

Emerald Coast Utilities Authority

# 2021 ANNUAL REPORT





# Employees/Leadership in the Community

ECUA is committed to making a positive difference and improving the quality of life in our community. Our employees selflessly contribute their time, resources, and talents to several charitable efforts annually.

## Events and Organizations the ECUA employees support include:

- American Red Cross and OneBlood Blood Drives
- American Cancer Society's Making Strides Against Breast Cancer Walk
- Boys and Girls Club of Escambia County
- Greater Pensacola Society for Human Resource Management Spirit of Giving Event
- Sacred Heart Children's Foundation
- United Way
- Disabilities Summit Council
- Gulf Coast Diplomacy Council
- Youth LEAP (Leadership Pensacola)
- Pensacola & Perdido Bays Estuary Program



## ECUA's Quench Buggy Generates Smiles Throughout the Community



### Firecracker Run

Breakout the grill, hamburgers, hot dogs, and lace-up your running shoes- the July 4th weekend is here!

### Pensacola Triathlon

The Pensacola Triathlon is a local tradition. We're always happy to encourage the participants and provide refreshing water as they compete!

### PawPalooza

Our furry friends are always eager to lap up a refreshing sip of ECUA water, as their humans lap up information on recycling, water conservation, and so much more!



### Pensacon

Even alien life-forms love ECUA water from the Quench Buggy!

### Beulah Middle School FFA program

We love supporting the Beulah Middle School FFA program with our Bloom compost and watching their horticultural efforts bloom! In just three years, the students have created eight raised garden beds, they plant a fall and spring garden each year, and grow greenhouse plants using seeds and propagation methods. They've spread the love by gifting these plants to encourage teachers and staff at the school and at a local hospital for all their nurses and support staff. Some plants are sold through a local nursery, and the funds raised are poured back into the program to buy needed supplies. Win-Win-Win!

### Bayou Marcus Nature Trail Boardwalk

We welcome all visitors and the opportunity to tell "Our Great Environmental Story."





**Escambia County Play,  
Learn and Grow Summer Camp**

What an honor to spend time for the 7th year with our local students at the Escambia County Play, Learn and Grow Summer Camp. More than 100 students learned about ECUA’s environmental programs and practical ways to conserve water and recycle.



**Take Me Out to  
the Ball Game!**

Every season, you’ll find us on the concourse cheering on the Wahoos and sharing our passion for ECUA’s many environmental programs. Come out and see us next year!

**Bridge the Gap Event**

A community event to help “Bridge the Gap” and support small businesses affected by Hurricane Sally on both sides of the damaged bridge. ECUA’s Quench Buggy and public information staff were on hand to distribute award-winning, freshly chilled water and information on Recycling, Fats, Oils, and Grease (FOG), Flushable Wipes, Composting, and the elimination of sanitary sewer overflows.



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# Executive Director's Message



2021 was a major milestone in the history of the Emerald Coast Utilities Authority (ECUA) as we celebrated our 40th year serving the citizens of Escambia County. The state Legislature created the ECUA as an Independent Special District on June 18, 1981, to accomplish the following goals and objectives:

- Enhance the Health, Safety, and Welfare of the public through consolidation of utility services
- Benefit from Economies of Scale, creating cost savings, and the elimination of duplicative staff functions and positions
- Benefit from more favorable financing due to the increased size of the utility
- Better efficiencies of available resources through consolidation
- Provide utility services based on fair and equitable cost of service, spending fees only on activities related to the provision of utility services

In the years under ECUA management, many small package treatment plants were removed as the collection system was expanded and those flows were redirected to more efficient water reclamation facilities. Capital investments in the many wastewater pumping stations throughout the service area increased their reliability and performance. The efficiency and performance of the three water reclamation facilities were also enhanced through investment in technology, employee training and close operational management.

In 2004, Hurricane Ivan devastated the Pensacola area, but the community came together and used the opportunity to combine FEMA funds and local bonds to replace the downtown wastewater treatment plant with a new, state-of-the-art water reclamation facility 17 miles inland. This improvement did much more than just provide advanced wastewater treatment (AWT). It sparked significant private investment and redevelopment in downtown Pensacola, once the unsightly and odorous treatment facility was gone from the waterfront. This redevelopment trend continues today, as does ECUA's ongoing investment in the rehabilitation and replacement of antiquated water lines, lining of old sewer lines and manholes, as well supporting the growth and redevelopment occurring within ECUA's service area.

As a public entity, the ECUA has a locally elected Board so policy makers are local residents who live in the area that they serve, are sensitive and responsive to our region's unique needs, and are easily accessible by our ratepayers.

## Environmental priorities

ECUA's highest priority is the health and welfare of its customers. So, maximizing the performance and reliability of ECUA infrastructure is very important. Evidence of that effort was demonstrated again this year as the three water reclamation facilities serving Escambia County received awards from the National Association of Clean Water



Agencies (NACWA) for achieving consistent treatment limits well below those allowed in their FDEP permit. The Central Water Reclamation Facility received a Silver award in 2021, its sixth out of nine eligible years since it began operations. The Bayou Marcus facility received a Silver award in 2021, its eighth consecutive award. The Pensacola Beach Water Reclamation Facility received a Gold award, its fifth consecutive award. Also, Mr. Robert Rogers, Water Operations Manager, received the statewide Water Operator of the Year award from the Florida Rural Water Association (FWEA) recognizing him and his staff's work in managing the drinking water system that serves ECUA customers.

Fiscal year 2021 also provided a unique opportunity to expand ECUA's septic-to-sewer program when the Authority applied for and received a little over \$11 million in 50/50 matching grants from the Florida Department of Environmental Protection (FDEP). These grants were limited to areas in the state where there were existing Basin Management Action Plans (BMAP), which for Escambia County are areas whose drainage is tributary to Bayou Chico. With matching money from the ECUA, there is the potential for five projects with a total construction value of over \$22 million. These projects, mostly in the Brownsville area, will provide over 1,600 properties with access to sewer as an alternative to using their existing septic sewer system. This type of investment protects the environment, raises property values and spurs private investment in homes and creates opportunities for redevelopment and commercial growth.

### Looking Forward

The lingering challenges from COVID, rising costs due to inflation and supply chain problems, and availability of labor are key issues to navigate in the coming year. Rest assured that the ECUA Board and staff continue to work hard to run an efficient utility service, and protect your interests as owners of this public utility.

Thank you for being an ECUA customer.



J. Bruce Woody, P.E.  
Executive Director

## ECUA Board

The five elected members of the ECUA Board are charged with formulating and adopting policies, procedures, rules and regulations, including the setting of consumer rates necessary for the ownership, management, operation, and maintenance of ECUA's utility systems.

Each Board member is elected from one of Escambia County's five electoral districts and serves a four-year term. Terms are staggered, with elections taking place at two-year intervals. Representatives of districts one, three, and five are elected in the same cycle while representatives from districts two and four are elected in the alternate election cycle.

The Board's business is conducted at monthly public meetings scheduled on a regular basis and held in the boardroom of the Emergency Operations Support Addition on the ECUA's Ellyson Industrial Park campus, located at 9255 Sturdevant Street, Pensacola. ECUA Board members may be contacted through the information listed on this page or by contacting Ms. Amanda Miller, Administrative Coordinator, at (850) 969-3302.



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Term expires 11/2024



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Term expires 11/2024



For the thirty-third year in a row, we received the certificate of achievement for excellence in financial reporting.

## Certificate of Achievement for Excellence in Financial Reporting

For the thirty-third year in a row, we received the Certificate of Achievement for Excellence in Financial Reporting from the Government Finance Officers Association (GFOA) for our Annual Comprehensive Financial Report (ACFR) for the year ending on September 30, 2020. GFOA sets the standards for governmental financial reporting, and this award is likened to the Good Housekeeping Seal of Approval. This certificate recognizes conformance with the highest standards for preparation of state and local government financial reports. In order to receive this award, a government must publish an easily readable and efficiently organized ACFR, which must satisfy other generally accepted accounting principles and applicable legal requirements. In addition to the audited financial statements, this report provides historical information on the ECUA for revenues, expenses, the numbers of customers, volume of water pumped, and various other data for the last ten years. It also provides a summary of major organization accomplishments for that year and identifies future goals and long-term financial planning.

## Purchasing Card Program

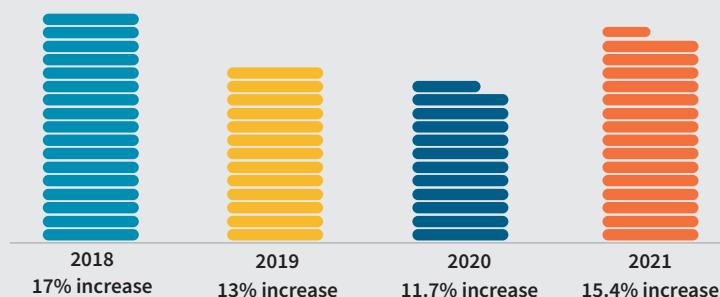
The Purchasing (VISA) Card Program completed its eighteenth full year of company-wide usage. There are currently 206 Visa Cards issued to ECUA employees. These cards allow employees to purchase items costing \$2,499 or less, and are a more cost-effective method of making small-dollar purchases. The purchasing card usage allows us to avoid certain costs associated with issuing purchase orders and processing checks for payment through the accounts payable process. Total purchases using the VISA card for the fiscal year equaled approximately \$2.5 million. The VISA card program provides a modest rebate to ECUA based on the total dollar volume purchased during the year. In fiscal 2021, ECUA received a rebate of \$24,494.



## Department Statistics

In fiscal year 2021, the Accounts Payable Division processed over 20,000 invoices for payment; the number of vendors paid electronically increased by 3%. The Purchasing & Stores Division prepared and processed 1,915 purchase orders, 19 contract extensions, 12 formal bids, and 21 construction bids. Payroll processed 118 new employees, 11 employees entered the DROP program, and 132 employees left ECUA's employment, with 24 of them retiring. The Central Warehouse processed 14,073 issue tickets with a total value of \$1.9 million. The value of the inventory on hand at September 30 was \$1,516,265. The number of electronic payments received increased over last year by 11.8%. This allows us to receive payments in a more timely manner, with fewer paper-handling costs associated with the processing of paper checks.

## ELECTRONIC BILL USAGE TREND Increases Over Previous Year



The number of customers receiving electronic bills increased 15.4% in 2021, thus saving on the cost of printing a paper bill and postage.

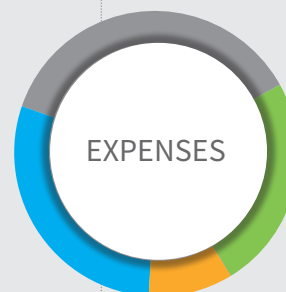
## Enterprise Resource Planning System (ERP)

ECUA spent all of fiscal year 2020 preparing for the implementation of the Human Capital Management (HCM) and the Enterprise Asset Management (EAM) modules of the ERP. In January 2021, we were able to go live with the EAM module that includes inventory management and asset work orders. In September 2021, ECUA implemented a new timekeeping application as well as the HCM module of the ERP. Our various departmental staff members deserve recognition and ECUA's gratitude for their involvement in the implementation process, their dedication during the many long hours of validating data, attending multiple training sessions, and most importantly, adapting to new processes and procedures as we learn to streamline the flow of paperwork through electronic workflow. We applaud the end-users throughout the ECUA departments for their participation in attending multiple training sessions and learning the new processes. The new system allows for better functionality and ease of use for all involved.



- 1% Investment Income
- 2% Misc. Revenues
- 17% Sanitation
- 36% Water
- 43% Wastewater
- 1% Recycling

**Total Revenues:**  
\$167,311,004



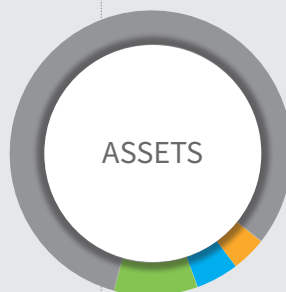
- 7% Materials & Supplies
- 39% Support Services
- 22% Debt Services
- 32% Personal Services

**Total Expenses:**  
\$148,881,564



- 9% Other Liabilities
- 28% Long-term Debt
- 63% Net Assets (Equity)

**Total Liabilities/Net Assets:**  
\$1,028,632,736



- 7% Other Assets
- 7% Cash & Investments
- 10% Construction Funds
- 76% Utility Plant

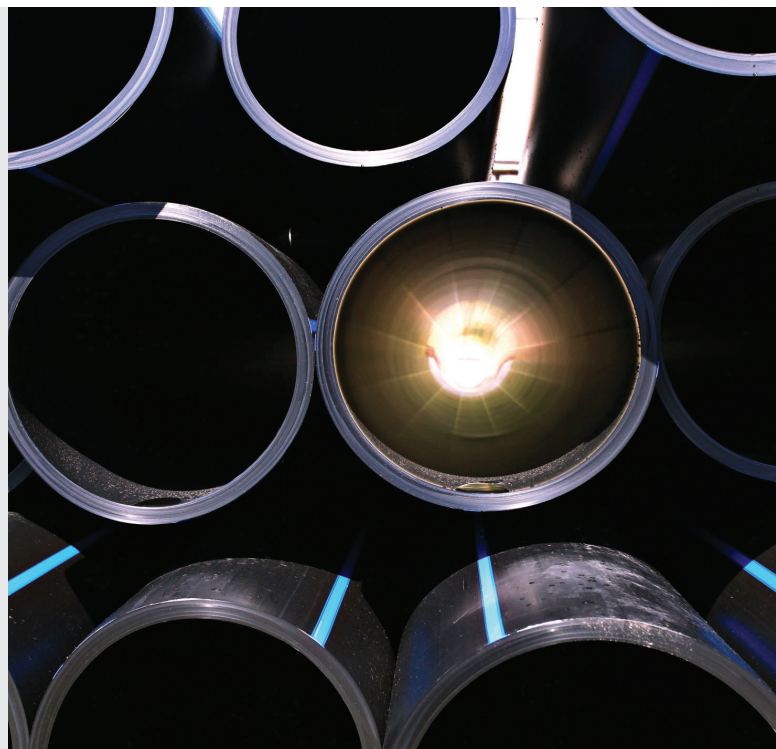
**Total Assets:**  
\$1,028,632,736

# Engineering

The ECUA staff successfully completed the second year of the Corrective Action Plan (CAP), investing a total of \$18.7 million in sanitary sewer collection system infrastructure improvements over the past two years.

## Guillemard Trunk Main Replacement

The Guillemard Trunk Main typically carries six to eight million gallons of sewer daily to the Moreno Street Regional Lift Station with an overflow to Government Street Regional Lift Station. Damage to the main sustained during Hurricane Sally necessitated the replacement of a portion of the main, which was completed in 2021. The project included: relocating approximately 325 linear feet of 42-inch diameter trunk main and a quarter-mile of smaller gravity sewer mains; extending a quarter-mile of 24-inch diameter sewer force main from E. Yonge Street to south of E. Jordan Street. These repairs reduce inflow and infiltration and allow better access for system maintenance.



## Sanitary Sewer Overflow (SSO) Amended Consent Order

The Amended Consent Order (ACO) negotiated with the Florida Department of Environmental Protection (FDEP) established a 10-year period to complete approximately \$100 million in wastewater infrastructure-related projects beginning October 1, 2019. The CAP provides details of the sanitary sewer overflow (SSO) reduction program through March of FY2029 and is focused in four areas: additional system storage, sewer basin rehabilitation and improvements, lift station repair and replacement, and force main replacement. The CAP was approved by FDEP in late December 2019.

ECUA recorded 53 spills in FY2021, a return to our optimistically lower level, when compared to levels experienced due to Hurricane Sally in FY2020.

