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. INFORMATIONAL UPDATE FOR THE ROSARITO DESALINATION PLANT AND THE OTAY MESA CONVEYANCE AND DISINFECTION SYSTEM PROJECTS (KENNEDY)

4. ADJOURNMENT

BOARD MEMBERS ATTENDING:
Mark Robak, Chair
Tim Smith
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 January 13, 2017 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 January 13, 2017.

/s/ Susan Cruz, District Secretary
GENERAL MANAGER’S RECOMMENDATION:

No recommendation. This is an informational item only.

COMMITTEE ACTION:

Please see Attachment A.

PURPOSE:

To update the Otay Water District (District) Board of Directors (Board) on the progress of the Rosarito Desalination Plant and the Otay Mesa Conveyance and Disinfection System Projects (Project) (see Exhibit A for Project location).

ANALYSIS:

This item was last presented to the Desalination Committee (Committee) as an update at a meeting held on August 29, 2016. The certification of the final Environmental Impact Report/Environmental Impact Statement for the Otay Mesa Conveyance and Disinfection System Project was presented to the Board on September 7, 2016. The updates or significant milestones that have been reached since the last update to the Committee include:
Project Direction

Aguas de Rosarito (AdR), a private consortium signed a 40-year definitive public-private partnership agreement with the Baja California government on August 25, 2016 to build the plant and operate it for 37 years. Under the current schedule, operations would start in late 2019 or early 2020 under an initial phase that would produce 50 million gallons a day. The companies that make up AdR are NuWater of Singapore, French-owned Degremont, a subsidiary of Suez Environment of France, and a Mexican company called N.S.C. Agua (NSCA) that is a subsidiary of Cayman-Islands based Consolidated Water (CWCO).

The next financial close phase is expected to take the first half of 2017 for AdR to secure financing of the Project and the State of Baja California to put the guarantee trusts in place. Once the financial close phase is achieved, the design work begins.

This Project will be considered for certification by the Board of Directors of the Border Environment Cooperation Commission (BECC) and the North American Development Bank (NADB) on or after January 16, 2017, when the comment period ends. The primary purpose of BECC is to support border communities to identify, develop, and achieve BECC certification and NADB funding for environmental infrastructure projects that improve human health, promote sustainable development, and contribute and enhance the quality of life in the border region. In accordance with the BECC's procedures regarding public notice, BECC has released the Project for public comment. The notice can be found at:

URL: http://www.becc.org/projects/under-development/desalination-plant-in-playas-de-rosarito-baja-california#/tab1

Staff recently met with the Department of Homeland Security U.S. Customs and Border Patrol to go over the pipeline location and elements that will be near the border. They identified two (2) new parallel fences with below ground cutoff walls that are being planned to be built on the border and wanted assurance that District facilities would be below ground between the fences and above ground facilities located outside of the second fence line.
Rosarito Desalination Project in the News

The drought continues to be a constant topic in the national, state, and local news as well as in Mexico at the State of Baja California. Projects that provide a new supply of water have been mentioned, on both sides of the border, including the Rosarito Beach Desalination Project.

On August 29, 2016, the Water Desalination Report article entitled, “Rosarito SWRO contract signed” about AdR contract signed by the State Water Commission of Baja California and the price of the product water. The article also went into detail on the differences between this Project and the Carlsbad desalination project (see Exhibit B).

On August 30, 2016, the Voice of San Diego article entitled, “The Desalination Plant Is Finished But the Debate Over It Isn’t” reported on the Carlsbad desalination plant. In this article, the Rosarito Desalination Project was mentioned along with letters written by Wildcoast and Surfrider to the Secretary of State John Kerry. Other desalination projects in Huntington Beach and Camp Pendleton were also mentioned (see Exhibit C).

On September 26, 2016, Frontera.info published an article in Spanish entitled, “Encabeza Gobernador firma de contrato de planta Desalinizadora” about the selection of AdR by the State of Baja California. The article notes the Rosarito Desalination plant would be the largest desalination plant in Latin America (see Exhibit D).

On September 29, 2016, the San Diego Union-Tribune published an article entitled, “Public comment period for cross-border water pipeline” about the Project, noted the public are invited to comment on whether the Project proposed by Otay Water District is in the national interest and provided a link to the notice in the federal register (see Exhibit E). A similar article in the October 3, 2016 Water Desalination Report provided a link and the docket number for interested readers to comment on the Project (see Exhibit F).

On November 17, 2016, the desalination.biz published an article entitled, “Consolidated Water lines up Mexican mega-project” which quotes John Tonner, vice president and chief operating officer of CWCO on the competitive tender process leading to AdR being selected for the Project and the next steps (see Exhibit G). A second article in the same publication entitled, “Challenges are shared across the border, Mitch Thompson, Otay”
provides information on the water district and its efforts to diversify their water supply (see Exhibit H).

Volume 7 Issue 4 of the Worldwater Water Reuse & Desalination winter publication entitled, “Mexico turns to reverse osmosis desalination” also covered the Project, noting that by 2024 this could be the largest seawater desalination plant in the America continent (see Exhibit I).

On January 6, 2017, United Press International re-published an article from Water Deeply entitled, “Southern California eyes desalinated water from Mexico” which quotes Mark Watton on the project’s reliability benefits, cost, and environmental process. The article also quotes Serge Dedina, mayor of Imperial Beach who has expressed some concerns about the San Antonio de los Buenos sewage plant at Punta Bandera. "We've been very clear to authorities that if they're going to fast-track the desal plant, they need to fast-track the sewage cleanup," Dedina said. The desalination plant is about 10 miles south of the sewage plant (see Exhibit J). Water Deeply is a part of News Deeply, a new media startup and social enterprise based in New York.

**Contract with AECOM**

AECOM continues to work only on the environmental tasks. On November 4, 2015, the Board approved Amendment No. 4 of the contract with AECOM to increase the Project management budget by $22,425, resulting in a higher contract amount with AECOM of an amount not-to-exceed $3,800,863. At the time, the Project management component of their contract was expected to carry them through to April/May of last year before an adjustment would be needed. No budget adjustment is needed at this time and staff anticipates the Project management budget should be sufficient, as AECOM’s services to the District are minimal. Staff expects to terminate its contract with AECOM after the Presidential Permit is obtained.

**Division of Drinking Water (DDW) Permitting (formerly CDPH)**

AdR continues the source water testing at the power plant intake and outlet structures that began on September 18, 2014. The results are posted with DDW.

Staff and representatives from AdR continue to coordinate on complying with the California Water Resources Control Board Drinking Water Program regulatory requirements related to source water quality testing. A meeting with DDW was held on
January 11, 2017, to update DDW on the project and to discuss the results and the frequency of testing in the future. AdR also provided an update on pretreatment options they are considering and opportunities presented to them by the operators of the adjacent power plant that could simplify the design and operation of the desalination plant. A follow up conference call with DDW has been tentatively scheduled for January 30, 2017.

**Presidential Permit**

The potential crossing of the U.S.-Mexico border by a water pipeline requires that the District obtain a Presidential Permit (PP). In November 2013, the District submitted an application for a PP to the U.S. Department of State (Department), the federal agency responsible for processing PP’s. An essential part of the PP process is the environmental review of a project to ensure consistency with the National Environmental Policy Act (NEPA). Since the Project must also comply with the California Environmental Quality Act (CEQA), as it is located in California, the Department and the District decided that a joint CEQA/NEPA document, an EIR/EIS, would be appropriate for the environmental review. AECOM prepared the EIR/EIS in conjunction with the Department and District staff.

