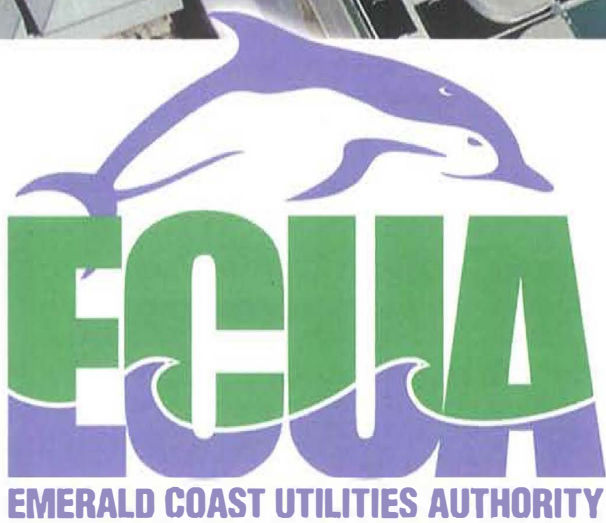


On Time. Under Budget.



CWRF Project To Change The Face Of Downtown Pensacola



BASKERVILLE-DONOVAN, INC.
Innovative Infrastructure Solutions



Hatch Mott
MacDonald

**BRASFIELD
& GORRIE**
GENERAL CONTRACTORS

A Historic Day

It is not an overstatement to say this marks a historic day for our region.

Bringing online the Central Water Reclamation Facility (CWRF), the largest and most complex civil engineering project in the county's history, is the culmination of eight years of studying, planning and building. The successful completion of this mammoth project, on time and under budget, will have a profound and positive effect on the future of our community. It will open the way for growth, particularly in central and northern Escambia County, and ensure the preservation of our environment through unprecedented water-sharing agreements with Gulf Power and International Paper. As significantly, it will mean the removal of the Main Street Wastewater Treatment facility from downtown Pensacola and its impact on Pensacola Bay.

At every phase of this project, I and my fellow Emerald Coast Utilities Authority board members, our dedicated ECUA staff, and the talented architects, planners and engineers who have made this project a brick-and-mortar reality, have been guided by the belief that through the realization of this project we will have a positive effect on our community that will endure for generations. It is a realization that instills within us all a great sense of pride.



Elvin McCorvey,
Chairman

Great achievements such as this do not happen in a vacuum, but are the result of a world-class team, harnessed together and pulling in the same direction. We at the ECUA are lucky to have an outstanding team serving the public each day, and we are fortunate that the others who joined in this endeavor were equally committed.

None of this could have been accomplished without the tireless dedication of the ECUA staff, beginning with Executive Director Stephen Sorrell and extending through all of the 550 employees who work diligently to deliver water, sanitation and wastewater services daily to ECUA customers. These ECUA employees are justly proud of the high quality of the services they deliver and, in many ways, the opening of the CWRF is a testament to them.

I also want to thank those who collaborated with ECUA to take this project from design to reality: Baskerville-Donovan, Inc.; Brasfield & Gorrie; Crom Corporation; Hatch Mott MacDonald; Malcolm Pirnie; and Utility Service Company.

I want to make particular note of Gulf Power Company and International Paper, whose teams worked closely with our ECUA staff to develop agreements whereby the reclaimed water from the CWRF will be reused, a significant step that underscores the dedication of those three entities to be responsible stewards of our precious and fragile environment.

We at ECUA believe the CWRF, while a technological marvel, a magnificent engineering feat and a positive statement of what a public-private partnership can accomplish for the greater good, is something more — it is a present to Escambia County and its future.

On behalf of my fellow Board members, I'd like to wish you and your family the best for this Holiday Season and the coming New Year!

— Elvin McCorvey, Chairman, Emerald Coast Utilities Authority Board

Our PRESENT for the FUTURE

You're invited!

It's our PRESENT for the FUTURE.

Please join us as we "turn off" Main Street
and "turn on" our new
Central Water Reclamation Facility.

December 2, 2010
2:00-4:30 p.m.

**Central Water Reclamation Facility
Administration Building**

Dedication Ceremony ~ 2:00 p.m.

**Reception & Trolley Tours of Plant ~
3:00-4:30 p.m.**

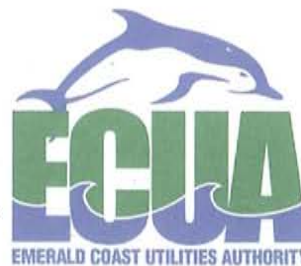
**2980 Old Chemstrand Road
Cantonment, Florida 32533**

See <http://ourpresentforthefuture.com> for area map
or enter GPS 30°36.145 - 087°16.030

This event is FREE
to the general public.

Attire ~ Business Casual
The CWRF is a
no-smoking facility.

For more information
before
or during the event:
email, call or text
(850) 748-2471.



Want to learn more about the CWRF? • ©2010 Emerald Coast Utilities Authority



The new Central Water Reclamation Facility in Cantonment is built to be more environmentally friendly and hurricane resistant.

Many Hands Transformed Dream into Reality

BY ALLISON MCCRORY

Baskerville-Donovan CEO Fred Donovan remembers coming to work at his office across from ECUA's old wastewater treatment a few years ago, seeing a nearby flag flying southward and knowing that meant a foul odor would envelop the region.

"I said, 'We've gotta move that damn thing,'" Donovan remembers from his Main Street office.

Dreams do come true: On Aug. 30 wastewater began flowing to the new Central Water Reclamation Facility in Cantonment designed by Baskerville-Donovan, with assistance from Hatch Mott MacDonald and Malcolm Pirnie, Inc.

"I felt like jumping down there in that stuff," Donovan says of that emotional moment culminating 10 years of vision and work for a project that is garnering accolades for its environmental awareness, as well as coming in under budget and on schedule.

Donovan credits many people, from former Florida legislators Holly Benson to engineers, to city, county and state leaders with contributing to the monumental effort, noting that the new plant had technical, economic and social support — the three elements he considers the lifeblood of a successful project.

Even before that, the City of Pensacola,

*"I felt like jumping down there in that stuff,"
Donovan says of that emotional moment culminating 10 years of vision and work.*

— Baskerville-Donovan CEO Fred Donovan

Escambia County and the Emerald Coast Utilities Authority all contributed equally to the cost of a study to assess the possibility of what at the time seemed like an impossible dream.

Those same entities, plus FEMA and state grants, funded the monumental project.

"If you've got those, you've got a concurrency of goals that will happen. This project has that," he says, noting that because the community voiced strong support for the project, it had the "political air" necessary to fly.

"We had a lot of people," says Donovan. "They all had their moments. Everybody worked together as a team."

