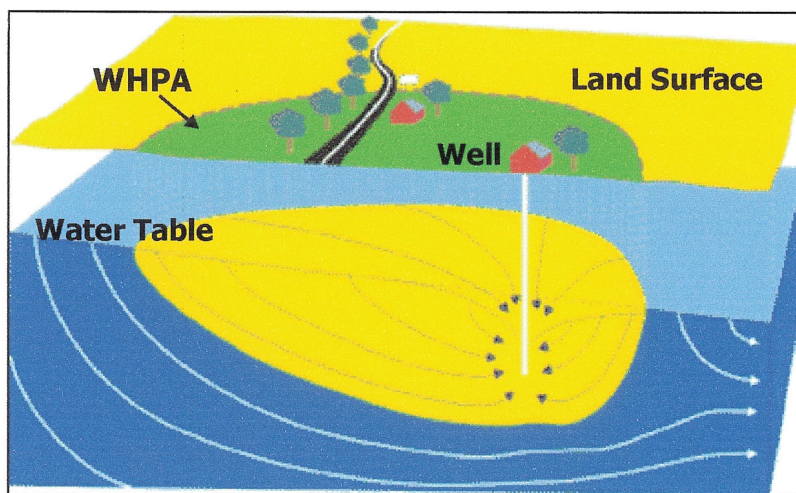


**SOURCE WATER ASSESSMENT
FOR SMALL WATER SYSTEMS
IN WICOMICO COUNTY**



**Prepared By
Maryland Department of the Environment
Water Management Administration
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SUMMARY

The Maryland Department of the Environment's Water Supply Program (WSP) has conducted a Source Water Assessment for thirty-eight small systems in Wicomico County. The required components of this report as described in Maryland's Source Water Assessment Program (SWAP) are 1) delineation of an area that contributes water to each source, 2) identification of potential sources of contamination within the areas, and 3) determination of the susceptibility of each water supply to contamination. Recommendations for protecting the drinking water supplies conclude this report.

The sources of water supply wells in Wicomico County are unconfined and confined Coastal Plain aquifers. The thirty-eight small water systems included in this report are currently using 58 wells that draw from unconsolidated Coastal Plain sediments. The unconfined wells draw from the Quaternary System sediments, and the confined wells are completed in the Manokin and Frederica Aquifers respectively. The Source Water Assessment areas were delineated by the WSP using U.S. EPA approved methods specifically designed for each source.

Potential point sources of contamination within the assessment areas were identified from field inspections and contaminant inventory databases. The more common potential sources of contamination identified are underground storage tanks and controlled hazardous substance generators commonly associated with commercial areas. The Maryland Office of Planning's 2000 land use map for Wicomico County was used to identify non-point sources of contamination. The most common type of land use that presents a potential for contamination is agricultural cropland. Private septic systems are another common non-point contaminant source. Most of the small systems in this report utilize on-site septic systems for the disposal of domestic wastewater. Figures showing land use, potential contaminant sources within wellhead protection areas, and aerial photographs of well locations are enclosed at the end of the report.

The susceptibility analysis is based on a review of the existing water quality data for each water system, the presence of potential sources of contamination in the individual assessment areas, well integrity, and the inherent vulnerability of the aquifer. It was determined that some small water systems are susceptible to contamination by nitrate, volatile organic compounds, synthetic organic compounds, and some may be susceptible to radon. The susceptibility to microbiological contaminants for eleven systems from this report could not be determined at the present time due to absence of raw water data. Some small systems may be susceptible to one contaminant, while others are susceptible to one or more groups of contaminants.

EXECUTIVE SUMMARY

GREEN MEADOWS COMPACT HOMES

The Maryland Department of the Environment's Water Supply Program (WSP) has conducted a Source Water Assessment for thirty-eight small systems in Wicomico County, including the Green Meadows Compact Homes community supply. The required components of this report as described in Maryland's Source Water Assessment Program (SWAP) are 1) delineation of an area that contributes water to the source, 2) identification of potential sources of contamination, and 3) determination of the susceptibility of the water supply to contamination. Recommendations for protecting the drinking water supply conclude this report.

The sources of water supply wells in Wicomico County are unconfined and confined Coastal Plain aquifers. The Green Meadows Compact Homes water system, located in the Coastal Plain Physiographic Province of north central Wicomico County, is currently using two wells that draw water from the confined unconsolidated sediments of the Frederica aquifer. The Wellhead Protection area was delineated by the WSP using U.S. EPA's approved methods specifically designed for this source.

Point sources of contamination were identified within and near the assessment area from field inspections and contaminant inventory databases. The Maryland Office of Planning's 2000 land use map for Wicomico County was used to identify non-point sources of contamination. Figure 2c is an aerial photograph showing potential sources of contamination within and near the Wellhead Protection Area.

The susceptibility analysis is based on a review of the existing water quality data for the water system, the presence of potential sources of contamination in the individual assessment areas, well integrity, and the inherent vulnerability of the aquifer. It was determined that the Green Meadows Compact Homes water supply is not susceptible to contamination by nitrates, radiological compounds, volatile organic compounds, synthetic organic compounds, microbiological pathogens, or other regulated inorganic compounds.

EXECUTIVE SUMMARY

GATEWAY VILLAGE MOBILE HOME PARK

The Maryland Department of the Environment's Water Supply Program (WSP) has conducted a Source Water Assessment for thirty-eight small systems in Wicomico County, including the Gateway Village Mobile Home Park community supply. The required components of this report as described in Maryland's Source Water Assessment Program (SWAP) are 1) delineation of an area that contributes water to the source, 2) identification of potential sources of contamination, and 3) determination of the susceptibility of the water supply to contamination. Recommendations for protecting the drinking water supply conclude this report.

The sources of water supply wells in Wicomico County are unconfined and confined Coastal Plain aquifers. The Gateway Village Mobile Home Park water system, located in the Coastal Plain Physiographic Province of north central Wicomico County, is currently using two wells that draw water from the unconfined sediments of the Quaternary System. The Wellhead Protection Area was delineated by the WSP using U.S. EPA's approved methods specifically designed for each source.

Point sources of contamination were identified within and near the assessment area from field inspections and contaminant inventory databases. The Maryland Office of Planning's 2000 land use map for Wicomico County was used to identify non-point sources of contamination. Figure 2c is an aerial photograph showing potential sources of contamination within and near the Wellhead Protection Area.

The susceptibility analysis is based on a review of the existing water quality data for the water system, the presence of potential sources of contamination in the individual assessment areas, well integrity, and the inherent vulnerability of the aquifer. It was determined that the Gateway Village Mobile Home Park water supply is susceptible to contamination by nitrate and to volatile organic compounds. This water supply is not susceptible to radiological compounds, synthetic organic compounds, microbiological pathogens, or other regulated inorganic compounds.

EXECUTIVE SUMMARY

PINE TREE MOBILE HOME PARK

The Maryland Department of the Environment's Water Supply Program (WSP) has conducted a Source Water Assessment for thirty-eight small systems in Wicomico County, including the Pine Tree Mobile Home Park community water supply. The required components of this report as described in Maryland's Source Water Assessment Program (SWAP) are 1) delineation of an area that contributes water to the source, 2) identification of potential sources of contamination, and 3) determination of the susceptibility of the water supply to contamination. Recommendations for protecting the drinking water supply conclude this report.

The sources of water supply wells in Wicomico County are unconfined and confined Coastal Plain aquifers. The Pine Tree Mobile Home Park water system, located in the Coastal Plain Physiographic Province of east Wicomico County, is currently using two wells that draw water from the unconfined sediments of the Quaternary System. The Wellhead Protection area was delineated by the WSP using U.S. EPA's approved methods specifically designed for each source.

Point sources of contamination were identified within and near the assessment area from field inspections and contaminant inventory databases. The Maryland Office of Planning's 2000 land use map for Wicomico County was used to identify non-point sources of contamination. Figure 2k is an aerial photograph showing potential sources of contamination within and near the Wellhead Protection Area.

The susceptibility analysis is based on a review of the existing water quality data for the water system, the presence of potential sources of contamination in the individual assessment areas, well integrity, and the inherent vulnerability of the aquifer. It was determined that the Pine Tree Mobile Home Park water supply may be susceptible to contamination by radon. The system is not susceptible to contamination by nitrate, volatile organic compounds, synthetic organic compounds, microbiological pathogens, and other regulated inorganic, or radiological compounds.

EXECUTIVE SUMMARY

EASTWOOD VILLAGE MOBILE HOME PARK

The Maryland Department of the Environment's Water Supply Program (WSP) has conducted a Source Water Assessment for thirty-eight small systems in Wicomico County, including the Eastwood Village Mobile Home Park community water supply. The required components of this report as described in Maryland's Source Water Assessment Program (SWAP) are 1) delineation of an area that contributes water to the source, 2) identification of potential sources of contamination, and 3) determination of the susceptibility of the water supply to contamination. Recommendations for protecting the drinking water supply conclude this report.

The sources of water supply wells in Wicomico County are unconfined and confined Coastal Plain aquifers. The Eastwood Village Mobile Home Park water system, located in the Coastal Plain Physiographic Province of southeast Wicomico County, is currently using one well that draws water from the unconfined sediments of the Quaternary System. The Wellhead Protection area was delineated by the WSP using U.S. EPA's approved methods specifically designed for each source.

Point sources of contamination were identified within and near the assessment area from field inspections and contaminant inventory databases. The Maryland Office of Planning's 2000 land use map for Wicomico County was used to identify non-point sources of contamination. Figure 2s is an aerial photograph showing potential sources of contamination within and near the Wellhead Protection Area.

The susceptibility analysis is based on a review of the existing water quality data for the water system, the presence of potential sources of contamination in the individual assessment areas, well integrity, and the inherent vulnerability of the aquifer. It was determined that the Eastwood Village Mobile Home Park water supply may be susceptible to contamination by radon. This water supply is not susceptible to contamination by nitrate, volatile organic compounds, synthetic organic compounds, microbiological pathogens, and other regulated inorganic, or radiological compounds.

EXECUTIVE SUMMARY

COUNTRY VILLAGE MOBILE HOME PARK

The Maryland Department of the Environment's Water Supply Program (WSP) has conducted a Source Water Assessment for thirty-eight small systems in Wicomico County, including the Country Village Mobile Home Park community water supply. The required components of this report as described in Maryland's Source Water Assessment Program (SWAP) are 1) delineation of an area that contributes water to the source, 2) identification of potential sources of contamination, and 3) determination of the susceptibility of the water supply to contamination. Recommendations for protecting the drinking water supply conclude this report.

The sources of water supply wells in Wicomico County are unconfined and confined Coastal Plain aquifers. The Country Village Mobile Home Park water system, located in the Coastal Plain Physiographic Province of east Wicomico County, is currently using two wells that draw water from the unconfined sediments of the Quaternary System. The Wellhead Protection area was delineated by the WSP using U.S. EPA's approved methods specifically designed for this source.

Point sources of contamination were identified within and near the assessment area from field inspections and contaminant inventory databases. The Maryland Office of Planning's 2000 land use map for Wicomico County was used to identify non-point sources of contamination. Figure 21 is an aerial photograph showing potential sources of contamination within and near the Wellhead Protection Area.

The susceptibility analysis is based on a review of the existing water quality data for the water system, the presence of potential sources of contamination in the individual assessment areas, well integrity, and the inherent vulnerability of the aquifer. It was determined that the Country Village Mobile Home Park water supply is susceptible to contamination by nitrate, volatile organic compounds, and synthetic organic compounds. The system is not susceptible to radiological compounds or other regulated inorganic compounds. The susceptibility of the water supply to microbiological contaminants could not be determined at the present time due to the absence of raw water data.

EXECUTIVE SUMMARY

BOH-NAK MOBILE HOME PARK

The Maryland Department of the Environment's Water Supply Program (WSP) has conducted a Source Water Assessment for thirty-eight small systems in Wicomico County, including the Boh-Nak community water supply. The required components of this report as described in Maryland's Source Water Assessment Program (SWAP) are 1) delineation of an area that contributes water to the source, 2) identification of potential sources of contamination, and 3) determination of the susceptibility of the water supply to contamination. Recommendations for protecting the drinking water supply conclude this report.

The sources of water supply wells in Wicomico County are unconfined and confined Coastal Plain aquifers. The Boh-Nak Mobile Home Park water system, located in the Coastal Plain Physiographic Province of south-central Wicomico County, is currently using one production well and a backup well that draw water from the unconfined sediments of the Quaternary System. The Wellhead Protection area was delineated by the WSP using U.S. EPA's approved methods specifically designed for this source.

Point sources of contamination were identified within and near the assessment area from field inspections and contaminant inventory databases. The Maryland Office of Planning's 2000 land use map for Wicomico County was used to identify non-point sources of contamination. Figure 2u is an aerial photograph showing potential sources of contamination within and near the Wellhead Protection Area.

The susceptibility analysis is based on a review of the existing water quality data for the water system, the presence of potential sources of contamination in the individual assessment areas, well integrity, and the inherent vulnerability of the aquifer. It was determined that the Boh-Nak Mobile Home Park water supply is susceptible to contamination by nitrate, volatile organic compounds, and may be susceptible to radon. The system is not susceptible to synthetic organic compounds, microbiological pathogens, or other regulated inorganic compounds.

EXECUTIVE SUMMARY

NAYLOR MILL VILLAGE MOBILE HOME PARK

The Maryland Department of the Environment's Water Supply Program (WSP) has conducted a Source Water Assessment for thirty-eight small systems in Wicomico County, including the Naylor Mill Village Mobile Home Park community water supply. The required components of this report as described in Maryland's Source Water Assessment Program (SWAP) are 1) delineation of an area that contributes water to the source, 2) identification of potential sources of contamination, and 3) determination of the susceptibility of the water supply to contamination. Recommendations for protecting the drinking water supply conclude this report.

The sources of water supply wells in Wicomico County are unconfined and confined Coastal Plain aquifers. The Naylor Mill Village Mobile Home Park water system, located in the Coastal Plain Physiographic Province of north-central Wicomico County, is currently using two wells that draw water from the unconfined sediments of the paleochannel within the Quaternary System. The Wellhead Protection area was delineated by the WSP using U.S. EPA's approved methods specifically designed for this source.

Point sources of contamination were identified within and near the assessment area from field inspections and contaminant inventory databases. The Maryland Office of Planning's 2000 land use map for Wicomico County was used to identify non-point sources of contamination. Figure 2e is an aerial photograph showing potential sources of contamination within and near the Wellhead Protection Area.

The susceptibility analysis is based on a review of the existing water quality data for the water system, the presence of potential sources of contamination in the individual assessment areas, well integrity, and the inherent vulnerability of the aquifer. It was determined that the Naylor Mill Village Mobile Home Park water supply is not susceptible to contamination by nitrate, radiological compounds, volatile organic compounds, synthetic organic compounds, microbiological pathogens, or other regulated inorganic compounds.

EXECUTIVE SUMMARY

BENNETT MOBILE HOME PARK

The Maryland Department of the Environment's Water Supply Program (WSP) has conducted a Source Water Assessment for thirty-eight small systems in Wicomico County, including the Bennett Mobile Home Park community water supply. The required components of this report as described in Maryland's Source Water Assessment Program (SWAP) are 1) delineation of an area that contributes water to the source, 2) identification of potential sources of contamination, and 3) determination of the susceptibility of the water supply to contamination. Recommendations for protecting the drinking water supply conclude this report.

The sources of water supply wells in Wicomico County are unconfined and confined Coastal Plain aquifers. The Bennett Mobile Home Park water system, located in the Coastal Plain Physiographic Province of north-central Wicomico County, is currently using two wells that draw water from the unconfined sediments of the Quaternary System. The Wellhead Protection area was delineated by the WSP using U.S. EPA's approved methods specifically designed for this source.

Point sources of contamination were identified within and near the assessment area from field inspections and contaminant inventory databases. The Maryland Office of Planning's 2000 land use map for Wicomico County was used to identify non-point sources of contamination. Figure 2e is an aerial photograph showing potential sources of contamination within and near the Wellhead Protection Area.

The susceptibility analysis is based on a review of the existing water quality data for the water system, the presence of potential sources of contamination in the individual assessment areas, well integrity, and the inherent vulnerability of the aquifer. It was determined that the Bennett Mobile Home Park water supply is susceptible to contamination by nitrate, volatile organic compounds, synthetic organic compounds, and may be susceptible to radon. The system is not susceptible to microbiological pathogens, or other regulated inorganic compounds.

EXECUTIVE SUMMARY

COLONIAL MILL ESTATES MOBILE HOME PARK

The Maryland Department of the Environment's Water Supply Program (WSP) has conducted a Source Water Assessment for thirty-eight small systems in Wicomico County, including the Colonial Mill Estates Mobile Home Park community water supply. The required components of this report as described in Maryland's Source Water Assessment Program (SWAP) are 1) delineation of an area that contributes water to the source, 2) identification of potential sources of contamination, and 3) determination of the susceptibility of the water supply to contamination. Recommendations for protecting the drinking water supply conclude this report.

The sources of water supply wells in Wicomico County are unconfined and confined Coastal Plain aquifers. The Colonial Mill Estates Mobile Home Park water system, located in the Coastal Plain Physiographic Province of north-central Wicomico County, is currently using one production well and a standby well that draws water from the unconfined sediments of the Quaternary System. The Wellhead Protection area was delineated by the WSP using U.S. EPA's approved methods specifically designed for this source.

Point sources of contamination were identified within and near the assessment area from field inspections and contaminant inventory databases. The Maryland Office of Planning's 2000 land use map for Wicomico County was used to identify non-point sources of contamination. Figure 2c is an aerial photograph showing potential sources of contamination within and near the Wellhead Protection Area.

The susceptibility analysis is based on a review of the existing water quality data for the water system, the presence of potential sources of contamination in the individual assessment areas, well integrity, and the inherent vulnerability of the aquifer. It was determined that the Colonial Mill Estates Mobile Home Park water supply is susceptible to contamination by nitrate, volatile organic compounds, and may be susceptible to radon. The system is not susceptible to synthetic organic compounds, microbiological pathogens, or other regulated inorganic compounds.