## Long-term Flow Monitoring

Two of the key components to reducing SSOs in the ECUA collection system are sewer rehabilitation and sewer replacement. The amount of Inflow and Infiltration (I&I) identified in any given sewer basin is a strong indicator of existing problems, and provides valuable guidance in deciding between undertaking rehabilitation versus replacement efforts within the sanitary sewer collection system. Several years ago, ECUA purchased and installed 14 flow monitors and four rain gauges for long-term collection of sewer flow data. The results of the flow monitoring will assist in the measurement of I&I and will be useful in other ways, such as:

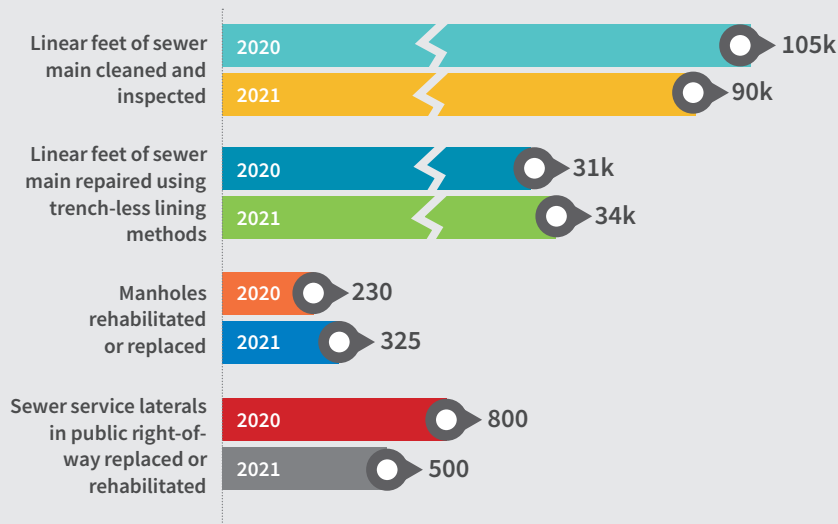
- Prioritizing sewer rehabilitation, making the I&I reduction program more efficient.
- Aiding in measuring the effectiveness of sewer rehabilitation efforts.
- Aiding in calibrating the sewer system hydraulic model and determining the appropriate sewer capacity.
- Providing flow data during different weather and tidal conditions.
- Demonstrating the reduction in I&I in response to the FDEP Consent Order.

The Manhole Liquid Level Monitoring Program continued to provide valuable information regarding high sewer levels in strategic areas of the ECUA collection system, with 18 of the original 20 liquid level monitors remaining viable after damage from Hurricane Sally. Placed in strategically selected manholes, these monitors provide an early warning of potential SSOs, help staff to track and record I&I influences in specific locations, evaluate the effectiveness of gravity sewer mains that had previously been rehabilitated, and identify basin areas on which to focus the private side lateral programs. The monitors recorded liquid levels every 15 minutes and sent alarms via email and/or text message to staff when a certain liquid level threshold was met (75% of manhole height). The Liquid Level Monitors were moved during the year to better identify areas with the large sources of I&I in the Pen Haven area. Staff were able to identify a small basin that showed the earliest flow and liquid depth increases from rain events, and begin additional efforts for the Private Side Lateral Program.



## Annual Sewer Rehabilitation and Inspection Contracts

The Engineering Department managed unit-price contracts for cleaning and TV inspection of existing sewer lines, various trench-less methods of repairs for identified major rehabilitation needs, manhole rehabilitation, and service lateral lining and excavated repair.



## Private Side Lateral Program (PSLP)

The Private Side Lateral Program progressed this year in several locations that continue to have high levels of Inflow and Infiltration (I&I), despite rehabilitation of the ECUA sanitary sewer collection system within the right-of-way. Sewer basins with the most severe levels of I&I were identified as locations to continue the program. A multi-departmental team is working together to perform smoke testing, inspect sewer service laterals, review the results, and notify customers of any lateral deficiencies that need correction. Smoke testing was completed in 11 lift station basins and 72 private laterals were identified with defects. Of these, 21 were

repaired. We consider this a positive start and anticipate more customers' repairs to beneficially impact our collection system's operation during storms.

High ground water and bellies in the sewer lines can prevent leak detections during smoke testing, making Closed Circuit Television Video (CCTV) inspection a more effective assessment tool. Through flow monitoring results, we identified one gravity sewer collection basin for CCTV inspection. Preliminary results indicated that two thirds of all laterals contained defects needing repairs, versus four percent of defective laterals identified by smoke testing.

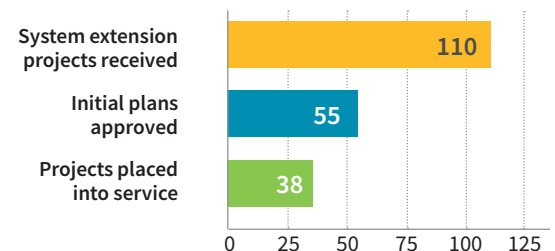
ECUA began ongoing discussions with the City of Pensacola to expand the PSLP to make a bigger impact with I&I reduction on private properties. With this effort, it is hoped that the need for additional emergency storage tanks in downtown Pensacola may be avoided.

## Development Project Review

The ECUA Engineering Department reviews and approves construction plans for System Extension Projects and Single Service Connection Projects to ensure compliance with ECUA standards before projects are placed into service. These projects are typically developer-sponsored residential and commercial development projects.

System Extension Projects include extensions to the ECUA water & sewer systems. In FY2021, ECUA Engineering received 110 System Extension Projects, approved plans for 55 projects, and approved 38 projects to be placed into service. Single Service Connection Projects do not include extensions to the ECUA water & sewer systems. In FY2021, ECUA Engineering received 65 Single Service Connection projects, approved plans for 57 projects, and approved 10 projects to be placed into service.

As part of the development review process, ECUA must confirm the availability of ECUA water & sewer service provision to a potential project. In FY2021, ECUA Engineering processed 1,721 requests for confirmation of water & sewer availability, which included development projects and private individuals seeking to transition from septic tank to sewer service.



## Sanitary Sewer Collection System Master Plan

Sanitary Sewer Collection System Master Plan project began reviewing and prioritizing the 20-year capacity needs of the sewer collection system to include force mains, gravity mains, lift stations, and emergency storage provisions needed to adequately convey sewage to the ECUA's main wastewater treatment facilities. This master plan is nearing completion and will become a useful tool for ECUA in FY2022.

## Water Service Renewals

Under an existing annual contract, staff developed plans for nine additional water service renewal locations that are experiencing frequent service line breaks. Under the 2021 annual contract, approximately 650 water services were replaced.

# Engineering

## CONSULTANT DESIGNED/ ECUA STAFF MANAGED PROJECTS

### Sewer Expansion Program

The \$4M sewer project on Innerarity Island involved the replacement of a deteriorated gravity sewer system with a low-pressure system as well as the replacement of a flood-prone, substandard lift station with a standard ECUA design. In addition, ECUA staff managed the design efforts for the following projects:

- Navy Point Phase 4A (NPP4A)
- Airway Dr./Stockdale Ave. area
- W. Lee St. (N. "T" St to N. Kirk St)
- Beach Haven NE Phase 2

NPP4A is under construction with sanitary sewer being added on streets in close proximity to the existing collection system. The West Lee Street and Beach Haven projects, in partnership with the Escambia County Engineering Department, are anticipated to be under construction in 2022. ECUA has committed funds and manpower to these projects to provide sanitary sewer service on roadways being improved (road & drainage) by the county. The Airway Drive/Stockdale Avenue project is currently being divided into two phases due to funding limitations.

### Replacement of Transite Water Mains

The construction project to replace the Transite water main in the Scenic Hills golf course community has also been separated into two phases to accommodate funding availability. The Scenic Hills Phase 1 Water Main Replacement project has been awarded and the Notice-to-Proceed has been issued. Phase 2 construction plans are currently being revised in response to input provided from our Regional Services Department. We anticipate advertising the Phase 2 project in mid-2022. Staff has also requested an engineering proposal from a local firm to replace the Transite water main in the Osceola Country Club Area, north of Fairfield Drive and west of Mobile Highway, due to frequent water main breaks.

## IN-HOUSE DESIGN PROJECTS

When feasible, ECUA staff will undertake design efforts, plan production and project management for both potable water and sanitary sewer projects to maximize the availability of ratepayer dollars for construction activities.

### Potable Water

This year, we replaced approximately 9,350 feet of water main on the following roadways: West Main Street, Wyndotte Road, Euclid Street and Kersey Road, and Intendencia Street/Romana Street. The staff also updated and finalized plans for the replacement of approximately 7,000 feet of water main in the East Hill community. To expedite the replacement of approximately 3,000 feet of failing transite water main on North 46th Avenue, staff developed construction

plans for this project, which is expected to begin construction in early 2022. Other projects currently in design will see the replacement of approximately 10,850 feet of antiquated, galvanized water mains that include: West Gadsden Street, Corinne Jones Park Area, and Sanders Beach Area.

### Sanitary Sewer

Sanitary sewer projects designed and managed by in-house staff include Miramar Dr. Low-Pressure Sewer/River Gardens Sewer Expansion (construction complete), and W. Desoto St. Septic to Sewer (under construction). The W. Desoto St. project will be partially funded by a \$250,000 grant received from the Florida Department of Environmental Protection.

### Utility Relocation Coordination

Construction on FDOT and Escambia County roadways requires extensive coordination of utility relocations. ECUA's coordination efforts have resulted in minimized relocation scope and costs, which in turn minimized the impact on our customers. ECUA's coordination efforts included the relocation of water mains and services, water quality projects, Transite water main replacement, new lift stations, and the Pensacola Bay Emergency Response Plan.

Utility relocations were required for the upgrading of interconnecting dead-end mains, which greatly improved our system water quality. This year, the most notable of these projects was the Tarragona Street Water Main project that interconnected the 12-inch main along Tarragona Street near the Cervantes Street overpass and eliminated the required ongoing cost of flushing the dead-end water main. Multiple other water quality projects are in the planning and permitting stages for the upcoming year.

Whenever practical, ECUA strives to replace antiquated Transite water mains when part of a relocation project. In 2021, approximately 7,500 linear feet of Transite water main located along Burgess Road, Greenbrier Boulevard, and Chemstrand Road were replaced. The Transite Replacement also means renewed water services, reducing the potential of leaks and bolstering the longevity and reliability of the water system. Over 150 water services were renewed as part of these utility relocations.

The Utility Relocation Department coordinated the creation of the Pensacola Bay Water Main Inspection and Emergency Response

Plan. With the help of Jacobs Engineering, the Engineering Department completed an evaluation of the Pensacola Bay Water Main and developed an Emergency Response Plan in the event of a water supply disruption to Pensacola Beach. This effort also included an evaluation of water supply alternatives to the beach.

### Lift Station Construction, Rehab and Replacement

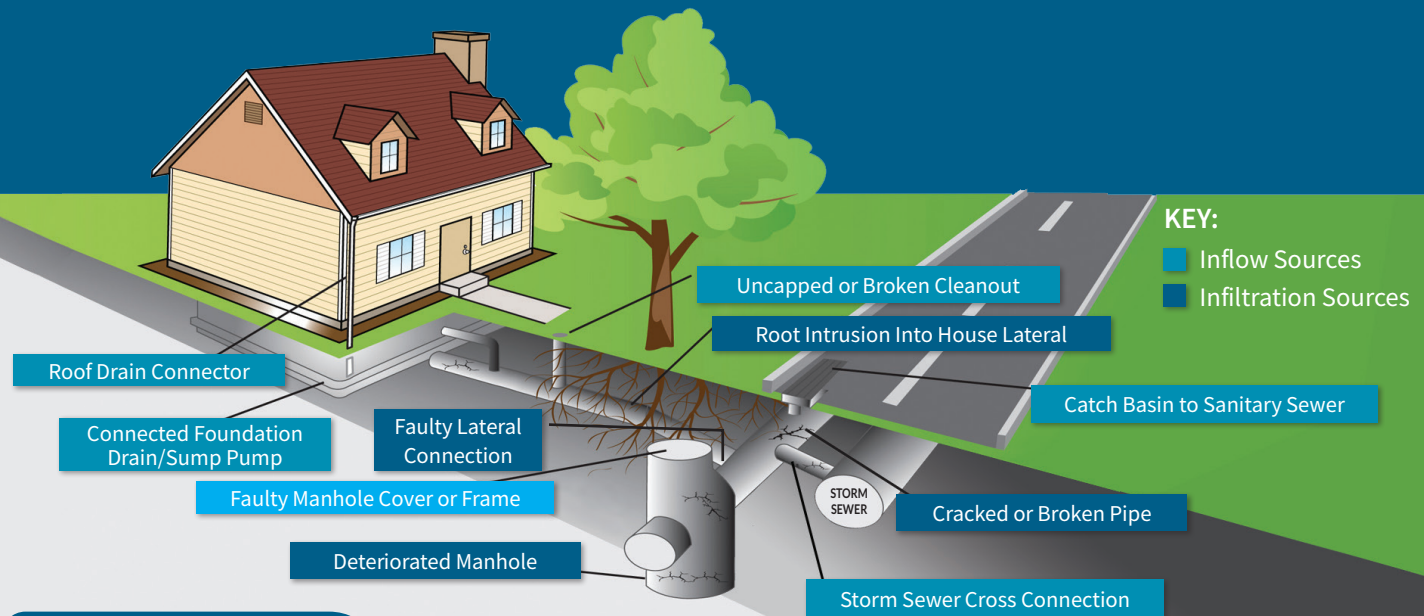
This year, Engineering staff oversaw the commissioning of five new lift stations related to development and sewer expansion projects. Two notable lift station projects were completed: Coventry Estates (LS56) and Well Line Road (LS143). The Coventry Estates project included approximately 600 linear feet of 15-inch gravity sewer, 1,000 linear feet of 12-inch and 16-inch force main, the replacement of two aging lift stations, as well as added capacity for future growth. The Well Line Road Lift Station Project entailed the replacement of an old, undersized lift station that was consistently overwhelmed, with one that has better resiliency and is designed to accommodate the expected explosive growth in the area north of Muscogee Road.

### Construction Inspection

The Construction Inspection group managed approximately 54 Capital Improvement Projects and 139 System Extension Projects throughout the ECUA service area in 2021. Their construction oversight continues to be a vital function of the Engineering Department, especially as development continues to grow in our service area.



# Sewer Inflow & Infiltration (I&I)



ECUA has committed considerable resources to the elimination and reduction of sewer I&I through the last decade. This is an issue that affects, and is of great concern to wastewater utilities throughout North America. In 2012, ECUA embarked on a 16-year plan to address the situation. Protecting public health and the environment – and reducing wastewater treatment and transmission costs are direct benefits of a regional I&I control program.

## WHAT IS I&I?

Excess water that flows into sewer pipes from stormwater and groundwater is called inflow and infiltration, or I&I. Stormwater rapidly flows into sewers (inflow) via roof drain downspouts, foundation drains, storm drain cross-connections, and through holes in manhole covers. Groundwater seeps into sewer pipes (infiltration) through holes, cracks, joint failures, and imperfect connections. Most I&I is caused by aging infrastructure that needs maintenance or replacement.

## WHY IS IT A PROBLEM?

### 3 Reasons Why I&I is a Problem – Extra water in the sewer system is a problem because:

- 1 I&I flows can contribute to sewer system backups into local homes and spills into streets and waterways, negatively impacting public health and the environment.
- 2 I&I takes up capacity in the sewer pipes and ends up at the water reclamation facilities where it must be treated, increasing treatment costs.
- 3 Over time, new and larger wastewater facilities are required to convey and treat larger volumes of flow caused by I&I, resulting in higher capital and operating expenditures.

# Information Technology



## IT Focus

The IT department's focus for 2021 was the final phase of the IT Master Plan, created in 2015. This phase entails the implementation of MUNIS, the new Enterprise Resource Program (ERP), which will tie all of ECUA's business functions together. In the past year, IT staff worked on the Human Resources, Payroll, and Utility Billing modules, with go-live dates in 2022. Another aspect of the final phase of the Master Plan is refreshing all the network hardware. Network switches that are 10-Gigabit-capable have been deployed to 90% communication closets, increasing the network speed by a factor of 10 and helping to separate the network and phone traffic so they don't interfere with each other.

## Infrastructure

The IT Infrastructure continues to be upgraded and expanded, with an additional focus on resiliency after disasters. The IT team has added more redundancy, expansion, and diversity in the data and storage systems and automation for patching and updating systems. All the server infrastructure was upgraded with the latest versions of software and firmware to keep them up to date. The Inter-agency network is functioning and GIS data has been shared as a proof of concept. This project continues to expand and the functionality will create efficiencies for multiple agencies. The Board Room received needed upgrades from the analog audio and video system to a digital system, including the addition of a new application to manage the public meetings and agenda process.