The EIR/EIS identifies potential significant effects related to air quality, biological resources, cultural and paleontological resources, environmental justice, geology/soils, greenhouse gas emissions, hazards and hazardous materials, hydrology/water quality, noise and transportation/traffic. The mitigation measures that reduce any effects of the Project to insignificant are presented in the document as well as in the Mitigation, Monitoring, and Reporting Plan (MMRP). The only issue area with the potential to result in significant and unavoidable impacts is greenhouse gas emissions related to the potential pump station. A conservative approach was taken for this analysis resulting in the potentially significant impact, although the actual design of the pump station, if it is needed, will likely result in less than significant greenhouse gas emissions. An analysis of the significant impacts is included in the Statement of Overriding Considerations included with the Final EIR/EIS. This statement details how the benefits of the Project outweigh the adverse environmental effects.

The Board certified the EIR/EIS at the September 7, 2016 Board meeting and the Department submitted the Final EIR/EIS to the Environmental Protection Agency (EPA). The Department published
a notice in the Federal Register that the document was available for comment (see Exhibit K). At the same time, the State Department Bureau of Western Hemisphere Affairs (Bureau of WHA) sent a notice to other federal agencies about the Project and those agencies had 90-days to comment on whether they think the Project is in the national interest. The comment period closed on December 15, 2016. The next steps will be the Bureau of WHA issuance of the Record of Decision/National Interest Determination (ROD/NID), and the federal agencies have an additional 15-days to review. Once the 15-days are complete, and if there is no opposition to the ROD/NID, the PP will be issued. Staff estimates that the entire process and issuance of the PP will be completed in late January or February 2017.

**FISCAL IMPACT:**  ☑ Joe Beachem, Chief Financial Officer

No fiscal impact as this is an informational item only. See Attachment B – Budget Detail.

Although $6,430,428 has been committed as of December 21, 2016, $4,027,768 has been actually spent. Staff has stopped all activities concerning this Project, except the completion of the EIR/EIS and Presidential Permit activities. It is anticipated that an additional $100,000 will be spent through the end of Fiscal Year 2017.

**STRATEGIC GOAL:**

This Project supports the District’s Mission statement, “To provide high value water and wastewater services to the customers of the Otay Water District in a professional, effective, and efficient manner” and the General Manager’s Vision, “A District that is at the forefront in innovations to provide water services at affordable rates, with a reputation for outstanding customer service.”

**LEGAL IMPACT:**

None.

Exhibit C – The Desalination Plant Is Finished But the Debate Over It Isn’t, Voice of San Diego, dated August 30, 2016

Exhibit D – Encabeza Gobernador firma de contrato de planta Desalinizadora, Frontera.info, dated September 26, 2016

Exhibit E – Public comment period for cross-border water pipeline, The San Diego Union-Tribune, dated September 26, 2016

Exhibit F – Otay Water District, Water Desalination Report, dated October 3, 2016

Exhibit G – Consolidated Water lines up Mexican mega-project, desalination.biz, dated November 17, 2016

Exhibit H – Challenges are shared across the border, Mitch Thompson, Otay, desalination.biz, dated November 17, 2016


Exhibit J – Southern California Eyes Desalinated Water from Mexico, Water Deeply, dated January 6, 2017

Exhibit K – Federal Register, Vol. 81, No. 178, dated September 14, 2016 Notices
**SUBJECT/PROJECT:** P2451-001101

| Informational Update for the Rosarito Desalination Plant and the Otay Mesa Conveyance and Disinfection System Projects |

**COMMITTEE ACTION:**

The Desalination Committee (Committee) reviewed this item at a meeting held on January 19, 2017. The Committee supported staff’s recommendation.
# ATTACHMENT B – Budget Detail

## SUBJECT/PROJECT:

P2451-001101

Informational Update for the Rosarito Desalination Plant and the Otay Mesa Conveyance and Disinfection System Projects

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### Otay Water District

P2451 Otay Mesa Desalination Conveyance and Disinfection System

Date Updated 12/21/2016

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### Design

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| 5,000 | 5,000 | -     | 5,000 | ATKINS |
| 8,818 | 8,818 | -     | 8,818 | CPM PARTNERS INC |
| 30,270 | 30,270 | -     | 30,270 | MICHAEL R WELCH PhD PE |
| 5,109 | 5,109 | -     | 5,109 | MARSTON+MARSTON INC |
| 3,800,863 | 1,406,452 | 2,394,411 | 3,800,863 | AECOM TECHNICAL SERVICES INC |
| Meals, Travel, Incidentals | 3,457 | 3,457 | -     | 3,457 | STAFF |
| Professional Legal Fees | 7,761 | 7,761 | -     | 7,761 | STUTZ ARTIANO SHINOFF |
| Service Contracts | 1,127 | 1,127 | -     | 1,127 | STATE WATER RESOURCES |
| 1,084 | 1,084 | -     | 1,084 | SAN DIEGO UNION-TRIBUNE LLC |
| Standard Salaries | 217,707 | 217,707 | - | 217,707 | - |
| **Total Design** | 4,085,262 | 1,690,851 | 2,394,411 | 4,085,262 | - |

### Construction

| Standard Salaries | -     | -     | -     | -     | - |
| **Total Construction** | - | - | - | - | - |

**Grand Total**

6,430,428 | 4,027,788 | 2,402,660 | 6,430,428 | -
Korea
ZLD DEMO RESULTS IN FULL-SCALE PROJECT

Doosan Heavy Industries has been awarded a contract for its first commercial zero liquid discharge (ZLD) system to treat flue gas desulfurization (FGD) and selective catalytic reduction (SCR) wastewater. The system is to be installed at Korea South-East Power Company’s Yeongdong Power Plant in Gangneung-si, Gangwon-do, Korea. The 120 m$^3$/d (31,700 gpd) ZLD system follows an earlier two-year pilot study conducted at the Changwon Power Plant, and a subsequent demo plant at the Yeongheung Power Plant.

According to a Doosan spokesperson, the FGD wastewater feed for the demo plant had a TDS of 30,000 mg/L and the ZLD system—consisting of a vertical tube falling film brine concentrator with mechanical vapor recompression (MVR) and a forced circulation evaporator (crystallizer) with thermal vapor recompression (TVR)—was able to operate at 97 percent recovery.

However, the newly contracted Yeoungdong ZLD system will consist of a forced circulation evaporator with TVC to treat a combined FGD and SCR wastewater with a TDS of 3,300 mg/L.

“Doosan’s ZLD System is a self-developed technology based on our thermal desalination experience, which has more than 30 years of history and 1,500 MIGD [1,800 MGD] of installed capacity worldwide,” the spokesperson told WDR.

In other ZLD news, the company’s Doosan Hydro Technology subsidiary has supplied an MBR/BWRO system as part of a ZLD project for Saudi Elastomer Project’s U&O project in Saudi Arabia. The project is now being commissioned.

Mexico
ROSARITO SWRO CONTRACT SIGNED

Aguas de Rosarito (AdR), a special purpose company owned by NSC Agua, Consolidated Water Company’s Mexican subsidiary, and S.A.P.I. de C.V., has been awarded a contract to design, build, finance and operate the 100 MGD (378,500 m$^3$/d) Rosarito Seawater Desalination Project. The project will be delivered under a 40-year public-private partnership contract governed by the State of Baja California’s new Asociaciones Público Privadas (APP) legislation.

The contract was executed between AdR, the State Water Commission of Baja California (CEA), the Government of Baja California represented by the Secretary of Planning and Finance and the Public Utilities Commission of Tijuana. Degrémont will serve as the project EPC contractor.

The contract is to be executed in two phases, with 50 percent of the production capacity to be delivering water in late 2019 or 2020 and the second phase by 2024.

In its 21 April bid, the CWCO team prevailed over two competing bidders, scoring the most technical points while providing the lowest-price offer. WDR calculated the quoted water tariff at $0.82/m$^3$ ($3.10/kgal) for the first phase, and $0.72/m^3$ ($2.73/kgal) when both phases are operational.