An Ivan Wake-Up Call

Although a push for the project began before Hurricane Ivan, the storm provided a nerve-racking wake-up call that a move out of the low-lying plant near Pensacola Bay was essential.

A FEMA grant of more than \$134 million, coupled with state FEMA money — more than 40 percent of the total cost — greatly enhanced the quality of the project without breaking ratepayers' wallets.

"Ivan helped it be as great as it is," notes Donovan.

"There are some things that might not have been there without FEMA."

Donovan is nonchalant about accolades for coming in under budget, stating that it is his expectation that the firm will stay within the budget they create.

"You have to surround yourself with people who can live within your means," he states. "I don't have room in this company for people who come in over budget."

In addition, despite above-average rainfall in 2009 and a record cold winter for the area, the project transitioned from a cleared site to a functioning facility in two years.

Teamwork Led to Success

Baskerville-Donovan Project Director Ned McMath said that one of the biggest challenges was coordinating all of the construction projects that were underway simultaneously.

"In order to complete the project on schedule, we had crews working on lift stations, laying the pipeline and building the reclamation facility all at the same time," McMath says. "It required an incredible amount of focus and teamwork between the ECUA, the consultants and contractors to keep everything moving forward."

"Hatch Mott MacDonald is very grateful and honored to have been a part of the team involved with bringing to reality one of the most significant public works projects in Escambia County history," says Hatch Mott MacDonald Executive Vice President Charles Baxley. "The substantial efforts, cooperation and team approach of the ECUA staff, the design engineers, the contractors and our local, state and federal elected officials were unprecedented for our community and without which such an incredibly large, complex and successful project would never have been realized."

"The CWRP project was an unbelievable success — unquestionably one of the best I have ever been involved with — mainly because of the incredible team ECUA put together," says Pete McMaster, Director of Gulf Coast Operations for Malcolm Pirnie, the engineering firm that monitored quality and costs on behalf of the ECUA board. "There was strong cooperation and coordination among the consultants and contractors that helped the project come together smoothly."

Affects Every Citizen

Baskerville-Donovan Project Manager David Carr agrees that the massive project is a once-in-a-lifetime opportunity that affects every citizen every day.

"Projects of this much importance to the community don't come along every day in this



The new Government Street lift station is designed to blend in with the character of other downtown Pensacola buildings.

"The substantial efforts, cooperation and team approach of the ECUA staff, the design engineers, the contractors and our local, state and federal elected officials were unprecedented for our community and without which such an incredibly large, complex and successful project would never have been realized."

— Hatch Mott MacDonald Executive Vice President Charles Baxley

profession. It's been an honor to be involved in something that will have a lasting and very significant benefit to our hometown," Carr says. "The nature of our work benefits our communities, but it goes relatively unnoticed most of the time. This job will make Pensacola a better place."

Like Donovan, Carr says teamwork was essential to success.

"With so many critical path items running in parallel, it took constant effort on everyone's part to keep any one item from being a show stopper," says Carr, who notes the essential

roles junior engineers Christina Leach and Scott Jernigan played in the process.

As a young engineer, Leach values the experience she gained in charge of the mechanical start-up process.

"It was a great project to work on because it had community involvement and also provided experience for growth, including construction experience," she says.

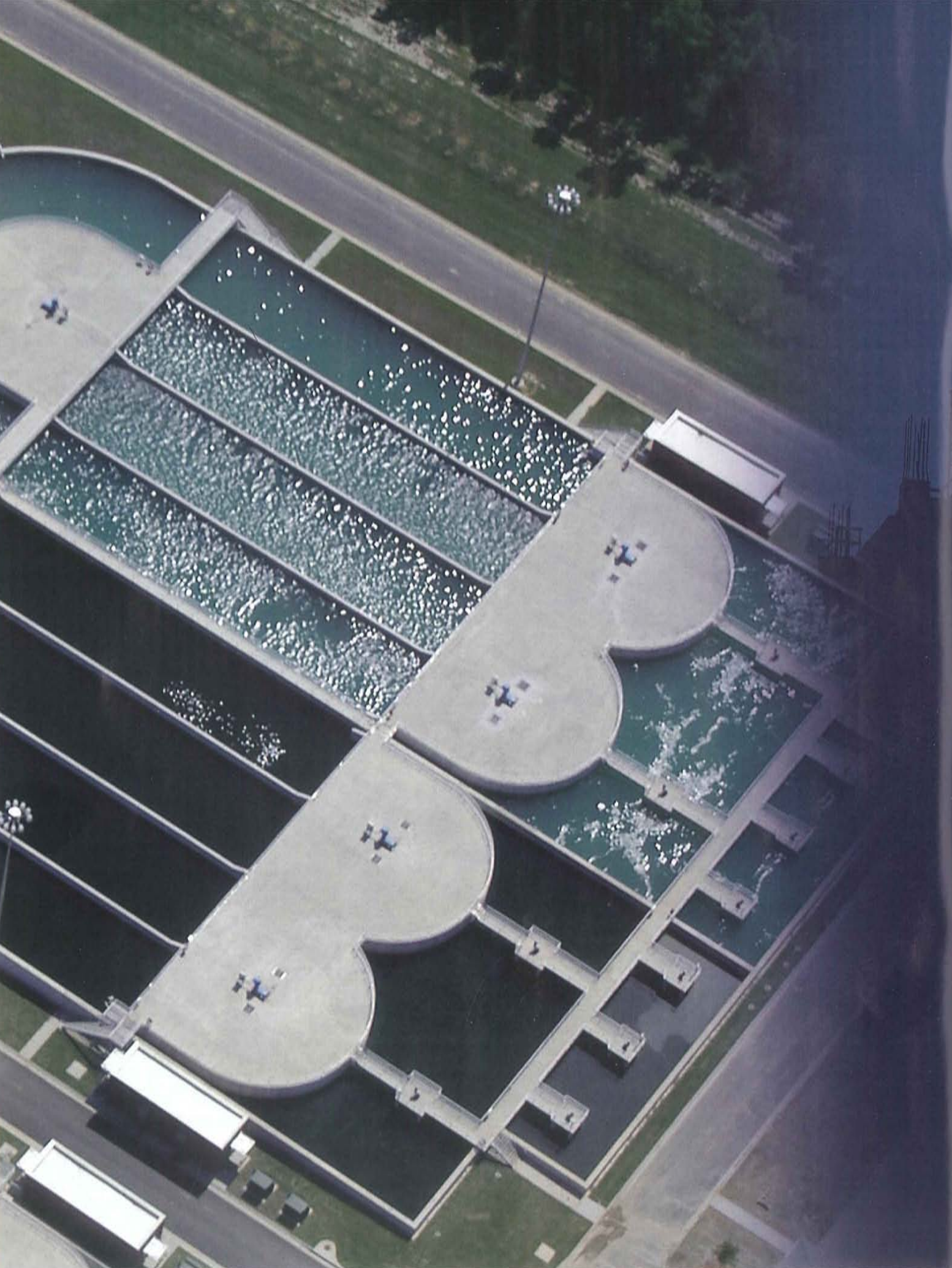
Like others, ECUA Manager of Water Reclamation Engineering Stephen Holcomb considers it an honor to have worked on the historic project. He notes that Escambia County residents are the biggest winners as a result of the endeavor.