INTRODUCTION

The Water Supply Program has conducted a Source Water Assessment for 38 small water systems in Wicomico County. Wicomico County is in the southeastern corner of the State, and is bounded by the Nanticoke River to the west, Somerset and Worcester Counties the south and east, and Delaware to the north respectively (Figure 1). Based on July 2001 data, the total population of Wicomico County is 80,100 persons (Md. Assoc. of Counties, 2001). As defined in Maryland's Source Water Assessment Plan (SWAP), "small systems" are community and non-transient non-community water systems that have a ground water appropriation permit of less than 10,000 gallons average daily use (Appendix F). The County lies within the Delmarva Peninsula of the Atlantic Coastal Plain Physiographic Province. All of the small systems in Wicomico County obtain their water supply from unconsolidated Coastal Plain sediments.

WELL INFORMATION

Well information for each system was obtained from the Water Supply Program's database, site visits, well completion reports, and sanitary survey inspection reports. A total of 58 wells are used by the 38 systems assessed in this report. Forty-five of the wells were drilled in or after 1973 and should comply with Maryland's well construction regulations. Eleven of the wells were drilled prior to 1973, when current regulations went into effect, and may not meet the current construction standards. Well completion report data was not available for two of the wells. Table's 1a and 1b contain a summary of well information for each of the small systems. The well locations for each small system based on countywide boundaries are shown on Figure 1.

Database review verified unused wells at Eastwood Village Mobile Home Park, and Mardela High School respectively. Unused wells that have not been properly abandoned and sealed may provide a direct route for ground water contamination to an aquifer. Systems whose wells are cased below ground surface are more likely to be subject to flooding during heavy rains. This may allow contaminated surface water to enter through the casing and ultimately reach the aquifer. Field inspections verified wells below ground surface at Barr International 2, the U.S. Air Administration Bldg. and Henson Hangar, Salisbury Ford-Lincoln-Mercury, and the Pohanka Auto Group respectively (Figures 2c, 2b, 2t, & 2h). Wells located near Storm Water Management ponds (e.g. Figure 2p) and down gradient and near parking lots and roadways are subject to storm water runoff and physical damage from vehicles.

HYDROGEOLOGY

Wicomico County is located on the unconsolidated sediments of the Coastal Plain Physiographic Province. The sediments were deposited in a southeasterly thickening wedge extending from the Fall Line to the Continental Shelf (Banks, Klohe, & Battigelli, 2001). The Coastal Plain sediments consist of unconsolidated beds of clay, silt, sand, gravel, and shells. The sediments consist of non-marine to marginal-marine deposits of Cretaceous age, overlain by marine, estuarine, and fluvial sediments of Tertiary to

Quaternary age (Andreasen & Smith, 1997). Most of the wells in this report are completed in the shallow, unconfined Quaternary System (also referred to as the Salisbury aquifer). The Salisbury aquifer consists of coarse sand and gravel with transmissivity values ranging from 8200 to 57,000 feet squared per day (Andreasen & Fewster, 2001). The Units that comprise the deeper confined wells in this report are the Manokin and Frederica aquifers respectively. The Salisbury aquifer is separated from the Manokin aquifer by a 25 to 65 feet low permeability, bluish-gray clay confining layer (Andreasen & Fewster, 2001).

Water-table depths in the Salisbury aquifer are shallow, and range from 0 to about 20 feet below ground surface in most areas (Hamilton & others, 1993). As a result, drainage ditch networks for irrigation purposes are common throughout Wicomico County. In general, the shallow Salisbury aquifer may therefore be prone to contamination from land use activities at the ground surface.

The most distinctive subsurface feature in the Salisbury area is an unusually thick (>200 ft.) paleochannel deposit cut into the eroded confining layer and the Manokin aquifer (Andreasen & Smith, 1997). The coarse sand and gravel channel is between 0.6 to 1.8 miles wide, and from about 90 to 200 feet below sea level (Andreasen & Smith, 1997). The channel extends from the northwestern corner of Wicomico County to just north of Salisbury (Weigle, 1972). The paleochannel is a major water resource for the City of Salisbury's municipal water supply.

SOURCE WATER ASSESSMENT AREA DELINEATION

For ground water systems, a Wellhead Protection Area (WHPA) is considered to be the source water assessment area for the system. As defined in Maryland's SWAP, the wellhead protection areas for "small" unconfined public water systems using an average of less than 10,000 gallons per day (gpd) are to be delineated by using a simplified variable-shape based on annual recharge (MDE 1999). The localized ground water flow direction for each well was inferred based on topographic relief. To account for uncertainties in the flow direction, the boundaries were extended 30° to each side of the major flow lines to obtain the maximum outer limits of each WHPA. The resulting "wedge" shape was then oriented in the predominant ground water flow direction for each well. It was determined that a wedge shape of 1,000 feet in length with a total angle width of 60° supports a withdrawal of 10,000 gallons per day (gpd) based on a recharge rate of 12 inches per year. A 100-foot buffer around each well at the down-gradient side was added for additional protection (e.g. Figures 2d – 2g). The WHPAs for 33 of the small systems were delineated using this method. For systems with multiple supply wells, the corresponding wedges were combined to form one larger simplified variable shape (e.g. Figure 2h).

The Wellhead Protection area for "small" public systems whose wells are completed in confined Coastal Plain aquifers is a fixed radius of 600 feet around the well (MDE, 1999). This radius is based on a volumetric equation assuming a minimum aquifer thickness of 20 feet, a porosity of 0.25, and an average daily pumpage of 10,000

gallons per day (gpd). Six systems in this report have wells completed in confined Coastal Plain sediments. Confined aquifers are naturally protected from land use activities at the ground surface due to confining clay layers that inhibit the infiltration of contaminants from entering the aquifer. A review of the potential for direct injection of contaminants (e.g. unused wells) was completed for these systems. Note that the areas to be protected in this geologic setting are below the confining layers at depths below land surface as depicted in Figure 5.

The Maryland Geological Survey (MGS) determined the contributing areas for 8 small systems from this report by using the U.S. Geological Survey's numerical flow model (MODFLOW), and a semi-analytical particle-tracking program (MODPATH). The delineations were determined by where the particles intercept the water table. Specific details concerning the ground water flow modeling, study area, and delineation methods can be found in the MGS Open File Report No. 2001-02-14 (Andreasen & Fewster, 2001).

Contributing areas were determined based on time-of travel (TOT) criterion of between 10, 20, and 50 years respectively. The WHPAs delineated using a maximum of 10-year, 20-year, and 50-year TOT criterion are referred to as Zones 2, 3, and 4 respectively (e.g. Figures 2e & 2p). MGS used a range of travel times when describing each Zone. For example, the Zone 2 TOT range is between 1 to 10 years, Zone 3 is between 10 to 20 years, and Zone 4 is between 20 to 50 years respectively (Andreasen & Fewster, 2001). Therefore, any contaminant that is present within a Zone 2 WHPA, for example, would take between 1 to 10 years to reach the well (if it moves at the same rate as the ground water), using the permitted quantity. This will provide adequate time for facilities to address chemical contamination before it reaches the wells. Note that the contributing areas for Zones 2, 3, and 4 form relatively narrow elongated shapes ranging from 0.25 to 2.75 miles in length, and occurring at distances up to 1.8 miles from the wells (Figures 2c, 2d, 2e, 2o, 2p, 2s, & 2t).

POTENTIAL SOURCES OF CONTAMINATION

Potential sources of contamination are classified as either point or non-point sources. Examples of point sources of contamination are leaking underground storage tanks, landfills, discharge permits, large-scale feeding operations, and known ground water contamination sites. These sites are generally associated with commercial or industrial facilities that use chemical substances that may, if inappropriately handled, contaminate ground water via a discrete point location. Non-point sources of contamination are associated with certain types of land use practices such as the use of pesticides, application of fertilizers, sludge or animal wastes, or septic systems all that may lead to ground water contamination over a larger area.

Point Sources

Potential point sources of contamination were identified and mapped within and near the Wellhead Protection Areas of the 38 small systems. Table 2 lists the potential contaminant sites identified with their associated contaminants and Figures 2a-2u

show their locations with respect to the WHPAs. The point sources listed are identified from MDE contaminant databases and field inspections conducted by MDE staff. Potential contamination sources that were investigated include: underground storage tanks (USTs), leaking underground storage tanks (LUSTs), ground water discharge Permit sites (GWDP), Controlled Hazardous Substance Generators (CHS), pesticide dealers, solid waste landfills (SWLF), and ground water contamination sites (GWCS). Miscellaneous (MISC) potential contaminant sites include commercial buildings with chemical storage and vehicle maintenance facilities. The contaminants associated with the types of facilities are based on generalized categories and often the potential contaminant depends on the specific chemicals and processes being used at the individual facility. The potential contaminants for an activity may not be limited to those listed in Table 2. Potential contaminants are grouped as Volatile Organic Compounds (VOC), Synthetic Organic Compounds (SOC), Heavy Metals (HM), Nitrate/Nitrite (NN), and Microbiological Pathogens (MP).

A table describing sites within or near the various WHPAs with known petroleum contamination and their current status can be found in Appendix A. The approximate locations of the tanks are mapped as LUSTs and are shown on Figures 2f, 2h, 2i, 2m, 2o, 2p, and 2t respectively. The reader may contact the Oil Control Program for additional information regarding any of the Open Cases shown in this report.

Field inspections were conducted within and near the WHPAs to determine the potential of any unpermitted ground water discharges (e.g. open floor drains). Facilities located within and near the WHPAs were inspected. The facilities that received notice of violations (NOVs) are shown in Appendix B. One of the facilities had a vehicle wastewater holding tank system installed, and is now in compliance (Appendix B). Another facility has agreed to stop washing their truck cabs on-site. A follow-up is pending for the remaining facility. Reports of additional sites that were inspected are available from MDE.

Ground water discharge permits were issued to four facilities within or near the various WHPAs covered in this report. The facilities are as follows: Courtesy Chevrolet (Figure 2f), Pohanka Auto Group and Salisbury Ford-Lincoln-Mercury (Figure 2h), and Wor-Wic Community College (Figure 2o). Summary reports and fact sheets discussing the general permit details and requirements are found in Appendix C.

The West Road Rubble Landfill (also known as Roland Dashiell & Sons) is located within the Zone 3 WHPA for Bennett Mobile Home Park (Figure 2e). According to the MGS modeling study, particles traveling from the landfill will reach the Bennett Mobile Homes well field after approximately 15 years (Andreasen & Fewster, 2001). Recent information from the MDE Solid Waste Program revealed that the facility has temporarily stopped accepting waste until certain legal issues are resolved. Appendix D provides a brief site overview of the facility.

A comparison of the location of the wellhead protection areas with certain sites known to have ground water contamination revealed that two such sites were in the vicinity of wellhead protection areas (see Figures 2h and 2r). MDE's Water Supply Program studied the topographic and drainage basin position of the two sites in relation to the water supply systems covered in this report. Neither of the sites presents a water quality threat to the supply wells. The MDE Hazardous Waste Program at MDE oversaw the removal and proper disposal of hazardous waste drums and contaminated soils from the Adams Company & Sons site (Figure 2h). A preliminary assessment report prepared by MDE in 1991 stated that no further remedial action was planned at this facility. Pesticides were detected in soil samples collected from a site investigation at the Chevron Chemical Company in 1983 (Figure 2r). MDE is presently conducting a site survey to reassess the current conditions at this facility. Appendix E provides general site information and fact sheets for the two facilities. The reader may contact the specific programs within the MDE Waste Management Administration for additional information on any of the potential contaminant sites described in this report.

Non-Point Sources

The Maryland Office of Planning's 2000 Land Use / Land Cover map for Wicomico County was used to determine the predominant types of land use in each SWAP region (Figure 3). The land use of Wicomico County is approximately 44% forested, 35% cropland, 10% residential, 6% wetlands, and 3% commercial, with the other land uses making up the remaining 2% (Figure 3 & Table 7). Pesticides and herbicides used on cropland are potential non-point sources of SOC's. The application of fertilizers on agricultural fields is a potential non-point source of nitrate. Chicken houses are prevalent throughout Wicomico County and are present within or near the wellhead protection areas of some of the systems covered in this report (e.g. Figures 2d & 2k). Chicken manure used as a fertilizer is another common source of nitrate in Wicomico County. Sludge application is a potential non-point source of nitrate, microbiological pathogens, and heavy metals (see Figure 2e). The use of private septic systems and lawn maintenance and landscaping activities in residential areas are potential non-point sources of nitrate and SOC's to ground water.

A review of the Maryland Office of Planning 1995 Wicomico County Sewerage Coverage map indicates that 4% of the County is in the existing sewer service area, 1% is planned for sewer service within 3 to 10 years, and 95% of the County has no plans for sewer service (Figure 4 & Table 8). Figure 3 shows that the areas with no planned service are predominantly agricultural or forested lands. Low-density residential areas are generally outside the existing sewer service area and may be a source of nitrate loading to ground water through private septic systems. Most of the small systems in this report rely on on-site disposal of domestic wastewater. Commercial or industrial land use areas outside the existing sewer service present a potential source of many types of contaminants if byproducts and wastes are not disposed of properly.

Microbiological Contaminants

Ground water under the direct influence of surface water (GWUDI) raw water testing was conducted for 6 small community systems in Wicomico County. All results were negative for the presence of fecal coliform bacteria (Table 5d).

Formal GWUDI testing has not been completed for the other systems that are covered in this report that may be vulnerable to surface water influence. All of the systems, however, have either monthly or quarterly routine bacteriological samples that were collected as required by the Safe Drinking Water Act (Table 6). Of the 38 systems from this report, 27 do not use any type of water treatment. Therefore, routine bacteriological results at these systems may be representative of raw water. The samples collected from the remaining 11 systems are from finished (treated) water, which may not be indicative of the source water conditions. Thirty-three of the systems have had no positive routine bacteriological samples in all samples collected since 1997 (Table 6). Five systems had positive coliform bacteria results but none of these systems have had positive bacteria results in more than 9% of the total samples collected since 1997.

SUSCEPTIBILITY ANALYSIS

Forty-nine of the fifty-eight wells serving the small water systems included in this report draw water from the unconfined Quaternary System (Salisbury aquifer). In general, wells in unconfined aquifers are susceptible to contamination from activities on the land surface that occur within the wellhead protection areas. Nine of the wells are completed in deeper, confined Coastal Plain aquifers, and therefore should be well protected from activities at the ground surface. This is due to the presence of confining, low permeability, clay layers overlying the aquifer that may inhibit the infiltration of contaminants from entering the water supply. The susceptibility analysis of the individual water supplies to each group of contaminants has been completed based on the following criteria: 1) the presence of potential contaminant sources within the WHPA, 2) water quality data, 3) well integrity and 4) the aquifer conditions. Table's 10a-e summarizes the susceptibility of each of the 38 systems covered in this report to each of the groups of contaminants. Note that the Bennett Mobile Home Park wells were determined to be susceptible to nitrate, VOCs, and SOCs, whereas the nearby Naylor Mill Village Mobile Home Park wells are not (see Figure 2e). The wells at Naylor Mill Village were drilled into the paleochannel sediments of the Salisbury aquifer, nearly twice the depth as those for Bennett Mobile Home Park, (refer to Table 1a). According to the MGS study (Andreasen & Fewster, 2001) the source of recharge for these wells is through the deeper Manokin aquifer to the west of the Upper Wicomico River Basin study area.

Inorganic Compounds

Nitrate is present in the wells of 19 systems at 5 ppm or greater (Table 5a). The MCL for nitrate is 10 ppm. Four of the systems have regularly exceeded the established MCL (Table 5a in bold). At the Green Meadows Compact Homes, two new wells were drilled into the deeper, confined Frederica aquifer in 1999 and 2000. The 2 shallow unconfined wells with high nitrates and elevated iron were properly

abandoned and sealed. Currently, the system has had no nitrate detects since they began using the confined wells. Likewise, the Salisbury Christian School has had no detections of nitrate since installing new wells in 1997 that were drilled into the confined sediments of the Manokin aquifer. Sources of nitrate can generally be traced back to land use. Fertilizer applied to agricultural fields and residential lawns, animal waste in pasturelands, and effluent from residential and commercial septic systems are all non-point sources of nitrate loading in ground water. According to year 2000 land use, eighteen of the thirty-eight systems in this report have cropland within their respective WHPAs (Figure 3). In addition, 30 of the systems are in areas with no planned public sewerage service based on site inspections, and the 1995 Wicomico County Sewerage Coverage Map (Figure 4).

Sixteen of the systems in this report **are** susceptible to nitrate due to the levels and persistence of this contaminant found, the vulnerability of the unconfined aquifers to land activity, and the presence of nitrate sources in their wellhead protection areas. Based on available sampling data reported since 1993, twenty of the systems were determined **not** susceptible to nitrate contamination. Christian Community Center Child Care, and Maple Shade School have recently been added to the list of systems regulated by the State, and therefore do not have adequate nitrate data available to make a susceptibility determination at this time. A nitrate susceptibility logic chart is outlined for each system in Table 10a.

Iron is a naturally occurring element that is present in aquifer material at some of the systems in this report. Excessive iron levels can cause taste, color, and odor problems in drinking water as well as iron bacteria build-up around well screens. The secondary MCL for iron is 0.3 ppm. Five of the systems have installed treatment for iron removal (Table 3).

Based on available water quality data, 35 systems in this report with sufficient data available were determined **not** susceptible to regulated inorganic compounds other than nitrate. Beaver Run Elementary School may be susceptible to nickel due to a positive detect in 1999 above 50% of its respective MCL. Nickel is a natural element that may be present in aquifer material. Sampling results in 2001 at the Salisbury Office Complex / Skateland facility indicated a positive detect of thallium at 50% of its respective MCL of 0.002 ppm. This contaminant is often discharged from electronics, glass, or pharmaceutical companies.

Radionuclides

An MCL for radon-222 has not been adopted yet for Maryland. However, the U.S. EPA is proposing an MCL of 300 pCi/L or an alternative of 4000 pCi/L for drinking water if the State has a program to reduce the more significant risk from radon in indoor air, which is the primary health concern. Radon is present in 10 systems that have tested for this contaminant. Four water systems had radon levels above 50% of the more conservative proposed MCL of 300 pCi/L (Table 5b). Note that the unconfined wells at Green Meadows Compact Homes with the positive radon detection have since been properly abandoned and sealed, and replaced by deeper

wells completed in confined aquifer sediments where radon is generally not present. The source of radon in ground water can be traced back to the natural occurrence of uranium in rocks. The health effects and risks of radon in drinking water are reviewed in the Committee on Health Risks of Exposure to Radon BEIRVI (1999) report. The EPA also has information on proposed regulations for radon in indoor air and drinking water on their web site (<http://www.epa.gov/safewater/radon.html>). The systems that may be susceptible to radon-222 based on the more conservative MCL of 300 pCi/L are shown on Table 10b.