The total project cost is estimated at $490 million, with annual revenues expected to be approximately $55.5 million. Water rates under the APP contract are indexed to the Mexican national consumer price index, and electrical costs incurred by AdR, although included in the bid price, are to be treated as a pass-through charge to CEA.

AdR expects to raise Mexican peso denominated debt financing through a consortium led by the North American Development Bank.
The Cost of Seawater Desalination: Carlsbad versus Rosarito

Upon seeing the Rosarito water price, many readers will immediately want to compare it with the Carlsbad water price. After all, Carlsbad is located only 60 miles north of Rosarito and takes its feedwater from the same source. So why does the water at the Carlsbad fence cost $5.97-$6.62/kgal ($1.58-$1.75/m^3) compared to the $3.10/kgal ($0.82/m^3) that the Rosarito off-taker will pay for its water?

One obvious reason for the difference in price is that the Carlsbad plant is located in California and the Rosario plant isn’t. A cost of living comparison website (http://www.numbeo.com/cost-of-living/) shows that current consumer prices, including rent, are 218.75 percent higher in the San Diego area than the Tijuana area. Although the cost of living doesn’t directly translate to a lower cost of labor and construction materials, it usually serves as a good indicator.

As a more direct comparison, the same website shows the cost of bottled water in San Diego to be 117.7 percent higher than it is across the border in Tijuana.

Like a home mortgage—where the finance cost represents the biggest part of a monthly payment—a desal plant’s finance cost is the biggest component in its water cost. While the Carlsbad contract was based on a 30-year term, the Rosario project costs were spread over 40 years.

The second largest element of a seawater desal plant’s cost of water is its energy costs. For the Rosario plant, the energy cost included in the bid price was $0.045/kWh, while the prices reported for the Carlsbad water cost include an electricity cost of $0.12/kWh, or more.

Since Poseidon began to develop the Carlsbad project in 1998, its development costs have been estimated at $60 to $80 million. In comparison, CWCO began developing Rosario in 2010, and according to the company’s most recent 10K filing, its development expenses to January 2016, excluding the cost of the land that it acquired, were less than $17 million, and before an award was made, a highly competitive tender process was conducted under a PPP framework.

On the eve of his sixth trip to China during the last twelve months, Gradiant CTO Prakash Govindan told WDR that the company is working with Shanghai Electric, a Hong Kong and Shanghai listed state-owned enterprise and one of China’s largest industrial equipment manufacturing conglomerates, to secure the contracts. He said that the cooperation stems from a strategic investment that the company made in Gradiant earlier this year.

“Besides designing and manufacturing power generation, transmission and distribution equipment, Shanghai Electric has an auxiliary equipment group that offers a wide range of products, including thermal desalination technology. Their engineers fully vetted our CGE [Carrier Gas Extraction] process and recognized that it has significant cost advantages over more traditional brine concentration or ZLD technologies,” said Govindan.

CWCO CEO Rick McTaggart told WDR, “This contract is the culmination of six years of work by Consolidated and its partners. We would like to acknowledge the efforts of the Governor of Baja California and the staff of SIDUE, CEA and CESPT. We are looking forward to providing a drought-proof water supply for the citizens of northwest Mexico for the next 40 years.”

Company News

INVESTOR OPENS DOOR TO CHINESE MARKET

Following the recent news that it had won contracts for four new build-own-operate produced water treatment projects in the US oil and gas industry, Boston-based Gradiant announced that it is currently developing six brine concentration projects in China. Two of the projects are said to be in the final stages of negotiation.

Gradiant announced that it is currently developing six brine concentration projects in China. Two of the projects are said to be in the final stages of negotiation.

Gradiant’s President, Michael Goodyear, indicated that the company is working with a consortium of Chinese companies to secure the contracts. He said that the cooperation stems from a strategic investment that the company made in Gradiant earlier this year.

Other differences between the two plants are:

- Water storage: The Carlsbad CapEx includes storage facilities with the capability to hold 3 million gallons (11,355 m^3), while Rosario requires onsite storage of only 30 minutes of production capacity.
- Pretreatment solids: Carlsbad must provide facilities to treat and dewater pretreatment solids, while Rosario does not.
- Finished water quality: The finished water quality requirements for Carlsbad include more stringent chloride, boron and bromide limits. While Rosario expects to employ a single-stage, partial two-pass design, the Carlsbad project employs a four-stage, partial two-pass design and also adds fluoridation in post-treatment.
- Redundancy: The Carlsbad plant design was required to include a production capacity that was 8 percent higher than its nameplate capacity.
- Environmental issues: Environmental mitigation measures are unique to each site. For example, Carlsbad includes a capital cost of at least $23 million plus financing costs and a lifetime operating cost of $2.5 million for a marine life mitigation plan.
- Competitive Procurement: San Diego County Water Authority conducted a two-year due diligence process and Poseidon received competitive bids prior to selecting the contractor and technology provider, while the State of Baja California held a competitive tender in which three developers submitted offers. This review is just one more example of how difficult it is to compare two projects—regardless of how similar they appear to be—on the basis of the reported water price alone. To conduct a meaningful price comparison, it is necessary to have a thorough understanding of the project scope, operating conditions and energy and financing costs.
The Desalination Plant Is Finished But the Debate Over It Isn’t

The country’s largest desalination plant is in the ground at Carlsbad and its water is in our pipes, but the debate over whether it was a wise or economical investment continues.

The ability to turn salty ocean water into drinking water creates a dependable water supply for 3 million people in San Diego County. Even without a drought continuing across California, the ability to constantly sip from the ocean seems like an obvious plus.

There are downsides, though: The desalination process is energy-intensive and its water is currently far more expensive than our other water supplies. The San Diego County Water Authority has committed to buying water from the plant’s private developer and owner for three decades, whether the water is needed or not.

Some of the back and forth played out in court – the plant’s developers overcame years of regulatory review [1] and faced 14 legal challenges [2] since 2006 from environmental groups.

Recently, the debate has continued here in our opinion section.

A longtime critic of the Carlsbad plant, environmental attorney Marco Gonzalez, said the plant is an “expensive fraud” that is “horrible for taxpayers” [3] compared with other ways to increase the region’s water supply or efforts to simply save more water.

The San Diego County Water Authority, which backed the project and contracts with a private company for the water, has answered this and other criticisms [4] with essentially the same response each time: It’s worth it. The plant, said Water Authority board chairman Mark Weston, is a “major reason why [5] the area is no longer are under steep state-ordered emergency water cutback mandates.”

Kevin Dayton, a research analyst with the California Policy Center, said Gonzalez, other environmentalists and unions played a role in driving up the cost [6] of the plant’s construction. Alternatives to desalination, like turning wastewater into drinking water, “may be a nice example” but they are “no deal.”

There is a reason this is all happening now, besides just good old-fashioned attempts at an I-told-you-so.

A mix of water agencies and private developers are working on at least three other desalination projects in the region.

The perceived success or failure of the Carlsbad plant could tip the scales for those projects, which will face regulatory hurdles and legal challenges of their own.

The furthest along is a desalination plant proposed for Huntington Beach [7]. There, Poseidon, the developer of the San Diego plant, is hoping to build another plant and enter into another public-private partnership with the Orange County Water District. That project is now before the California Coastal Commission and a few other regulatory agencies.

Next in line is a desalination plant in Rosarito Beach, Mexico [8], that could provide some water to San Diego through an international pipeline.
The Otay Water District has been working on that project for a while. Because the plant would be in Mexico, it is mostly beyond the reach of legal challenges from American environmental groups. Except that two – Imperial Beach-based Wildcoast and San Diego County’s Surfrider chapter – have seized on the federal permit that would be needed for the pipeline to bring the water into the United States. They argued in a recent letter to Secretary of State John Kerry [9] that Mexico should focus on preventing flows of sewage into the ocean before it worries about treating ocean water.

