ATTENDING:

Gary Croucher, Chair
Jose Lopez

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 10, 2012 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 10, 2012.

Susan Cruz, District Secretary

AGENDA ITEM 3



STAFF REPORT

TYPE MEETING:	Regular Board	MEETING DATE:	March 7, 2012
	Daniel Kay Associate Civil Engineer	PROJECT:	R2096- DIV. NO. 3 001103
SUBMITTED BY:	Ron Ripperger Engineering Manager		
APPROVED BY:	<input checked="" type="checkbox"/> Rod Posada, Chief of Engineering <input checked="" type="checkbox"/> Manny Magana, Asst. GM, Engineering and Operations <input checked="" type="checkbox"/> Joe Beachem, Chief Financial Officer <input checked="" type="checkbox"/> Mark Watton, General Manager		
SUBJECT:	Change Order No. 1 to the Contract with NEWest Construction for the Ralph W. Chapman Water Reclamation Facility Upgrades Project		

GENERAL MANAGER'S RECOMMENDATION:

That the Otay Water District (District) Board of Directors (Board) approves Change Order No. 1 to the existing contract with NEWest Construction Inc. (NEWest) for the Ralph W. Chapman Water Reclamation Facility (RWCWRF) Upgrade Project, in an amount not-to-exceed \$17,896 (see Exhibit A for Project location).

COMMITTEE ACTION:

Please see Attachment A.

PURPOSE:

To obtain Board authorization for the General Manager to execute Change Order No. 1 in an amount not-to-exceed \$17,896 to the contract with NEWest for the RWCWRF Upgrade Project.

ANALYSIS:

At the July 15, 2011 Board Meeting the Board awarded a construction contract to NEWest Construction for the RWCWRF Upgrades Project. The

RWCWRF Upgrades Project consists of several main components. The first is the modification of the treatment process at the facility to improve the reduction of total nitrogen in the treatment plant effluent. The second component is the upgrade of the facility's blowers and aeration piping. The third component is the enhancement of the level of automation at the facility. The fourth and final component of the Project is the replacement of the damaged filter backwash storage reservoir floating cover at the facility.

Change Order No. 1 (Exhibit B) includes a variety of items including time and materials for unknown utilities, a credit for value engineering on the high speed blowers, revisions to the scope of work based on Requests for Information (RFI) from NEWest, and a credit to the Dewatering Allowance Bid item as it will not be used for this contract. Staff and the District's construction manager, SAIC, reviewed, negotiated and agreed to the costs included in this Change Order pending Board approval.

The following is a table summarizing the value of each item. The "General Location" (Exhibit A) column depicts the general location for each item as shown in Exhibit A:

Item	Description	General Location (Exhibit A)	Amount
1	Removal of Unknown Concrete Encased Utility	3	\$24,500
2	Slurry Backfill for Additional Duct Bank Utility	3	\$7,235
3	Additional Bolts to Redwood Planks that Interface with the Concrete Basin	4 & 5	\$12,098
4	Additional Work Due to Geotechnical Recommendations on Air Scour Pad	7	\$8,865
5	Revised Conduit Run from Motor Control Building to Motor Control Center	Not Shown	\$19,082
6	Value Engineering Credit for High Speed Blowers	2	<\$57,194>
7	Revised Stainless Steel Cables	4 & 5	\$8,310
8	Dewatering Allowance Item Credit	Not Shown	<\$5,000>
	TOTAL		\$17,896

Change Order No. 1 is a net increase to NEWests' contract by \$17,896.

There is still \$145,000 worth of Allowance Items available in the contract for remaining work that may be required during the shutdown period. The shutdown is scheduled to be three months (February 1st -

April 30th) and if field conditions warrant, the Allowance Items will be used at that time.

FISCAL IMPACT:

The total budget for CIP R2096, as approved in the FY 2012 budget, is \$4,950,000. Total expenditures, plus outstanding commitments and forecast, are \$4,934,266.

Based on a review of the financial budget, the Project Manager has determined that the budget is sufficient to support the project. See Attachment B for budget detail.

Finance has determined that 100% of the funding is available from the Replacement Fund for CIP R2096.

STRATEGIC GOAL:

This Project supports the District's Mission statement, "To provide customers with the best quality water, wastewater, and recycled water service in a professional, effective, and efficient manner."

LEGAL IMPACT:

None.

DK/RR:jf

P:\WORKING\CIP R2096 - RWCWRF Upgrade Project\Staff Reports\NEWest Change Order No. 1 Staff Report\BD-3-07-2012 Change Order No. 1 to NEWest Construction (DK-RR).docx

- Attachments: Attachment A - Committee Action
Attachment B - Budget Detail
Exhibit A - Location Map
Exhibit B - Change Order No. 1



ATTACHMENT A

SUBJECT/PROJECT: R2096-001103	Change Order No. 1 to the Contract with NEWest Construction for the Ralph W. Chapman Water Reclamation Facility Upgrades Project
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COMMITTEE ACTION:

The Engineering, Operations, and Water Resources Committee reviewed this item at a meeting held on February 16, 2012. 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.

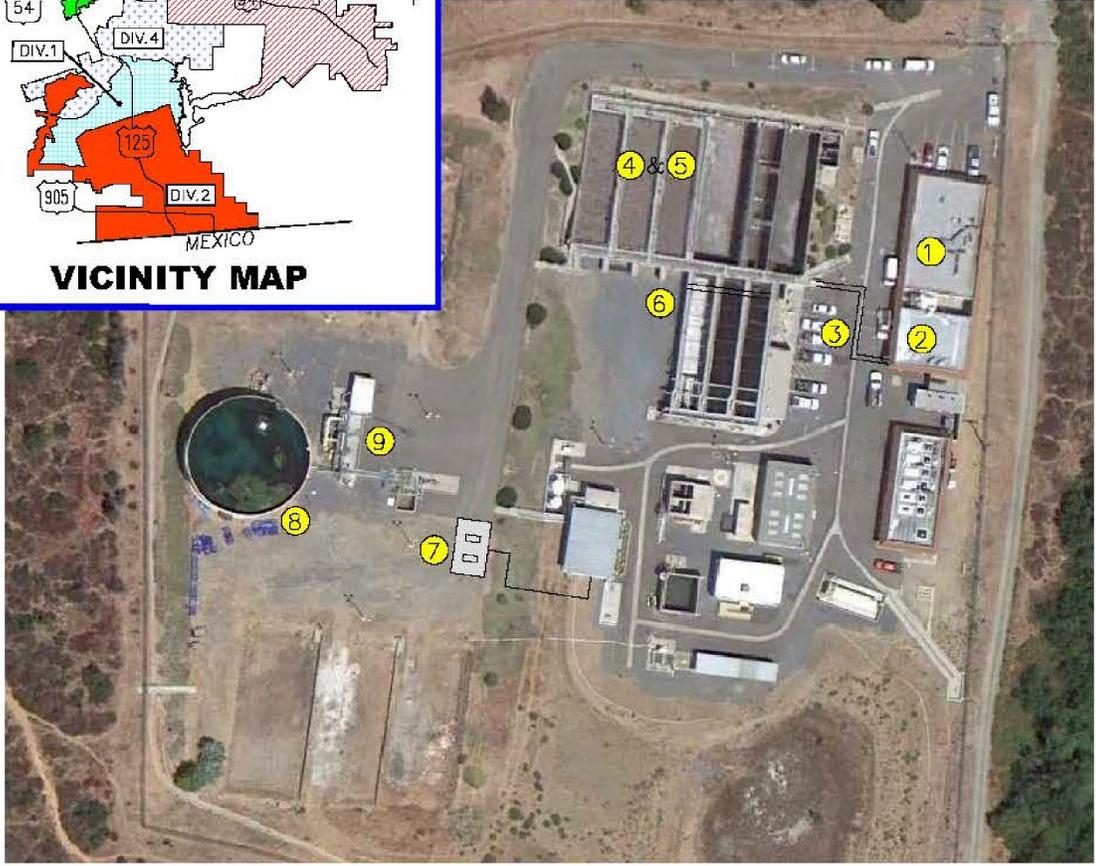
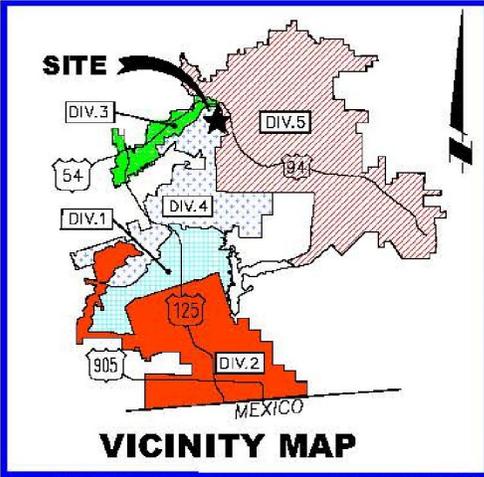


ATTACHMENT B

SUBJECT/PROJECT:	Change Order No. 1 to the Contract with NEWest Construction for the Ralph W. Chapman Water Reclamation Facility Upgrades Project
R2096-001103	

Otay Water District					Date Updated: January 17, 2012
r2096 - RWCWRF - Upgrades and Modifications					
Budget	Committed	Expenditures	Outstanding Commitment & Forecast	Projected Final Cost	Vendor/Comments
4,950,000					
Planning					
Add subprojects					
Labor	76,056	76,056		76,056	
Professional Legal Fees	4,916	4,916	-	4,916	STUTZ ARTIANO SHINOFF
	603	603	-	603	GARCIA CALDERON & RUIZ LLP
Regulatory Agency Fees	50	50	-	50	PETTY CASH CUSTODIAN
Consultant Contracts	325,846	325,846	-	325,846	MWH AMERICAS INC
	12,775	12,775	-	12,775	MWH CONSTRUCTORS INC
	678	678	-	678	US BANK CORPORATE PAYMENT
Service Contracts	10,860	10,860	-	10,860	E S BABCOCK & SONS INC
	250	250	-	250	UNION TRIBUNE PUBLISHING CO
	68	68	-	68	SAN DIEGO DAILY TRANSCRIPT
Infrastructure Equipment & Mat	3,030	2,984	46	3,030	WALTERS WHOLESALE ELECTRIC CO
Total Planning	435,133	435,088	46	435,133	
Design					
Labor	98,170	98,170		98,170	
Mileage Reimbursement	16	16	-	16	PETTY CASH CUSTODIAN
Consultant Contracts	245,661	239,278	6,383	245,661	MWH AMERICAS INC
	3,500	3,500	-	3,500	MWH CONSTRUCTORS INC
	8,470	8,470	-	8,470	MTGL INC
	4,209	4,209	-	4,209	WRA & ASSOCIATES INC
	580	580	-	580	VALLEY CONSTRUCTION MANAGEMENT
	499	499	-	499	SCHIFF ASSOCIATES
Service Contracts	4,395	4,395	-	4,395	MAYER REPROGRAPHICS INC
	2,400	2,400	-	2,400	PHOTO GEODETIC CORPORATION
	708	708	-	708	SAN DIEGO UNION-TRIBUNE LLC
	227	227	-	227	SAN DIEGO DAILY TRANSCRIPT
Total Design	368,835	362,452	6,383	368,835	
Construction					
Labor	125,000	74,907	50,093	125,000	
Rents and Leases	5,557	5,557	-	5,557	EQUIPCO SALES & SERVICE
Professional legal fees	354	354	-	354	STUTZ ARTIANO SHINOFF
Consultant Contracts	359,013	118,227	240,787	359,013	SAIC ENERGY ENVIRONMENT &
	4,060	4,060	-	4,060	VALLEY CONSTRUCTION MANAGEMENT
Construction Contracts	3,149,100	341,271	2,807,829	3,149,100	NEWEST CONSTRUCTION
Change Order No. 1	17,896	-	17,896	17,896	CHANGE ORDER NO. 1 NEWEST
	349,900	37,919	311,981	349,900	CALIFORNIA BANK & TRUST
	13,039	13,039	-	13,039	MWH AMERICAS, PENHALL,
Service Contracts	4,272	4,272	-	4,272	SOUTHERN CAL TELECOM
	223	180	43	223	BARRETT ENGINEERED PUMPS
Infrastructure Equipment & Mat	21,480	21,480	-	21,480	RW LITTLE CO INC
	13,006	12,166	840	13,006	D & H WATER SYSTEMS INC
	10,444	10,444	-	10,444	FERGUSON WATERWORKS # 1083
	8,586	8,586	-	8,586	FLOMAX PRODUCTS INC
	7,907	7,907	-	7,907	MOORE INDUSTRIES-INTRNTL INC
	6,572	6,572	-	6,572	MOVE EXP FR S2018 TO R2096
	3,890	3,863	27	3,890	ROTORK CONTROLS INC
	3,376	3,376	-	3,376	GRAINGER INC
	3,150	3,150	-	3,150	WALTERS WHOLESALE ELECTRIC CO
	1,834	1,834	-	1,834	MCCROMETER INC
	1,733	1,681	52	1,733	F & L INDUSTRIAL SOLUTIONS INC
	1,401	1,300	101	1,401	MCMASTER-CARR SUPPLY CO
	853	842	11	853	RW LITTLE CO INC
	566	-	566	566	ONESOURCE DISTRIBUTORS LLC
	434	434	-	434	HD SUPPLY WATERWORKS LTD
	239	225	13	239	EQUIPCO SALES & SERVICE
	179	179	-	179	NEWARK
Inventory	4,985	4,985	-	4,985	UNITED RENTALS NORTHWEST INC
Contracted Services	1,248	1,105	143	1,248	INVENTORY
Closeout	10,000	-	10,000	10,000	RW LITTLE CO INC
					CLOSEOUT
Total Construction	4,130,298	689,917	3,440,381	4,130,298	
Grand Total	4,934,266	1,487,457	3,446,810	4,934,266	

P:\WORKING\R2096-RWCWRF UPGRADE PROJECT\GRAPHICS\EXHIBITS-FIGURES\1-25-12-RWCWRF SITE EXHIBIT A



LEGEND

- ① SCADA SYSTEM IMPROVEMENTS
- ② NEW TURBO BLOWERS (3) FOR AERATION SYSTEM
- ③ NEW PIPING FROM BLOWERS TO AERATION BASINS
- ④ AERATION BASIN UPGRADES FOR NITROGEN REMOVAL
- ⑤ NEW PARKSON AERATION PANELS IN BASINS
- ⑥ SEDIMENTATION TANKS SKIMMER REPLACEMENT
- ⑦ NEW AIR SCOUR FACILITY & PIPING FOR TERTIARY FILTERS
- ⑧ NEW FLOATING COVER FOR FILTER WATER STORAGE TANK
- ⑨ GRIT CHAMBER ENHANCEMENT



OTAY WATER DISTRICT

RALPH W. CHAPMAN WATER RECLAMATION
FACILITY UPGRADE PROJECT

CIP# R2096

EXHIBIT A

EXHIBIT B

OTAY WATER DISTRICT
2554 SWEETWATER SPRINGS BLVD., SPRING VALLEY, CA. 91978, (619) 670-2222

CONTRACT/P.O. CHANGE ORDER No. 1

PROJECT/ITEM: RWCWRF Upgrade Project
CONTRACTOR/VENDOR: NEWest Construction Company, Inc. REF.CIP No.: R2096
APPROVED BY: Board REF. P.O. No: 714949 & 715213 DATE: 1/23/12

DESCRIPTION:

There are eight (8) items as part of this change order resulting in a net increase of \$17,896.00

- Item 1 – Hand chip and remove the previously unknown concrete encasement/slurry around the existing air pipe approximately from station 0+00 to 0+89.29.
 - Item 2 – Slurry backfill FRP located below asphalt approximately from station 1+67 to 1+25 as shown on C-5.
 - Item 3 – Install additional bolts to redwood planks at the interface with the concrete basin per RFI 20 response.
 - Item 4 – Perform work as described in RFI 45 (Revised) and the recommendations of the geotechnical reports dated May 20, 2011 with the exception of the 4- inch sewer line.
 - Item 5 – Provide and install a second 2-inch conduit with the same routing as shown in the response to RFI 52. The existing conduit shall be abandoned.
 - Item 6 – Procure and install revised blowers, VFDs and control equipment for the Air Scour Blower system per project correspondence.
 - Item 7 – Procure and install revised stainless steel support cables per response to RFI No.3.
 - Item 8 – Delete Bid Item Number 21 – Dewatering Allowance.
-

REASON:

Item 1 – Drawing C-4 does not show the existing air pipe to be backfilled with concrete slurry and therefore required extensive and slow hand chipping and removal of the slurry to prevent from damaging the nearby chlorine lines and the adjacent air piping which could result in unplanned shutdown of the treatment plant. This item results in a cost of \$24,500.

Item 2 – Drawing C-5 shows the 8-inch air line from existing connection to new air scour location; however, there is an existing electrical duct bank that runs the length of the new trench. From the top of the electric duct bank to finish grade is approximately 2 feet. Via response to RFI 29, the airline shall run on top of the duct bank with structural encasement. This item results in a cost of \$7,235.

Item 3 – Detail 2 on Drawing 1S-1 and Detail 6 on Drawing 1S-2 shows one L bracket, which indicates there is no connection to the L bracket near each wall at every other plank. Per the response to RFI 20, the contractor shall provide on bolted connection for each plank to L3x3 at concrete walls and a bolted connection to every other plank at HSS 5x7 columns where 1/4x3 plates are on each side of plank. This item results in a cost of \$12,098.

Item 4 – The location of the new Filter Backwash Blower Building has been revised since MTGL performed their geotechnical investigation and presented their findings and recommendations in a report dated November 3, 2010. The new location is underlain by approximately 13 feet of existing fill with the upper layer at variable densities. MTGL provided the following recommendations in light of the new location: provide a depth of at least 5 feet removal and recompaction of the existing soil at the new location, install a layer of geogrid, Tensar BX1200 or equivalent, at the bottom of the removal, the lateral limit of grading should extend a minimum of 5 feet beyond the footprint of the mat foundation, and soil should be recompacted to at least 95 per cent relative compaction. In the response to RFI 45, the contractor was directed to perform the recommendations listed in MTGL's report dated May 20, 2011 with the exception of relocating the existing 4-inch sewer line. Also, as discussed in the field and as shown on the attached sketch, the air scour pad should be shifted approximately 5 feet south and 5 feet west so no compaction and excavation conflicts exist with performing the recommendation of the geotechnical report. This item results in a cost of \$8,865.

Item 5 - The Contractor submitted RFI 52 requesting clarification of the conduit routing to be used to install a new 2-inch conduit from the MCB to MCC-F. The response to RFI 52 included a revised conduit run, which was different than that specified on Drawing E-1 resulting in different conduit lengths which could result in unbalanced parallel circuit loads and possible equipment damage. Therefore, to mitigate this risk an additional 2-inch conduit and conductor is to be installed and the existing conduit will be available as a spare independent circuit. This item results in a cost of \$19,082

Item 6 – After extensive review by the equipment supplier, the contractor, and operations staff, it was determined that an alternative to the equipment and control systems specified in contract documents could be used to satisfy the required operating parameters of the Air Scour blower system while resulting in a savings to the district. This item results in a credit of <\$57,194>.

Item 7 – The contractor submittal RFI 3 indicating the original stainless steel cable specified by contract documents would not allow for the needed bending radius. The designer agreed and specified a substitute cable requiring a larger diameter. This item results in a cost of \$8,310

Item 8 – The contractor has not encountered ground water for any excavation, therefore this allowance item is no longer needed. This item results in a credit of <\$5,000>.

Summary – This change order reflects eight items (six cost and two credit items) resulting in a net increase to the contract in the amount of \$17,896.00.

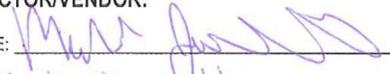
CHANGE P.O. TO READ:

There are two (2) Purchase Orders for this contract. One for NEWest (PO#714949) and retention account for California Bank & Trust (PO#715213). Revise the Purchase Orders as follows:
 PO#714949: Revise Contract to add \$16,106.40 for a total Contract amount of \$3,165,206.40
 PO#715213: Revise Contract to add \$1,789.60 for a total Contract amount of \$351,689.60

ORIGINAL CONTRACT/P.O. AMOUNT:	\$	\$3,499,000.00
ADJUSTED AMOUNT FROM PREVIOUS CHANGE:	\$	0.00
TOTAL COST OF THIS CHANGE ORDER:	\$	17,896.00
NEW CONTRACT/P.O. AMOUNT IS:	\$	\$3,516,896.00
ORIGINAL CONTRACT COMPLETION DATE:		May 31, 2012
CONTRACT/P.O. TIME AFFECTED BY THIS CHANGE:		No
REVISED CONTRACT COMPLETION DATE:		May 31, 2012

IT IS UNDERSTOOD WITH THE FOLLOWING APPROVALS, THAT THE CONTRACTOR/VENDOR IS AUTHORIZED AND DIRECTED TO MAKE THE HEREIN DESCRIBED CHANGES. IT IS ALSO AGREED THAT THE TOTAL COST FOR THIS CHANGE ORDER CONSTITUTES FULL AND COMPLETE COMPENSATION FOR OBLIGATIONS REQUIRED BY THE CONTRACT/P.O. ALL OTHER PROVISIONS AND REQUIREMENTS OF THE CONTRACT/P.O. REMAIN IN FULL FORCE AND EFFECT.

CONTRACTOR/VENDOR:

SIGNATURE: 
 NAME: Mark Jenette
 TITLE: Project Manager DATE: 2/6/12
 COMPANY & ADDRESS: NEWest Construction
7847 Dunbrook Rd. Ste C
San Diego, CA 92126

STAFF APPROVALS:

PROJ. MGR: _____ DATE: _____
 DIV. MGR: _____ DATE: _____
 CHIEF: _____ DATE: _____
 ASST. GM: _____ DATE: _____

DISTRICT APPROVAL:

GEN. MANAGER: _____ DATE: _____

COPIES: FILE (Orig.), CONTRACTOR/VENDOR, CHIEF-ENGINEERING, CHIEF-FINANCE, ENGR. MGR.
 ACCTS PAYABLE, INSPECTION, PROJ. MGR., ENGR. SECRETARY, PURCHASING, PROJECT BINDER

CHANGE ORDER LOG

CIP Title - RWCWRF Upgrades

Consultant/Contractor: NEWest Construction

Project: R2096
Subproject: 001103

C.O.	AMOUNT	APPROVED		DESCRIPTION	TYPE C.O.
		BY	DATE		
1	\$17,896.00	GM		Concrete Encasement Removal, Slurry Backfill FRP, Additional Bolts & Planks for Concrete Basin, Overexcavate Filter Backwash Blower Facility Pad, Additional Conduit from MCB to MCC, VE Credit for Blowers, Stainless Steel Support Cables, Deletion of Allowance Item No. 21- Dewatering	Owner Initiated
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
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31					
32					
33					
34					
35					

Total C.O.'s To Date: \$17,896.00 0.5%

Original Contract Amount: \$3,499,000.00

Current Contract Amount: \$3,516,896.00

Month	Net C.O.\$	Limit	Authorization	Absolute C.O.\$	C.O. %
2/12	\$17,896.00	\$2,000	Insp		0.0%
		\$5,000	PM/Sr. Engr.		0.0%
		\$10,000	DivM		0.0%
		\$15,000	Chief		0.0%
		\$25,000	AGM		0.0%
		\$50,000	GM		0.0%
		>\$50000	Board	\$17,896.00	0.5%



STAFF REPORT

TYPE MEETING:	Regular Board	MEETING DATE:	March 7, 2012
	Daniel Kay Associate Civil Engineer	PROJECT:	P2514- DIV. NO. 5 001103
SUBMITTED BY:	Ron Ripperger Engineering Manager		
APPROVED BY:	<input checked="" type="checkbox"/> Rod Posada, Chief of Engineering <input checked="" type="checkbox"/> Manny Magana, Asst. GM, Engineering and Operations <input checked="" type="checkbox"/> Joe Beachem, Chief Financial Officer <input checked="" type="checkbox"/> Mark Watton, General Manager		
SUBJECT:	Award of a Construction Contract to Sepulveda Construction for the 30-Inch Potable Water Pipeline in Hunte Parkway		

GENERAL MANAGER'S RECOMMENDATION:

That the Otay Water District (District) Board of Directors (Board) awards a construction contract to Sepulveda Construction (Sepulveda) for the 30-Inch Potable Water Pipeline in Hunte Parkway in an amount not-to-exceed \$1,212,257.13 (see Exhibit A for Project location).

COMMITTEE ACTION:

Please see Attachment A.

PURPOSE:

To obtain Board authorization for the General Manager to enter into a construction contract with Sepulveda in an amount not-to-exceed \$1,212,257.13 for the 30-Inch Potable Water Pipeline in Hunte Parkway.

ANALYSIS:

The 2010 Water Resources Master Plan identified the need to install a new pipeline in Hunte Parkway from Proctor Valley Road to the entrance of the District's Use Area. This pipeline is needed to eliminate high head losses experienced during the morning peak demand periods in the existing 980 Pressure Zone. The pipeline will be installed parallel to the existing 20-Inch 980 Pipeline in Hunte Parkway and will also eliminate the low pressures currently experienced in the 980 Zone.

This Project was previously bid in November 2011 and at the January 4, 2012 Board meeting the Board rejected all bids. The Project was re-advertised for bid on January 6, 2012. Two pre-bid meetings were held on January 17, 2012, and January 19, 2012 which were attended by a total of eight (8) contractors. Two (2) addenda were sent out to all bidders and plan houses to address contractors' questions asked during the bidding period. Staff contacted several contractors during the bid process to encourage them to submit a bid for the Project.

Six (6) bids were received on February 2, 2012. The table below provides the bid results:

<u>CONTRACTOR</u>	<u>TOTAL BID AMOUNT</u>	<u>CORRECTED BID AMOUNT</u>
1. Sepulveda Construction	\$1,212,625.34	\$1,212,257.13
2. TC Construction	\$1,240,000.00	
3. Basile Construction Inc.	\$1,275,700.00	
4. Garcia Juarez Construction Inc.	\$1,287,075.00	
5. CCL Contracting Inc.	\$1,368,954.00	
6. Kennedy Pipeline Company	\$1,401,312.00	

The Engineer's Estimate is \$1,250,000. The low bid submitted by Sepulveda came in \$53,843.87 less than the original low bid in November.

The evaluation process included reviewing all bids submitted for conformance to the contract documents. The lowest bidder, Sepulveda, submitted a responsible bid and holds a Class A Contractor's license which expires on July 31, 2012. Staff checked the references provided with Sepulveda's bid. The references indicated that Sepulveda is a new company and has used multiple project managers on

recent projects including the District's 944-1R Recycled Water Pump Station Upgrades and System Enhancements Project. Sepulveda's performance on this project has been adequate and they are on schedule to complete the project in May. The principals/owners of Sepulveda have previous experience with heavy civil construction for water and wastewater projects throughout southern California prior to working with Sepulveda. The proposed project manager has experience throughout southern California on similar projects and received good references. A background search of the company was performed on the internet and revealed no outstanding issues with this company.

Staff has verified that the bid bond provided by First National Insurance Company of America is valid. Once Sepulveda signs the contract, they will furnish the performance bond and labor and materials bond. Staff will verify both bonds prior to executing the contract.

FISCAL IMPACT:

The total budget for CIP P2514, as approved in the FY 2012 budget, is \$1,500,000. Total expenditures, plus outstanding commitments and forecast, are \$1,475,814.

Based on a review of the financial budget, the Project Manager anticipates that the budget is sufficient to support the project. See Attachment B for budget detail.

Finance has determined that 100% of the funding is available from the Expansion Fund for CIP P2514.

STRATEGIC GOAL:

This Project supports the District's Mission statement, "To provide customers with the best quality water, wastewater, and recycled water service in a professional, effective, and efficient manner."

LEGAL IMPACT:

None.

DK/RR:jf

P:\WORKING\CIP P2514\Staff Reports\BD-3-07-2012 Staff Report Hunte Parkway 30-Inch Pipeline.docx

Attachments: Attachment A - Committee Action
Attachment B - Budget Detail
Exhibit A - Location Map



ATTACHMENT A

SUBJECT/PROJECT: P2514-001103	Award of a Construction Contract to Sepulveda Construction for the 30-Inch Potable Water Pipeline in Hunte Parkway
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COMMITTEE ACTION:

The Engineering, Operations, and Water Resources Committee reviewed this item at a meeting held on February 16, 2012. The Committee supported Staff's recommendation.

NOTE:

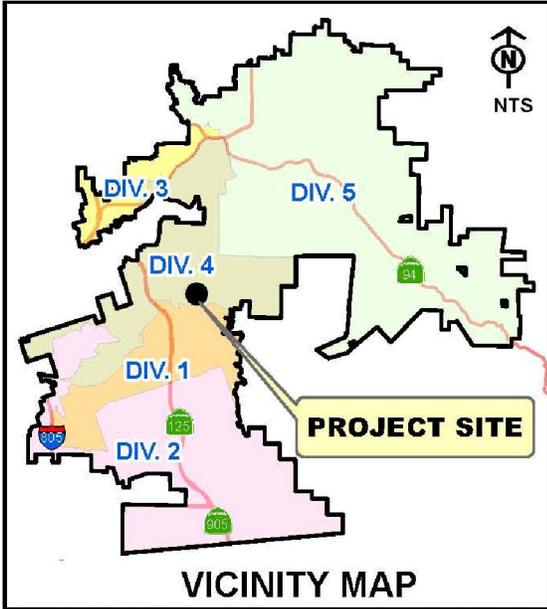
The "Committee Action" is written in anticipation of the Committee moving the item forward for Board approval. This report will be sent to the Board as a Committee approved item, or modified to reflect any discussion or changes as directed from the Committee prior to presentation to the full Board.



