

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

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

(July 1, 2015 to June 30, 2016)

Division of Waste Management



**NORTH CAROLINA
DEPARTMENT OF ENVIRONMENTAL QUALITY**

<http://portal.ncdenr.org>

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Executive Summary

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

The fund outlined 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 fund 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 FY 2015-16, 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. Eleven households received alternate water this fiscal year using the Bernard Allen Fund. To date, 133 households have received alternate water through this fund.

FY 2015-16 Activities Update

In FY 2015-16, the Bernard Allen Memorial Emergency Drinking Water Fund (the fund), administered by the Division of Waste Management (division), continued to focus on three major priorities: 1) providing permanent alternate water sources; 2) review and research of sites in the state that may be at risk and may be eligible for funding for sampling or alternate water supplies under the program; and 3) testing of private wells known or suspected of being contaminated. The activities conducted in FY 2015-16 are summarized below.

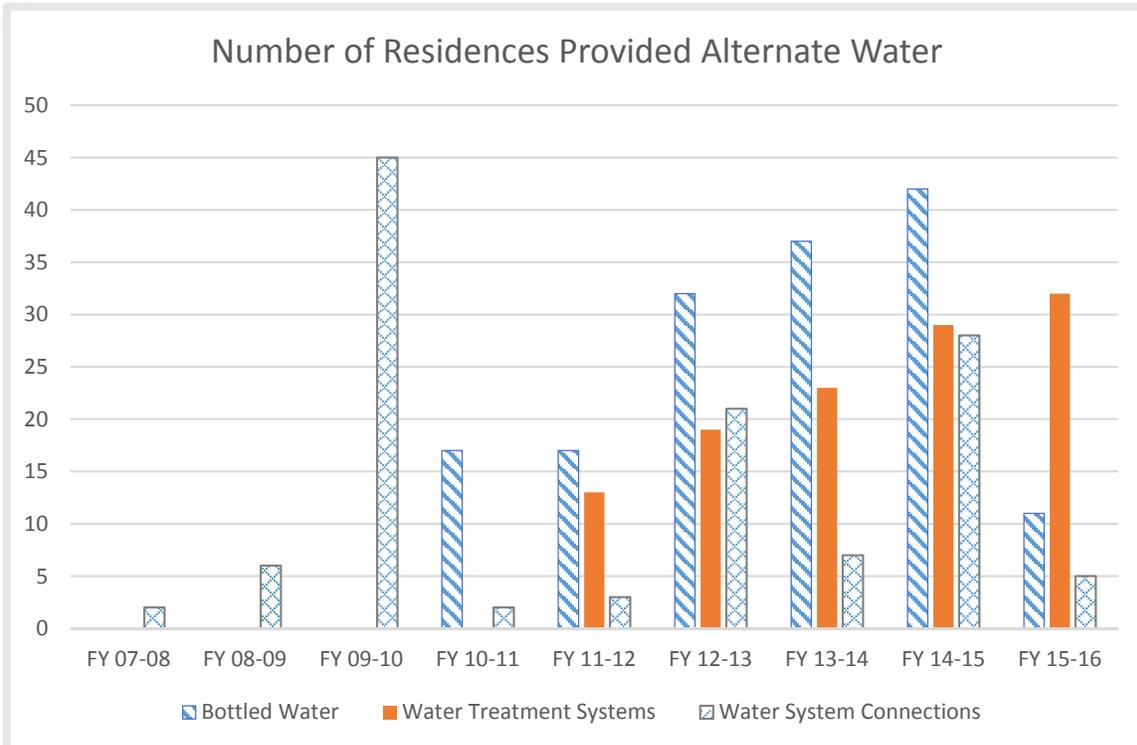
Alternate Water Provided

The fund provided bottled water to 11 residences in six counties while water services and water treatment systems were under construction.

The fund connected five residences to municipal water services in FY 2015-16: one in Rowan County, one in Mecklenburg County, two in Nash County, and one in Wake County. The fund provided point-of-entry treatment systems to five other residences: one in Person County, one in Chatham County and three in Guilford County. The fund provided maintenance for existing point-of-entry treatment systems at 25 additional residences: one in Stokes County, two in Pender County, two in Mecklenburg County, one in Gaston County, three in Randolph County, one in Person County, two in Rockingham County, one in Richmond County, one in Union County, two in Guilford County, one in Durham County, three in Wake County, two in Orange County, one in McDowell County, one in Caswell County, and one in Avery County.