Further out and more speculative is a desalination project being considered for Camp Pendleton, which the County Water Authority plans to spend at least $3.8 million [10] over the next two years studying.

Members of the Water Authority’s board from the city of San Diego have expressed concern about the project because the city is working on a $3.2 billion [11] drinking water project of its own and doesn’t want city customers to be hit with two major expenses at once. The city’s project would turn sewage water into drinking water [12].

Other members of the Water Authority’s board are looking at the possibility of more desalinated water, though, because of events to San Diego’s north. The Water Authority has been skeptical of a $15 billion project to build a pair of tunnels under the Sacramento-San Joaquin River Delta to more reliably deliver water to Southern California from Northern California.

The project would make water deliveries more reliable but not necessarily increase the amount of water available to Southern Californians.

So, some San Diego water officials wonder, why not just build more desalination plants and avoid the whims of weather entirely?

Unlike Northern California water that depends on snowfall and rain, with desalinated water, “we know we’d get it,” said Tom Kennedy, the general manager of the Rainbow Municipal Water District and a member of the Water Authority board. “That’s what I want to keep telling people, that price is going to go up by billions – but do you want water for that price?”

The cost of the tunnel project is far from final and who would pay for what is uncertain.

Southern California has repeatedly run up against perceived limits to its growth. First Los Angeles built an aqueduct to get water from the Eastern Sierras. Then Los Angeles and other Southern California water agencies, including eventually San Diego, banded together to get water from the Colorado River. Then the state built the State Water Project through the Central Valley to bring Northern California water to Southern California.

Now, droughts in California and the Colorado River basin, as well as environmental regulations and mandates, have reduced the flows from all three sources.

Over time, Southern Californians have learned to use water less wantonly. In San Diego, for instance, less water is used now than in 1990 [13], although there are more people. Officials are banking on an even more water-frugal future [14] than they once expected.

Yet the specter of an ongoing drought and a growing population push water agencies to continue trying to develop new water supplies.

Current desalination technology does not seem likely to on its own solve Southern California’s water problems.

In a recent interview with the Sacramento Bee [15], Jeffrey Kightlinger, the general manager of the Metropolitan Water District of Southern California, said water agencies would have to “basically
industrialize the whole coast” if they wanted to replace the water they get from Northern California with desalinated water.

The Water Authority buys water from Metropolitan, the region’s largest water supplier, and then resells that water to local water agencies, like the city of San Diego’s Public Utilities Department.

Referring to the whole Metropolitan service area, which stretches from Oxnard to Otay, Kightlinger said agencies would have to build 30 desalination plants of Carlsbad’s size to be able to replace Northern California water. The Carlsbad plant cost about $1 billion to build; the water from it is expected to cost about $2 billion more over the next three decades.

Kightlinger was in Sacramento to defend the tunnel project from suspicious Northern Californians.

“It isn’t physically or fiscally feasible or practicable to just sort of say we’re going to roll off one system all onto another technology – they all have to be built and they all have to complement each other,” he said.
TIJUANA, Baja California
El Gobernador del Estado, Francisco “Kiko” Vega de Lamadrid, encabezó la mañana de este viernes, la presentación y firma de contrato para la construcción y operación de la Planta Desalinizadora de agua para la Zona Metropolitana, que estará ubicada en Playas de Rosarito.

Obra que por sus características será la más grande en su tipo de América Latina, para lo cual se invertirán, en dos etapas, más de 10 mil millones de pesos, bajo la modalidad de Asociación Público-Privadas y que una vez en funcionamiento a partir del año 2019, beneficiará a un millón 500 mil habitantes de Tijuana, Tecate y Playas de Rosarito, al garantizarles el suministro del vital líquido y diversificar la fuente de agua para la región.

El Mandatario estatal, mencionó que esta obra de trascendental importancia en la que conjugan organismos públicos y privados, permitirá fortalecer la infraestructura en Baja California, al tiempo de detonar mayores niveles de competitividad y contribuir a elevar la calidad de vida de las familias.

“El agua es primordial para mantener a una población sana y activa, pero también lo es para mantener un estado competitivo a nivel local, nacional e internacional, por ello
trabajamos para satisfacer las necesidades de la población y también para ser atractivos para las inversiones, porque ello genera riqueza, empleo y oportunidades”, puntualizó, al tiempo de destacar que esta desalinizadora permitirá a la zona costa de estado, dejar de depender de una sola fuente de suministro, que es el Acueducto Río Colorado-Tijuana.

Vega de Lamadrid agradeció a los representantes del Congreso del Estado por haber recibido y autorizado la Ley de Asociaciones Público-Privadas para el Estado de Baja California, misma que está rindiendo frutos, pues esta obra es el segundo proyecto de agua que se concreta bajo está modalidad; el primero, fue la licitación para la construcción de una planta desalinizadora en el Valle de San Quintín, asimismo, adelantó que se llevan a cabo las obras de construcción y habilitación de una planta desalinizadora en Isla de Cedros.

Por su parte, el Secretario de Infraestructura y Desarrollo Urbano del Estado (Sidue), Manuel Guevara Morales, señaló que desde el inicio de la presente Administración estatal, el Gobernador Francisco Vega incorporó al Plan Estratégico diversas obras y acciones con la visión de afrontar la crisis del agua, que es la más aguda en 120 años, y en una suma de esfuerzos se ha buscado impulsarlas para con ello generar mayores oportunidades de desarrollo para el estado.

Explicó que la primera etapa de la Planta Desalinizadora de Agua para la Zona Metropolitana, que será ejecutada por el consorcio Aguas de Rosarito, producirá 2.2 metros cúbicos por segundo y estará lista en tres años, mientras que la segunda etapa doblará su capacidad, para alcanzar los 4.4 metros cúbicos por Segundo quedando concluida en su totalidad en el 2024.

En tanto, el Presidente y Jefe Ejecutivo de Consolidated Water, Rick McTaggart, comentó que para desarrollar este importante proyecto de infraestructura la empresa desarrolladora cuenta con un equipo de técnicos de primera clase para diseñar, construir, operar y manejar la planta, en este sentido, dijo que redoblarán los esfuerzos por terminarla en los tiempos establecidos, al tiempo que reconoció la visión del Gobernador Francisco Vega por hacer posible este proyecto de gran impacto para el desarrollo de Baja California y la región.

Durante el evento se contó con la presencia de los Presidentes Municipales de Playas de Rosarito, Silvano Abarca Macklis; de Tecate, César Moreno González de Castilla; el diputado local, Mario Osuna Jiménez; el Director del Organismo de Cuenca Península de Baja California, Alejandro Cervantes Beltrán; el Director de la Comisión Estatal del Agua, Germán Lizola Márquez; el Presidente del Consejo de Desarrollo Económico de Tijuana, Gabriel Camarena Salinas, entre otras autoridades, así como representantes del sector empresarial.

http://www.frontera.info/EdicionEnLinea/Notas/Noticias/23092016/1130920-Encabeza-Gobernador-firma-de-contrato-de-planta-Desalinizadora.html
9/26/2016
As plans move forward for a massive desalination plan in Rosarito Beach, a proposed pipeline to carry some of that water to San Diego County is undergoing scrutiny by the U.S. State Department.

Through October 14, members of the public are invited to comment on whether the project proposed by the Otay Water District is the national interest.