ATTACHMENT B

SUBJECT/PROJECT: P2514-001103	Award of a Construction Contract to Sepulveda Construction for the 30-Inch Potable Water Pipeline in Hunte Parkway
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Otay Water District					Date Updated: January 17, 2012
P2514 - PL-30-Inch, 980 Zone, Hunte Pkwy - Proct					
<i>Budget</i>	<i>Committed</i>	<i>Expenditures</i>	<i>Outstanding Commitment & Forecast</i>	<i>Projected Final Cost</i>	<i>Vendor/Comments</i>
1,500,000					
Planning					
Addl subprojects					
Labor	974	974		974	
Settlements	1,080	1,080	-	1,080	ROLLING HILLS RANCH COMM ASSN
Consultant Contracts	9,000	4,000	5,000	9,000	JAMES NAUGHTON JR, MAI
Service Contracts	295	295	-	295	SAN DIEGO UNION-TRIBUNE LLC
Total Planning	11,349	6,349	5,000	11,349	
Design					
Labor	75,375	75,375		75,375	
Professional Legal Fees	2,156	2,156	-	2,156	STUTZ ARTIANO SHINOFF
Regulatory Agency Fees	4,000	4,000	-	4,000	CITY OF CHULA VISTA
Consultant Contracts	750	750	-	750	PROGRESSIVE MAPPING
	3,935	3,935	-	3,935	V & A CONSULTING ENGINEERS
	2,565	2,565	-	2,565	CPM PARTNERS INC
Construction Contracts	2,687	2,687	-	2,687	CPM PARTNERS INC
Service Contracts	11,350	10,600	750	11,350	UNDERGROUND SOLUTIONS INC
	300	300	-	300	CITY OF CHULA VISTA
					KEAGY REAL ESTATE
Total Design	103,117	102,367	750	103,117	
Construction					
Labor	75,000	1,977	73,023	75,000	
Service Contracts	3,410	3,410	-	3,410	MAYER REPROGRAPHICS INC
	68	68	-	68	SAN DIEGO DAILY TRANSCRIPT
Construction Contracts	1,212,257	-	1,212,257	1,212,257	SEPULVEDA CONSTRUCTION
Closeout	10,000	-	10,000	10,000	CLOSEOUT
Contingency (5%)	60,613		60,613	60,613	CONTINGENCY
	-	-	-	-	
Total Construction	1,361,348	5,455	1,355,893	1,361,348	
Grand Total	1,475,814	114,171	1,361,643	1,475,814	



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OTAY WATER DISTRICT
30-INCH POTABLE WATER PIPELINE IN HUNTE PARKWAY
LOCATION MAP

CIP P2514

EXHIBIT A

AGENDA ITEM 5



STAFF REPORT

TYPE MEETING:	Regular Board	MEETING DATE:	March 7, 2012
	Kevin Cameron Assistant Civil Engineer	PROJECT:	P2491/ DIV. NO. 5 P2382- 001103
SUBMITTED BY:	Ron Ripperger Engineering Manager		
APPROVED BY:	<input checked="" type="checkbox"/> Rod Posada, Chief of Engineering <input checked="" type="checkbox"/> Manny Magana, Asst. GM, Engineering and Operations <input checked="" type="checkbox"/> Joe Beachem, Chief Financial Officer <input checked="" type="checkbox"/> Mark Watton, General Manager		
SUBJECT:	Award of a Construction Contract to Advanced Industrial Services, Inc. for the 850-3 Reservoir Exterior Coating and Upgrades Project		

GENERAL MANAGER'S RECOMMENDATION:

That the Otay Water District (District) Board of Directors (Board) awards a construction contract to Advanced Industrial Services, Inc. (AIS) and authorizes the General Manager to execute an agreement with AIS for the 850-3 Reservoir Exterior Coating and Upgrades Project in an amount-not-to exceed \$293,300 (see Exhibit A for Project location).

COMMITTEE ACTION:

Please see Attachment A.

PURPOSE:

To obtain Board authorization for the General Manager to enter into a construction contract with AIS for the 850-3 Reservoir Exterior Coating and Upgrades Project in an amount-not-to exceed \$293,300.

ANALYSIS:

The District's corrosion consultant, Schiff Associates (Schiff), completed a Corrosion Control Program (CCP) in June 2011 that addressed the installation, maintenance, and monitoring of corrosion protection systems for the District's steel reservoirs and buried metallic piping. The CCP included a reservoir maintenance schedule that showed the 850-3 Reservoir to be re-coated and updated to current codes. The maintenance requirements included removing the existing exterior coating, and applying a new coating to the exterior of the reservoir.

In addition to replacing the exterior coating of the reservoir, structural upgrades are necessary to comply with the American Water Works Association (AWWA) and the Occupational Safety and Health Administration standards for both Federal (OSHA) and State (Cal-OSHA) levels. An internal and external inspection of the reservoir was completed in December 2011 by Harper & Associates Engineering, Inc. The recommended coating and structural upgrades, developed with input from engineering and operations staff, are as follows: repair the corrosion on the interior roof rafters, relocate the existing roof hatch, replace the existing level indicator, install new fall prevention devices on the exterior ladder, modify anode access ports, replace the roof vent, install new lanyard cables, and add miscellaneous tank penetrations for chlorination and sampling. These upgrades will ensure compliance with AWWA, OSHA, Cal-OSHA requirements as well as provide better access for Operations staff to maintain the facility.

Staff developed the contract documents and the Project was advertised for bid on January 10, 2012 on the District's website and several other publications including the San Diego Daily Transcript.

Three (3) addenda were sent out to all bidders and plan houses to address questions and clarifications to the contract documents during the bidding period. Bids were publicly opened on February 2, 2012, with the following results:

	<u>CONTRACTOR</u>	<u>TOTAL BID AMOUNT</u>	<u>CORRECTED BID AMOUNT</u>
1	Advanced Industrial Services, Inc.	\$293,300	-
2	Blastco, Inc.	\$293,530	\$293,590
3	Western Industrial, Inc.	\$417,000	-
4	Simpson Sandblasting	\$459,000	-
5	RPI Coating, Inc.	\$465,000	-

The Engineer's Estimate is \$280,000.

Staff reviewed the bids submitted for conformance with the contract requirements. While AIS submitted the lowest bid, they did not provide the bid bond or their QP-1 Certification with their sealed bid. Both Legal Counsel and AIS were notified that the documents were missing. Brett Johnston of AIS explained that he had a bid bond for the project and the Certification, but forgot to provide them with the sealed bid. Both were provided to staff the next day via FedEx. Legal Counsel determined that since the bid bond was issued on January 31, 2012, before the bid opening date of February 2, 2012, the bid would be considered responsive. The QP-1 Certification was also considered a minor irregularity. Therefore, AIS is considered the lowest responsive and responsible bidder.

The Contract Documents required either a Class A or a Class C-33 license. AIS holds a Class C-33, Painting and Decorating Contractor's License which expires on January 31, 2014. The reference checks indicated an excellent performance record on similar projects. A background search of the company was performed on the internet and revealed no outstanding issues with this company.

Staff has verified that the bid bond provided by AIS is valid. Staff will also verify that AIS's Performance Bond and Labor and Materials Bond are valid prior to execution of the contract.

FISCAL IMPACT:

Funding for the Project comes from two CIP projects, P2491, the 850-3 Reservoir Exterior Coating and Upgrades and P2382, Safety and Security Improvements. AIS' bid amount of \$293,300 for construction will be funded as follows, \$30,000 will be funded from P2382, and the balance of the expenditures, including staff time, will come from P2491.

The total budget for CIP P2491, as approved in the FY 2012 budget, is \$300,000. Total expenditures, plus outstanding commitments and forecast including this contract, are \$299,691. See Attachment B-1 for budget detail.

The total budget for CIP P2382, as approved in the FY 2012 budget, is \$3,397,000. Total expenditures, plus outstanding commitments and forecast including this contract, are \$1,715,657. See Attachment B-2 for budget detail.

Based on a review of the financial budgets, the Project Manager anticipates that the budgets for CIPs P2491 and P2382 are sufficient to support the Project.

Finance has determined that for CIP P2491 100% of the funding is available from the Replacement Fund and for CIP P2382 60% of the funding is available from the Replacement Fund and 40% is available from the Expansion Fund.

STRATEGIC GOAL:

This Project supports the District's Mission statement, "To provide customers with the best quality water, wastewater, and recycled water service in a professional, effective, and efficient manner." This Project fulfills the District's Strategic Goal No. 1: CUSTOMER - Deliver high quality services to meet customer needs, and increase confidence of the customer in the value the District provides.

LEGAL IMPACT:

None.

KC/RR:jf

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Attachments: Attachment A - Committee Action
Attachment B-1 - Budget Detail for CIP P2491
Attachment B-2 - Budget Detail for CIP P2382
Exhibit A - Location Map



ATTACHMENT A

SUBJECT/PROJECT: P2491/P2382-001103	Award of a Construction Contract to Advanced Industrial Services, Inc. for the 850-3 Reservoir Exterior Coating and Upgrades Project
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COMMITTEE ACTION:

The Engineering, Operations, and Water Resources Committee reviewed this item at a meeting held on February 16, 2012. 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.



ATTACHMENT B-1

SUBJECT/PROJECT:	Award of a Construction Contract to Advanced Industrial Services, Inc. for the 850-3 Reservoir Exterior Coating and Upgrades Project
P2491/P2382-001103	

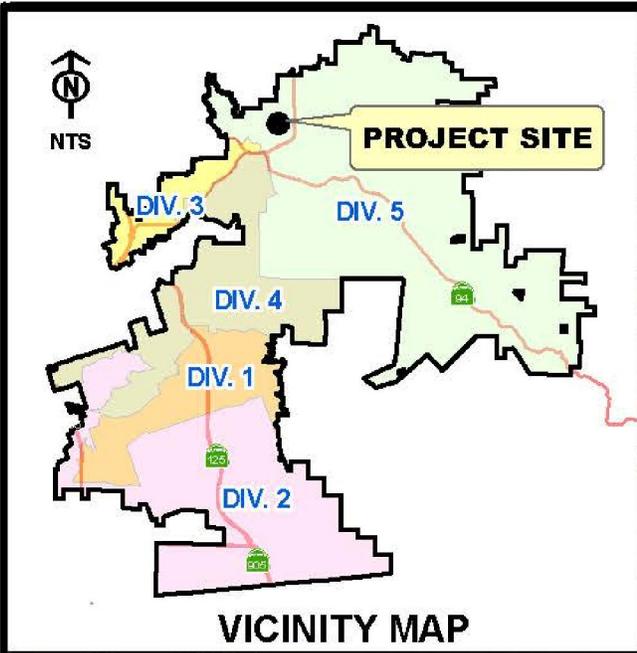
Otay Water District					Date Updated: February 07, 2012
P2491 - 850-3 Reservoir Exterior Coating					
<i>Budget</i>	<i>Committed</i>	<i>Expenditures</i>	<i>Outstanding Commitment & Forecast</i>	<i>Projected Final Cost</i>	<i>Vendor/Comments</i>
300,000					
Planning					
Add subprojects					
Labor	621	621	-	621	
Total Planning	621	621	-	621	
Design					
Labor	17,500	16,592	908	17,500	
Consultant Contracts	250	250	-	250	SUPERIOR TANK SOLUTIONS
Service Contracts	3,150	-	3,150	3,150	HARPER & ASSOCIATES
	298	298	-	298	SAN DIEGO UNION-TRIBUNE LLC
	72	72	-	72	SAN DIEGO DAILY TRANSCRIPT
Total Design	21,270	16,842	4,058	20,900	
Construction					
Labor	14,500	1,276	13,224	14,500	
Construction Contracts	263,300	-	263,300	263,300	ADVANCED INDUSTRIAL SERVICES
Total Construction	277,800	1,276	276,524	277,800	
Grand Total	299,691	19,109	280,582	299,691	



ATTACHMENT B-2

SUBJECT/PROJECT:	Award of a Construction Contract to Advanced Industrial Services, Inc. for the 850-3 Reservoir Exterior Coating and Upgrades Project
P2491/P2382-001103	

Otay Water District					Date Updated: February 07, 2012
P2382 - Safety and Security Improvements					
Budget	Committed	Expenditures	Outstanding Commitment & Forecast	Projected Final Cost	Vendor/Comments
3,397,000					
Safety/Security Upgrades					
Addl subprojects					
Labor	162,727	162,727		162,727	
Books, Periodicals And Subscriptions	348	348	-	348	UNION TRIBUNE PUBLISHING CO
	96	96	-	96	SAN DIEGO DAILY TRANSCRIPT
Annual Support Maintenance For Softwa	38,322	3,333	34,989	38,322	HENRY BROS ELECTRONICS INC
Consultant Contracts	500	500	-	500	SIMON WONG ENGINEERING
	2,500	2,500	-	2,500	DARRYL THIBAUT
	625	625	-	625	PEXIS CORPORATION
Computer Training	17	17	-	17	PETTY CASH CUSTODIAN
Safety Training	1,000	1,000	-	1,000	JB SAFETY & RESCUE SERVICES
	562	562	-	562	UNITED RENTALS NORTHWEST INC
Gas Detectors	23,867	23,867	-	23,867	CALOLYMPIC SAFETY
Infrastructure Equipment & Supplies	124	124	-	124	PETTY CASH CUSTODIAN
	7,156	7,156	-	7,156	UNITED RENTALS NORTHWEST INC
	1,012	1,012	-	1,012	CALOLYMPIC SAFETY
Infrastructure Equipment & Materials	27,394	27,394	-	27,394	EMCOM ELECTRONICS SYSTEMS INC
	2,091	2,091	-	2,091	WESCO DISTRIBUTION INC
	34,989	-	34,989	34,989	HENRY BROS ELECTRONICS INC
Security Services	574	574	-	574	CALOLYMPIC SAFETY
	970	970	-	970	ALCEM FENCE COMPANY INC
	598,920	598,920	-	598,920	STANDARD ELECTRONICS
	354	354	-	354	MARWEST ACCESS CONTROLS
	6,346	6,346	-	6,346	ADVANCED ELECTRONIC SOLUTIONS2
	344,676	309,687	34,989	344,676	HENRY BROS ELECTRONICS INC
	11,835	11,835	-	11,835	ENHANCED COMMUNICATIONS
	3,875	3,875	-	3,875	PEXIS CORPORATION
	4,875	4,875	-	4,875	ADVANCED COMMUNICATIONS
	1,215	1,215	-	1,215	GRAYBAR ELECTRIC CO INC
	20,490	20,490	-	20,490	PRIME ELECTRICAL SERVICES INC
	5,973	5,973	-	5,973	SPECIALTY DOORS AND AUTOMATION
	14,109	-	14,109	14,109	BRAULT INC
	4,476	-	4,476	4,476	NEAL ELECTRIC CORP
Service Contracts	3,995	3,995	-	3,995	MSA SYSTEMS INC
	97,354	62,365	34,989	97,354	HENRY BROS ELECTRONICS INC
	2,300	2,300	-	2,300	ADVANCED COMMUNICATIONS
	1,980	1,980	-	1,980	SAN DIEGO CONSTRUCTION WELDING
	459	459	-	459	SPECIALTY DOORS AND AUTOMATION
Safety Equipment Misc Materials	135	135	-	135	MARWEST ACCESS CONTROLS
	2,365	2,365	-	2,365	STONEHOUSE SIGNS INC
	824	824	-	824	IDENTICARD SYSTEMS
	2,516	2,516	-	2,516	CALOLYMPIC SAFETY
	8,400	8,400	-	8,400	C & I EQUIPMENT CO
Building And Grounds Materials	90	90	-	90	MCMASTER-CARR SUPPLY CO
	721	721	-	721	C W MCGRATH INC
	1,698	1,698	-	1,698	T M PEMBERTON
	120	120	-	120	CONSTRUCTION RESIDUE RECYCLING
	6,200	6,200	-	6,200	FRANK & SON PAVING INC
	578	578	-	578	US BANK CORPORATE PAYMENT
	14,599	14,599	-	14,599	ENTERPRISE SECURITY INC
	16,913	16,913	-	16,913	ACCESS SECURITY CONTROLS
For Ops Only - Contracted Services	4,484	4,484	-	4,484	ACCESS SECURITY CONTROLS
	450	450	-	450	WALTCOMM
	8,775	8,775	-	8,775	ADVANCED COMMUNICATIONS
Security Vulnerability Study	92,008	92,008	-	92,008	EMA, INC.
Onsite Training	18	18	-	18	GREYSTONE ENVIRONMENTAL
Reimbursement from EPA	(115,000)	(115,000)	-	(115,000)	
x30074	208,843	208,843	-	208,843	
Construction Contract	30,000	-	30,000	30,000	ADVANCED INDUSTRIAL SERVICES
Total Safety/Security Upgrades	1,712,840	1,524,299	188,541	1,712,840	
Fire Protection					
Labor	191	191	-	191	
For Ops Only - Contracted Services	2,626	2,626	-	2,626	AZTEC FIRE & SAFETY
Total Fire Protection	2,817	2,816	-	2,816	
Grand Total	1,715,657	1,527,116	188,541	1,715,657	



OTAY WATER DISTRICT

850-3 (3.0 MG) RESERVOIR
 EXTERIOR COATING & UPGRADES
 12887 WEGHORST WAY, EI CAJON, CA

CIP # P2491/ P2382

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EXHIBIT A



STAFF REPORT

TYPE MEETING:	Regular Board	MEETING DATE:	March 7, 2012
SUBMITTED BY:	Bob Kennedy Senior Civil Engineer	PROJECT/ SUBPROJECT:	D0859- DIV. 2 090114 NO.
APPROVED BY:	<input checked="" type="checkbox"/> Rod Posada, Chief of Engineering <input checked="" type="checkbox"/> Manny Magana, Asst. GM, Engineering and Operations <input checked="" type="checkbox"/> Joe Beachem, Chief Financial Officer <input checked="" type="checkbox"/> Mark Watton, General Manager		
SUBJECT:	Approval of Water Supply Assessment Report (January 2012) for the Hawano Project		

GENERAL MANAGER'S RECOMMENDATION:

That the Otay Water District (District) Board of Directors (Board) approves the Water Supply Assessment Report (WSA Report) dated January 2012 for the Hawano Project, as required by Senate Bill 610 (see Exhibit A for Project location).

COMMITTEE ACTION:

Please see Attachment A.

PURPOSE:

To obtain Board approval of the January 2012 WSA Report for the Hawano Project, as required by Senate Bill 610 (SB 610).

ANALYSIS:

The Paragon Management Company submitted an entitlement application to the County of San Diego (County) for the development of the 79.6 acre parcel owned by INMOBILARIA HAWANO, S.A. DE C.V. (Hawano Project). The owner submitted the twenty-three (23) Industrial/Commercial lot tentative map to the County which is conducting an environmental review of the proposed

Hawano Project. SB 610 requires the agency conducting the environmental review to evaluate whether total water supplies will meet the projected water demand for certain "projects" that are otherwise subject to the requirement of the California Environmental Quality Act (CEQA). SB 610 provides its own definition of "project" in Water Code Section 10912. The County submitted a request for a WSA to the District pursuant to SB 610. In response to such request, SB 610 requires that, upon request of the agency conducting the environmental review, a water purveyor, such as the District, prepare the water supply assessment to be included in the CEQA documentation.

The requirements of SB 610 are addressed by the WSA Report for the Hawano Project. Prior to transmittal to the County, the WSA Report must be approved by the District Board. Additional information of the intent of SB 610 is provided in Exhibit B and the Hawano Project WSA Report is attached as Exhibit C.

For the Hawano Project, the County is the responsible agency that requested the SB 610 water supply assessment from the District, as the water purveyor for the proposed Hawano Project. The request for the WSA Report, in compliance with SB 610 requirements, was made by the County because the Hawano Project meets or exceeds one or both of the following SB 610 criteria:

- A proposed industrial, manufacturing or processing plant or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of area.
- A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

The District, as the proposed water purveyor for the Hawano Project, does not have to comply with the requirements of Senate Bill 221 (SB 221) because the Project is an industrial development and SB 221 applies to residential subdivisions.

Pursuant to SB 610, the WSA Report incorporates by reference the current Urban Water Management Plans and other water resources planning documents of the District, the San Diego County Water Authority (Water Authority), and the Metropolitan Water District of Southern California (MWD). The District prepared the WSA Report in consultation with Dexter Wilson Engineering, Inc. and the Water Authority which demonstrates and documents that sufficient water supplies are planned for and are intended to be made available over a 20-year planning horizon under normal

supply conditions and in single and multiple dry years to meet the projected demand of the Hawano Project and other planned development projects within the District.

The expected potable water demand for the Hawano Project is 67,500 gallons per day (gpd) or about 75.6 acre-feet per year (AFY). This is consistent with the demands in the District's 2008 Water Resources Master Plan updated November 2010. The projected recycled water demand for the Hawano Project is 8,600 gpd or 9.6 AFY, representing about 11% of the total Hawano Project water demand.

MWD's Integrated Resource Plan (IRP) identifies a mix of resources (imported and local) that, when implemented, will provide 100 percent reliability for full-service demands through the attainment of regional targets set for conservation, local supplies, State Water Project supplies, Colorado River supplies, groundwater banking, and water transfers. MWD's 2010 update to the IRP (2010 IRP Update) includes a water supply planning buffer to mitigate the risk associated with implementation of local and imported supply programs. The planning buffer identifies an additional increment of water that could potentially be developed if other supplies are not implemented as planned. As part of the establishment of the planning buffer, MWD periodically evaluates supply development to ensure that the region is not under- or over-developing supplies. If managed properly, the planning buffer, along with other alternative supplies, will help ensure that the Southern California region, including San Diego County, will have adequate supplies to meet future demands.

The County Water Authority Act, Section 5, Subdivision 11, states the Water Authority, "as far as practicable, shall provide each of its member agencies with adequate supplies of water to meet their expanding and increasing needs."

The intent of the SB 610 legislation is that the land use agencies and the water agencies coordinate their efforts in planning for new development and thus plan for sufficient water supplies to meet the needs.

As per the requirements of SB 610, if the water supply assessment finds that the supply is sufficient, then the governing body of the water supplier (District) must approve the water supply assessment and deliver it to the lead agency (County) within 90 days. The County's letter dated January 6, 2012 requested the WSA for the Hawano Project. The deadline for

the District to provide a Board approved WSA to the County is April 5, 2012. An extension can be requested to provide 30 additional days, if necessary.

Pursuant to SB 610, if the water supply assessment finds overall supplies are insufficient, the water supplier shall provide to the lead agency "its plans for acquiring additional water supplies, setting forth measures that are being undertaken to acquire and develop those water supplies," and the water supplier governing body must approve the assessment and deliver it to the lead agency within 90 days. If the water supplier does conclude that additional water supplies are required, the water supplier should indicate the status or stage of development of the actions identified in the plans it provides. Identification of a potential future action in such plans does not by itself indicate that a decision to approve or to proceed with the action has been made.

Once either of the two actions listed above are accomplished, the District's SB 610 water supply assessment responsibilities are complete.

Water supply agencies throughout California continue to face climatological, environmental, legal, and other challenges that impact water source supply conditions, such as the court ruling regarding the Sacramento-San Joaquin Delta issues. Challenges such as these are always present. The regional water supply agencies, the Water Authority, MWD, and the District nevertheless fully intend to have sufficient, reliable supplies to serve the Hawano Project.

FISCAL IMPACT:

The District has been reimbursed \$5,000 for all costs associated with the preparation of the Hawano Project WSA Report. The reimbursement was accomplished via a \$5,000 deposit the Project proponents placed with the District on November 15, 2011.

STRATEGIC GOAL:

The preparation and approval of the Hawano Project WSA Report supports the District's Mission statement, "To provide the best quality of water and wastewater services 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:

Approval of a WSA Report for the Hawano Project in form and content satisfactory to the Board of Directors would allow the District to comply with the requirements of Senate Bill 610.

BK/RP:jf

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Attachments: Attachment A - Committee Actions
Exhibit A - Project Location Map
Exhibit B - Explanation of the Intent of SB 610
Exhibit C - Hawano WSA Report
Exhibit D - Presentation



ATTACHMENT A

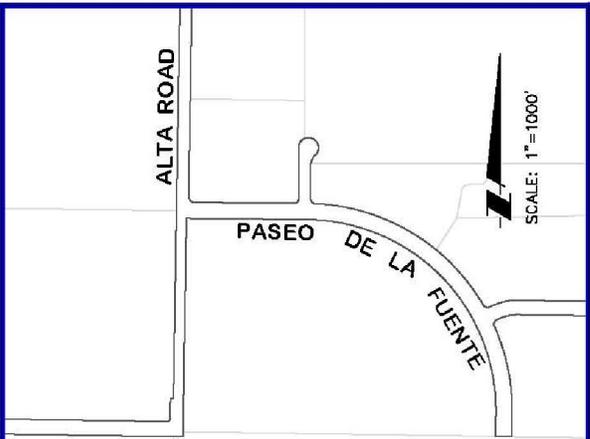
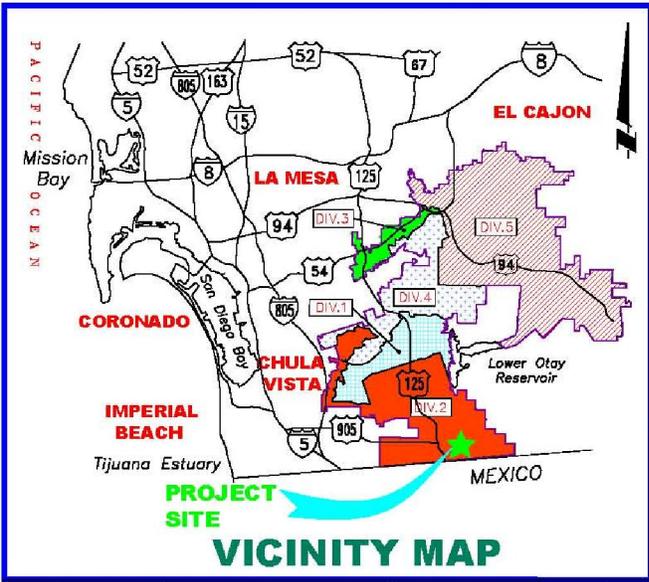
SUBJECT/PROJECT: D0859-090114	Approval of Water Supply Assessment Report (January 2012) for the Hawano Project
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COMMITTEE ACTION:

The Engineering, Operations, and Water Resources Committee reviewed this item at a Committee Meeting held on February 16, 2012. 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.



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OTAY WATER DISTRICT

HAWANO PROJECT
LOCATION MAP

D0859-090114

EXHIBIT A

EXHIBIT B

Background Information

The Otay Water District (District) prepared the January 2012 Water Supply Assessment Report (WSA Report) for the Hawano Project development at the request of the County of San Diego (County). The County's WSA request letter dated January 6, 2012 was received by the District on January 6, 2012 so the 90-day deadline for the District to provide the Board an approved WSA Report to the County ends April 5, 2012. The Paragon Management Company submitted an entitlement application to the County for the development of the 79.6 acre parcel owned by INMOBILARIA HAWANO, S.A. DE C.V. (Hawano Project).

The Hawano Project is located within the jurisdictions of the District, the San Diego County Water Authority (Water Authority), and the Metropolitan Water District of Southern California (MWD). See Exhibit A for Project location. To obtain permanent imported water supply service, land areas are required to be within the jurisdictions of the District, Water Authority, and MWD.

The January 2012 WSA Report for the Hawano Project has been prepared by the District in consultation with Dexter Wilson Engineering, Inc., the Water Authority, and the County pursuant to Public Resources Code Section 21151.9 and California Water Code Sections 10631, 10656, 10910, 10911, 10912, and 10915 referred to as Senate Bill (SB) 610. SB 610 amended state law, effective January 1, 2002, intending to improve the link between information on water supply availability and certain land use decisions made by cities, counties, and other regulatory agencies. SB 610 requires that the water purveyor of the public water system prepare a water supply assessment to be included in the California Environmental Quality Act (CEQA) environmental documentation and approval process of certain proposed projects. The requirements of SB 610 are addressed in the January 2012 WSA Report for the Hawano Project.

The Paragon Management Company submitted an entitlement application to the County for the development of the 79.6 acre parcel owned by INMOBILARIA HAWANO, S.A. DE C.V. (Hawano Project). The twenty-three (23) Industrial/Commercial lot tentative map is located within the East Otay Mesa Specific Plan of the County's General Plan at the southwest corner of the intersection of Alta Road and Airway Road.

The expected potable water demand for the Hawano Project is 67,500 gallons per day (gpd) or about 75.6 acre-feet per year (AFY). This is consistent with the demands in the District's 2008 Water Resources Master Plan updated November 2010. The projected recycled water demand for the Hawano Project is 8,600 gpd or 9.6 AFY, representing about 11% of the total Hawano Project water demand.

The District currently depends on the Water Authority and the MWD for all of its potable water supplies and regional water resource planning.

The District's 2010 Urban Water Management Plan (UWMP) relies heavily on the UWMP's and Integrated Water Resources Plans (IRPs) of the Water Authority and MWD for documentation of supplies available to meet projected demands. These plans are developed to manage the uncertainties and variability of multiple supply sources and demands over the long-term through preferred water resources strategy adoption and resource development target approvals for implementation.

The new uncertainties that are significantly affecting California's water resources include:

- The Federal Court ruling on previous operational limits on Sacramento-San Joaquin Delta to protect the Delta species. Water agencies are still trying to determine what effect the ruling will have on State Water Project (SWP) deliveries. Actual supply curtailments for MWD are contingent upon fish distribution, behavioral patterns, weather, Delta flow conditions, and how water supply reductions are divided between state and federal projects.
- Periodic extended drought conditions.

These uncertainties have rightly caused concern among Southern California water supply agencies regarding the validity of the current water supply documentation.

MWD's October 9, 2007 IRP Implementation Report acknowledges that significant challenges in some resource areas will likely require changes in strategies and implementation approaches in order to reach long-term IRP water supply targets. Significant progress in program implementation is being realized in most resource areas. However, a further examination of the uncertainty of SWP supplies, among other uncertainties, will be required to assess the ability of achieving the long-term IRP targets.

MWD is currently involved in several proceedings concerning Delta operations to evaluate and address environmental concerns. In addition, at the State level, the Delta Vision and Bay-Delta Conservation Plan processes are defining long-term solutions for the Delta. MWD is actively engaged in these processes and in October 2010, approved the update of their IRP. An approved implementation strategy update may not be forthcoming for a year or more.

The SWP represents approximately 9% of MWD's 2025 Dry Resources Mix with the supply buffer included. A 22% cutback in SWP supply represents an overall 2% (22% of 9% is 2%) cutback in MWD supplies in 2025. Neither the Water Authority nor MWD has stated that there is insufficient water for future planning in Southern California. Each agency is in the process of reassessing and reallocating their water resources.

Under preferential rights, MWD can allocate water without regard to historic water purchases or dependence on MWD. Therefore, the Water Authority and its member agencies are taking measures to reduce dependence on MWD through development of additional supplies and a water supply portfolio that would not be jeopardized by a preferential rights allocation.

As calculated by MWD, the Water Authority's current preferential right is 17.47% of MWD's supply, while the Water Authority accounted for approximately 21% of MWD's total revenue.

So MWD could theoretically take a 3.5% cut out of the Water Authority's supply and theoretically, the Water Authority should have alternative water supply sources to make up for the difference. In the Water Authority's 2010 UWMP, they had already planned to reduce reliance on MWD supplies. This reduction is planned to be achieved through diversification of their water supply portfolio.

The Water Authority's Drought Management Plan (May 2006) provides the Water Authority and its member agencies with a series of potential actions to engage when faced with a shortage of imported water supplies due to prolonged drought conditions. Such actions help avoid or minimize impacts of shortages and ensure an equitable allocation of supplies throughout the San Diego County region.

The Otay Water District Board of Directors could acknowledge the ever-present challenge of balancing water supply with demand and the inherent need to possess a flexible and adaptable water supply implementation strategy that can be relied upon during normal and dry weather conditions. The responsible regional water supply agencies have and will continue to adapt their resource plans and strategies to meet climatological, environmental, and legal challenges so that they may continue to provide water supplies to their service areas. The regional water suppliers (i.e., the Water Authority and MWD), along with the District, fully intend to maintain sufficient reliable supplies through the 20-year planning horizon under normal, single, and multiple dry year conditions to meet projected demand of the Hawano Project, along with existing and other planned development projects within the District's service area.

