

## **Water Quality Crew**

### **Water Quality**

### **Staffing and Responsibilities**

We currently have three full time employees on our Work Order Crew.

- One Water Quality Crew Supervisor
- One Water Quality Tech
- One Backflow/ Cross-connection Coordinator
- Work requests include a variety of requests including but not limited to:
  - Water Compliance Testing/Sampling
    - Weekly for DEQ Compliance (MRT's)
    - Daily as routine maintenance
  - Coordinating Waterline Shutdowns and Outages
    - Schedule dates and times if not an emergency
    - Write and issue Advisories to DEQ
    - Notify Customers (by door hanger or Code Red)
    - Notify and collaborate with cities, towns, emergency management, fire departments, wholesale, commercial, industrial, medical facilities, and critical care customers if they are to be affected.
    - Notify utility leadership, water treatment plants, and utility phone centers.
    - Locate and operate valves.
    - Monitor system pumps, tanks, and pressures.
    - Flush waterlines and collect Bacteriological samples after repairs. (DEQ Compliance)
    - Write and rescind Advisories to DEQ.
    - Re-Notify Customers and all other entities included in the original advisory of sample results (by door hanger, Code Red, email, or phone)
  - Flushing / Cleaning waterlines
    - Routine maintenance
    - After all shutdowns and outages (DEQ Compliance)
    - Per customer request
  - Collecting Bacteriological Samples
    - New waterline acceptance (County Regs)
    - Following any and all shutdowns (DEQ Compliance)
  - Annual System wide flushing (DEQ Compliance) (3 months per year)
    - Operation of chlorine injection systems at pumping stations. (Daily)
    - Flushing of all dead-end lines within the system. (Daily)
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  - Low Pressure or no water calls
    - Customer complaints
    - Water System issues
  - Customer and Wholesale water quality complaints

## Request for Additional Personnel

### **Water Quality Crew Water Quality Current Projects**

#### **Annual Flushing Oct-Dec 2022**

##### **Shallotte Transmission Waterline**

- Sept 2022 – Tie in 1 (Smith Ave)
- Sept 2022 – Tie in 2 (Shallotte 2 Tank)
- Oct-Dec 2022 – NCDOT 211 Widening

ADM, Duke Energy, Wal-Mart, and businesses on 211 near Southport, Southport and, Jabbertown Rd., and Shallotte will be affected during these shutdowns.

#### **Upcoming Projects Oct 2022-23**

- NCDOT US 17 and Smith Ave Interchange
- NCDOT US 17 Business 17 Interchange North and South Shallotte
- NCDOT Calabash River Bridge Replacement
- NCDOT Caw Caw Swamp Bridge Replacement
- NCDOT NC 130 Longwood Rd Realignment
- NCDOT Midway Rd Bridge Replacement
- Navassa Waterline Replacement and Improvements

All Projects will require several major mainline shutdowns, possibly overnight. Scheduling and planning for each shutdown will take several days for each. Shutdowns require a minimum of four people to execute work timely and safely, overnight projects result in staff working extended hours and need be off the following day.

We have two Water Quality Employees.

## Water Quality Crew

### Backflow/ Cross-Connection Coordinator Staffing and Responsibilities

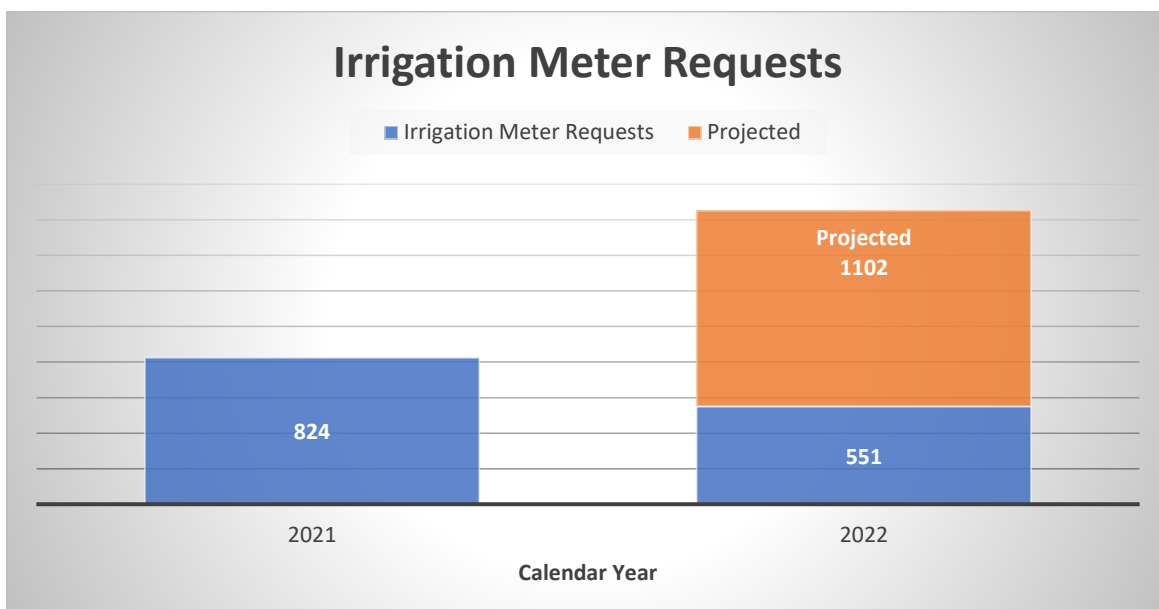
Water Quality Crew has one Backflow/ Cross-connection Coordinator who's work requests including but are not limited to:

- Irrigation Meter Installs
- Hydrant Flow Tests
  - System Design and modeling (Engineering)
  - Fire Flow Availability (Fire Departments)
  - Compliance testing (Fire Marshal)
- Backflow Inspections and monitoring of the county testing Contractor
  - Commercial
  - Residential
  - County Owned
- Bulk Water Permitting Program

### Irrigation Meter Installs

Irrigation Meter requests are projected to increase 34% in 2022.

- 2020 average was 38 requests per month.
- 2021 average was 69 requests per month.
- 2022 average is 79 requests per month.
- Along with their other duties, the BFC coordinator averages around 55 irrigation meter installations per month. This year we have utilized one of our Water Quality Techs and worked overtime to try and offset the numbers.

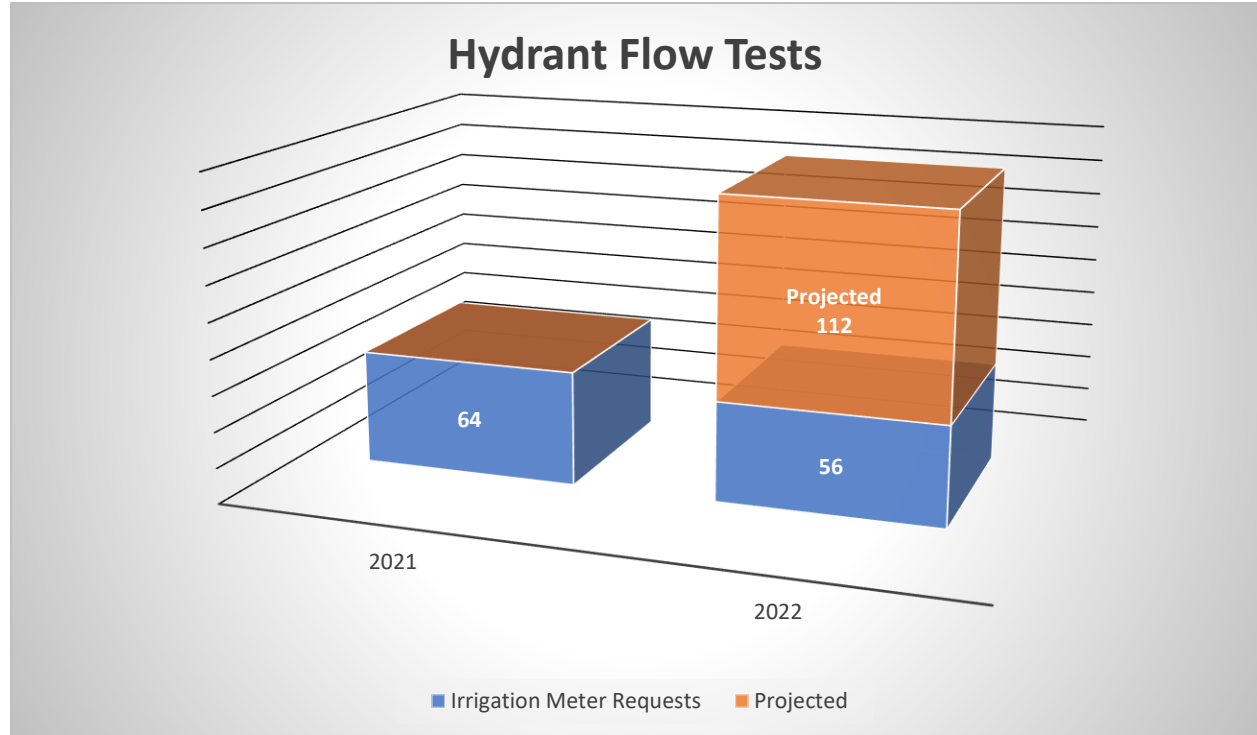


## Water Quality Crew

### Backflow/ Cross-Connection Coordinator Hydrant Flow Tests

- Hydrant Flow tests are requested by Engineers, fire departments and fire sprinkler companies for water and fire system design and modeling.
- Flow tests are required for the design of all new waterline additions to our system.
- In 2022 the County's Fire Marshal began requiring a flow test for all new waterline additions before they can be approved and accepted by the county, which doubles the number of tests expected to be performed.
- Flow tests require two employees to perform. One of our Water Quality Tech's, Maintenance Mechanics, or AMI Tech's assists when they are available, but this is not sustainable.

The chart below shows “hydrant flow tests requested” for calendar years 2021 and for the first six months of 2022 along with projections through the end of 2022.



## Request for Additional Personnel

We need at least three more Utilities Mechanic I-III positions in Water Distribution for the Work Order Crew to be able to provide quality, timely service to our customers, builders, contractors, and community.

## Request for Additional Personnel