The department recently concluded its final environmental review of the pipeline. Because the structure would cross an international border, the department must evaluate the project before a Presidential Permit can be issued.
The Otay Water District is hoping to initially purchase 20 million gallons a day of water from Mexico, with the possibility of eventually purchasing up to 50 million gallons a day. The desalination plant has been designed with a capacity for up to 100 million gallons of water a day, which would make it the largest such facility in the Western Hemisphere.

Aguas de Rosarito, a private consortium that signed a contract last month with the Baja California government, would build the plant and operate it for 37 years under a public-private partnership. Under the current schedule, operations would start in late 2019 or early 2020 under an initial phase that would produce 50 million gallons a day.

The companies that make up Aguas de Rosarito are NuWater of Singapore, French-owned Degremont, and a Mexican company called NSC Agua that is a subsidiary of Cayman-Islands based Consolidated Water.

In an Aug. 26 filing with the U.S. Security and Exchange Commission, Consolidated Water stated that the contract signed with the state of Baja California does not become valid until Aguas de Rosarito “secures the equity and debt financing required for the first phase of the project.”

For the project to move forward, a series of other requirements must be met, including Aguas de Rosarito’s securing “permission from the relevant federal authority to discharge the residual water from the project’s desalination plant,” according to the SEC document.

Additionally, the Baja California State Water Commission must “obtain the rights from the relevant federal authority to take and desalinate seawater and distribute it for municipal use,” the SEC filing stated.

To submit comment to the U.S. Department of State, go to www.regulations.gov and look up docket number DOS-2016-0061

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This article is related to: San Diego County
percent recovery since it was commissioned in 2014. *WDR* plans to compare the schemes in an upcoming issue.

The Northwest Membrane Operator Association (NWMOA) will hold a workshop entitled *UF/MF Technologies and Trends – The Bend Experience*, on 4 November in Bend, Oregon. For more information, visit [http://tinyurl.com/h6j22dx](http://tinyurl.com/h6j22dx).

Pentair has been awarded the contract to supply its X-Flow Xiga UF membranes on the first phase of the three-phase Lackarebäck Water Treatment plant in Sweden. The initial phase will include four skids with a production capacity of 42,750 m$^3$/d (11.3 MGD). At build-out, the plant will have a total capacity of 186,000 m$^3$/d (49.1 MGD) and will be Sweden’s largest membrane facility.

San Diego County’s *Otay Water District* has plans to purchase up to 20 MGD (75,700 m$^3$/d) of desalted seawater from the 100 MGD (378,500 m$^3$/d) Rosarito Desalination Plant to be constructed across the US-Mexican border in Baja California, Mexico. However, before that can happen, the US State Department must evaluate the project and a Presidential Permit issued. As part of the review process, the public is invited to comment on whether the project proposed by the Otay Water District is the national interest. To submit comment to the State Department, go to [www.regulations.gov](http://www.regulations.gov) and search for docket number DOS-2016-0061.

The *International Desalination Workshop (IDW 2016)* : Sustainable Desalination will be held on 13-15 November in Abu Dhabi, UAE. For more information, visit [http://www.desalworkshop.org/main/](http://www.desalworkshop.org/main/).

**PEOPLE**

**Jorge Aguinaldo**, formerly the director of business development with RWL Water, has left the firm and is now available to consider other assignments. He is based in Tampa, Florida, and may be contacted at jtaguinaldo@aol.com.

**Gary Crisp** has joined the John Holland Group, where he will be involved with the company’s Australian and Asia Pacific water projects. Formerly Sacyr/Valoriza Agua’s water business development director, he has relocated from Washington DC to Perth. He may be contacted at gary.crisp@jhg.com.au.

**Cheryln Stithem**, an administrative assistant with Veolia Water Technologies for the past twelve years, will leave the firm and is available to consider other offers. She is based in Houston, Texas, and may be contacted at stithem@att.net.

**Tarek El-Shafie**, formerly vice president of sales and marketing of American Water Chemicals and later, a product line manager with Graver Water Systems, has left the firm and is available for independent consulting assignments while he considers other longer-term options. He may be contacted at teleshafie@netzero.com.

**Saif Saleh al-Sayari** has been appointed as director-general for Abu Dhabi Water & Electricity Authority (ADWEA). He was formerly the head of energy solutions at Abu Dhabi National Energy Company (TAQA).

**Tom Vanden Heuvel**, formerly a vice president with newterra (Crane Water) and the managing principal with Blue Water Advisors, has been appointed president of Kemco Systems. He is based in Clearwater, Florida, and may be contacted at tvandenheuvel@kemcosystems.com.

Israel’s Amiad Water Systems has appointed **Dori Ivzori** as CEO. He was formerly the managing director of Tamma Plastics and his appointment occurs after Arik Dayan’s recent announcement that he would step down.

**Timothy Lam** has joined Water Planet as its chief representative for the Asia Pacific region. Formerly Pall’s vice president of sales for Asia Pacific and Hyflux’s head of business development for modular systems, he will be based in Singapore and may be contacted at tlam@waterplanet.com.

**JOBS**

akvola Technologies, the Berlin-based supplier of proprietary flotation-filtration technology is seeking a sales engineer and an application engineer to support its increased business activities. For more information, send your resume to jobs@akvola.com.
17 November 2016, source desalination.biz

The Playas de Rosarito seawater RO desalination mega-plant project has been six years in the making. It began as a twinkle in Consolidated Water’s eye even before Mexico had introduced its new public-private partnerships law, but the act’s introduction in 2012 gave the project a clear structure for moving ahead.

The new desalination plant at Playas de Rosarito will be on the coast adjacent to the existing power station

At that point, Consolidated had already done much initial project scoping, however the terms of the new law mandated that it tender in a competitive process with only a very slight advantage. The firm’s speculative activity in laying the groundwork for the project paid off, and it won the commercial contract in August 2016.

The Playas de Rosarito project, whose estimated total cost is MXN9 billion ($490 million), is a huge initiative for the State of Baja California, one of the largest infrastructure projects ever to have been undertaken in the region. Hopes are high that it will support economic growth, particularly in terms of tourism trade.

The next big milestone for the mega-project will be financial close in early to mid-2017. Construction will then commence in two phases: the first delivering water into the city of Tijuana’s potable water system; and the second to a delivery point in central Tijuana.

Finally, there is the potential for the Rosarito plant to supply water across the border into California.

Read what Otay Water District board president Mitch Thompson says about this project.
Shape of the project: Mega-project has several unique characteristics

The drivers

· Initially to supply the city of Tijuana

· Next phase may involve a cross-border water deal with US, giving the project a bi-national flavour

· Structured according to Mexico's Asociaciones Publico-Privadas (APP), law on public-private partnerships

Proactive project

· Project grew out of ideas and studies initiated by Consolidated Water

· The company secured land and other rights of way from the Rosarito Power Plant

· APP introduced a clearer framework for projects that helps to attract private investors

The Rosarito Seawater Desalination Plant project is a multi-faceted piece of work that relies on input from, and partnerships with multiple agencies, individuals, administrators, and regulators.

Once built, the plant will be twice as big as any other desalination plant in the Americas, or the entire Western hemisphere.

"The magnitude of it in terms of a global desal project, and the size and importance of it to Baja Norte -- it's the region's biggest infrastructure project ever, and one of the biggest public-private partnerships anywhere in Mexico -- is very exciting. It's a really big deal for the region's water supply, and not just in Tijuana, but also in San Diego, California," says John Tonner, vice president and chief operating officer of Consolidated Water.

As a Mexican project, it will be financed in pesos, and there is potential to work out a cross-border deal on water supply with the State of California, US, giving the project a bi-national flavour.

When Mexico's new public-private partnerships law, Asociaciones Publico-Privadas (APP), came into play, it provided a clear legal framework for the project. Under the terms of the law, private developers can propose to the state ideas for studies on issues like the feasibility, environmental effects, and social impact of a project.