If the regional water suppliers determine additional water supplies will be required, or in this case, that water supply portfolios need to be reassessed and redistributed with the intent to serve the existing and future water needs throughout Southern California, the agencies must indicate the status or stage of development of actions identified in the plans they provide. MWD's 2010 IRP update will then cause the Water Authority to update its IRP, which will then provide the District with the necessary water supply documentation. Identification of a potential future action in such plans does not by itself indicate that a decision to approve or to proceed with the action has been made. The District's Board approval of the Hawano Project WSA Report does not in any way guarantee water supply to the Hawano Project.

Alternatively, if the WSA Report is written to state that water supply is or will be unavailable; the District must include, in the assessment, a plan to acquire additional water supplies. At this time, the District should not state there is insufficient water supply.

So the best the District can do right now is to state the current water supply situation clearly, indicating intent to provide supply through reassessment and reallocation by the regional, as well as, the local water suppliers. In doing so, it is believed that the Board has met the intent of the SB 610 statute, that the land use agencies and the water agencies are coordinating their efforts in planning water supplies for new development.

With District Board approval of the Hawano Project WSA Report, the Project proponents can proceed with the draft environmental documentation required for the CEQA review process.

The water supply issues will be addressed in these environmental documents, consistent with the WSA Report.

The District, as well as others, can comment on the draft EIR with recommendations that water conservation measures and actions be employed on the Hawano Project.

Some recent actions regarding water supply assessments and verification reports by entities within Southern California are as follows:

- The City approved water supply assessment reports for both the La Jolla Crossings Project and the Quarry Falls Project in September 2007.
- Padre Dam Municipal Water District approved a water supply assessment report for the City of Santee's Fanita Ranch development project in April 2006. In October 2007, a follow-up letter was prepared stating the current uncertainties associated with the regional water supply situation. However, the letter concludes that sufficient water exists over the long-run in reliance upon the assurances, plans, and projections of the regional water suppliers (MWD and Water Authority).
- The Otay Water District unanimously approved in July 2007 the Eastern Urban Center Water Supply and Assessment Report. The Board also approved the Judd Company Otay Crossings Commerce Park WSA Report on December 5, 2007 and the Otay Ranch L.P. Otay Ranch Preserve and Resort Project Water Supply Assessment and Verification Report on February 4, 2009.
- The Otay Water District approved water supply assessment and verification reports for the City of Chula Vista Village 8 West Sectional Plan Area and Village 9 Sectional Plan Area. The District also approved the water supply assessment report for the San Diego-Tijuana Cross Border Facility, the Rabago Technology Park, and the Pio Pico Energy Center Project.

Water supplies necessary to serve the demands of the proposed Hawano Project, along with existing and other projected future users, as well as the actions necessary to develop these supplies, have been identified in the water supply planning documents of the District, the Water Authority, and MWD.

The WSA Report includes, among other information, an identification of existing water supply entitlements, water rights, water service contracts, or agreements relevant to the identified water supply needs for the proposed Hawano Project. The WSA Report demonstrates and documents that sufficient water supplies are planned and are intended to be available over a 20-year planning horizon, under normal conditions and in single and multiple dry years, to meet the projected demand of the proposed Hawano Project and the existing and other planned development projects within the District.

Accordingly, after approval of a WSA Report for the Hawano Project by the District's Board of Directors, the WSA Report may be used to comply with the requirements of the legislation enacted by Senate Bills 610 as follows:

Senate Bill (SB) 610 Water Supply Assessment: The District's Board of Directors approved WSA Report may be incorporated into the California Environmental Quality Act (CEQA) compliance process for the Hawano Project as a water supply assessment report consistent with the requirements of the legislation enacted by SB 610. The County of San Diego, as lead agency under the CEQA for the Hawano Project environmental documentation, may cite the approved WSA Report as evidence that a sufficient water supply is planned and intended to be available to serve the Hawano Project.



OTAY WATER DISTRICT

WATER SUPPLY ASSESSMENT REPORT
for the
Hawano Project
D0859-090114

Prepared by:

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January 2012

**Otay Water District
Water Supply Assessment Report
January 2012
Hawano Project**

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Otay Water District Water Supply Assessment Report January 2012 Hawano Project

Executive Summary

The Otay Water District (OWD) prepared this Water Supply Assessment Report (WSA Report) at the request of the County of San Diego (County) for the Hawano Project. The Paragon Management Company submitted an entitlement application to the County for the development of the Hawano Project.

Hawano Project Overview and Water Use

The Hawano Project is located within the jurisdictions of the OWD, the San Diego County Water Authority (Water Authority), and the Metropolitan Water District of Southern California (MWD). To obtain permanent imported water supply service, land areas are required to be within the jurisdictions of the OWD, Water Authority, and MWD.

The Paragon Management Company submitted an entitlement application to the County for the development of the 79.6 acre parcel owned by INMOBILARIA HAWANO, S.A. DE C.V. (Hawano Project). The twenty three (23) Industrial/Commercial lot tentative map is located within the East Otay Mesa Specific Plan, Subarea 1 of the County's General Plan at the southwest corner of the intersection of Alta Road and Airway Road.

The expected potable water demand for the Hawano Project is 67,500 gallons per day (gpd) or about 75.6 acre feet per year (AFY). This is consistent with the demands in the District's 2008 Water Resources Master Plan updated November 2010 (WRMP Update). The projected recycled water demand for the Hawano Project is 8,600 gpd or 9.6 AFY, representing about 11% of the total Hawano Project water demand.

The Hawano Project development components are required to use recycled water for irrigation and other potential purposes. The primary benefit of using recycled water is that it will offset the potable water demand by an estimated 9.6 AFY. The Otay WD WRMP Update and 2010 Urban Water Management Plan (UWMP) anticipated that the Hawano Project would use both potable and recycled water.

Planned Imported Water Supplies from the Water Authority and MWD

The Water Authority and MWD have an established process that ensures supplies are being planned to meet future growth. Any annexations and revisions to established land use plans are captured in the San Diego Association of Governments (SANDAG) updated forecasts for land use planning, demographics, and economic projections. SANDAG serves as the regional, intergovernmental planning agency that develops and provides forecast information. The Water Authority and MWD update their demand forecasts and supply needs based on the most recent SANDAG forecast approximately every five years to coincide with preparation of their Urban Water Management Plans (UWMP). Prior to the next forecast update, local jurisdictions with land use authority may require water supply assessment and/or verification reports for proposed land developments that are not within the OWD, Water Authority, or MWD jurisdictions (i.e. pending or proposed annexations) or that have revised land use plans with either lower or higher development intensities than reflected in the existing growth forecasts. Proposed land areas with pending or proposed annexations, or revised land use plans, typically result in creating higher demand and supply requirements than previously anticipated. The OWD, Water Authority, and MWD next demand forecast and supply requirements and associated planning documents would then capture any increase or decrease in demands and required supplies as a result of annexations or revised land use planning decisions.

The California Urban Water Management Planning Act (Act), which is included in the California Water Code, requires all urban water suppliers within the state to prepare an UWMP and update it every five years. The purpose and importance of the UWMP has evolved since it was first required 25 years ago. State agencies and the public frequently use the document to determine if agencies are planning adequately to reliably meet future demands. As such, UWMPs serve as an important element in documenting supply availability for the purpose of compliance with state laws, Senate Bill 610, linking water supply sufficiency to large land-use development approval. Agencies must also have a UWMP prepared, pursuant to the Act, in order to be eligible for state funding and drought assistance.

MWD's 2010 IRP long term water plan offers a strategy to protect the region from future supply shortages, with an emphasis on water-use efficiency through conservation and local supply development. The 2010 IRP includes a planning buffer supply intended to mitigate against the risks associated with implementation of local and imported supply programs and for the risk that future demands could be higher than projected. The planning buffer identifies an additional increment of water that could potentially be developed when needed or if other supplies are not fully implemented as planned. As part of implementation of the planning buffer, MWD periodically evaluates supply development, supply conditions, and projected demands to ensure that the region is not under or over developing supplies. Managed

properly, the planning buffer will help ensure that the southern California region, including San Diego County, will have adequate water supplies to meet long-term future demands.

Water supply agencies throughout California continue to face climate, environmental, legal, and other challenges that impact water source supply conditions, such as the court rulings regarding the Sacramento-San Joaquin Delta issues and the current ongoing drought impacting the western states. Challenges such as these essentially always will be present. The regional water supply agencies, the Water Authority and MWD, along with OWD nevertheless fully intend to have sufficient, reliable supplies to serve demands.

In Section ES-5 of their 2010 Regional Urban Water Management Plan (2010 RUWMP), MWD states that MWD has supply capacities that would be sufficient to meet expected demands from 2015 through 2035. MWD has plans for supply implementation and continued development of a diversified resource mix including programs in the Colorado River Aqueduct, State Water Project, Central Valley Transfers, local resource projects, and in-region storage that enables the region to meet its water supply needs. MWD's 2010 RUWMP identifies potential reserve supplies in the supply capability analysis (Tables 2-9, 2-10, and 2-11), which could be available to meet the unanticipated demands such as those related to the Hawano Project.

The County Water Authority Act, Section 5 subdivision 11, states that the Water Authority "as far as practicable, shall provide each of its member agencies with adequate supplies of water to meet their expanding and increasing needs."

As part of preparation of a written water supply assessment report, an agency's shortage contingency analysis should be considered in determining sufficiency of supply. Section 11 of the Water Authority's 2010 UWMP contains a detailed shortage contingency analysis that addresses a regional catastrophic shortage situation and drought management. The analysis demonstrates that the Water Authority and its member agencies, through the Emergency Response Plan, Emergency Storage Project, and Drought Management Plan (DMP) are taking actions to prepare for and appropriately handle an interruption of water supplies. The DMP, adopted in May 2006, provides the Water Authority and its member agencies with a series of potential actions to take when faced with a shortage of imported water supplies from MWD due to prolonged drought or other supply shortfall conditions. The actions will help the region avoid or minimize the impacts of shortages and ensure an equitable allocation of supplies.

Otay Water District Water Supply Development Program

In evaluating the availability of sufficient water supply, the Hawano Project will be required to participate in the water supply development program being implemented by the OWD. This is intended to be achieved through financial participation in several local and/or regional water supply development projects envisioned by the OWD. These water supply projects are

in addition to those identified as sustainable supplies in the current Water Authority and MWD UWMP, IRP, Master Plans, and other planning documents. These new water supply projects are in response to the regional water supply issues. These new additional water supply projects are not currently developed and are in various stages of the planning process. Imported water supplies along with the OWD water supply development projects supplies are planned to be developed and are intended to increase water supplies to serve the Hawano Project water supply needs and that of other similar situated development projects. The OWD water supply development program includes but is not limited to projects such as the Middle Sweetwater River Basin Groundwater Well project, the North District Recycled Water Supply Concept, the Rosarito Ocean Desalination Facility project, and the Rancho del Rey Groundwater Well project. The Water Authority and MWD's next forecasts and supply planning documents would capture any increase in water supplies resulting from any new water resources developed by the OWD.

Findings

This WSA Report for the Hawano Project has been prepared by the OWD in consultation with Dexter Wilson Engineering, Inc., the Water Authority, and the County pursuant to Public Resources Code Section 21151.9 and California Water Code Sections 10631, 10656, 10657, 10910, 10911, 10912, and 10915 referred to as Senate Bill (SB) 610. SB 610 amended state law, effective January 1, 2002, to improve the link between information on water supply availability and certain land use decisions made by cities and counties. SB 610 requires that the water purveyor of the public water system prepare a water supply assessment to be included in the California Environmental Quality Act (CEQA) environmental documentation and approval process of certain proposed projects. The County requested that OWD prepare a water supply assessment as per the requirements of SB 610. The requirements of SB 610 are being addressed by this WSA Report

The Hawano Project development concept exceeds the thresholds contained in the legislation enacted by SB 610 and therefore requires preparation of a WSA report. The Hawano Project is considered as an industrial development and is not a residential subdivision project of more than 500 units and hence it is not subject to the requirements of Senate Bill 221 for preparation of a Water Supply Verification Report.

The WSA Report identifies and describes the processes by which water demand projections for the proposed Hawano Project will be fully included in the water demand and supply forecasts of the Urban Water Management Plans and other water resources planning documents of the Water Authority and MWD. Water supplies necessary to serve the demands of the proposed Hawano Project, along with existing and other projected future users, as well as the actions necessary and status to develop these supplies, have been identified in the Hawano Project WSA Report and will be included in the future water supply planning documents of the Water Authority and MWD.

This WSA Report includes, among other information, an identification of existing water supply entitlements, water rights, water service contracts, water supply projects, or agreements relevant to the identified water supply needs for the proposed Hawano Project. This WSA Report demonstrates, and documents that sufficient water supplies are planned for and are intended to be available over a 20-year planning horizon, under normal conditions and in single and multiple dry years to meet the projected demand of the proposed Hawano Project and the existing and other planned development projects to be served by the OWD.

Accordingly, after approval of a WSA Report for the Hawano Project by the Otay Water District Board of Directors (Board), the WSA Report may be used to comply with the requirements of the legislation enacted by Senate Bill 610 as follows:

Senate Bill 610 Water Supply Assessment: The Otay Water District Board approved Hawano Project WSA Report may be incorporated into the California Environmental Quality Act (CEQA) compliance process for the Hawano Project as a water supply assessment report consistent with the requirements of the legislation enacted by SB 610. The County, as lead agency under CEQA for the Hawano Project EIR, may cite the approved WSA Report as evidence that a sufficient water supply is planned for and is intended to be made available to serve the Hawano Project.

Section 1 - Purpose

The Paragon Management Company submitted an entitlement application to the County for the development of the 79.6 acre parcel owned by INMOBILARIA HAWANO, S.A. DE C.V. (Hawano Project). The twenty three (23) Industrial/Commercial lot tentative map is located within the East Otay Mesa Specific Plan, Subarea 1 of the County's General Plan at the southwest corner of the intersection of Alta Road and Airway Road. The County requested that the Otay Water District (OWD) prepare a Water Supply Assessment (WSA) Report for the Hawano Project. The Hawano Project description is provided in Section 3 of this WSA Report.

This WSA Report for the Hawano Project has been prepared by the OWD in consultation with Dexter Wilson Engineering, Inc., the San Diego County Water Authority (Water Authority), and the County pursuant to Public Resources Code Section 21151.9 and California Water Code Sections 10631, 10656, 10910, 10911, 10912, and 10915 referred to as Senate Bill (SB) 610. SB 610 amended state law, effective January 1, 2002, intending to improve the link between information on water supply availability and certain land use decisions made by cities and counties. SB 610 requires that the water purveyor of the public water system prepare a water supply assessment to be included in the California Environmental Quality Act (CEQA) environmental documentation and approval process of certain proposed projects. The requirements of SB 610 are being addressed by this WSA Report.

The Hawano Project's development concept exceeds the thresholds contained in the legislation enacted by SB 610 and therefore requires preparation of a WSA report. The Hawano Project is considered as an industrial development and is not a residential subdivision project of more than 500 units and hence it is not subject to the requirements of Senate Bill 221 for preparation of a Water Supply Verification Report.

This WSA Report evaluates water supplies that are planned to be available during normal, single dry year, and multiple dry water years during a 20-year planning horizon to meet existing demands, expected demands of the Hawano Project, and reasonably foreseeable planned future water demands to be served by OWD. The Otay Water District Board of Directors approved WSA Report is planned to be used by the County in its evaluation of the Hawano Project under the CEQA approval process procedures.

Section 2 - Findings

The Paragon Management Company submitted an entitlement application to the County for the development of the 79.6 acre parcel owned by INMOBILARIA HAWANO, S.A. DE C.V. (Hawano Project). The OWD prepared this WSA Report at the request of the County for the Hawano Project.

The Hawano Project is located within the jurisdictions of the OWD, the Water Authority, and the Metropolitan Water District of Southern California (MWD). To obtain permanent imported water supply service, land areas are required to be within the jurisdictions of the OWD, Water Authority, and MWD to utilize imported water supply.

The expected potable water demand for the Hawano Project is 67,500 gallons per day (gpd) or about 75.6 acre feet per year (AFY). This is unchanged from the demand estimate in the District's WRMP Update. The projected recycled water demand for the Hawano Project is approximately 8,600 gpd or 9.6 AFY, representing about 11% of the total Hawano Project water demand.

The Hawano Project development proponents are required to use recycled water for irrigation and other appropriate uses. The primary benefit of using recycled water is that it will offset the potable water demands by an estimated 9.6 AFY. The WRMP Update and the 2010 Urban Water Management Plan (UWMP) anticipated that the land area to be utilized for the Hawano Project would use both potable and recycled water.

In evaluating the availability of sufficient water supply, the Hawano project proponents are required to participate in the development of alternative water supply project(s). This can be achieved through payment of the New Water Supply Fee adopted by the Otay Water District Board in May 2010. These water supply projects are in addition to those identified as sustainable supplies in the current Water Authority and MWD UWMP, IRP, Master Plans,

and other planning documents. These new water supply projects are in response to the regional water supply issues related to the Sacramento-San Joaquin Delta and the current ongoing western states drought conditions. These new additional water supply projects are not currently developed and are in various stages of the planning process. A few examples of these alternative water supply projects include the Middle Sweetwater River Basin Groundwater Well project, the Middle Sweetwater River Basin Groundwater Well project, the OWD Desalination project, and the Rancho del Rey Groundwater Well project. The Water Authority and MWD next forecast and supply planning documents would capture any increase in water supplies resulting from verifiable new water resources developed by the OWD.

The Water Authority and MWD have an established process that ensures supplies are being planned to meet future growth. Any annexations and revisions to established land use plans are captured in the San Diego Association of Governments (SANDAG) updated forecasts for land use planning, demographics, and economic projections. SANDAG serves as the regional, intergovernmental planning agency that develops and provides forecast information. The Water Authority and MWD update their demand forecasts and supply needs based on the most recent SANDAG forecast approximately every five years to coincide with preparation of their urban water management plans. Prior to the next forecast update, local jurisdictions may require water supply assessment and/or verification reports for proposed land developments that are not within the OWD, Water Authority, or MWD jurisdictions (i.e. pending or proposed annexations) or that have revised land use plans with lower or higher land use intensities than reflected in the existing growth forecasts. Proposed land areas with pending or proposed annexations, or revised land use plans, typically result in creating higher demand and supply requirements than anticipated. The OWD, the Water Authority, and MWD next demand forecast and supply requirements and associated planning documents would then capture any increase or decrease in demands and required supplies as a result of annexations or revised land use planning decisions.

This process is utilized by the Water Authority and MWD to document the water supplies necessary to serve the demands of any proposed development project, along with existing and other projected future users, as well as the actions necessary to develop any required water supplies. Through this process the necessary demand and supply information is thus assured to be identified and incorporated within the water supply planning documents of the Water Authority and MWD.

This WSA Report includes, among other information, an identification of existing water supply entitlements, water rights, water service contracts, proposed water supply projects, and agreements relevant to the identified water supply needs for the proposed Hawano Project. This WSA Report incorporates by reference the current Urban Water Management Plans and other water resources planning documents of the OWD, the Water Authority, and MWD. The OWD prepared this WSA Report to assess and document that sufficient water supplies are planned for and are intended to be acquired to meet projected water demands of the Hawano Project as well as existing and other reasonably foreseeable planned development projects

within the OWD for a 20-year planning horizon, in normal supply years and in single dry and multiple dry years.

The Otay Water District 2010 UWMP included a water conservation component to comply with Senate Bill 7 of the Seventh Extraordinary Session (SBX 7-7), which became effective February 3, 2010. This new law was the water conservation component to the Delta legislation package, and seeks to achieve a 20 percent statewide reduction in urban per capita water use in California by December 31, 2020. Specifically, SBX 7-7 from this Extraordinary Session requires each urban retail water supplier to develop urban water use targets to help meet the 20 percent reduction goal by 2020 (20x2020), and an interim water reduction target by 2015.

OWD has adopted Method 1 to set its 2015 interim and 2020 water use targets. Method 1 requires setting the 2020 water use target to 80 percent of baseline per capita water use target as provided in the State's Draft 20x2020 Water Conservation Plan. The OWD 2015 target is 171 gpcd and the 2020 gpcd target at 80 percent of baseline is 152 gpcd.

The OWD's recent per capita water use has been declining to the point where current water use already meets the 2020 target for Method 1. This recent decline in per capita water use is largely due to drought water use restrictions, increased water costs, and economic conditions. However, OWD's effective water use awareness campaign and enhanced conservation mentality of its customers will likely result in some long-term carryover of these reduced consumption rates.

Based on a normal water supply year, the five-year increments for a 20-year projection indicate projected potable and recycled water supply is being planned for and is intended to be acquired to meet the estimated water demand targets of the OWD (44,883 acre-feet (ac-ft) in 2015 to 56,614 ac-ft in 2035 per the Otay Water District 2010 UWMP). Based on dry year forecasts, the estimated water supply is also being planned for and is intended to be acquired to meet the projected water demand, during single dry and multiple dry year scenarios. On average, the dry-year demands are about 6.4 percent higher than the normal year demands. The OWD recycled water supply is assumed to be drought-proof and not subject to reduction during dry periods.

Together, these findings assess, demonstrate, and document that sufficient water supplies are planned for and are intended to be acquired, as well as the actions necessary and status to develop these supplies are and will be further documented, to serve the proposed Hawano Project and the existing and other reasonably foreseeable planned development projects within the OWD in both normal and single and multiple dry year forecasts for a 20-year planning horizon.

Section 3 - Project Description

The Hawano Project is located at the southwest corner of the intersection of Alta Road and Airway Road. Refer to Appendix A for a vicinity map of the proposed Hawano Project. The project is proposed to be located on 79.6 acres within the East Otay Mesa Specific Plan, Subarea 1 of the County of San Diego (County) General Plan. Although the proposed development is located within the municipal boundaries of the County and subject to the County's land use jurisdiction, the OWD is the potable and recycled water purveyor. The Hawano Project is within the jurisdictions of the OWD, the Water Authority, and Metropolitan Water District of Southern California (MWD).

The Hawano Project is planned to include 23 Industrial/Commercial business park lots ranging from 1.6 to 5.5 acres in size. As each of these lots develop in the future, it would be subject to the project approval and permitting processes of the County and OWD. Refer to Appendix B for the proposed development plan of the Hawano Project.

The County has discretionary authority on land use decisions for the Hawano Project and can establish actions and/or permit approval requirements. The projected potable and recycled water demands associated with the Hawano Project have considered the anticipated County discretionary actions and/or permit approvals and are incorporated into and used in this WSA Report. The water demands for the proposed Hawano Project are included in the projected water demand estimates provided in Section 5 – Historical and Projected Water Demands.

Section 4 – Otay Water District

The OWD is a municipal water district formed in 1956 pursuant to the Municipal Water District Act of 1911 (Water Code §§ 71000 et seq.). The OWD joined the Water Authority as a member agency in 1956 to acquire the right to purchase and distribute imported water throughout its service area. The Water Authority is an agency responsible for the wholesale supply of water to its 24 public agency members in San Diego County.

The OWD currently meets all its potable demands with imported treated water from the Water Authority. The Water Authority is the agency responsible for the supply of imported water into San Diego County through its membership in MWD. The Water Authority currently obtains about half of its imported supply from MWD, but is in the process of further diversifying its available supplies.

The OWD provides water service to residential, commercial, industrial, and agricultural customers, and for environmental and fire protection uses. In addition to providing water throughout its service area, OWD also provides sewage collection and treatment services to a portion of its service area known as the Jamacha Basin. The OWD also owns and operates

the Ralph W. Chapman Water Reclamation Facility (RWCWRF) which has an effective treatment capacity of 1.2 million gallons per day (mgd) or about 1,300 acre feet per year to produce recycled water. On May 18, 2007, an additional source of recycled water supply of at least 6 mgd, or about 6,720 acre feet per year, became available to OWD from the City of San Diego's South Bay Water Reclamation Plant (SBWRP).

The OWD jurisdictional area is generally located within the south central portion of San Diego County and includes approximately 125 square miles. The OWD serves portions of the unincorporated communities of southern El Cajon, La Mesa, Rancho San Diego, Jamul, Spring Valley, Bonita, and Otay Mesa, the eastern portion of the City of Chula Vista and a portion of the City of San Diego on Otay Mesa. The OWD jurisdiction boundaries are roughly bounded on the north by the Padre Dam Municipal Water District, on the northwest by the Helix Water District, and on the west by the South Bay Irrigation District (Sweetwater Authority) and the City of San Diego. The southern boundary of OWD is the international border with Mexico.

The planning area addressed in the Otay Water District WRMP Update and the Otay Water District 2010 UWMP includes both the land within the jurisdictional boundary of the OWD and those areas outside of the present OWD boundaries considered to be in the Area of Influence of the OWD. Figure 1 contained within the Otay Water District 2010 UWMP shows the jurisdictional boundary of the OWD and the Area of Influence. The planning area is approximately 143 square miles, of which approximately 125 square miles are within the OWD current boundaries and approximately 18 square miles are in the Area of Influence. The area east of OWD is rural and currently not within any water purveyor jurisdiction and potentially could be served by the OWD in the future if the need for imported water becomes necessary, as is the case for the Area of Influence.

The City of Chula Vista, the City of San Diego, and the County of San Diego are the three land use planning agencies within the OWD jurisdiction. Data on forecasts for land use planning, demographics, economic projections, population, and the future rate of growth within OWD were obtained from the San Diego Association of Governments (SANDAG). SANDAG serves as the regional, intergovernmental planning agency that develops and provides forecast information through the year 2050. Population growth within the OWD service area is expected to increase from the 2010 figure of approximately 198,616 to an estimated 284,997 by 2035. Land use information used to develop water demand projections are based upon Specific or Sectional Planning Areas, the Otay Ranch General Development Plan/Sub-regional Plan, East Otay Mesa Specific Plan Area, San Diego County Community Plans, and City of San Diego, City of Chula Vista, and County of San Diego General Plans.

The OWD long-term historic growth rate has been approximately 4 percent. The growth rate has significantly slowed due to the current economic conditions and it is expected to slow as the inventory of developable land is diminished.

Climatic conditions within the OWD service area are characteristically Mediterranean near the coast, with mild temperatures year round. Inland areas are both hotter in summer and cooler in winter, with summer temperatures often exceeding 90 degrees and winter temperatures occasionally dipping to below freezing. Most of the region's rainfall occurs during the months of December through March. Average annual rainfall is approximately 12.17 inches per year.

Historic climate data were obtained from the Western Regional Climate Center for Station 042706 (El Cajon). This station was selected because its annual temperature variation is representative of most of the OWD service area. While there is a station in the City of Chula Vista, the temperature variation at the City of Chula Vista station is more typical of a coastal environment than the conditions in most of the OWD service area.

Urban Water Management Plan

In accordance with the California Urban Water Management Planning Act and recent legislation, the Otay Water District Board of Directors adopted an UWMP in June 2011 and subsequently submitted the plan to the California Department of Water Resources (DWR). The Otay Water District 2010 UWMP is currently being reviewed by DWR. As required by law, the Otay Water District 2010 UWMP includes projected water supplies required to meet future demands through 2035. In accordance with Water Code Section 10910 (c)(2) and Government Code Section 66473.7 (c)(3), information from the Otay Water District 2010 UWMP along with supplemental information from the Otay Water District WRMP Update have been utilized to prepare this WSA Report and are incorporated herein by reference.

The state Legislature passed Senate Bill 7 as part of the Seventh Extraordinary Session (SBX 7-7) on November 10, 2009, which became effective February 3, 2010. This new law was the water conservation component to the Delta legislation package and seeks to achieve a 20 percent statewide reduction in urban per capita water use in California by December 31, 2020. Specifically, SBX 7-7 from this Extraordinary Session requires each urban retail water supplier to develop urban water use targets to help meet the 20 percent reduction goal by 2020 (20x2020), and an interim water reduction target by 2015.

The SBX 7-7 target setting process includes the following: (1) baseline daily per capita water use; (2) urban water use target; (3) interim water use target; (4) compliance daily per capita water use, including technical bases and supporting data for those determinations. In order for an agency to meet its 2020 water use target, each agency can increase its use of recycled water to offset potable water use and also step up its water conservation measures. The required water use targets for 2020 and an interim target for 2015 are determined using one of four target methods – each method has numerous methodologies. The 2020 urban water use target may be updated in a supplier's 2015 UWMP.

In 2015, urban retail water suppliers will be required to report interim compliance followed by actual compliance in 2020. Interim compliance is halfway between the baseline water use and 2020 target. Baseline, target, and compliance-year water use estimates are required to be reported in gallons per capita per day (gpcd).

Failure to meet adopted targets will result in the ineligibility of a water supplier to receive grants or loans administered by the State unless one (1) of two (2) exceptions is met. Exception one (1) states a water supplier may be eligible if they have submitted a schedule, financing plan, and budget to DWR for approval to achieve the per capita water use reductions. Exception two (2) states a water supplier may be eligible if an entire water service area qualifies as a disadvantaged community.

OWD has adopted Method 1 to set its 2015 interim and 2020 water use targets. Method 1 requires setting the 2020 water use target to 80 percent of baseline per capita water use target as provided in the State's Draft 20x2020 Water Conservation Plan. The OWD 2015 target is 171 gpcd and the 2020 gpcd target at 80 percent of baseline is 152 gpcd.

The OWD's recent per capita water use has been declining to the point where current water use already meets the 2020 target for Method 1. This recent decline in per capita water use is largely due to drought water use restrictions, increased water costs, and poor economic conditions. However, OWD's effective water use awareness campaign and enhanced conservation mentality of its customers will likely result in some long-term carryover of these reduced consumption rates beyond the current drought period.

Section 5 – Historical and Projected Water Demands

The projected demands for OWD are based on Specific or Sectional Planning Areas, the Otay Ranch General Development Plan/Sub-regional Plan, the East Otay Mesa Specific Plan Area, San Diego County Community Plans, and City of San Diego, City of Chula Vista, and County of San Diego General Plans. This land use information is also used by SANDAG as the basis for its most recent forecast data. This land use information was utilized for the preparation of the Otay Water District WRMP Update and Otay Water District 2010 UWMP to develop the forecasted demands and supply requirements.

In 1994, the Water Authority selected the Institute for Water Resources-Municipal and Industrial Needs (MAIN) computer model to forecast municipal and industrial water use for the San Diego region. The MAIN model uses demographic and economic data to project sector-level water demands (i.e. residential and non-residential demands). This econometric model has over a quarter of a century of practical application and is used by many cities and water agencies throughout the United States. The Water Authority's version of the MAIN model was modified to reflect the San Diego region's unique parameters and is known as CWA-MAIN.

The foundation of the water demand forecast is the underlying demographic and economic projections. This was a primary reason why, in 1992, the Water Authority and SANDAG entered into a Memorandum of Agreement (MOA) in which the Water Authority agreed to use the SANDAG current regional growth forecast for water supply planning purposes. In addition, the MOA recognizes that water supply reliability must be a component of San Diego County's regional growth management strategy required by Proposition C, as passed by the San Diego County voters in 1988. The MOA ensures a strong linkage between local general plan land use forecasts and water demand projections and resulting supply needs for the San Diego region.