## Applications

A new time-keeping application has been implemented along with a new employee directory list. The MUNIS implementation continues and IT staff have created reports and templates for use by employees to streamline their business processes. The email system has been upgraded to newer versions on new hardware to accommodate ECUA's growth, as well as the email archiving system that is used to ensure all emails are captured and retained for public records. The new agenda management application went live in September, enhancing citizen engagement and the transparency of our public meetings. A few applications have been moved to the Cloud to make them more efficient and more easily supported by their respective vendors.



## Cybersecurity

**Cyber Security remains a major focus.** An external cyber audit was performed earlier this year that yielded minimal comments and easily implemented fixes. We've scheduled another external cyber audit for 2022 and added a Cyber Security Analyst position to the department to better manage the security at ECUA. An internal audit of the IT systems was performed to ensure that backup and restore procedures are functioning as designed and that they can be relied upon in the event of a disaster. Additional cyber security measures were put in place to increase the security levels for external access. Finally, an Employee Cyber Training program was implemented and cyber training campaigns are circulated regularly to keep everyone up to date on the latest Cyber threats, how to recognize them, and how to best protect themselves and the ECUA from cyber harm.

Research from CSO Online shows that nearly 95% of all malware attacks are delivered via email.



By 2021, cybercrime damages cost the world about

**\$6 trillion annually.**

**Nationally**  
**4000 Ransomware**  
attacks occur on average every day.



A hacking takes place every  
**39 seconds**  
across the globe.

By 2020, there were  
**200 billion connected**  
**devices**, resulting in a higher risk  
of cyber-attacks.

**91% of**  
**breaches**  
in the nation start  
with an email.



Security breaches in the  
U.S. have increased by  
**67% in the last 5 years.**



Traditional anti-virus  
solutions are only  
**43% effective**  
against today's advanced  
threats.

## Staffing

The IT Department began the year with 3 staff vacancies and by the turn of the fiscal year, we successfully recruited and/or promoted staff members to become fully staffed. Over 50% of IT staff have been in their positions for less than a year, underlining the department's focus on training new members, bringing them up to speed and familiar with the systems we support. Many IT staff received training on various platforms and technologies, ensuring their skill sets remain current with the technologies being utilized or for those planned for the near future. Training for IT staff is a continuous effort that takes time but, is worthwhile, as it creates efficiencies as staff become more proficient in their work. The Desktop replacement project continues with a minor change, replacing computers after six years instead of five. Newer computers are more robust and have very few failures so, extending their life beyond the 5-year warranty period maximizes this resource. Should the computer fail in its sixth year, it will get replaced before its anniversary date.



## Geographic Information System

We enhanced the Internal GIS portal with expanded data sets to assist staff in locating assets on a map. The implementation of a Geometric Network and a project management tool for various projects began this year. The GIS staff also helped setup the Recycle Coach application to ensure that it was only usable by ECUA customers in Escambia County. Assistance was also provided to the Engineering Department for implementing My Government Online, a portal to manage Engineering permits and processes. Continued support is provided to field teams when they use their GPS systems to locate assets in the field.

# Human Resources

Trust and respect are the cornerstones upon which successful relationships are built, and once established, sincere engagement begins.

Research supports that happier employees are more productive and engaged employees. The focus and efforts of the human resources staff continue to be the successful management of our employees' needs, so that the Authority can, in turn, meet and exceed the needs of our external customers.

In fiscal year 2021, human resources staff continued to foster and enhance employee engagement through sincere and timely interactions at every opportunity.



## Connecting with Employees

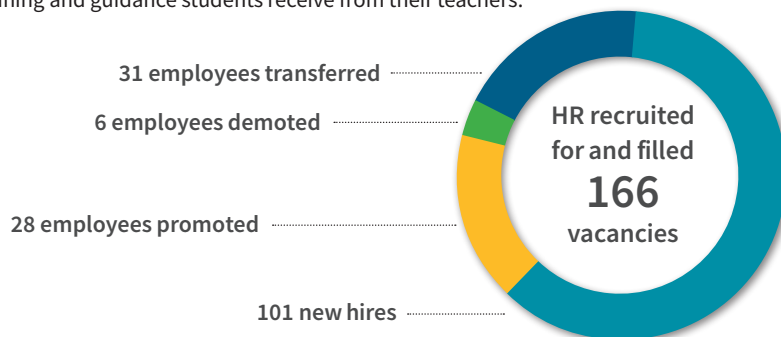
Staff connected and engaged with employees during scheduled face-to-face events and virtual sessions, and through an abundance of electronic and written communications using the following channels:

- Benefits Open Enrollment meetings, seven
- Florida Retirement System webinars, two
- Multiple health and wellness/lunch and learn workshops/ webinars
- Know Your Numbers wellness events at four ECUA locations
- Numerous individual employee career counseling sessions and team meetings
- A Compensation and Benefit Statement provided to each employee at year-end
- Twelve monthly publications of the For Your Benefit newsletter distributed to each employee, plus one Special Edition for Retirees

## The HR staff actively:

- Organized and coordinated Employee Length of Service Recognition, honoring 76 employees who reached a 5-year employment milestone
- Screened and processed 3,233 on-line job applications
- Conducted 392 in-person and remote interviews
- Proctored 32 written pre-tests for Wastewater Operator candidates
- Guided 26 new hire on-boarding sessions and four quarterly orientation sessions to acclimate all new employees to ECUA
- Conducted 30 Job Application Training/ Career Counseling sessions
- Participated in 126 Career Counseling sessions for students with disabilities in Escambia and Santa Rosa Counties
- Served on the Advisory Board for the Business Programs at George Stone Technical College
- Sent 39 candidates for TABE testing
- Participated in 8 in-person and virtual job fairs

Year after year our recruiters participate in mock interviews at local high schools. They spend valuable time helping students set goals and reassure them of the importance of improving their employability skills. Our partnership with the faculty helps to reinforce the training and guidance students receive from their teachers.





## Wellness Activities & Education

The “Health is Wealth” FY2021 campaign kicked off with the “Seize the Zzzz” wellness challenge to tackle issues related to mental health, stress, and lack of sleep. Our goal was to provide as many tools and resources as possible to help employees enter the new year with the right mental attitude and behaviors regarding food and health to support their wellness journey. We were more determined than ever to continue equipping employees with new skills, new experiences, and new goals for living healthier lifestyles. We wanted them to know how important it is to them and us.

Our goal was to demonstrate what was meant by “Health is Wealth.” The Florida Municipal Insurance Trust’s (FMIT) Hometown Health program promotes wellness activities among insured employees and spouses on ECUA’s medical plan, and provides incentives for healthy choices by offering rewards of up to \$275 per member. Eligible participants benefited from on-site biometric screenings and health risk assessments, which had an overall favorable impact on employees and motivated them to engage in health and wellness. FMIT’s Hometown Health Program offered Tobacco Cessation at no additional cost to ECUA and saved approximately \$13,500 annually. We were pleased to see increases in the overall level of participation and engagement.

## Hometown Health Award



The Hometown Health Wellness Program expanded the healthy activity options for employees to earn a \$250 gift card. Activities were no longer limited to health coaching!

In August 2021, the ECUA was honored to be one of four recipients for the 2020 program year for the sixth consecutive year! Each year, ECUA’s Human Resources Team works diligently to not only promote existing programs, but also on ways to elevate existing offerings on well-being.

The Florida Municipal Insurance Trust’s annual Hometown Health Award recognizes health members who meet the nine best-practice standards for employee health promotion. Applications for this award are accepted once a year from eligible municipalities across the state that actively engage in the Hometown Health wellness program.

It is well known that employers play a vital role in creating a workplace that supports a healthy environment and a health-conscious culture. ECUA’s collaborative efforts are a prime example of a workplace culture where employees feel they are actively supported, and have the resources necessary, to help them lead healthier lives!



The on-site health coaching program helped employees stay engaged and on track with their wellness goals. The Wellness Coach worked closely with employees to track progress, identify obstacles and/or challenges. The coach helped employees get organized and find different ways to accomplish goals by making realistic goals and creating small wins.

The on-site health coaching program became an important part of the success of our overall wellness program. It helped employees give

serious thought to changing their habits towards healthy living and we saw the shift in employees making connections between a healthy lifestyle and making healthier choices.

The human resources staff continued its collaboration with the Florida League of Cities (FLC), United Healthcare, West Florida Healthcare, Florida Department of Health, The Standard, and offered over 16 on-site/virtual educational seminars/webinars, which directly benefited employees and family members throughout the year.

# Human Resources

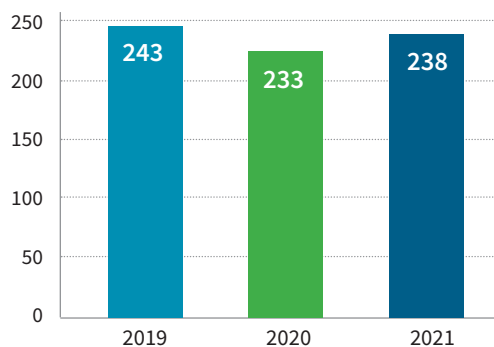


## The Health and Wellness Fair and Know Your Numbers (KYN) Event

ECUA's wellness program and initiatives foster healthier lifestyle changes among participants where the goal is not just to start, but also to strive for, a lifetime of balance. The program offers education, awareness, health screening, health coaching, flu/pneumonia shot clinics, wellness fairs, and many other interactive health-centered activities aimed at helping employees engage in a culture of wellness. We provided biometric screenings for 238 participants including 14 spouses, and 96 participants received flu and/or pneumonia shots.

The overall attendance at ECUA's annual KYN event in November 2020 totaled 238 participants.

## Know Your Numbers Participants



## Health Coaching

Through our continued partnerships with Florida League of Cities (FLC) and Health Designs, the onsite health coach provided 57 one-to-one health coaching sessions. Participants lost weight and made multiple lifestyle changes impacting nutrition, weight management, and building strong relationships resulting in major changes in overall energy, confidence, and joy.

Through active participation in qualified wellness activities, ECUA reimbursed \$19,091.11 to 119 employees this year.

## Healthy Choices Reimbursement Program

Although, the amount of ECUA's Healthy Choices reimbursements decreased partly due to COVID-19 pandemic mask mandates and facilities' closures, employees continued to engage in activities ranging from gym memberships, weight management programs, 5k/10k walk/run events, cross training, smoking cessation, dance instructions, and swim/golf lessons. The number of employees reimbursed increased from 116 to 119.

## Chemical Reporting

The E-Plan system is the nation's largest database for chemical and hazardous material reporting, as regulated by the U.S. Environmental Protection Agency. Risk Management staff completed all requirements for the Tier II Chemical reporting, including disclosure of hazardous chemicals and fuel stored or located at ECUA facilities. In emergencies, accurate data in the E-Plan system can make the difference between life and death for first responders and victims.

## HR Staff's Professional Development

The HR staff's professional certification and educational development continued with PHR, SPHR, SHRM-CP, and SHRM-SCP certified members:

- Six staff members maintained local and national SHRM chapter memberships
- Two staff members attended the HR Florida Conference in Orlando, Florida
- One HR staff member serves on the Board for the Greater Pensacola SHRM association for HR Professionals as the President-Elect and also continued to serve as the HR Florida State Council conference Team Ambassador
- One HR staff member serves on the Board for the Greater Pensacola SHRM association for HR Professionals as the Chairperson of the Diversity, Equity, and Inclusion Committee

## Employee of the Year Award

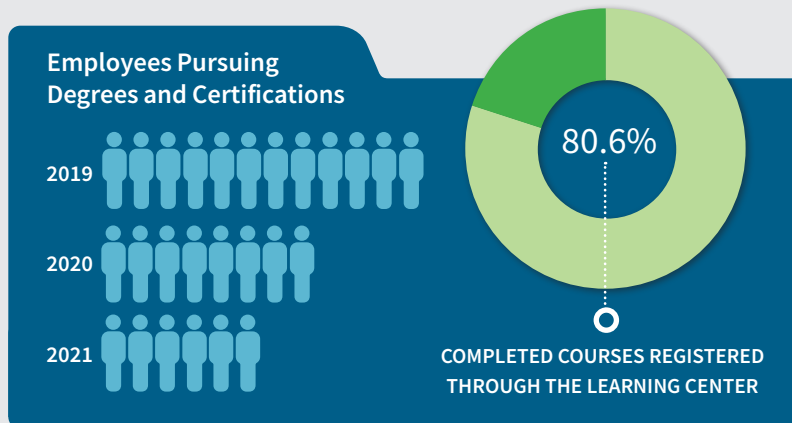
One of our HR staff members, Ms. Chiquita Payne, Sr. Human Resources Generalist, was presented the ECUA Employee of the Year award for her dedication and service to ECUA.



## Varied Programs Meet Diverse Interests

ECUA's Tuition Reimbursement Program encourages employees to enhance their educational development. Six employees pursued undergraduate/graduate degrees, and/or professional certifications through the program this fiscal year. There were 1900 course registrations and 1532 courses completed through the Learning Center, ECUA's on-line learning module for professional development.

- The quarterly new-hire orientation was reorganized to include in-person Diversity and Harassment Prevention training.
- 10 Leadership training modules were developed and branded for ECUA, to include a Supervisors' Boot Camp.
- An online Annual Performance Review training was developed and became available for Supervisors and Managers to access anytime through the Learning Center.
- HR staff compiled data from 28 exit interviews in summary format to assess culture and employee experience.



## Commercial Insurance

In FY2021, staff reviewed and maintained insurance policies for Property, Automobile Liability and Physical Damage, Workers' Compensation, Cyber Liability, Crime Coverage, Flood Insurance, Pollution Liability, Public Entity Liability, and Road Restoration Bond.

## Public Health and Safety

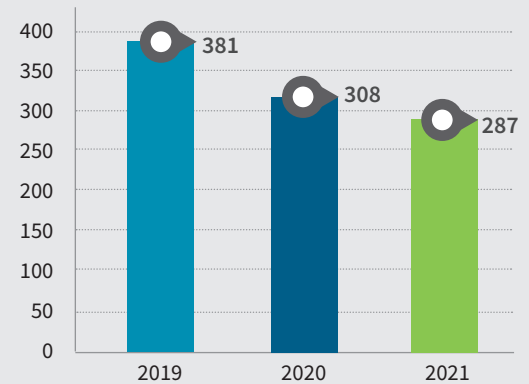
During FY2021, 15 of our employees were certified by the American Heart Association for successfully completing the cognitive and skills evaluations in accordance with the curriculum of the Heart-Saver First Aid, CPR, and AED program.

Sanitation Equipment operators participated in Defensive Driving training, which provided the knowledge and safe driving techniques that, when applied, can prevent collisions, injuries, and traffic violations.

## Loss Recovery

Risk Management staff pursued subrogation recovery for ECUA property losses caused by others. Through subrogation efforts, ECUA recovered \$39,932.48 to offset property damage losses caused by others.