If the higher MCL of 4000 pCi/L is adopted, none of the 10 systems that have tested for this contaminant will be susceptible to radon.

Wells completed in confined Coastal Plain aquifers are generally not susceptible to radon-222. Therefore the wells at Green Meadows Compact Homes, Salisbury Christian School, Mardela High School, Northwestern Elementary School, and Westside Primary School are not susceptible to radon. A susceptibility logic chart for each system is shown on Table 10b. Twenty-four systems outlined in the table do not have radon results available and their susceptibility to this contaminant cannot be determined at this time.

Volatile Organic Compounds

Incidents of ground water contamination by VOCs are known to exist within or near the wellhead protection areas for 10 of the systems included in this report. The open cases that are still being investigated by the MDE Oil Control Program are summarized in Appendix A. Sites that have undertaken the proper corrective actions (e.g. removal of USTs and surrounding contaminated soils, repair of leaky connection fittings etc.) and where monitoring well sampling results show no VOC detects are no longer considered a potential ground water threat. Such cases have since been closed as determined by the MDE Oil Control Program.

P-dichlorobenzene was detected at low levels in 6 sets of sampling data since 1995 at the Boh-Nak Mobile Home Park. This contaminant may be a discharge product from industrial chemical factories. The Crown Cork & Seal manufacturing Company is located about 1,200 feet to the northwest of the Boh-Nak Well 1. However, this plant is located slightly down gradient and not within the wellhead protection area of the wells (Figure 2u). Additionally, the City of Fruitland is located about 1,000 ft. to the north of the Mobile Home Park. The only potential VOC contaminant sources observed from a site inspection of the Boh-Nak property are above ground storage tanks for domestic heating. Additionally, the MD Route 13 By-Pass is located within the Boh-Nak WHPA (Figure 2u). MDE is currently conducting quarterly sampling for VOCs at the production well.

Toluene was detected in 1997 and again in the year 2000 at levels well below its respective MCL of 1000 ppb at the West Salisbury School. This contaminant is present in gasoline and used in paint thinners. The school is listed as a controlled hazardous substance generator (CHS) in the MDE Waste Management

Administration contaminants database (Figure 2g & Table 2). Toluene has not been detected again from 2 recent sets of sampling data since the year 2000. The system is currently being monitored annually for VOCs by MDE.

Single detects of tetrachloroethylene, 1,1,1-trichloroethane, toluene, and styrene were encountered at levels well below their respective MCLs at Country Village Mobile Home Park, Barr International 2, Faith Baptist School, and the Hickory Dickory Tots facilities respectively. Repeat sampling at all of these facilities showed no positive VOC detections. Additionally, the Barr International 2, and Hickory Dickory Tots systems are now supplying bottled water for potable use. Possible VOC contaminant sources are shown on Figures 2c, and 2h respectively.

MTBE was detected from 3 and 4 sets of available sampling data at Gateway Village Mobile Home Park and Salisbury Baptist Academy respectively (see Water Quality section). The possible source(s) of this contaminant are shown on Figures 2c, and 2p. The Open Case at the Salisbury Baptist Academy is currently under investigation by the MDE Oil Control Program, and the Wicomico County Health Department (Appendix A).

The predominant sources of VOCs are point sources of contamination outlined in Table 2. Some of the systems that have potential VOC sources within or near their respective wellhead protection areas have not had any VOC detections in monitoring samples. However, due to the vulnerable nature of unconfined aquifers coupled with a potential source, twenty-five of the systems in this report **are** considered susceptible to VOCs as outlined in Table 10c. Thirteen systems were determined **not** susceptible to VOCs based on the absence of potential contaminant sources within the WHPA, water quality data, well integrity, or aquifer characteristics.

Synthetic Organic Compounds

The sources of SOC to ground water include point and non-point sources such as pesticide application. Potential point sources of SOC have been identified within or near the wellhead protection areas and are shown on Figures 2c, 2e-2i, 2o-2p, and 2r-2t. Non-point sources include pesticides applied to agricultural fields, and residential lawns. Eighteen of the thirty-eight systems in this report have cropland making up some portion of the land use within their respective WHPAs (Figure 3). The SOC potential contaminant sources are also listed on Table 2. Pesticides and chemicals used on residential and commercial lawns and gardens are also a potential threat. However, typical lawn maintenance herbicides are very biodegradable and should not pose a significant SOC risk if applied properly.

The only contaminant in this group detected above 50% of the MCL was di (2-ethylhexyl) phthalate, which can be attributed to its presence in the laboratory environment (Table 5c). Other SOC that were detected at levels well below their respective MCLs in 9 of the systems covered in this report are listed in the Water Quality section. The possible sources of these contaminants are as follows: Heptachlor epoxide is the residual breakdown of a banned termiticide. Dalapon, 2,4-

D, and simazine are herbicides used on cropland, lawns and road/railway lines. Pentachlorophenol is used as a wood preservative, and is found in cooling tower waste. Methoxychlor is leached from an insecticide used on fruits, vegetables, alfalfa, and livestock. Di (2-ethylhexyl) adipate is leached from PVC plumbing systems, and discharged from chemical factories.

Based on the potential contaminant sources within or near the respective WHPAs, available water quality data, and the vulnerability of unconfined aquifers to contamination, eight of the systems in this report **are** considered susceptible to SOC contamination, as outlined in Table 10d. Twenty-eight systems were determined **not** susceptible to SOC contamination (Table 10d). Sampling data was not available for the Christian Community Center Child Care, and the Filtronic Comtek facilities, respectively, and therefore their susceptibilities to this group of contaminants cannot be determined at this time.

Microbiological Contaminants

Sources of microbiological pathogens in surface water are improperly treated wastewater (discharge to surface water or failing septic systems), waste material from mammals, and urban runoff in developed areas. Ground water is generally thought to be not susceptible to contamination by pathogenic microorganisms due to the natural filtration ability of soil and aquifer material. The exceptions to this are wells that are classified as “Ground water under the direct influence of surface water” (GWUDI), and wells that may be susceptible to any microbiological contaminant present at the surface including *Giardia* and *Cryptosporidium*.

Six community water systems have completed formal GWUDI testing for some or all of their of their supply wells (see Table 5d). Systems that use no treatment have bacteriological data available as required by the Safe Drinking Water Act that is indicative of the source water conditions. This routine raw water data may therefore be used to evaluate the sensitivity of “low risk” wells to surface water influence. Wells completed in confined Coastal Plain sediments are considered “no risk” to surface water influence. Therefore, based on the above methods and available data, 27 of the 38 systems’ wells from this report may be evaluated for sensitivity to surface water.

The wells serving Barr International 2, the U.S. Air Administration Building, and Henson Hangar, Salisbury Ford Well 1, Pohanka Toyota Wells 1 and 2, Honda Well 2, and the Nissan Well, all are located below ground surface and therefore are more likely to be subject to flooding during heavy rains. This may allow contaminated surface water containing microbiological contaminants to enter through the casing and ultimately reach the aquifer. Therefore, these wells are considered “moderate risk” to surface water influence, and require a raw water bacteriological sample to be collected from each well after a minimum of 0.5 inch of rainfall has occurred. Systems that use treatment also will require special raw water GWUDI sampling in order to determine the sensitivity of these sources to surface water.

Based on available sampling data, the susceptibility analysis for microbiological pathogens is summarized in Table 10e. The susceptibility determinations listed in Table 10e will need to be revised after GWUDI data for the remaining systems becomes available.

MANAGEMENT OF THE SOURCE WATER ASSESSMENT AREA

With the information contained in this report, the individual water system owners as well as the Wicomico County government have a basis for better understanding the risks to drinking water supplies for smaller community and non-transient-non-community ground water systems. Being aware of the areas delineated for wellhead protection, knowing potential contaminant sources, evaluating future development, working with agricultural producers and soil conservation agencies, and effective outreach and education to the business community are examples of management practices that will help protect each water supply. A management strategy adopted by the county should be consistent with the level of resources available for implementation. MDE funded a study that was completed by the Maryland Geological Survey regarding the estimation of areas contributing recharge to selected public supply wells in the Upper Wicomico River and Rockawalking Creek Basins (Andreasen & Fewster, 2001).

Specific management recommendations for consideration are listed below. The following recommendations are intended for both a countywide wellhead protection effort, and for individual water systems.

RECOMMENDATIONS FOR COUNTY AGENCIES:

Form a Local Planning Team

- This is a general recommendation to start the process. The team should include representatives including the water suppliers, the County Health Department, county and local planning agencies, local businesses, and residents. Those living within and near wellhead protection areas should take an active role in addressing the protection of the water supplies.
- It is recommended that a consistent approach be developed for the City of Salisbury Wellhead Protection Areas, along with other public water supplies including the protection of the Paleochannel.

Public Awareness and Outreach

- Conduct education outreach to the facilities listed in Table 2. Important topics include: (a) minimizing the risk of contamination from all in-ground tanks and lines (b) inspection of all waste streams that may go into dry wells, septic tanks or other ground water discharge points, (c) reporting chemical and petroleum spills, and (d) proper material and chemical storage practices.
- Informing property owners and businesses located within WHPAs that their activities could have serious impacts on the respective water supplies.

- Road signs at the boundaries of wellhead protection areas are an effective way of making the public aware of protecting their source of water supply, and to help in the event of spill notification and response.

Planning/ New Development

- Plans for new commercial development should consider placement of water supply wells a priority for such facilities as gas stations, and other users of hazardous materials. Additionally, ensuring the adequacy of the well to supply water for the facilities in the long term will ensure that additional wells in less desirable locations are not necessary.
- A Countywide strategy for addressing water quality protection issues for small systems deserves consideration. A cooperative effort is needed to minimize future risks to contamination beyond minimum setback requirements.

Land Acquisition/Easements

- The availability of loans for purchasing land or easements for the purpose of protecting designated wellhead protection areas is available from MDE for community water systems and for non-transient non-community water systems owned by non-profit organizations. Loans are offered at zero percent interest and zero points.

Contingency Plan

- Develop a spill response plan in concert with the Fire Departments and other emergency response personnel.

RECOMMENDATIONS FOR INDIVIDUAL SYSTEMS:

Public Awareness and Outreach

- The Consumer Confidence Report should list that this report is available to the general public by contacting MDE.

Planning/New Development

- MDE recommends that water supply system owners within Wicomico County should encourage the County to evaluate applying a wellhead protection ordinance to smaller systems.

Cooperative Efforts with Other Agencies

- Systems that have cropland making up part of their wellhead protection areas can request the assistance of the University of Maryland Agricultural Extension Service and the Soil Conservation Service to work with farmers to adopt Best Management Practices (BMP's) for cropland located in their WHPA.
- The systems may also encourage farmers to participate in the New Conservation Reserve Program (CREP) applicable to the cropland located within wellhead protection areas. Government funding is available to qualified farmers equal to the cost and financial benefit of farming the area. The Natural Resources Conservation

Service is responsible for determining the environmental benefits of each acre offered for participation.

Monitoring

- Systems should continue to monitor for contaminants that have been previously detected to ensure public health protection.
- Systems whose wellhead protection areas are within or near open LUST cases should stay in contact with the MDE Oil Control Program for the latest status and updates of these cases.
- Systems should continue to monitor for all Safe Drinking Water Act contaminants as required by MDE.
- Annual raw water sampling for microbiological contaminants is a good check on well integrity. Systems that have not completed any raw water testing for microbial contaminants since the time the well was drilled should do so.

Contingency Plan

- All water system owners should have a Contingency Plan for their water system. COMAR 26.04.01.22 requires all community water systems to prepare and submit for approval a plan for providing a safe and adequate drinking water supply under emergency conditions.

Contaminant Source Inventory Updates/ Inspections

- Water system owners should conduct its own survey of their wellhead protection area to ensure that there are no additional potential sources of contamination. Updated records of new development within the WHPA should be maintained.
- Periodic inspections and a regular maintenance program for the supply wells will ensure their integrity and protect the aquifer from contamination.
- Systems that have wells that are below ground surface should consider extending the casing to prevent surface waters from entering the well. In addition, depressions around wells should be properly filled and graded to prevent surface water ponding and to allow for proper drainage away from the wells.

Changes in Use

- Water system owners are required to notify the MDE Water Supply Program if new wells are to be added or if they wish to increase their water useage. Drilling a new well outside the current wellhead protection area would modify the area; therefore the Water Supply Program should be contacted if a new well is being proposed.

REFERENCES

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- Banks, William S.L., Klohe, Cheryl A., and Battigelli, David A., Occurrence and Distribution of Enteric Viruses in Shallow Ground Water and Factors Affecting Well Vulnerability to Microbiological Contamination in Worcester and Wicomico Counties, Maryland: U.S. Geological Survey Water-Resources Investigations Report 01-4147, 23 p.
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- Shedlock, Robert J., Denver, Judith M., Hayes, Martha A., Hamilton, Pixie A., Koterba, Michael T., Bachman, Joseph L., Phillips, Patrick J., and Banks, William S.L., 1999, Water-Quality Assessment of the Delmarva Peninsula, Delaware, Maryland, and Virginia: Results of Investigations, 1987-91: U.S. Geological Survey Water-Supply Paper 2355-A, 41 p.
- Weigle, J.M., 1972, Part 2: Exploration and mapping of Salisbury Paleochannel, Wicomico County, Maryland: Maryland Geological Survey Bulletin 31, p. 61-124.

OTHER SOURCES OF DATA

Water Appropriation and Use Permits
Public Water Supply Sanitary Survey Inspection Reports
MDE Water Supply Program Oracle® Database
MDE Waste Management Sites Database
Department of Natural Resources Digital Orthophoto Quarter Quadrangles
USGS Topographic 7.5-Minute Quadrangles
Maryland Office of Planning 2000 Wicomico County Land Use Map
Maryland Office of Planning 1995 Wicomico County Sewerage Coverage Map

TABLES

PWSID 1	PWS NAME	PLANT ID 2	SRC. ID 3	USE CODE 4	SOURCE NAME	WAPID 5	AVE. AMT. (gpd)	WELL PERMIT NO.	WELL DEPTH (ft.)	CASING DEPTH (ft.)	YEAR DRILLED	AQUIFER
0220201	GREEN MEADOWS COMPACT HOMES	01	03	P	WELL 4	WI2000G012	9400	WI943284	398	198	1999	FREDERICA AQUIFER
0220201	GREEN MEADOWS COMPACT HOMES	01	04	P	WELL 5	WI2000G012	9400	WI943521	405	220	2000	FREDERICA AQUIFER
0220204	GATEWAY VILLAGE MOBILE HOME PARK	01	01	P	WELL 1	WI1980G015	5800	WI736523	80	70	1980	QUATERNARY SYSTEM
0220204	GATEWAY VILLAGE MOBILE HOME PARK	01	02	P	WELL 2	WI1980G015	5800	WI730126	42	32	1972	QUATERNARY SYSTEM
0220206	PINE TREE MOBILE HOME PARK	01	01	P	WELL 1	WI1973G004	8600	WI730142	65	55	1972	QUATERNARY SYSTEM
0220206	PINE TREE MOBILE HOME PARK	01	02	P	WELL 2	WI1973G004	8600	n/a	n/a	n/a	n/a	QUATERNARY SYSTEM
0220212	EASTWOOD VILLAGE M.H.P.	01	03	P	WELL 3	WI1974G011	9000	WI943312	80	70	1999	QUATERNARY SYSTEM
0220213	COUNTRY VILLAGE M.H.P.	01	01	P	WELL 1	WI1967G016	7600	WI670179	100	n/a	1966	QUATERNARY SYSTEM
0220213	COUNTRY VILLAGE M.H.P.	01	02	P	WELL 2	WI1967G016	7600	WI700708	80	n/a	n/a	QUATERNARY SYSTEM
0220218	BOH-NAK MOBILE HOME PARK	01	01	S	BACKUP WELL	WI1967G017	7000	WI670212	71	61	1967	QUATERNARY SYSTEM
0220218	BOH-NAK MOBILE HOME PARK	02	02	P	WELL 1	WI1967G017	7000	WI690028	70	n/a	1968	QUATERNARY SYSTEM
0220221	NAYLOR MILL VILLAGE M.H.P.	01	98	P	WELL 1	WI1976G017	9800	WI810404	150	140	1983	QUATERNARY SYSTEM
0220221	NAYLOR MILL VILLAGE M.H.P.	01	99	P	WELL 2	WI1976G017	9800	WI810405	150	140	1983	QUATERNARY SYSTEM
0220222	BENNETT MOBILE HOME PARK	01	01	P	WELL 1	WI1987G003	4500	WI813510	80	70	1987	QUATERNARY SYSTEM
0220222	BENNETT MOBILE HOME PARK	01	02	P	WELL 2	WI1987G003	4500	WI813511	80	70	1987	QUATERNARY SYSTEM
0220223	COLONIAL MILL ESTATES MOBILE HOME PARK	01	01	P	WELL 1	WI1980G002	8400	WI813513	80	70	1987	QUATERNARY SYSTEM
0220223	COLONIAL MILL ESTATES MOBILE HOME PARK	02	02	S	WELL 2	WI1980G002	8400	WI813512	80	70	1987	QUATERNARY SYSTEM

Table 1a. Well Information for Community Water Supply Wells

¹ PWSID = Public Water System Identification

² PLANT ID = Plant Identification. The water point of entry to a system from each well

