Publications

IDA YEARBOOK NEARING COMPLETION

Each year, WDR prepares the IDA Yearbook for distribution to all IDA members and WDR subscribers. The Yearbook is currently in production and will be mailed in early August.

The 2008-2009 Yearbook will include:

- detailed project profiles of 12 new plants that went online in the past year
- a market profile that provides a global and country-by-country review of the year’s desal activities
- the year’s top desal and reuse stories from WDR
- a list of new plants that went online in the past year
- a reference directory of plant and equipment suppliers including a list of up to 40 selected projects from each company

To ensure that the year’s project list is as comprehensive as possible, companies submitting a list of reference projects in which they participated will be given a free listing in the Directory section of the Yearbook.

If you are interested in having a project profiled or have any other questions about the Yearbook, contact the WDR editor at tp@globalwaterintel.com.

If you have questions about advertising opportunities in the Yearbook, more information is available at www.globalwaterintel.com/IDAYBadvertising.pdf

The deadline for submitting information for to be included in this new issue is 25 June.

Illinois

IT LOOKS LIKE A FARM—A GORGEOUS FARM

That was one woman’s response after seeing a photo of the new City of Geneva treatment plant. The 8 MGD (30,280 m³/d) RO membrane softening facility was designed by Black & Veatch and sits on a 40-acre (16.2ha) site on the City’s west side.

The area is home to several historic barns, and it was important that the new water treatment plant’s architectural features were consistent with the community’s agricultural setting. The plant itself sits on 10 acres of the facility’s property and is surrounded by a park, wetlands, a greenway and a bike trail.

Geneva, Illinois Membrane Softening Plant

Two aquifers supply the plant with feedwater: a deep sandstone aquifer characterized by a hardness of 250 mg/L and a radium concentration above 5 pCi/L, and a shallow sand and gravel aquifer with a hardness of 400 mg/L and a high iron concentration.

Barney Fullington, Black & Veatch’s engineering manager for the project, told WDR, “Individual treatment trains were selected for each aquifer to match the level of treatment to the feedwater quality, reducing the plant’s overall capital and operating costs.” The use of RO would ensure effective softening of both water sources and would provide over 97 percent removal of radium from the deep wells.

Shallow wells produce 4.5 MGD (17,032 m³/d) of water, which is treated with sodium hypochlorite to oxidize the iron before it is filtered through eight parallel, pressurized greensand filters. Approximately 2.5 MGD (9,462 m³/d) of the filtrate is then blended with 4.5 MGD (17,033 m³/d) of deepwell water before cartridge filtration, pressurization to 150 psi (10.3 bar) and RO membrane softening. The 6 MGD (22,710 m³/d) permeate flow is post-treated and blended with the remaining 2 MGD (7,570 m³/d) of...
A study assessing the feasibility of a seawater desalination plant for the city of Puerto Peñasco in the state of Sonora, Mexico was awarded to WL Bouchard & Associates last week. The $370,000 study is scheduled to be completed in 137 workdays, and was commissioned as a joint venture between the Mexican federal government and the US Trade Development Agency. Trussell Technologies and Pace Advanced Civil Engineering will assist Bouchard with the study.

Located at the northern end of the Sea of Cortez, Puerto Peñasco (Rocky Point) requires water to support its residential and business growth and to supplement fresh water currently supplied by eight water wells 30 miles (48 km) north of the city. Preliminary plans call for an 11.4 MGD (43,185 m$^3$/d) to be constructed by 2011, and that it have the capability of being increased to 45.6 MGD (17,745 m$^3$/d) by 2020.
Puerto Peñasco has already contracted Centro de Investigacion Cientifica y de Educacion Superior de Ensenada (CICESE) to study the intake, concentrate disposal and other possible environmental impact issues with the project. The feasibility study will include a review of CICESE’s data and technical conclusions as well as the technical, environmental, economic and regulatory aspects of the proposed facility.

Trussell Technologies’ Shane Trussell told WDR that the team has already begun to familiarize themselves with the project area and the project’s environmental setting. “In addition to the feasibility analysis and a preliminary design of the facility, we will prepare an implementation plan that includes performance-driven bidding documents for a DBO procurement and an analysis of US manufactured equipment and products for the SWRO system,” Dr Trussell said.

The feasibility study is scheduled for completion in 5 months.

California

DB TEAMS INTERVIEW FOR MF WTP FACILITY

Based on the high quality of proposals received, Irvine Ranch Water District (IRWD) invited all four teams bidding the 25 MGD (94,625 m³/d) Baker Water Treatment design-build project in for interviews last week. Steve Malloy, IRWD’s principal engineer of capital projects, told WDR that a bidder has been selected, but negotiations were still underway and an award would not be made until July.

Teams interviewed for the 25 MGD Baker Water Treatment Plant included:
• Carollo/RBF
• CDM/Black & Veatch/Kennedy-Jenks
• Malcolm Pirnie/HDR
• Tetra Tech/SPI

The project will employ pressurized MF membranes to treat water from the Santiago Lateral and Irvine Lake feed sources. Residual pressure in the pipeline will be used to drive the process without breaking head.

Molloy said a potential complication arose last week when Quagga mussels were found in the water supply. He said the final design will have to provide a means to control them and prevent them from impacting plant operations.

The June 2007 feasibility study estimated the overall capital cost of the facility at $47.8 million and the O&M costs at $0.15/kgal ($0.04/m³). Plans call for the plant to be operational by late 2010 or early 2011.