## Employees Receiving Certifications or Certificates of Completion



## Workplace Safety, Training and Security

Training provided to employees covered numerous safety and health subject areas such as Confined Space Entry, Fall Protection and Prevention, Fire Extinguishers, Lockout/Tag Out, and Ladder Safety, just to name a few. During FY2021, the Risk Management staff conducted 3,336 hours of safety and health training for our employees. We are pleased that formal professional development and continuing education classes resulted in 287 employees receiving certifications or certificates of completion:

- 40 FRWA Chlorine Safety (6-hour)
- 27 FWPCOA Wastewater Collections Operator (11 A Class and 16 C Class) (36-40 hour courses)
- 16 FRWA Water Distribution Certification Level 1, 2, 3 (32 hour class)
- 13 Rotochopper University – Manufacturer onsite training (3 hours)
- 15 American Heart Association Heartsaver First Aid, CPR and AED (5-hour)
- 48 Autocar Truck ACX Xpeditor training for Fleet Mechanics (2.5 Hours)
- 14 Intermediate Maintenance of Traffic (IMOT) refresher (8-hour)
- 16 Confined Space Entry for Entrant and Attendant OSHA 1910.146 (8-hour)
- 19 TREO Asbestos: Cement Piping Class II OSHA1926.1101 (8-hour)
- 33 Powered Industrial Trucks (2.5 hour)
- 12 PACP/MACP/LACP Certification/Recertification (3-days)
- 14 Cross Connection and Backflow (24 hour)
- 22 CNG Manufacturer's Training w/Momentum (3 hour)



# Sanitation



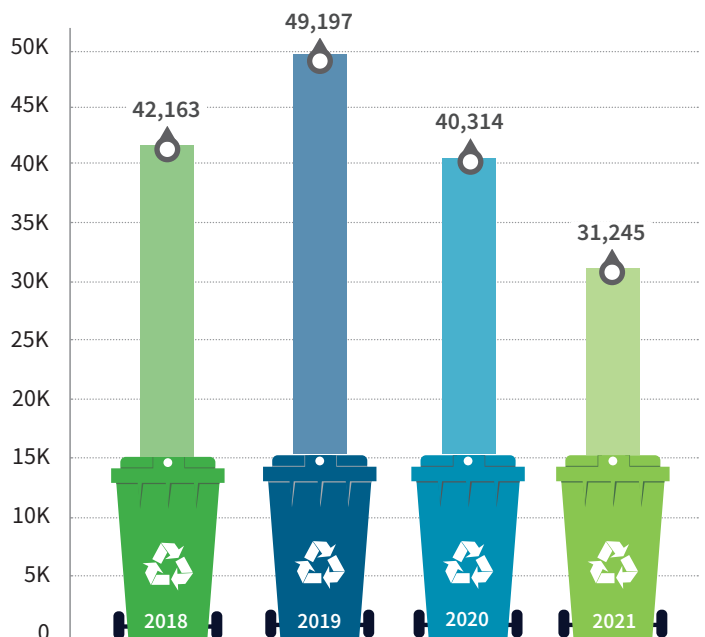
## Administration Division — ECUA MRF

During FY 2021, the ECUA Materials Recycling Facility (MRF) processed recyclables from the ECUA, Escambia, Santa Rosa, and Okaloosa Counties as well as the Cities of Pensacola and Fort Walton Beach, FL. The MRF also processed recyclables from the Cities of Mobile, Atmore, Foley, and Fairhope, and three private haulers providing service for two counties in Mississippi and multiple commercial locations in Florida and Alabama. The MRF processed a total of 31,245 tons of recyclables during FY 2021 compared to 40,314 tons of recyclables during FY 2020, a decrease of approximately 22%.

The daily average of 166 tons processed per day during FY 2021 increased from an average of 154 tons per day in FY 2020.

The total number of tons processed in 2021 decreased due to a two-week shutdown in October following Hurricane Sally, and the fire in July, which closed the MRF until the beginning of FY2022.

## RECYCLABLES PROCESSED IN TONS

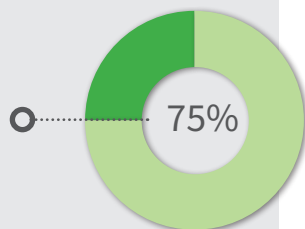


## Recycling Division

In FY 2021, 63,032 or 75% of ECUA Sanitation customers in Escambia County participated in the residential curbside recycling program. These customers produced 9,845 tons of recyclables that were processed at the ECUA MRF, which is a decrease of 4,188 tons compared to FY 2020. The diversion of this amount of tonnage reduced ECUA's residential disposal cost by \$443,616 during FY 2021.

Staff is continuing efforts to educate ECUA customers on the proper use of the recycling container through multiple media outlets and public education outreach. Collection staff also identify recycling cans that contain contamination, and repeat offenders' recycling cans are removed for one year. We initiated the Recycle Star program in FY 2019 to recognize and reward customers who recycle properly.

PERCENTAGE OF  
ECUA SANITATION  
CUSTOMERS  
RECYCLING IN 2021



## Commercial Division

Roll-off services provided 1,791 service pulls and 362 container deliveries throughout the year. The total number of requests for roll-off service was 2,153, compared to 2,440 in FY2020.

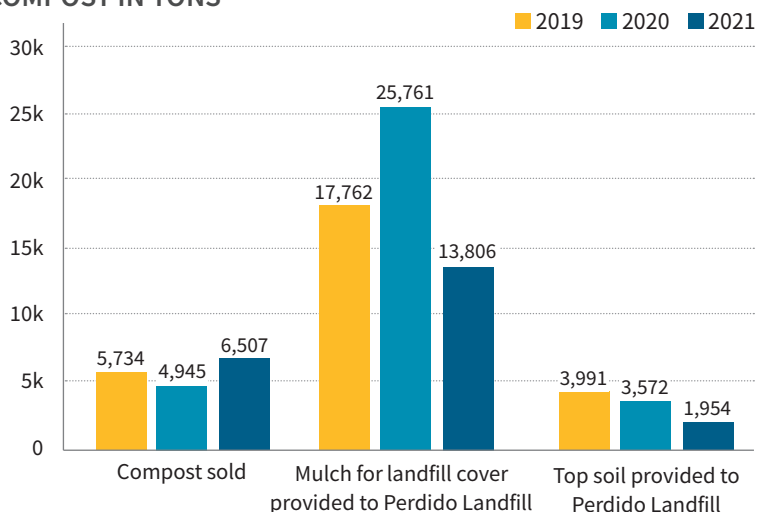
Commercial dumpster operations resulted in the collection of 15,587 tons of garbage from locations on Pensacola Beach and the Mainland of Escambia County, which is an increase of 541 tons when compared to FY2020. This increase is due to recovery of commercial activity on Pensacola Beach following COVID-19 and Hurricane Sally. The Commercial Division added 82 new commercial customers in FY 2021, a significant increase compared to the 51 new accounts added during FY 2020.

## Bio-Solids Composting Facility

In its sixth year of operation, the ECUA Bio-solids Compost Facility (BCF) continued to expand and produce a high-quality compost product. The BCF accepted 18,774 tons of yard waste in 2,903 loads from ECUA and Escambia County collection vehicles. During FY 2021, the BCF sold 6,507 tons of compost and provided the Escambia County Perdido Landfill with 13,806 tons of mulch for landfill cover and 1,954 tons of topsoil for slope stabilization.

## BCF SOLD 6,507 TONS OF COMPOST IN 2021

### COMPOST IN TONS

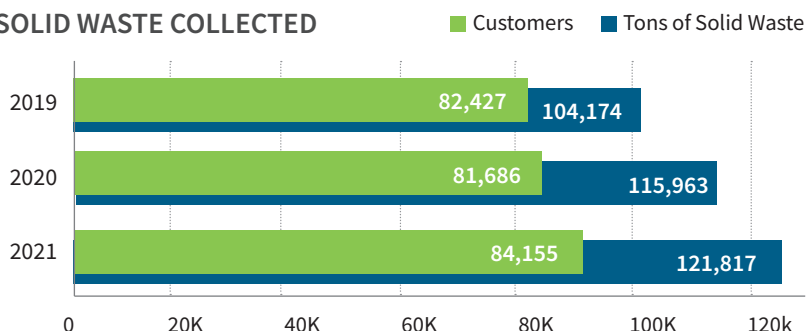


## Residential Division

In FY 2021, each of ECUA's 84,155 residential customers generated an average of 1.47 tons of waste. This resulted in the collection of 121,817 tons of residential solid waste during the fiscal year. The total number of Escambia County sanitation customers increased by 2,469 during FY 2021. The total disposal cost for residential garbage increased due to the additional tonnage and totaled \$5,139,074 in FY 2021 (\$4,916,027 in FY 2020). Staff believes that the increase in tonnage collected is due to the growth in the number of residential customers serviced by the ECUA.

ECUA  
crews collected  
16,769 tons of  
yard waste and  
6,774 tons of bulk  
waste during  
FY2021.

### SOLID WASTE COLLECTED





# Customer Service

## Contact Center

The Customer Service Department has continued working within the “Homebound” program where every employee has the opportunity to work from home, on a rotating basis, and reaping the positive effects the program has had on our employees’ work performance. The telephone and online procedures are still available for customers who do not wish to establish service in person. This gives our customers an additional option when setting up service and transacting other business.

Travell Wilson, Water Service Tech, received the award for the highest number of cut non-pay work orders completed, allowing ECUA to collect outstanding balances on more than 2,000 delinquent accounts.



## Incentive Program

The incentive program continues to be a valuable tool when measuring our employees’ performance. Customer Service Specialists are striving to produce high performance levels well above the average measurement. Employees are coached on their monthly statistics and on how they can improve in specific aspects of their job, while being encouraged to keep up the high-performance levels. These monthly coaching sessions allow the employee to take responsibility for their performance and create their own success.



**Customer Survey** — Customers who completed the Customer Service Survey continue to rate our customer services with high scores. In 2021, twice as many customers surveyed as last year rated our service with a satisfaction score of 4.91, with 5 being the highest rating score available.

## National Customer Service Week

During the week of October 4, ECUA celebrated National Customer Service Week. The Customer Service Department shared a slew of festivities with internal and external customers by making Customer Service a celebration for everyone. At the Ellyson campus, employees celebrated team work over a few meals, which included breakfast, lunch, and a cake and ice cream treat.

Top Performer Awards were presented to the Customer Service Specialists (CSSs) who earned the Customer Service Incentives for each quarter of the 2021 fiscal year. To earn an incentive, the CSS must have a qualifying score for call quality, the required number of calls, customers processed and served, and accuracy in paperwork and adjustments. This year’s top performers include Wykesha Franklin, Delois St. Cyr, and Loretta Lee. Brianna Rubert and Lenita Stephenson were recognized for their professional and selfless service to our walk-in customers. We salute these outstanding individuals and thank them, as well as all of our Customer Service employees, who strive daily to provide exceptional service to all of ECUA’s internal and external customers.



## Regional Services/Meter Reading

Our Water Service technicians assisted the Meter Reading/Billing Division by verifying re-reads and processing the consumption data on inactive accounts. Our technicians assisted wherever they were needed following issues experienced with our bill processing vendor at the end of the fiscal year, and assisted with other job duties in several departments.

## Mentoring/Cross Training Program

Our mentoring program has been successful in partnering experienced staff with newly-hired members of our team. The new employee builds a working relationship with their mentor, creating an environment of team work and allowing the employee to learn at a faster pace.

Customer service employees are currently rotated to others areas within the Customer Service Department for cross-training. Cross-Training allows the employees to gain knowledge and experience in all areas of customer service. This program is producing a larger group of employees that can fill-in and assist our customers, especially during staff shortages.

## Inter-Departmental Cooperation

Customer Service continues to assist with the process of notifying customers whose homes have damaged sewer laterals that must be repaired. The damaged sewer lateral or sewer line allows inflow/infiltration to enter our sewer system. In conjunction with the Engineering department, we have streamlined the notification process, making it more efficient for both departments.

## Holiday Cheer

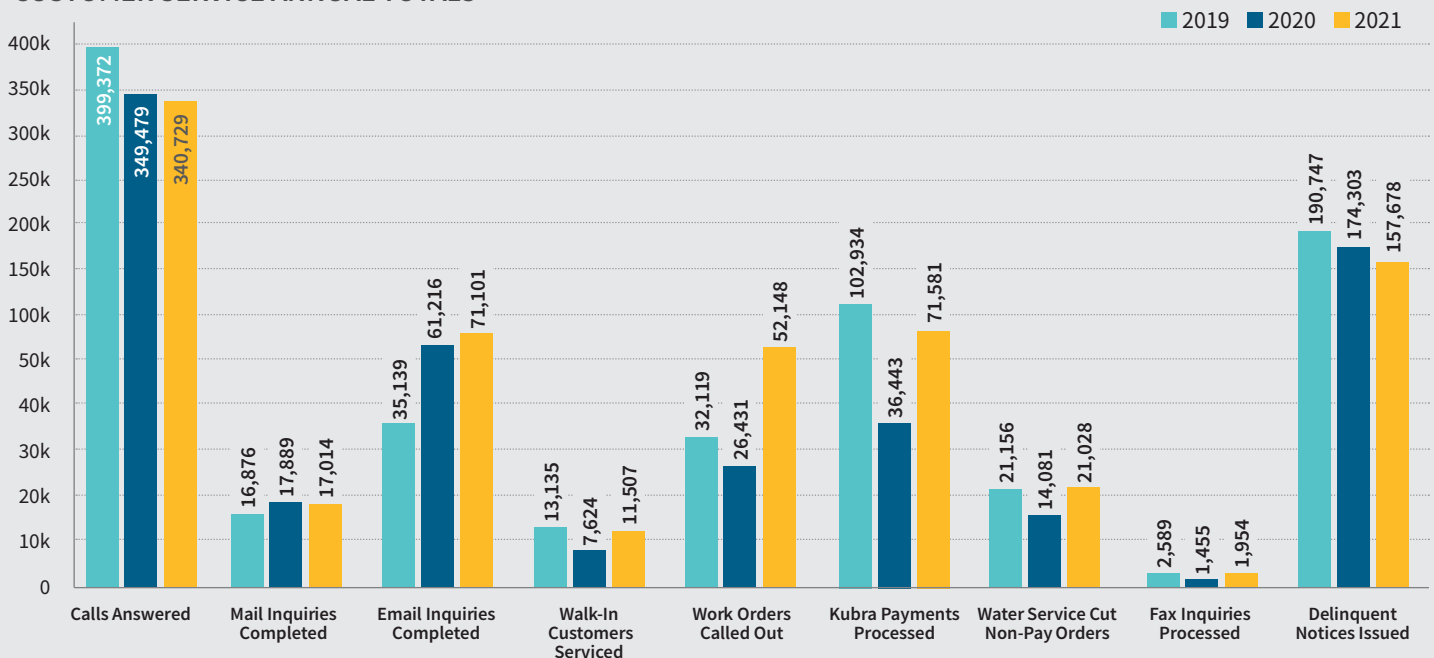
Customer Service held an ugly sweater shirt contest for the holidays and the ugliest sweaters, personally created by the employees, were recognized to receive a monetary prize. Our employees also exchanged gifts and enjoyed a holiday lunch that was provided by the supervisory staff. This helped boost morale and was a great opportunity to spread holiday joy throughout the department.



## Continuing Education/Training

Members of the customer service department continue to promote training and continuing education among our staff. We have scheduled, and taken, several training courses offered by the NEOGOV website. A few of the training modules offered were: Achieving Mindfulness at Work; Drug Free Work Place; Active Shooter; Evaluation Training; Work Place Culture (Tools to Strengthen Communication and Instill a Culture of Gratitude); Bankruptcy and Probate Claims; Becoming a Servant Leader and Six Big Roles Every Leader Takes. Within the office, Specialists received updated training on the Adjustments processing.

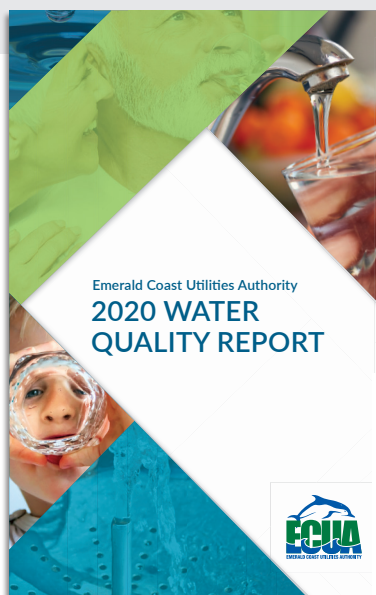
## CUSTOMER SERVICE ANNUAL TOTALS



# Public Information

## Public Information

The Public Information Division provides general administrative support to the Executive Director and the other executive ECUA staff with respect to internal and external organizational communications, as well as coordination with various governmental and community organizations. The ECUA maintained its community involvement throughout FY 2021 with numerous public appearances and presentations, and continued to expand our outreach program with the addition of a team member in May, 2021, dedicated to our social media and digital communications efforts.



## ECUA in Print, Online, and on the Road

Disseminating information to our customers in a timely and targeted manner is an ongoing effort and is the core of our mission. The PIO staff produces a variety of printed materials over the course of the fiscal year: a monthly newsletter that accompanies our customers' bills; collateral materials such as refrigerator magnets and other give-away items that promote awareness of our recycling, "disposable" wipes, and FOG programs; and numerous informational flyers related to sanitation and recycling services, backflow prevention and FOG.

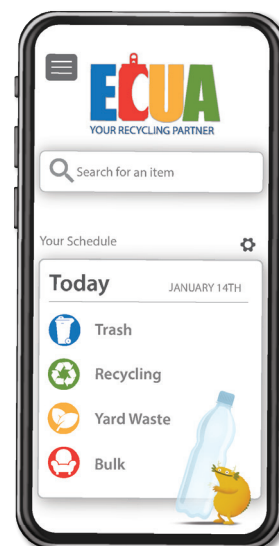
Working with advertising agencies, staff guides the creation of our annual calendar and corporate publications such as the Authority's Annual Report and Annual Water Quality Report. This essential document, also known as the Consumer Confidence Report, is published and posted to the ECUA website annually in May. Advertising for broadcast, print, and a limited scope of online publications is also developed in concert with an outside agency. With the addition of a dedicated social media coordinator, most advertising on social media platforms is now created and placed by our staff.

