

**Annual Report to the
North Carolina General Assembly**

***Bernard Allen Emergency Drinking
Water Fund***

(July 1, 2019 to June 30, 2020)

Division of Waste Management



**NORTH CAROLINA
DEPARTMENT OF ENVIRONMENTAL QUALITY**

<http://portal.ncdenr.org>

Table of Contents

Executive Summary	Page 1
FY 2019-20 Activities	Page 2
Alternate Water Provided	Page 2
Site Review and Research	Page 3
Sampling of Private Wells	Page 3
Summary of the Bernard Allen Fund	Page 5
Conclusions	Page 6

Executive Summary

The Bernard Allen Memorial Emergency Drinking Water Fund, administered by the N.C. Division of Waste Management, was created in 2006 by the General Assembly in G.S. 87-98 to improve the state's response to water supply well contamination and provide low-income households with a safe drinking water supply.

The fund has three authorized uses: 1) pay for notice to persons whose wells were at risk from groundwater contamination; 2) pay for the costs of testing private wells; and 3) provide an alternate drinking water supply to well owners affected by the contamination.

The Bernard Allen Program continues to provide critical services for many residents of North Carolina through well testing, providing emergency bottled water and assisting in permanent waterline connections or point-of-entry treatment systems for wells. In fiscal year 2019-20, the fund's resources continued to be focused primarily on providing alternate water to affected residents and investigating potentially contaminated wells across the state through sampling. The fund was used to collect 456 drinking water well samples statewide. Twenty-nine households received alternate water through bottled water, waterlines, treatment systems or treatment system maintenance this fiscal year using the fund. To date, 171 households have received alternate water through this fund. In implementing this program, the department regularly communicates with local health departments on water supply sample data and other activities related to the water supply well.

The Department of Environmental Quality is required to report no later than October 1 of each year to the Joint Legislative Oversight Committee on Agriculture and Natural and Economic Resources and the Fiscal Research Division of the General Assembly on the implementation of N.C.G.S. 87-98, the Bernard Allen Memorial Emergency Drinking Water Fund (fund).

FY 2019-20 Activities Update

In fiscal year (FY) 2019-20, uses of the Bernard Allen Memorial Emergency Drinking Water Fund (fund) administered by the Division of Waste Management (division), allowed the continued focus on three major priorities: 1) providing permanent alternate water sources, 2) reviewing and researching of sources of contamination (sites) that may have put nearby water supply wells and residents at risk, and 3) testing of private wells known or suspected of being contaminated. The activities conducted in FY 2019-20 are summarized below.

Alternate Water Provided

Bottled water was provided to five residences in four counties while treatment systems were under construction or additional research performed.

- | | | | |
|----------------------|---|------------------|---|
| • Guilford County | 1 | • Wake County | 2 |
| • New Hanover County | 1 | • Iredell County | 1 |

One residence was connected to municipal water service:

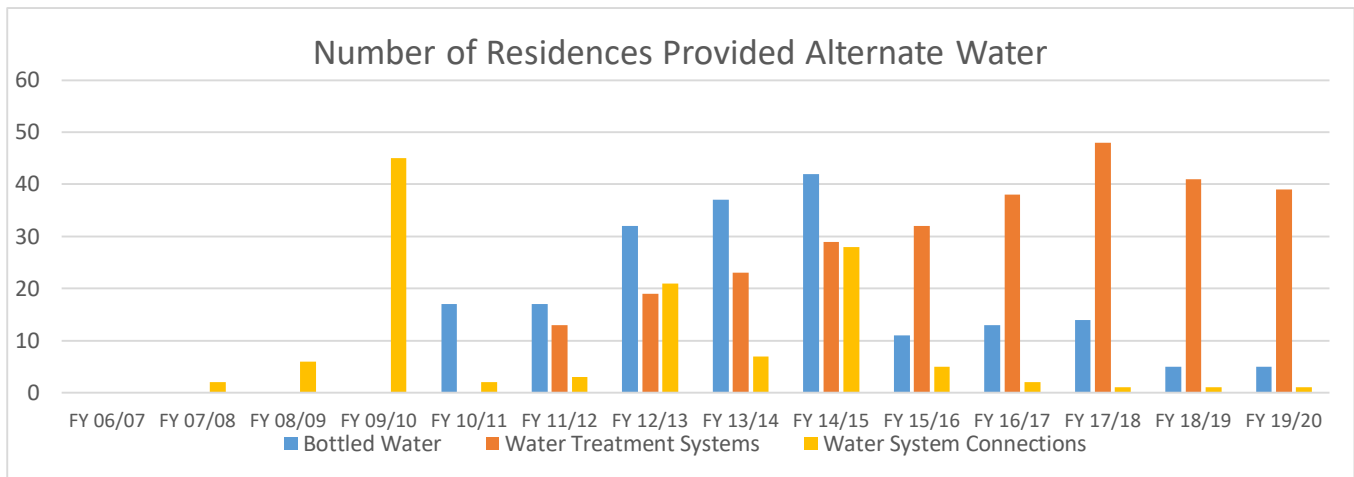
- Gaston County 1

Two residences have received point-of-entry treatment systems:

- | | | | |
|-------------------|---|---------------|---|
| • Guilford County | 1 | • Wake County | 1 |
|-------------------|---|---------------|---|

Maintenance was performed on existing point-of-entry treatment systems at 39 additional residences:

- | | | | |
|----------------------|---|---------------------|---|
| • Caswell County | 1 | • Randolph County | 4 |
| • Durham County | 2 | • Richmond County | 1 |
| • Gaston County | 4 | • Rockingham County | 1 |
| • Guilford County | 6 | • Stokes County | 2 |
| • McDowell County | 3 | • Surry County | 1 |
| • Mecklenburg County | 2 | • Union County | 1 |
| • Orange County | 2 | • Vance County | 1 |
| • Person County | 1 | • Wake County | 7 |



Site Review and Research

The Bernard Allen Program staff continue to evaluate new and existing discoveries of drinking water wells with known or suspected contamination. Local government and other records are researched to determine if any affected residences have been connected to municipal water systems, if other wells are in the area of concern that may potentially be affected, potential sources of contamination, and ownership of affected residences. Staff test the wells, and work with owners and local governments on alternate water supplies. An owner must meet the statutory requirement that annual household income not exceed 300 percent of the current federal poverty level.

Staff researched records for approximately 81 sites in FY 2019-20 - most with multiple residences and wells. Review of each file includes the following activities:

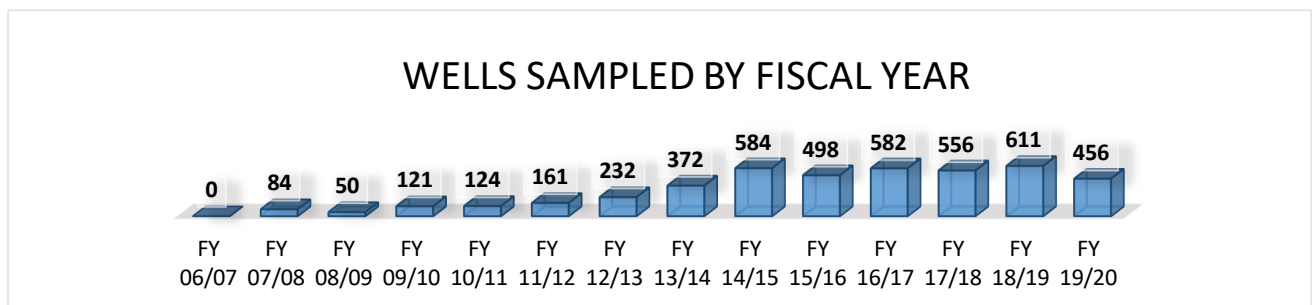
- Review of historical information about previous sampling and work done on the site(s);
- Identification of the affected properties;
- Identification of additional properties using drinking water wells within a 1000-foot radius of potentially affected properties;
- Identification of potential sources of contamination; and
- Location of public waterlines in the area to identify properties that have been connected to the public water system.