³ SRC. ID = Source Identification. Each well is considered a unique water source

⁴ P = Production, S = Standby

⁵ WAPID = Water Appropriation Permit Identification

PWSID 1	PWS NAME	PLANT ID 2	SRC. ID 3	USE CODE 4	SOURCE NAME	WAPID 5	AVE. AMT. (gpd)	WELL PERMIT NO.	WELL DEPTH (ft.)	CASING DEPTH (ft.)	YEAR DRILLED	AQUIFER
1220003	BARR INTERNATIONAL #1	01	01	P	WELL 1	WI1975G001	700	WI811044	70	65	1984	QUATERNARY SYSTEM
1220003	BARR INTERNATIONAL #1	01	02	P	WELL 2	WI1975G001	700	WI735170	55	45	1979	QUATERNARY SYSTEM
1220004	BARR INTERNATIONAL #2	01	01	P	WELL 1	WI1967G014	400	WI670147	58	50	1966	QUATERNARY SYSTEM
1220005	BEAVER RUN ELEMENTARY SCHOOL	01	01	P	WELL 1	WI1985G006	6800	WI812863	117	107	1986	QUATERNARY SYSTEM
1220007	SALISBURY CHRISTIAN SCHOOL	02	03	P	WELL 3	WI1997G058	2800	WI941404	230	210	1997	MANOKIN AQUIFER
1220007	SALISBURY CHRISTIAN SCHOOL	02	04	P	WELL 4	WI1997G058	2800	WI941449	230	210	1997	MANOKIN AQUIFER
1220011	FAITH BAPTIST SCHOOL	01	01	P	WELL 1	WI1981G032	1000	WI737108	105	100	1981	QUATERNARY SYSTEM
1220016	MARDELA HIGH SCHOOL	01	01	P	WELL 1	WI1979G008	5000	WI735458	309	273	1980	FREDERICA AQUIFER
1220018	NORTHWESTERN ELEMENTARY SCHOOL	01	01	P	WELL 1	WI1966G014	5500	WI882168	300	280	1990	FREDERICA AQUIFER
1220018	NORTHWESTERN ELEMENTARY SCHOOL	01	02	P	WELL 2	WI1966G014	5500	WI660116	302	276	1966	FREDERICA AQUIFER
1220022	SALISBURY BAPTIST ACADEMY	01	01	P	WELL 1	WI1978G005	2100	WI734757	44	39	1977	QUATERNARY SYSTEM
1220025	SALISBURY SCHOOL	01	01	P	LOWER SCHOOL WELL	WI1972G016	5300	WI812049	100	90	1985	QUATERNARY SYSTEM
1220025	SALISBURY SCHOOL	02	02	P	GYMNASIUM WELL	WI1972G016	5300	WI940890	110	95	1997	QUATERNARY SYSTEM
1220027	TOMMY TUCKER NURSERY 2	01	01	P	WELL 1	n/a	750	WI880516	82	72	1989	QUATERNARY SYSTEM
1220028	WESLEY TEMPLE DAY CARE	01	01	P	WELL 1	WI1975G023	200	WI815018	87	77	1988	QUATERNARY SYSTEM
1220029	WESTSIDE PRIMARY SCHOOL	01	02	P	WELL 2	WI1985G005	4400	WI942015	370	320	1998	FREDERICA AQUIFER
1220031	WISE BEGINNINGS	01	01	P	WELL 1	WI1985G009	600	WI811462	78	73	1985	QUATERNARY SYSTEM
1220033	KIDDIE KAMPUS	01	01	P	WELL 1	WI1984G001	1000	WI813946	100	90	1987	QUATERNARY SYSTEM
1220036	WEST SALISBURY SCHOOL	01	02	P	WELL 2	WI1985G004	6800	WI942362	90	66	1998	QUATERNARY SYSTEM

Table 1b. Well Information for Non-Transient Water Supply Wells

PWSID 1	PWS NAME	PLANT ID 2	SRC. ID 3	USE CODE 4	SOURCE NAME	WAPID 5	AVE. AMT. (gpd)	WELL PERMIT NO.	WELL DEPTH (ft.)	CASING DEPTH (ft.)	YEAR DRILLED	AQUIFER
1220037	NOAH'S ARK CHILD CARE	01	01	P	WELL 1	WI1987G018	500	WI814028	71	66	1987	QUATERNARY SYSTEM
1220040	BUTTONS & BOWS AKA WICOMICO DAY SCHOOL	01	01	P	WELL 1	WI1994G033	1300	WI941945	95	85	1998	QUATERNARY SYSTEM
1220040	BUTTONS & BOWS AKA WICOMICO DAY SCHOOL	01	03	P	WELL 3	n/a	1300	WI944694	160	140	2002	MANOKIN AQUIFER
1220042	U S AIR - ADMIN. BLDG.	01	01	P	ADMIN. BLDG. WELL	WI1962G004	8500	WI736234	88	78	1980	QUATERNARY SYSTEM
1220043	U S AIR - HENSON HANGAR	01	01	P	HENSON HANGAR WELL	WI1962G004	8500	WI731269	42	37	1974	QUATERNARY SYSTEM
1220044	SALISBURY FORD LINCOLN- MERCURY	01	01	P	WELL 1	WI1963G006	800	WI052571	82	45	1963	QUATERNARY SYSTEM
1220044	SALISBURY FORD LINCOLN- MERCURY	02	03	P	BODY SHOP WELL	WI1963G006	800	WI732091	59	49	1975	QUATERNARY SYSTEM
1220045	BAR NONE	01	01	P	WELL 1	WI1972G010	3800	WI720208	65	45	1972	QUATERNARY
1220048	TENDER HEART DAY CARE	01	01	P	WELL 1	WI1995G021	1700	WI940065	90	80	1995	QUATERNARY
1220049	MAPLE SHADE SCHOOL	01	01	P	WELL 1	WI1994G011	1200	WI921951	100	90	1994	QUATERNARY SYSTEM
1220050	FILTRONIC COMTEK	01	01	P	WELL 1	WI1995G012	5000	WI930886	60	50	1995	QUATERNARY SYSTEM
1220051	CHRISTIAN COMMUNITY CENTER CHILD CARE	01	01	P	WELL 1	WI1997G020	5000	WI941534	105	90	1997	QUATERNARY SYSTEM
1221035	POHANKA OF SALISBURY INC	01	01	P	HONDA WELL 1	WI1978G011	300	WI880261	78	73	1988	QUATERNARY SYSTEM
1221035	POHANKA OF SALISBURY INC	01	02	S	TOYOTA WELL 1	WI1963G009	300	WI055044	85	77	1963	QUATERNARY SYSTEM
1221035	POHANKA OF SALISBURY INC	01	03	S	HONDA WELL 2	WI1978G011	300	WI734626	78	68	1978	QUATERNARY SYSTEM
1221035	POHANKA OF SALISBURY INC	01	04	S	TOYOTA WELL 2	WI1963G009	300	WI921667	90	80	1993	QUATERNARY SYSTEM
1221035	POHANKA OF SALISBURY INC	02	05	P	MAZDA-NISSAN WELL	WI1967G009	200	WI670122	86	65	1967	QUATERNARY SYSTEM
1221035	POHANKA OF SALISBURY INC	03	06	S	BODY SHOP WELL	WI1974G036	500	WI814550	80	70	1988	QUATERNARY SYSTEM
1221086	SALISBURY OFFICE COMPLEX / SKATELAND	01	01	P	WELL 1	WI1977G030	500	WI734125	58	48	1977	QUATERNARY SYSTEM

Table 1b (continued). Well Information for Non-Transient Water Supply Wells

PWSID 1	PWS NAME	PLANT ID 2	SRC. ID 3	USE CODE 4	SOURCE NAME	WAPID 5	AVE. AMT. (gpd)	WELL PERMIT NO.	WELL DEPTH (ft.)	CASING DEPTH (ft.)	YEAR DRILLED	AQUIFER
1221127	SALISBURY-WICOMICO AIRPORT	01	01	P	TERMINAL WELL 1	WI1962G004	8500	WI881538	100	80	1990	QUATERNARY SYSTEM
1221127	SALISBURY-WICOMICO AIRPORT	01	02	P	TERMINAL WELL 2	WI1962G004	8500	WI810080	80	75	1982	QUATERNARY SYSTEM
1221134	HICKORY DICKORY TOTS	01	01	P	WELL 1	WI1977G021	1200	WI813936	80	75	1987	QUATERNARY SYSTEM

Table 1b (continued). Well Information for Non-Transient Water Supply Wells

¹ PWSID = Public Water System Identification

² PLANT ID = Plant Identification. The water point of entry to a system from each well

³ SRC. ID = Source Identification. Each well is considered a unique water source

⁴ P = Production, S = Standby

⁵ WAPID = Water Appropriation Permit Identification

Type ¹	Site Name	Address	Potential Contaminant ¹	Reference Figure
AST	Maple Shade School	23704 Ocean Gateway	VOC	2a
UST	Cheers (formerly Galaxy Beverages)	Bi-State Blvd. & State St.	VOC	2c
UST	Shore Stop #19	403 S. Bi-State Blvd.	VOC	2c
UST	Delmar Thirsty's	9534 Ocean Hwy.	VOC	2c
UST	Mobil	9500 blk. Ocean Hwy.	VOC	2c
UST,AST	Barr International 2	9367 Ocean Hwy.	VOC	2c
MISC	Mitsubishi/Harvey Mack Sales	30299 Foskey Ln.	VOC,HM	2c
MISC	United Rental	9172 Ocean Hwy.	VOC,HM	2c
MISC	BFI Waste Services	9140 Ocean Hwy.	VOC,HM	2c
MISC	Jim's Transmission Outlet	8999 Bi-State Blvd.	VOC,HM	2c
MISC	Pumphrey's Auto Body	8997 Bi-State Blvd.	VOC,HM	2c
MISC	Peninsula Electric	8972 Bi-State Blvd.	VOC,HM	2c
MISC	Winston's Body Shop	8951 Bi-State Blvd.	VOC,HM	2c
MISC	G&M Sales	8999 Ocean Hwy.	VOC,HM	2c
MISC	W&W Heating & AC	8917 Bi-State Blvd.	VOC,HM	2c
MISC	East Coast Supply	8867 Bi-State Blvd.	VOC,HM	2c
MISC	ASI Controls	8881 Bi-State Blvd.	VOC,HM	2c
MISC	Hahn's Auto & Truck Clinic	8861 Bi-State Blvd.	VOC,HM	2c
UST, MISC	Delmar Wastewater Treatment Facility	Connelly Mill Road	VOC,SOC,MP,N N	2c
UST	7-Eleven	8640 Ocean Hwy.	VOC	2c
UST	Delmar Tiger Mart	8600 Ocean Hwy.	VOC	2c
MISC	Saturn Dealership	Ocean Hwy.	VOC,HM	2c
SWLF,GWDP	West Rd. Rubble Landfill	West Rd.	VOC,HM,SOC, NN,MP	2e
MISC	BioGro	West Rd.	MP,NN,HM	2e
AST	Bennett Airport	near Bennett Pk. Dr.	VOC	2e
MISC	Lowe's	2606 N. Salisbury Blvd.	VOC,HM,SOC	2f
GWDP	Courtesy Chevrolet	2531 N. Salisbury Blvd.	VOC, HM	2f
LUST,AST	Conectiv (formerly Delmarva Power)	2530 N. Salisbury Blvd.	VOC,HM	2f
UST	Shell	N. Salisbury Blvd.	VOC	2f
MISC	Total Lawn Care	2445 W. Zion Rd.	VOC,SOC,NN	2f
MISC	Tishcon Corp.	2410 W. Zion Rd.	VOC,SOC,HM	2f
MISC	Trinity Laboratories	201 Hiley Dr.	VOC,SOC,HM	2f
MISC	Boater's World	2423 N. Salisbury Blvd.	VOC,SOC	2f
CHS,AST	Barr International 1	2407 N. Salisbury Blvd.	VOC,HM,SOC	2f
UST	Tiger Mart	2403 N. Salisbury Blvd.	VOC	2f
CHS	West Salisbury Elementary School	1321 West Rd.	VOC,HM,SOC	2g
UST	Wesley Temple United Methodist Church	1322 West Rd.	VOC	2g
UST	Choptank Electric	2121 W. Zion Rd.	VOC	2h,2i
MISC	Maaco Auto Painting	2115 W. Zion Rd.	VOC,HM	2h,2i
GWDP	Pohanka Auto Group	2013 N. Salisbury Blvd.	VOC,HM	2h,2i
MISC	Delmarva Electric	111 Gordy Rd.	VOC	2h,2i
MISC	J&S Auto	2002 N. Salisbury Blvd.	VOC,HM	2h,2i
MISC	Lewis Steel Products	112 Gordy Rd.	HM,VOC	2h
LUST	Ellison Marine Svc. (formerly Shore Fuel Oil)	1918 N. Salisbury Blvd.	VOC	2h,2i

Table 2. Potential Contaminant Point Sources within or near Wellhead Protection Areas
(see figures referenced for location)

Type ¹	Site Name	Address	Potential Contaminant ¹	Reference Figure
MISC	John's Auto Care	1916 N. Salisbury Blvd.	VOC, HM	2h, 2i
MISC	Stewart Stainless Supply	1925 N. Salisbury Blvd.	HM, VOC	2h, 2i
MISC	Delmarva Auto Glass	1923 N. Salisbury Blvd.	VOC, HM	2h, 2i
CHS	Eurshall Miller's Auto Body Shop	123 Columbia Rd.	VOC, HM, SOC	2h
UST	John F. Tilghman & Sons	121 Columbia Dr.	VOC	2h
UST	Shore Stop #44	104 Gordy Rd.	VOC	2h, 2i
CHS, GWDP, AST	Salisbury Ford	1902 N. Salisbury Blvd.	VOC, HM, SOC	2h
MISC	Meineke	1822 N. Salisbury Blvd.	VOC, HM	2h
CHS, AST	Car-Way Chrysler	1911 N. Salisbury Blvd.	VOC, HM, SOC	2h, 2i
MISC	Valley National Gases	116 Columbia Rd.	VOC	2h
AST	Hickory Dickory Tots	1825 N. Salisbury Blvd.		2h
MISC	Eurshall Auto	Maple Way	VOC, HM	2h
CHS	Evolution Motor Sports	Maple Way & Cross Way	VOC, HM, SOC	2h, 2i
GWCS	Adams Co. & Sons	Northwood Dr. & Arlington Rd.	VOC, SOC, HM	2h
MISC	Boulevard Motors	1815 N. Salisbury Blvd.	VOC, HM	2h
MISC	Orkin Exterminating	1726 N. Salisbury Blvd.	VOC, SOC, HM	2h
UST	WBOC-TV	1729 N. Salisbury Blvd.	VOC	2h
AST	Pine Tree M.H.P.	7661 Jones Hastings Rd.	VOC	2k
AST	Tommy Tucker Nursery 2	33304 Old Ocean City Rd.	VOC	2k
AST	Country Village M.H.P.	Rounds Rd.	VOC	2l
LUST, AST	Lester's Getty Garage	28441 Old Quantico Rd.	VOC, HM	2m
MISC	Allied Building Center	205 Moss Hill Lane	VOC, HM	2n
UST	MSC/Mailmovers	112 Moss Hill Ln.	VOC	2n
UST	Sunoco	1300 Old Ocean City Rd.	VOC	2n
MISC	SOS Auto Service	1208 Old Ocean City Rd.	VOC, HM	2n
CHS	George Perdues Used Cars	32208 Old Ocean City Rd.	VOC, HM, SOC	2o, 2p
LUST, UST	K&G Market	Old Ocean City Rd. & Walston Switch Rd.	VOC	2o
CHS, AST	Perdue Farms	6906 Zion Church Rd.	VOC, HM, SOC, MP, NN	2o, 2p
MISC	Ted Lansing	6701 Hobbs Rd.	VOC, HM	2o, 2p
UST	Hobbs Rd. Amoco	31373 Old Ocean City Rd.	VOC	2o, 2p
UST	Winterplace Market	6731 Hobbs Rd.	VOC	2o, 2p
UST	Texaco	Hobbs Rd.	VOC	2o, 2p
MISC	Atlantic & Hastings Printers	31545 Winterplace Pkwy.	VOC, SOC, HM	2o, 2p
MISC	Winterplace Animal Hospital	31611 Winterplace Pkwy.	VOC, SOC, HM	2o, 2p
UST	Walston Switch Exxon	31997 Beaver Run Rd.	VOC	2o, 2p
GWDP	Wor-Wic Community College	32000 Campus Dr.	NN, MP	2o, 2p
AST	Perdue Farms Main Office	31149 Old Ocean City Rd.	VOC	2p
CHS	Tyndalls	31415 John Deere Dr.	VOC, SOC, HM	2p
MISC	Wico. Co. Baseball Stadium	Hobbs Rd. & MD Rt. 50	NN, MP, SOC	2p

Table 2 (continued). Potential Contaminant Point Sources within or near Wellhead Protection Areas (see figures referenced for location)

Type ¹	Site Name	Address	Potential Contaminant ¹	Reference Figure
MISC	Holt Paper & Chemical Co.	31375 John Deere Dr.	VOC, HM	2p
UST	Exxon Tiger Express	1801 Autumn Grove Ct.	VOC	2p
LUST, AST	Salisbury Baptist Academy	6413 Hobbs Rd.	VOC	2p
UST	Salisbury School	6279 Hobbs Rd.	VOC	2p
GWCS	Chevron Chemical Co.	125 Bateman St.	SOC	2r
AST	James Bennett Middle School	200 East College Ave.	VOC	2r
UST, AST	James Bennett High School	300 East College Ave.	VOC	2r
AST	William P. Hearne Produce	160 Farmers Market Rd.	VOC	2r
MISC	Tyson Food	Dykes Rd.	VOC, SOC, NN, MP	2r
UST	Royal Farms #73	1401 S. Division St.	VOC	2r
AST	Eastwood Village M.H.P.	Johnson Rd.	VOC	2s
MISC	Woodland Nursery	311069 Johnson Rd.	VOC, SOC	2s
MISC	Avis/Hertz Rent-A-Car	5485 Airport Terminal Rd.	VOC	2t
UST	Salisbury-Wico. Co. Airport	5485 Airport Terminal Rd.	VOC	2t
CHS	U.S. Air Henson Hangar	Airport Access Rd.	VOC, SOC, HM	2t
UST	AG Atlantic Investment	5333 Airport Rd.	VOC	2t
UST	Bay Land Aviation	5279 Airport Rd.	VOC	2t
LUST, UST, AST	B&J Market	31795 Mt. Herman Rd.	VOC	2t
UST	MD State Police Aviation Division	5286 Lear Jet Way	VOC	2t
UST, CHS	Federal Express	5255 Falcon Dr.	VOC, SOC, HM	2t
AST	Boh-Nak M.H.P.	4053 Brown St. Ext.	VOC	2u

Table 2 (continued). Potential Contaminant Point Sources within or near Wellhead Protection Areas (see figures referenced for location)

¹ UST = underground storage tanks, LUST = leaking underground storage tanks, AST = above ground storage tanks

CHS = controlled hazardous substance generators, GWDP = ground water discharge permit sites

