

Tampa Bay's Water's new 60-mgd Surface Water Treatment Plant located off Broadway in the Brandon area

As part of its planned conversion from groundwater to surface water, Tampa Bay Water has begun development of a water treatment plant that will treat water drawn from the Hillsborough River.

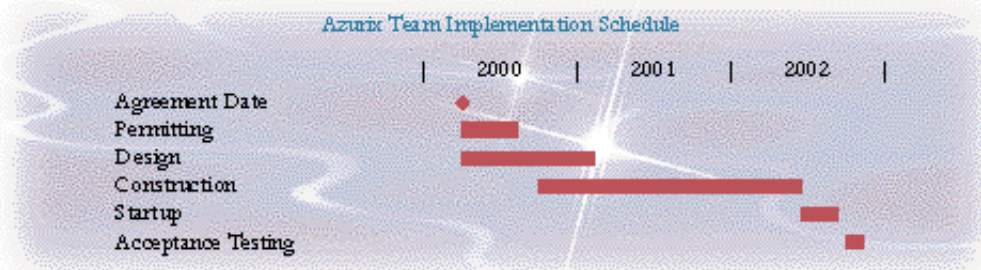
According to the Tampa Bay Water Master Plan, various projects will provide new sources of drinking water totaling an annual capacity of at least 85 million gallons per day (mgd). New water sources are being developed within strict timing requirements for a phased reduction of pumping from existing water wells. Excessive groundwater usage is lowering area lake levels during periods of high use.

The Azurix Team (comprised of an affiliate of Azurix Corp., HDR Engineering, Inc. and Sverdrup Civil, Inc.) has established an aggressive design-build-operate schedule for the surface

water treatment plant (SWTP). This schedule could avoid potential fines that could be assessed by the Southwest Florida Water Management District (SFWMD) against Tampa Bay Water if this project is not completed on time. The treatment plant is an essential component of the Tampa Bay Water System, delivering an initial capacity of 60 mgd by 2002, with a planned, future expansion to 100 mgd.

Reliable Treatment Process

The new treatment plant will incorporate ozone and



The Azurix Team proposal brings the facility on-line in November 2002 – ahead of the deadline imposed by the SFWMD.

granular activated carbon filtration to produce superior quality drinking water for the 1.8 million people served by Tampa Bay Water. Ozone is a powerful oxidant and is used to ensure the water has been thoroughly disinfected.

The treatment plant will be operated by certified personnel utilizing a completely automated operating system. A computer system continually monitors the plant, automatically controls operations and provides alarms to alert the operator to a problem that requires attention.

Innovative Development Process

Tampa Bay Water opted to use the more innovative design-build-operate (DBO) approach to develop its surface water treatment plant more quickly and cost effectively. While a traditional approach deals with each phase of the project separately, the DBO approach solicits proposals from teams that provide the full range of services required to design, build and operate the treatment plant.

The DBO team is the main point of responsibility for implementing the project. The team works together to

develop an innovative design that is constructable, and ultimately easy to maintain and operate. Because designers, contractors and facility managers are on one team, they can work cooperatively to ensure project success. The interests of the consumer are well served when public agencies are willing to explore DBO arrangements.

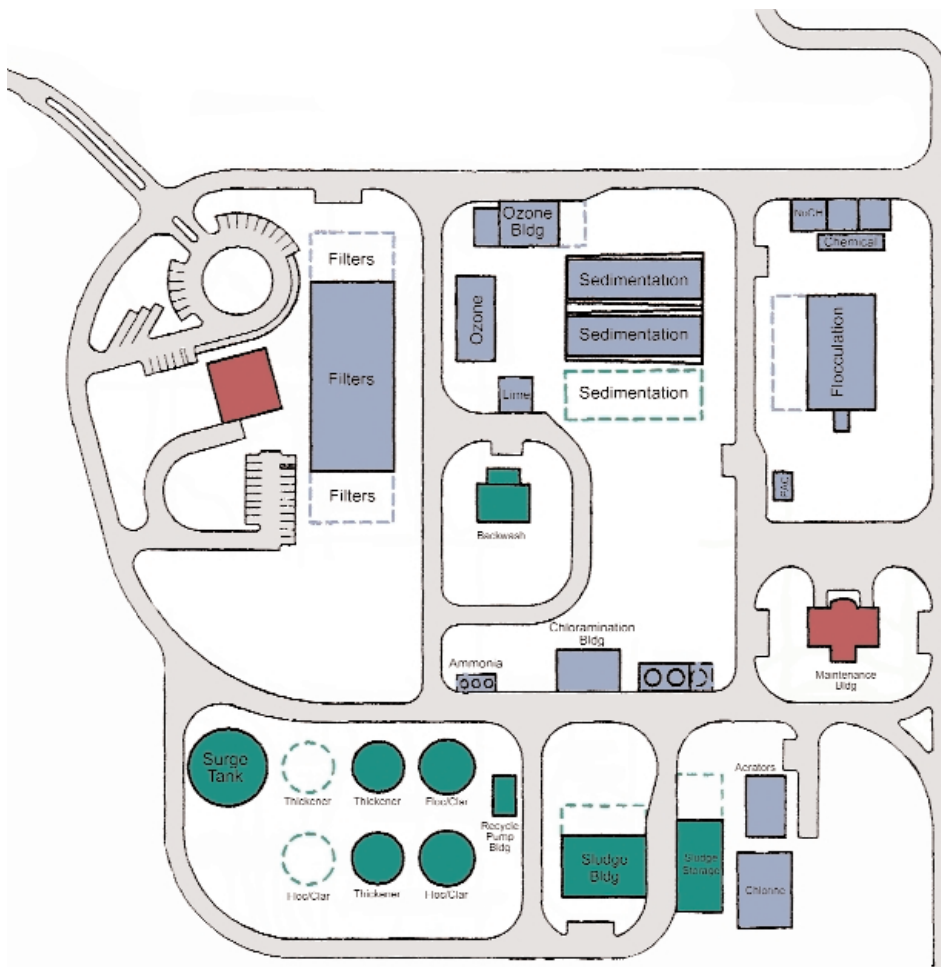
DBO strategies are being implemented with increasing frequency to the direct benefit of the public entities (like Tampa Bay Water) that choose to use them. Significant benefits that the Azurix Team’s DBO approach will provide include:

- A full range of services necessary to bring this project to fruition.
- Streamlined project administration and increased project control because design, construction and operation are provided by a pre-assembled organization with established cooperative relationships.
- Project benefits from access to state-of-the-art technology and extensive private sector experience because each team member focuses on its core competency.

- Reduced construction time because of the cooperative effort between the design and build components.
- Reduced project costs resulting from condensed construction schedules, lower engineering and operating costs, all of these efficiencies are a result of the teaming arrangement and can total 20% to 30% in savings.

DBO Team

The proposing team for the Tampa Bay Water Surface Water Treatment Plant is led by an affiliate of Azurix Corp., which will provide long-term operations and maintenance of the completed facility. The design-build component of the team – HDR Engineering, Inc., and Sverdrup Civil, Inc. – will be responsible for permitting, design and construction of the SWTP.



The water plant site plan has room for expansion to 100 mgd.

Azurix and its subsidiaries have worldwide experience in the design, construction and operations management of large surface water treatment plants. An Azurix affiliate is the operator for a similar project for the City of Seattle – the 120-mgd Tolt River Water Treatment Facility, which will be completed in mid-2000.



Tampa Bay Water's plant will be an ozone plant much like the Seattle Tolt facility.

Azurix has additional operating experience that can contribute to the successful operation of Tampa Bay Water's new facility. An Azurix affiliate is currently responsible for a 190-mgd surface water treatment plant in Ontario, Canada and a system of water treatment facilities that serves a population of approximately 1.2 million people in the Wessex region of England. Azurix affiliates operate approximately 200 drinking water treatment facilities serving a total population of nearly 5 million.

HDR Engineering, Inc., and Sverdrup Civil, Inc., have formed a joint venture to streamline the design and construction services offered to Tampa Bay Water through the design-build-operation process. This means the engineering and the construction teams for the project will work under a single entity structure in the joint venture.

HDR, a leading engineering and architecture consulting firm, is known through-out the country as a leading-edge designer of drinking water treatment facilities. HDR researchers have twice won the prestigious AWWA/Research Foundation Award for the "Most Valuable Contributions to Drinking Water Research." Since 1974, HDR has been providing consulting services to the

EPA in drinking water treatment, design and costing. Support to the EPA included creation of a set of eight guidance documents to accompany the new DBP Rule and the Interim Enhanced Surface Water Rules that were finalized in December of 1998.

HDR employs more than 250 engineering, design and support professionals in Florida and more than 2,500 worldwide. Headquartered in Omaha, Nebraska, HDR serves clients worldwide out of more than 50 offices, including the Tampa location, which has served clients in the Tampa Bay area since 1974. HDR's experience working in every state in the nation and in 40 countries helped earn its place among America's top 10 engineering firms in water treatment plants in Engineering News Record's 1999 Engineering Sourcebook.

For more than 50 years, Sverdrup Civil has played an important part in community development. Sverdrup engineering and construction professionals build water management systems, transportation networks, ports and municipal facilities throughout the world. Extensive construction experience in Florida – specifically in the design-build of three water treatment plants in Central Florida – provides specific, relevant experience. As a licensed Florida general contractor, it provides design-build and construction services throughout the state. The firm's expertise was recognized by the Florida Chapter of the American Public Works Association in 1998 when it named Sverdrup "Contractor of the Year".

Sverdrup's design-build activity ranges from small road projects with a construction cost of less than \$1 million to major water treatment facilities with total cost of \$1 billion. The firm's design-build and construction clients in Florida include the cities of Orlando, Kissimmee and New Smyrna Beach; and Orange and Volusia Counties.

Turning on the Tap in 2002

With the completion of the surface water treatment plant, Tampa Bay Water will accomplish a major step in its Master Water Plan. The new facility will ensure superior quality water for the citizens of the Tampa Bay area well into the 21st century.