

**Region 6 Compliance Assurance and Enforcement Division
INSPECTION REPORT**

Inspection Date(s):	05/14/2015		
Media:	Water		
Regulatory Program(s)	SDWA		
Company Name:	N/A		
Facility Name:	Nambe Headstart Water System		
Facility Physical Location:	189 State Road 503/Cundiyo Road		
(city, state, zip code)	Pojoaque, NM 87506		
Mailing address:	1574 State Road 502		
(city, state, zip code)	Pojoaque, NM 87506		
County/Parish:	Santa Fe County		
Facility Contact:	Adan Delgado	505.455.2282	
	Administrative Contact		
FRS Number:	110063218316		
Identification/Permit Number:	NM3598726		
NAICS:	N/A		
SIC:	4941		
Personnel participating in inspection:			
Terry Cummings	Nambe Headstart	School Superintendent (Retired)	505.819.2324
Jim Corbin	Corbin Consulting	Independent Consultant	505.466.4605
Stephen Wiman	Good Water Company	Geologist	505.471.9036
Maria Medina	NMED	Enforcement Coordinator	505.476.8629
Jenna Manheimer	EPA/6EN-WR	Enforcement Officer	214.665.7318
EPA Lead Inspector			
Signature/Date	Jenna Manheimer		Date
Supervisor			
Signature/Date	Willie Lane, Jr.		Date

Section I - INTRODUCTION

PURPOSE OF THE INSPECTION

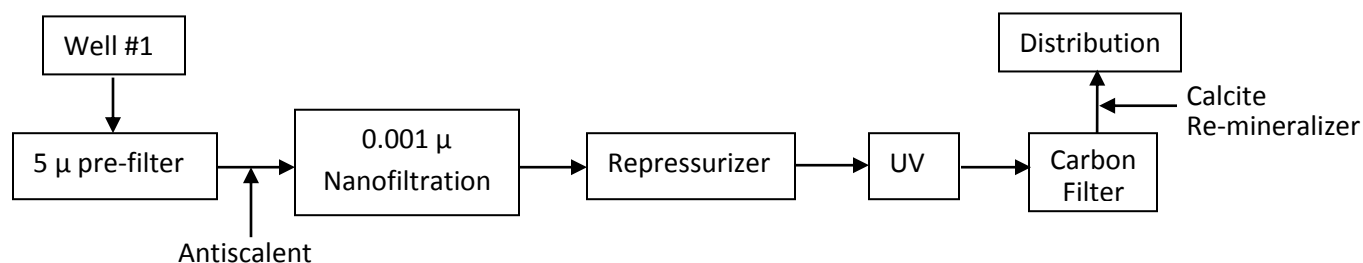
EPA Region 6 inspector Jenna Manheimer, in conjunction with New Mexico Environment Department (NMED) Enforcement Coordinator Maria Medina, arrived at the Nambe Headstart school at 10:30 am on May 14, 2015, for a planned inspection of the drinking water system. We met with Terry Cummings, the School District Superintendent, Jim Corbin, an independent consultant and Stephen Wiman from Good Water. I presented my credentials to Terry Cummings, and informed her that this was a joint EPA/NMED inspection of the drinking water system to verify that adequate treatment for arsenic and selenium removal has been installed, and that appropriate follow-up and system maintenance will be carried out.

FACILITY DESCRIPTION

Nambe Headstart is an elementary school that serves approximately 40 non-transient people, mostly children from the Tribal community, during months when school is in session (September through May). The water source is a single well, drilled about 30 years ago to a depth between 50-100 feet, which produces 20 gallons per minute. Well #1 is located outside of the school building and adjacent to the parking lot (Appendix 1, Photos 1-2). Nambe Headstart has a history of exceeding the maximum contaminant level (MCL) for both arsenic and selenium, with violations for selenium in the Safe Drinking Water Information System (SDWIS) as far back as 1999. Since January 2012, Nambe Headstart has continuously exceeded the running annual average (RAA) for both arsenic and selenium each quarter.

Since 2008, bottled water jugs have been available to all schoolchildren and employees at Nambe Headstart. However, sinks within the facility served untreated water. Some time passed before the appropriate responsible party/owner of the water system from the school district was aware of the water quality issues. By late 2011, the school's superintendent became involved in mitigating the contaminant, after which it took additional time to leverage funds for installing treatment (Terry Cummings advocated for the passage of Senate Bill 9, which financed the school's filtration system).

In February 2013, an interim "bare-bone" treatment system was installed for cooking water only. Then on July 28, 2014, a Good Water 0.001 μ nanofiltration system (schematic below) was installed, designed to remove both arsenic and selenium, for a total cost of \$40,000.



(See Appendix 1, Photos 4-7).