Consistent with the previous CWA-MAIN modeling efforts, on February 26, 2010, the SANDAG Board of Directors accepted the Series 12: 2050 Regional Growth Forecast. The 2050 Regional Growth Forecast will be used by SANDAG as the foundation for the next Regional Comprehensive Plan update. SANDAG forecasts were used by local governments for planning, including the Water Authority 2010 UWMP.

The municipal and industrial forecast also included an updated accounting of projected conservation savings based on projected regional implementation of the California Urban Water Conservation Council (CUWCC) Best Management Practices and SANDAG demographic information for the period 2010 through 2035. These savings estimates were then factored into the baseline municipal and industrial demand forecast.

A separate agricultural model, also used in prior modeling efforts, was used to forecast agricultural water demands within the Water Authority service area. This model estimates agricultural demand to be met by the Water Authority's member agencies based on agricultural acreage projections provided by SANDAG, crop distribution data derived from the Department of Water Resources and the California Avocado Commission, and average crop-type watering requirements based on California Irrigation Management Information System data.

The Water Authority and MWD update their water demand and supply projections within their jurisdictions utilizing the SANDAG most recent growth forecast to project future water demands. This provides for the important strong link between demand and supply projections to the land use plans of the cities and the county. This provides for consistency between the retail and wholesale agencies water demand projections, thereby ensuring that adequate supplies are and will be planned for the OWD existing and future water users. Existing land use plans, any revisions to land use plans, and annexations are captured in the SANDAG updated forecasts. The Water Authority and MWD update their demand forecasts based on the SANDAG most recent forecast approximately every five years to coincide with preparation of their urban water management plans. Prior to the next forecast update, local jurisdictions may require water supply assessment and/or verification reports consistent with Senate Bills 610 and 221 for proposed land use developments that either have pending or proposed annexations into the OWD, Water Authority, and MWD or that have revised land use plans than originally anticipated. The Water Authority and MWD's next forecasts and

supply planning documents would then capture any increase or decrease in demands caused by annexations or revised land use plans.

The state of California Business and Professions Code Section 11010 and Government Code Sections 65867.5, 66455.3, and 66473.7, are referred to as SB 221, requires affirmative written verification from the water purveyor of the public water system that sufficient water supplies are to be available for certain residential subdivisions of property prior to approval of a tentative map. SB 221 compliance does not apply to the Hawano Project, as it is an industrial project and not a residential subdivision.

In evaluating the availability of sufficient water supply, the Hawano Project proponents are required to participate in the development of alternative water supply project(s). This can be achieved through payment of the New Water Supply Fee adopted by the OWD Board in May 2010. These water supply projects are in addition to those identified as sustainable supplies in the current Water Authority and MWD UWMP, IRP, Master Plans, and other planning documents. These new water supply projects are in response to the regional water supply issues related to the Sacramento-San Joaquin Delta and the current ongoing western states drought conditions. These new additional water supply projects are not currently developed and are in various stages of the planning process. A few examples of these alternative water supply projects include the Middle Sweetwater River Basin Groundwater Well project, the OWD Desalination project, and the Rancho del Rey Groundwater Well project. The Water Authority and MWD next forecast and supply planning documents would capture any increase in water supplies resulting from verifiable new water resources developed by the OWD.

In addition, MWD's 2010 Regional Urban Water Management Plan identified potential reserve supplies in the supply capability analysis (Tables 2-9, 2-10, and 2-11), which could be available to meet any unanticipated demands. The Water Authority and MWD's next forecasts and supply planning documents would capture any increase in necessary supply resources resulting from any new water supply resources.

Demand Methodology

The OWD water demand projection methodology in the WRMP Update utilizes a component land use approach. This is done by applying representative values of water use to the acreage of each land use type and then aggregating these individual land use demand projections into an overall total demand for the OWD. This is called the water duty method, and the water duty is the amount of water used in gallons per day per acre per year. This approach is used for all the land use types except residential development where a demand per dwelling unit was applied. In addition, commercial and industrial water use categories are further subdivided by type including separate categories for golf courses, schools, jails, prisons, hospitals, etc. where specific water demands are established.

To determine water duties for the various types of land use, the entire water meter database of the OWD is utilized and sorted by the appropriate land use types. The metered consumption records are then examined for each of the land uses, and water duties are determined for the various types of residential, commercial, industrial, and institutional land uses. For example the water duty factors for commercial and industrial land uses are estimated using 1,785 and 893 gallons per day per acre (gpd/acre) respectively. Residential water demand is established based on the same data but computed on a per-dwelling unit basis. The focus is to ensure that for each of the residential land use categories (very low, low, medium, and high densities), the demand criteria used is adequately represented based upon actual data. This method is used because residential land uses constitute a substantial percentage of the total developable planning area of the OWD.

The WRMP Update calculates potable water demand by taking the gross acreage of a site and applying a potable water reduction factor (PWRF), which is intended to represent the percentage of acreage to be served by potable water and that not served by recycled water for irrigation. For industrial land use, as an example, the PWRF is 0.95 (i.e., 95% of the site is assumed to be served by potable water, 5% of the site is assumed to be irrigated with recycled water). The potable net acreage is then multiplied by the unit demand factor corresponding to its respective land use. This approach is used in the WRMP Update for all the land use types except residential development where a demand per dwelling unit is applied. In addition, commercial and industrial water use categories are further subdivided by type including separate categories for golf courses, schools, jails, prisons, hospitals, etc. where specific water demands are allocated.

Otay Water District Projected Demand

By applying the established water duties to the proposed land uses, the projected water demand for the entire OWD planning area at ultimate development is determined. Projected water demands for the intervening years were determined using growth rate projections consistent with data obtained from SANDAG and the experience of the OWD.

The historical and projected potable water demands for OWD are shown in Table 1.

Table 1
Historical and Projected Potable Water Fiscal Year Demands (acre-feet)

Water Use Sectors	2005	2010	2015	2020	2025	2030	2035
Single Family	21,233	17,165	23,633	28,312	33,600	37,211	40,635
Multi-Family	3,095	3,605	3,444	4,126	4,897	5,423	5,922
Commercial &	1,657	2,243	1,844	2,209	2,622	2,904	3,171
Institutional &	2,262	1,867	2,518	3,017	3,580	3,965	4,330
Landscape	6,458	3,732	10,134	12,141	14,408	15,957	17,425
Other	2,426	584	2,700	3,235	3,839	4,252	4,643
Unaccounted for	547	23	608	729	865	958	1,046
Totals	37,668	29,270	44,883	53,768	63,811	70,669	77,171

Source: Otay Water District 2010 UWMP.

The historical and projected recycled water demands for OWD are shown in Table 2.

Table 2
Historical and Projected Recycled Water Fiscal Year Demands (acre-feet)

Water Use Sector	2005	2010	2015	2020	2025	2030	2035
Landscape	4,090	4,000	4,400	5,000	5,800	6,800	8,000
Totals	4,090	4,000	4,400	5,000	5,800	6,800	8,000

Source: Otay Water District 2010 UWMP, Table 10.

Hawano Project Projected Water Demand

Using the land use demand projection noted above, the projected potable water demand and projected recycled water demand for the proposed Hawano Project are shown in Table 3 and Table 4, respectively. The projected potable water demand is 67,500 gpd, or about 75.6 ac-ft/yr. The projected recycled water demand is 8,600 gpd, or about 9.6 ac-ft/yr, representing about 13% of the total Hawano Project demand.

**Table 3
 Hawano Project Projected Potable
 Water Annual Average Demands**

Location (Land Use)	Gross Acreage	Potable Water Factor	Net Potable Acreage/Units	Unit Rate	Average Demand
Industrial Lots	79.6	95%	75.6 ac	893 gpd/ac	67,500 gpd

The Hawano Project development proponents are required to use recycled water for irrigation and for other appropriate uses. The primary benefit of using recycled water is that it will offset the potable water demands by an estimated 9.6 ac-ft/yr. The WRMP Update and 2010 UWMP anticipated that the Hawano Project site would use both potable and recycled water.

**Table 4
 Hawano Project Projected Recycled
 Water Average Demands**

Location (Land Use)	Gross Acreage	Recycled Water Factor	Net Recycled Acreage	Unit Rate	Average Demand
Industrial Lots	79.6 acres	5%	4.0 acres	2,155 gpd/acre	8,600 gpd

The WRMP Update projected a potable water demand for the project site based on land uses in the East Otay Mesa Specific Plan. The current development plan does not propose any changes to the Specific Plan land uses and, therefore, the proposed development has been accounted for in the Otay Water District planning documents.

5.1 Demand Management (Water Conservation)

Demand management, or water conservation is a critical part of the Otay Water District 2010 UWMP and its long-term strategy for meeting water supply needs of the OWD customers. Water conservation is frequently the lowest cost resource available to any water agency. The goals of the OWD water conservation programs are to:

- Reduce the demand for more expensive, imported water.
- Demonstrate continued commitment to the Best Management Practices (BMP).
- Ensure a reliable water supply.

The OWD is signatory to the Memorandum of Understanding (MOU) Regarding Urban Water Conservation in California, which created the California Urban Water Conservation Council (CUWCC) in 1991 in an effort to reduce California's long-term water demands. Water conservation programs are developed and implemented on the premise that water

conservation increases the water supply by reducing the demand on available supply, which is vital to the optimal utilization of a region's water supply resources. The OWD participates in many water conservation programs designed and typically operated on a shared cost participation program basis among the Water Authority, MWD, and their member agencies. The demands shown in Tables 1 and 2 take into account implementation of water conservation measures within OWD.

As one of the first signatories to the MOU Regarding Urban Water Conservation in California, the OWD has made BMP implementation for water conservation the cornerstone of its conservation programs and a key element in its water resource management strategy. As a member of the Water Authority, OWD also benefits from regional programs performed on behalf of its member agencies. The BMP programs implemented by OWD and regional BMP programs implemented by the Water Authority that benefit all their member agencies are addressed in the Otay Water District 2010 UWMP. In partnership with the Water Authority, the County of San Diego, City of San Diego, City of Chula Vista, and developers, the OWD water conservation efforts are expected to grow and expand. The resulting savings directly relate to additional available water in the San Diego County region for beneficial use within the Water Authority service area, including the OWD.

Additional conservation or water use efficiency measures or programs practiced by the OWD include the following:

Supervisory Control and Data Acquisition System

The OWD implemented and has operated for many years a Supervisory Control and Data Acquisition (SCADA) system to control, monitor, and collect data regarding the operation of the water system. The major facilities that have SCADA capabilities are the water flow control supply sources, transmission network, pumping stations, and water storage reservoirs. The SCADA system allows for many and varied useful functions. Some of these functions provide for operating personnel to monitor the water supply source flow rates, reservoir levels, turn on or off pumping units, etc. The SCADA system aids in the prevention of water reservoir overflow events and increases energy efficiency.

Water Conservation Ordinance

California Water Code Sections 375 et seq. permit public entities which supply water at retail to adopt and enforce a water conservation program to reduce the quantity of water used by the people therein for the purpose of conserving water supplies of such public entity. The Otay Water District Board of Directors established a comprehensive water conservation program pursuant to California Water Code Sections 375 et seq., based upon the need to conserve water supplies and to avoid or minimize the effects of any future shortage. A water shortage could exist based upon the occurrence of one or more of the following conditions:

1. A general water supply shortage due to increased demand or limited supplies.

2. Distribution or storage facilities of the Water Authority or other agencies become inadequate.
3. A major failure of the supply, storage, and distribution facilities of MWD, Water Authority, and/or OWD.

The OWD water conservation ordinance finds and determines that the conditions prevailing in the San Diego County area require that the available water resources be put to maximum beneficial use to the extent to which they are capable, and that the waste or unreasonable use, or unreasonable method of use, of water be prevented and that the conservation of such water be encouraged with a view to the maximum reasonable and beneficial use thereof in the interests of the people of the OWD and for the public welfare.

OWD continues to promote water conservation at a variety of events, including those involving developers in its service area. In addition, OWD developed and manages a number of its own programs such as the Cash for WaterSmart Plants retrofit program, the Water Smart Irrigation Upgrade Program, and the Commercial Process Improvement Program.

OWD is currently engaged in a number of conservation and water use efficiency activities. Listed below are the current programs that are either on-going or were recently concluded:

- Residential Water Surveys: 1,349 completed since 1994
- Large Landscape Surveys: 194 completed since 1990
- Cash for Water Smart Plants Landscape Retrofit Program: over 217,600 square feet of turf grass replaced with water wise plants since 2003
- Rotating Nozzles Rebated: 3,170
- Residential Weather-Based Irrigation Controller (WBIC) Incentive Program: 231 distributed or rebated since 2004
- Residential High Efficiency Clothes Washers: 7,187 rebates since 1994
- Residential ULFT/HET Rebate Program: 22,376 rebates provided between 1991-2010
- Outreach Efforts to OWD Customers - the OWD promotes its conservation programs through staffing outreach events, bill inserts, articles in the OWD's quarterly customer Pipeline newsletter, direct mailings to OWD customers, the OWD's webpage and through the Water Authority's marketing efforts.
- School Education Programs- the OWD funds school tours of the Water Conservation Garden, co-funds Splash Labs, provides classroom water themed kits, maintains a library of school age appropriate water themed books, DVDs, and videos, and runs both a school poster contest and a water themed photo contest.
- Water efficiency in new construction through Cal Green and the Model Water Efficient Landscape Ordinance
- Focus on Commercial/Institutional/Industrial through Promoting MWD's Save a Buck (Commercial) Program in conjunction with the OWD's own Commercial Process Improvement Program

As a signatory to the MOU Regarding Urban Water Conservation in California, the OWD is required to submit biannual reports that detail the implementation of current water conservation practices. The OWD voluntarily agreed to implement the fourteen water conservation Best Management Practices beginning in 1992. The OWD submits its report to the CUWCC every two years. The OWD BMP Reports for 2005 to 2010, as well as the BMP Coverage Report for 1999-2010, are included in the Otay Water District 2010 UWMP.

Section 6 - Existing and Projected Supplies

The OWD currently does not have an independent raw or potable water supply source. The OWD is a member public agency of the Water Authority. The Water Authority is a member public agency of MWD. The statutory relationships between the Water Authority and its member agencies, and MWD and its member agencies, respectively, establish the scope of the OWD entitlement to water from these two agencies.

The Water Authority through two delivery pipelines, referred to as Pipeline No. 4 and the Helix Flume Pipeline, currently supply the OWD with 100 percent of its potable water. The Water Authority in turn, currently purchases the majority of its water from MWD. Due to the OWD reliance on these two agencies, this WSA Report includes referenced documents that contain information on the existing and projected supplies, supply programs, and related projects of the Water Authority and MWD. The OWD, Water Authority, and MWD are actively pursuing programs and projects to further diversify their water supply resources.

The description of local recycled water supplies available to the OWD is also discussed below.

6.1 Metropolitan Water District of Southern California 2010 Regional Urban Water Management Plan

In November 2010, MWD adopted its 2010 Regional Urban Water Management Plan (RUWMP). The 2010 RUWMP provides MWD's member agencies, retail water utilities, cities, and counties within its service area with, among other things, a detailed evaluation of the supplies necessary to meet future demands, and an evaluation of reasonable and practical efficient water uses, recycling, and conservation activities. During the preparation of the 2010 RUWMP, MWD also utilized the previous SANDAG regional growth forecast in calculating regional water demands for the Water Authority service area.

6.1.1 Availability of Sufficient Supplies and Plans for Acquiring Additional Supplies

MWD is a wholesale supplier of water to its member public agencies and obtains its supplies from two primary sources: the Colorado River, via the Colorado River Aqueduct (CRA), which it owns and operates, and Northern California, via the State Water Project (SWP). The 2010 RUWMP documents the availability of these existing supplies and additional supplies necessary to meet future demands.

MWD's Integrated Resources Plan (IRP) identifies a mix of resources (imported and local) that, when implemented, will provide 100 percent reliability for full-service demands through the attainment of regional targets set for conservation, local supplies, State Water Project supplies, Colorado River supplies, groundwater banking, and water transfers. The 2010 update to the IRP (2010 IRP Update) includes a planning buffer supply intended to mitigate against the risks associated with implementation of local and imported supply programs and for the risk that future demands could be higher than projected. The planning buffer identifies an additional increment of water that could potentially be developed when needed and if other supplies are not fully implemented as planned. As part of implementation of the planning buffer, MWD periodically evaluates supply development, supply conditions, and projected demands to ensure that the region is not under or over developing supplies. Managed properly, the planning buffer will help ensure that the southern California region, including San Diego County, will have adequate water supplies to meet future demands.

In November 2010, MWD adopted its 2010 RUWMP in accordance with state law. The resource targets included in the preceding 2010 IRP Update serve as the foundation for the planning assumptions used in the 2010 RUWMP. MWD's 2010 RUWMP contains a water supply reliability assessment that includes a detailed evaluation of the supplies necessary to meet demands over a 25-year period in average, single dry year, and multiple dry year periods. As part of this process, MWD also uses the current SANDAG regional growth forecast in calculating regional water demands for the Water Authority's service area.

As stated in MWD's 2010 RUWMP, the plan may be used as a source document for meeting the requirements of SB 610 and SB 221 until the next scheduled update is completed in 2015. The 2010 RUWMP includes a "Justifications for Supply Projections" in Appendix A.3, that provides detailed documentation of the planning, legal, financial, and regulatory basis for including each source of supply in the plan. A copy of MWD's 2010 RUWMP can be found on the internet at the following site address:

http://www.mwdh2o.com/mwdh2o/pages/yourwater/RUWMP/RUWMP_2010.pdf

The UWMPs for both MWD and the Water Authority will include the increase in demand projections included in SANDAG's Series 12 Update and from the projections from Otay Water District WRMP Update.

Water supply agencies throughout California continue to face climate, environmental, legal, and other challenges that impact water source supply conditions, such as the court rulings regarding the Sacramento-San Joaquin Delta and the current western states drought conditions. Challenges such as these essentially always will be present. The regional water supply agencies, the Water Authority and MWD, along with OWD nevertheless fully intend to have sufficient, reliable supplies to serve demands.

6.1.2 MWD Capital Investment Plan

MWD prepares a Capital Investment Plan as part of its annual budget approval process. The cost, purpose, justification, status, progress, etc. of MWD's infrastructure projects to deliver existing and future supplies are documented in the Capital Investment Plan. The financing of these projects is addressed as part of the annual budget approval process.

MWD's Capital Investment Plan includes a series of projects identified from MWD studies of projected water needs, which, when considered along with operational demands on aging facilities and new water quality regulations, identify the capital projects needed to maintain infrastructure reliability and water quality standards, improve efficiency, and provide future cost savings. All projects within the Capital Investment Plan are evaluated against an objective set of criteria to ensure they are aligned with the MWD's goals of supply reliability and quality.

6.2 San Diego County Water Authority Regional Water Supplies

The Water Authority has adopted plans and is taking specific actions to develop adequate water supplies to help meet existing and future water demands within the San Diego region. This section contains details on the supplies being developed by the Water Authority. A summary of recent actions pertaining to development of these supplies includes:

- In accordance with the Urban Water Management Planning Act, the Water Authority adopted their 2010 UWMP in June 2011. The updated Water Authority 2010 UWMP identifies a diverse mix of local and imported water supplies to meet future demands. A copy of the updated Water Authority 2010 UWMP can be found on the internet at <http://www.sdcwa.org/2010-urban-water-management-plan>
- As part of the October 2003 Quantification Settlement Agreement (QSA), the Water Authority was assigned MWD's rights to 77,700 acre feet per year of conserved water from the All-American Canal (AAC) and Coachella Canal (CC) lining projects. Deliveries of this conserved water from the CC reached the region in 2007 and deliveries from the AAC reached the region in 2010. Expected supplies from the canal lining projects are considered verifiable Water Authority supplies.

- Deliveries of conserved agricultural water from the Imperial Irrigation District (IID) to San Diego County have increased annually since 2003, with 70,000 acre feet per year of deliveries in Fiscal Year (FY) 2010. The quantities will increase annually to 200,000 acre feet per year by 2021, then remain fixed for the duration of the transfer agreement.

Through implementation of the Water Authority and member agency planned supply projects, along with reliable imported water supplies from MWD, the region anticipates having adequate supplies to meet existing and future water demands.

To ensure sufficient supplies to meet projected growth in the San Diego region, the Water Authority uses the SANDAG most recent regional growth forecast in calculating regional water demands. The SANDAG regional growth forecast is based on the plans and policies of the land-use jurisdictions with San Diego County. The existing and future demands of the member agencies are included in the Water Authority's projections.

6.2.1 Availability of Sufficient Supplies and Plans for Acquiring Additional Supplies

The Water Authority currently obtains imported supplies from MWD, conserved water from the AAC and CC lining projects, and an increasing amount of conserved agricultural water from IID. Of the twenty-seven member agencies that purchase water supplies from MWD, the Water Authority is MWD's largest customer.

Section 135 of MWD's Act defines the preferential right to water for each of its member agencies. As calculated by MWD, the Water Authority's preferential right as of June 30, 2010 is 17.47 percent of MWD's supply, while the Water Authority accounted for approximately 21 percent of MWD's water sales. Under preferential rights, MWD could allocate water without regard to historic water purchases or dependence on MWD. The Water Authority and its member agencies are taking measures to reduce dependence on MWD through development of additional supplies and a water supply portfolio that would not be jeopardized by a preferential rights allocation. MWD has stated, consistent with Section 4202 of its Administrative Code that it is prepared to provide the Water Authority's service area with adequate supplies of water to meet expanding and increasing needs in the years ahead. When and as additional water resources are required to meet increasing needs, MWD stated it will be prepared to deliver such supplies. In Section ES-5 of their 2010 RUWMP, MWD states that MWD has supply capacities that would be sufficient to meet expected demands from 2015 through 2035. MWD has plans for supply implementation and continued development of a diversified resource mix including programs in the Colorado River Aqueduct, State Water Project, Central Valley Transfers, local resource projects, and in-region storage that enables the region to meet its water supply needs.

The Water Authority has made large investments in MWD’s facilities and will continue to include imported supplies from MWD in the future resource mix. As discussed in the Water Authority’s 2010 UWMP, the Water Authority and its member agencies are planning to diversify the San Diego regions supply portfolio and reduce purchases from MWD.

As part of the Water Authority’s diversification efforts, the Water Authority is now taking delivery of conserved agricultural water from IID and water saved from the AAC and CC lining projects. The CC lining project is complete and the Water Authority has essentially completed construction of the AAC lining project. Table 5 summarizes the Water Authority’s supply sources with detailed information included in the sections to follow. Deliveries from MWD are also included in Table 5, which is further discussed in Section 6.1 above. The Water Authority’s member agencies provided the verifiable local supply targets for groundwater, groundwater recovery, recycled water, and surface water, which are discussed in more detail in Section 5 of the Water Authority’s 2010 UWMP.

Table 5
Projected Verifiable Water Supplies – Water Authority Service Area
 Normal Year (acre feet)

Water Supply Sources	2015	2020	2025	2030	2035
Water Authority Supplies					
MWD Supplies	358,189	230,601	259,694	293,239	323,838
Water Authority/IID Transfer	100,000	190,000	200,000	200,000	200,000
AAC and CC Lining Projects	80,200	80,200	80,200	80,200	80,200
Proposed Regional Seawater Desalination	0	56,000	56,000	56,000	56,000
Member Agency Supplies					
Surface Water	48,206	47,940	47,878	47,542	47,289
Water Recycling	38,660	43,728	46,603	48,278	49,998
Groundwater	11,710	11,100	12,100	12,840	12,840
Groundwater Recovery	10,320	15,520	15,520	15,520	15,520
Total Projected Supplies	647,285	675,089	717,995	753,619	785,685

Source: Water Authority 2010 Urban Water Management Plan – Table 9-1.

Section 5 of the Water Authority’s 2010 UWMP also includes a discussion on the local supply target for seawater desalination. Seawater desalination supplies represent a significant future local resource in the Water Authority’s service area. The Water Authority is pursuing the purchase of a water supply from the Carlsbad Desalination Project, a fully-permitted private desalination project at the Encina Power Station site located in the City of Carlsbad. In 2010, the Water Authority’s Board of Directors approved a Term Sheet between the Water Authority and the private investor-owned company, Poseidon Resources (Poseidon), and directed staff to prepare a draft Water Purchase Agreement based on its provisions. The Water Authority’s water purchase agreement with Poseidon is expected to include water purchase price, allocation of risk and options to eventually purchase the project’s pipeline and

the entire desalination plant. Before negotiations begin on a final agreement, Poseidon must secure sufficient financial commitments from private investors to meet requirements for fully funding project construction. In addition, Poseidon must execute all agreements for construction and operation of the project and finalize the documents needed to finance the project in the bond market.

The Water Authority's existing and planned supplies from the IID transfer and canal lining projects are considered "drought-proof" supplies and should be available at the yields shown in Table 5 in normal water year supply and demand assessment. Single dry year and multiple dry year scenarios are discussed in more detail in Section 9 of the Water Authority's 2010 UWMP.

As part of preparation of a written water supply assessment and/or verification report, an agency's shortage contingency analysis should be considered in determining sufficiency of supply. Section 11 of the Water Authority's 2010 UWMP contains a detailed shortage contingency analysis that addresses a regional catastrophic shortage situation and drought management. The analysis demonstrates that the Water Authority and its member agencies, through the Emergency Response Plan, Emergency Storage Project, and Drought Management Plan (DMP) are taking actions to prepare for and appropriately handle an interruption of water supplies. The DMP, adopted in May 2006, provides the Water Authority and its member agencies with a series of potential actions to take when faced with a shortage of imported water supplies from MWD due to prolonged drought or other supply shortfall conditions. The actions will help the region avoid or minimize the impacts of shortages and ensure an equitable allocation of supplies throughout the San Diego region.

6.2.1.1 Water Authority-Imperial Irrigation District Water Conservation and Transfer Agreement

The QSA was signed in October 2003, and resolves long-standing disputes regarding priority and use of Colorado River water and creates a baseline for implementing water transfers. With approval of the QSA, the Water Authority and IID were able to implement their Water Conservation and Transfer Agreement. This agreement not only provides reliability for the San Diego region, but also assists California in reducing its use of Colorado River water to its legal allocation.

On April 29, 1998, the Water Authority signed a historic agreement with IID for the long-term transfer of conserved Colorado River water to San Diego County. The Water Authority-IID Water Conservation and Transfer Agreement (Transfer Agreement) is the largest agriculture-to-urban water transfer in United States history. Colorado River water will be conserved by Imperial Valley farmers who voluntarily participate in the program and then transferred to the Water Authority for use in San Diego County.

Implementation Status

On October 10, 2003, the Water Authority and IID executed an amendment to the original 1998 Transfer Agreement. This amendment modified certain aspects of the Transfer Agreement to be consistent with the terms and conditions of the QSA and related agreements. It also modified other aspects of the agreement to lessen the environmental impacts of the transfer of conserved water. The amendment was expressly contingent on the approval and implementation of the QSA, which was also executed on October 10, 2003. Section 6.2.1, "Colorado River," contains details on the QSA.

On November 5, 2003, IID filed a complaint in Imperial County Superior Court seeking validation of 13 contracts associated with the Transfer Agreement and the QSA. Imperial County and various private parties filed additional suits in Superior Court, alleging violations of the California Environmental Quality Act (CEQA), the California Water Code, and other laws related to the approval of the QSA, the water transfer, and related agreements. The lawsuits were coordinated for trial. The IID, Coachella Valley Water District, MWD, the Water Authority, and state are defending these suits and coordinating to seek validation of the contracts. In January 2010, a California Superior Court judge ruled that the QSA and 11 related agreements were invalid, because one of the agreements created an open-ended financial obligation for the state, in violation of California's constitution. The QSA parties appealed this decision and are continuing to seek validation of the contracts. The appeal is currently pending in the Third District Court of Appeal. A stay of the trial court judgment has been issued during the appeal. Implementation of the transfer provisions is proceeding during litigation.

Expected Supply

Deliveries into San Diego County from the transfer began in 2003 with an initial transfer of 10,000 acre feet per year. The Water Authority received increasing amounts of transfer water each year, according to a water delivery schedule contained in the transfer agreement. In 2010, the Water Authority received 70,000 acre feet per year. The quantities will increase annually to 200,000 acre feet per year by 2021 then remain fixed for the duration of the transfer agreement. The initial term of the Transfer Agreement is 45 years, with a provision that either agency may extend the agreement for an additional 30-year term.

During dry years, when water availability is low, the conserved water will be transferred under IID's Colorado River rights, which are among the most senior in the Lower Colorado River Basin. Without the protection of these rights, the Water Authority could suffer delivery cutbacks. In recognition for the value of such reliability, the 1998 contract required the Water Authority to pay a premium on transfer water under defined regional shortage circumstances. The shortage premium period duration is the period of consecutive days during which any of the following exist: 1) a Water Authority shortage; 2) a shortage condition for the Lower Colorado River as declared by the Secretary; and 3) a Critical Year. Under terms of the October 2003 amendment, the shortage premium will not be included in the cost formula until Agreement Year 16.

Transportation

The Water Authority entered into a water exchange agreement with MWD on October 10, 2003, to transport the Water Authority–IID transfer water from the Colorado River to San Diego County. Under the exchange agreement, MWD takes delivery of the transfer water through its Colorado River Aqueduct. In exchange, MWD delivers to the Water Authority a like quantity and quality of water. The Water Authority pays MWD’s applicable wheeling rate for each acre-foot of exchange water delivered. Under the terms of the water exchange agreement, MWD will make delivery of the transfer water for 35 years, unless the Water Authority and MWD elect to extend the agreement another 10 years for a total of 45 years.

Cost/Financing

The costs associated with the transfer are financed through the Water Authority’s rates and charges. In the agreement between the Water Authority and IID, the price for the transfer water started at \$258 per acre-foot and increased by a set amount for the first seven years. In December 2009, the Water Authority and IID executed a fifth amendment to the water transfer agreement that sets the price per acre-foot for transfer water for calendar years 2010 through 2015, beginning at \$405 per acre-foot in 2010 and increasing to \$624 per acre-foot in 2015. For calendar years 2016 through 2034, the unit price will be adjusted using an agreed-upon index. The amendment also required the Water Authority to pay IID \$6 million at the end of calendar year 2009 and another \$50 million on or before October 1, 2010, provided that a transfer stoppage is not in effect as a result of a court order in the QSA coordinated cases. Beginning in 2035, either the Water Authority or IID can, if certain criteria are met, elect a market rate price through a formula described in the water transfer agreement.

The October 2003 exchange agreement between MWD and the Water Authority set the initial cost to transport the conserved water at \$253 per acre-foot. Thereafter, the price is set to be equal to the charge or charges set by MWD’s Board of Directors pursuant to applicable laws and regulation, and generally applicable to the conveyance of water by MWD on behalf of its member agencies. The transportation charge in 2010 was \$314 per acre-foot.

The Water Authority is providing \$10 million to help offset potential socioeconomic impacts associated with temporary land fallowing. IID will credit the Water Authority for these funds during years 16 through 45. In 2007, the Water Authority prepaid IID an additional \$10 million for future deliveries of water. IID will credit the Water Authority for this up-front payment during years 16 through 30.