Public-private partnership: The APP agreement sets the foundation for the future

The contract

· APP contract covers design, construction, financing, and operation

· Covers seawater desalination plant and accompanying aqueducts

· Water rates are indexed to the Mexican national consumer index

Two phases

· Phase one: capacity of 50 million gallons a day and an aqueduct to the Tijuana potable water system
Phase two: capacity of 50 million gallons a day and an aqueduct to a second delivery point in Tijuana.

Consolidated Water signed a public-private partnership APP deal with the State of Baja California on 22 August, 2016.

The tender had been a competitive international tender and, as Tonner says, Consolidated Water "had to fight tooth and nail with other experienced, international desalination companies"—a process that ultimately "kept the costs down".

The contract was signed through Aguas de Rosarito (AdR), a special purpose vehicle owned by NuWater and NSC Agua, a subsidiary of Consolidated Water, for the design construction, financing, and operation of a seawater desalination plant in Playas de Rosarito.

The project is split into two halves, the first covering a 50 million gallons a day desalination plant and a 14km aqueduct to deliver water into Tijuana's potable water system, and the second for another 50 million gallons a day plant, and an aqueduct to convey water to a central delivery point a further 15km into Tijuana.

Phase one must be operational within 36 months of commencing construction, and the second by the end of 2024, although the state could bring that date forward.

The operations and maintenance part of the contract runs for 37 years from the date of commissioning of phase one. At the end of the period, ownership of the plant and aqueducts will transfer to Baja California State Water Commission (CEA).

Bi-national flavour: Water supplies in Baja Norte and San Diego County are closely linked

The possibilities

- Desal project could eventually supply water to the US
- Innovative water trading ideas are developing, including new definitions of "wet water" and "paper water"
- "Paper water" equates to trading between water agencies on water supplies
- Potential for leverage through smart approach to water deals

The challenges

- Many permitting hurdles must be cleared, including at a Federal level, for cross-border initiatives

Back in the 1930s, a treaty on water from the Colorado River and Rio Grande was signed between the Mexican and US authorities. The organisation involved was the International Boundary and Water Commission, a unique agency that continues to exist today, as a function of both the Mexican and US authorities.

As part of the broader work that's going on around the Rosarito Beach project, Otay Water District, California, has been working to get approval to take water from the plant, steering a process through authorities on the US side of the border.

"There has been a lot of water sampling and testing going on for almost a couple of years now in compliance with California and Federal regulations, and Otay Water District has applied for permission to have a pipeline cross the border. Anything that goes across the border, whether a gas pipeline, a power
line, or whatever, requires presidential approval on the US side -- a presidential permit; and Otay is quite advanced in planning for that," says Tonner. "The application for the presidential permit is in, and the source water quality monitoring necessary to support an application for consideration of a new water source is proceeding with the State of California." One question is whether CEA, the State Water Commission of Baja California, will be the vendor of water to Otay, or if the supplies will be bought direct from Consolidated Water. "That's the million dollar question. On one hand, we'll just keep making the plant as big as CEA wants it to be, and they can sell it to whoever they want, assuming that they can get approval from whichever entities they need to on both sides of the border. Or they may want us to go directly to Otay," explains Tonner. "Whether it ends up that they negotiate with the State of Baja California Norte, or if something's worked out with some other government agencies at the Federal level on both sides, I don't know. Whether they end up dealing with us, we don't yet know."

Water from the plant could be delivered across the border in one of two ways: in Mexico the two possibilities are known as "wet water" or "paper water". Wet water means physically delivering water, by means of a pipeline for example. Paper water means that a US agency somewhere further up the Colorado River would take a certain amount of water from the river, and that Tijuana would no longer draw that volume from the river on its side of the border, but instead take it from the desalination plant.

"For every cubic metre a second that we deliver to Tijuana, they don't need to take it from the Colorado. To get a cubic metre a second to Tijuana they take more than that from the Colorado, because of the canal, evaporation, and leakage. So paper water represents a potential for leverage. We give them one, they may be able to haggle for two on the Colorado. That's never been done before, and can be a part of our project," says Tonner.

San Diego and Tijuana are seen by some agencies, including development funding bodies, as a single economic area. "The potential to deliver water into both Southern California and Baja is really exciting, it builds on the community there, helps to foster and grow that, and there are a lot of people on both sides who believe in that," says Tonner.

Technology and design: There will be a focus on low energy consumption

Energy efficiency

· Plant will use the latest proven micro-filtration, ultra-filtration, and reverse osmosis technologies

· Double the capacity of any other desalination facility in the Americas

· Consolidated Water will exploit significant experience with energy recovery devices that it has gained through projects in the energy-expensive Caribbean market

Proven technology

· The intention is to use proven and robust technologies in reliable ways

· Experimental or unproven technologies are considered inappropriate in this context

It's still early days for the exact technical details of the system to have been nailed down. Broadly speaking, the approach will be "to deploy the latest proven micro-filtration, ultra-filtration and reverse osmosis technologies in the marketplace," says Tonner. "It's going to be double the capacity of anything in the Americas. It will be world class in terms of its environmental footprint, including energy consumption."

He points out that the big innovations of the project are expressed more in terms of its mega-size, and the structure of the deals that it is built upon, rather than in using the latest, most experimental technology out
there. Additionally, use of unproven or early stage technology is usually more appropriate in situations where the developer is investing only its own money.

"The type of deals we are doing as part of the Rosarito project, they get done with limited recourse project finance which mandates that you are using proven, robust technologies in reliable ways," says Tonner.

Consolidated Water's core market is in the Caribbean – including the Cayman Islands, the Bahamas, and the British Virgin Islands - a market whose energy prices are five to eight times higher than in the US or Europe.

"We know that reverse osmosis is considered by some people to be an energy-intensive process, and in the Caribbean we operate in an energy-expensive market. At our Caribbean plants we have been among the first to deploy advanced energy recovery devices, we have a lot of experience with that. We do that with assets that are on our own balance sheet," explains Tonner.

Consolidated Water's portfolio of plants includes RO plants in the Cayman Islands, the Bahamas, Belize, the British Virgin Islands, and Bali. It began as an exclusive water utility franchise in Grand Cayman in the 1970s, developing technical expertise and regional knowledge that it could then leverage to expand. The company's first SWRO plant was installed in 1989.

**Construction and ops: EPC contract goes to experienced mega-operator**

The partners

- Degremont (Suez subsidiary) was selected as the design and construction partner

- Track record and reliability of partners is considered important as part of the project package that will be presented to potential lenders

The operations

- Suez, NuWater, and Consolidated Water will operate and maintain the plant and aqueduct over a period of 37 years

- Ownership of the infrastructure transfers to Baja California State Water Commission (CEA) in the mid to late 2050s

Degremont, a subsidiary of the French water treatment solutions and services provider Suez Environment, has been awarded an engineering, procurement and construction (EPC) contract to build the plant at Rosarito.

"Suez has a track record of building projects like this, and lenders like to see that the EPC contractor is doing the engineering and taking responsibility for that," says Tonner.

Back in 2009, Degremont, in consortium with Thiess, signed up to finance, design, build, operate and maintain the Victorian Desalination Plant mega-project in Melbourne, Australia, up until 2039 -- one of the world's other major public-private partnership desalination mega-projects.

The ongoing operations and maintenance of the Rosarito Desalination Project will extend for 37 years from the date of commissioning of the first phase of the project.