Section II – OBSERVATIONS

- Well #1 is located inside a vault adjacent to parking lot that slopes downward toward well (Appendix 1, Photo 2). The well pad is raised, but the well head itself is a few feet below grade (Appendix 1, Photo 3). Flooding from the parking lot is unlikely, but if the water level rose above well pad, it would present contamination to the source.
- Reject water from the filtration process is discarded into a drain (Appendix 1, Photo 8). Piping terminates below the upper rim of drain, which could back-siphon if the drain overflows.
- The chemical sampler from NMED was not collecting arsenic and selenium compliance samples at the correct sample tap, which should be the entry point to the water system. However, this facility is small (one building), and the entry point will be a sample tap inside the building, also accessible for drinking water. Therefore, any sample tap designated as the entry point, and all taps within the building must provide water that has passed through the nanofiltration system.

Section III – AREAS OF CONCERN

- The treatment system is housed inside a small kitchen, including antiscalent and calcite. These chemicals are not particularly hazardous, but it is important that they are properly contained and that employees are cautious when stepping around them.
- During the inspection, each party present confirmed that all water flowing from Well #1 into any given sample tap passes through nanofiltration. This was also observed by EPA and NMED inspectors, to the extent possible.
- There is a community center across the street from Nambe Headstart that utilizes the same well as the school. This facility hosts meetings 2-3 times each month by an unknown number of people. The community center is possibly registered under a separate PWS. There is a water softener installed, but no other treatment.

Section IV – FOLLOW UP

- Since installation of the nanofiltration system, sample results for both arsenic and selenium have dropped to non-detectable levels. Compliance is calculated based on the quarterly RAA, with the MCL for arsenic at 0.010 mg/L and 0.05 mg/L for selenium. As of 1/20/2015, the RAA for arsenic was 0.0098 mg/L and 0.0348 for selenium. As of 4/1/2015, the RAA for arsenic was 0.0044 and 0.0154 for selenium.
 - Return violations in SDWIS to compliance.
 - AO will remain open until PWS remains compliant for four consecutive quarters.

Section V – LIST OF APPENDICES

Appendix 1 – Photo Log – 8 photos taken 5/14/2015

Appendix 1

Photograph Log



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 1

Location: Nambe Headstart Water System		
City: Pojoaque	County/Parish: Santa Fe	State: New Mexico



Photo File Name: Well #1 Pad & Hatch

Date of Photo: 5/14/2015

Time of Photo: 11:06 am

Photographer: Jenna Manheimer

Description: 30-year old well inside vault, with a depth between 50-100 feet.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 2

Location: Nambe Headstart Water System		
City: Pojoaque	County/Parish: Santa Fe	State: New Mexico



Photo File Name: Area Around Well #1

Date of Photo: 5/14/2015

Time of Photo: 11:26 am

Photographer: Jenna Manheimer

Description: Located adjacent to the parking lot, which slopes downward toward the well vault. The well pad is adequately raised, though well head is a few feet below grade.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 3

Location: Nambe Headstart Water System		
City: Pojoaque	County/Parish: Santa Fe	State: New Mexico



Photo File Name: Well #1 Vault

Date of Photo: 5/14/2015

Time of Photo: 11:09 am

Photographer: Jenna Manheimer

Description: Well #1 is located inside a vault, with top of well head a few feet below grade.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 4

Location: Nambe Headstart Water System		
City: Pojoaque	County/Parish: Santa Fe	State: New Mexico



Photo File Name: Treatment System Controls

Date of Photo: 5/14/2015

Time of Photo: 10:45 am

Photographer: Jenna Manheimer

Description: Control panel and measurement gauges for nanofiltration system.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 5

Location: Nambe Headstart Water System		
City: Pojoaque	County/Parish: Santa Fe	State: New Mexico



Photo File Name: Nanofiltration Units

Date of Photo: 5/14/2015

Time of Photo: 10:51 am

Photographer: Jenna Manheimer

Description: Canisters containing nanofiltration membranes.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 6

Location: Nambe Headstart Water System		
City: Pojoaque	County/Parish: Santa Fe	State: New Mexico



Photo File Name: Pressure Tank + Antiscalent Storage

Date of Photo: 5/14/2015

Time of Photo: 10:54 am

Photographer: Jenna Manheimer

Description: Tank to repressurize system post-membrane filtration, and antiscalent, which is added pre-membrane filtration to aide in the dispersion of insoluble particles, all located in school's kitchen.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 7

Location: Nambe Headstart Water System		
City: Pojoaque	County/Parish: Santa Fe	State: New Mexico



Photo File Name: UV + Carbon Filters

Date of Photo: 5/14/2015

Time of Photo: 10:50 am

Photographer: Jenna Manheimer

Description: After filtration, water passes through UV unit, and is then "polished" by carbon filters before entering distribution.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 8

Location: Nambe Headstart Water System		
City: Pojoaque	County/Parish: Santa Fe	State: New Mexico



Photo File Name: Waste Piping

Date of Photo: 5/14/2015

Time of Photo: 10:49 am

Photographer: Jenna Manheimer

Description: Effluent reject water pipes into kitchen drain.