Arizona

WIND POWERED RO TO GET A CLOSER LOOK

Northern Arizona University (NAU), in Flagstaff, was awarded a contract to conduct a wind-powered desalination study by the Bureau of Reclamation last week. According to Reclamation’s Phoenix area office, the contract is valued at $20,000 and is to be completed within one year.

The project’s scope includes applying Geographic Information Systems (GIS) to identify potential areas in Arizona with sufficient wind power, groundwater resources and water demand. It will also include development of several possible wind-desal scenarios and the creation of one or more conceptual designs employing state of the art wind turbines and RO technology. An economic viability analysis will be prepared, and consideration will be given concentrate management issues.

NAU’s Dr Thomas Acker will be the project’s principal investigator.

Middle East

DEAD SEA PROJECT FACES OPPOSITION

Despite its admirable goal of reversing the declining level of the Dead Sea—which has lost one third of its surface area over the past 55 years and is falling at a rate of one meter per year—the proposed Red Sea Dead Sea Water Conveyance (RSDSC) project continues to face widespread opposition. The Israeli scientific and engineering community, environmental groups and other stakeholders oppose the conceptual design proposed in a 1998 Harza JRV Group study funded by the Italian government and facilitated by the World Bank.

In the original study, it was proposed that a seawater desalination and hydropower component could be added to produce 840 MCM/yr (608 MGD) of potable water and 800 MW of power, with the power used to assist energizing the desal plant.

Late last month, Coyne Et Bellier has been awarded a contract to conduct the feasibility portion of a $15.5 million study while ERM was contracted to conduct the
environment and social assessment portion. Both are due for completion in 2010.

Daniel Hoffman of ADAN Technical & Economic Services recently prepared a paper that includes some original ideas on how to improve the project’s design, economics and public acceptance. The paper, a preview copy of which was made available to WDR, is being circulated among the project donors and beneficiaries and will soon be published in a leading international water journal. It summarizes key features of the Harza study and delineates the project opponent’s objections with suggestions as to how they might be addressed.

The paper contends that to win all the nay-sayers support—or even their acquiescence—it will be necessary to go further and present the Project not only as a saving—the—Dead-Sea-solution, but as a comprehensive environmental project that will have profound positive ecological and economic benefits to all stakeholders, including those along the conveyance route and north of the Dead Sea.

Not only would this project be the world’s largest seawater desalination project, it will have an enormous impact on the region…and the world.

IN BRIEF

An AWWA webcast entitled “Nanotechnology: Applications and Implications” will be presented on 23 July at 1:30 PM EDT. The 1-1/2 hour long presentation will be given by UCLA’s Dr Eric Hoek and will look at nanotechnology’s application in the water sector and its implications in treatment, sustainability, and public health and safety. Information is available at [www.awwa.org/Conferences/WebcastsDetail.cfm?ItemNumber=36514](http://www.awwa.org/Conferences/WebcastsDetail.cfm?ItemNumber=36514).

California’s Orange County Water District and Orange County Sanitation District have been awarded the 2008 Stockholm Industry Water Award for the 70 MGD (264,950 m³/d) Groundwater Replenishment System (GWR). The award honors and encourages business sector contributions to sustainable development in the water sector and will be presented in August.

Severn Trent Services’ Latin American sales manager Carols Osorio told WDR that they have installed a 1.3 MGD (4,882 m³/d) BWRO and mixed bed demineralizer at Endesa’s power plant in San Isidro, Chile. The three-train system treats well water to produce a high-quality 0.05 microsiemens for use as boiler feedwater. Pretreatment consists of greensand filters to remove iron and manganese and activated carbon to remove residual chlorine.

Elion Chemical Industry Comapny, one of China’s largest PVC and caustic soda producers, has awarded a contract for a 12,190 m³/d (3.2 MGD) water recycling system to GE Water. The system will combine UF, RO and a thermal evaporator to recycle 90 percent of the plant wastewater for use within the plant when completed in early 2010.

It has been reported that Mekorot—Israel’s national water company—will not be allowed to participate in the upcoming tender for the Sorek seawater desalination facility. The 100 million m³/yr (72 MGD) SWRO project is currently in the pre-qualification stage. The report says the Ministry of Finance said that Mekorot has been given approval to build the Ashdod SWRO project and a second award could result in the company becoming a near monopoly.

California governor Arnold Schwarzenegger proclaimed a statewide drought last week, and issued an Executive Order, which takes immediate action to force numerous communities to mandate water conservation or rationing. The state has experienced two straight years of below-average rainfall, very low snowmelt runoff and the largest court-ordered water transfer restrictions in state history.

TRANSITION

John Keys, former commissioner of the US Bureau of Reclamation died last week when a private plane he was piloting crashed in Utah’s Canyonlands National Park. He spent his entire 36-year career working with Reclamation and had retired two years ago. He was 66.

PEOPLE

Osmoflo has announced the appointment of Neil Palmer as General Manager Technical Services. He was formerly the chief engineer at United Utilities Australia and can now be contacted at neil.palmer@osmoflow.com.au.

JOBS

iGlobal Water (IGW), a privately-owned water supply company, is seeking a Europe-based Desalination Sales Professional with experience in industrial and governmental bidding processes. The successful applicant will play an active role in negotiating commercial contracts. A degree in chemistry or engineering and knowledge of Spanish or being bilingual will be an asset. Please indicate your interest by sending a CV to info@iglobalwater.com.

Rate for one year: £250 or US$500. Subscribe and renew online at: [www.waterdesalreport.com](http://www.waterdesalreport.com)

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