We redoubled our efforts to combat the contamination of recyclables with another billboard campaign, which our PIO staff again adapted for use on our new sanitation trucks. In the true spirit of recycling, this doubles the return on our creative investment and assures that our message is taken directly to the community we serve, at minimal cost.

Every year, we update our 'micro website' LivegreenECUA.com, to reflect changes in our recycling programs, composting, and water conservation pages. Our social media presence continued to grow as a result of our increased outreach on Facebook. With a new strategy that includes 5 posts per week on various topics such as recycling, FOG, water quality, water reclamation, as well as employee promotions and events, our overall reach grew by nearly 25%. We gained nearly 1,000 new Facebook page followers and increased the overall traffic to our website.

Additionally, download and usage of the Recycle Coach application is consistently encouraged via social media posts, which allows viewers to click a link to download the app to their phone or visit the web app. Use of the Recycle Coach app grew this year with 178,039 total interactions on the app, 1,442 new users, and 9,650 material searches in 2021. A total of 2,842 active users of the app are able to schedule sanitation pickup reminders, search for materials with the 'What Goes Where' feature, and report issues to customer service through the app.

We replaced our 6-year-old website with a refreshed and technologically upgraded site in April 2019 and continued to expand the features of this site through fiscal year 2021. We expanded the site to include a new page for the RecycleStar program and a portal page for our new Recycle Coach app.



Recycle Coach app  
grew this year with  
**178,039**  
total interactions

## Public Outreach Programs

ECUA's important environmental programs have a pronounced impact on our community. After two years of living with the reality of COVID-19 and the constraints of lockdowns and social distancing, we eagerly got back into the swing of our public outreach programs to promote our communication efforts wherever possible. We shared our immediate program priorities through several means: our Newcomer's Welcome Kit, distributed to approximately 2,000 new home buyers, participation in 150 community, Neighborhood Watch, and school events, and 146 public speaking appearances at local, state, and national organizations.

This year, Public Information staff were excited to create a calendar for 2022, after the hiatus driven by the pandemic, and the absence of events/venues for calendar distribution. This is a very popular and annually-anticipated public education tool intended for distribution to employees and customers. The calendar typically features beautiful local photography that highlights an ECUA program or service each month, as well as provides educational material in support of our Recycling and FOG programs.



### 'Recycle Florida Today' Environmental Sustainability Award (RFTES)

In November, members of ECUA's Public Information and Education staff accepted the 2021 'Recycle Florida Today' Environmental Sustainability Award (RFTES) for Outstanding Public Program. With this award, ECUA was recognized state-wide for our innovative and highly efficient recycling operations, as well as our creative and resourceful public information campaigns that have significantly increased awareness, which motivates recycling, composting, waste reduction, and other sustainability efforts.

## ECUA in the Media

Every year, we strive to maximize our investment in television and radio advertising by focusing on specific targeted areas of our business. This year's media outreach campaign took aim at raising awareness and educating our customers on several key issues: the prevention/reduction in recycling contamination as well as the dangers of disposing of flammables in recycling and garbage containers, the damaging effects of Inflow & Infiltration on our wastewater infrastructure, the ongoing and critical need for utility system and capital improvements, and the deterrence of Fats, Oils, and Grease in our sanitary sewer collection system. During the 2021 fiscal year, staff provided over 68 interviews to radio, television, and print media, and issued over 172 press releases.

### Water Tower Art

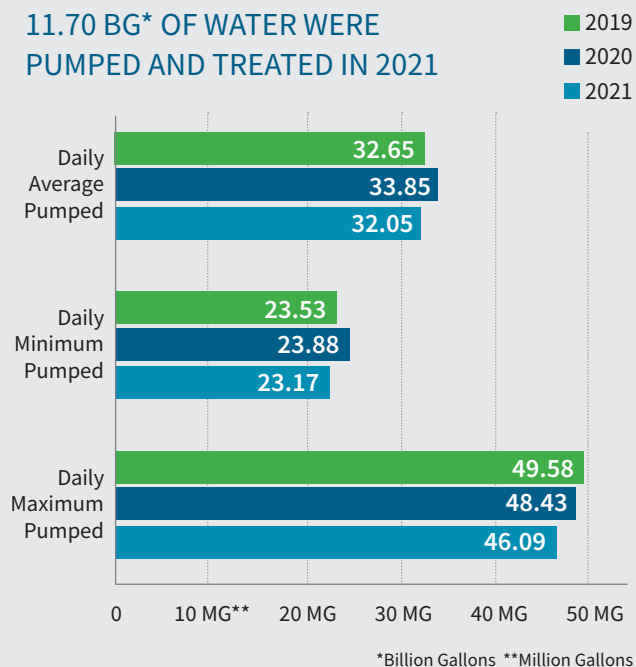
Our public information staff coordinated the collection of public input and design suggestions for the East Water Tower in the spring of 2021, then worked to develop several viable concepts for the Board's discussion and ultimate selection. The three final designs chosen received extremely favorable public support and appreciation for accurately reflecting the input provided by the community.





# Water Production

11.70 BG\* OF WATER WERE  
PUMPED AND TREATED IN 2021



## ENGINEERING ANALYSIS Hagler Well Treatment Analysis

The Hagler Well was taken out of service several years ago to evaluate the effectiveness of different treatment methods for the removal of perfluoroalkyl and polyfluoroalkyl (PFAS) substances. In the past few years testing of the effectiveness of Granular Activated Carbon (GAC) and Ion Exchange Resins have been performed. Testing was completed in 2021 and the results were analyzed by ECUA and ECUA's Engineering Consultant to determine the most cost effective treatment type.

## North Zone Master Plan

The water system master plan update for the north water zone was completed in 2019 and its report provides recommended improvements in order to meet future demands. Lower than expected water pressures in the Beulah Area prompted staff to collect flow and pressure data to compare against model predictions. It was determined that the daily use pattern (diagonal curve) was different from the rest of the water system and therefore, what was in the model. The model was revised and the master plan revisited for the Beulah area, with a new water supply (well) needed in the next few years.

## Risk and Resilience Assessment/ Emergency Response Plan

The American Water Infrastructure Act (AWIA) of 2018 requires water utilities to certify the completion of two actions. One is that utilities complete or update their Risk and Resiliency Assessment by March 31, 2020. This was accomplished on March 25, 2020. The second requirement entails that utilities update their Emergency Response Plan (ERP) to address concerns raised in their Risk and Resiliency Assessment. ECUA accomplished this requirement on September 22, 2020. ECUA entered into an additional contract with ARCADIS to include more information on sanitation and sanitary sewer into the ERP. This is an ongoing project.

## Water Storage Tank Inspections

A consultant performed annual inspections of all tanks and five-year comprehensive inspection of two tanks. Staff is reviewing the option of including work identified in the annual inspection with the Pensacola Christian College Tank Rehabilitation 2021 Project. The results of the five-year inspections will be reviewed to determine what work will need to be done, and establish a timeline for this work.

## Water Facility Optimization

ECUA entered in a Planning Assistance to States (PAS) cost-sharing agreement with the US Army Corp of Engineers (USCOE), for a review of ECUA's water facilities and when they are used to optimize their operation. Phase I was completed and staff is preparing plans to enact the recommendations. ECUA has entered into an agreement with the USCOE for Water Facility Optimization Phase II.

## **ENGINEERING ANALYSIS, cont.**

### **Water Facility GAC Optimization Study**

Water Production (WP) Staff and an engineering consultant are exploring ways to optimize GAC treatment of the raw water at wells. Options being considered include lead-lag vs. parallel operation of the vessels, the removal of competing constituents, and other cost-saving possibilities. Testing has been performed and the results discussed, with additional testing scheduled for FY2022.

### **West Well and Tank**

A master plan was performed and a comparative cost analysis provided. Based on this cost analysis, staff elected to have a new well drilled at ECUA's tank site property, which was recently expanded. A consultant is preparing plans and specifications for the new well, Water Treatment Facility, Granular Activated Carbon Treatment, a large ground storage tank with pump station to replace the existing elevated tank, and associated site work.

### **Well Maintenance (WM)**

This division provided accident-free preventive maintenance and repairs at well sites including: the continued upgrading of chlorine, fluoride and pH monitoring equipment, testing all generators to assure electrical power during emergencies and the backwashing of GAC vessels.

WM staff assisted contractors with work at water production facilities such as assisting contractors with inspections of corrosion protection systems, GAC vessel rehabilitation and carbon change outs, as well as making repairs to pump-off tanks, and draining facilities for required inspections.

WM staff replaced the check valve at Nine Mile Well and performed substantial upgrades to the Olive Well lime room. Static and draw-down water level measurements were taken at each well for calculation of specific yield (performance test). Monthly electrical and vibration readings were taken at wells and booster pump facilities.

## **DESIGN PHASE**

### **Innerarity Booster Pump Station Rehabilitation**

WP Staff is working with a consultant on improvements to the Innerarity Booster Pump Station designed to enhance water pressure to Innerarity Point and Innerarity Island. Staff is currently waiting on the results of the water modeling, which will indicate flow conditions, before moving forward with the rehabilitation.

### **Central Well Field**

There are two production wells at this site. WP staff prepared a conceptual plan for completing the installation of a water treatment facility at one of the two installed wells, along with a transmission main from that well site to US 29. Staff continues to collect stream flow and other hydrological data and submits this to the Northwest Florida Water Management District. Once funding is established, staff will bring the engineering proposal to the Board for approval of construction.

### **Lime Room Rehab 2022**

Staff continues to prioritize and perform work to rehab lime rooms at Water Treatment Facilities, and has prepared the 2022 list of wells whose lime rooms are in need of rehabilitation.

## **CONSTRUCTION PHASE**

### **Ellyson Well GAC System**

Design of GAC treatment for removal of low levels of PFAS from the raw water at this well was completed, and construction is ongoing. Four GAC Vessels were erected at the site in 2021. Piping for the vessels is under construction with completion expected in 2022.

### **Mobile Highway Booster Pump**

The installation of a booster pump along Mobile Highway will allow filling of the Mobile Highway Pump Station tank without creating low-pressure issues for customers in the area. The project was completed in Spring 2022.

### **Muldoon and Avondale Wells' GAC Vessels**

Design of a GAC treatment system for removal of low levels of PFAS from each of these wells was completed. A construction contract was awarded and construction is ongoing. Six GAC vessels have been placed on their foundations and piping for the vessels was designed and bids received. The bids received were unexpectedly high and rejected. Staff and the Consultant are exploring cost reduction options prior to rebidding the project.

### **Nine Mile Road Booster Pump Replacement**

The pump at the Nine Mile Road Booster Pump Station needs to be replaced. Using ECUA's water distribution model, our consultant evaluated and identified the pumps that meet design conditions most effectively, and provided staff with their recommendation. The pump was purchased, the site design completed, and a contract awarded to a contractor to perform the work. This work is needed to provide better flow and pressure in the Beulah area, north of Nine Mile Rd.

# Water Production

## CONSTRUCTION PHASE, cont. Perdido Key Tank Discharge Booster Pump

Construction was completed in Spring 2022.

## Lime Room Refurbishment Projects

Rehabilitation of the lime rooms at West Pensacola, Villa, and Kingsfield Wells is currently under way.

## West Pensacola Well Elevation Project (FEMA)

This well was flooded in 2014 and mitigation measures, such as adjusting the height of electrical equipment, were implemented through a cost-sharing agreement with FEMA. Construction was completed and FEMA expects to schedule the final inspection in 2022.

## CONSTRUCTION COMPLETE Lime Room Refurbishment Projects

Ellyson, Plant 6, Humphreys, Royce Wells — Rehabilitation of the lime rooms at each of these well sites was completed in 2021.

## Olive Well Rehabilitation

The Olive Well specific capacity (performance) was dropping significantly and Staff directed ECUA's Annual Well Maintenance Contractor to rehabilitate the well by cleaning the well casing and screen, and installing a new pump.

## Spanish Trail Well Rehabilitation

Excessive vibration of the pump at Spanish Trail Well necessitated that the well be taken out of service and the pump assembly removed from the well. A new pump was installed, along with the replacement of a portion of the column pipe.

## Tank Maintenance 2020

The recommended improvements from inspections in 2020, including the total coating replacement on the East Tank, were bid out. The East Tank project was completed in May 2021.

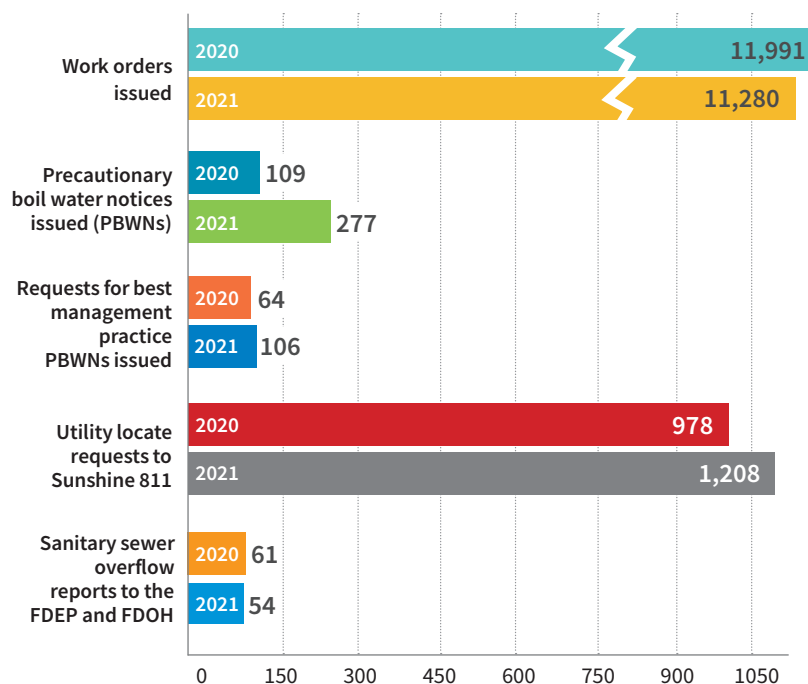
## Villa Well "Four Log" Piping Installation

Large diameter piping was installed at the Villa Well site to provide sufficient water-chlorine contact time prior to delivery at the closest customer in the distribution line.

## SCADA Operations

SCADA Operations continued efforts to streamline and improve documentation concerning the following: unplanned and scheduled water outages; issuance of boil water notices; best management practices; and sanitary sewer overflows. SCADA staff coordinate with the Instrumentation/ Electrical Division to complete several lift station and electrical well upgrades. SCADA and Well Maintenance continued utilizing a water well specific capacity (performance) reporting process, enabling personnel to identify and prioritize water well maintenance and repairs.

## The SCADA (Supervisory Control & Data Acquisition) Operations Center responded to 33,271 incoming and outgoing phone calls



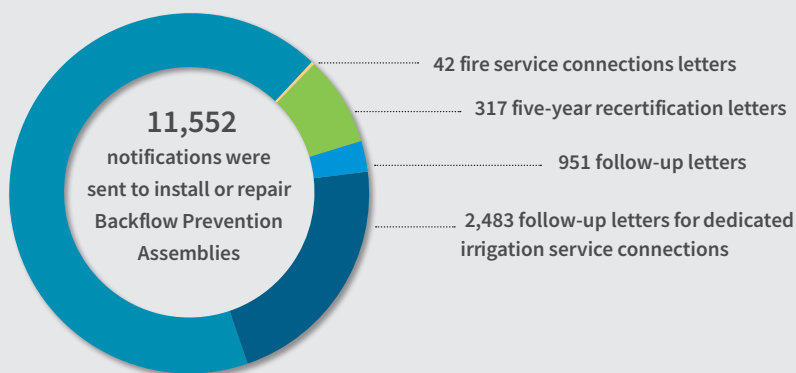
SCADA personnel worked with QEI, Inc. and ECUA'S IT Department to fortify the SCADA system's cyber security. Project highlights include:

- SCADA Servers were separated to operate from different locations to ensure limited down time in case of a loss to the online active servers.
- A new SQL Server for data retention was configured and is archiving operational information for use by various ECUA departments.
- SCADA workstations were placed on to a dedicated SCADA local area network (LAN), independent of ECUA's corporate LAN, improving security.
- A Virtual Private Network was configured to allow restricted access to the SCADA network for offsite operation.
- A Situation Response Room was set-up in the Administration building to serve as an emergency operations center during activations, and also provide redundancy for SCADA operations.