"The new facilities have had and will continue to have a far-reaching impact on our local economy, our environment, and significantly improves ECUA's ability to provide critical services on a continuous basis even under emergency situations," Holcomb says.

"The Main Street Replacement has been both a challenge and an honor for me to be directly involved in such a complex but important project."

"The new facilities have had and will continue to have a far-reaching impact on our local economy, our environment, and significantly improves ECUA's ability to provide critical services on a continuous basis even under emergency situations."

— ECUA Manager of Water Reclamation Engineering Stephen Holcomb



Gulf Power and ECUA

— Investing in a Brighter Tomorrow

Reclaimed water is flowing from ECUA's new Central Water Reclamation Facility to Gulf Power's Plant Crist, securing a partnership that brings cleaner air and cleaner water to Northwest Florida.

Gulf Power's scrubber, which began operations in December to improve air quality, is using about one million gallons of reclaimed water a day from ECUA's new advanced treatment facility located about four miles north of Plant Crist.



PHOTO FROM GULF POWER

The scrubber reduces sulfur dioxide by more than 95 percent for all of Plant Crist's 970-megawatt capacity — cleaner electricity that can power more than 270,000 homes.

And the partnership with Emerald Coast Utilities Authority will help provide cleaner water for the bays and waterways in Northwest Florida.

In the next few weeks, the ECUA plant will provide about 10 million gallons a day of reclaimed water for

Plant Crist power generation cooling and for the scrubber. Eventually the system will ramp up to 17 million gallons per day. More than 80 percent of the reclaimed water will be evaporated by Plant Crist during cooling and scrubber operations.

This partnership between Gulf

The ECUA plant will provide about 10 million gallons a day of reclaimed water for Plant Crist power generation cooling and for the scrubber.

Power Emerald Coast Utilities Authority and won the state's Sustainable Florida Best practices award for 2010.

"Both utilities worked together to create a sustainable partnership to benefit our community," said Sandy Sims, Gulf Power Public Affairs manager. "Our projects and our partnership will help improve both the air and water quality in Northwest Florida. Partnerships like this are the best way to move forward as a business and a community — to provide a sustainable future."

The scrubber, which cost \$645 million, was built for

Gulf Power by its parent Southern Company to meet federal regulations and enhanced clean air standards set by the U.S. Environmental Protection Agency.

Meanwhile, ECUA was awarded a \$151 million federal grant to replace the Main Street plant, which discharges up to 20 millions of gallons of effluent daily into Pensacola Bay and stands in a coastal flood zone.

But a new facility — even with advanced treatment that would be cleaner than that from the Main Street plant — would not be permitted to discharge into Escambia Bay.

Gulf Power approached ECUA to use reclaimed water and the two soon began working on the project.

With Gulf Power using the reclaimed water, it reduces the amount of land ECUA needed to purchase for spray-fields, saving ECUA customers money, and it allows Gulf Power to drastically reduce the amount of water drawn from Escambia River.

Reclaimed water from ECUA's new plant is cleaner than existing river-quality water and its low-chloride content helps Gulf Power produce marketable gypsum.

The scrubber system uses a simple reaction to neutralize gases produced while generating electricity. The advanced system scrubs emissions from all four power generation units at Plant Crist, a combined capacity of 970 megawatts that can power more than 270,000 homes.

The system removes more than 95 percent of sulfur dioxides, and as an added benefit, removes 95 percent of chlorides, 80 percent of mercury emissions and an additional 70 percent of fine particulates.

How it works:

After the water receives advanced treatment, reclaimed water is piped from the ECUA facility to Plant Crist, where a network of pipes and pumps and water treatment systems divert water to the scrubber.

Water cools the gases from the four generating units, which are then bubbled through a swirling bath of crushed limestone in the scrubber's Jet Bubbling Reactor vessel.

Sulfur dioxide gases react with limestone slurry and are neutralized, forming gypsum. The scrubber emissions are released through the stack, along with steam evaporated during cooling. Steam released through the scrubber stack is the most visible sign of this system at work.

The byproduct of the scrubber process is market-quality gypsum, which can be sold to cement or wallboard manufacturing companies.

More than 80 percent of the reclaimed water is evaporated. Most of the remaining water is treated at Plant Crist and piped back to ECUA facility for spray-field application, and a small portion is treated and injected into a sealed deep well in a saline aquifer.

The scrubber system is only the latest in a series of Gulf Power environmental projects:

To reduce nitrogen oxide emissions, Gulf Power built a Selective Catalytic Reduction system for its largest Plant Crist generator, the 500-megawatt Unit 7, and is building an SCR for Unit 6, and Selective Non-Catalytic Reduction systems for Units 4 and 5.

Gulf Power is partnering with Escambia County to operate a landfill gas-to-energy facility at Perdido Landfill, producing a capacity of 3,200 kilowatts of renewable energy — enough to power more than 900 homes.

In 2005, Gulf Power opened the Mercury Research Center, a first-of-its kind facility to provide advanced research in mercury detection and control technology.

Gulf Power installed systems to reduce nitrogen oxide emissions at Plant Crist, and recently on both coal-fired units at Plant Smith, near Panama City.

In 2009, Gulf Power began operating a meteorological tower on Navarre Beach, which is being used to research viability of wind energy and provide wind data used in the science curriculum for Santa Rosa County schools.



ECUA Steps into a Bright Future

New Facility Protects Beauty of Our Natural Resources and Averts Disaster

BY ALLISON MCCRORY

Two years ago, a new era in ECUA's wastewater treatment began.

Crews broke ground August 2008 on a state-of-the-art water reclamation facility that for many years seemed like an impossible dream to community leaders.

Now a pristine new plant opening to rave reviews sits on 2,000-plus acres 25 miles north of Pensacola in Cantonment, on land purchased from Solutia, International Paper and private owners.

In the process, workers moved more than a million cubic yards of soil, placed more than 48,000 cubic yards of concrete, installed more

The foul odors that plagued downtown for years are now a thing of the past.

than 1,300 valves, laid 20-plus miles of pipe and built more than 40 buildings.

And then, everyone involved held their breath while watching the monstrosity begin doing the work it was created to do.

"It's kind of like building Frankenstein. You build this thing, and then you

have to bring it to life. The juice in the treatment plant is the bacteria," says Baskerville-Donovan CEO Fred Donovan, who along with exuberant cohorts watched the facility successfully come alive in late August.