GWCS = ground water contamination sites, SWLF = sanitary waste landfills, MISC = miscellaneous sites

VOC = volatile organic compounds, SOC = synthetic organic compounds

MP = microbiological pathogens, HM = Heavy Metals, NN = nitrate/nitrite

PWSID	PWS NAME	PLANT ID	TREATMENT METHOD	REASON FOR TREATMENT
220201	GREEN MEADOWS COMPACT HOMES	1	NO TREATMENT	
220204	GATEWAY VILLAGE MOBILE HOME PARK	1	NO TREATMENT	
220206	PINE TREE MOBILE HOME PARK	1	HYPOCHLORINATION, POST	DISINFECTION
220206	PINE TREE MOBILE HOME PARK	1	ION EXCHANGE -IRON	IRON REMOVAL
220212	EASTWOOD VILLAGE M.H.P.	1	NO TREATMENT	
220212	EASTWOOD VILLAGE M.H.P.	2	NO TREATMENT	
220213	COUNTRY VILLAGE M.H.P.	1	HYPOCHLORINATION, PRE	DISINFECTION
220213	COUNTRY VILLAGE M.H.P.	1	ION EXCHANGE -IRON	IRON REMOVAL
220213	COUNTRY VILLAGE M.H.P.	1	ION EXCHANGE	INORGANICS REMOVAL
220218	BOH-NAK MOBILE HOME PARK	2	pH ADJUSTMENT	CORROSION CONTROL
220218	BOH-NAK MOBILE HOME PARK	1	NO TREATMENT	
220221	NAYLOR MILL VILLAGE M.H.P.	1	NO TREATMENT	
220221	NAYLOR MILL VILLAGE M.H.P.	2	NO TREATMENT	
220222	BENNETT MOBILE HOME PARK	1	HYPOCHLORINATION, POST	DISINFECTION
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	1	HYPOCHLORINATION, POST	DISINFECTION
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	2	NO TREATMENT	
1220003	BARR INTERNATIONAL #1	1	NO TREATMENT	
1220004	BARR INTERNATIONAL #2	1	NO TREATMENT	
1220005	BEAVER RUN ELEMENTARY SCHOOL	1	INHIB., POLYPHOSPHATE	CORROSION CONTROL
1220005	BEAVER RUN ELEMENTARY SCHOOL	1	LIME - SODA ASH ADDITION	SOFTENING
1220007	SALISBURY CHRISTIAN SCHOOL	1	ION EXCHANGE -IRON	IRON REMOVAL
1220007	SALISBURY CHRISTIAN SCHOOL	2	NO TREATMENT	
1220011	FAITH BAPTIST SCHOOL	1	NO TREATMENT	
1220016	MARDELA HIGH SCHOOL	1	INHIB., ORTHOPHOSPHATE	CORROSION CONTROL
1220016	MARDELA HIGH SCHOOL	1	pH ADJUSTMENT	CORROSION CONTROL
1220018	NORTHWESTERN ELEMENTARY SCHOOL	1	NO TREATMENT	
1220022	SALISBURY BAPTIST ACADEMY	1	NO TREATMENT	
1220025	SALISBURY SCHOOL	2	ION EXCHANGE -IRON	IRON REMOVAL
1220025	SALISBURY SCHOOL	1	NO TREATMENT	

Table 3. Treatment Methods for Wicomico County Small Systems

PWSID	PWS NAME	PLANT ID	Nitrate		SOCs		VOCs		IOCs (except nitrate)	
			No. of Samples	No. of samples > 50% MCL	No. of Samples	No. of samples > 50% MCL	No. of Samples	No. of samples > 50% MCL	No. of Samples	No. of samples > 50% MCL
1220016	MARDELA HIGH SCHOOL	1	18	1	1	0	6	0	4	0
1220018	NORTHWESTERN ELEM.	1	16	0	1	0	6	0	5	0
1220022	SALISBURY BAPTIST ACADEMY	1	32	20	2	0	11	0	5	0
1220025	SALISBURY SCHOOL	1	32	32	2	0	9	0	3	0
1220025	SALISBURY SCHOOL	2	0		0		0		0	
1220027	TOMMY TUCKER NURSERY 2	1	11	0	1	0	6	0	2	0
1220028	WESLEY TEMPLE DAY CARE	1	15	0	2	1	7	0	5	0
1220029	WESTSIDE PRIMARY SCHOOL	1	17	0	3	0	9	0	6	0
1220031	WISE BEGINNINGS	1	28	27	2	0	8	0	5	0
1220033	KIDDIE KAMPUS	1	11	0	1	0	4	0	2	0
1220036	WEST SALISBURY SCHOOL	1	31	31	2	1	11	0	5	0
1220037	NOAH'S ARK CHILD CARE	1	27	25	3	1	9	0	4	0
1220040	BUTTONS & BOWS	1	32	10	2	0	12	0	4	0
1220042	U S AIR - ADMIN. BLDG.	1	12	0	1	0	3	0	2	0

Table 4 (continued). Total Water Quality Samples Collected for all Wicomico County Small Systems

PWSID	PWS NAME	PLANT ID	Nitrate		SOCs		VOCs		IOCs (except nitrate)	
			No. of Samples	No. of samples > 50% MCL	No. of Samples	No. of samples > 50% MCL	No. of Samples	No. of samples > 50% MCL	No. of Samples	No. of samples > 50% MCL
1220043	U S AIR - HENSON HANGAR	1	10	0	1	0	2	0	2	0
1220044	SALISBURY FORD LINCOLN-MERCURY	1	12	0	1	0	4	0	2	0
1220045	BAR NONE	1	11	11	3	0	6	0	4	0
1220048	TENDER HEART DAY CARE	1	6	0	3	0	5	0	1	0
1220049	MAPLE SHADE SCHOOL	1	3	1	1	1	2	0	2	0
1220050	FILTRONIC COMTEK	1	2	2	0		0		1	0
1220051	CHRISTIAN COMMUNITY CTRE. CHILD CARE	1	0		0		0		0	
1221035	POHANKA OF SALISBURY INC	1	4	0	2	0	7	0	2	0
1221035	POHANKA OF SALISBURY INC	2	0		0		0		0	
1221086	SALISBURY OFFICE COMPLEX / SKATELAND	1	5	4	4	1	5	0	2	1
1221127	SALISBURY-WICOMICO AIRPORT	1	6	0	1	0	5	0	3	0
1221134	HICKORY DICKORY TOTS	1	4	0	1	0	5	0	1	0

Table 4 (continued). Total Water Quality Samples Collected for all Wicomico County Small Systems

PWSID	PWS NAME	PLANT ID	CONTAMINANT NAME	MCL (ppm)	SAMPLE DATE	RESULT (ppm)
220201	GREEN MEADOWS COMPACT HOMES	1	NITRATE	10	28-Apr-93	9.2
220201	GREEN MEADOWS COMPACT HOMES	1	NITRATE	10	5-May-94	8.6
220201	GREEN MEADOWS COMPACT HOMES	1	NITRATE	10	7-Nov-94	8
220201	GREEN MEADOWS COMPACT HOMES	1	NITRATE	10	9-Feb-95	6.6
220201	GREEN MEADOWS COMPACT HOMES	1	NITRATE	10	27-Feb-96	8.8
220201	GREEN MEADOWS COMPACT HOMES	1	NITRATE	10	24-Apr-96	9.2
220201	GREEN MEADOWS COMPACT HOMES	1	NITRATE	10	3-Jul-96	9.3
220201	GREEN MEADOWS COMPACT HOMES	1	NITRATE	10	15-Oct-96	14.8
220201	GREEN MEADOWS COMPACT HOMES	1	NITRATE	10	11-Nov-96	14.4
220201	GREEN MEADOWS COMPACT HOMES	1	NITRATE	10	7-Jan-97	14
220201	GREEN MEADOWS COMPACT HOMES	1	NITRATE	10	1-Apr-97	13.3
220201	GREEN MEADOWS COMPACT HOMES	1	NITRATE	10	8-Jul-97	15.1
220201	GREEN MEADOWS COMPACT HOMES	1	NITRATE	10	13-Oct-97	12
220201	GREEN MEADOWS COMPACT HOMES	1	NITRATE	10	7-Jan-98	14.1
220201	GREEN MEADOWS COMPACT HOMES	1	NITRATE	10	1-Apr-98	13.9
220201	GREEN MEADOWS COMPACT HOMES	1	NITRATE	10	1-Jul-98	14.8
220201	GREEN MEADOWS COMPACT HOMES	1	NITRATE	10	1-Oct-98	14.4
220201	GREEN MEADOWS COMPACT HOMES	1	NITRATE	10	4-Jan-99	13.3
220201	GREEN MEADOWS COMPACT HOMES	1	NITRATE	10	26-Apr-99	15.6
220201	GREEN MEADOWS COMPACT HOMES	1	NITRATE	10	7-Jul-99	14.4
220201	GREEN MEADOWS COMPACT HOMES	1	NITRATE	10	9-Aug-99	14.5
220201	GREEN MEADOWS COMPACT HOMES	1	NITRATE	10	12-Aug-99	13.4
220201	GREEN MEADOWS COMPACT HOMES	1	NITRATE	10	12-Aug-99	13.5
220204	GATEWAY VILLAGE M.H.P.	1	NITRATE	10	28-Apr-93	5.4

Table 5a. Regulated Inorganic Compound (IOC) Results Above 50% of the MCL

PWSID	PWS NAME	PLANT ID	CONTAMINANT NAME	MCL (ppm)	SAMPLE DATE	RESULT (ppm)
220204	GATEWAY VILLAGE M.H.P.	1	NITRATE	10	29-Aug-94	5.1
220204	GATEWAY VILLAGE M.H.P.	1	NITRATE	10	3-Jul-96	5.1
220204	GATEWAY VILLAGE M.H.P.	1	NITRATE	10	11-Nov-96	5.7
220204	GATEWAY VILLAGE M.H.P.	1	NITRATE	10	7-Jan-97	5.9
220204	GATEWAY VILLAGE M.H.P.	1	NITRATE	10	8-Jul-97	5.5
220204	GATEWAY VILLAGE M.H.P.	1	NITRATE	10	13-Oct-97	5.3
220204	GATEWAY VILLAGE M.H.P.	1	NITRATE	10	7-Jan-98	6.3
220204	GATEWAY VILLAGE M.H.P.	1	NITRATE	10	1-Apr-98	5.7
220204	GATEWAY VILLAGE M.H.P.	1	NITRATE	10	1-Oct-98	5.1
220204	GATEWAY VILLAGE M.H.P.	1	NITRATE	10	4-Jan-99	6.1
220204	GATEWAY VILLAGE M.H.P.	1	NITRATE	10	14-Apr-99	6.5
220204	GATEWAY VILLAGE M.H.P.	1	NITRATE	10	21-Jun-99	6.3
220204	GATEWAY VILLAGE M.H.P.	1	NITRATE	10	7-Jul-99	6.1
220204	GATEWAY VILLAGE M.H.P.	1	NITRATE	10	6-Oct-99	6.4
220204	GATEWAY VILLAGE M.H.P.	1	NITRATE	10	6-Oct-99	6.4
220204	GATEWAY VILLAGE M.H.P.	1	NITRATE	10	3-Jan-00	5.2
220204	GATEWAY VILLAGE M.H.P.	1	NITRATE	10	5-Apr-00	6.4
220204	GATEWAY VILLAGE M.H.P.	1	NITRATE	10	12-Jul-00	5.5
220204	GATEWAY VILLAGE M.H.P.	1	NITRATE	10	12-Oct-00	5.5
220204	GATEWAY VILLAGE M.H.P.	1	NITRATE	10	24-Jan-01	6.6
220204	GATEWAY VILLAGE M.H.P.	1	NITRATE	10	2-Jan-02	6.7
220204	GATEWAY VILLAGE M.H.P.	1	NITRATE	10	27-Feb-02	7.6
220212	EASTWOOD VILLAGE M.H.P.	1	NITRATE	10	25-Mar-02	5.4
220218	BOH-NAK MOBILE HOME PARK	1	NITRATE	10	28-May-86	7.2
220218	BOH-NAK MOBILE HOME PARK	1	NITRATE	10	7-Apr-93	5.8
220218	BOH-NAK MOBILE HOME PARK	1	NITRATE	10	16-Sep-93	7.6
220218	BOH-NAK MOBILE HOME PARK	1	NITRATE	10	17-Sep-93	9.9
220218	BOH-NAK MOBILE HOME PARK	1	NITRATE	10	18-Nov-93	9.4
220218	BOH-NAK MOBILE HOME PARK	1	NITRATE	10	28-Sep-94	5.7
220218	BOH-NAK MOBILE HOME PARK	1	NITRATE	10	8-Nov-94	7.6
220218	BOH-NAK MOBILE HOME PARK	1	NITRATE	10	6-Feb-95	6.9
220218	BOH-NAK MOBILE HOME	1	NITRATE	10	27-Mar-96	12.3
220218	BOH-NAK MOBILE HOME PARK	1	NITRATE	10	24-Apr-96	9.2
220218	BOH-NAK MOBILE HOME PARK	1	NITRATE	10	28-May-96	7.2
220218	BOH-NAK MOBILE HOME PARK	1	NITRATE	10	3-Jun-96	7.5
220218	BOH-NAK MOBILE HOME PARK	1	NITRATE	10	29-Jul-96	7.9
220218	BOH-NAK MOBILE HOME PARK	1	NITRATE	10	27-Aug-96	6.5
220218	BOH-NAK MOBILE HOME PARK	1	NITRATE	10	23-Sep-96	7.5
220218	BOH-NAK MOBILE HOME PARK	1	NITRATE	10	23-Sep-96	7.5
220218	BOH-NAK MOBILE HOME PARK	1	NITRATE	10	18-Nov-96	6.7
220218	BOH-NAK MOBILE HOME PARK	1	NITRATE	10	19-Nov-96	7.7
220218	BOH-NAK MOBILE HOME PARK	1	NITRATE	10	8-Jan-97	9
220218	BOH-NAK MOBILE HOME PARK	1	NITRATE	10	17-Jun-97	6.8
220218	BOH-NAK MOBILE HOME PARK	1	NITRATE	10	1-Jul-97	6.6
220218	BOH-NAK MOBILE HOME PARK	1	NITRATE	10	1-Oct-97	7.4
220218	BOH-NAK MOBILE HOME PARK	1	NITRATE	10	12-Jan-98	7.9
220218	BOH-NAK MOBILE HOME PARK	1	NITRATE	10	8-Apr-98	6.7
220218	BOH-NAK MOBILE HOME PARK	1	NITRATE	10	2-Jul-98	6.4

Table 5a (continued). Regulated Inorganic Compound (IOC) Results Above 50% of the MCL

PWSID	PWS NAME	PLANT ID	CONTAMINANT NAME	MCL (ppm)	SAMPLE DATE	RESULT (ppm)
220218	BOH-NAK MOBILE HOME PARK	1	NITRATE	10	7-Oct-98	6.7
220218	BOH-NAK MOBILE HOME PARK	1	NITRATE	10	4-Jan-99	9.8
220218	BOH-NAK MOBILE HOME PARK	1	NITRATE	10	12-Apr-99	9.5
220218	BOH-NAK MOBILE HOME PARK	1	NITRATE	10	21-Jul-99	9
220218	BOH-NAK MOBILE HOME PARK	1	NITRATE	10	2-Jul-01	7
220218	BOH-NAK MOBILE HOME PARK	1	NITRATE	10	30-Jul-01	8.4
220218	BOH-NAK MOBILE HOME PARK	1	NITRATE	10	31-Jul-01	8.7
220218	BOH-NAK MOBILE HOME PARK	1	NITRATE	10	22-Oct-01	7.4
220218	BOH-NAK MOBILE HOME PARK	2	NITRATE	10	31-Mar-94	6.1
220218	BOH-NAK MOBILE HOME PARK	2	NITRATE	10	5-Jan-00	9
220218	BOH-NAK MOBILE HOME PARK	2	NITRATE	10	6-Apr-00	8.6
220218	BOH-NAK MOBILE HOME PARK	2	NITRATE	10	12-Jul-00	8.9
220218	BOH-NAK MOBILE HOME PARK	2	NITRATE	10	24-Oct-00	7.1
220218	BOH-NAK MOBILE HOME PARK	2	NITRATE	10	15-Jan-01	7.3
220218	BOH-NAK MOBILE HOME PARK	2	NITRATE	10	5-Apr-01	6.8
220218	BOH-NAK MOBILE HOME	2	NITRATE	10	23-Jul-01	11
220218	BOH-NAK MOBILE HOME	2	NITRATE	10	30-Jul-01	10.6
220218	BOH-NAK MOBILE HOME PARK	2	NITRATE	10	31-Jul-01	8.7
220218	BOH-NAK MOBILE HOME	2	NITRATE	10	31-Jul-01	10.4
220218	BOH-NAK MOBILE HOME PARK	2	NITRATE	10	2-Jan-02	7.5
220222	BENNETT MOBILE HOME PARK	1	NITRATE	10	9-Nov-94	6.4
220222	BENNETT MOBILE HOME PARK	1	NITRATE	10	9-Feb-95	5.1
220222	BENNETT MOBILE HOME PARK	1	NITRATE	10	22-Aug-96	5.6
220222	BENNETT MOBILE HOME PARK	1	NITRATE	10	19-Nov-96	6.8
220222	BENNETT MOBILE HOME PARK	1	NITRATE	10	1-Apr-97	5.7
220222	BENNETT MOBILE HOME PARK	1	NITRATE	10	8-Jul-97	6.8
220222	BENNETT MOBILE HOME PARK	1	NITRATE	10	20-Oct-97	6
220222	BENNETT MOBILE HOME PARK	1	NITRATE	10	12-Jan-98	7.2
220222	BENNETT MOBILE HOME PARK	1	NITRATE	10	2-Apr-98	6
220222	BENNETT MOBILE HOME PARK	1	NITRATE	10	1-Jul-98	6.2
220222	BENNETT MOBILE HOME PARK	1	NITRATE	10	1-Oct-98	6.7
220222	BENNETT MOBILE HOME PARK	1	NITRATE	10	4-Jan-99	7.2
220222	BENNETT MOBILE HOME PARK	1	NITRATE	10	14-Apr-99	7.4
220222	BENNETT MOBILE HOME PARK	1	NITRATE	10	29-Jun-99	7.3
220222	BENNETT MOBILE HOME PARK	1	NITRATE	10	7-Jul-99	6.6
220222	BENNETT MOBILE HOME PARK	1	NITRATE	10	6-Oct-99	6.3
220222	BENNETT MOBILE HOME PARK	1	NITRATE	10	6-Oct-99	6.3
220222	BENNETT MOBILE HOME PARK	1	NITRATE	10	3-Jan-00	6.1
220222	BENNETT MOBILE HOME PARK	1	NITRATE	10	5-Apr-00	6.8
220222	BENNETT MOBILE HOME PARK	1	NITRATE	10	12-Jul-00	6.9
220222	BENNETT MOBILE HOME PARK	1	NITRATE	10	12-Oct-00	7.1
220222	BENNETT MOBILE HOME PARK	1	NITRATE	10	4-Jan-01	7.1
220222	BENNETT MOBILE HOME PARK	1	NITRATE	10	2-Jan-02	8.2
220222	BENNETT MOBILE HOME PARK	1	NITRATE	10	12-Feb-02	8.6
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	1	NITRATE	10	24-Aug-93	5.1