## Cross Connection Control (CCC)

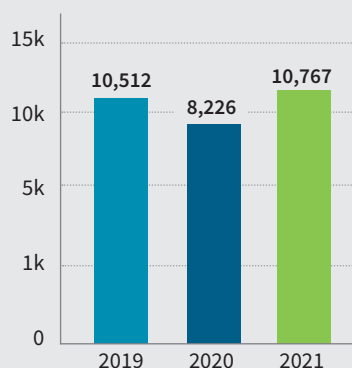
In 2021, CCC sent 11,552 notifications to commercial and residential customers to test, install or repair Backflow Prevention Assemblies (BPAs). Of these, 2,483 were follow-up letters for dedicated irrigation service connections, 42 were related to dedicated fire service connections, 951 were for follow-up letters and 317 were for five-year recertification letters related to auxiliary water supplies (private wells). We tested 381 BPAs at ECUA facilities and 150 hydrant meter BPAs, leading to the repair of 72 units.



Staff verified the initial compliance of 71 certification forms and verified the compliance of 317 five-year recertification forms related to private residential auxiliary water supply (private wells), and submitted the fifth required annual report of backflow data to the FDEP. The division conducted 289 surveys of existing commercial developments and reviews of 210 new commercial developments to ensure the correct type of BPAs are being properly installed, if required. Staff collaborated with local Fire Departments, the City of Pensacola, and Escambia County Building Inspections Departments to ensure that all commercial accounts had installed and tested their BPAs prior to receiving a Certificate of Occupancy.

Additionally, CCC collaborated with the Finance, Customer Service, and Regional Services Departments to log 127 meters with transient backflow readings and identify issues, address consumption and billing issues discovered during CCC surveys on two accounts, and held one Backflow Prevention class for the progression of Service Techs in the Regional Services Department. Two CCC personnel attended a Tester Certification class. CCC collaborated with the Florida Water & Pollution Control Operator's Association (FWPCOA) to hold a backflow prevention assembly Repair and Maintenance class at ECUA.

## Test reports processed into upgraded database



## Water Operations Division

The Division hired a Regulatory Compliance Coordinator (RCC) in March 2021. Since then, the RCC has performed quarterly water production facility inspections and has advised staff on possible regulatory issues. The RCC works as liaison between regulatory agencies and ECUA Water Production and Water Quality Lab staff, to ensure compliance is consistently met during various project stages and operational challenges. Additionally, the RCC has prepared and submitted over 30 compliance reports to state regulatory agencies.

Water Operators continued to work on Continuing Education Unit (CEU) regulatory academic requirements by attending regional training sessions sponsored by Florida Section of American Water Works Association (FSAWWA), Florida Rural Water Association (FRWA) and Florida Water and Pollution Control Operators Association (FWPCOA) as required to maintain licensure.

- Licensed Water Operators took 323 FDEP potable water compliance samples and serviced well and pumping station sites 19,285 times.
- Added 3,699,600 lbs. of bagged hydrated lime for pH adjustment.
- Fed 81,957 lbs. (547 - 150 lb. chlorine cylinders) of chlorine gas for disinfection.
- Fed 266,778 lbs. of hydrofluorosilicic acid (Fluoride) for dental health.
- Fed 14,736 gallons of orthophosphate for corrosion control (lead and copper).

## Regulatory Activities

We submitted data to the NFWFMD as required by ECUA's Water Use Permit. Test results and data were provided to the FDEP in accordance with prescribed rules and permits. Staff coordinated with FDEP and FDOH to collect and test water samples from several ECUA wells for PFAS. We reviewed plans and Wellhead Impact Reports to ensure Wellhead Protection Area (WHPA) compliance for the Escambia County Development Review Committee.

# Maintenance & Construction

## Facilities Maintenance Division

Mid way through the fiscal year, the Facilities Maintenance Division transferred from the Shared Services Department and became an operational division within the Maintenance and Construction Department. With an inventory of 90 facilities totaling 414,430 square feet, the maintenance division's daily workload is a continuing challenge. The facilities vary in size, age, type of construction and usage. The ECUA's main headquarters building functions primarily as a customer-oriented service facility; however there are numerous special purpose facilities such as a Water Quality Lab, Fleet Maintenance Garages, Storage Warehouses, a Materials Recycling Facility, and approximately 400 Water Well and Lift Station structures.

A comprehensive database is maintained on all infrastructure-type mechanisms associated with the facilities, allowing the INFOR program to generate periodic standard operating and maintenance checklist procedures. Preventive maintenance is accomplished on a daily, weekly, monthly, quarterly and annual basis to historical data compiled on the facility and the manufacturer's recommendations for a particular piece of equipment.

## The Facilities Maintenance Division is comprised of



one manager



one lead maintenance technician



four maintenance technicians



three maintenance specialists



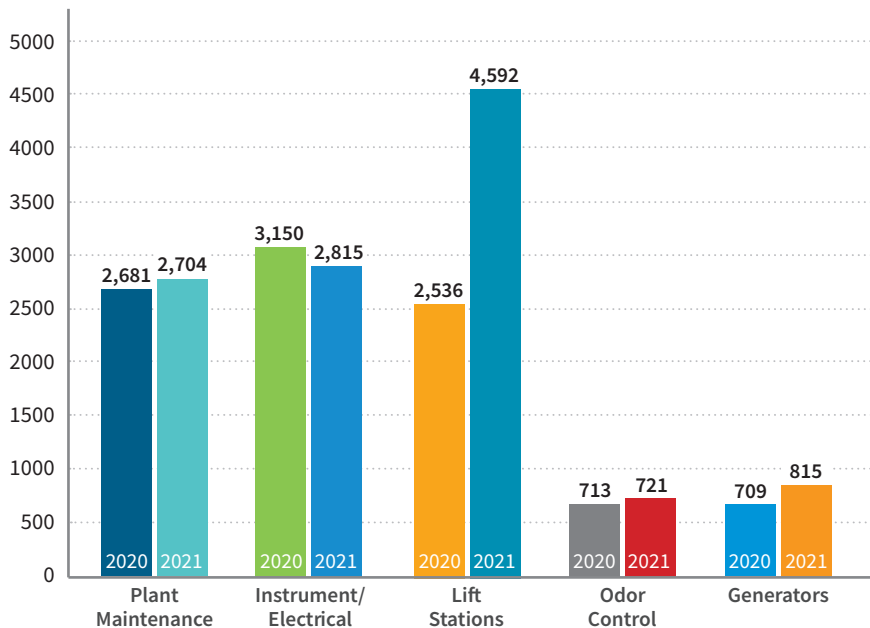
During Fiscal Year 2021, a total of 2,079 work orders were completed with 470 of those being cyclical preventive maintenance-type work orders. A large percentage of our maintenance and repair efforts and material expenditures are for the many large facilities located in the Ellyson Industrial Park complex. This division is also responsible for and frequently responds to other locations such as the Materials Recycling Facility, the Godwin Sanitation complex, outlying Regional Services facilities, Water Reclamation facilities and numerous Lift Station and Water Well structures.

A controlled inspection program was initiated and a 12-month schedule established for those facilities under the Division's responsibility with a group of buildings being inspected every month. The purpose of the inspection is to be proactive and identify interior and exterior building conditions, repairs, cleanliness, any safety and health discrepancies, indoor air quality issues, and to communicate and understand occupant concerns. Inspections also include accessing and walking the facilities' roofs and touring the exterior grounds.

### Some of the significant accomplishments during the fiscal year include:

- Providing emergency response and immediate repairs to damaged facilities and infrastructure:
  - October 2020 – Hurricane Sally Disaster Recovery
  - March 2021 – Sanitation Complex Fire
  - July 2021 – Materials Recycling Facility Fire
- Implemented/renewed service and maintenance contracts in HVAC, Life Safety, Fire Protection, Conveyance Systems and Pest Control.
- Established and maintained custodial protocols to ensure buildings and workspaces were cleaned and sanitized in accordance with CDC guidance during COVID-19 outbreaks.
- Installed Global Plasma Solutions Needlepoint Bipolar Ionization and Ultraviolet lighting (UV) in large HVAC air handling units. This proven technology eliminates pathogens that cause disease, reduces air borne particles, neutralizes odors and saves energy.

## NUMBER OF WORK ORDERS COMPLETED BY DIVISION



### Instrument/Electrical (I/E Division)

The division completed 2,815 work orders related to preventive maintenance, capital improvements and standard repairs this fiscal year. We provided training to I/E personnel on Basic Instrumentation and Confined Space Entry and provided Arc Flash and Lock-out/Tag-out training to the entire Maintenance and Construction Department.

Following Hurricane Sally, crews made repairs to 19 lift station control panels, 92 SCADA antennas, replaced the 30-inch Magnetic flow meter at the Government Street Regional Lift Station, and oversaw and assisted the replacement of the antennas and cabling on the Rolling Hills SCADA repeater site tower. Crews also assisted with the electrical and controls repairs following the fire at the Materials Recycling Facility.

At the West Pensacola Water Well, crews assisted with the electrical upgrades to raise the equipment above the flood level, and the pump control panel replacement. I/E crews commissioned 6 new lift stations, installed the electrical components for emergency generators and Automatic Transfer Switches at 3 lift stations, installed odor control mixers and control panels at 5 lift stations, and installed surge protection devices at 18 lift stations and 2 water well sites. Additionally, I/E assisted with the upgrades to the Septage Receiving Hauler Access Station, including the servers, hardware and software.

### Information Systems/Warehouse Division

The Division received and issued 1,070 parts through the Infor EAM (Enterprise Asset Management) system at the CWRf warehouse. This database continues to expand with 830 new part records created, for a total of 13,988 part records.

Consumable hardware and fittings are now vendor-stocked on site. This contributed to a continued reduction from FY20 in non-work order-related credit card purchases and a savings in non-productive labor hours. The annual CWRf warehouse inventory and audit were completed with zero discrepancies.

**971 purchase requisitions were processed through the Infor EAM.**

### Lift Stations (LS) Division

The division completed a total of 4,592 work orders related to preventive maintenance, capital improvement projects and standard repairs this fiscal year. The progression program for our LS employees continues to pay dividends, with four of our five new LS Trainee employees earning a Class C Wastewater Collection Certification this year, and two of our Lift Station Mechanic II employees passing the Class A Wastewater Collection Certification and promoting to Lift Station Mechanic III.

Experiencing multiple hurricanes and flooding rain events in past years prompted the implementation of a Hurricane Preparedness package plan with United Rental and Gulf Coast Underground to guarantee our access to needed equipment during weather events, and minimizing sanitary sewer overflows (SSOs) throughout the year.

The prevention of SSOs, costly major mechanical problems, and clogged force mains continues to be a priority, along with the regular use of two vacuum trucks to remove fats, oils, grease (FOG) and rags from all of our lift stations. We removed a total of 422,685 gallons of FOG this past year. The vacuum trucks also assisted various divisions and contractors with multiple small and large shutdowns, which were instrumental in preventing possible SSOs.

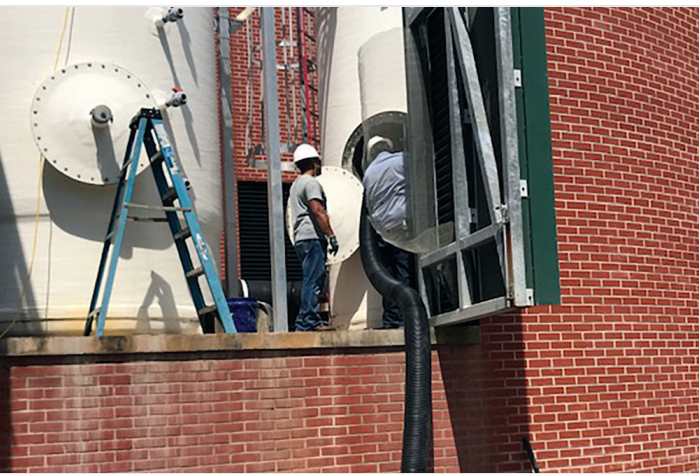
Our LS crews operated and maintained 376 lift stations and worked with ECUA Engineering and multiple contractors to: replace LS 56 (Coventry Estates), replace LS 143 (Well Line Road) and remove the old stations; and remove LS 13 (Evergreen) from our system. In addition, our crews re-piped several of our older, existing stations due to age-related pipe deterioration.

### Plant Maintenance

The division coordinates all preventive mechanical maintenance at ECUA's three wastewater reclamation facilities, three regional pump stations, the Materials Recycling Facility, and the Composting Facility. The Plant Maintenance division completed over 2,704 work orders in FY 2021, while also executing, supporting, and directing contractors on capital improvement projects for ECUA.



# Maintenance & Construction



## Odor Control Division

Our Odor Control Division's two-man crew completed 721 preventive maintenance and emergency work orders, and dealt with numerous customer odor complaints. Additionally, the crew serviced and maintained 42 odor control media scrubbers and blowers at all lift stations and our three water reclamation facilities; serviced and replaced the media and cleaned the scrubbers at ECUA's three Regional Pump Stations bi-annually to minimize odor complaints; serviced and replaced the media on all of the CWRf transmission main vents; and collected monthly hydrogen sulfide (H<sub>2</sub>S) readings.

## Government Street Regional Pump Station

Plant Maintenance removed the existing 490HP pumps and replaced them with four 536HP submersible pumps. Our I/E crews modified the control panels, wiring, and PLC programming to accommodate the upgraded 536HP pumps, which resulted in an increase in the station's capacity and efficiency. This upgrade was vital to prevent any potential catastrophic failure in the wastewater discharge system to the CWRf. Plant Maintenance installed new pump base plates made of 1½" stainless steel, new ductile iron pump bases, as well as the four new 536HP submersible pumps and guide rail systems. The wet well liners were repaired and the influent channels and grinder pits were re-coated, due to deterioration caused by gases.

## Generator Division

Our Generator crew completed 815 preventive maintenance and emergency work orders. These included: the servicing and maintenance of 40 portable and 68 permanent generator units in the ECUA system; the installation of an automatic transfer switch (ATS) for portable units at multiple lift station sites; the weekly load testing and verification of ATSs; and the management of fuel tank inspections and tank compliance with the Florida Department of Environmental Protection (FDEP).

Additionally, staff and crews continued with a generator fuel testing system that entails polishing and cleaning of the fuel to prevent algae and condensation from building up in the fuel tanks during long-term storage. The clean fuel has reduced the amount of clogging on injectors and increased the life span of the fuel filters on the equipment. Crews also cleaned and painted seven fuel tanks located at various facilities throughout our system.

Crews have added rebuilt and spare generators to multiple critical lift stations to help prevent sanitary sewer overflows during emergency power outages. We have placed generators at LS 119 (Patricia Drive), LS 155 (Flag Pole), LS 40 (Marcus Point) and LS 97 (King's Road).

We have also purchased two natural gas generators to place at the smaller re-pump stations in large neighborhoods to help prevent sewer backups during long term and emergency power outages. These generators were installed at LS 322 (Busbee Plantation) and LS 87 (LaBelle Terre).

**Two natural gas generators were purchased and installed to help prevent sewer backups.**

## Central Water Reclamation Facility (CWRf)

The five 150HP effluent vertical turbine pumps were completely overhauled this year with new bowl assemblies, wear rings, shafts, guide bushings and bearings. Rehab was needed due to the loss of pumping capacity of these pumps, which supply the reuse water tanks with effluent water and are vital to feeding our distribution customers and spray field.

Plant Maintenance and I/E crews upgraded the Reuse water pumps and variable frequency drives (VFDs) from 150HP to 400HP. Plant Maintenance removed three existing 150HP split-case horizontal pumps and replaced them with three 400HP pumps. Mechanics performed all necessary millwright work and piping weldment to allow for a successful installation. I/E staff provided conduit work, temporary power, and programming modifications, for the project. The larger capacity pumps now allow us to provide reuse water simultaneously to the International Paper Mill, the Wetlands, as well as all zones in our northernmost spray field.