As part of implementation of the QSA and water transfer, the Water Authority also entered into an environmental cost sharing agreement. Under this agreement the Water Authority is contributing a total of \$64 million to fund environmental mitigation projects and the Salton Sea Restoration Fund.

Written Contracts or Other Proof

The supply and costs associated with the transfer are based primarily on the following documents:

Agreement for Transfer of Conserved Water by and between IID and the Water Authority (April 29, 1998). This Agreement provides for a market-based transaction in which the Water Authority would pay IID a unit price for agricultural water conserved by IID and transferred to the Water Authority.

Revised Fourth Amendment to Agreement between IID and the Water Authority for Transfer of Conserved Water (October 10, 2003). Consistent with the executed Quantification Settlement Agreement (QSA) and related agreements, the amendments restructure the agreement and modify it to minimize the environmental impacts of the transfer of conserved water to the Water Authority.

Amended and Restated Agreement between MWD and Water Authority for the Exchange of Water (October 10, 2003). This agreement was executed pursuant to the QSA and provides for delivery of the transfer water to the Water Authority.

Environmental Cost Sharing, Funding, and Habitat Conservation Plan Development Agreement among IID, Coachella Valley Water District (CVWD), and Water Authority (October 10, 2003). This Agreement provides for the specified allocation of QSA-related environmental review, mitigation, and litigation costs for the term of the QSA, and for development of a Habitat Conservation Plan.

Quantification Settlement Agreement Joint Powers Authority Creation and Funding Agreement (October 10, 2003). The purpose of this agreement is to create and fund the QSA Joint Powers Authority and to establish the limits of the funding obligation of CVWD, IID, and Water Authority for environmental mitigation and Salton Sea restoration pursuant to SB 654 (Machado).

Fifth Amendment to Agreement Between Imperial Irrigation District and San Diego County Water Authority for Transfer of Conserved Water (December 21, 2009). This agreement implements a settlement between the Water Authority and IID regarding the base contract price of transferred water.

Federal, State, and Local Permits/Approvals

Federal Endangered Species Act Permit. The U.S. Fish and Wildlife Service (USFWS) issued a Biological Opinion on January 12, 2001, that provides incidental take authorization and certain measures required to offset species impacts on the Colorado River regarding such actions.

State Water Resources Control Board (SWRCB) Petition. SWRCB adopted Water Rights Order 2002-0016 concerning IID and Water Authority's amended joint petition for approval of a long-term transfer of conserved water from IID to the Water Authority and to change the point of diversion, place of use, and purpose of use under Permit 7643.

Environmental Impact Report (EIR) for Conservation and Transfer Agreement. As lead agency, IID certified the Final EIR for the Conservation and Transfer Agreement on June 28, 2002.

U. S. Fish and Wildlife Service Draft Biological Opinion and Incidental Take Statement on the Bureau of Reclamation's Voluntary Fish and Wildlife Conservation Measures and Associated Conservation Agreements with the California Water Agencies (12/18/02). The U. S. Fish and Wildlife Service issued the biological opinion/incidental take statement for water transfer activities involving the Bureau of Reclamation and associated with IID/other California water agencies' actions on listed species in the Imperial Valley and Salton Sea (per the June 28, 2002 EIR).

Addendum to EIR for Conservation and Transfer Agreement. IID as lead agency and Water Authority as responsible agency approved addendum to EIR in October 2003.

Environmental Impact Statement (EIS) for Conservation and Transfer Agreement. Bureau of Reclamation issued a Record of Decision on the EIS in October 2003.

CA Department of Fish and Game California Endangered Species Act Incidental Take Permit #2081-2003-024-006). The California Department of Fish and Game issued this permit (10/22/04) for potential take effects on state-listed/fully protected species associated with IID/other California water agencies' actions on listed species in the Imperial Valley and Salton Sea (per the June 28, 2002 EIR).

California Endangered Species Act (CESA) Permit. A CESA permit was issued by California Department of Fish and Game (CDFG) on April 4, 2005, providing incidental take authorization for potential species impacts on the Colorado River.

6.2.1.2 All-American Canal and Coachella Canal Lining Projects

As part of the QSA and related contracts, the Water Authority was assigned MWD's rights to 77,700 acre-feet per year of conserved water from projects that will line the All-American Canal (AAC) and Coachella Canal (CC). The projects will reduce the loss of water that currently occurs through seepage, and the conserved water will be delivered to the Water Authority. This conserved water will provide the San Diego region with an additional 8.5 million acre-feet over the 110-year life of the agreement.

Implementation Status

The CC lining project began in November 2004 and was completed in 2006. Deliveries of conserved water to the Water Authority began in 2007. The project constructed a 37-mile parallel canal adjacent to the CC. The AAC lining project was begun in 2005 and was completed in 2010. The lining project constructed a concrete-lined canal parallel to 24 miles of the existing AAC from Pilot Knob to Drop 3.

In July 2005, a lawsuit (*CDEM v United States*, Case No. CV-S-05-0870-KJD-PAL) was filed in the U. S. District Court for the District of Nevada on behalf of U.S. and Mexican groups challenging the lining of the AAC. The lawsuit, which names the Secretary of the Interior as a defendant, claims that seepage water from the canal belongs to water users in Mexico. California water agencies note that the seepage water is actually part of California's Colorado River allocation and not part of Mexico's allocation. The plaintiffs also allege a failure by the United States to comply with environmental laws. Federal officials have stated that they intend to vigorously defend the case.

Expected Supply

The AAC lining project makes 67,700 acre-feet of Colorado River water per year available for allocation to the Water Authority and San Luis Rey Indian water rights settlement parties. The CC lining project makes 26,000 acre-feet of Colorado River water each year available for allocation. The 2003 Allocation Agreement provides for 16,000 acre-feet per year of conserved canal lining water to be allocated to the San Luis Rey Indian Water Rights Settlement Parties. The remaining amount, 77,700 acre-feet per year, is to be available to the Water Authority, with up to an additional 4,850 acre-feet per year available to the Water Authority depending on environmental requirements from the CC lining project. For planning purposes, the Water Authority assumes that 2,500 acre-feet of the 4,850 acre-feet will be available each year for delivery, for a total of 80,200 acre-feet per year of that supply. According to the Allocation Agreement, IID has call rights to a portion (5,000 acre-feet per year) of the conserved water upon termination of the QSA for the remainder of the 110 years of the Allocation Agreement and upon satisfying certain conditions. The term of the QSA is for up to 75 years.

Transportation

The October 2003 Exchange Agreement between the Water Authority and MWD provides for the delivery of the conserved water from the canal lining projects. The Water Authority pays MWD's applicable wheeling rate for each acre-foot of exchange water delivered. In the Agreement, MWD will deliver the canal lining water for the term of the Allocation Agreement (110 years).

Cost/Financing

Under California Water Code Section 12560 et seq., the Water Authority received \$200 million in state funds for construction of the canal lining projects. In addition, \$20 million was made available from Proposition 50 and \$36 million from Proposition 84. The Water Authority was responsible for additional expenses above the funds provided by the state.

The rate to be paid to transport the canal lining water will be equal to the charge or charges set by MWD's Board of Directors pursuant to applicable law and regulation and generally applicable to the conveyance of water by MWD on behalf of its member agencies.

In accordance with the Allocation Agreement, the Water Authority is responsible for a portion of the net additional Operation, Maintenance, and Repair (OM&R) costs for the lined canals. Any costs associated with the lining projects as proposed are to be financed through the Water Authority's rates and charges.

Written Contracts or Other Proof

The expected supply and costs associated with the lining projects are based primarily on the following documents:

U.S. Public Law 100-675 (1988). Authorized the Department of the Interior to reduce seepage from the existing earthen AAC and CC. The law provides that conserved water will be made available to specified California contracting water agencies according to established priorities.

California Department of Water Resources - MWD Funding Agreement (2001). Reimburse MWD for project work necessary to construct the lining of the CC in an amount not to exceed \$74 million. Modified by First Amendment (2004) to replace MWD with the Authority. Modified by Second Amendment (2004) to increase funding amount to \$83.65 million, with addition of funds from Proposition 50.

California Department of Water Resources - IID Funding Agreement (2001). Reimburse IID for project work necessary to construct a lined AAC in an amount not to exceed \$126 million.

MWD - CVWD Assignment and Delegation of Design Obligations Agreement (2002). Assigns design of the CC lining project to CVWD.

MWD - CVWD Financial Arrangements Agreement for Design Obligations (2002). Obligates MWD to advance funds to CVWD to cover costs for CC lining project design and CVWD to invoice MWD to permit the Department of Water Resources to be billed for work completed.

Allocation Agreement among the United States of America, The MWD Water District of Southern California, Coachella Valley Water District, Imperial Irrigation District, San Diego County Water Authority, the La Jolla, Pala, Pauma, Rincon, and San Pasqual Bands of Mission

Indians, the San Luis Rey River Indian Water Authority, the City of Escondido, and Vista Irrigation District (October 10, 2003). This agreement includes assignment of MWD's rights and interest in delivery of 77,700 acre-feet of Colorado River water previously intended to be delivered to MWD to the Water Authority. Allocates water from the AAC and CC lining projects for at least 110 years to the Water Authority, the San Luis Rey Indian Water Rights Settlement Parties, and IID, if it exercises its call rights.

Amended and Restated Agreement between MWD and Water Authority for the Exchange of Water (October 10, 2003). This agreement was executed pursuant to the QSA and provides for delivery of the conserved canal lining water to the Water Authority.

Agreement between MWD and Water Authority regarding Assignment of Agreements related to the AAC and CC Lining Projects. This agreement was executed in April 2004 and assigns MWD's rights to the Water Authority for agreements that had been executed to facilitate funding and construction of the AAC and CC lining projects:

Assignment and Delegation of Construction Obligations for the Coachella Canal Lining Project under the Department of Water Resources Funding Agreement No. 4600001474 from the San Diego County Water Authority to the Coachella Valley Water District, dated September 8, 2004.

Agreement Regarding the Financial Arrangements between the San Diego County Water Authority and Coachella Valley Water District for the Construction Obligations for the Coachella Canal Lining Project, dated September 8, 2004.

Agreement No. 04-XX-30-W0429 Among the United States Bureau of Reclamation, the Coachella Valley Water District, and the San Diego County Water Authority for the Construction of the Coachella Canal Lining Project Pursuant to Title II of Public Law 100-675, dated October 19, 2004.

California Water Code Section 12560 et seq. This Water Code Section provides for \$200 million to be appropriated to the Department of Water Resources to help fund the canal lining projects in furtherance of implementing California's Colorado River Water Use Plan.

California Water Code Section 79567. This Water Code Section identifies \$20 million as available for appropriation by the California Legislature from the Water Security, Clean Drinking Water, Coastal, and Beach Protection Fund of 2002 (Proposition 50) to DWR for grants for canal lining and related projects necessary to reduce Colorado River water use. According to the Allocation Agreement, it is the intention of the agencies that those funds will be available for use by the Water Authority, IID, or CVWD for the AAC and CC lining projects.

California Public Resources Code Section 75050(b) (1). This section identifies up to \$36 million as available for water conservation projects that implement the Allocation Agreement as defined in the Quantification Settlement Agreement.

Federal, State, and Local Permits/Approvals

AAC Lining Project Final EIS/EIR (March 1994). A final EIR/EIS analyzing the potential impacts of lining the AAC was completed by the Bureau of Reclamation (Reclamation) in March 1994. A Record of Decision was signed by Reclamation in July 1994, implementing the preferred alternative for lining the AAC. A re-examination and analysis of these environmental compliance documents by Reclamation in November 1999 determined that these documents continued to meet the requirements of the NEPA and the CEQA and would be valid in the future.

CC Lining Project Final EIS/EIR (April 2001). The final EIR/EIS for the CC lining project was completed in 2001. Reclamation signed the Record of Decision in April 2002. An amended Record of Decision has also been signed to take into account revisions to the project description.

Mitigation, Monitoring, and Reporting Program for Coachella Canal Lining Project, SCH #1990020408; prepared by Coachella Valley Water District, May 16, 2001.

Environmental Commitment Plan for the Coachella Canal Lining Project, approved by the US Bureau of Reclamation (Boulder City, NV) on March 4, 2003.

Environmental Commitment Plan and Addendum to the All-American Canal Lining Project EIS/EIR California State Clearinghouse Number SCH 90010472 (June 2004, prepared by IID).

Addendum to Final EIS/EIR and Amendment to Environmental Commitment Plan for the All-American Canal Lining Project (approved June 27, 2006, by IID Board of Directors).

6.2.1.3 Carlsbad Seawater Desalination Project

Development of seawater desalination in San Diego County will assist the region in diversifying its water resources, reduce dependence on imported supplies, and provide a new drought-proof, locally treated water supply. The Carlsbad Desalination Project is a fully-permitted seawater desalination plant and conveyance pipeline currently being developed by Poseidon, a private investor-owned company that develops water and wastewater infrastructure. The project, located at the Encina Power Station in Carlsbad, has been in development since 1998 and was incorporated into the Water Authority's 2003 Water Facilities Master Plan and the 2010 UWMP. The Carlsbad Desalination Project has obtained all required permits and environmental clearances and, when completed, will provide a highly reliable local supply of 56,000 acre-feet per year for the region.

Implementation Status

The Project has obtained all required permits and environmental clearances, including the following:

- National Pollutant Discharge Elimination System (NPDES) Discharge Permit (Regional Water Quality Control Board)
- Conditional Drinking Water Permit (California Department of Health Services)
- State Lands Commission Lease (State Lands Commission)
- Coastal Development Permit (California Coastal Commission)

IDE Technologies, a worldwide leader in the design, construction, and operation of desalination plants, was selected by Poseidon to be the desalination process contractor for the Project.

In July 2010, the Water Authority Board approved a Term Sheet between the Water Authority and Poseidon and directed staff to prepare a Water Purchase Agreement based on its provisions. Prior to the Water Authority engaging (in 2010) as a potential purchaser of all the water produced by the Project, Poseidon was pursuing a project structure where nine local water agencies had signed water purchase agreements. Ultimately, that project structure was found to be financially infeasible and the Water Authority was asked to step into the role of purchaser of the supply. Key terms for a potential Water Purchase Agreement between the Water Authority and Poseidon include the following:

- The term of the agreement will be for 30 years once commercial operation begins, subject to early buyout provisions beginning at 10 years.
- The Water Authority will shift the risks associated with the design, permitting, financing, construction, and operation of the Project to Poseidon.
- The price for water will be based on the actual cost of production.
- There will be the option to buy the entire plant beginning 10 years after the start date for commercial operation at a price to be specified in the water purchase agreement, as well as the right to purchase the plant at the end of the 30-year water purchase agreement term for \$1. This ensures eventual public ownership of the plant, securing long-term price certainty and regional public benefit from ratepayers' past investments in the plant through 30 years of water purchase payments.

Expected Supply

When completed, the Project will provide a highly reliable local supply of 56,000 acre-feet per year of supply for the region, available in both normal and dry hydrologic conditions.

Transportation

A 54-inch pipeline will be constructed to convey product water from the desalination plant 10.5 miles east to the Water Authority's Second Aqueduct. The water will be then be conveyed 5 miles north to the Water Authority's Twin Oaks Valley Water Treatment Plant facility, where it will be blended with treated imported water and subsequently distributed into the Water Authority's existing aqueduct system.

Cost/Financing

The Term Sheet between the Water Authority and Poseidon provides the basis for a potential purchase agreement whereby the Water Authority would purchase the entire output from the Project at a price based on the cost of production. A preliminary September 2010 unit cost estimate was \$1,600/AF. The Water Authority's water purchase costs would be financed through Water Authority rates and charges. If the water purchase agreement is approved by the Water Authority Board, Poseidon plans to finance the capital cost of the Project with a combination of private equity and tax-exempt Private Activity Bonds.

Written Contracts or Other Proof

The expected supply and costs associated with the Carlsbad Desalination Project are based primarily on the following documents:

Development Agreement between City of Carlsbad and Poseidon (October 2009). A Development Agreement between Carlsbad and Poseidon was executed on October 5, 2009

Agreement of Term Sheet between the Water Authority and Poseidon Resources (July 2010). The Water Authority approved the Term Sheet at its July 2010 Board Meeting. The Term Sheet outlines the terms and conditions of a future Water Purchase Agreement with Poseidon and allocates the resources to prepare the draft Water Purchase Agreement.

Federal, State, and Local Permits/Approvals

Carlsbad Desalination Project Final EIR (June 2006). The City of Carlsbad certified the Final EIR and the final Notice of Determination for the project was signed on June 14, 2006.

NPDES Discharge Permit (August 2006). The Regional Water Quality Control Board issues the NPDES Discharge Permit for the project on August 16, 2006.

Drinking Water Permit (October 2006). The California Department of Health Services approved the Conditional Drinking Water Permit on October 19, 2006.

Coastal Development Permit (November 2007). The California Coastal Commission approved, with conditions, the Coastal Development Permit on November 15, 2007. The Coastal Development Permit allows construction and operation of the project in the Coastal Zone.

State Lands Commission Lease Application (August 2008). Amends lease of land by Cabrillo Power I LLC (Cabrillo) from the State Lands Commission for the lands where the project will be constructed. Cabrillo and Poseidon entered into agreement on July 1, 2003, authorizing Poseidon to use those lands to construct the project.

Addendum to Final EIR (September 2009). An Addendum to the Final EIR was certified by the City of Carlsbad and Notice of Determination for the Addendum was signed on September 15, 2009. The Addendum modified water conveyance pipeline alignments.

6.2.2 Water Authority Capital Improvement Program and Financial Information

The Water Authority's Capital Improvement Program (CIP) can trace its beginnings to a report approved by the Board in 1989 entitled, The Water Distribution Plan, a Capital Improvement Program through the Year 2010. The Water Distribution Plan included ten projects designed to increase the capacity of the aqueduct system, increase the yield from existing water treatment plants, obtain additional supplies from MWD, and increase the reliability and flexibility of the aqueduct system. Since that time the Water Authority has made numerous additions to the list of projects included in its CIP as the region's infrastructure needs and water supply outlook have changed.

The current list of projects included in the CIP is based on the results of planning studies, including the 2005 UWMP and the 2002 Regional Water Facilities Master Plan. These CIP projects, which are most recently described in the Water Authority's Adopted Multi-Year Budget, include projects valued at \$3.50 billion. These CIP projects are designed to meet projected water supply and delivery needs of the member agencies through 2035. The projects include a mix of new facilities that will add capacity to existing conveyance, storage, and treatment facilities, as well as repair and replace aging infrastructure:

- Asset Management – The primary components of the asset management projects include relining and replacing existing pipelines and updating and replacing metering facilities.
- New Facilities – These projects will expand the capacity of the aqueduct system, complete the projects required under the Quantification Settlement Agreement (QSA), and evaluate new supply opportunities.
- Emergency Storage Project – Projects remaining to be completed under the ongoing ESP include the San Vicente Dam Raise, the Lake Hodges projects, and a new pump station to extend ESP supplies to the northern reaches of the Water Authority service area.
- Other Projects – This category includes out-of-region groundwater storage, increased local water treatment plant capacity, and projects that mitigate environmental impacts of the CIP.

The Water Authority Board of Directors is provided a semi-annual and annual report on the status of development of the CIP projects. As described in the Water Authority's biennial budget, a combination of long and short term debt and cash (pay-as-you-go) will provide funding for capital improvements. Additional information is included in the Water

Authority's biennial budget, which also contains selected financial information and summarizes the Water Authority's investment policy.

6.3 Otay Water District

The Otay Water District WRMP Update and the 2010 UWMP contain comparisons of projected supply and demands through the year 2035. Projected potable water resources to meet planned demands as documented were planned to be supplied entirely with imported water received from the Water Authority. Recycled water resources to meet projected demands are planned to be supplied from local wastewater treatment plants. The OWD currently has no local supply of raw water, potable water, or groundwater resources.

The development and/or acquisition of potential groundwater, recycled water market expansion, and seawater desalination supplies by the OWD have evolved and are planned to occur in response to the regional water supply issues. These water supply projects are in addition to those identified as sustainable supplies in the current Water Authority and MWD UWMP, IRP, Master Plans, and other planning documents. These new additional water supply projects are not currently developed and are in various stages of the planning process. These local and regional water supply projects will allow for less reliance upon imported water and are considered a new water supply resource for the OWD.

The OWD expansion of the market areas for the use of recycled water within the watersheds upstream of the Sweetwater Reservoir and the Lower Otay Reservoir, and Otay Mesa will increase recycled water use and thus require less dependence on imported water for irrigation purposes.

The supply forecasts contained within this WSA Report do consider development and/or acquisition of potential groundwater, recycled water market expansion, and seawater desalination supplies by the OWD.

6.3.1 Availability of Sufficient Supplies and Plans for Acquiring Additional Supplies

The availability of sufficient potable water supplies and plans for acquiring additional potable water supplies to serve existing and future demands of the OWD is founded upon the preceding discussions regarding MWD's and the Water Authority's water supply resources and water supplies to be acquired by the OWD. Historic imported water deliveries from the Water Authority to OWD and recycled water deliveries from the OWD Ralph W. Chapman Water Reclamation Facility (RWCWRF) are shown in Table 6. Since the year 2000 through mid May 2007, recycled water demand has exceeded the recycled water supply capability typically in the summer months. The RWCWRF is limited to a maximum production of about 1,300 acre-feet per year. The recycled water supply shortfall had been met by

supplementing with potable water into the recycled water storage system as needed by adding potable water supplied by the Water Authority. On May 18, 2007 an additional source of recycled water supply from the City of San Diego’s South Bay Water Reclamation Plant (SBWRP) became available. The supply of recycled water from the SBWRP is a result of essentially completing construction and commencement of operations of the transmission, storage, and pump station systems necessary to link the SBWRP recycled water supply source to the existing OWD recycled water system.

Table 6
Otay Water District
Historic Imported and Local Water Supplies

Calendar Year	Imported Water (acre-feet)	Recycled Water (acre-feet)	Total (acre-feet)
1980	12,558	0	12,558
1985	14,529	0	14,529
1990	23,200	0	23,200
1995	20,922	614	21,536
2000	29,901	948	30,849
2005	37,678	1,227	38,905
2010	29,270	4,090	33,270

Source: Otay Water District operational records.

6.3.1.1 Imported and Regional Supplies

The availability of sufficient imported and regional potable water supplies to serve existing and planned uses within OWD is demonstrated in the above discussion on MWD and the Water Authority’s water supply reliability. The County Water Authority Act, Section 5 subdivision 11, states that the Water Authority “as far as practicable, shall provide each of its member agencies with adequate supplies of water to meet their expanding and increasing needs.” The Water Authority provides between 75 to 95 percent of the total supplies used by its 24 member agencies, depending on local weather and supply conditions. In calendar year 2010 the supply to OWD was 29,270 acre-feet of supply from the Water Authority. An additional 4,090 ac-ft of recycled water was provided from the City of San Diego and from OWD’s Ralph W. Chapman Water Reclamation Facility. The total baseline demand for potable water within the OWD is expected to increase to about 77,171 acre-feet by 2035 as per the Otay Water District 2010 UWMP.

Potable Water System Facilities

The OWD continues to pursue diversification of its water supply resources to increase reliability and flexibility. The OWD also continues to plan, design, and construct potable water system facilities to obtain these supplies and to distribute potable water to meet customer demands. The OWD has successfully negotiated two water supply diversification agreements that enhance reliability and flexibility, which are briefly described as follows.

- The OWD entered into an agreement with the City of San Diego, known as the Otay Water Treatment Plant (WTP) Agreement. The Otay WTP Agreement provides for raw water purchase from the Water Authority and treatment by the City of San Diego at their Otay WTP for delivery to OWD. The supply system link to implement the Otay WTP Agreement to access the regions raw water supply system and the local water treatment plant became fully operational in August 2005. This supply link consists of the typical storage, transmission, pumping, flow measurement, and appurtenances to receive and transport the treated water to the OWD system. The City of San Diego obligation to supply 10 mgd of treated water under the Otay WTP Agreement is contingent upon there being available 10 mgd of surplus treatment capacity in the Otay WTP until such time as OWD pays the City of San Diego to expand the Otay WTP to meet the OWD future needs. In the event that the City of San Diego's surplus is projected to be less than 10 mgd the City of San Diego will consider and not unreasonably refuse the expansion of the Otay WTP to meet the OWD future needs. The Otay WTP existing rated capacity is 40 mgd with an actual effective capacity of approximately 34 mgd. The City of San Diego's typical demand for treated water from the Otay WTP is approximately 20 mgd. It is at the City of San Diego's discretion to utilize either imported raw water delivered by the Water Authority Pipeline No. 3 or local water stored in Lower Otay Reservoir for treatment to supply the OWD demand.
- The OWD entered into an agreement with the Water Authority, known as the East County Regional Treated Water Improvement Program (ECRTWIP Agreement). The ECRTWIP Agreement provides for transmission of raw water to the Helix WD R. M. Levy WTP for treatment and delivery to OWD. The supply system link to implement the ECRTWIP Agreement is complete allowing access to the regions raw water supply system and the local water treatment plant. This supply link consists of the typical transmission, pumping, storage, flow control, and appurtenances to receive and transport the potable water from the R. M. Levy WTP to OWD. The OWD is required to take a minimum of 10,000 acre-feet per year of treated water from the R.M. Levy WTP supplied from the regions raw water system.

Cost and Financing

The capital improvement costs associated with water supply and delivery are financed through the OWD water meter capacity fee and user rate structures. The OWD potable water

sales revenue are used to pay for the wholesale cost of the treated water supply and the operating and maintenance expenses of the potable water system facilities.

Written Agreements, Contracts, or Other Proof

The supply and cost associated with deliveries of treated water from the Otay WTP and the R.M. Levy WTP is based on the following documents.

Agreement for the Purchase of Treated Water from the Otay Water Treatment Plant between the City of San Diego and the Otay Water District. The OWD entered into an agreement dated January 11, 1999 with the City of San Diego that provides for 10 mgd of surplus treated water to the OWD from the existing Otay WTP capacity. The agreement allows for the purchase of treated water on an as available basis from the Otay WTP. The OWD pays the Water Authority at the prevailing raw water rate for raw water and pays the City of San Diego at a rate equal to the actual cost of treatment to potable water standards.

Agreement between the San Diego County Water Authority and Otay Water District Regarding Implementation of the East County Regional Treated Water Improvement Program. The ECRTWIP Agreement requires the purchase of at least 10,000 acre-feet per year of potable water from the Helix WD R.M. Levy WTP at the prevailing Water Authority treated water rate. The ECRTWIP Agreement is dated April 27, 2006.

Agreement between the San Diego County Water Authority and Otay Water District for Design, Construction, Operation, and Maintenance of the Otay 14 Flow Control Facility Modification. The OWD entered into the Otay 14 Flow Control Facility Modification Agreement dated January 24, 2007 with the Water Authority to increase the physical capacity of the Otay 14 Flow Control Facility. The Water Authority and OWD shared the capital cost to expand its capacity from 8 mgd to 16 mgd.

Federal, State, and Local Permits/Approvals

The OWD acquired all the permits for the construction of the pipeline and pump station associated with the Otay WTP supply source and for the 640-1 and 640-2 water storage reservoirs project associated with the ECRTWIP Agreement through the typical planning, environmental approval, design, and construction processes.

The transmission main project constructed about 26,000 feet of a 36-inch diameter steel pipeline from the Otay 14 Flow Control Facility to the 640-1 and 640-2 Reservoirs project. The Otay 14 Flow Control Facility modification increased the capacity of the existing systems from 8 mgd to 16 mgd. CEQA documentation is complete for both projects. Construction of both of these projects was completed October 2010.

The City of San Diego and the Helix Water District are required to meet all applicable federal, state, and local health and water quality requirements for the potable water produced at the Otay WTP and the R.M. Levy WTP respectively.

6.3.1.2 Recycled Water Supplies

Wastewater collection, treatment, and disposal services provided by the OWD is limited to a relatively small area within what is known as the Jamacha Basin, located within the Middle Sweetwater River Basin watershed upstream of the Sweetwater Reservoir and downstream of Loveland Reservoir. Water recycling is defined as the treatment and disinfection of municipal wastewater to provide a water supply suitable for non-potable reuse. The OWD owns and operates the Ralph W. Chapman Water Reclamation Facility, which produces recycled water treated to a tertiary level for landscape irrigation purposes. The recycled water market area of the OWD is located primarily within the eastern area of the City of Chula Vista and on the Otay Mesa. The OWD distributes recycled water to a substantial market area that includes but is not limited to the U.S. Olympic Training Center, the Eastlake Golf Course, Otay Ranch, and other development projects.

The OWD projects that annual average demands for recycled water will increase to 8,000 acre-feet per year by 2035. About 1,300 acre-feet per year of supply is generated by the RWCWRF, with the remainder planned to be supplied to OWD by the City of San Diego's SBWRP.

North District Recycled Water Concept

The OWD is a recognized leader in the use of recycled water for irrigation and other commercial uses. The OWD continues the quest to investigate all viable opportunities to expand the successful recycled water program into areas that are not currently served. One of these areas is in the portion of the service area designated as the North District, located within the Middle Sweetwater River Basin watershed upstream of the Sweetwater River. The close proximity of the recycled water markets in the North District to the OWD source of recycled water, the RWCWRF, means that the distribution system to serve this area could be constructed relatively cost effectively. This makes the North District a logical location for the expansion of the OWD recycled water system and market area.

The purpose of the North District Recycled Water System Development Project, Phase I Concept Study, is to identify the feasibility of using recycled water in the North District and to investigate and assess any limitations or constraints to its use. The Phase I study components of the North District Recycled Water Concept encompassed the preparation of six technical memorandums including the project definition, a discussion of the regulatory process, a discussion of the protection of the watershed that would be affected by recycled water use in the North District, identification of stakeholders, public outreach, and an implementation plan.

Several opportunities that could be realized with the implementation of the use of recycled water in the North District were identified. These include a reduction of demand on the

potable water system and maximizing recycled water resources which in turn minimizes treated wastewater discharges to the local ocean outfall. Other opportunities are a possible partnership with Sweetwater Authority to monitor any benefits and impacts of increased recycled water use in the watershed and stakeholder outreach to resolve any water quality concerns and to retain consumer confidence. Also identified were two major constraints associated with the North District Recycled Water System Development Project. One constraint is the water quality objectives for the Middle Sweetwater Basin that will affect the effluent limitations for the recycled water produced at the RWCWRF. At this time, the effluent limit that is of concern is total nitrogen. An examination as to how the treatment process might be modified to enhance nitrogen removal and a design is underway to remedy the total nitrogen issue. The other major constraint is the cost of the infrastructure needed to convey and store recycled water in the North District. These costs are estimated to be in the range of \$14 to \$15 million dollars.

There are two additional phases proposed for the North District Recycled Water System Development Project. Phase II would include further investigation of the issues identified in Phase I as requiring further study. These include stakeholder outreach, regulatory issues, and facility planning. The third phase of the effort would include the facility planning, permitting, environmental compliance, design, and construction of the improvements necessary for delivery of recycled water to the North District markets.

The estimated amount of imported water saved at full implementation of the North District Recycled Water System Development Project is 1,200 acre-feet per year. This saved imported water could then be used to offset new potable water demands.