"We will be operating the plant through an operating subsidiary, in partnership with Suez and NuWater," says Tonner.
Next steps: Consolidated is now working towards financial close

The facts

· APP contract forms the basis for discussions with potential lenders and investors

· Equity partners and banks are currently combing through the fine details of contract

· Financial close is expected to be in early to mid-2017

The figures

· Consolidated Water expects annual revenues from the project to be around MXN1.02 billion ($55.5 million)

· Water rates will be indexed to the Mexican national consumer price index

The next big milestone is for Consolidated Water to secure funding, which it expects to do in the first half of 2017. An interesting aspect of the project is that it will be financed in Mexican pesos rather than US dollars.

The details of the contract released by Consolidated include that water rates will be indexed to the Mexican national consumer price index, and that electrical energy costs incurred by AdR to desalinate and deliver water will be passed through to CEA (subject to efficiency guarantees). The company also said it expects annual revenues from the project to be around MXN1.02 billion ($55.5 million).

Tonner, whose background includes 10 years working as a technical adviser to lenders on project finance structures for big projects, explains that details such as these, among other information, will be pored over by banks and investors before they commit funds.

"Before the banks put their money in the kitty, they will be reviewing the preliminary details that we've got, satisfying themselves that the project can be built on budget and on time, and operate for those costs. The bankability of a project like this is encapsulated in the agreements between the various partners involved in the APP," he says. The APP was issued in substantially complete form by the Mexican authorities in November 2015, and the final agreement executed in August 2016. "Under Mexican law, they pretty much have to prove that it is the exact same as they started with last November, but incorporating clarifications. Once that deal is done, we can start banking upon it, and the state can start putting the guarantee trusts in place," adds Tonner.

Consolidated has been in discussions with potential equity partners and banks throughout the project development process, and these parties are now scrutinising the paperwork; as well as a guarantee mechanism - a trust agreement - that is put in place by the State of Baja California. Once financial close is achieved, the design work begins. "The next really big announcement is financial close, and then we can begin breaking ground," says Tonner.
'Challenges are shared across the border', Mitch Thompson, Otay

17 November 2016, source desalination.biz

Water from NSC Agua's desalination plant in Rosarito, Baja California, is a critical component of Otay's diversification efforts.

"We want to purchase a minimum of 10 per cent." Mitch Thompson, board president, Otay Water District

Otay Water District serves more than 222,000 customers in Otay Mesa, Chula Vista, Jamul, Spring Valley, Rancho San Diego, and unincorporated areas in southeastern San Diego County, California. We are committed to providing a safe and reliable water supply to our customers in an environment of persistent severe drought and adaptation to declining traditional water supplies. Our strategy for current and future water resource management includes water use efficiency, building on investments in recycled water back to 1980, and diversification of water resources to lessen our dependence on traditional supplies from the Colorado River and the Sacramento-San Joaquin Delta.

Water from NSC Agua's desalination plant in Rosarito, Baja California, is a critical component of Otay's diversification efforts. The California-Mexico region has long been a unique place where people, manufactured goods, and energy cross the border daily. Challenges and opportunities are shared on both sides of the border, and water is no exception. Like San Diego County and the Otay Water District, Tijuana and the State of Baja California have a long-term strategy to diversify water supplies. Desalinating seawater and purifying recycled water address the need for new, locally controlled, high quality, and drought-proof water supplies in our bi-national region. The Claude "Bud" Lewis Carlsbad Desalination Plant provides high quality drinking water to Otay customers and others throughout the San Diego region. The city of San Diego's Pure Water Program will purify recycled water to supply safe, high quality drinking water to a third of residents by 2035.
Otay is interested in purchasing a minimum of 10 per cent of the plant's output for its customers in San Diego County. Our proposed Otay Mesa Conveyance and Disinfection System Project, a four-mile potable water pipeline and metering station, would allow Otay to convey desalinated seawater, produced in Rosarito, from the border to Otay's facilities, meeting up to two-thirds of Otay's projected water use by 2024. Desalinated water from NSC Agua promises to be cost effective for our customers. We anticipate it to be price competitive with the current Colorado River supply and significantly less expensive than treating and reusing sewer water.

Otay has applied for a Presidential Permit from the US Department of State to allow the pipeline to cross the border. The project, which is subject to the California Environmental Quality Act, would convey water produced at the desalination plant to Otay's distribution system that includes water quality monitoring and additional disinfection, as necessary. This new water supply, just as any other, will meet the rigorous safeguards of the California Department of Drinking Water that ensure protection of public health.

Otay is committed to educating customers and other residents of San Diego County about the benefits of this binational project.

Mitch Thompson is board president of Otay Water District
Mexico turns to reverse osmosis desalination

In Playas de Rosarito, located in the Mexican state of Baja California, construction of a new reverse osmosis (RO) seawater desalination will start in 2017. The Secretariat of Infrastructure and Urban Development and the State Commission for Water chose the French company SUEZ, the Mexican firm NSC Water, and the Mexican branch of NuWater, based in South Africa, to finance, build, and operate a new desalination plant.

SUEZ will be in charge of the plant construction in two phases and will participate in its operation for 37 years. The first construction phase will enable the production of 190,000 cubic meters per day (m$^3$/d) by 2020. The second conditional phase will double the capacity of the plant to be 380,000 m$^3$/d by 2024, making it the largest seawater desalination plant in the American continent. The construction is worth a total of US $411 million.

Faced with water shortages, Mexico is turning to alternative solutions, such as desalination, to supply its fast-growing population. The Rosarito plant will secure drinking water supplies in the coastal region of Baja California using resources that are already available and proposing an innovative public private partnership business model.

(Volume 7 Issue 4)
Southern California eyes desalinated water from Mexico

By Padma Nagappan, Water Deeply | Jan. 6, 2017 at 10:29 AM

A consortium of international companies plans to build the largest desalination plant in the West in Rosarito, Mexico. A water district in California, which has been suffering from a yearslong drought, is interested in buying some of that water and piping it north. File Photo by Ken James/UPI

The United States imports vehicles, equipment, fresh produce and other goods from Mexico. That list may soon include water too, now that a San Diego County water district is looking south for help to diversify its supply.

The Otay Water District serves a population of 220,000 people in southeastern San Diego County, in a service area spanning 125 square miles, from the border city of Chula Vista to the unincorporated areas in Jamul. It currently buys potable water from the Metropolitan Water
District of Southern California, the San Diego County Water Authority and the Helix Water District.

But it's also seeking more control over its supply, so it has taken the unusual step of seeking to import water from Mexico – the first such venture by the United States.

A consortium of international companies plans to build the largest desalination plant in the West in Rosarito, Mexico, a coastal resort city in Baja California, about 15 miles south of the U.S. border. Otay Water District is interested in buying some of that water and piping it up north.

Plans for the plant were mired in legal squabbles for a while, but things moved forward in 2016, and if the consortium gets its financing in line, it will break ground in May. The first phase, with 50 million gallons of water in daily capacity, will be completed in 2019 or 2020.

Otay Water District has been pursuing plans to import desalinated water for several years and has applied for a Presidential Permit to construct a water pipeline that would cross the border. It expects to import about 15 million gallons a day, but that amount could increase, eventually accounting for two-thirds of its total potable water supply if the terms work out.
Cost of imported water

Piping water from Mexico would mean Otay Water District is relying on an imported resource, so how does it expect to have more control over its supply?

Mark Watton, general manager of Otay Water District, explains that it would be a closer source and a steady supply, unlike sources that come through the Sacramento-San Joaquin Bay-Delta, which make up part of the supply for wholesale distributors such as the Metropolitan Water District.

The amount of water that SDCWA gets from the Delta also varies from year to year. In addition, SDCWA gets water from the Colorado River, for which it has high priority through a transfer agreement with the Imperial Irrigation District, but Watton says the Rosarito plant would offer the Otay Water District better control over supply.

However, it will not offer major financial savings. "We are looking to replace our current water sources at the same or better price. Right now I pay the Water Authority about $1,700 per acre-foot [325,851 gallons] and the goal for us is to get the supply from desal [desalination] at the same cost," he said. "It's a little tight, but we still think it's feasible."