Eleven residences received bottled water through the fund in FY 2015-16:

- | | | | |
|-------------------|---|----------------------|---|
| • Gaston County | 3 | • Nash County | 2 |
| • Guilford County | 3 | • Wake County | 1 |
| • Lincoln County | 1 | • Mecklenburg County | 1 |



Site Review and Research

Bernard Allen program staff continue to evaluate the division's catalog of sites having nearby 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, to see if other wells are in the area of concern and may potentially be affected, to identify potential sources of contamination, and determine ownership of affected residences. Staff test the wells and work with owners and local governments on alternate water supplies. An owner is required to meet the statutory requirement that annual household income not exceed 300 percent of the poverty level. Staff researched records for approximately 78 site files in FY 2015-16, most with multiple residences and wells. Review of each file includes the following activities:

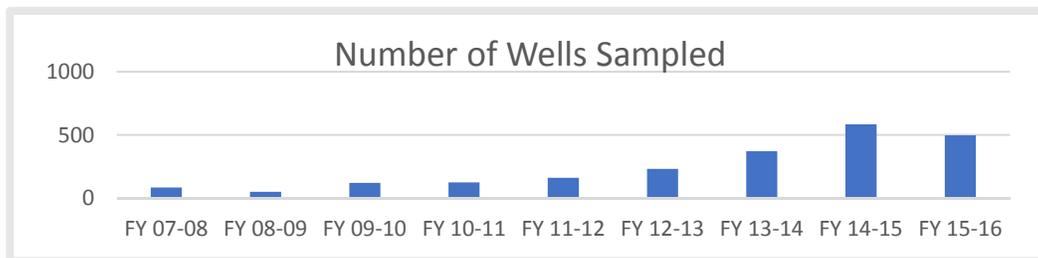
- Review of the file for historical information about previous sampling and work done on the site(s).
- Identification of locations of the affected properties.
- Identification of additional properties using drinking water wells within 500 feet and 1000 feet radius of potentially affected properties.
- Identification of potential sources of contamination.
- Location of public waterlines in the area to see if properties have been connected to the public water system.

Sampling of Private Wells

At the conclusion of FY 2015-16, the division's Inactive Hazardous Sites program had a total of 180 sites where there was no clear responsible party for groundwater contamination affecting drinking water wells. Most sites involved multiple residences and drinking water wells. Some detections were above and some below the federal drinking water standards. In many cases sources of contamination cannot be determined and it can be difficult to predict whether concentrations will rise or fall in the future. Contamination levels change with time as groundwater migrates and the water table rises and falls.

There are an additional 105 sites with water supply wells located less than one-quarter mile from potential sources of contamination and no responsible party. These sites have one or more residential properties/wells associated with them.

During FY 2015-16, the fund evaluated 1087 wells for sampling. The fund collected 498 drinking water well samples from across the state. The remaining wells were not sampled because owners did not give permission for sampling, did not respond to the request, were determined to now be connected to an alternate water supply or the property was vacant. Locations of the sites are shown below. Those parties where sample results exceeded drinking water criteria were sent health risk evaluations prepared by a division toxicologist.



(The reduction in number of wells sampled in FY 2015-16 is a result of difficulty obtaining temporary contract staff to perform sampling. Staffing issues have been resolved)

Site Locations of Drinking Water Wells Sampled in FY 2015-2016

<u>County</u>	<u># of Sites</u>	<u># of Wells</u>	<u>County</u>	<u># of Sites</u>	<u># of Wells</u>
• Alexander	1	3	• Lee	1	2
• Ashe	1	3	• Lincoln	1	8
• Avery	1	19	• Mecklenburg	11	52
• Beaufort	1	1	• Moore	3	10
• Buncombe	1	23	• New Hanover	1	6
• Burke	1	2	• Person	1	19
• Caswell	1	3	• Randolph	1	2
• Catawba	2	14	• Richmond	1	1
• Cleveland	1	2	• Rowan	4	41
• Craven	1	3	• Stanly	3	12
• Cumberland	1	17	• Surry	2	11
• Gaston	4	56	• Union	2	10
• Guilford	3	94	• Wake	4	31
• Henderson	1	3	• Watauga	1	14
• Iredell	4	27	• Yadkin	1	1

Summary of the Bernard Allen Memorial Drinking Water Fund

In FY 2015-16, the fund received 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 the fund expenditures can be found in the Bernard Allen Memorial Emergency Drinking Water Fund Accounting Summary found below.

Bernard Allen Memorial Emergency Drinking Water Fund

Accounting Summary

FY 2015-16

(as of June 30, 2016)

BEGINNING CASH BALANCE:		\$ 280,502.05
INCOME (Appropriations from General Fund):		\$ 400,000.00
EXPENDITURES:		
	<u>Description</u>	<u>Amount</u>
	Lab Testing	\$ 44,796.00
	Bottled Water	\$ 1,820.20
	Water Service Connections	\$ 55,762.58
	Well Closures	\$ 10,576.25
	Point of Entry Treatment Systems	\$ 95,011.89
	Sampling, Equipment & Supplies	\$ 7,932.52
	Staffing ¹	\$ 110,571.19
	Other Operating Expenses	\$ 6,835.91
	Total Expenses	\$ 333,306.54
CURRENT CASH BALANCE:		\$ 347,195.51
OBLIGATED TO CONTRACTS: ²		\$ 183,480.00
EFFECTIVE CASH BALANCE:		\$ 146,195.51

¹ Includes Sampling Prep, Research, Field Work and Fund Administration

² \$15,054 of the \$183,480 to be unencumbered and \$55,000 to be encumbered for new contract

Conclusions

The Bernard Allen Emergency Drinking Water Fund, administered by the division, 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 analyzing drinking water wells and providing notification for residents has been instrumental in helping the state respond to emergency situations statewide. 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.