Recycled Water System Facilities

The OWD has and continues to construct recycled water storage, pumping, transmission, and distribution facilities to meet projected recycled water market demands. For nearly 20 years, millions of dollars of capital improvements have been constructed. The supply link consisting of a transmission main, storage reservoir, and a pump station to receive and transport the recycled water from the City of San Diego's SBWRP are complete and recycled water deliveries began on May 18, 2007.

Cost and Financing

The capital improvement costs associated with the recycled water supply and distribution systems are financed through the OWD water meter capacity fee and user rate structures. The OWD recycled water sales revenue, along with MWD and the Water Authority's recycled water sales incentive programs are used to help offset the costs for the wholesale purchase and production of the recycled water supply, the operating and maintenance expenses, and the capital costs of the recycled water system facilities.

Written Agreements, Contracts, or Other Proof

The supply and cost associated with deliveries of recycled water from the SBWRP is based on the following document.

Agreement between the Otay Water District and the City of San Diego for Purchase of Reclaimed Water from the South Bay Water Reclamation Plant. The agreement provides for the purchase of at least 6,721 acre-feet per year of recycled water from the SBWRP at an initial price of \$350 per acre-foot. The Otay Water District Board of Directors approved the final agreement on June 4, 2003 and the San Diego City Council approved the final agreement on October 20, 2003.

Federal, State, and Local Permits/Approvals

The OWD has in place an agreement with MWD for their recycled water sales incentive program for supplies from the RWCWRF and the SBWRP. Also, the OWD has in place an agreement with the Water Authority for their recycled water sales incentive program for supplies from the RWCWRF and the SBWRP. The Water Authority sales incentive agreement was approved by Water Authority on July 26, 2007 and by OWD on August 1, 2007. All permits for the construction of the recycled water facilities to receive, store, and pump the SBWRP supply have been acquired through the typical planning, environmental approval, design, and construction processes.

The California Regional Water Quality Control Board San Diego Region (RWQCB) “Master Reclamation Permit for Otay Water District Ralph W. Chapman Reclamation Facility” was adopted on May 9, 2007 (Order No. R9-2007-0038). This order establishes master reclamation requirements for the production, distribution, and use of recycled water in the OWD service area. The order includes the use of tertiary treated water produced and received from the City of San Diego’s SBWRP. Recycled water received from and produced by the SBWRP is regulated by Regional Board Order No. 2000-203 and addenda. The City of San Diego is required to meet all applicable federal, state, and local health and water quality requirements for the recycled water produced at the SBWRP and delivered to OWD in conformance with Order No. 2000-203.

6.3.1.3 Potential Groundwater Supplies

The Otay Water District WRMP Update, 2010 UWMP, and the Otay Water District March 2007 Integrated Water Resources Plan (2007 IRP) all contain a description of the development of potential groundwater supplies. Over the past several years, OWD has studied numerous potential groundwater supply options that have shown, through groundwater monitoring well activities, poor quality water and/or insufficient yield from the basins at a cost effective level. The OWD has developed capital improvement program projects to continue the quest to develop potential groundwater resources. Local OWD groundwater

supply development is currently considered as a viable water supply resource to meet projected demands.

The development and/or acquisition of potential groundwater supply projects by the OWD have evolved and have been resurrected in response to the regional water supply issues related to water source supply conditions. Local ground water supply projects will allow for less reliance upon imported water, achieve a level of independence of the regional wholesale water agencies, and diversify the OWD water supply portfolio consistent the Otay Water District 2007 IRP.

In recognition of the need to develop sufficient alternative water supplies, the OWD has taken the appropriate next steps towards development of production groundwater well projects.

There are three groundwater well projects that the OWD is actively pursuing to develop as new local water supplies. They are known as the Middle Sweetwater River Basin Groundwater Well, the Otay Mesa Lot 7 Groundwater Well, and the Rancho del Rey Groundwater Well projects.

Middle Sweetwater River Basin Groundwater Well

The Middle Sweetwater River Basin Groundwater Well is an additional water supply project that was thoroughly studied and documented in the 1990s. The Middle Sweetwater River Basin is located within the Sweetwater River watershed and that reach of the river extends from Sweetwater Reservoir to the upstream Loveland Reservoir. The next step in development of the Middle Sweetwater River Basin Groundwater Well is the implementation of a pilot well project. The ultimate objective of the OWD is to develop a groundwater well production system within the Middle Sweetwater River Basin capable of producing a sustainable yield of potable water as a local supply.

The purpose of the Middle Sweetwater River Basin Groundwater Well Pilot project is to identify the feasibility of developing a groundwater resource production system and then determine and assess any limitations or constraints that may arise. The Middle Sweetwater River Basin Groundwater Well Pilot Project will accomplish six primary goals:

- Update project setting
- Update applicable project alternatives analysis
- Prepare groundwater well pilot project implementation plan
- Construct and test pilot monitoring and extraction wells
- Provide recommendations regarding costs and feasibility to develop a groundwater well production system within the Middle Sweetwater River Basin capable of producing a sustainable yield of potable water
- Prepare groundwater well production project implementation plan and scope of work

The groundwater conjunctive use concept is described as the extraction of the quantity of water from the groundwater basin that was placed there by customers of the Otay Water District, Helix Water District, and Padre Dam Municipal Water District by means of their use of imported treated water that contributed to the overall volume of groundwater within the basin. An estimated quantity was developed to be approximately 12.5 percent of the total consumption of the OWD customers within that basin, as measured by water meters. In the 1994-1995 period, the quantity of water that was returned to the groundwater basin by OWD customers was estimated to be 810 acre-feet per year. Currently, that 12.5 percent quantity could be on the order of 1,000 acre-feet per year. A future scope of work will need to address this concept while considering further development of the groundwater basin as an additional supply resource. If it is deemed that a Middle Sweetwater River Basin Groundwater Well Production Project is viable then the consultant will develop and provide a groundwater well production project implementation plan, cost estimate, and related scope of work.

Further development of the groundwater basin to enhance the total groundwater production could be accomplished by the OWD by means of additional extraction of water from the basin that is placed there by means of either injection and/or spreading basins using imported untreated water as the resource supply. The existing La Mesa Sweetwater Extension Pipeline, owned by the Water Authority, once converted to an untreated water delivery system, could be the conveyance system to transport untreated water for groundwater recharge in support of this conjunctive use concept. These two distinct water resource supply conjunctive use concepts will be addressed so they may coexist and to allow for their development as separate phases.

The scope of work to complete Middle Sweetwater River Basin Groundwater Well Pilot Project consists of many major tasks and is to address the groundwater supply concepts outlined above. It is anticipated that the cost for the entire scope of work, will be on the order of \$2,000,000, which includes a contingency and may take up to one and a half years to complete.

The primary desired outcome of the Middle Sweetwater River Basin Groundwater Well Pilot Project is for the engineering consultant to determine and make recommendations if it is financially prudent and physically feasible to develop a Phase I groundwater well production system within the Middle Sweetwater River Basin capable of producing a sustainable yield of up to 1,500 ac-ft/yr of potable water for the OWD. If it is deemed that a Middle Sweetwater River Basin Groundwater Well Production Project is viable then the consultant will develop and provide a groundwater well production project implementation plan and related scope of work.

Otay Mesa Lot 7 Groundwater Well

In early 2001 the OWD was approached by a landowner representative about possible interest in purchasing an existing well or alternatively, acquiring groundwater supplied from the well

located on Otay Mesa. The landowner, National Enterprises, Inc., reportedly stated that the well could produce 3,200 acre-feet per year with little or no treatment required prior to introducing the water into the OWD potable water system or alternatively, the recycled water system. In March 2001 authorization to proceed with testing of the Otay Mesa Lot 7 Groundwater Well was obtained and the OWD proceeded with the investigation of this potential groundwater supply opportunity.

The May 2001 Geoscience Support Services, Inc. completed for the OWD the preparation of a report entitled, "Otay Mesa Lot 7 Well Investigation," to assess the Otay Mesa Lot 7 Well. The scope of work included a geohydrologic evaluation of the well, analyses of the water quality samples, management and review of the well video log, and documentation of well pump testing. The primary findings, as documented in the report, formed the basis of the following recommendations:

- For the existing well to be use as a potable water supply resource, a sanitary seal must be installed in accordance with the CDPH guidelines.
- Drawdown in the well must be limited to avoid the possibility of collapsing the casing.
- Recover from drawdown from pumping is slow and extraction would need to be terminated for up to 2 days to allow for groundwater level recovery.
- The well water would need to be treated and/or blended with potable water prior to introduction into the potable water distribution system.

The existing Otay Mesa Lot 7 Well, based upon the above findings, was determined not to be a reliable municipal supply of potable water and that better water quality and quantity perhaps could be discovered deeper or at an alternative location within the San Diego Formation.

The OWD may still continue to pursue the Otay Mesa groundwater well opportunity with due consideration of the recommendations of the existing report. Based on the recommendations of the investigation report, a groundwater well production facility at Otay Mesa Lot 7 could realistically extract approximately 300 acre-feet per year.

Rancho del Rey Groundwater Well

In 1991, the McMillin Development Company drilled the Rancho del Rey Groundwater Well to augment grading water supplies for their Rancho del Rey development projects. Although the well was considered a "good producer," little was known regarding its water quality and sustainable yield because the water was used solely for earthwork (i.e. dust control and soil compaction). The well was drilled to 865 feet, with a finished depth of 830 feet and produced approximately 400 acre-feet per year of low quality water for four years until its use was discontinued in April 1995 when the well was no longer needed. McMillin notified the OWD of its intent to sell off the groundwater well asset.

In 1997, the OWD purchased an existing 7-inch well and the surrounding property on Rancho del Rey Parkway from the McMillin Company with the intent to develop it as a source of

potable water. Treatment was required to remove salts and boron, among other constituents, using reverse osmosis membranes and ion exchange.

In 2000, having received proposals for the design and construction of a reverse osmosis treatment facility that far exceeded the allocated budget, the Board of Directors instructed staff to suspend the project until such time as it became economically viable.

In January 2010, citing the rising cost of imported water and the OWD's interest in securing its own water source for long-term supply reliability, the Board authorized Phase 1 for drilling and development of the Rancho del Rey Well.

In September 2010, a new 12-inch production well was drilled to a depth of 900 feet through the groundwater formation and into fractured bedrock. Testing showed the long-term yield of the new well to be 450 gpm, higher than previous studies had estimated. Separation Processes, Inc. (SPI), a highly qualified membrane treatment firm, was hired to conduct a detailed economic feasibility study to confirm that the annualized unit cost of the new water source was economically competitive with other sources. The economic study estimated the unit cost of water to be \$1, 500 to \$2,000 per acre-foot for an alternative that utilizes a seawater membrane for treating both salts and boron. When compared with the current imported treated water rate from the Water Authority, and with the knowledge that this rate will continually increase as MWD and the Water Authority raise their rates, the Rancho del Rey Well project appears to be economically viable.

The OWD is continuing to pursue the Rancho del Rey groundwater well opportunity with due consideration of the recommendations of the existing reports and plans to develop a groundwater well production facility to extract approximately 500 acre-feet per year. For water planning purposes, production of groundwater from the Rancho del Rey well is considered “additional planned” for local supplies. During preparation of this 2010 UWMP, the OWD has contracted for design services for the wellhead treatment facilities.

6.3.1.4 Otay Water District Desalination Project

The OWD is currently investigating the feasibility of purchasing desalinated water from a seawater reverse osmosis plant that is planned to be located in Rosarito, Mexico, known as the Otay Mesa Desalinated Water Conveyance System (Desalination) project. The treatment facility is intended to be designed, constructed, and operated in Mexico by a third party. The OWD’s draft Desalination Feasibility Study, prepared in 2008, discusses the likely issues to be considered in terms of water treatment and monitoring, potential conveyance options within the United States from the international border to potential delivery points, and environmental, institutional, and permitting considerations for the OWD to import the Desalination project product water as a new local water supply resource.

While the treatment facility for the Desalination project will likely not be designed or operated by the OWD as the lead agency, it is important that the OWD maintain involvement with the planning, design, and construction of the facility to ensure that the implemented processes provide a product water of acceptable quality for distribution and use within the OWD's system as well as in other regional agencies' systems that may use the product water, i.e. City of San Diego, the Water Authority, etc. A seawater reverse osmosis treatment plant removes constituents of concern from the seawater, producing a water quality that far exceeds established United States and California drinking water regulations for most parameters, however, a two-pass treatment system may be required to meet acceptable concentrations of boron and chlorides, similar to the levels seen within the existing OWD supply sources. The Desalination Feasibility Study addresses product water quality that is considered acceptable for public health and distribution.

The OWD, or any other potential participating agencies, will be required to get approval from the CDPH in order to use the desalinated seawater as a water source. Several alternative approaches are identified for getting this approval. These alternatives vary in their cost and their likelihood of meeting CDPH approval.

The Rosarito Desalination Facility Conveyance and Disinfection System Project report addresses two supply targets for the desalinated water (i.e. local and regional). The local alternative assumes that only OWD would participate and receive desalinated water, while the regional alternative assumes that other regional and/or local agencies would also participated in the Rosarito project.

On November 3, 2010, the OWD authorized the General Manager to enter into an agreement with AECOM for the engineering design, environmental documentation, and the permitting for the construction of the conveyance pipeline, pump station, and disinfection facility to be constructed within the OWD. The supply target is assumed to be 50 mgd while the ultimate capacity of the plant will be 100 mgd.

The OWD is proceeding with negotiations among the parties to establish water supply resource acquisition terms through development of a Principles of Understanding document.

6.3.2 Otay Water District Capital Improvement Program

The OWD plans, designs, constructs, and operates water system facilities to acquire sufficient supplies and to meet projected ultimate demands placed upon the potable and recycled water systems. In addition, the OWD forecasts needs and plans for water supply requirements to meet projected demands at ultimate build out. The necessary water facilities and water supply projects are implemented and constructed when development activities proceed and require service to achieve timely and adequate cost effective water service.

New water facilities that are required to accommodate the forecasted growth within the entire OWD service area are defined and described within the Otay Water District WRMP Update. These facilities are incorporated into the annual OWD Six Year Capital Improvement Program (CIP) for implementation when required to support development activities. As major development plans are formulated and proceed through the land use jurisdictional agency approval processes, OWD prepares water system requirements specifically for the proposed development project consistent with the Otay Water District WRMP Update. These requirements document, define, and describe all the potable water and recycled water system facilities to be constructed to provide an acceptable and adequate level of service to the proposed land uses, as well as the financial responsibility of the facilities required for service. The OWD funds the facilities identified as CIP projects. Established water meter capacity fees and user rates are collected to fund the CIP project facilities. The developer funds all other required water system facilities to provide water service to their project.

Section 7 – Conclusion: Availability of Sufficient Supplies

The Hawano Project is currently located within the jurisdictions of the OWD, Water Authority, and MWD. To obtain permanent imported water supply service, land areas are required to be within the jurisdictions of the OWD, Water Authority, and MWD to utilize imported water supply.

The Water Authority and MWD have an established process that ensures supplies are being planned to meet future growth. Any annexations and revisions to established land use plans are captured in the San Diego Association of Governments (SANDAG) updated forecasts for land use planning, demographics, and economic projections. SANDAG serves as the regional, intergovernmental planning agency that develops and provides forecast information. The Water Authority and MWD update their demand forecasts and supply needs based on the most recent SANDAG forecast approximately every five years to coincide with preparation of their urban water management plans. Prior to the next forecast update, local jurisdictions with land use authority may require water supply assessment and/or verification reports for proposed land developments that are not within the OWD, Water Authority, or MWD jurisdictions (i.e. pending or proposed annexations) or that have revised land use plans with either lower or higher development intensities than reflected in the existing growth forecasts. Proposed land areas with pending or proposed annexations, or revised land use plans, typically result in creating higher demand and supply requirements than previously anticipated. The OWD, Water Authority, and MWD next demand forecast and supply requirements and associated planning documents would then capture any increase or decrease in demands and required supplies as a result of annexations or revised land use planning decisions.

MWD's Integrated Resources Plan (IRP) identifies a mix of resources (imported and local) that, when implemented, will provide 100 percent reliability for full-service demands through

the attainment of regional targets set for conservation, local supplies, State Water Project supplies, Colorado River supplies, groundwater banking, and water transfers. The 2010 update to the IRP includes a planning buffer supply intended to mitigate against the risks associated with implementation of local and imported supply programs and for the risk that future demands could be higher than projected. The planning buffer identifies an additional increment of water that could potentially be developed when needed and if other supplies are not fully implemented as planned. As part of implementation of the planning buffer, MWD periodically evaluates supply development, supply conditions, and projected demands to ensure that the region is not under or over developing supplies. Managed properly, the planning buffer will help ensure that the southern California region, including San Diego County, will have adequate water supplies to meet long-term future demands.

In Section ES-5 of their 2010 RUWMP, MWD states that MWD has supply capacities that would be sufficient to meet expected demands from 2015 through 2035. MWD has plans for supply implementation and continued development of a diversified resource mix including programs in the Colorado River Aqueduct, State Water Project, Central Valley Transfers, local resource projects, and in-region storage that enables the region to meet its water supply needs. MWD's 2010 RUWMP identifies potential reserve supplies in the supply capability analysis (Tables 2-9, 2-10, and 2-11), which could be available to meet the unanticipated demands.

The County Water Authority Act, Section 5 subdivision 11, states that the Water Authority "as far as practicable, shall provide each of its member agencies with adequate supplies of water to meet their expanding and increasing needs."

As part of preparation of a written water supply assessment report, an agency's shortage contingency analysis should be considered in determining sufficiency of supply. Section 11 of the Water Authority's 2010 Updated UWMP contains a detailed shortage contingency analysis that addresses a regional catastrophic shortage situation and drought management. The analysis demonstrates that the Water Authority and its member agencies, through the Emergency Response Plan, Emergency Storage Project, and Drought Management Plan (DMP) are taking actions to prepare for and appropriately handle an interruption of water supplies. The DMP, adopted in May 2006, provides the Water Authority and its member agencies with a series of potential actions to take when faced with a shortage of imported water supplies from MWD due to prolonged drought or other supply shortfall conditions. The actions will help the region avoid or minimize the impacts of shortages and ensure an equitable allocation of supplies.

The WSA Report identifies and describes the processes by which water demand projections for the proposed Hawano Project will be fully included in the water demand and supply forecasts of the Urban Water Management Plans and other water resources planning documents of the Water Authority and MWD. Water supplies necessary to serve the demands of the proposed Hawano Project, along with existing and other projected future users, as well as the actions necessary and status to develop these supplies, have been identified in the

Hawano Project WSA Report and will be included in the future water supply planning documents of the Water Authority and MWD.

This WSA Report includes, among other information, an identification of existing water supply entitlements, water rights, water service contracts, water supply projects, or agreements relevant to the identified water supply needs for the proposed Hawano Project. This WSA Report assesses, demonstrates, and documents that sufficient water supplies are planned for and are intended to be available over a 20-year planning horizon, under normal conditions and in single and multiple dry years to meet the projected demand of the proposed Hawano Project and the existing and other planned development projects to be served by the OWD.

Table 7 presents the forecasted balance of water demands and required supplies for the OWD service area under average or normal year conditions. The total actual demand for FY 2010 was 33,270 acre feet. The demand for FY 2010 is 5,635 acre feet lower than the demand in FY 2005 of 38,905 acre feet. The drop in demand is a result of the unit price of water, the conservation efforts of users as a result of the prolonged drought, and the economy.

Table 8 presents the forecasted balance of water demands and supplies for the OWD service area under single dry year conditions. Table 8 presents the forecasted balance of water demands and supplies for the OWD service area under multiple dry year conditions for the three year period ending in 2018. The multiple dry year conditions for periods ending in 2023, 2028, and 2033 are provided in the Otay Water District 2010 UWMP. The projected potable demand and supply requirements shown the Tables 7 and 8 are from the Otay Water District 2010 UWMP adjusted to reflect the additional 75.6 acre-feet per year of potable water demand for the Hawano Project. Hot, dry weather may generate urban water demands that are about 6.4 percent greater than normal. This percentage was utilized to generate the dry year demands shown in Table 8. The recycled water supplies are assumed to experience no reduction in a dry year.

Table 7
Projected Balance of Water Demands and Supplies Normal Year Conditions (acre feet)

Description	FY 2015	FY 2020	FY 2025	FY 2030	FY 2035
Demands					
OWD Demands	44,883	53,768	63,811	70,669	77,171
Hawano Project Demand Increase	0	0	0	0	0
Additional Conservation Target	0	(7,447)	(13,996)	(17,895)	(20,557)
Total Demand	44,883	46,321	49,815	52,774	56,614
Supplies					
Water Authority Supply	40,483	41,321	44,015	45,974	48,614
Recycled Water Supply	4,400	5,000	5,800	6,800	8,000
Total Supply	44,883	46,321	49,815	52,774	56,614
Supply Surplus/(Deficit)	0	0	0	0	0

Table 8 presents the forecasted balance of water demands and supplies for the OWD service area under single dry year and multiple dry year conditions as from the Otay Water District 2010 UWMP.

Table 8
Projected Balance of Water Demands and Supplies
Single Dry and Multiple Dry Year Conditions (acre feet)

	Normal Year	Single Dry Year	Multiple Dry Years		
	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Demands					
OWD Demands	37,176	41,566	43,614	46,385	50,291
Total Demand	37,176	41,566	43,614	46,385	50,291
Supplies					
Water Authority Supply	33,268	37,535	39,460	42,108	45,891
Recycled Water Supply	3,908	4,031	4,154	4,277	4,400
Total Supply	37,176	41,566	43,614	46,385	50,291
Supply Surplus/(Deficit)	0	0	0	0	0
District Demand totals with SBX7-7 conservation target achievement plus single dry year increase as shown. The Water Authority could implement its DMP. In this instances, the Water Authority may have to allocate supply shortages based on it equitable allocation methodology in its DMP.					

Dry year demands assumed to generate a 6.4% increase in demand over normal conditions for each year in addition to new demand growth.

Table 8 also presents the forecasted balance of water demands and supplies for the OWD service area under multiple dry year conditions for the three year period ending in 2015.

In evaluating the availability of sufficient water supply, the Hawano Project development proponents will be required to participate in the development of alternative water supply project(s). This can be achieved through payment of the New Water Supply Fee adopted by the OWD Board in May 2010. These water supply projects are in addition to those identified as sustainable supplies in the current Water Authority and MWD UWMP, IRP, Master Plans, and other planning documents. These new water supply projects are in response to the regional water supply issues related to climatological, environmental, legal, and other challenges that impact water source supply conditions, such as the court rulings regarding the Sacramento-San Joaquin Delta and the current ongoing western states drought conditions. These new additional water supply projects are not currently developed and are in various stages of the planning process. The OWD water supply development program includes but is not limited to projects such as the Middle Sweetwater River Basin Groundwater Well project, the North District Recycled Water Supply Concept, the OWD Desalination project, and the Rancho del Rey Groundwater Well project. The Water Authority and MWD's next forecasts and supply planning documents would capture any increase in water supplies resulting from any new water resources developed by the OWD.

The OWD acknowledges the ever-present challenge of balancing water supply with demand and the inherent need to possess a flexible and adaptable water supply implementation strategy that can be relied upon during normal and dry weather conditions. The responsible regional water supply agencies have and will continue to adapt their resource plans and strategies to meet climate, environmental, and legal challenges so that they may continue to provide water supplies to their service areas. The regional water suppliers along with OWD fully intend to maintain sufficient reliable supplies through the 20-year planning horizon under normal, single, and multiple dry year conditions to meet projected demand of the Hawano Project, along with existing and other planned development projects within the OWD service area.

This WSA Report assesses, demonstrates, and documents that sufficient water supplies are planned for and are intended to be acquired, as well as the actions necessary and status to develop these supplies, to meet projected water demands of the Hawano Project as well as existing and other reasonably foreseeable planned development projects within the OWD for a 20-year planning horizon, in normal and in single and multiple dry years.

Source Documents

County of San Diego, January 6, 2012, Letter Request to Initiate the Preparation of a Water Supply Assessment for the Hawano Technology Park. Compliance request letter received January 6, 2012.

City of Chula Vista, "Otay Ranch General Development Plan/Sub-regional Plan, The Otay Ranch Joint Planning Project," October 1993 amended June 1996.

County of San Diego, "East Otay Mesa Specific Plan Area," adopted July 27, 1994.

Otay Water District, "2008 Water Resources Master Plan Update," dated November 2010.

Atkins and Otay Water District, "Otay Water District 2010 Urban Water Management Plan," June 2011.

Camp Dresser & McKee, Inc., "Otay Water District Integrated Water Resources Plan," March 2007

San Diego County Water Authority, "Urban Water Management Plan 2010 Update," May 2011.

MWD Water District of Southern California, "Regional Urban Water Management Plan," November 2010.

Camp Dresser & McKee, Inc., "Rosarito Desalination Facility Conveyance and Disinfection System Project," June 21, 2010.

PBS&J, "Draft Otay Water District North District Recycled Water System Development Project, Phase I Concept Study," December 2008.

NBS Lowry, "Middle Sweetwater River System Study Water Resources Audit," June 1991.

Michael R. Welch, "Middle Sweetwater River System Study Alternatives Evaluation," May 1993.

Michael R. Welch, "Middle Sweetwater River Basin Conjunctive Use Alternatives," September 1994.

Geoscience Support Services, Inc., "Otay Mesa Lot 7 Well Investigation," May 2001.

Boyle Engineering Corporation, "Groundwater Treatment Feasibility Study Ranch del Ray Well Site," September 1996.

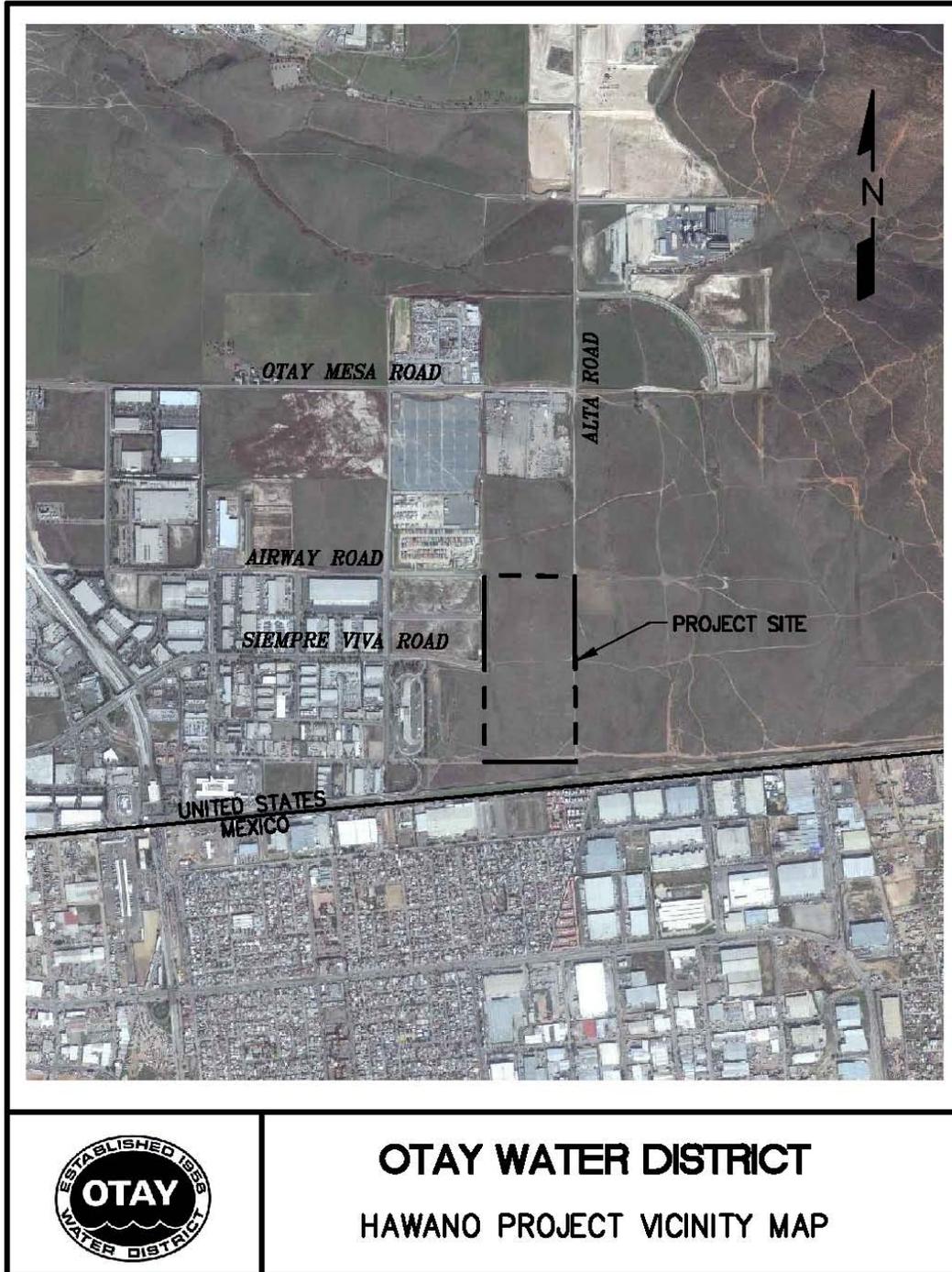
Agreement for the Purchase of Treated Water from the Otay Water Treatment Plant between the City of San Diego and the Otay Water District.

Agreement between the San Diego County Water Authority and Otay Water District regarding Implementation of the East County Regional Treated Water Improvement Program.

Agreement between the San Diego County Water Authority and Otay Water District for Design, Construction, Operation, and Maintenance of the Otay 14 Flow Control Facility Modification.

Agreement between the Otay Water District and the City of San Diego for Purchase of Reclaimed Water from the South Bay Water Reclamation Plant.