Not only can Escambia residents rest assured that their wastewater treatment is now state-of-the-art, the move will free up prime property in downtown Pensacola to usher in a new era of development. The foul odors that plagued downtown for years are now a thing of the past at the site adjacent to the Community Maritime Park, currently being constructed.

Among the Central Water Reclamation Facility's Features:

- The ability to handle 22.5 million gallons per day, compared to 20 million at the downtown plant.
- A huge electrical system, the facility's brain, which includes 11 electrical buildings, each regulating a specific process in the plant's operation.
- A two-story brick administration/operation/maintenance building.
- Four biological nutrient removal basins for cleaning the water, each the length of two football fields.
- A 40-acre wet weather storage pond, which unlike the old plant can accommodate three days' worth of flow, or 70 million gallons, before water is discharged from the plant.
- The new plant sits on 2,000-plus acres, giving it the largest buffer area of any site considered and sitting three-quarters of a mile from the nearest home.
- 24 miles of force main.
- Onsite generation of sodium hypochlorite

(bleach) for required disinfection in the re-use process.

- Out of the coastal flood plain and completely above sea level, with the plant sitting 110 feet above sea level.
- Resistant to hurricane Category 5 wind speeds.

Adaptable to Mother Nature

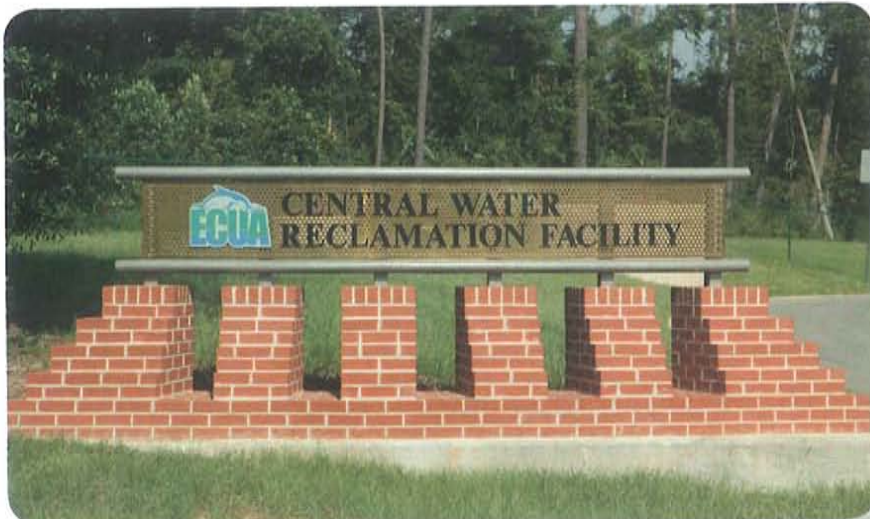
Many of these new features make the facility adaptable to unexpected events that will inevitably occur, such as excessive rainfall.

In case of extended rain, if the plant were seeing more flow than it has capacity to treat and discharge, then flow would be diverted to a wet weather storage basin until flow returned to normal, along with the capacity for treatment.

An example of this scenario would be if the plant were typically flowing 20 million gallons a day (MGD) and with a heavy rain, the flow jumps to 30 MGD. In that case, 20 MGD could be treated and reused and the remaining 10 MG stored until lower flows coming into the plant returned.

Back-up systems are also in place to avert the kind of loss of operations and contamination that occurred after Hurricane Ivan.

Because greater Pensacola lost all power, so did the Main Street plant, which was out of service for three days. The result was raw sewage, mixed with storm surge and rainwater in Pensacola Bay, as well as on downtown streets, and in homes and businesses.



Main Street Wastewater Treatment Plant Replacement

Sources of Funding:

• Escambia County	\$ 7,000,000
• Bank Loan	\$129,700,000
• State of Florida Grant Funds	\$ 20,900,000
• Northwest Florida Water Management District	\$4,900,000
• FEMA Grant	\$134,249,100
• FEMA Grant (state portion)	\$7,458,300
• SRF Loans*	\$30,000,000
TOTAL	\$334,207,400

* City of Pensacola has pledged approximately \$19.5 million through the Community Redevelopment Agency over a period of 17 years to support ECUA repayment of the SRF loans.

When the ECUA appealed for relocation in June, 2006, it warned of the county's fear that the next major storm could destroy the existing wastewater treatment plant and leave Escambia County residents unable to return to their homes for several weeks rather than a few days.

The new plant has a redundancy of power to avert such a disaster, which could have been much worse had Ivan not weakened to a Category 3 hurricane as it approached the Gulf Coast.

Evolving with Pensacola History

The latest chapter in ECUA's story of wastewater treatment would have been unimaginable to those who devised earlier methods of managing water supply and dealing with solid wastes, which at the time were also state-of-the-art, according to research by Pensacola historian John Appleyard.

In 1763, the British occupied the site that is now Pensacola. A wooden line carried water from the flowing spring (Spring Street today) to a fountain for filling jugs at the town's center. Settlers dug wells and fashioned awning to capture rainwater. Privates (later privies) in backyards, as well as chamber pots in buildings, comprised the sewage system.

About the ECUA

The Emerald Coast Utilities Authority (ECUA) was originally created under the name Escambia County Utilities Authority in 1981 by an Act of the Florida Legislature to own, manage, finance, promote, improve and expand the water and wastewater systems of Escambia County and the City of Pensacola. The ECUA began offering sanitation services in Escambia County in 1992.

ECUA is a local government body, existing under the laws of the State of Florida. The powers of the ECUA are exercised by a five-member Board. Each member of the Board is elected in one of the five county electoral districts. Terms are for four years and are staggered. ECUA's name was officially changed to the Emerald Coast Utilities Authority on June 29, 2004.

(Source: ECUA)

ties Authority was created (its name was changed to Emerald Coast Utilities Authority in June 2004). The Bayou Marcus Water Reclamation Facility opened in the 1990s, allowing several smaller plants to close.

Despite upgrades to the Main Street plant, local planners couldn't deny the need for a change. Hurricane Ivan's wake-up call sealed the deal, and the rest is history.

Escambia County residents are now the proud beneficiaries of a state-of-the-art reclamation facility with the average residential ratepayer only paying a few dollars more per month. The former site on prime downtown Pensacola waterfront property is now an open book, ripe for creative development.

"This is a tremendous win for the entire community," says ECUA Executive Director Steve Sorrell. "It's the largest public works-type project in Escambia County history, and it will have a significant impact on the long-term economy, environment and aesthetic effects of our region."

In 1884, largely in reaction to the need to extinguish the fires rampant in Pensacola's many wooden structures, Pensacola Water Company began pumping water throughout the city. Commodes came to town! The force of gravity took the sewage into Pensacola Bay, which was how utilities operated until the 1930s.