Sampling of Private Wells

Currently, there are total of 204 sites without an identified responsible party where groundwater contamination has affected drinking water wells. Most of these sites have contaminated multiple properties and drinking water wells. In many of these cases, the sources of contamination cannot be determined, and it is difficult to predict whether concentrations will increase or decrease over time as groundwater migrates.

There are an additional 132 sites with water supply wells located less than one-quarter mile from potential sources of contamination with no responsible party. These sites are threatening one or more residential properties or drinking water wells associated with them.

During FY 2019-20, 1,013 drinking water wells from across the state were evaluated for sampling. Samples were collected from 456 of these wells. The remaining 557 wells were not sampled because owners did not give permission for sampling, did not respond to the request, were determined to be connected to an alternate water supply or the property was vacant. Those parties where sample results exceeded drinking water criteria were sent health risk evaluations prepared by the division's toxicologist.



The number of sites within their respective county is shown below.

Site Locations of Drinking Water Wells Sampled in FY 2019-2020

<u>County</u>	<u># of Sites</u>	<u># of Wells</u>	<u>County</u>	<u># of Sites</u>	<u># of Wells</u>
• Ashe	1	7	• McDowell	1	2
• Buncombe	3	8	• Mecklenburg	14	42
• Caswell	1	7	• Moore	2	3
• Catawba	5	20	• New Hanover	2	23
• Chatham	1	7	• Pender	1	2
• Cleveland	1	2	• Person	1	14
• Craven	1	1	• Randolph	1	4
• Cumberland	1	14	• Richmond	2	6
• Currituck	2	18	• Rowan	4	41
• Dare	1	1	• Stanly	1	1
• Davidson	1	1	• Surry	1	9
• Durham	2	7	• Wake	9	106
• Gaston	12	97	• Watauga	1	2
• Guilford	10	109	• Yadkin	2	13
• Hoke	1	1			
• Iredell	5	36			
• Lincoln	2	7			

Summary of the Bernard Allen Memorial Drinking Water Fund

In FY 2019-20, the fund received \$400,000 in appropriations. Expenditures from the fund continue to be primarily used for connecting residences to municipal water systems, providing bottled water, installing point-of-entry treatment systems, maintaining existing point-of-entry treatment systems, and sampling and analyzing drinking water wells for potential contamination. A summary of fund expenditures is shown below.

Bernard Allen Memorial Emergency Drinking Water Fund

Accounting Summary

FY 2019-20

(as of June 30, 2020)

BEGINNING CASH BALANCE:		\$ 304,740.69
INCOME (Appropriations from General Fund):		\$ 400,000.00

EXPENDITURES:

<i>Description</i>	<i>Amount</i>
Lab Testing	\$ 41,435.00
Bottled Water	\$ 675.00
Water Service Connections	\$ 12,100.39
Point-of-Entry Treatment Systems	\$ 126,627.29
Contracted Work and Supplies Related to Sampling	\$ 97,947.53
Fund Administration	\$ 77,874.52
<hr/> Total Expenses	<hr/> \$ 356,659.73

BALANCE AS OF JUNE 30, 2020:	\$ 348,080.96
OBLIGATED TO CONTRACTS:	\$ 302,796.65
EFFECTIVE CASH BALANCE:	\$ 45,284.31

Conclusions

The Bernard Allen Memorial Emergency Drinking Water Fund, administered by the Division of Waste Management, continues to be a valuable resource for residents in North Carolina at risk from contaminated drinking water wells. The fund's ability to pay for sampling and analysis of water supply wells, along with providing notification to residents has been instrumental in helping the state respond to statewide emergency situations. The fund's ability to provide bottled water to residents as a temporary water supply has helped as a short-term solution, providing time for longer-term alternatives to be evaluated. Prior to the creation of the fund, the state had no source for providing emergency temporary water supplies in many situations. Future demands on the fund are anticipated to increase based on an increase in the number of private wells tested statewide. The Department of Environmental Quality will continue to evaluate the eligibility of projects that can be served by the fund as demands change.

The Bernard Allen program will face additional demands in the future to include the possibility of addressing emerging compounds in private drinking water wells. Additional funding and legislative changes will be needed to address this additional demand.