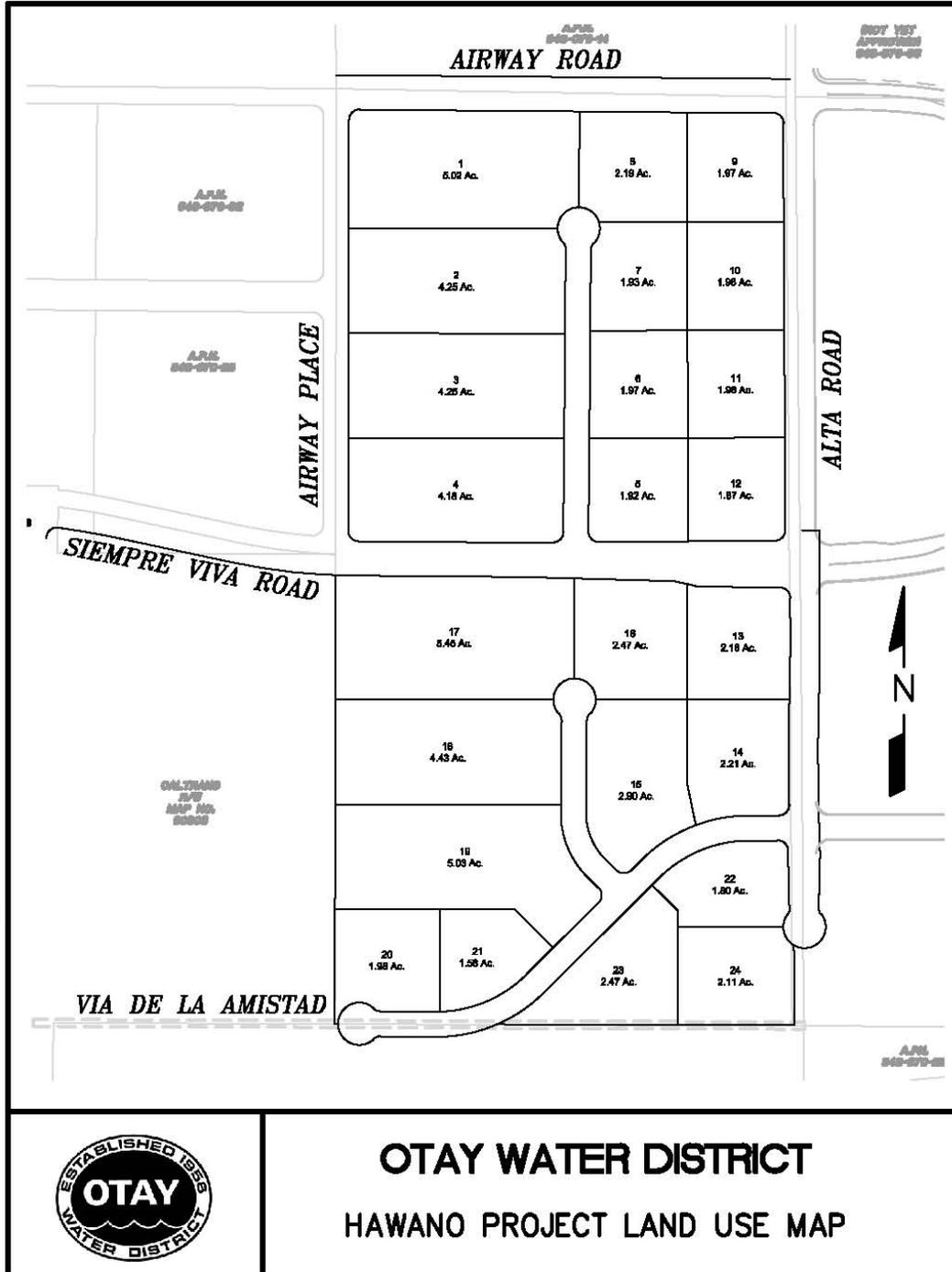
Appendix A Hawano Project Vicinity Map



OTAY WATER DISTRICT
HAWANO PROJECT VICINITY MAP

APPENDIX A

Appendix B Hawano Project Development Plan

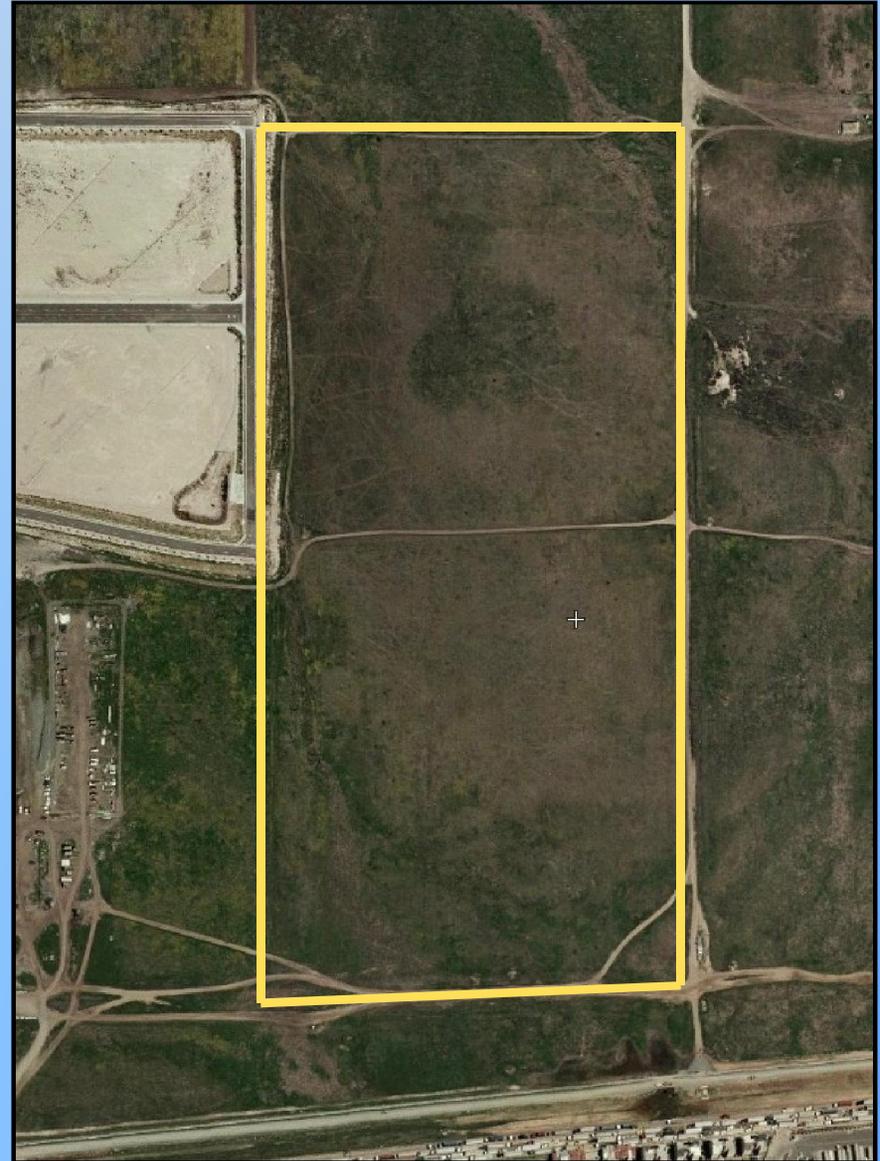


Otay Water District Board of Directors Meeting

March 7, 2012

Water Supply Assessment Report for the Hawano Project

SB 610 Compliance



Background

Senate Bills 610 and 221 became effective on January 1, 2002, with the primary intent to improve the link between water supply availability and land use decisions.

SB 610 Water Supply Assessment (WSA):

- **Requires water purveyor to prepare a Water Supply Assessment report for inclusion in agency CEQA documentation.**

SB 221 Water Supply Verification:

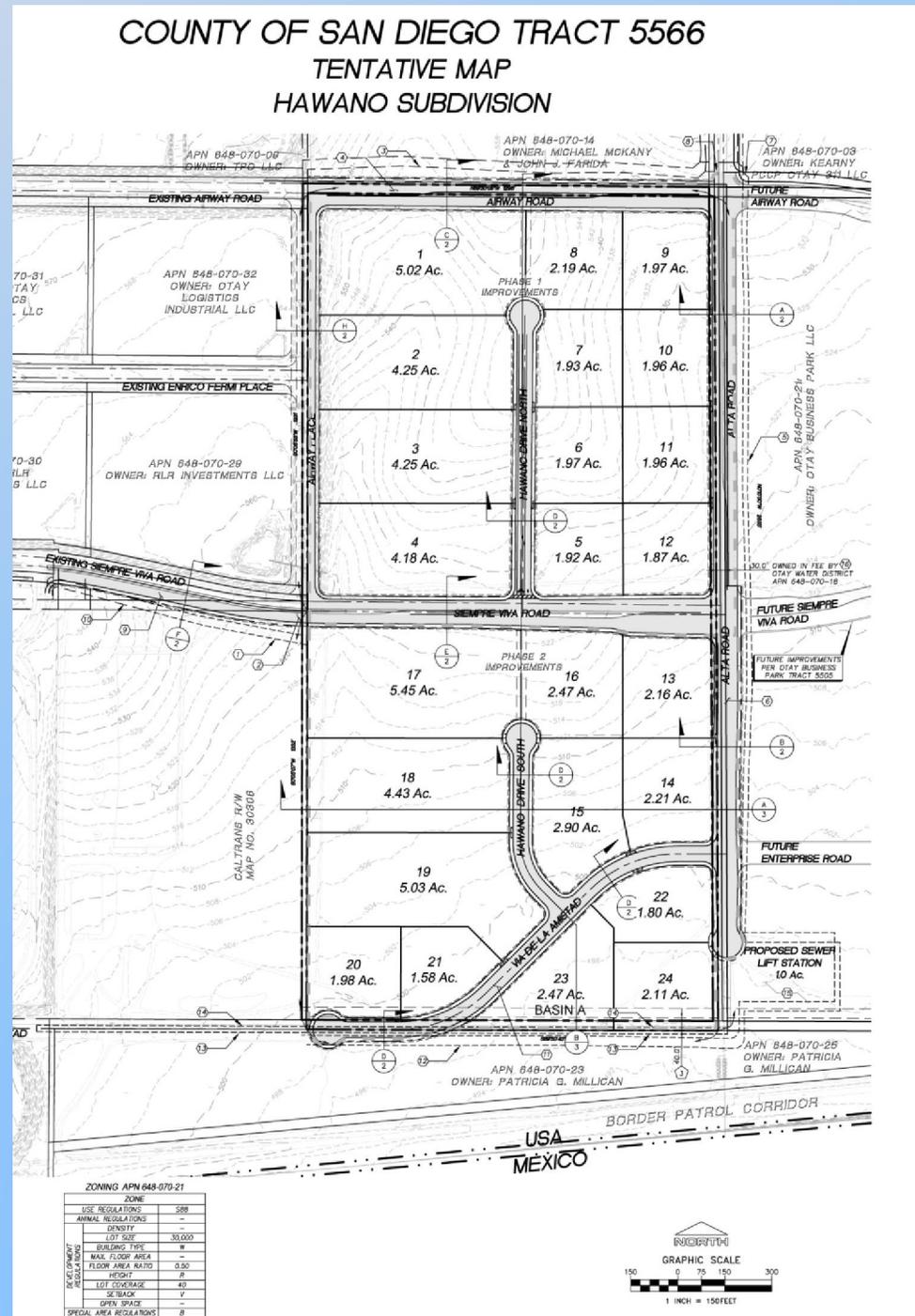
- **Does not apply to the Hawano Project for it is an industrial subdivision.**

The Hawano Project Water Supply Assessment Report:

- **Board approval required for submittal of the WSA to the County of San Diego.**

Hawano Project

- 79.6 Acre site
- 23 Commercial/Industrial Lots
- Lots size varies ~ 1.9 – 5.0 Acres
- Water Demand
 - 75.6 AFY Potable
 - 9.6 AFY Recycled
 - Demands are consistent with District's WRMP



Hawano Project Water Supply Assessment

- **The regional and local water supply agencies acknowledge the challenges and fully intend to develop sufficient, reliable supplies to meet demands.**
- **Water suppliers recognize additional water supplies are necessary and portfolios need to be reassessed and redistributed with intent to serve existing and future needs.**

Hawano Project Water Supply Assessment

- **The WSA Report documents the planned water supply projects and the actions necessary to develop the supplies.**
- **Water supply for the Hawano Project and for existing and future developments within the District for a 20-year planning horizon, under normal and in single and multiple dry years, are planned for and are intended to be made available.**

Otay Water District Planned Local Water Supply Projects

- **Rancho Del Rey Groundwater Well (500 AFY)**
- **Rosarito Ocean Desalination Project (20,000-50,000 AFY)**
- **Otay Mesa Lot 7 Groundwater Well (300 AFY)**
- **Otay Mesa Recycled Water Supply Link Project (800 AFY)**

Otay Water District Projected Balance of Supply and Demand

	Normal Year	Single Dry Year	Multiple Dry Years		
	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Demands					
Otay Water District Demands	37,176	41,566	43,614	46,385	50,291
Total Demand	37,176	41,566	43,614	46,385	50,291
Supplies					
Water Authority Supply	33,268	37,535	39,460	42,108	45,891
Recycled Water Supply	3,908	4,031	4,154	4,277	4,400
Total Supply	37,176	41,566	43,614	46,385	50,291
Supply Surplus/(Deficit)	0	0	0	0	0

Table 8 of Hawano WSA Report based on data from Table 30 on page 41 of OWD 2010 UWMP

District Demand totals with SBX7-7 conservation target achievement with single dry year and multiple dry year increase as shown. The Water Authority could implement its DMP. In these instances, the Water Authority may have to allocate supply shortages based on the equitable allocation methodology in its DMP.

Conclusion

- **Water demand and supply forecasts are included in the planning documents of MWD, Water Authority, and the Otay Water District.**
- **Actions necessary to develop the identified water supplies are documented.**
- **Hawano Project SB 610 WSA demonstrates and documents that sufficient water supplies are planned for and are intended to be available over the next 20 years.**

Conclusion continued

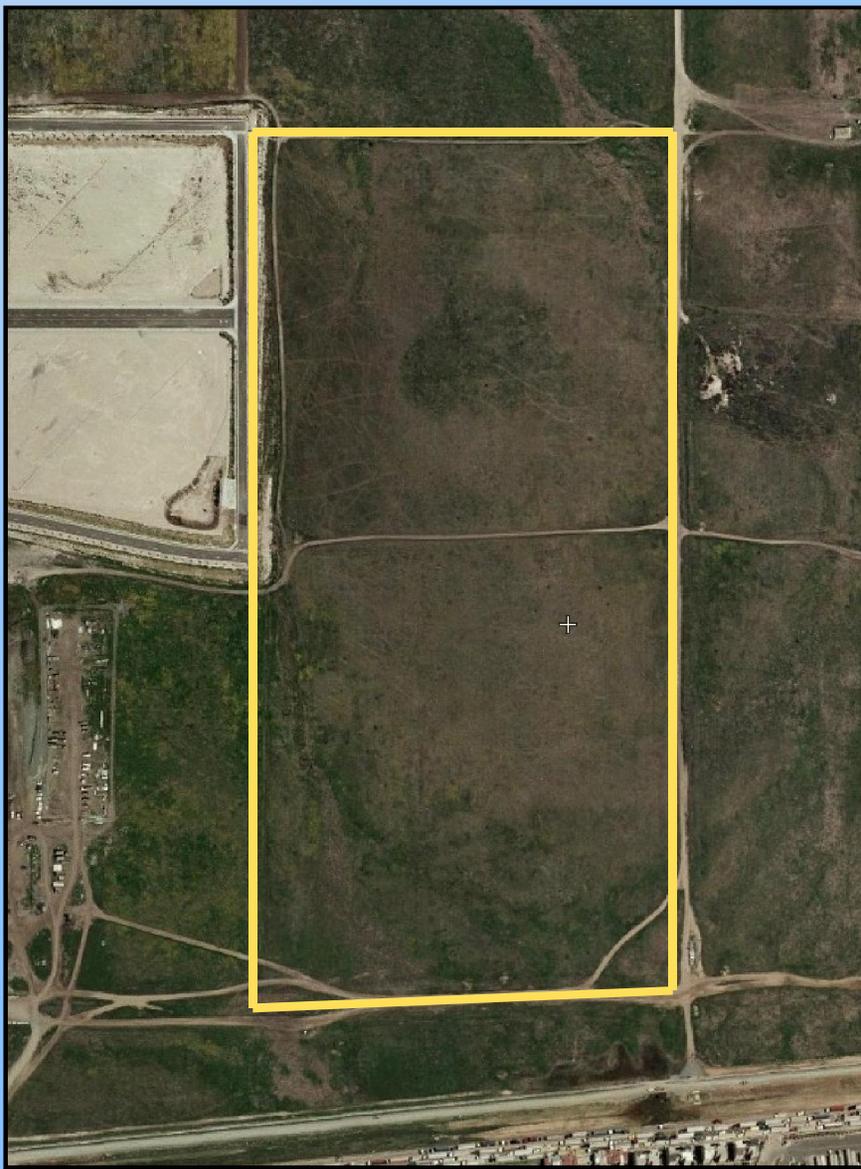
- **It is believed that the Board has met the intent of SB 610 statute in that:**
 - 1) Land use agencies and water suppliers have demonstrated strong linkage.**
 - 2) The Hawano Project Water Supply Assessment clearly documents the current water supply situation.**

Staff Recommendation

That the Board of Directors approve the Senate Bill 610 Water Supply Assessment Report dated July 2011 for the Hawano Project.

Questions?

Water Supply Assessment Report for the Hawano Project SB 610 Compliance



AGENDA ITEM 7



STAFF REPORT

TYPE MEETING:	Regular Board	MEETING DATE:	March 7, 2012
	Daniel Kay Associate Civil Engineer	PROJECT:	Various DIV.NO. ALL
SUBMITTED BY:	Ron Ripperger Engineering Manager		
APPROVED BY:	<input checked="" type="checkbox"/> Rod Posada, Chief of Engineering <input checked="" type="checkbox"/> Manny Magana, Asst. GM, Engineering and Operations <input checked="" type="checkbox"/> Joe Beachem, Chief Financial Officer <input checked="" type="checkbox"/> Mark Watton, General Manager		
SUBJECT:	Informational Item - Second Quarter Fiscal Year 2012 Capital Improvement Program Report		

GENERAL MANAGER'S RECOMMENDATION:

That the Otay Water District (District) Board of Directors (Board) accepts the Second Quarter Fiscal Year 2012 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's 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 2012 update is intended to provide a detailed analysis of progress in completing these projects within the allotted time and budget of \$22.8 million. Expenditures through the Second Quarter totaled approximately \$7.2 million. Approximately 31% of the Fiscal Year 2012 expenditure budget was spent.

FISCAL IMPACT:

None.

STRATEGIC GOAL:

The Capital Improvement Program supports the District's Mission statement, "To provide customers with the best quality water, wastewater, and recycled water service in a professional, effective, and efficient manner" and the District's Vision, "A District that is innovative in providing water services at affordable rates, with a reputation for outstanding customer service."

LEGAL IMPACT:

None.

DK/RR/RP:jf

F:\CIP\CIP Quarterly Reports\2012\Q1\Staff Report\BD 03-07-12, Staff Report, Second Quarter FY 2012 CIP Report, (DK-RR-RP).docx

- Attachments: Attachment A - Committee Action
Attachment B - Fiscal 2012 Second Quarter CIP Expense Report
Attachment C - Presentation



ATTACHMENT A

SUBJECT/PROJECT: Various	Informational Item - Second Quarter Fiscal Year 2012 Capital Improvement Program Report
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COMMITTEE ACTION:

The Engineering, Operations, and Water Resources Committee reviewed this item at a meeting held on February 16, 2012. 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.

FISCAL YEAR 2012 2nd QUARTER REPORT
(Expenditures through 12/30/2011)

ATTACHMENT B

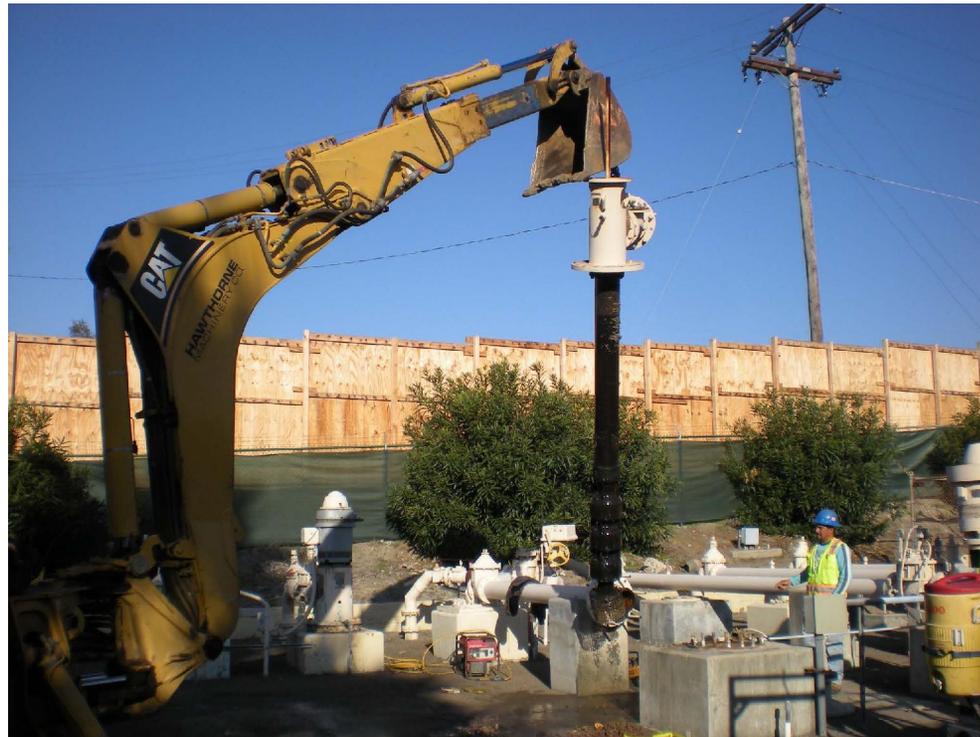
CIP No.	Description	Project Manager	FISCAL YEAR-TO-DATE, 12/31/11				LIFE-TO-DATE				Comments
			FY 2012 Budget	Expenses	Balance	Expense to Budget %	Budget	Expenses	Balance	Expense to Budget %	
P2009	PL - 36-Inch, SDCWA Otay FCF No. 14 to Regulatory Site	Ripperger	\$ 300	\$ 274	\$ 26	91%	\$ 20,800	\$ 20,363	\$ 437	98%	Project complete. IEC litigation.
P2083	PS - 870-2 Pump Station Replacement (28,000 GPM)	Ripperger	-	-	-	0%	12,581	581	12,000	5%	On hold due to CIP 2451 delay.
P2370	La Presa System Improvements	Marchioro	600	95	505	16%	960	134	826	14%	Board approved a \$250K overall budget increase on Nov 2. FY 2012 budget should be increased to \$850K. Board should approve another \$25K budget increase on 2/2.
P2434	Rancho Del Rey Groundwater Well Development	Marchioro	850	389	461	46%	6,250	3,107	3,143	50%	PDR finalized. 90% design submittal nearly complete pending Otay direction on architectural design.
P2451	Otay Mesa Desalination Conveyance and Disinfection System	Kennedy	2,350	172	2,178	7%	30,000	965	29,035	3%	Spending adjusted based on limited notice to proceed.
P2466	Regional Training Facility	Coburn-Boyd	20	17	3	85%	272	269	3	99%	100% of budget will be spent in FY 2012.
P2467	San Diego Formation Groundwater Feasibility Study	Kennedy	400	3	397	1%	1,800	763	1,037	42%	Spending estimated to be \$40K for FY 2012 for monitoring water quality.
P2473	PS - 711-1 Pump Station Improvement	Cameron	300	287	13	96%	500	373	127	75%	Project completed.
P2488	Del Rio Road Helix and Otay Interconnection	Kay	150	35	115	23%	300	335	(35)	112%	Construction complete. 50% reimbursement due from Helix.
P2486	Asset Management Plan Condition Assessment and Data Acquisition	Stevens	400	60	340	15%	1,350	710	640	53%	Less money spent than expected due to not hiring a consultant and doing the work in-house.
P2489	Gillespie Drive Helix & Otay Agency Conn	Kay	150	16	134	11%	300	318	(18)	106%	Construction complete. 50% reimbursement due from Helix.
P2497	Solar Power Feasibility Study	Kennedy	25	15	10	60%	250	60	190	24%	Study complete, but recommends waiting for better economic conditions.
P2502	803-1 Pump Station Modifications	Marchioro	425	312	113	73%	575	376	199	65%	VFDs and ALCs delivered. 75% of motors have been reworked. HVAC work underway.
P2503	850-2 Pump Station Modifications	Marchioro	325	274	51	84%	475	352	123	74%	See P2502.
P2511	North District - South District Interconnection System	Marchioro	1,400	525	875	38%	37,300	1,223	36,077	3%	Alternatives analysis revision completed. Proctor Valley Road initial studies underway.
P2514	PL - 30-Inch, 980 Zone, Hunte Parkway - Proctor Valley/Use Area	Ripperger	750	111	639	15%	1,500	111	1,389	7%	Project out for construction bid.
P2516	PL - 12-Inch, 640 Zone, Jamacha Road - Darby/Osage	Marchioro	-	-	-	0%	450	-	450	0%	No anticipated expenditures for this Fiscal Year.
P2517	Chase Avenue Helix and Otay Interconnection	Kay	100	6	94	6%	400	6	394	2%	Project on hold.
R2048	RecPL - Otay Mesa Distribution Pipelines and Conversions	Kay	100	66	34	66%	2,200	325	1,875	15%	Project in Design.
R2058	RecPL - 16-Inch, 860 Zone, Airway Road - Otay Mesa/Alta	Kennedy	150	34	116	23%	3,500	1,323	2,177	38%	Project on hold.
R2077	RecPL - 24-Inch, 860 Zone, Alta Road - Alta Gate/Airway	Kay	350	243	107	69%	4,500	1,965	2,535	44%	Spending for developer reimbursement.
R2087	RecPL - 24-Inch, 927 Zone, Wueste Road - Olympic/Otay WTP	Cameron	150	41	109	27%	7,000	906	6,094	13%	Easement acquisition budget for the City of Chula Vista and the City of San Diego.
R2091	RecPS - 927-1 Pump Station Upgrade (10,000 GPM) and System Enhancements	Kay	1,500	538	962	36%	3,950	1,008	2,942	26%	Project in Construction.
R2094	Potable Irrigation Meters to Recycled Water Conversions	Charles	200	53	147	27%	3,100	1,447	1,653	47%	Project on track.
Total S			10,995	3,566	7,429	32%	140,313	37,020	103,293	26%	
REPLACEMENT/RENEWAL PROJECTS											
P2267	36-Inch Main Pumpouts and Air/Vacuum Ventilation Installations	Vasquez	-	-	-	0%	435	234	201	54%	No anticipated expenditures for this Fiscal Year.
P2366	APCD Engine Replacements and Retrofits	Rahders	295	74	221	25%	3,488	2,039	1,449	58%	100% of budget will be spent in FY 2012.
P2382	Safety and Security Improvements	Munoz	480	36	444	8%	3,397	1,527	1,870	45%	We are projecting to spend \$300,000 for this in FY 2012 (\$180,000 less than planned).
P2416	SR-125 Utility Relocations	Kennedy	48	3	45	6%	963	925	38	96%	Legal Counsel collecting from ORC.
P2440	I-905 Utility Relocations	Marchioro	25	7	18	28%	1,600	1,578	22	99%	Final invoices submitted May 2011. Acceptance letter/notice of completion will be sent to Caltrans. Caltrans waiting on the City of San Diego to complete a sewer line before they can reconcile the project and issue a \$33K credit to Otay.
P2453	SR-11 Utility Relocations	Kay	50	3	47	6%	155	9	146	6%	Project in Design.
P2458	AMR Manual Meter Replacement	Keeran	1,400	1,294	106	92%	10,298	6,926	3,372	67%	We expect 100% expenditure this FY.
P2477	Res - 624-1 Reservoir Cover Replacement	Marchioro	200	4	196	2%	450	33	417	7%	PDR in progress.
P2484	Large Water Meter Replacement Program	Keeran	220	1	219	0%	835	240	595	29%	We expect 100% expenditure this FY.
P2485	SCADA Communication System and Software Replacement	Stalker	350	41	309	12%	1,325	722	603	54%	Expect only 29% of this year's budget to be spent due to delay in purchasing replacement SCADA system software.
P2491	850-3 Reservoir Exterior Coating	Cameron	200	7	193	4%	300	9	291	3%	Design to begin FY 2013.
P2493	624-2 Reservoir Interior Coating	Cameron	30	1	29	3%	950	2	948	0%	Design to begin FY 2013.
P2494	Multiple Species Conservation Plan	Coburn-Boyd	90	12	78	13%	930	765	165	82%	USFWS estimate that 50% of budget may be used.
P2495	San Miguel Habitat Management/Mitigation Area	Coburn-Boyd	250	106	144	42%	1,975	659	1,316	33%	New contractor at lower cost for last 1/2 of fiscal year; estimate using 80% of budget.
P2496	Otay Lakes Road Utility Relocations	Kay	25	44	(19)	176%	250	188	62	75%	Phase II Design complete.
P2504	Regulatory Site Access Road and Pipeline Relocation	Cameron	100	92	8	92%	600	100	500	17%	Preliminary design.
P2505	657-1 Reservoir Interior/Exterior Coating	Cameron	25	-	25	0%	375	375	-	100%	Completed.
P2506	657-2 Reservoir Interior/Exterior Coating	Cameron	25	198	(173)	792%	375	370	5	99%	Completed.
P2507	East Palomar Street Utility Relocation	Cameron	350	85	265	24%	800	132	668	17%	Caltrans driven project.
P2508	Pipeline Cathodic Protection Replacement Program	Kay	50	2	48	4%	150	2	148	1%	Project in Design.