Environmental concerns

There are concerns that water piped from south of the border may not be subject to the stringent requirements of the California Environmental Quality Act. But Watton brushes aside environmental concerns about water quality, insisting that Mexico has the equivalent of the United States Environmental Protection Agency and that projects down south get similar reviews and public hearings.
"The difference is they don't have the environment for lots of lawsuits that can tie up projects for years," Watton said, referring to the Carlsbad desalination plant in northern San Diego County that took more than a decade to build and faced lawsuits over environmental issues.

However, California has stricter regulations than other parts of the country when it comes to desalination, now requiring the use of subsurface intake pipes for most projects, which is one issue holding up permission for a Huntington Beach plant, which has been seeking approval for 15 years.

There are other environmental concerns. Otay Water District's plans to purchase Mexico's desalinated water for U.S. consumers have met with strenuous objections from the mayor of Imperial Beach, a coastal town in southern San Diego County that would not be receiving the water. Mayor Serge Dedina claims that sewage water dumped into the ocean from a nearby wastewater treatment facility will get sucked into the desalination plant, making the water unsafe.

The San Antonio de los Buenos sewage plant at Punta Bandera is located 7 miles south of the U.S. border and discharges 13-27 million gallons a day (or more, depending on the weather conditions) of untreated and partially treated sewage water into the Pacific Ocean. The Scripps Institution of Oceanography is studying how long it takes plumes of pollution to reach Imperial Beach, which suffers frequent closures. Another prime source of pollution is from the Tijuana River, which empties into the Pacific Ocean near Imperial Beach.

U.S. and Mexican stakeholders agree that pollution cleanup in the border area needs to happen, but funding issues have stalled the efforts.

"We've been very clear to authorities that if they're going to fast-track the desal plant, they need to fast-track the sewage cleanup," Dedina says. The desalination plant is about 10 miles south of the sewage plant. "There should be no U.S. investment or approval for a pipeline across the
border until that water is cleaned up. I don't think U.S. consumers would be interested in buying this water if they knew of these conditions."

Otay Water District's Watton agrees with Dedina's concerns about the sewage issue hurting Imperial Beach, but doesn't believe it's an issue for the desalination plant.

"Yes, Serge is right: The discharge is a problem and they do post 'No Swimming' signs on the beach," Watton says. "But what he is trying to do is leverage the desal plant to force the Mexican government to clean up the sewage."

In any case, Watton points out, the decision to go ahead with the desalination plant has already been made. He insists that the plant is not close to the sewage facility and will not use sewage water. "The sewage discharge needs to be addressed, but it's completely divorced from the desal plant."

Padma Nagappan is a San Diego-based health and environment reporter. This article originally appeared on Water Deeply, and you can find the original here. For important news about the California drought, you can sign up to the Water Deeply email list.

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filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File No. SR–IES–2016–19, and should be submitted on or before October 5, 2016.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.

Brent J. Fields,
Secretary.

[FR Doc. 2016–22029 Filed 9–13–16; 8:45 am]

BILLING CODE 8011–01–P

DEPARTMENT OF STATE

[Public Notice: 9713]

Notice of 30 Day Public Comment Period Regarding the National Interest Determination for Otay Water District's Presidential Permit Application

AGENCY: Department of State.

ACTION: Notice.

SUMMARY: On November 25, 2013, the Otay Water District applied for a Presidential Permit from the Department of State (“State Department”) authorizing the construction, connection, operation, and maintenance of a cross-border liquid pipeline for the importation of desalinated seawater at the international boundary between the United States and Mexico in San Diego County, California. On September 2, 2016, after consulting with the public and interested agencies, the Office of Environmental Quality and Transboundary Issues (OES/EQT) at the State Department and the Otay Water District issued a final environmental impact report/environmental impact statement (EIR/EIS). Background information related to the application, including the application and the EIR/EIS, may be found at: http://www.state.gov/p/wha/permit/app/otaypermit/index.htm.

The State Department’s review of this application is based upon Executive Order 11423 of August 16, 1968, as amended. As provided in E.O. 11423, the Department is circulating this application to relevant federal agencies for review and comment. Under E.O. 11423, the Department has the responsibility to determine, taking into account views from these agencies and other stakeholders, whether issuing a Presidential Permit to Otay Water District authorizing the construction, connection, operation, and maintenance of a cross-border liquid pipeline for the importation of desalinated seawater would serve the national interest. That determination process involves consideration of many factors, including foreign policy; environmental, cultural, and economic impacts; compliance with applicable law and regulations; and other issues.

Interested members of the public are invited to submit written comments regarding this application. The public comment period will end 30 days from the publication of this notice. Comments are not private. They will be posted on the site http://www.regulations.gov. The comments will not be edited to remove identifying or contact information, and the State Department cautions against including any information that one does not want publicly disclosed. The State Department requests that any part soliciting or aggregating comments received from other persons for submission to the State Department inform those persons that the State Department will not edit their comments to remove identifying or contact information, and that they should not include any information in their comments that they do not want publicly disclosed.

DATES: Comments must be submitted no later than October 14, 2016 at 11:59 p.m.

ADDRESSES: For reasons of efficiency, the State Department encourages the electronic submission of comments through the federal government’s eRulemaking Portal (http://www.regulations.gov), enter the Docket No. DOS–2016–0061, and follow the prompts to submit a comment. The State Department also will accept comments submitted in hard copy by mail and postmarked no later than October 14, 2016. Please note that standard mail delivery to the State Department can be delayed due to security screening. To submit comments by mail, use the following address: U.S.-Mexico Border Affairs Office, Room 3924, Department of State, 2201 C St. NW., Washington, DC 20520.

FOR FURTHER INFORMATION CONTACT: Office of Mexican Affairs, Bureau of Western Hemisphere Affairs, via email at WHA-BorderAffairs@state.gov; by phone at 202–647–9094; or by mail at WHA/MEX—Room 3924, Department of State, 2201 C St. NW., Washington, DC 20520.

Dated: September 8, 2016.
Colleen A. Hoey,
Director, Office of Mexican Affairs,
Department of State.

[FR Doc. 2016–22004 Filed 9–13–16; 8:45 am]

BILLING CODE 4710–29–P

DEPARTMENT OF STATE

[Public Notice: 9714]

60-Day Notice of Proposed Information Collection: PEPFAR Program Expenditures

ACTION: Notice of request for public comment.

SUMMARY: The Department of State is seeking Office of Management and Budget (OMB) approval for the information collection described below. In accordance with the Paperwork Reduction Act of 1995, we are requesting comments on this collection from all interested individuals and organizations. The purpose of this notice is to allow 60 days for public comment preceding submission of the collection to OMB.

DATES: The Department will accept comments from the public up to November 14, 2016.

ADDRESSES: You may submit comments by any of the following methods:

- Web: Persons with access to the Internet may comment on this notice by going to www.Regulations.gov. You can search for the document by entering “Docket Number: DOS–2016–0048” in the Search field. Then click the “Comment Now” button and complete the comment form.

- Email: ZaidilF@state.gov.


- Fax: 202–663–2979.

You must include the DS form number (if applicable), information collection title, and the OMB control number in any correspondence.

FOR FURTHER INFORMATION CONTACT: Direct requests for additional information regarding the collection listed in this notice, including requests for copies of the proposed collection instrument and supporting documents, to Irum Zaidi, 1800 G St. NW., Suite 10300, SA–22, Washington DC 20006, who may be reached on 202–663–2440 or at ZaidilF@state.gov.

SUPPLEMENTARY INFORMATION:

- Title of Information Collection: PEPFAR Program Expenditures.