Among the Civilian Conservation Corps projects of the 1930s were two sewage treatment plants — at the foot of Ninth Avenue and at the foot of DeVilliers Street at Main Street. Sewage would flow downhill and into a collection unit, where chlorine was added and effluent piped into the bay.

In the 1960s, a new treatment plant was built on the site of the DeVilliers Street facility. This was also the era of the Clean Air and Water Act and new awareness of protecting the environment.

Throughout the 1970s, the city improved and enlarged its main treatment plant and pressure for a combined city-county utility system mounted.

In 1981, the Escambia County Utilities Authority was created (its name was changed to Emerald Coast Utilities Authority in June 2004). The Bayou Marcus Water Reclamation Facility opened in the 1990s, allowing several smaller plants to close.



Project Features

**24 Miles of 18-inch to 54-inch Force Main
Modification of 25 Existing ECUA Lift Stations**

3 New Regional Lift Stations with:

- Hurricane Resistant Construction
- Elevated Electrical Components
- Emergency Power Generator
- Redundant Pumps

Reclaimed Water Transmission System & Reuse System

- 100 percent beneficial reuse
- Plant Crystallization Towers
- International Paper process water

Largest Buffer of Any Site Considered
(3/4 of a mile to nearest occupied home)

Zoned for Industrial Use

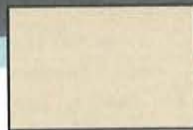
**Adjacent to Existing Industry
& Reuse Opportunities**

How wastewater is treated a



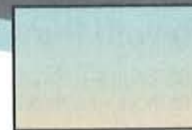
Raw wastewater

Domestic or industrial water that goes down a drain is pumped to the facility.



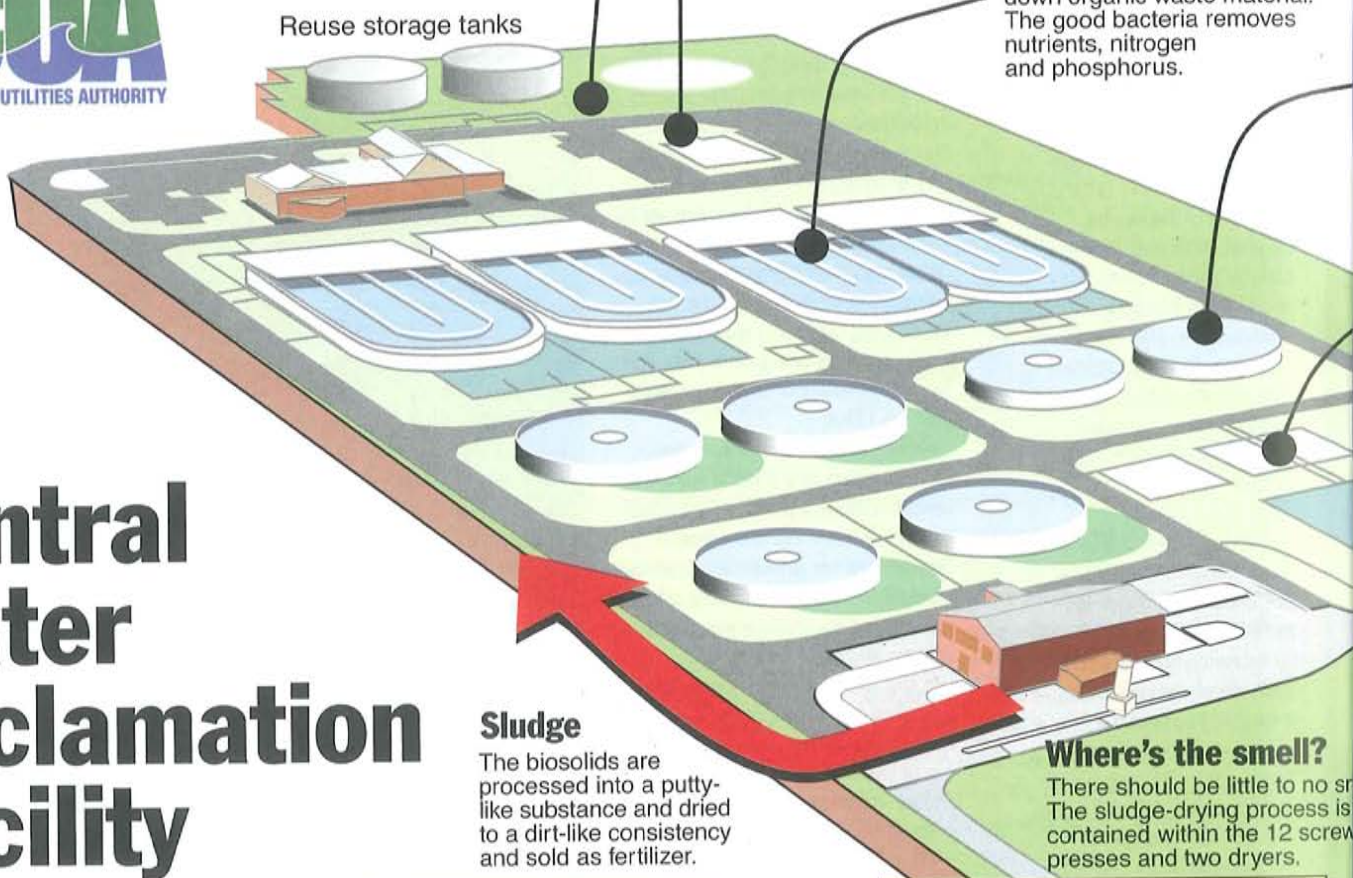
Headworks

First stage of the process is the removal of large debris and objects; sand, sticks, cloth, etc.



Biological process

Water flows through this basin while good bacteria breaks down organic waste material. The good bacteria removes nutrients, nitrogen and phosphorus.



Reuse storage tanks

Sludge

The biosolids are processed into a putty-like substance and dried to a dirt-like consistency and sold as fertilizer.

Where's the smell?

There should be little to no smell. The sludge-drying process is contained within the 12 screw presses and two dryers.