Table 5a (continued). Regulated Inorganic Compound (IOC) Results Above 50% of the MCL

PWSID	PWS NAME	PLANT ID	CONTAMINANT NAME	MCL (ppm)	SAMPLE DATE	RESULT (ppm)
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	1	NITRATE	10	18-Nov-93	5
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	1	NITRATE	10	29-Sep-94	5.2
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	1	NITRATE	10	21-Feb-96	5.5
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	1	NITRATE	10	3-Jul-96	5.7
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	1	NITRATE	10	3-Jul-96	5.7
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	1	NITRATE	10	11-Nov-96	5.9
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	1	NITRATE	10	7-Jan-97	5.8
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	1	NITRATE	10	7-Jan-97	5.8
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	1	NITRATE	10	1-Apr-97	5.1
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	1	NITRATE	10	1-Apr-97	5.1
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	1	NITRATE	10	8-Jul-97	5.3
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	1	NITRATE	10	6-Jan-98	5.2
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	1	NITRATE	10	1-Apr-98	5.4
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	1	NITRATE	10	1-Jul-98	5.7
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	1	NITRATE	10	1-Oct-98	5.1
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	1	NITRATE	10	4-Jan-99	5
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	1	NITRATE	10	14-Apr-99	5.9
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	1	NITRATE	10	24-Jun-99	5.5
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	1	NITRATE	10	7-Jul-99	5
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	1	NITRATE	10	6-Oct-99	5.1
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	1	NITRATE	10	6-Oct-99	5.1
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	1	NITRATE	10	3-Jan-00	5.1
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	1	NITRATE	10	5-Apr-00	5.6
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	1	NITRATE	10	3-Jul-00	5.3

Table 5a (continued). Regulated Inorganic Compound (IOC) Results Above 50% of the MCL

PWSID	PWS NAME	PLANT ID	CONTAMINANT NAME	MCL (ppm)	SAMPLE DATE	RESULT (ppm)
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	1	NITRATE	10	23-Oct-00	5.3
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	1	NITRATE	10	14-Jan-02	5.6
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	1	NITRATE	10	21-Mar-02	6.6
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	2	NITRATE	10	28-Apr-93	6.2
1220005	BEAVER RUN ELEMENTARY SCHOOL	1	NICKEL	0.1	26-Apr-99	0.06
1220005	BEAVER RUN ELEMENTARY SCHOOL	1	NITRATE	10	18-May-93	5
1220007	SALISBURY CHRISTIAN SCHOOL	1	NITRATE	10	10-Dec-93	9.3
1220007	SALISBURY CHRISTIAN SCHOOL	1	NITRATE	10	8-Dec-94	8.8
1220007	SALISBURY CHRISTIAN SCHOOL	1	NITRATE	10	21-Mar-95	9.1
1220007	SALISBURY CHRISTIAN SCHOOL	1	NITRATE	10	6-Sep-95	9.2
1220007	SALISBURY CHRISTIAN SCHOOL	1	NITRATE	10	11-Mar-96	9.7
1220007	SALISBURY CHRISTIAN SCHOOL	1	NITRATE	10	26-Jun-96	10.3
1220007	SALISBURY CHRISTIAN SCHOOL	1	NITRATE	10	17-Sep-96	10.4
1220007	SALISBURY CHRISTIAN SCHOOL	1	NITRATE	10	14-Nov-96	10.4
1220007	SALISBURY CHRISTIAN SCHOOL	1	NITRATE	10	21-Mar-97	10.5
1220007	SALISBURY CHRISTIAN SCHOOL	1	NITRATE	10	21-Mar-97	10.5
1220007	SALISBURY CHRISTIAN SCHOOL	1	NITRATE	10	31-Mar-97	9.6
1220007	SALISBURY CHRISTIAN SCHOOL	1	NITRATE	10	21-May-97	10.1
1220007	SALISBURY CHRISTIAN SCHOOL	1	NITRATE	10	8-Jul-97	11.6
1220007	SALISBURY CHRISTIAN SCHOOL	1	NITRATE	10	17-Nov-97	11.6
1220011	FAITH BAPTIST SCHOOL	1	NITRATE	10	10-May-93	7.6
1220011	FAITH BAPTIST SCHOOL	1	NITRATE	10	17-Sep-93	7.4
1220011	FAITH BAPTIST SCHOOL	1	NITRATE	10	29-Sep-94	7.1
1220011	FAITH BAPTIST SCHOOL	1	NITRATE	10	26-Aug-96	16.4
1220011	FAITH BAPTIST SCHOOL	1	NITRATE	10	9-Sep-96	17.3
1220011	FAITH BAPTIST SCHOOL	1	NITRATE	10	17-Oct-96	15.5
1220011	FAITH BAPTIST SCHOOL	1	NITRATE	10	22-Oct-96	14
1220011	FAITH BAPTIST SCHOOL	1	NITRATE	10	22-Oct-96	14.3

Table 5a (continued). Regulated Inorganic Compound (IOC) Results Above 50% of the MCL

PWSID	PWS NAME	PLANT ID	CONTAMINANT NAME	MCL (ppm)	SAMPLE DATE	RESULT (ppm)
1220011	FAITH BAPTIST SCHOOL	1	NITRATE	10	19-Nov-96	16.1
1220011	FAITH BAPTIST SCHOOL	1	NITRATE	10	15-Jan-97	13.2
1220011	FAITH BAPTIST SCHOOL	1	NITRATE	10	1-Apr-97	8.3
1220011	FAITH BAPTIST SCHOOL	1	NITRATE	10	8-Jul-97	10.4
1220011	FAITH BAPTIST SCHOOL	1	NITRATE	10	13-Oct-97	12.5
1220011	FAITH BAPTIST SCHOOL	1	NITRATE	10	6-Jan-98	14.1
1220011	FAITH BAPTIST SCHOOL	1	NITRATE	10	1-Apr-98	10.2
1220011	FAITH BAPTIST SCHOOL	1	NITRATE	10	1-Jul-98	7.3
1220011	FAITH BAPTIST SCHOOL	1	NITRATE	10	1-Oct-98	7.1
1220011	FAITH BAPTIST SCHOOL	1	NITRATE	10	4-Jan-99	13.2
1220011	FAITH BAPTIST SCHOOL	1	NITRATE	10	14-Apr-99	11.8
1220011	FAITH BAPTIST SCHOOL	1	NITRATE	10	7-Jul-99	10.2
1220011	FAITH BAPTIST SCHOOL	1	NITRATE	10	29-Sep-99	13.5
1220011	FAITH BAPTIST SCHOOL	1	NITRATE	10	6-Oct-99	13.5
1220011	FAITH BAPTIST SCHOOL	1	NITRATE	10	6-Oct-99	13.5
1220011	FAITH BAPTIST SCHOOL	1	NITRATE	10	6-Jan-00	17.2
1220011	FAITH BAPTIST SCHOOL	1	NITRATE	10	3-Apr-00	19.4
1220011	FAITH BAPTIST SCHOOL	1	NITRATE	10	6-Apr-00	17.3
1220011	FAITH BAPTIST SCHOOL	1	NITRATE	10	3-Jul-00	20.1
1220011	FAITH BAPTIST SCHOOL	1	NITRATE	10	14-Nov-00	15.4
1220011	FAITH BAPTIST SCHOOL	1	NITRATE	10	25-Jan-01	16.2
1220011	FAITH BAPTIST SCHOOL	1	NITRATE	10	30-Apr-01	15.9
1220011	FAITH BAPTIST SCHOOL	1	NITRATE	10	30-Jul-01	17.8
1220011	FAITH BAPTIST SCHOOL	1	NITRATE	10	31-Oct-01	17.6
1220011	FAITH BAPTIST SCHOOL	1	NITRATE	10	28-Jan-02	18.2
1220016	MARDELA HIGH SCHOOL	1	NITRATE	10	4-Jan-01	6.7
1220022	SALISBURY BAPTIST ACADEMY	1	NITRATE	10	10-May-93	5.2
1220022	SALISBURY BAPTIST ACADEMY	1	NITRATE	10	29-Mar-94	5.8
1220022	SALISBURY BAPTIST ACADEMY	1	NITRATE	10	14-Feb-95	5.4
1220022	SALISBURY BAPTIST ACADEMY	1	NITRATE	10	21-Aug-95	5.7
1220022	SALISBURY BAPTIST ACADEMY	1	NITRATE	10	31-Jan-96	5.26
1220022	SALISBURY BAPTIST ACADEMY	1	NITRATE	10	12-Mar-96	5.3
1220022	SALISBURY BAPTIST ACADEMY	1	NITRATE	10	27-Aug-96	5.5
1220022	SALISBURY BAPTIST ACADEMY	1	NITRATE	10	20-Nov-96	5.7
1220022	SALISBURY BAPTIST ACADEMY	1	NITRATE	10	20-Jan-97	5.5

Table 5a (continued). Regulated Inorganic Compound (IOC) Results Above 50% of the MCL

PWSID	PWS NAME	PLANT ID	CONTAMINANT NAME	MCL (ppm)	SAMPLE DATE	RESULT (ppm)
1220022	SALISBURY BAPTIST ACADEMY	1	NITRATE	10	7-Apr-97	6.2
1220022	SALISBURY BAPTIST ACADEMY	1	NITRATE	10	1-Jul-97	5.5
1220022	SALISBURY BAPTIST ACADEMY	1	NITRATE	10	6-Oct-97	5.4
1220022	SALISBURY BAPTIST ACADEMY	1	NITRATE	10	6-Oct-97	5.4
1220022	SALISBURY BAPTIST ACADEMY	1	NITRATE	10	14-Jan-98	5.4
1220022	SALISBURY BAPTIST ACADEMY	1	NITRATE	10	8-Apr-98	5.4
1220022	SALISBURY BAPTIST ACADEMY	1	NITRATE	10	15-Jul-98	5.3
1220022	SALISBURY BAPTIST ACADEMY	1	NITRATE	10	12-Oct-98	5
1220022	SALISBURY BAPTIST ACADEMY	1	NITRATE	10	6-Jan-99	5.2
1220022	SALISBURY BAPTIST ACADEMY	1	NITRATE	10	12-Apr-99	5.5
1220022	SALISBURY BAPTIST ACADEMY	1	NITRATE	10	3-Apr-00	5.3
1220025	SALISBURY SCHOOL	1	NITRATE	10	10-May-93	8.8
1220025	SALISBURY SCHOOL	1	NITRATE	10	14-Sep-93	8.5
1220025	SALISBURY SCHOOL	1	NITRATE	10	18-Nov-93	8.7
1220025	SALISBURY SCHOOL	1	NITRATE	10	29-Sep-94	6.5
1220025	SALISBURY SCHOOL	1	NITRATE	10	10-Nov-94	8
1220025	SALISBURY SCHOOL	1	NITRATE	10	14-Feb-95	8.9
1220025	SALISBURY SCHOOL	1	NITRATE	10	22-Feb-96	7.9
1220025	SALISBURY SCHOOL	1	NITRATE	10	27-Aug-96	8.3
1220025	SALISBURY SCHOOL	1	NITRATE	10	20-Nov-96	8.9
1220025	SALISBURY SCHOOL	1	NITRATE	10	21-Jan-97	9.3
1220025	SALISBURY SCHOOL	1	NITRATE	10	7-Apr-97	9.6
1220025	SALISBURY SCHOOL	1	NITRATE	10	1-Jul-97	9
1220025	SALISBURY SCHOOL	1	NITRATE	10	6-Oct-97	9.5
1220025	SALISBURY SCHOOL	1	NITRATE	10	14-Jan-98	8.9
1220025	SALISBURY SCHOOL	1	NITRATE	10	8-Apr-98	8.3
1220025	SALISBURY SCHOOL	1	NITRATE	10	15-Jul-98	9
1220025	SALISBURY SCHOOL	1	NITRATE	10	12-Oct-98	9.2
1220025	SALISBURY SCHOOL	1	NITRATE	10	6-Jan-99	9.7
1220025	SALISBURY SCHOOL	1	NITRATE	10	13-Apr-99	8.6
1220025	SALISBURY SCHOOL	1	NITRATE	10	15-Apr-99	9.6
1220025	SALISBURY SCHOOL	1	NITRATE	10	21-Jul-99	8.8
1220025	SALISBURY SCHOOL	1	NITRATE	10	11-Oct-99	8.3
1220025	SALISBURY SCHOOL	1	NITRATE	10	12-Oct-99	8.3
1220025	SALISBURY SCHOOL	1	NITRATE	10	5-Jan-00	8.8
1220025	SALISBURY SCHOOL	1	NITRATE	10	3-Apr-00	8.2

Table 5a (continued). Regulated Inorganic Compound (IOC) Results Above 50% of the MCL

PWSID	PWS NAME	PLANT ID	CONTAMINANT NAME	MCL (ppm)	SAMPLE DATE	RESULT (ppm)
1220025	SALISBURY SCHOOL	1	NITRATE	10	24-Jul-00	8.9
1220025	SALISBURY SCHOOL	1	NITRATE	10	29-Jan-01	8.2
1220025	SALISBURY SCHOOL	1	NITRATE	10	25-Apr-01	8.3
1220025	SALISBURY SCHOOL	1	NITRATE	10	27-Aug-01	8.1
1220025	SALISBURY SCHOOL	1	NITRATE	10	1-Oct-01	9.5
1220025	SALISBURY SCHOOL	1	NITRATE	10	23-Jan-02	8.5
1220025	SALISBURY SCHOOL	1	NITRATE	10	30-Jan-02	9.1
1220031	WISE BEGINNINGS	1	NITRATE	10	18-May-93	5.2
1220031	WISE BEGINNINGS	1	NITRATE	10	19-Nov-93	5.2
1220031	WISE BEGINNINGS	1	NITRATE	10	28-Mar-94	5.6
1220031	WISE BEGINNINGS	1	NITRATE	10	29-Sep-94	5.9
1220031	WISE BEGINNINGS	1	NITRATE	10	9-Nov-94	5.9
1220031	WISE BEGINNINGS	1	NITRATE	10	16-Feb-95	5.8
1220031	WISE BEGINNINGS	1	NITRATE	10	4-Mar-96	6.4
1220031	WISE BEGINNINGS	1	NITRATE	10	29-May-96	6.9
1220031	WISE BEGINNINGS	1	NITRATE	10	22-Aug-96	6.3
1220031	WISE BEGINNINGS	1	NITRATE	10	19-Nov-96	7.2
1220031	WISE BEGINNINGS	1	NITRATE	10	15-Jan-97	5.4
1220031	WISE BEGINNINGS	1	NITRATE	10	1-Apr-97	5.5
1220031	WISE BEGINNINGS	1	NITRATE	10	6-Aug-97	6.4
1220031	WISE BEGINNINGS	1	NITRATE	10	15-Oct-97	5.8
1220031	WISE BEGINNINGS	1	NITRATE	10	2-Apr-98	6.6
1220031	WISE BEGINNINGS	1	NITRATE	10	1-Jul-98	6.3
1220031	WISE BEGINNINGS	1	NITRATE	10	1-Oct-98	6.6
1220031	WISE BEGINNINGS	1	NITRATE	10	7-Jan-99	6.6
1220031	WISE BEGINNINGS	1	NITRATE	10	5-Apr-99	6.2
1220031	WISE BEGINNINGS	1	NITRATE	10	8-Jul-99	6.5
1220031	WISE BEGINNINGS	1	NITRATE	10	27-Sep-99	5.9
1220031	WISE BEGINNINGS	1	NITRATE	10	3-Jan-00	5.7
1220031	WISE BEGINNINGS	1	NITRATE	10	6-Apr-00	6.1
1220031	WISE BEGINNINGS	1	NITRATE	10	10-Jul-00	5.8
1220031	WISE BEGINNINGS	1	NITRATE	10	12-Oct-00	5.6
1220031	WISE BEGINNINGS	1	NITRATE	10	4-Jan-01	5.7
1220031	WISE BEGINNINGS	1	NITRATE	10	28-Jan-02	6.1
1220036	WEST SALISBURY SCHOOL	1	NITRATE	10	18-May-93	7.9
1220036	WEST SALISBURY SCHOOL	1	NITRATE	10	17-Sep-93	6.9
1220036	WEST SALISBURY SCHOOL	1	NITRATE	10	19-Nov-93	6.7
1220036	WEST SALISBURY SCHOOL	1	NITRATE	10	9-Mar-94	8.2
1220036	WEST SALISBURY SCHOOL	1	NITRATE	10	22-Sep-94	6
1220036	WEST SALISBURY SCHOOL	1	NITRATE	10	9-Nov-94	6.7
1220036	WEST SALISBURY SCHOOL	1	NITRATE	10	11-Oct-95	7.1
1220036	WEST SALISBURY SCHOOL	1	NITRATE	10	27-Feb-96	7

Table 5a (continued). Regulated Inorganic Compound (IOC) Results Above 50% of the MCL