FISCAL YEAR 2012 2nd QUARTER REPORT
(Expenditures through 12/30/2011)

CIP No.	Description	Project Manager	FISCAL YEAR-TO-DATE, 12/31/11				LIFE-TO-DATE				Comments
			FY 2012 Budget	Expenses	Balance	Expense to Budget %	Budget	Expenses	Balance	Expense to Budget %	
P2513	East Orange Avenue Bridge Crossing	Cameron	5	76	(71)	1520%	750	76	674	10%	In Design.
P2515	870-1 Reservoir Paving	Cameron	25	-	25	0%	300	-	300	0%	Design to begin FY 2013.
P2518	803-3 Reservoir Interior/Exterior Coating	Cameron	-	-	-	0%	450	-	450	0%	Design to begin FY 2013.
P2519	832-2 Reservoir Interior/Exterior Coating	Cameron	-	-	-	0%	450	-	450	0%	Design to begin FY 2013.
P2520	Motorola Mobile Radio Upgrade	Anderson	50	2	48	4%	100	2	98	2%	On track.
P2521	Large Meter Vault Upgrade Program	Keeran	200	26	174	13%	600	26	574	4%	We expect 75% expenditure this FY.
R2096	RWCWRF - Upgrades and Modifications	Kay	2,000	601	1,399	30%	4,950	1,487	3,463	30%	Project in Construction.
R2099	Recycled System Air and Vacuum Value Retrofit	Holly	234	148	86	63%	700	148	552	21%	Expect to spend budgeted amount in FY 2012.
R2100	Recycled Force Main Access Road Repairs	Cameron	210	150	60	71%	210	-	210	0%	To be completed in 1/2012.
S2012	SVSD Outfall and RSD Replacement and OM Reimbursement	Kennedy	642	-	642	0%	4,392	751	3,641	17%	Money to be spent in Q4.
S2019	Avocado Boulevard 8-Inch Sewer Main Improvement	Cameron	1,400	43	1,357	3%	1,900	351	1,549	18%	Construction beginning 3/2012.
S2020	Calavo Drive 8-Inch Sewer Main Replacement	Cameron	370	13	357	4%	550	69	481	13%	Construction beginning 3/2012.
S2022	Hidden Mesa Drive 8-Inch Sewer Main Rehabilitation	Cameron	80	11	69	14%	150	39	111	26%	Construction beginning 3/2012.
S2023	Calavo Drive Sewer Main Utility Relocation	Cameron	50	1	49	2%	65	15	50	23%	County driven project.
S2024	Campo Road Sewer Main Replacement	Cameron	10	-	10	0%	3,250	2	3,248	0%	To be assessed in the Sewer Master Plan.
S2026	Challenge Boulevard 8-Inch Sewer Main Replacement	Cameron	25	34	(9)	136%	250	34	216	14%	Construction beginning 3/2012.
S2027	Rancho San Diego Pump Station Rehabilitation	Kennedy	100	-	100	0%	2,800	-	2,800	0%	County of San Diego driven project.
S2028	Explorer Way 8-Inch Sewer Main Replacement	Marchioro	20	4	16	20%	125	4	121	3%	progress.
S2029	Chase Avenue 8-Inch Sewer Main Replacement	Marchioro	20	5	15	25%	125	5	120	4%	see S2028
S2030	Avocado Boulevard 8-Inch Sewer Main Replacement	Marchioro	50	2	48	4%	325	2	323	1%	see S2028
S2031	Julianna Street 8-Inch Sewer Main Replacement	Marchioro	20	1	19	5%	150	1	149	1%	see S2028
S2032	Puebla Drive 8-Inch Sewer Main Replacement	Marchioro	20	1	19	5%	125	1	124	1%	see S2028
S2033	Sewer System Various Locations Rehabilitation	Marchioro	100	2	98	2%	800	2	798	0%	see S2028
S2034	Vista Grande and Paseo Grande 8-Inch Sewer Main Replacement	Marchioro	25	1	24	4%	250	1	249	0%	see S2028
	Total Replacement/Renewal Projects	Total:	9,869	3,131	6,738	32%	53,418	19,851	33,567	37%	
	CAPITAL PURCHASE PROJECTS										
P2282	Vehicle Capital Purchases	Rahders	395	26	369	7%	5,346	2,554	2,792	48%	100% of budget will be spent in FY 2012.
P2285	Office Equipment and Furniture Capital Purchases	Dobrawa	60	16	44	27%	571	486	85	85%	No additional expenditures for FY12.
P2286	Field Equipment Capital Purchases	Rahders	278	66	212	24%	1,668	964	704	58%	100% of budget will be spent in FY 2012.
P2443	Information Technology Mobile Services	Jenkins	250	6	244	2%	1,652	1,102	550	67%	Spending on hold due to re-prioritizing of projects.
P2461	Records Management System Upgrade	Stevens	100	33	67	33%	506	295	211	58%	Spending on target for budget.
P2469	Information Technology Network and Hardware	Jenkins	460	163	297	35%	2,173	1,317	856	61%	Spending on target for budget.
P2470	Application Systems Development and Integration	Stevens	430	183	247	43%	2,448	1,379	1,069	56%	Spending on target for budget.
	Total Capital Purchase Projects	Total:	1,973	493	1,480	25%	14,364	8,097	6,267	56%	
	DEVELOPER REIMBURSEMENT PROJECTS										
P2104	PL - 12-Inch, 711 Zone, La Media Road - Birch/Rock Mountain	Charles	-	-	-	0%	833	-	833	0%	No anticipated expenditures for this Fiscal Year.
P2107	PL - 12-Inch, 711 Zone, Rock Mountain Road - La Media/SR 125	Charles	-	-	-	0%	722	-	722	0%	No anticipated expenditures for this Fiscal Year.
P2325	PL - 10" to 12" Oversize, 1296 Zone, PB Road - Rolling Hills Hydro PS/PB Bndy	Charles	1	-	1	0%	50	-	50	0%	No anticipated expenditures for this Fiscal Year.
P2402	PL - 12-Inch, 624 Zone, La Media Road - Village 7/Otay Valley	Charles	-	-	-	0%	444	-	444	0%	No anticipated expenditures for this Fiscal Year.
P2403	PL - 12-Inch, 624 Zone, Heritage Road - Olympic/Otay Valley	Charles	-	-	-	0%	925	-	925	0%	No anticipated expenditures for this Fiscal Year.
R2028	RecPL - 8-Inch, 680 Zone, Heritage Road - Santa Victoria/Otay Valley	Charles	-	-	-	0%	600	-	600	0%	No anticipated expenditures for this Fiscal Year.
R2042	RecPL - 8-Inch, 927 Zone, Rock Mountain Road - SR-125/EastLake	Charles	-	-	-	0%	140	-	140	0%	No anticipated expenditures for this Fiscal Year.
R2047	RecPL - 12-Inch, 680 Zone, La Media Road - Birch/Rock Mountain	Charles	-	-	-	0%	450	-	450	0%	No anticipated expenditures for this Fiscal Year.
R2082	RecPL - 24-Inch, 680 Zone, Olympic Parkway - Village 2/Heritage	Charles	1	-	1	0%	1,747	-	1,747	0%	No anticipated expenditures for this Fiscal Year.
R2083	RecPL - 20-Inch, 680 Zone, Heritage Road - Village 2/Olympic	Charles	1	-	1	0%	400	-	400	0%	No anticipated expenditures for this Fiscal Year.
R2084	RecPL - 20-Inch, 680 Zone, Village 2 - Heritage/La Media	Charles	1	-	1	0%	971	1	970	0%	No anticipated expenditures for this Fiscal Year.
R2085	RecPL - 20-Inch, 680 Zone, La Media - State/Olympic	Charles	1	-	1	0%	600	-	600	0%	No anticipated expenditures for this Fiscal Year.
	Total Developer Reimbursement Projects	Total:	5	-	5	0%	7,882	1	7,881	0%	
	GRAND TOTAL		\$ 22,842	\$ 7,190	\$ 15,652	31%	\$ 215,977	\$ 64,969	\$ 151,008	30%	

Otay Water District Capital Improvement Program

Fiscal Year 2012
2nd Quarter Update
(through December 31, 2011)



La Presa System Improvements

Background

The approved CIP Budget for Fiscal Year 2012 consists of 75 projects that total \$22.8 million. These projects are broken down into four categories.

- | | |
|----------------------------|----------------|
| 1. Capital Facilities | \$11.0 million |
| 2. Replacement/Renewal | \$ 9.8 million |
| 3. Capital Purchases | \$ 2.0 million |
| 4. Developer Reimbursement | \$ 0.0 million |

Overall expenditures through the second quarter Fiscal Year 2012 totaled \$7.2 million which is 31% of our fiscal year budget.

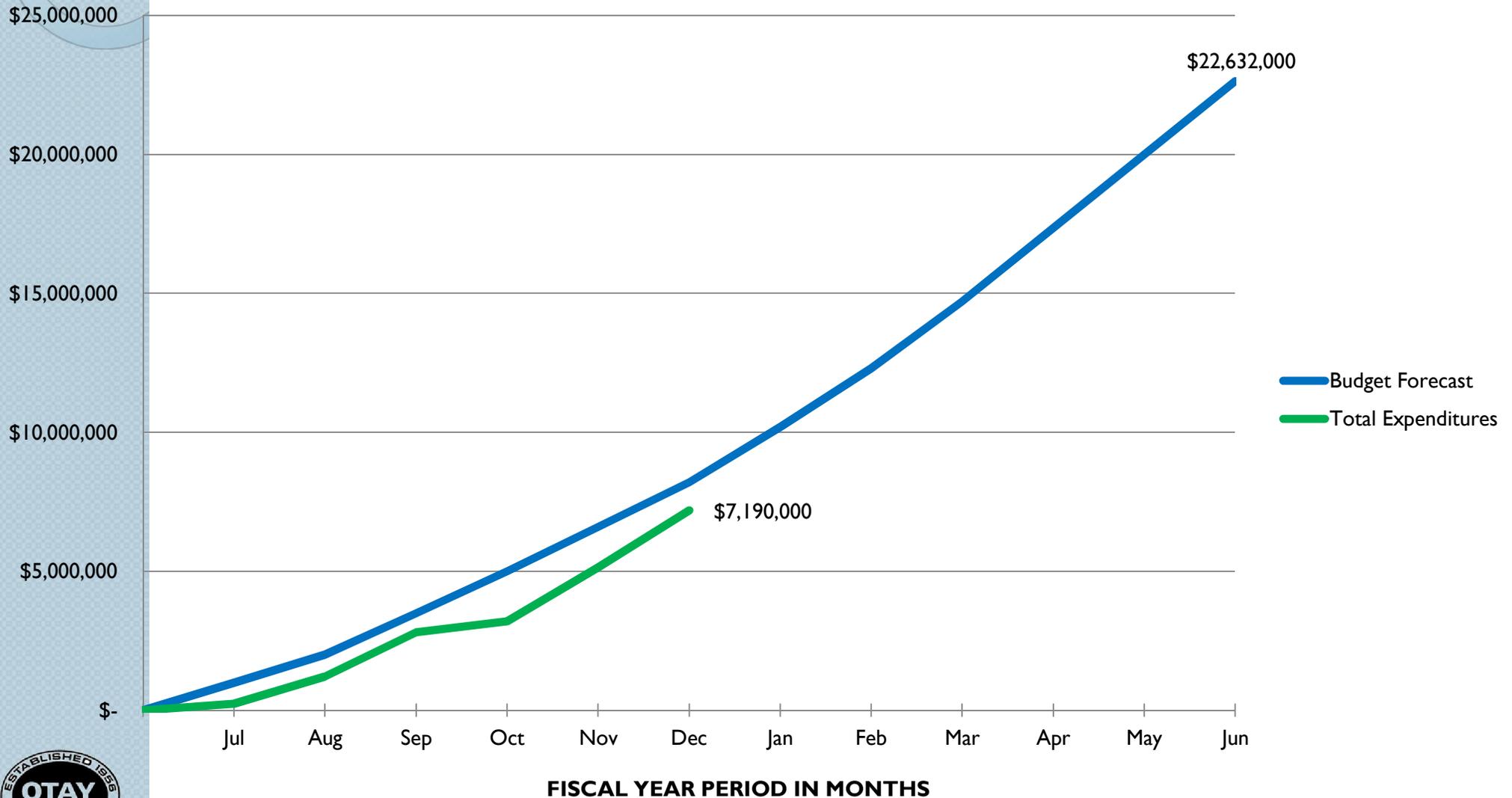
Fiscal Year 2012

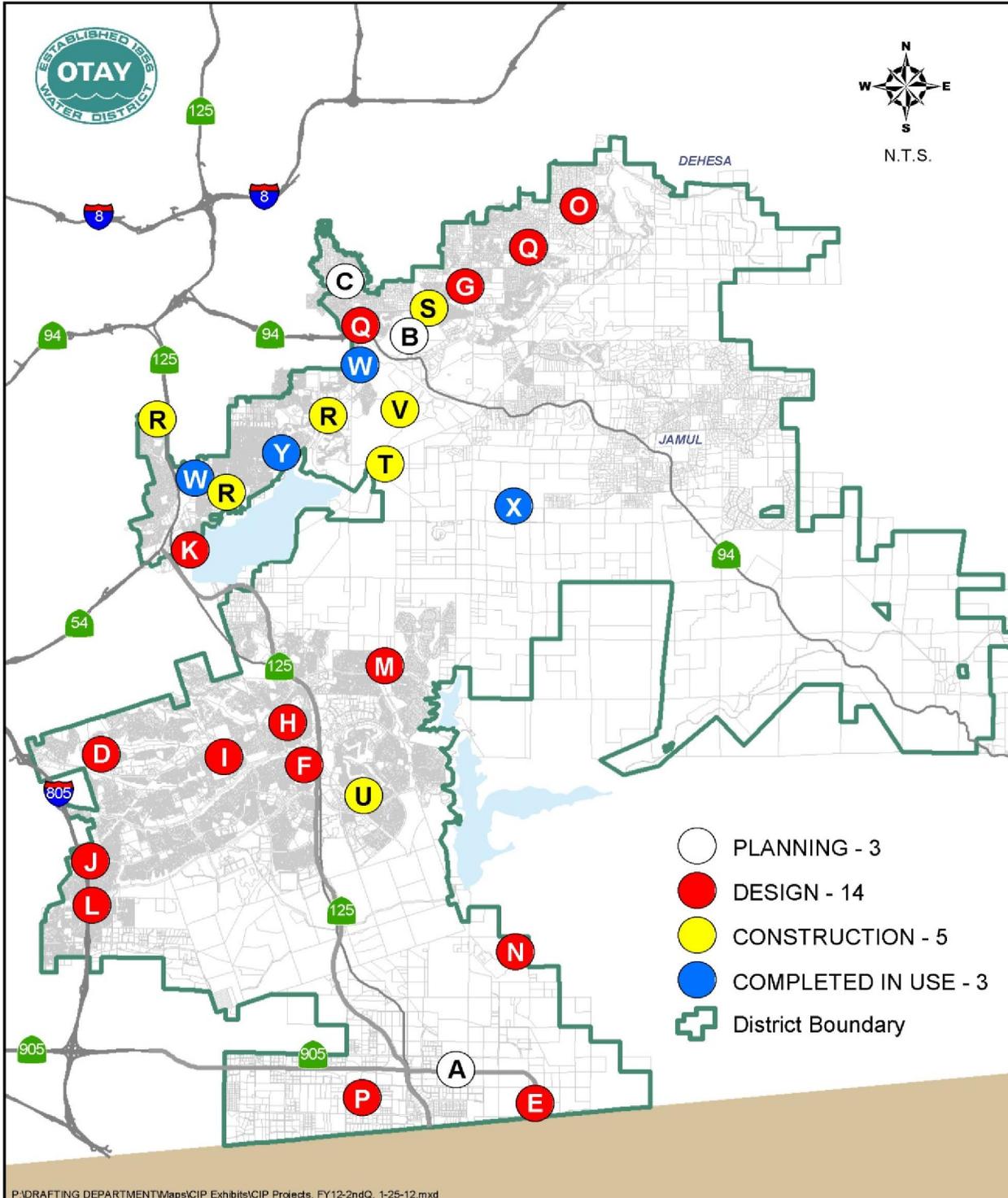
2nd Quarter Update

(\$1,000)

CIP CAT	Description	FY 2012 Budget	FY 2012 Expenditures	% FY 2012 Budget Spent	Total Life-to- Date Budget	Total Life-to-Date Expenditures	% Life-to- Date Budget Spent
1	Capital Facilities	\$10,995	\$3,566	32%	\$140,313	\$37,020	26%
2	Replacement/ Renewal	\$9,869	\$3,131	32%	\$53,418	\$19,851	37%
3	Capital Purchases	\$1,973	\$493	25%	\$14,364	\$8,097	56%
4	Developer Reimbursement	\$5	\$0	0%	\$7,882	\$1	0%
	Total:	\$22,842	\$7,190	31%	\$215,977	\$64,969	30%

Fiscal Year 2012 2nd Quarter CIP Budget Forecast vs. Expenditures



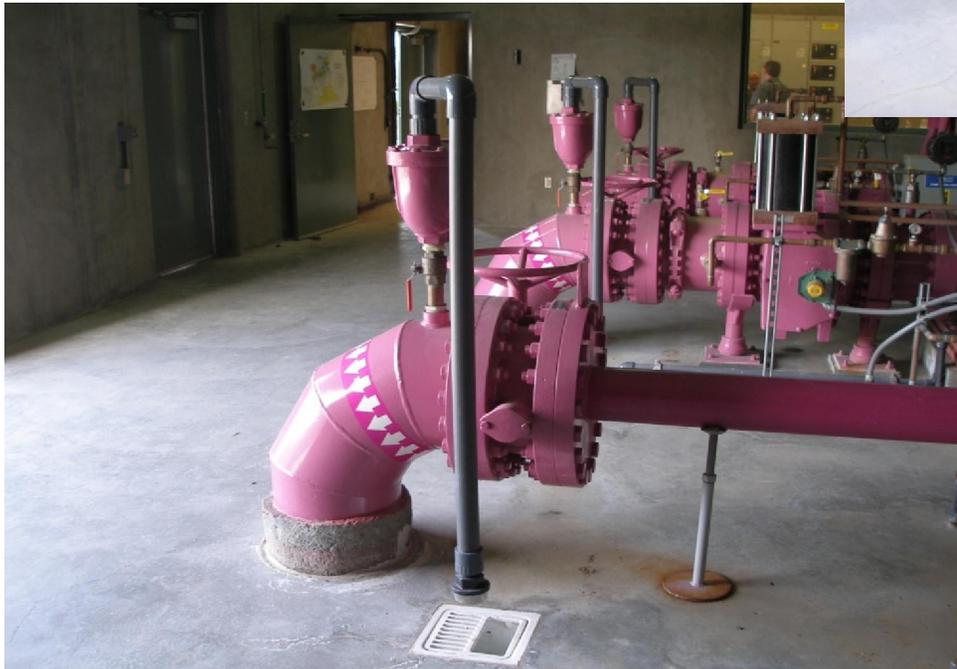


MAJOR CIP PROJECTS

- A** P2453 -- SR-11 Utility Relocations
- B** P2504 -- Regulatory Site Access Road & Pipe Relocation
- C** S1210 -- Wastewater Management Plan
- D** P2434 -- Rancho Del Rey Groundwater Well
- E** P2451 -- Otay Mesa Conveyance and Disinfection System
- F** P2477 -- 624-1 Reservoir Cover Replacement
- G** P2491 -- 850-3 Reservoir Coating Upgrades
- H** P2493 -- 624-2 Reservoir Interior Coating & Upgrades
- I** P2496 -- Otay Lakes Road Utility Relocations Phase II
- J** P2507 -- East Palomar Utility Relocation
- K** P2511 -- North District / South District Interconnection System
- L** P2513 -- East Orange Avenue Bridge Crossing
- M** P2514 -- PL-30", 980 Reservoirs to Hunte Parkway
- N** P2515 -- 870-1 Reservoir Paving
- O** P2518 -- 803-3 Reservoir Interior/Exterior Coating
- P** R2048 -- Otay Mesa Distribution Pipelines and Conversions
- Q** S2019, S2020, S2022 & S2026 -- Sanitary Sewer Replacement
- R** P2370 -- La Presa System Improvements
- S** P2502 & P2503 -- 803-1 and 850-2 Pump Station Modifications
- T** R1501 -- Recycled Water Force Main Access Road Repairs
- U** R2091 -- 944-1R Recycled Water Pump Station Upgrade
- V** R2096 -- Ralph W. Chapman Water Reclamation Facility - Upgrades and Modifications
- W** P2488 & P2489 -- Helix WD & Otay WD Agency Interconnections
- X** P2490 & P2492 -- 1296-1 & 2 Reservoir Coating
- Y** P2505 & P2506 -- 657-1 & 657-2 Reservoir Coating

CIP Projects in Construction

- Phase I of 944-IR Recycled Water Pump Station Improvements
- Installation of New Pump
- New Instrumentation
- New Suction Header Piping
- Three (3) New Pressure Reducing Stations
- \$3.95M Budget



Above: Existing Pressure Reducing Valve to be Modified

Left: New Pump 3 and Discharge to be Installed. Pumps 1 and 2 in Background

CIP Projects in Construction

- RWCRWF Upgrades
- New Aeration System, Blower System, and Electrical Instrumentation
- \$4.95M Budget



Above: Installing New Conduit for Instrumentation Around Aeration Basins

Left: New Air Scour Pad for Filter Backwash System

CIP Projects in Construction

- La Presa System Improvements
- Demolition of 850-I and 657-I Pump Stations and Forebay Reservoir
- Multiple Interconnections Throughout Spring Valley
- Demolition of Dorchester Reservoir and Pressure Reducing Station
- \$1.21M Budget



Above: Above Ground Piping and Building Removed from La Presa Site

Left: Potholing for 16-Inch Disconnect at La Presa Site

Construction Contract Status

CIP NO.	PROJECT TITLE	CONTRACTOR	BASE BID AMOUNT	CONTRACT AMOUNT W/ ALLOWANCES	NET CHANGE ORDERS*		CURRENT CONTRACT AMOUNT	TOTAL EARNED TO DATE	% CHANGE ORDERS W/ ALLOWANCE CREDIT**	% COMPLETE	EST. COMP. DATE
					PROJECT TOTAL	%					
P2505/ P2506	657-1 & 657-2 Reservoir Coating & Upgrades	Blastco Inc.	\$582,500	\$632,500	\$5,627	1.0%	\$607,912	\$607,912	-3.9%	100.0%	Comp Oct 2011
P2488/ P2489	Del Rio Road & Gillispie Drive Emergency Interconnections	LH Woods	\$339,000	\$379,000	\$9,699	2.9%	\$368,105	\$368,105	-2.9%	100.0%	Comp Aug 2011
R2091	944-1R Recycled Pump Station Upgrade & System Enhancements	Sepulveda	\$1,099,423	\$1,162,423	\$0	0.0%	\$1,099,423	\$172,071	0.0%	15.7%	May 2012
R2096	RWCWRF Upgrades	Newest	\$3,349,000	\$3,499,000	\$0	0.0%	\$3,349,000	\$150,748	0.0%	4.5%	May 2012
P2502/ P2503	HVAC Improvements at 803-1 & 850-2 Pump Stations	3-D Enterprises	\$53,500	\$58,500	\$0	0.0%	\$58,500	\$30,150	0.0%	51.5%	Feb 2012
P2370	Jamacha Rd. Meter Relocations	Pacific Meters	\$27,350	\$30,350	\$0	0.0%	\$30,350	\$30,350	0.0%	100.0%	Comp Dec 2011
P2370	La Presa System Improvements	TC Construction	\$938,995	\$978,995	\$0	0.0%	\$938,995	\$56,100	0.0%	6.0%	Aug 2012
TOTALS:			\$6,389,768	\$6,740,768	\$15,326	0.2%	\$6,452,284	\$1,415,436	-4.3%		

*NET CHANGE ORDERS DO NOT INCLUDE ALLOWANCE ITEM CREDITS. IT'S A TRUE CHANGE ORDER PERCENTAGE FOR THE PROJECT

**THIS CHANGE ORDER RATE INCLUDES THE CREDIT FOR UNUSED ALLOWANCES



Consultant Contract Status

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										
ARCADIS U.S., INC.	Varies	WASTEWATER MANAGEMENT PLAN	\$ 349,979.36	\$ -	\$ 349,979.36	\$ 107,038.53	0.0%	30.6%	8/3/2011	6/30/2013
SALVADOR LOPEZ-CORDOVA	P2451	DESALINATION PROJECT	\$ 45,000.00	\$ -	\$ 45,000.00	\$ 4,172.90	0.0%	9.3%	9/10/2010	8/31/2012
TRAN CONSULTING ENGINEERS	S1201	SANITARY SEWER CCTV INSPECTION AND CONDITION ASSESSMENT	\$ 560,025.00	\$ -	\$ 560,025.00	\$ 518,810.81	0.0%	92.6%	1/20/2010	6/30/2013
DESIGN										
AECOM	P2451	OTAY MESA CONVEYANCE AND DISINFECTION SYSTEM	\$ 3,910,297.00	\$ -	\$ 3,910,297.00	\$ 33,215.00	0.0%	0.8%	1/3/2011	6/30/2016
ATKINS	Varies	DESIGN SERVICES	\$ 175,000.00	\$ -	\$ 175,000.00	\$ -	0.0%	0.0%	10/25/2011	6/30/2013
BUSTAMANTE & ASSOCIATES	Varies	GOVERNMENT AFFAIRS ADVISOR	\$ 50,000.00	\$ -	\$ 50,000.00	\$ 7,000.00	0.0%	14.0%	6/1/2011	5/31/2012
CPM PARTNERS	Varies	AS-NEEDED SCHEDULING SERVICES	\$ 175,000.00	\$ -	\$ 175,000.00	\$ 160,147.50	0.0%	91.5%	5/18/2010	6/30/2012
DARNELL & ASSOCIATES	Varies	AS-NEEDED TRAFFIC ENGINEERING SERVICES FOR FY2010 AND FY2011	\$ 175,000.00	\$ 24,330.00	\$ 199,330.00	\$ 177,197.50	13.9%	88.9%	1/20/2010	6/30/2012
ENGINEERING PARTNERS INC, THE	Varies	AS-NEEDED ELECTRICAL DESIGN SERVICES	\$ 100,000.00	\$ -	\$ 100,000.00	\$ 81,540.00	0.0%	81.5%	10/7/2009	6/30/2012
HECTOR MARES-COSSIO	P2451	BINATIONAL WATER AND RELATED ISSUES	\$ 45,000.00	\$ -	\$ 45,000.00	\$ 43,200.00	0.0%	96.0%	2/9/2011	12/31/2011
HVAC ENGINEERING INC	P2502, P2503	HVAC SERVICES FOR 850-2 PS & 803-1 PS	\$ 19,421.00	\$ -	\$ 19,421.00	\$ 16,426.00	0.0%	84.6%	9/17/2010	NO END DATE
LEE & RO INC	Varies	AS-NEEDED ENGINEERING DESIGN SERVICES	\$ 175,000.00	\$ 13,754.00	\$ 188,754.00	\$ 146,523.51	7.9%	77.6%	6/30/2010	6/30/2012
LEE & RO INC	P2511	NORTH DISTRICT/SOUTH DISTRICT INTERCONNECTION	\$ 2,769,119.00	\$ -	\$ 2,769,119.00	\$ 828,721.30	0.0%	29.9%	11/4/2010	12/31/2015
MTGL INC.	Varies	AS-NEEDED GEOTECHNICAL CONSULTING SERVICES	\$ 175,000.00	\$ -	\$ 175,000.00	\$ 48,315.00	0.0%	27.6%	6/23/2010	6/30/2012



Consultant Contract Status

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
MWH AMERICAS INC.	R2096, R2095, S2018	RWCWRF UPGRADE PROJECT	\$ 458,813.00	\$ 122,048.00	\$ 580,861.00	\$ 609,618.67	26.6%	105.0%	10/14/2009	6/30/2013
NARASIMHAN CONSULTING	Varies	HYDRAULIC MODELING SERVICES	\$ 175,000.00	\$ -	\$ 175,000.00	\$ 33,719.50	0.0%	19.3%	5/2/2011	6/30/2013
SILVA SILVA CONSULTING	P2451	BINATIONAL DESAL PROJECT	\$ 50,000.00	\$ -	\$ 50,000.00	\$ 28,000.00	0.0%	56.0%	7/1/2011	3/31/2012
TETRA TECH, INC	P2434	RANCHO DEL REY WELL - PHASE 2	\$ 724,493.50	\$ -	\$ 724,493.50	\$ 325,844.27	0.0%	45.0%	4/21/2011	12/31/2014
V & A CONSULTING	Varies	PROFESSIONAL CORROSION SERVICES	\$ 392,729.00	\$ -	\$ 392,729.00	\$ 20,710.50	0.0%	5.3%	6/23/2011	6/30/2013
CONSTRUCTION SERVICES										
ALTA LAND SURVEYING, INC.	Varies	ALTA LAND SURVEYING	\$ 45,000.00	\$ -	\$ 45,000.00	\$ 18,836.25	0.0%	41.9%	6/1/2011	8/31/2011 COMPLETE
ALTA LAND SURVEYING, INC.	Varies	SURVEYING SERVICES FY12-FY13	\$ 175,000.00	\$ -	\$ 175,000.00	\$ 34,348.75	0.0%	19.6%	8/15/2011	6/30/2013
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	12/31/2012
SAIC ENERGY, ENVIRONMENT & INFRASTRUCTURES, LLC	R2096	CONSTRUCTION MANAGEMENT	\$ 359,013.32	\$ -	\$ 359,013.32	\$ 151,498.00	0.0%	42.2%	8/15/2011	6/30/2012
VALLEY CONSTRUCTION MANAGEMENT	Varies	AS-NEEDED CONSTRUCTION MANAGEMENT AND INSPECTION SERVICES	\$ 175,000.00		\$ 175,000.00	\$ 113,260.00	0.0%	64.7%	3/17/2010	6/30/2012
VALLEY CONSTRUCTION MANAGEMENT	Varies	AS-NEEDED CONSTRUCTION MANAGEMENT SERVICES	\$ 175,000.00	\$ -	\$ 175,000.00	\$ -	0.0%	0.0%	10/25/2011	6/30/2013
ENVIRONMENTAL										
A.D. HINSHAW	Varies	CONSULTING SERVICES FOR JWA's CEQA	\$ 34,625.25	\$ -	\$ 34,625.25	\$ 8,500.51	0.0%	24.6%	3/25/2010	6/30/2012
ICF INTERNATIONAL (aka JONES & STOKES ASSOCIATES)	P1253	SAN MIGUEL HABITAT MANAGEMENT AREA	\$ 987,807.00	\$ -	\$ 987,807.00	\$ 931,817.19	0.0%	94.3%	2/3/2009	12/31/2011 COMPLETE
ICF INTERNATIONAL (aka JONES & STOKES ASSOCIATES)	Varies	AS-NEEDED ENVIRONMENTAL CONSULTING SERVICES	\$ 375,000.00	\$ -	\$ 375,000.00	\$ 132,081.42	0.0%	35.2%	9/9/2010	6/30/2013



Consultant Contract Status

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
MERKEL & ASSOCIATES	Varies	SAN MIGUEL HABITAT MANAGEMENT AREA AND CIP-ASSOCIATED MITIGATION PROJECTS	\$ 359,079.00	\$ -	\$ 359,079.00	\$ -	0.0%	0.0%	12/14/2011	12/31/2014
RECON	P2494	PREPARATION OF THE SUBAREA PLAN	\$ 270,853.00	\$ -	\$ 270,853.00	\$ 190,221.86	0.0%	70.2%	3/28/2008	6/30/2015
TECHNOLOGY ASSOCIATES	P2494	CONSULTING SERVICES FOR JWA's NCCP	\$ 34,625.25	\$ 41,825.26	\$ 76,450.51	\$ 42,422.49	120.8%	55.5%	4/5/2010	6/30/2013
THE RICK ALEXANDAR COMPANY (TRAC)	P2494	CONSULTING SERVICES FOR JWA's NCCP	\$ 20,201.75	\$ -	\$ 20,201.75	\$ 12,990.62	0.0%	64.3%	3/17/2010	6/30/2013
WATER RESOURCES										
CITY OF CHULA VISTA	R2093	WASTEWATER RECLAMATION FACILITY STUDY	\$ 150,000.00	\$ -	\$ 150,000.00	\$ 109,302.18	0.0%	72.9%	9/24/2009	12/31/2012
MICHAEL R. WELCH	P2481	ENGINEERING PLANNING SVCS.	\$ 40,000.00	\$ -	\$ 40,000.00	\$ 24,975.00	0.0%	62.4%	3/25/2009	6/30/2013
PUBLIC SERVICES										
AEGIS ENGINEERING MANAGEMENT	Varies	RECYCLED WATER PLAN CHECKING, RETROFIT, AND INSPECTION SERVICES FOR DEVELOPER PROJECTS	\$ 300,000.00	\$ -	\$ 300,000.00	\$ 219,617.11	0.0%	73.2%	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	\$ 86,914.50	0.0%	29.0%	11/24/2010	6/30/2013
TOTALS:			\$ 15,034,641.43	\$ 201,957.26	\$ 15,236,598.69	\$ 5,280,946.87	1.3%			



QUESTIONS?

