

## PRODUCTS IN ACTION



By Chuck Adcock

# It's All About Pumps: Sewage Solutions in Paradise

*Pumps provide flow stations to wastewater plants in growing area*

**S**outh Walton County, Fla., is one of the fastest-growing areas of the state—in part because of its 16 certified Blue Wave beaches and outstanding year-round weather. To many, it is the definition of paradise. But even in paradise, the practical issues related to reliable water and wastewater services are paramount to a safe, comfortable environment.

Twenty-five years ago, the magnificent coastal areas west of Panama City, Fla., depended on individual package treatment plants to meet sewage treatment needs. This approach worked for years, but it left gaps in service, and treatment levels tended to be inconsistent. A more comprehensive approach needed to be established. In response, Walton County made the decision to bond its Florida Community Services Corp. to develop the water and sewer infrastructure of the area.

In 1986, Regional Utilities, operated by Florida Community Services, began managing the existing package treatment plants and the area's wells. Soon thereafter, Regional Utilities began laying water and sewage lines along the beach and coastal areas so that dependence on isolated small treatment units was reduced. During the initial period of infrastructure development, much of the sewage flow was diverted to an existing treatment facility originally built by the developer of the Sandestin Resort. In 1993, an important new treatment facility located near Point Washington, Fla., was constructed. Upon its completion, much of the area flow was directed into its basins.

Regional Utilities operates three interconnected treatment facilities in the area: Sandestin, Point Washington and Seacrest. This allows Regional Utilities to divert streams from any one plant to the others during maintenance shutdowns, power outages or peak-flow periods. The EMU pumps are designed to pump 10,252 gpm at 21 TDH.

### Critical links

The important task of moving the sewage flow from various collection points over considerable distances to the new centralized facilities was accomplished through the use of dozens of lift stations equipped with high volume submersible sludge pumps. Because of the critical nature of this task, the pumps had to be highly reliable and durable over extremely long service periods. It became clear after trying pumps from several manufacturers that EMU submersible pumps provided the extended service levels required for this tough, around-the-clock operation.

### Upgrades enhance pump importance

In 2003, the Point Washington treatment facility was upgraded to a 2-mgd facility using sequencing batch reactor (SBR) technology. Because of its long-term positive experience with EMU's pumps and service support, the management of the facility chose EMU dry-pit pumps to meet the heavy pumping requirements of SBR technology. The plant depends on two towering EMU dry-pit pumps, which are essential to the efficient operation of the process. The plant went online with the new technology in 2004.

According to Regional Utilities; "These main pumps are approximately 114 hp each with a 20-in. discharge. With pumps this size, you can't afford to have backup pumps sitting around. You have to be able to depend on the pumps you have. This plant is really two 1-mgd plants, so if one of the pumps requires service and has to be taken offline, we can still operate at 50%. This means, however, that when we need service, we need it fast. We need to know that when one of these pumps needs service, that we're only going to be down for a very short period of time before we can be back up and running."

### Helping other facilities

Because of the continuing growth in the area and the success of the SBR system at Point Washington, Regional Utilities has committed to SBR upgrades at its Sandestin and Seacrest facilities. The Sandestin facility will add 2 mgd to its existing 2-mgd capability, and the Seacrest facility will be upgraded to 2 mgd. **WWD**

## ARTICLE SUMMARY

**Challenge:** Package treatment plants in Walton County, Fla., no longer supported the area's growing population, causing service gaps and inconsistent treatment levels.

**Solution:** A new treatment plant was interconnected with the existing two, lift stations were built and an SBR was installed in the Point Washington facility.

**Conclusion:** The SBR system was a success, and continuing area growth will lead to increased facility capacity.

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