Central Water Reclamation Facility

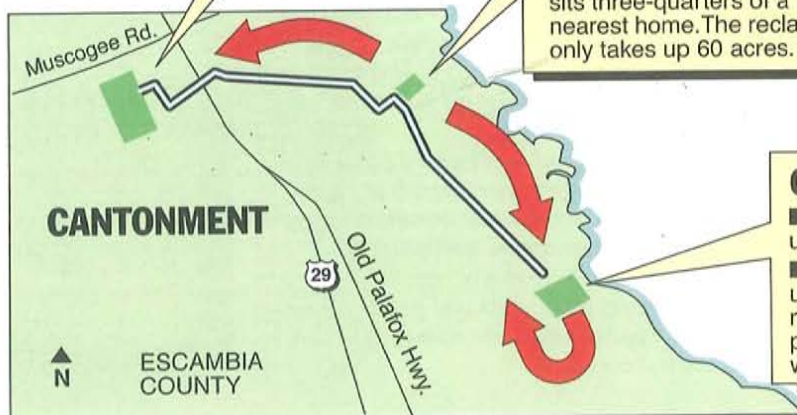
It has been six years since Hurricane Ivan's devastating impact on Northwest Florida. Emerald Coast Utilities Authority's Main Street Wastewater Treatment Plant is being replaced by the new Central Water Reclamation Facility. The plant is ready to accept wastewater and begin operation. Here is an overview of the project.

International Paper

Up to 6 million gallons a day of treated water to be reused.

Center Water Reclamation Facility

■ The new site sits on 2,000-plus acres, giving it a large buffer area and sits three-quarters of a mile from the nearest home. The reclamation facility only takes up 60 acres.



Gulf Power's C

■ Up to 17 million gallons of water used by the Crist Plant
 ■ 14.5 million gallons of water used in the FGD Scrubber
 reduce regulated emissions
 plant by up to 95 percent
 will be returned to b

and recycled

New pipelines and lift stations



Clarification

Water flows to the clarifier tanks. Cleaner water comes to the top. The good bacteria settles to the bottom and is reused. Excess bacteria are moved to a holding tank ahead of the biosolids process.

Filtration

Water goes through a fine screen to filter out even more particles

Chlorine disinfection

Bleach is injected and the water is disinfected.

Reuse

The water is ready for reuse.

■ The new facility has the ability to handle 22.5 million gallons per day compared to 20 million at the downtown plant.

INTERNATIONAL PAPER

GULF POWER

Crist Plant

gallons a day will be ant.
ns will be turned into steam and rubber, which is designed to missions from the coal-fired power cent. The other 2.5 million gallons be processed again.

Water Reclamation Project Flowed Smoothly

BY ALLISON MCCRORY

When the conversation inevitably shifts to talk of government waste and inefficiency at the next gathering with nay-saying friends, toss this into the mix:

ECUA's new Central Water Reclamation Facility is under budget and on time. And it's a collaborative effort that is kind to the environment.

The Emerald Coast Utilities Authority District Four Representative Dale Perkins calls the massive project "a refreshing example of what can happen when federal, state and local governments work together."

ECUA Executive Director Steve Sorrell says construction of the state-of-the-art plant, which has already begun accepting wastewater, was streamlined government at its best.

"A project of this scope often takes 20 years to complete. The ECUA board took a leap of faith by empowering the authority staff to make decisions for the project and to assume the financial authority normally vested in the board," Sorrell says.

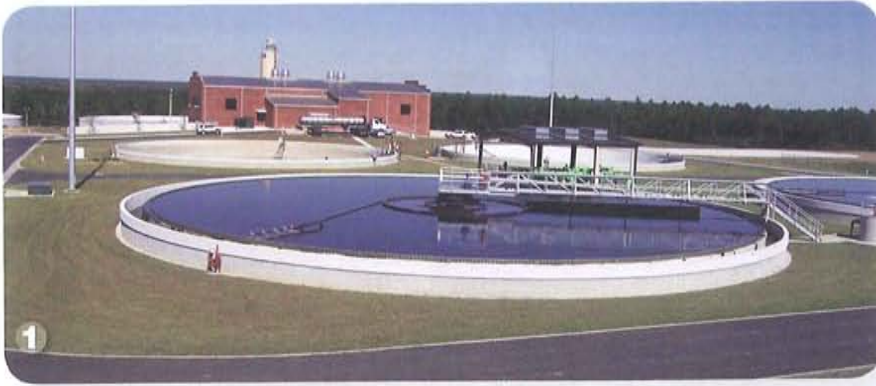
Results of Hard Work

ECUA Director of Engineering Bill Johnson says the well-orchestrated project will long be a source of community pride.

"Replacing a 20 MGD wastewater treatment facility is a big deal. Redirecting wastewater flows to a new treatment facility 25 miles away from the old facility is also a very big deal. ECUA's engineering staff and consultants tackled these challenges with energy and intelligence, and we are now seeing the positive results of their hard work," says Johnson.

"A project of this scope often takes 20 years to complete. The ECUA board took a leap of faith by empowering the authority staff to make decisions for the project and to assume the financial authority normally vested in the board."

— ECUA Executive Director Steve Sorrell



- At left, 1) Clean water flowing over the weirs of a clarifier.
2) The aeration zone, where "good" bacteria remove nutrients during the biological process.
3) A gang of screw presses dewater excess sludge from the biological process.
4) Reuse pumps send water to Gulf Power Company and International Paper to be used in their industrial processes.



CWRF By the Numbers

20 miles of pipe (up to 54 inches in diameter) on the plant site

40 separate structures

175 pieces of process equipment

48,000 cubic yards of concrete

1,300 valves

30,000 hours of design

336,000 man hours of construction

**Note: These figures include only totals from the plant site itself.*

Funds from Escambia County, the City of Pensacola, the State of Florida, and federal FEMA, all made the new facility a reality.

"The ECUA Board deserves credit for making all of the commitments necessary to the success of the project. The ECUA ratepayers deserve credit for supporting the Board in their efforts. The entire community can rightfully be proud of the new Central Water Reclamation Facility," says Johnson.

The smooth operation and hard work to solicit funding from many sources means money in taxpayers' pocketbooks for the project budgeted for \$316 million but costing \$8 million less. Funds from Escambia County, the City of Pensacola, the State of Florida, and federal FEMA, all made the new facility a reality. And it resulted in only a modest sewer improvement for the average residential customer implemented in June, 2007.

An Economic Boost

In addition, the facility billed as Escambia's largest public works project ever, provided Northwest Florida with a shot in the economic arm when it needed it the most.

"We had every concrete truck in town tied up at one point," says Fred Donovan, CEO of Baskerville-Donovan, lead contractors for the project.

At the peak of construction on the plant, 350 people were working on the site. And that doesn't count those working on the 24 miles of pipeline or lift stations. More than a dozen subcontractors, most of those local, contributed to the effort.



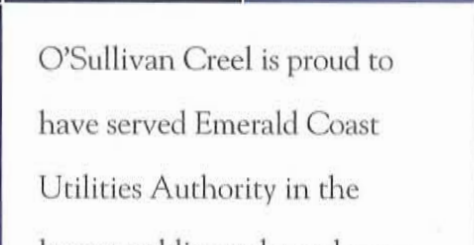
Top: Aerial view of the Central Water Reclamation Facility in North Escambia.

Center: Bleach is generated and stored on site in this area.

Bottom: In the foreground are the chlorine contact chambers, where bleach is added to the basins for disinfection.