Plant Maintenance completed the installation of six new chopper pumps, replacing the existing pumps on the waste activated sludge (WAS) pumping system. This upgrade was necessary due to the constant ragging and inefficient performance of the existing pumps that contributed to plant process issues.



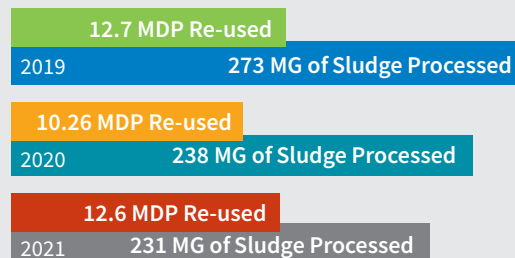
The Water Reclamation Department employs 42 licensed operators, 16 of which have the highest license issued by the State of Florida to oversee operations at three locations, 24 hours per day, 7 days per week. Three Water Reclamation operators advanced to the next level of FDEP-issued Operator's licenses after passing required coursework, on-the-job training, and a rigorous exam.

## BioSolids Handling

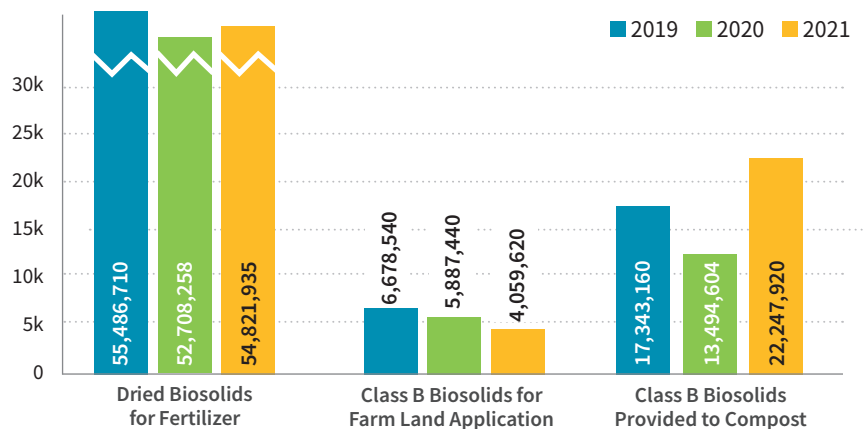
The ECUA Biosolids Facility located at the CWRP processes sludge from all three of our water reclamation facilities. In fiscal year 2021, the facility processed approximately 231 million gallons of sludge from our three facilities, using it to create approximately 12.6 million dry pounds (MDP) of biosolids for beneficial reuse as fertilizer and compost.

CWRP biosolids drivers hauled 534,921 wet pounds in 4,212,000 gallons from the Pensacola Beach WRF, and 3,395,893 wet pounds in 9,813,500 gallons from the Bayou Marcus WRF. Operations staff in biosolids handling also collected and analyzed more than 18,000 samples for permit compliance and operational purposes, meeting all 714 permit compliance metrics.

## SLUDGE PROCESSED AND RE-USED

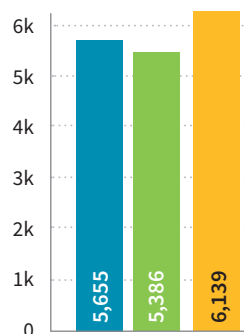


## BIOSOLIDS PRODUCED IN WET POUNDS

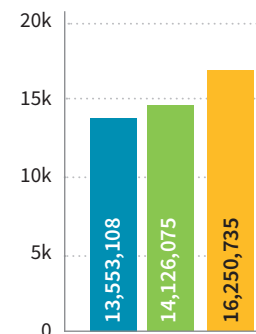


## SEPTAGE RECEIVED

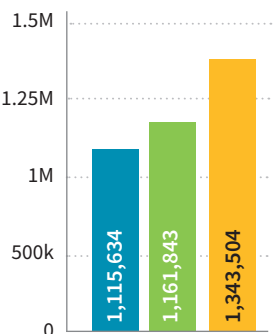
### Septage Loads



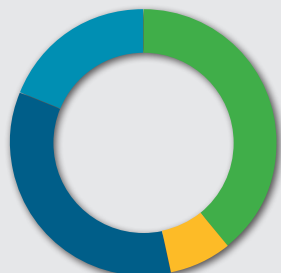
### Septage Volume In Gallons



### Septage Revenue In Dollars

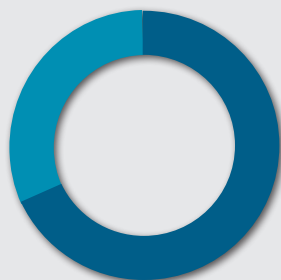


# Water Reclamation



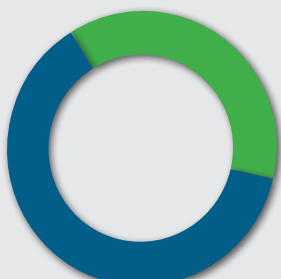
4.164 BG\* of reclaimed water from the CWRW were reused

■ Gulf Power.....	1.638 BG
■ On-Site Reuse.....	0.307 BG
■ International Paper.....	1.436 BG
■ Sprayfields.....	0.783



2.221 BG\* of reclaimed water from the Bayou Marcus WRF were reused

■ Northern Wetlands.....	1.561 BG
■ Southern Wetlands.....	0.660 BG



38.42 MG\*\* of reclaimed water from the Pensacola Beach WRF were reused

■ SRIA Flow .....	24.06 MG
■ On-site Reuse .....	14.36 MG

\*Billion Gallons \*\*Million Gallons

## Central Water Reclamation Facility (CWRW) Pollutant Removal

PARAMETER/CALCULATION	EFFICIENCY	LBS. REMOVED	ANNUAL AVERAGE	DEP PERMIT LIMIT
Carbonaceous Biochemical Oxygen Demand (CBOD)	99.3%	10,937,434	1.7 mg/L	5.0 mg/L
Total Suspended Solids (TSS)	99.8%	17,106,207	0.6 mg/L	5.0 mg/L
Total Nitrogen (TN)	98.1%	1,950,224	0.8 mg/L	3.0 mg/L
Total Phosphorus (TP)	98.9%	293,101	0.07 mg/L	0.4 mg/L

The CWRW had a total flow of 5.641 BG in FY 2021 and earned a Silver Award from the National Association of Clean Water Agencies (NACWA) for the 2020 calendar year, maintaining compliance with all but one of its 5,285 compliance metrics. This marks the sixth year for receiving an award out of nine eligible years.

Sampling and data analysis are of utmost importance in maintaining compliance with all rules and regulations from the FDEP and the EPA at the CWRW. In FY 2021, CWRW Operations staff pulled more than 4,400 samples and performed data analysis on more than 11,000 results for submitting reports to regulatory bodies and process control.

## Bayou Marcus Water Reclamation Facility

PARAMETER/CALCULATION	EFFICIENCY	LBS. REMOVED	ANNUAL AVERAGE	DEP PERMIT LIMIT
Carbonaceous Biochemical Oxygen Demand (CBOD)	99.79%	3,480,285	1.3 mg/L	5.0 mg/L
Total Suspended Solids (TSS)	99.94%	4,292,185	0.5 mg/L	5.0 mg/L
Total Nitrogen (TN)	99.17%	786,082	1.2 mg/L	3.0 mg/L
Total Phosphorus (TP)	98.72%	93,245	0.22 mg/L	1.0 mg/L
Ammonia (NH3)	99.98%	564,769	0.02 mg/L	1.6mg/L

The Bayou Marcus WRF had a total flow of 2.221 BG in FY 2021 and earned a Silver Award from NACWA for the 2020 calendar year, maintaining compliance with all but 2 of its 3,584 compliance metrics. As a community partner, the Bayou Marcus WRF also treated more than 16.4 million gallons of leachate from Escambia County's Perdido Landfill.

Excessive rainfall events this year have led to significantly higher flow rates at our facility on the west side of Pensacola. A total of 98.96" of rain fell at the Bayou Marcus WRF leading to an annual average of 648,000 per day of influent flows above our FY 2020 average to be treated.



## Pensacola Beach Water Reclamation Facility

PARAMETER/CALCULATION	EFFICIENCY	LBS. REMOVED	ANNUAL AVERAGE	DEP PERMIT LIMIT
Carbonaceous Biochemical Oxygen Demand (CBOD)	98.4%	391,707	1.12 mg/L	5.0 mg/L
Total Suspended Solids (TSS)	99.0%	221,519	0.8 mg/L	5.0 mg/L
Total Nitrogen (TN)	95.9%	88,173	1.3 mg/L	3.0 mg/L
Total Phosphorus (TP)	98.0%	11,336	0.08 mg/L	1.0 mg/L

The Pensacola Beach WRF had a total flow of 348.56 MG in FY 2021 and earned its third consecutive Gold Award through NACWA for Calendar Year 2020, maintaining compliance with all 4,240 compliance points.

The Pensacola Beach WRF continues to improve and upgrade its operational capabilities and physical structures to ensure long-term sustainability. This year, the facility's equipment control system received significant upgrades allowing greater operator control and new meters were installed, ensuring compliance with all requirements. In addition, two significant pipe replacement and lining projects, and a manhole replacement were completed.

## Industrial Pretreatment Program (IPP)

The ECUA IPP is a regulatory oversight division as required by the Florida Department of Environmental Protection and the Environmental Protection Agency, in support of the National Pretreatment Program. In 2021, we continued to work with local industries by maintaining active industrial discharge permits and monitoring wastewater discharges through sampling efforts and analytical report reviews. Part of that includes the implementation of the Industrial Surcharge program to ensure those industrial dischargers that contribute higher levels of common pollutants are independently charged for their contribution, ensuring all other domestic users are not unfairly charged for the increased cost of wastewater treatment. During the 2021 fiscal year, the ECUA IPP collected 733 wastewater samples from industry providing the basis to recover over \$1.07 million dollars in treatment cost for more than 205 million gallons of industrial wastewater discharged to the Central Water Reclamation Facility (CWRF) and over \$96,000 dollars in treatment cost for more than 16 million gallons of industrial wastewater discharged to the Bayou Marcus Water Reclamation Facility (BMWRF).

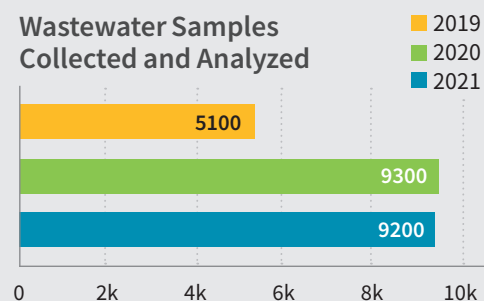
Other oversight accomplishments included the inspection of all 11 of the Significant Industrial Users (SIU's) of the sewer system and an update to ECUA's Sewer Use Ordinance as is required by the FDEP. To date, the ECUA IPP has received 54 federally mandated One-Time Compliance Reports from dental facilities and has identified 16 facilities that are exempt from current regulations.

## Water Quality Laboratory

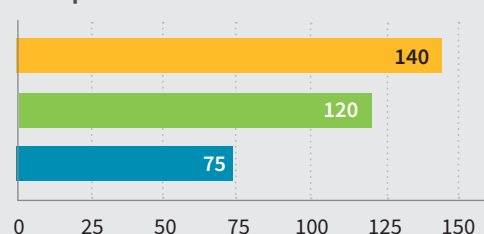
The Water Quality Laboratory division is comprised of 10 Laboratory Analysts who facilitate the collection and analysis of samples in support of the Water Production, Wastewater Infrastructure, Regional Services, and Customer Service Departments. This year, the laboratory collected and analyzed more than 9,200 wastewater samples, more than 4,000 samples for the potable water system, and successfully resolved more than 75 customer service complaints through a combination in-home visits and phone calls. In addition, the Water Quality Laboratory Analysts coordinated the collection and analysis of 72 samples for Synthetic Organic Contaminants, as mandated by the FDEP. Additionally, these Laboratory Analysts collected and analyzed samples for EPA's required Stage 2 of the DBPR (Disinfection Byproduct Rule) while also collecting and analyzing samples for Volatile Organic Contaminants, Sanitary Sewer Spills, PFAS, Boil Water Notices, Best Management Practices, Main Clearances, and over 2100 Distribution samples as required by FDEP.

The laboratory also successfully completed six proficiency testing evaluations, which look at comparative sample analyses to maintain its National Environmental Laboratory Accreditation Program (NELAP) and Department of Health Certifications.

## Wastewater Samples Collected and Analyzed



## Customer Service Complaints Resolved



# Regional Services

## Regional Services East, West and South

The Regional Services (RS) Department consists of three regions (East, West, and South), which are collectively responsible for maintenance of the entire water distribution system, wastewater collection system, and wastewater force main system, along with all of the appurtenances that belong to these systems. The three regions are supported by the wastewater maintenance division, valve maintenance division, fire hydrant maintenance division, and pavement repair/debris removal division. Approximately 168,000 work orders were completed throughout the entire department during Fiscal Year 2021, averaging nearly 14,000 work orders per month. When fully staffed, the RS department employs 115 employees, which equates to over 120 work orders completed per employee on a monthly basis.

There are over 121,000 water meters in the ECUA water distribution system, and almost 92,000 of the 168,000 completed work orders were related to maintenance or service of water meters. All three regions continued the effort to repair or replace components of water meters with automatic meter reading (AMR) technology. A transition to AMR meters began more than ten years ago and the demands to repair or replace components, predominantly the register or the communication mechanism, have increased dramatically as the end of the warranty period on these devices approaches.

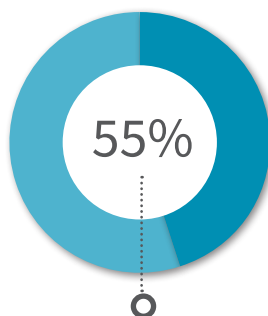
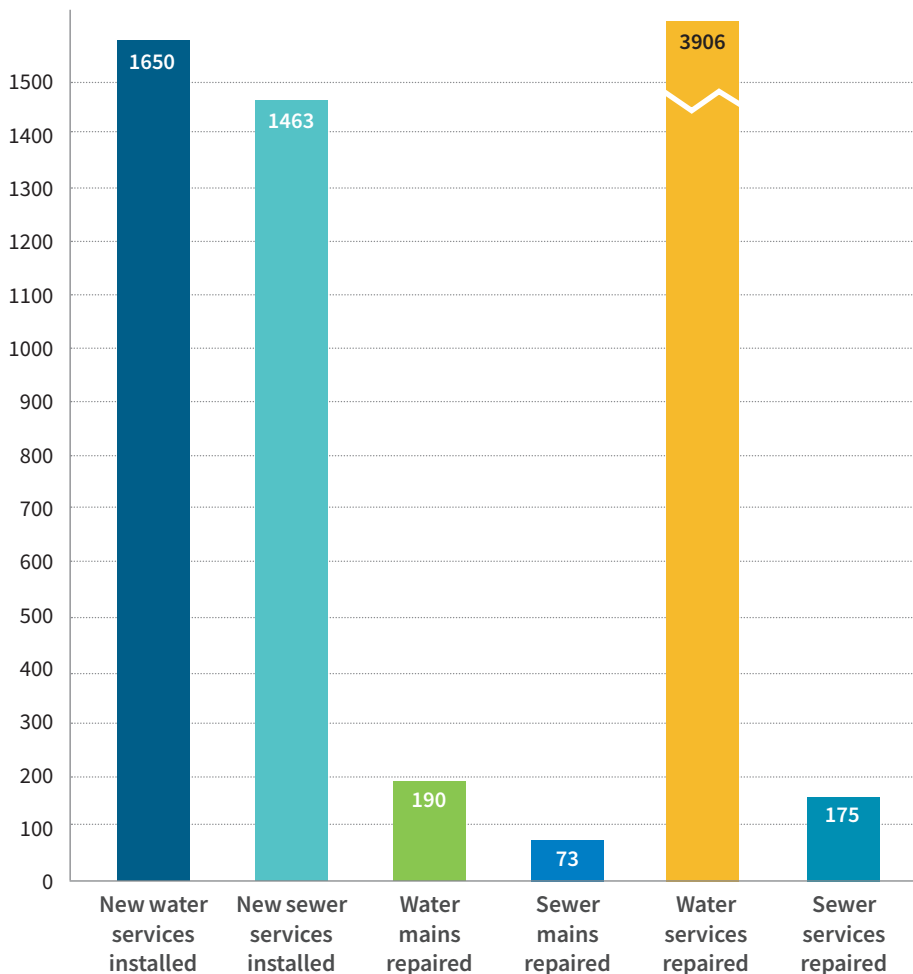
## Work orders completed in 2021 increased by 16%

168,000 work orders were completed in 2021

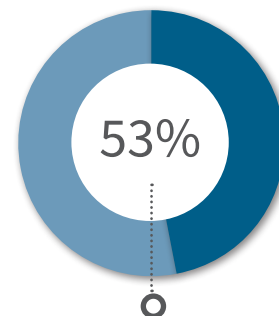
142,000 work orders were completed in 2020

Regional Services received nearly 30,000 utility locate requests, of which over 9,000 required marking in anticipation of future construction proximal to ECUA's infrastructure.