PWSID	PWS NAME	PLANT ID	CONTAMINANT NAME	MCL (ppm)	SAMPLE DATE	RESULT (ppm)
1220036	WEST SALISBURY SCHOOL	1	NITRATE	10	22-Aug-96	8.1
1220036	WEST SALISBURY SCHOOL	1	NITRATE	10	19-Nov-96	9.5
1220036	WEST SALISBURY SCHOOL	1	NITRATE	10	15-Jan-97	7.6
1220036	WEST SALISBURY SCHOOL	1	NITRATE	10	1-Apr-97	9
1220036	WEST SALISBURY SCHOOL	1	NITRATE	10	6-Aug-97	8.1
1220036	WEST SALISBURY SCHOOL	1	NITRATE	10	15-Oct-97	6.9
1220036	WEST SALISBURY SCHOOL	1	NITRATE	10	7-Jan-98	8.4
1220036	WEST SALISBURY SCHOOL	1	NITRATE	10	26-Feb-98	7.6
1220036	WEST SALISBURY SCHOOL	1	NITRATE	10	2-Apr-98	7.5
1220036	WEST SALISBURY SCHOOL	1	NITRATE	10	1-Jul-98	8.2
1220036	WEST SALISBURY SCHOOL	1	NITRATE	10	1-Oct-98	7.4
1220036	WEST SALISBURY SCHOOL	1	NITRATE	10	18-Nov-98	6.1
1220036	WEST SALISBURY SCHOOL	1	NITRATE	10	18-Nov-98	6.1
1220036	WEST SALISBURY SCHOOL	1	NITRATE	10	7-Jan-99	7
1220036	WEST SALISBURY SCHOOL	1	NITRATE	10	7-Jan-99	7
1220036	WEST SALISBURY SCHOOL	1	NITRATE	10	10-Jun-99	7.4
1220036	WEST SALISBURY SCHOOL	1	NITRATE	10	10-Jun-99	7.4
1220036	WEST SALISBURY SCHOOL	1	NITRATE	10	1-Feb-00	7.6
1220036	WEST SALISBURY SCHOOL	1	NITRATE	10	13-Mar-00	7.5
1220036	WEST SALISBURY SCHOOL	1	NITRATE	10	10-Apr-00	8
1220036	WEST SALISBURY SCHOOL	1	NITRATE	10	4-Jan-01	6.7
1220036	WEST SALISBURY SCHOOL	1	NITRATE	10	28-Jan-02	7.9
1220036	WEST SALISBURY SCHOOL	1	NITRATE	10	17-Apr-02	7
1220037	NOAH'S ARK CHILD CARE	1	NITRATE	10	7-Nov-94	5.6
1220037	NOAH'S ARK CHILD CARE	1	NITRATE	10	6-Feb-95	6.1
1220037	NOAH'S ARK CHILD CARE	1	NITRATE	10	5-May-95	8.2
1220037	NOAH'S ARK CHILD CARE	1	NITRATE	10	7-Aug-95	7.7
1220037	NOAH'S ARK CHILD CARE	1	NITRATE	10	11-Oct-95	6.7
1220037	NOAH'S ARK CHILD CARE	1	NITRATE	10	4-Mar-96	6.5
1220037	NOAH'S ARK CHILD CARE	1	NITRATE	10	22-Apr-96	7.6
1220037	NOAH'S ARK CHILD CARE	1	NITRATE	10	20-Aug-96	8
1220037	NOAH'S ARK CHILD CARE	1	NITRATE	10	18-Nov-96	6.4
1220037	NOAH'S ARK CHILD CARE	1	NITRATE	10	21-Jan-97	8.8
1220037	NOAH'S ARK CHILD CARE	1	NITRATE	10	2-Apr-97	7.4
1220037	NOAH'S ARK CHILD CARE	1	NITRATE	10	9-Jul-97	7.9
1220037	NOAH'S ARK CHILD CARE	1	NITRATE	10	1-Oct-97	8.7
1220037	NOAH'S ARK CHILD CARE	1	NITRATE	10	5-Jan-98	7.9
1220037	NOAH'S ARK CHILD CARE	1	NITRATE	10	8-Apr-98	7.6
1220037	NOAH'S ARK CHILD CARE	1	NITRATE	10	2-Jul-98	8
1220037	NOAH'S ARK CHILD CARE	1	NITRATE	10	1-Oct-98	8.5
1220037	NOAH'S ARK CHILD CARE	1	NITRATE	10	4-Jan-99	8.5
1220037	NOAH'S ARK CHILD CARE	1	NITRATE	10	12-Apr-99	7.7

Table 5a (continued). Regulated Inorganic Compound (IOC) Results Above 50% of the MCL

PWSID	PWS NAME	PLANT ID	CONTAMINANT NAME	MCL (ppm)	SAMPLE DATE	RESULT (ppm)
1220037	NOAH'S ARK CHILD CARE	1	NITRATE	10	4-May-99	7.3
1220037	NOAH'S ARK CHILD CARE	1	NITRATE	10	7-Jul-99	7.7
1220037	NOAH'S ARK CHILD CARE	1	NITRATE	10	6-Mar-00	7.9
1220037	NOAH'S ARK CHILD CARE	1	NITRATE	10	4-Jan-01	8.4
1220037	NOAH'S ARK CHILD CARE	1	NITRATE	10	24-Jan-02	8.5
1220037	NOAH'S ARK CHILD CARE	1	NITRATE	10	13-Mar-02	9.32
1220040	BUTTONS & BOWS AKA WICOMICO DAY SCHOOL	1	NITRATE	10	18-May-93	6.1
1220040	BUTTONS & BOWS AKA WICOMICO DAY SCHOOL	1	NITRATE	10	27-Aug-93	5.4
1220040	BUTTONS & BOWS AKA WICOMICO DAY SCHOOL	1	NITRATE	10	18-Nov-93	6.5
1220040	BUTTONS & BOWS AKA WICOMICO DAY SCHOOL	1	NITRATE	10	3-May-94	5
1220040	BUTTONS & BOWS AKA WICOMICO DAY SCHOOL	1	NITRATE	10	14-Nov-94	5.4
1220040	BUTTONS & BOWS AKA WICOMICO DAY SCHOOL	1	NITRATE	10	1-Feb-95	5.3
1220040	BUTTONS & BOWS AKA WICOMICO DAY SCHOOL	1	NITRATE	10	27-Aug-96	5.1
1220040	BUTTONS & BOWS AKA WICOMICO DAY SCHOOL	1	NITRATE	10	21-Nov-96	5.7
1220040	BUTTONS & BOWS AKA WICOMICO DAY SCHOOL	1	NITRATE	10	20-Jan-97	5
1220040	BUTTONS & BOWS AKA WICOMICO DAY SCHOOL	1	NITRATE	10	7-Apr-97	5
1220045	BAR NONE	1	NITRATE	10	1-Feb-95	5.9
1220045	BAR NONE	1	NITRATE	10	6-Feb-96	7.7
1220045	BAR NONE	1	NITRATE	10	13-Feb-97	8
1220045	BAR NONE	1	NITRATE	10	24-Feb-98	6.7
1220045	BAR NONE	1	NITRATE	10	3-Feb-99	6.5
1220045	BAR NONE	1	NITRATE	10	6-Jan-00	6.3
1220045	BAR NONE	1	NITRATE	10	8-Feb-00	6.7
1220045	BAR NONE	1	NITRATE	10	29-Jan-01	6.4
1220045	BAR NONE	1	NITRATE	10	6-Feb-01	7.1
1220045	BAR NONE	1	NITRATE	10	30-Jan-02	6.7
1220045	BAR NONE	1	NITRATE	10	6-Mar-02	8
1220049	MAPLE SHADE SCHOOL	1	NITRATE	10	28-Aug-01	5.2
1220050	FILTRONIC COMTEK	1	NITRATE	10	20-Nov-01	7.8
1220050	FILTRONIC COMTEK	1	NITRATE	10	7-Mar-02	7.8

Table 5a (continued). Regulated Inorganic Compound (IOC) Results Above 50% of the MCL

PWSID	PWS NAME	PLANT ID	CONTAMINANT NAME	MCL (ppm)	SAMPLE DATE	RESULT (ppm)
1221086	SALISBURY OFFICE COMPLEX / SKATELAND	1	NITRATE	10	2-Jul-97	7
1221086	SALISBURY OFFICE COMPLEX / SKATELAND	1	NITRATE	10	12-Feb-01	7.4
1221086	SALISBURY OFFICE COMPLEX / SKATELAND	1	NITRATE	10	2-May-01	8.3
1221086	SALISBURY OFFICE COMPLEX / SKATELAND	1	NITRATE	10	21-Mar-02	7.6
1221086	SALISBURY OFFICE COMPLEX / SKATELAND	1	THALLIUM	0.002	2-May-01	0.001

Table 5a (continued). Regulated Inorganic Compound (IOC) Results Above 50% of the MCL

PWSID	PWS NAME	PLANT ID	CONTAMINANT NAME	MCL (pCi/L)	SAMPLE DATE	RESULT (pCi/L)
220201	GREEN MEADOWS COMPACT HOMES	1	RADON-222		2-Sep-99	165
220206	PINE TREE M.H.P.	1	RADON-222		2-Sep-99	185
220212	EASTWOOD VILLAGE M.H.P.	1	RADON-222		2-Nov-99	155
220218	BOH-NAK M.H.P.	2	RADON-222		18-Jan-01	200

Table 5b. Radon-222 Results Above 50% of the More Conservative Proposed MCL of 300 pCi/L

PWSID	PWS NAME	PLANT ID	CONTAMINANT NAME	MCL (ppb)	SAMPLE DATE	RESULT (ppb)
220201	GREEN MEADOWS COMPACT HOMES	1	DI(2-ETHYLHEXYL) PHTHALATE	6	25-Sep-00	4.5
220212	EASTWOOD VILLAGE M.H.P.	1	DI(2-ETHYLHEXYL) PHTHALATE	6	25-Mar-02	4.4
220213	COUNTRY VILLAGE M.H.P.	1	DI(2-ETHYLHEXYL) PHTHALATE	6	16-Oct-95	4.65
220221	NAYLOR MILL VILLAGE M.H.P.	1	DI(2-ETHYLHEXYL) PHTHALATE	6	8-Apr-02	5
220222	BENNETT MOBILE HOME PARK	1	DI(2-ETHYLHEXYL) PHTHALATE	6	12-Feb-96	19.17
220222	BENNETT MOBILE HOME PARK	1	DI(2-ETHYLHEXYL) PHTHALATE	6	29-Jun-99	4.4
1220028	WESLEY TEMPLE DAY CARE	1	DI(2-ETHYLHEXYL) PHTHALATE	6	17-Oct-95	6.47
1220036	WEST SALISBURY SCHOOL	1	DI(2-ETHYLHEXYL) PHTHALATE	6	11-Oct-95	7.67
1220037	NOAH'S ARK CHILD CARE	1	DI(2-ETHYLHEXYL) PHTHALATE	6	11-Oct-95	7.06
1220049	MAPLE SHADE SCHOOL	1	DI(2-ETHYLHEXYL) PHTHALATE	6	22-Jan-02	7.2
1221086	SALISBURY OFFICE COMPLEX / SKATELAND	1	DI(2-ETHYLHEXYL) PHTHALATE	6	28-Jan-02	11.5

Table 5c. Regulated Synthetic Organic Compound (SOC) Results Above 50% of the MCL

PWSID	SOURCE NAME	CONDITIONS	SAMPLE DATE	TEMP. (C)	pH	TURBIDITY (NTU)	TOTAL COLIFORM (COL/100ml)	FECAL COLIFORM (COL/100ml)
220204	GATEWAY VILLAGE M.H.P. 1	DRY WEATHER	10-Dec-98	14	5.7	1	-1.1	-1.1
220204	GATEWAY VILLAGE M.H.P. 2	DRY WEATHER	10-Dec-98	14	5.6	1.3	-1.1	-1.1
220206	PINE TREE M.H.P.1	WET WEATHER	8-Jan-99	12	6.2	1.6	-1.1	-1.1
220206	PINE TREE M.H.P.2	WET WEATHER	11-Dec-98	12	6.1	2.9	-1.1	-1.1
220212	EASTWOOD VILLAGE M.H.P.1	WET WEATHER	10-Dec-98	13	5.9	1.5	-1.1	-1.1
220212	EASTWOOD VILLAGE M.H.P.2	WET WEATHER	10-Dec-98	13	5.9	1.5	-1.1	-1.1
220221	NAYLOR MILL VILLAGE M.H.P. OLD 1	WET WEATHER	10-Dec-98	13	5.7	1.2	-1.1	-1.1
220221	NAYLOR MILL VILLAGE M.H.P.OLD 2	WET WEATHER	10-Dec-98	13	5.3	1	-1.1	-1.1
220222	BENNETT M.H.P.1	WET WEATHER	14-Dec-98	12	5.2	2.3	-1.1	-1.1
220222	BENNETT M.H.P.2	WET WEATHER	14-Dec-98	12	5.3	2.6	-1.1	-1.1
220223	COLONIAL MILL ESTATES M.H.P. 1	WET WEATHER	10-Dec-98	13	5.5	-1	-1.1	-1.1

Table 5d. Ground Water Under the Direct Influence Testing Results

PWSID	PWS NAME	No. of Samples	No. of Positive Samples	Disinfection Treatment?
220201	GREEN MEADOWS COMPACT HOMES	64	1	N
220204	GATEWAY VILLAGE MOBILE HOME PARK	65	0	N
220206	PINE TREE MOBILE HOME PARK	65	2	Y
220212	EASTWOOD VILLAGE M.H.P.	65	0	N
220213	COUNTRY VILLAGE M.H.P.	65	0	Y
220218	BOH-NAK MOBILE HOME PARK	65	1	N
220221	NAYLOR MILL VILLAGE M.H.P.	65	0	N
220222	BENNETT MOBILE HOME PARK	65	0	Y
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	67	2	Y
1220003	BARR INTERNATIONAL #1	23	0	N
1220004	BARR INTERNATIONAL #2	23	0	N
1220005	BEAVER RUN ELEMENTARY SCHOOL	23	0	N
1220007	SALISBURY CHRISTIAN SCHOOL	34	3	N
1220011	FAITH BAPTIST SCHOOL	23	0	N
1220016	MARDELA HIGH SCHOOL	23	0	N
1220018	NORTHWESTERN ELEMENTARY SCHOOL	22	0	N
1220022	SALISBURY BAPTIST ACADEMY	23	0	N
1220025	SALISBURY SCHOOL	24	0	N
1220027	TOMMY TUCKER NURSERY 2	23	0	N
1220028	WESLEY TEMPLE DAY CARE	23	0	N
1220029	WESTSIDE PRIMARY SCHOOL	23	0	Y
1220031	WISE BEGINNINGS	23	0	N
1220033	KIDDIE KAMPUS	23	0	N
1220036	WEST SALISBURY SCHOOL	23	0	N
1220037	NOAH'S ARK CHILD CARE	21	0	N
1220040	BUTTONS & BOWS AKA WICOMICO DAY SCHOOL	23	0	N
1220042	U S AIR - ADMIN. BLDG.	23	0	N
1220043	U S AIR - HENSON HANGAR	23	0	N
1220044	SALISBURY FORD LINCOLN-MERCURY	23	0	N
1220045	BAR NONE	14	0	N
1220048	TENDER HEART DAY CARE	13	0	N
1220049	MAPLE SHADE SCHOOL	4	0	N
1220050	FILTRONIC COMTEK	1	0	N
1220051	CHRISTIAN COMMUNITY CENTER CHILD CARE	1	0	N
1221035	POHANKA OF SALISBURY INC	10	0	N
1221086	SALISBURY OFFICE COMPLEX / SKATELAND	9	0	N
1221127	SALISBURY-WICOMICO AIRPORT	8	0	N
1221134	HICKORY DICKORY TOTS	7	0	N

Table 6. Routine Bacteriological Samples from Distribution for each Small System since 1996

Land Use	Acres	% of Total Area
Low Density Residential	16811.9	7
Medium Density Residential	5593.3	2.3
High Density Residential	892.8	0.4
Commercial	6104.7	2.5
Industrial	1321.6	0.5
Extractive	219.1	0.1
Open Urban Land	914.1	0.4
Cropland	84025.2	34.9
Pasture	577.6	0.2
Orchards	136.4	0.1
Forest	106403.4	44.2
Water	1461.9	0.6
Wetlands	13439.2	5.6
Barren Land	216.9	0.1
Feeding Operations	2563.3	1.1
Total Area	240681.4	100

Table 7. Wicomico County Land Use Summary (See Figure 3)

Category	Acres	% of Total Area
No Planned Service	226007.8	94.4
Existing Service Area	10189.0	4.3
Final Planning Area	825.3	0.3
Immediate Priority Area	790.8	0.3
Area Programmed for Service within 3 to 5 Years	713.4	0.3
Area Programmed for Service within 6 to 10 Years	958.4	0.4
Total Area	239484.8	100

Table 8. Sewer Service Area Summary of Wicomico County (see Figure 4)

PWSID 1	PWS NAME 2
1220003	BARR INTERNATIONAL #1
1220004	BARR INTERNATIONAL #2
1220005	BEAVER RUN ELEMENTARY SCHOOL
1220027	TOMMY TUCKER NURSERY 2
1220029	WESTSIDE PRIMARY SCHOOL
1220031	WISE BEGINNINGS
1220033	KIDDIE KAMPUS
1220042	U S AIR - ADMIN. BLDG.
1220043	U S AIR - HENSON HANGAR
1220044	SALISBURY FORD LINCOLN-MERCURY
1220050	FILTRONIC COMTEK
1220051	CHRISTIAN COMMUNITY CENTER CHILD CARE
1221035	POHANKA OF SALISBURY INC
1221134	HICKORY DICKORY TOTS

Table 9. Wicomico County Small Systems Using Bottled Water for Drinking

¹ Public Water System Identification

² Public Water System Name

PWSID	PWS Name	Are Contaminant Sources Present in WHPA?	Are Contaminants Detected in WQ Samples at Levels of Concern?	Is Well Integrity a Factor?	Is the Aquifer Vulnerable?	Is the System Susceptible to Nitrate?
220201	GREEN MEADOWS COMPACT HOMES	NO	NO - not since 1999	NO	NO	NO
220204	GATEWAY VILLAGE MOBILE HOME PARK	YES	YES	NO	YES	YES
220206	PINE TREE MOBILE HOME PARK	YES	NO	Well 2 may be	YES	NO
220212	EASTWOOD VILLAGE M.H.P.	YES	NO	NO	YES	NO
220213	COUNTRY VILLAGE M.H.P.	YES	NO	YES	YES	YES
220218	BOH-NAK MOBILE HOME PARK	YES	YES	YES	YES	YES
220221	NAYLOR MILL VILLAGE M.H.P.	YES	NO	NO	YES	NO
220222	BENNETT MOBILE HOME PARK	YES	YES	NO	YES	YES
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	YES	YES	NO	YES	YES
1220003	BARR INTERNATIONAL #1	NO	NO	NO	YES	NO
1220004	BARR INTERNATIONAL #2	NO	NO	YES	YES	NO
1220005	BEAVER RUN ELEMENTARY	YES	NO	NO	YES	NO
1220007	SALISBURY CHRISTIAN SCHOOL	NO	NO - not since 1997	NO	NO	NO
1220011	FAITH BAPTIST SCHOOL	YES	YES	NO	YES	YES
1220016	MARDELA HIGH SCHOOL	NO	NO	NO	NO	NO
1220018	NORTHWESTERN ELEMENTARY	NO	NO	the old well may be	NO	NO
1220022	SALISBURY BAPTIST ACADEMY	YES	YES	NO	YES	YES
1220025	SALISBURY SCHOOL	YES	YES	NO	YES	YES
1220027	TOMMY TUCKER NURSERY 2	YES	NO	NO	YES	NO