CONTINUED ON PAGE 20

A Job
Well Done.



O'Sullivan Creel is proud to have served Emerald Coast Utilities Authority in the largest public works endeavour in Escambia County history. We share in their values of service, community commitment, professionalism and integrity.

Congratulations on a job well done!

Always a Step Ahead



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Above: Excess sludge, processed in the bio-solids building, is stored in a silo, where it can be loaded onto trucks and sold as fertilizer.

CONTINUED FROM PAGE 19

"No one can debate the significant impact the CWRP project has had on the economy of Northwest Florida given the hundreds of people employed on the job during these tough economic times, as well as the many companies and their employees involved in providing goods and services needed to complete this important project," says Scott Sheu-maker, operations manager for Brasfield & Gorrie LLC, lead contractor for the project.

While the job market in general was suffering during this time, construction workers in particular were feeling the economic pinch, Sheu-maker points out. In 2010, unemployment for those in the construction industry hovered near 20 percent.

Partly in an effort to reverse this trend, ECUA strategically broke the project into smaller, separate components. This not only expedited the project by allowing work to happen simultaneously, but also allowed ample opportunities for smaller, local companies to bid on and win contracts.

A Zero-Discharge Facility

Not only is the project fiscally conservative, saving taxpayers' dollars for years to come, it also is environmentally friendly.

The days of dumping treated effluent into local waterways will soon be history. Now that same water is a commodity.

In Donovan's words, "Sewage is an asset that you shouldn't waste."

Gulf Power spokesman Jeff Rogers notes that in partnership with other area businesses, the new plant employs reuse alternatives. And as a result, Gulf Power will take much less water from Escambia River for its operations.

"Eventually, once the ECUA plant goes into full operation, up to 17 million gallons per day of reclaimed water will be used, more than 80 percent of which will be evaporated by the scrubber and cooling towers," notes Rogers. "The partnership helps establish the new ECUA advanced water reclamation plant as a zero-discharge facility, while reducing the water Gulf Power uses from the Escambia River."

Gulf Power's scrubber system, which began operating in December 2009, reduces sulfur dioxide air emissions by more than 95 percent.

In addition, International Paper will use up to 6 million gallons of reclaimed water a day and in the unanticipated case of an overabundance, two spray fields are in place at the new Cantonment plant to absorb the discharged effluent. Another nod to the future is the installation of underground piping for a 10-million-gallon-per-day expansion when it is needed.

CONTINUED ON PAGE 22

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Partnerships for a Cleaner Planet

The ECUA-Gulf Power partnership is so impressive in its commitment to cleaner air and cleaner water that it beat out 108 other entries for the Sustainable Florida-Collins Center Best Practice Award in June.

"Bottom line, we are very proud of this partnership," says Gulf Power Public Affairs Manager Sandy Sims. "Working together, ECUA and Gulf Power have invested in the cleaner, brighter future of the Pensacola area. This partnership will pay dividends for years to come in cleaner water, cleaner air and additional downtown property for development. It is truly a win-win partnership for everyone."

The new plant is safer and more reliable than the old one — a step toward not only consumer satisfaction but environmental protection should another major storm hit.

Redundant systems at the new plant virtually eliminate the chance of the kind of disturbance of operation that occurred during Hurricane Ivan in 2004 when excess flow and storm water spilled into downtown Pensacola streets, homes and businesses.

And one of the most significant improvements, which became a major concern during and after Ivan, is now also corrected. The water reclamation facility is out of the vulnerable hurricane flood plain. That feature alone provides Escambia County residents a much-hoped-for sigh of relief.

In addition to conserving the environment, the new plant conserves operational costs in that it is less maintenance-intensive, meaning fewer employees. Employees not

needed within the new operation will transfer to other ECUA posts.

Finally, the move preserves the integrity of downtown Pensacola. Construction of the new facility frees up valuable downtown space for more appealing attractions than a sewage treatment plant.

In the words of ECUA Director of Utility Services and Planning Tim Haag, Ivan's threat prompted action that resulted in a better community.

"If there is any lesson to be learned through this project, it is the fact that disasters, along with their challenges and problems, also present opportunities and can serve as catalysts for progress."

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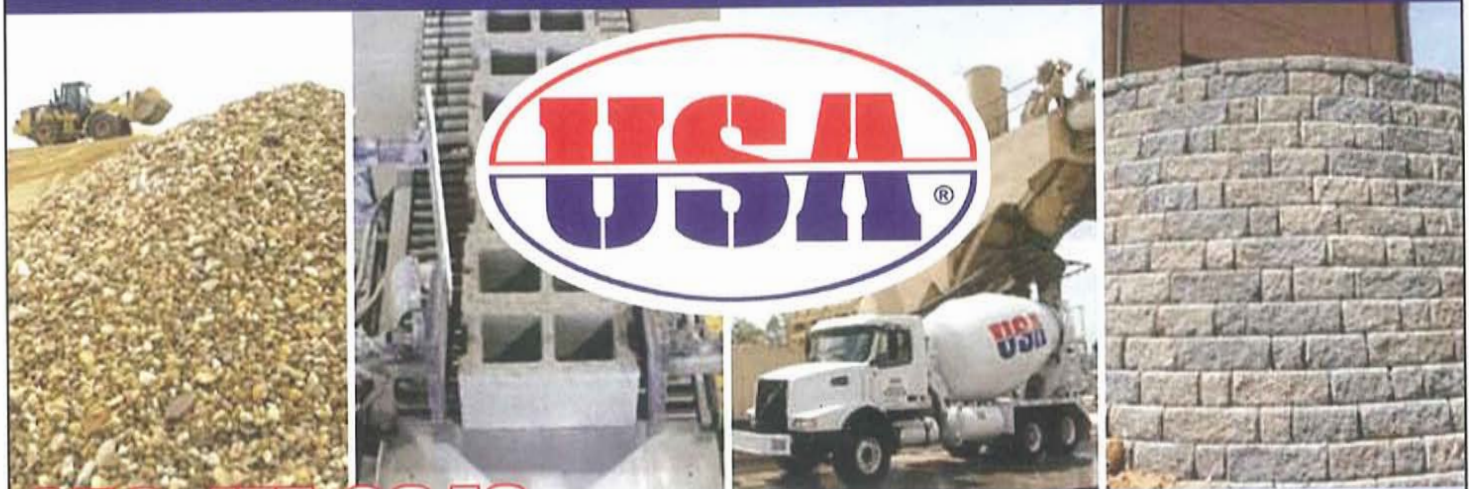
Above: Effluent pumps transfer reuse water to storage tanks on site. From there, water is sent to Gulf Power Company and International Paper.



Above: Multiple stages of the biological nutrient removal process, where bacteria “eat” phosphorus and nitrogen.