## REGIONAL SERVICES WORK INCLUDED:



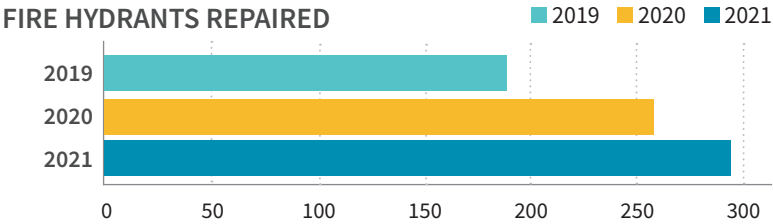
PERCENTAGE OF WORK ORDERS IN 2021 RELATED TO MAINTENANCE OR SERVICE OF WATER METERS



PERCENTAGE OF WORK ORDERS IN 2020 RELATED TO MAINTENANCE OR SERVICE OF WATER METERS

Fire Hydrant Division (FH)

ECUA's water distribution system contains more than 7,600 fire hydrants that require maintenance and testing. In FY 2021, the division repaired 294 hydrants, performed preventive maintenance on nearly 2,500 hydrants and tested them to evaluate flow performance, installed 2 new hydrants, replaced 15 outdated two-port hydrants or damaged hydrants with newer three-port hydrants, and performed 48 flow tests. The flush crew is a part of this division and performs a vital role in the maintenance of water quality in the distribution system. Over the year, the division flushed nearly 250 dead-end water mains and performed more than 300 flushes in response to concerns about discolored water. The division completed four unidirectional flushing operations — a method used to achieve a more aggressive flush through increased water velocity in the pipe. The crew also installed five new automatic flushing devices on hydrants or other flush points, which are designed to automatically perform scheduled flushes with the use of a timer. This helps maintain water quality with only minimal maintenance by employees and reduces the demand on employee time and equipment. The group now maintains 274 automatic flush devices. The hydrant crew also performed 27 valve insertions, which is a method used to install a valve without having to shut down the water or sewer main, thereby limiting disruptions to customers' service and promoting efficient use of employee time.



Wastewater Maintenance Division (WM)

The Wastewater Maintenance (WM) Division coordinated with the Wastewater Infrastructure Division to reduce the number of sanitary sewer overflows (SSOs) that occur. Using five vacuum trucks, WM cleaned more than 1,217,000 feet of pipe this year in the gravity sewer collection system, and removed grease and other obstructions to restore proper function of the system. WM also used closed-circuit television to inspect over 336,000 feet of sewer pipe. These inspections yielded valuable information and identified 74 substantial pipe deficiencies that are now repaired.

The division responded to 1,115 calls from customers to investigate problems in the collection system, and completed over 500 work orders issued by other divisions and departments. Working with contractors, WM addressed root intrusion issues within areas of the collection system that are difficult to access, and implemented a biological treatment process to relieve extreme grease build up in areas of the collection system that are in close proximity to commercial food establishments. The division performed smoke and dye tests of sewer mains in ten areas where severe Inflow and Infiltration (I&I) were noted in order to identify the deficiencies, have them repaired, and eliminate those sources of I&I.

Fats, Oils and Grease Division

The Fats, Oils, and Grease (FOG) Division manages a program to enforce compliance with ECUA's FOG disposal requirements. The program involves inspection of 997 food service establishments (FSEs) to reduce the discharge of FOG into the collection system. The FOG division performed more than 1,657 total inspections of FSEs and also continued to manage discharge permit applications from FSEs in accordance with Chapter 6 of the ECUA Code.

An additional collection site was added for the Residential Cooking Oil Disposal Program, bringing the total number of sites to 15. These drop-off locations provide customers with an appropriate means of disposal for used cooking oil. More than 17,000 gallons of used cooking oil were collected at these sites over the year. The FOG division also worked directly with citizens to promote the reduction of FOG discharges by residential customers. Four apartment complexes and one mobile home park were targeted with public awareness campaigns reaching an estimated 1,000 residents.

Valve Maintenance Division (VM)

The Valve Maintenance (VM) division maintains approximately 500 air release valves (ARVs) and nearly 22,000 valves in the water distribution system. Depending on the valve's condition, all the ARVs in the system were inspected and maintained every 30, 60, 90, 120 or 180 days, including 69 ARVs on the critical CWRf central transmission main. These valves were inspected and maintained at least on a quarterly basis.

VM and the Fire Hydrant Division staff located and exercised more than 4,300 water valves throughout the year. The division repaired 70 broken water valves and replaced or brought 638 valve boxes up to grade for enhanced accessibility. Overall, VM staff provided frequent support to the three regions as well as various other departments and divisions of ECUA including Engineering, Lift Stations, Plant Maintenance, and ECUA contractors by operating and maintaining valves critical to maintenance or capital improvement projects.

Staff completed 1,420 work orders to perform preventive maintenance on ARVs, as well as the abandonment of 12 ARVs to eliminate the threat of sewer overflows at these locations.



# Regional Services

## CAPITAL IMPROVEMENTS

### Easement Access And Maintenance

Root intrusion from heavy vegetation is one of the leading causes of water main and sewer main fractures. Through the use of our annual clearing contract, we cleared approximately 4,500 linear feet of heavily wooded utility easements throughout the service area.

### Pensacola Beach Influent Manhole Replacement

The main influent manhole at the Pensacola Beach Water Reclamation Facility receives every drop of wastewater collected on Pensacola Beach before it is routed through the plant. The manhole liner failed, which allowed significant corrosion of the concrete and rendering it structurally unstable. A project to replace this manhole was completed in FY 2021 at a total construction cost of \$361,000.

### Warrington Sewage Drying Beds

A project to upgrade the sewage sand drying beds at the Warrington facility was bid and began construction in early 2022. This facility is utilized by ECUA, contractors working for ECUA, and local private contractors to dump solids, primarily sand, that are removed from the sewage collection system with vacuum tankers. Construction is scheduled to be completed in FY 2022 at a total construction cost approaching \$250,000.

### Transmission Main Bypass System Master Plan

A project was initiated to have an engineering firm develop a master plan for a system of permanent bypasses on the CWRP Transmission Main. When completed, the system of bypasses will be used to divert flow from the transmission main, without interruption of service, in order to make emergency repairs or to perform planned maintenance. The master plan will identify the most critical segments of the transmission main, the best routes along which to install the bypasses, hydraulic considerations to ensure that the system works effectively, estimated costs of construction, and a plan for implementation. The cost of the engineering services is approximately \$275,000.

The total construction cost to replace the 16-inch gate valve is approximately \$70,000.

### Via DeLuna Valve Replacement

Regional Services installed one 16-inch valve insertion to replace one of four 16-inch horizontal gate valves that had failed on Via De Luna Drive. These are critical components required to isolate portions of the water main in order to perform emergency repairs in a safe and timely manner. An additional 16-inch gate valve was installed in February 2022.

### Perdido Key Meter Station Flow Meter and Valve Replacement Project

Regional Services worked in conjunction with the Water Production Department to complete a project to remove the existing propeller flow meter at the Perdido Key Metering Station and replace it with a magnetic flow meter, which would increase accuracy and improve data collection during low flow periods. Regional Services also discovered four crucial twenty-four inch gate valves to be inoperable and included the replacement of those valves within the scope of the project. Construction was completed in February 2022 at a total construction cost of \$58,000.

### Rolling Hills Central Transmission Main Restoration

The critical 42-inch wastewater transmission main through the Rolling Hills Landfill was undermined and exposed as a result of catastrophic flooding in April 2014. A stabilization project to secure the force main and mitigate future damage from severe runoff was publicly bid and awarded. Construction was completed in FY 2021 at a construction cost of approximately \$720,000.

### Bob Sikes Bridge Pig Launch

The storm surge from Hurricane Sally eroded the area around a 24-inch pig (swab) launch station located on the north side of the Bob Sikes Bridge. This station serves as the entry point for the "pig" used to clean the water main under Santa Rosa Sound. The corroded valves and fittings were removed and replaced. Due to supply delays, the project is on-hold awaiting a concrete vault enclosure for completion, which should be finalized by Summer 2022.

The total construction cost for the pig launch replacement is approximately \$100,000.



## **EMERGENCY PROJECTS COMPLETED IN FY 2021**

### **Dartmoor Drive Sewer Main Extension**

A sanitary sewer manhole in the roadway of Coronet Drive failed due to heavy I&I induced by high ground water. This required ECUA Regional Services to remove the existing manhole and make a temporary repair. ECUA Regional Services quickly designed and solicited quotes to install a gravity sewer main extension along Dartmoor Drive to eliminate the need for the manhole that was removed, as well as a problematic gravity sewer main between four homes that was filled with concrete, completing the project in January 2022. The total construction cost for the sewer main extension is approximately \$85,000.

### **Choctaw Avenue/Huron Drive Manhole Replacement**

A failing sanitary sewer manhole in the intersection of Choctaw Avenue and Huron Drive within the Perdido Bay Country Club Estates, due to heavy I&I induced by high ground water, required ECUA to hire an emergency contractor to remove and replace the manhole. ECUA performed the sewer by-pass pumping and provided the construction materials to the emergency contractor. The road restoration was completed using an existing ECUA Contract. The total construction cost for the manhole removal and replacement was approximately \$50,000.

### **Cervantes Street Manhole Replacements**

Failing sanitary sewer manholes in the FDOT intersections of Cervantes Street and C Street and Cervantes Street and B Street, due to heavy I&I induced by ground and storm water, required ECUA to hire an emergency contractor to remove and replace the manholes. Since the manholes were within the FDOT roadway, ECUA and its contractor had to work continuously from initial closure until final restoration. ECUA performed the sewer by-pass pumping and provided the construction materials to the emergency contractor. The road restoration was completed using an existing ECUA Contract. The total construction cost for this project was approximately \$165,000.

### **Lillian Highway 8-inch HDPE Water Main**

Regional Services responded to low water pressure complaints along Lillian Highway in the vicinity of Jolyne Drive and Lazy Acres Street to discover a ruptured 8-inch Transite water main crossing a creek near 10770 Lillian Highway. The Department installed valves on both sides of the creek to restore adequate pressure and water service to area customers, then designed and solicited quotes from horizontal directional drilling contractors to replace the failed water main with 400 linear foot of 8-inch HDPE water main. The total construction cost for the replacement of the ruptured water main was approximately \$70,000.

### **La Caribe at Fort Pickens Manhole Replacement**

The Department discovered that two collapsing and inactive 8-inch gravity sewer stub-outs were causing the failure of a sanitary sewer manhole at the intersection of La Caribe Drive and Fort Pickens Road, as well as damage to the roadway. Regional Services solicited a contractor to properly abandon the inactive stub-outs and repair the roadway. The total construction cost for the project was approximately \$11,000.

### **Bayou Marcus Pipe Replacement**

The failure of a critical 42-inch ductile iron sewer pipe at the Bayou Marcus WRF prompted an emergency repair of the pipe, during which it was discovered that the rest of the pipe along this segment needed replacement due to corrosion. A bypass system was set up by Regional Services personnel to divert flow from the pipe while a contractor installed new PVC pipe, which is resistant to corrosion. The total cost for the emergency repairs, bypassing, and installation of new pipe was approximately \$700,000.

### **Miscellaneous Valve Replacement Project 2021**

Regional Services performs preventive maintenance on all valves throughout the water system and has identified 40 inoperable water valves, ranging in size from four-inch to 16-inch, in need of replacement. The project has been bid and began construction in March 2022. Construction is scheduled to be completed in FY 2022 at a total construction cost approaching \$675,000.

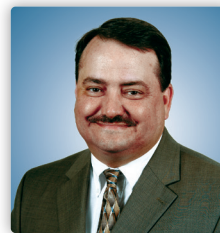
# Executive Staff



**Don Palmer, PE**  
Deputy Executive Director of  
Engineering & Environmental  
Services



**Gerry Piscopo, BSME**  
Deputy Executive Director of  
Maintenance & Construction



**Randy Rudd, BS/CISWM**  
Deputy Executive Director  
Shared Services



**Gabe Brown, BSOL**  
Director of  
Customer Services



**John Daane, MBA**  
Director of  
Information Technology



**Tom Dawson, Jr., PE**  
Director of  
Water Production



**Stacy Hayden, PE**  
Director of Engineering



**Brian Reid, PE**  
Director of  
Regional Services



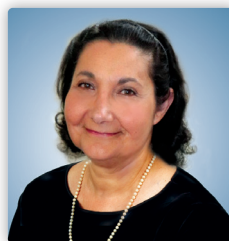
**Kimberly E. Scruggs, MPA, SPHR**  
Director of Human Resources &  
Administrative Services



**Randy Sears, MS, MSA**  
Director of  
Water Reclamation



**Justin Smith, CPA**  
Director of Finance



**Nathalie Bowers, DFM, CBC**  
Public Information Officer



**Jim Roberts**  
Education Programs Specialist  
Three-time recipient of  
Edward R. Murrow Award



### JOHN TRYPUS • SUPERVISOR OF THE YEAR

This award is presented to John Trypus in recognition of his dedication and service to the Emerald Coast Utilities Authority.

John goes above and beyond to contribute to the ECUA mission every day. As the Utility Construction Inspector Supervisor, he is sought for advice and assistance by our engineers, Regional Services staff, and other personnel because of his positive demeanor, dependability, and vast utility experience. In addition to supervising his team of inspectors, John also visits job sites, works with contractors and developers to mediate situations in a positive way, requests quotes for engineering tasks, and reviews both system extension and capital improvement plans. His dedication to ECUA, its ratepayers, and the people whom he supervises, is unsurpassed. Because of his commitment to improving ECUA, he's always open to tackling additional work and getting the job done.

**JOHN'S CONTAGIOUS LAUGH ALWAYS MAKES PEOPLE SMILE AND WHEN NECESSARY, HELPS TO DIFFUSE THOSE STRESSFUL SITUATIONS.**

John's ability to motivate all employees and prioritize the safety and training of his staff are a benefit to all. Under his supervision, many of John's staff have acquired water distribution and sewer collection system operator's licenses that are above the level required of an inspector. John frequently coordinates with other departments and contractors to ensure utilities are being constructed with the long-term interests of ECUA in mind. He strives to provide a work environment that promotes camaraderie, integrity, and the value of a job well done. John is a true leader and mentor and his daily contributions to our organization, and dedication to his staff, are humbling. We are proud to honor John as our Supervisor of the Year for 2021.



### CHIQUITA PAYNE • EMPLOYEE OF THE YEAR

This award is presented to Chiquita Payne in recognition of her dedication and service to the Emerald Coast Utilities Authority.

Chiquita is always ready to assist employees with the kindest spirit, giving each her undivided attention with true professionalism. When asked for career guidance, Chiquita wholeheartedly provides thoughtful and caring advice, championing our employees and rooting for their success. She takes the time to listen to employees' concerns, and goes out of her way to do all she can to assure a positive outcome.

**TO SAY THAT CHIQUITA GOES "ABOVE AND BEYOND" IS CERTAINLY AN UNDERSTATEMENT.**

When most of us are already home, Chiquita is still at the office, working to respond to employees' and hiring managers' needs. Her knowledge of HR and willingness to share information and training with fellow employees go way beyond the expected by providing resources, ideas, and countless ways an employee can improve and expand their work performance. Chiquita is definitely a major asset to ECUA.

Chiquita's enthusiasm and mindset for "just doing her job" are refreshing and contagious! ECUA is blessed to have such a remarkable ambassador in our Human Resources Department. We truly hit the jackpot when Chiquita became a part of the ECUA family and are pleased to honor her as our Employee of the Year for 2021.





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