



## Edisto Savannah

### Environmental Quality Control District

Serving: Aiken, Allendale, Bamberg, Barnwell, Calhoun, and Orangeburg Counties

*Promoting Health, Protecting the Environment*

206 Beaufort Street, NE, Aiken, SC 29801

(803) 641-7670 Fax (803) 641-7675

September 7, 2004

Town of Denmark  
Attn: Carrie Simmons  
4768 Carolina Highway  
Denmark, South Carolina 29042

Re: Town of Denmark Sanitary Survey  
Water System # 0510002  
Bamberg County

Dear Ms. Simmons:

As you are aware, the South Carolina Department of Health and Environmental Control conducted a sanitary survey of Denmark's public water system on August 19, 2004. The intent of the sanitary survey is to evaluate Denmark's ability to provide a continuous supply of safe drinking water to its customers.

The Town of Denmark received an overall rating of **Satisfactory**. Enclosed is a copy of the survey and a report that includes a description of Denmark's public water system, specific findings made during the sanitary survey, and recommendations for correcting any deficiencies. This survey and the report should be kept on file for no less than ten (10) years and be made available to the public or DHEC upon request. It is requested that all parties responsible for the operation and maintenance of the water system review this report promptly.

Please feel free to contact me at (803) 641-7670 if you should have any questions concerning the enclosed report.

Sincerely,

A handwritten signature in black ink, appearing to read 'J. McRee', is written over a horizontal line.

Jason McRee  
Drinking Water Manager  
Edisto Savannah EQC

cc: Susan Alder, Bureau of Water

**RECEIVED**

SEP 13 2004

COMPLIANCE ASSURANCE  
DIVISION

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL  
EDISTO SAVANNAH EQC

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**SANITARY SURVEY REPORT**

*Town of Denmark  
Water System # 0510002  
Bamberg County*

**Introduction**

The South Carolina Department of Health and Environmental Control conducted a sanitary survey of the Town of Denmark public water system (Water System # 0510002). This survey consisted of a review of the Department files and an on-site inspection by Department personnel on August 19, 2004. The following persons participated in the on-site inspection:

Jason McRee	SCDHEC – Edisto Savannah EQC
Tim Freeman	Town of Denmark

This report includes a description of the water system, a list of findings and recommendations noted during the survey.

**System Description**

The Town of Denmark owns and operates a groundwater facility and associated potable water distribution system that serves approximately 3800 customers by approximately 1493 service connections. Information on the system's wells is given in the table below. The system has a current rated capacity of 1,046,400 gallons per day.

*Well Information*

	Type	Horsepower	Yield	Regulated Capacity	Treatment
Well One Brooker Center	Turbine	60	500 gpm	480.00 TGD	Gaseous Chlorine
Well Two Voorhees	Turbine	60	330 gpm	316.80 TGD	Gaseous Chlorine
Well Three Clark Street	Turbine	60	260 gpm	249.60 TGD	Gaseous Chlorine

Three (3) elevated storage tanks with a total volume of approximately 475,000 gallons serve the Town of Denmark public water system.

### Storage Capacity

Tank	Capacity (gallons)
City Hall Elevated Tank	100,000
Nibco Elevated Tank	250,000
Voorhees Elevated Tank	125,000

Currently, the Town of Denmark public water system has the following operators:

Operator	License	Certification #	Class
Tim Freeman	Water	06651	D
	Distribution	01830	G
JP Robinson	Water	02418	D
	Distribution	00472	D

### Finding and Recommendations

- 1) The system was upgraded to a Satisfactory rating for Fire Flow. The purpose of this item is to ensure that the water system can provide adequate flow to protect the integrity of their water system when fire protection is provided. The hydrants have been flow tested.
- 2) The system received an Unsatisfactory rating for Leak Detection and Repair Program. The system needs to implement a water audit. A water audit is a comparison of the amount of water produced with the amount of finished water sold plus the amount of water used for flushing, fire fighting activities, etc. A system should keep the average loss to no more than 10%. During the survey it was evident that the system has all the necessary components for a water audit, it just needs to be implemented and properly documented.
- 3) The system maintained a Needs Improvement rating for Storage Appurtances. The overflows on all three elevated storage tanks need to be extended within 12 to 24 inches of ground surface. The overflows should be addressed during the next scheduled tank maintenance periods.
- 4) The system maintained a Needs Improvement rating for Storage Maintenance. As noted in previous surveys, the Nibco tank has substantial rust on the exterior of the tank. The tank needs exterior painting and the interior needs to be evaluated. It was noted that the system has plans to refurbish the tank.
- 5) The system received a Satisfactory rating for Wellhead Piping. Wellhead piping must be

configured in such a way as to minimize the potential for contamination of the source. At the Brooker Well, the flow meter has been placed after the check valve and before the blow off.

### Conclusions

Overall, the Denmark Public Water System is being operated in a safe and reliable manner. The Department is impressed with the amount of effort and pride put into the operation and maintenance of this water system. Please continue the hard work and dedication to the system. The Department looks forward to working with the water system in the future to ensure that the residents continue to receive the highest quality of drinking water.