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A TIMELINE FOR PROGRESS

Central Water Reclamation Facility/Main Street Replacement Project

APRIL 2008



AUGUST 2008



DECEMBER 2008



APRIL 2009



AUGUST 2009



- **August 2002** — ECUA commissions Hatch Mott MacDonald (HMM) in association with Baskerville-Donovan Inc. (BDI) and Jacobs Engineering (JE) to conduct a study to determine alternative treatment plant locations, effluent disposal options and estimated costs for replacing the downtown Main Street Wastewater Treatment Plant.

- **December 2003** — Study is submitted to ECUA recommending replacement of the existing Main Street plant with a new facility in the vicinity of the Gulf Power and Solutia plants.

- **September 2004** — Hurricane Ivan slams Pensacola, floods the Main Street plant and renders it inoperable for three days until power can be restored and treatment can resume.

- **February 2006** — FEMA approves \$134 million in grant funding for replacement of the Main Street plant.

- **May 2006** — ECUA Board approves draft Facilities Plan that includes the location and specifications for the new Central Water Reclamation Facility (CWRf).

- **April 2008** — Final designs for the new plant are complete and ground is broken for the new CWRf.

- **September 2010** — CWRf construction is complete and the start-up process begins.

- **December 2010** — The new, state-of-the-art Central Water Reclamation Facility officially launches operations.



Left: Raw sewage flowed onto Main Street from the Main Street sewage treatment plant after Hurricane Ivan.

PHOTO BY GARY MCCRACKEN/PNJ 2004

DECEMBER 2009



APRIL 2010



JUNE 2010



JULY 2010



TODAY

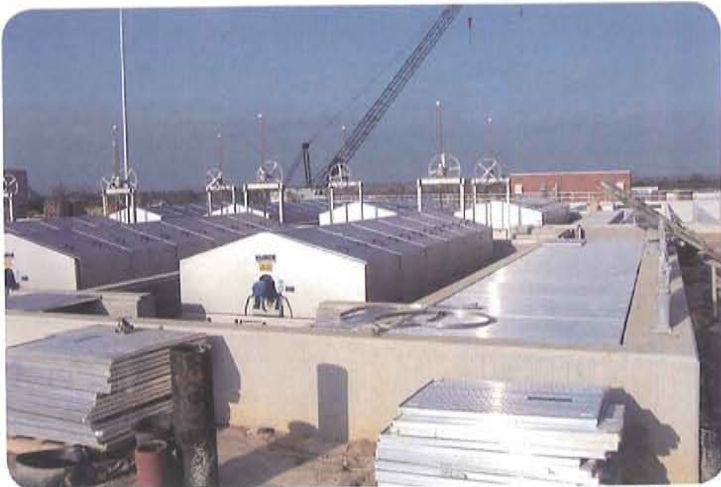




Above: During periods of high flow to the CWRW, the influent equalization or overflow basin stores excess wastewater until it can be treated.



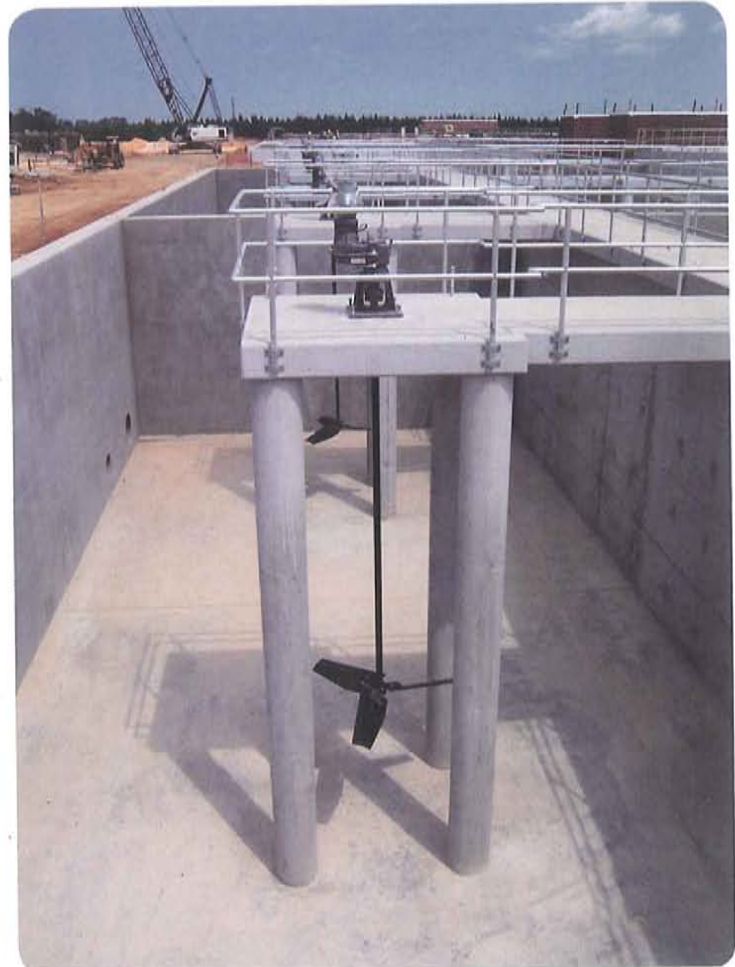
Above: Contractors prepare to auger pipe under I-10. Using the “jack and bore” technique eliminates the need to stop traffic or tear up the roads during installation.



Above: Filters (housed in the metal structures pictured here) strain fine particles from the wastewater in the final step before bleach disinfection.



Above: Pumps inject bleach (made on site) into the disinfection basin.



Above: Mixers in the biological process keep bacteria moving and actively digesting nutrients.

A Promise Made. A Promise Kept.



What began as a local commitment took a world-class team to deliver.

The **Emerald Coast Utilities Authority (ECUA)** set out to design and construct a state-of-the-art Central Water Reclamation Facility to treat up to 22.5 million gallons of wastewater daily. The facility, the largest civil engineering project in the history of Escambia County, will meet residents' needs for decades to come. To complete this historic project, **ECUA** turned to design engineers **Baskerville-Donovan, Inc., Hatch Mott McDonald**, and general contractor **Brasfield & Gorrie**. Together, they helped complete the technologically advanced and long-awaited facility that will protect the public's health,

preserve the environment and promote economic development in the region.

And that's not all. **Gulf Power Company** partnered with **ECUA** to develop a plan to reuse treated effluent, yielding another positive benefit from the new, storm-protected facility – and a Sustainable Florida award as well.

With this new facility **ECUA** is improving services, increasing efficiencies and protecting the environment. Equally important is the promise we made to the people of Escambia County to deliver a state-of-the-art facility, on time and under budget. It was a promise kept by the **ECUA** and the team it assembled. We call that win for Escambia County's citizens and its future.