Table 10a. Susceptibility Logic Chart for Nitrate

PWSID	PWS Name	Are Contaminant Sources Present in WHPA?	Are Contaminants Detected in WQ Samples at Levels of Concern?	Is Well Integrity a Factor?	Is the Aquifer Vulnerable?	Is the System Susceptible to Nitrate?
1220028	WESLEY TEMPLE DAY CARE	NO	NO	NO	YES	NO
1220029	WESTSIDE PRIMARY SCHOOL	NO	NO	NO	NO	NO
1220031	WISE BEGINNINGS	NO	YES	NO	YES	YES
1220033	KIDDIE KAMPUS	YES	NO	NO	YES	NO
1220036	WEST SALISBURY SCHOOL	NO	YES	NO	YES	YES
1220037	NOAH'S ARK CHILD CARE	YES	YES	NO	YES	YES
1220040	BUTTONS & BOWS	YES	YES	NO	the unconfined aquifer is	YES - from the unconfined well
1220042	U S AIR - ADMIN. BLDG.	NO	NO	YES	YES	NO
1220043	U S AIR - HENSON HANGAR	NO	NO	YES	YES	NO
1220044	SALISBURY FORD LINCOLN-MERCURY	YES	NO	YES	YES	YES
1220045	BAR NONE	YES	YES	NO	YES	YES
1220048	TENDER HEART DAY CARE	YES	NO	NO	YES	NO
1220049	MAPLE SHADE SCHOOL	YES	YES	NO	YES	?
1220050	FILTRONIC COMTEK	YES	YES	NO	YES	YES
1220051	COMMUNITY CENTER CHILD CARE	YES	NO - based on 1 sample	NO	YES	?
1221035	POHANKA OF SALISBURY INC	YES	NO	Toyota Well 1 & Mazda Well	YES	NO
1221086	SALISBURY OFFICE COMPLEX / SKATELAND	YES	YES	NO	YES	YES
1221127	SALISBURY-WICOMICO AIRPORT	NO	NO	NO	YES	NO
1221134	HICKORY DICKORY TOTS	YES	NO	NO	YES	NO

Table 10a (continued). Susceptibility Logic Chart for Nitrate

PWSID	PWS Name	Are Contaminant Sources Present in WHPA?	Are Contaminants Detected in WQ Samples at Levels of Concern?	Is Well Integrity a Factor?	Is the Aquifer Vulnerable?	Is the System Susceptible to Radiological Compounds?
220201	GREEN MEADOWS COMPACT HOMES	NO - not in confined aquifer	in unconfined wells that were sealed	NO	NO	NO
220204	GATEWAY VILLAGE MOBILE HOME PARK	YES-naturally occurring	NO	NO	YES	NO
220206	PINE TREE MOBILE HOME PARK	YES-naturally occurring	YES	NO	YES	may be
220212	EASTWOOD VILLAGE M.H.P.	YES-naturally occurring	YES	NO	YES	may be
220213	COUNTRY VILLAGE M.H.P.	YES-naturally occurring	NO	NO	YES	NO
220218	BOH-NAK MOBILE HOME PARK	YES-naturally occurring	YES	NO	YES	may be
220221	NAYLOR MILL VILLAGE M.H.P.	YES-naturally occurring	NO	NO	YES	NO
220222	BENNETT MOBILE HOME PARK	YES-naturally occurring	NO	NO	YES	may be
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	YES-naturally occurring	NO	NO	YES	may be
1220003	BARR INTERNATIONAL #1	?	?	NO	YES	?
1220004	BARR INTERNATIONAL #2	?	?	NO	YES	?
1220005	BEAVER RUN ELEMENTARY	?	?	NO	YES	?
1220007	SALISBURY CHRISTIAN SCHOOL	NO	?	NO	NO	NO
1220011	FAITH BAPTIST SCHOOL	?	?	NO	YES	?
1220016	MARDELA HIGH SCHOOL	NO	?	NO	NO	NO
1220018	NORTHWESTERN ELEMENTARY	NO	?	NO	NO	NO
1220022	SALISBURY BAPTIST ACADEMY	?	?	NO	YES	?
1220025	SALISBURY SCHOOL	?	?	NO	YES	?
1220027	TOMMY TUCKER NURSERY 2	YES-naturally occurring	?	NO	YES	?

Table 10b. Susceptibility Logic Chart for Radiological Compounds

PWSID	PWS Name	Are Contaminant Sources Present in WHPA?	Are Contaminants Detected in WQ Samples at Levels of Concern?	Is Well Integrity a Factor?	Is the Aquifer Vulnerable?	Is the System Susceptible to Radiological Compounds?
1220028	WESLEY TEMPLE DAY CARE	?	?	NO	YES	?
1220029	WESTSIDE PRIMARY SCHOOL	NO	?	NO	NO	NO
1220031	WISE BEGINNINGS	?	?	NO	YES	?
1220033	KIDDIE KAMPUS	?	?	NO	YES	?
1220036	WEST SALISBURY SCHOOL	?	?	NO	YES	?
1220037	NOAH'S ARK CHILD CARE	?	?	NO	YES	?
1220040	BUTTONS & BOWS	?	?	NO	the unconfined aquifer is	?
1220042	U S AIR - ADMIN. BLDG.	?	?	NO	YES	?
1220043	U S AIR - HENSON HANGAR	?	?	NO	YES	?
1220044	SALISBURY FORD LINCOLN-MERCURY	?	?	NO	YES	?
1220045	BAR NONE	?	?	NO	YES	?
1220048	TENDER HEART DAY CARE	YES-naturally occurring	NO	NO	YES	may be
1220049	MAPLE SHADE SCHOOL	?	?	NO	YES	?
1220050	FILTRONIC COMTEK	?	?	NO	YES	?
1220051	COMMUNITY CENTER CHILD CARE	?	?	NO	YES	?
1221035	POHANKA OF SALISBURY INC	?	?	NO	YES	?
1221086	SALISBURY OFFICE COMPLEX / SKATELAND	?	?	NO	YES	?
1221127	SALISBURY-WICOMICO AIRPORT	?	?	NO	YES	?
1221134	HICKORY DICKORY TOTS	?	?	NO	YES	?

Table 10b (continued). Susceptibility Logic Chart for Radiological Compounds

PWSID	PWS Name	Are Contaminant Sources Present in WHPA?	Are Contaminants Detected in WQ Samples at Levels of Concern?	Is Well Integrity a Factor?	Is the Aquifer Vulnerable?	Is the System Susceptible to VOCs?
220201	GREEN MEADOWS COMPACT HOMES	NO	NO	NO	NO	NO
220204	GATEWAY VILLAGE MOBILE HOME PARK	YES	NO	NO	YES	YES
220206	PINE TREE MOBILE HOME PARK	NO	NO	Well 2 may be	YES	NO
220212	EASTWOOD VILLAGE M.H.P.	NO	NO	NO	YES	NO
220213	COUNTRY VILLAGE M.H.P.	near WHPA	NO	YES	YES	YES
220218	BOH-NAK MOBILE HOME PARK	YES	NO	YES	YES	YES
220221	NAYLOR MILL VILLAGE M.H.P.	NO	NO	NO	YES	NO
220222	BENNETT MOBILE HOME PARK	YES	NO	NO	YES	YES
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	near WHPA	NO	NO	YES	YES
1220003	BARR INTERNATIONAL #1	near WHPA	NO	NO	YES	YES
1220004	BARR INTERNATIONAL #2	near WHPA	NO	YES	YES	YES
1220005	BEAVER RUN ELEMENTARY	near WHPA	NO	NO	YES	YES
1220007	SALISBURY CHRISTIAN SCHOOL	NO	NO	NO	NO	NO
1220011	FAITH BAPTIST SCHOOL	NO	NO	NO	YES	NO
1220016	MARDELA HIGH SCHOOL	NO	NO	NO	NO	NO
1220018	NORTHWESTERN ELEMENTARY	NO	NO	the old well may be	NO	NO
1220022	SALISBURY BAPTIST ACADEMY	YES	YES	NO	YES	YES
1220025	SALISBURY SCHOOL	YES	NO	NO	YES	YES
1220027	TOMMY TUCKER NURSERY 2	NO	NO	NO	YES	NO

Table 10c. Susceptibility Logic Chart for Volatile Organic Compounds

PWSID	PWS Name	Are Contaminant Sources Present in WHPA?	Are Contaminants Detected in WQ Samples at Levels of Concern?	Is Well Integrity a Factor?	Is the Aquifer Vulnerable?	Is the System Susceptible to VOCs?
1220028	WESLEY TEMPLE DAY CARE	YES	NO	NO	YES	YES
1220029	WESTSIDE PRIMARY SCHOOL	NO	NO	NO	NO	NO
1220031	WISE BEGINNINGS	NO	NO	NO	YES	NO
1220033	KIDDIE KAMPUS	NO	NO	NO	YES	NO
1220036	WEST SALISBURY SCHOOL	YES	NO	NO	YES	YES
1220037	NOAH'S ARK CHILD CARE	YES	NO	NO	YES	YES
1220040	BUTTONS & BOWS	near WHPA	NO	NO	the unconfined aquifer is	the unconfined well is
1220042	U S AIR - ADMIN. BLDG.	YES	NO	YES	YES	YES
1220043	U S AIR - HENSON HANGAR	YES	NO	YES	YES	YES
1220044	SALISBURY FORD LINCOLN-MERCURY	YES	NO	YES	YES	YES
1220045	BAR NONE	near WHPA	NO	NO	YES	YES
1220048	TENDER HEART DAY CARE	near WHPA	NO	NO	YES	YES
1220049	MAPLE SHADE SCHOOL	NO	NO	NO	YES	NO
1220050	FILTRONIC COMTEK	near WHPA	?	NO	YES	YES
1220051	COMMUNITY CENTER CHILD CARE	near WHPA	?	NO	YES	YES
1221035	POHANKA OF SALISBURY INC	near WHPA	NO	Toyota Well 1 & Mazda Well	YES	YES
1221086	SALISBURY OFFICE COMPLEX / SKATELAND	near WHPA	NO	NO	YES	YES
1221127	SALISBURY-WICOMICO AIRPORT	near WHPA	NO	NO	YES	YES
1221134	HICKORY DICKORY TOTS	YES	NO	NO	YES	YES

Table 10c (continued). Susceptibility Logic Chart for Volatile Organic Compounds

PWSID	PWS Name	Are Contaminant Sources Present in WHPA?	Are Contaminants Detected in WQ Samples at Levels of Concern?	Is Well Integrity a Factor?	Is the Aquifer Vulnerable?	Is the System Susceptible to SOC's?
220201	GREEN MEADOWS COMPACT HOMES	NO	NO	NO	NO	NO
220204	GATEWAY VILLAGE MOBILE HOME PARK	NO	NO	NO	YES	NO
220206	PINE TREE MOBILE HOME PARK	NO	NO	Well 2 may be	YES	NO
220212	EASTWOOD VILLAGE M.H.P.	YES	NO	NO	YES	NO
220213	COUNTRY VILLAGE M.H.P.	YES	NO	YES	YES	YES
220218	BOH-NAK MOBILE HOME PARK	YES	NO	YES	YES	NO
220221	NAYLOR MILL VILLAGE M.H.P.	YES	NO	NO	YES	NO
220222	BENNETT MOBILE HOME PARK	YES	NO	NO	YES	YES
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	YES	NO	NO	YES	NO
1220003	BARR INTERNATIONAL #1	YES	NO	NO	YES	YES
1220004	BARR INTERNATIONAL #2	NO	NO	YES	YES	NO
1220005	BEAVER RUN ELEMENTARY	YES	NO	NO	YES	YES
1220007	SALISBURY CHRISTIAN SCHOOL	NO	NO	NO	NO	NO
1220011	FAITH BAPTIST SCHOOL	YES	NO	NO	YES	NO
1220016	MARDELA HIGH SCHOOL	NO	NO	NO	NO	NO
1220018	NORTHWESTERN ELEMENTARY	NO	NO	the old well may be	NO	NO
1220022	SALISBURY BAPTIST ACADEMY	near WHPA	NO	NO	YES	YES
1220025	SALISBURY SCHOOL	YES	NO	NO	YES	YES
1220027	TOMMY TUCKER NURSERY 2	NO	NO	NO	YES	NO

Table 10d. Susceptibility Logic Chart for Synthetic Organic Compounds

PWSID	PWS Name	Are Contaminant Sources Present in WHPA?	Are Contaminants Detected in WQ Samples at Levels of Concern?	Is Well Integrity a Factor?	Is the Aquifer Vulnerable?	Is the System Susceptible to SOC's?
1220028	WESLEY TEMPLE DAY CARE	near WHPA	NO	NO	YES	NO
1220029	WESTSIDE PRIMARY SCHOOL	NO	NO	NO	NO	NO
1220031	WISE BEGINNINGS	NO	NO	NO	YES	NO
1220033	KIDDIE KAMPUS	YES	NO	NO	YES	NO
1220036	WEST SALISBURY SCHOOL	YES	NO	NO	YES	NO
1220037	NOAH'S ARK CHILD CARE	YES	NO	NO	YES	NO
1220040	BUTTONS & BOWS	NO	NO	NO	the unconfined aquifer is	NO
1220042	U S AIR - ADMIN. BLDG.	YES	NO	YES	YES	NO
1220043	U S AIR - HENSON HANGAR	YES	NO	YES	YES	NO
1220044	SALISBURY FORD LINCOLN-MERCURY	YES	NO	YES	YES	NO
1220045	BAR NONE	near WHPA	NO	NO	YES	YES
1220048	TENDER HEART DAY CARE	near WHPA	NO	NO	YES	YES
1220049	MAPLE SHADE SCHOOL	NO	NO	NO	YES	NO
1220050	FILTRONIC COMTEK	YES	?	NO	YES	?
1220051	COMMUNITY CENTER CHILD CARE	NO	?	NO	YES	?
1221035	POHANKA OF SALISBURY INC	NO	NO	Toyota Well 1 & Mazda Well	YES	NO
1221086	SALISBURY OFFICE COMPLEX / SKATELAND	YES	NO	NO	YES	NO
1221127	SALISBURY-WICOMICO AIRPORT	NO	NO	NO	YES	NO
1221134	HICKORY DICKORY TOTS	YES	NO	NO	YES	NO

Table 10d (continued). Susceptibility Logic Chart for Synthetic Organic Compounds

PWSID	PWS Name	Are Contaminant Sources Present in WHPA?	Are Contaminants Detected in WQ Samples?	Is Well Integrity a Factor?	Is the Aquifer Vulnerable?	Is the System Susceptible to Microbiological Pathogens?
220201	GREEN MEADOWS COMPACT HOMES	NO	YES - 1 routine sample only	NO	NO	NO
220204	GATEWAY VILLAGE MOBILE HOME PARK	YES	NO	NO	NO	NO
220206	PINE TREE MOBILE HOME PARK	YES	YES - 2 routine samples only	Well 2 may be	NO	NO
220212	EASTWOOD VILLAGE M.H.P.	YES	NO	NO	NO	NO-based on routine sampling
220213	COUNTRY VILLAGE M.H.P.	YES	NO	YES	NO	?
220218	BOH-NAK MOBILE HOME PARK	YES	YES - 1 routine sample only	YES	NO	NO-based on routine sampling
220221	NAYLOR MILL VILLAGE M.H.P.	YES	NO	NO	NO	NO-based on routine sampling
220222	BENNETT MOBILE HOME PARK	YES	NO	NO	NO	NO
220223	COLONIAL MILL ESTATES MOBILE HOME PARK	YES	YES - 2 routine samples only	NO	NO	NO
1220003	BARR INTERNATIONAL #1	NO	NO	NO	NO	NO
1220004	BARR INTERNATIONAL #2	NO	NO	YES	NO	?
1220005	BEAVER RUN ELEMENTARY	YES	NO	NO	NO	?
1220007	SALISBURY CHRISTIAN SCHOOL	NO	YES - 3 routine samples only	NO	NO	NO
1220011	FAITH BAPTIST SCHOOL	YES	NO	NO	NO	NO-based on routine sampling
1220016	MARDELA HIGH SCHOOL	NO	NO	NO	NO	NO
1220018	NORTHWESTERN ELEMENTARY	NO	NO	the old well may be	NO	NO
1220022	SALISBURY BAPTIST ACADEMY	YES	NO	NO	NO	NO-based on routine sampling
1220025	SALISBURY SCHOOL	YES	NO	NO	NO	?
1220027	TOMMY TUCKER NURSERY 2	YES	NO	NO	NO	NO-based on routine sampling

Table 10e. Susceptibility Logic Chart for Microbiological Pathogens

PWSID	PWS Name	Are Contaminant Sources Present in WHPA?	Are Contaminants Detected in WQ Samples?	Is Well Integrity a Factor?	Is the Aquifer Vulnerable?	Is the System Susceptible to Microbiological Pathogens?
1220028	WESLEY TEMPLE DAY CARE	NO	NO	NO	NO	NO - based on routine sampling
1220029	WESTSIDE PRIMARY SCHOOL	NO	NO	NO	NO	NO
1220031	WISE BEGINNINGS	NO	NO	NO	NO	NO - based on routine sampling
1220033	KIDDIE KAMPUS	YES	NO	NO	NO	NO - based on routine sampling
1220036	WEST SALISBURY SCHOOL	NO	NO	NO	NO	NO - based on routine sampling
1220037	NOAH'S ARK CHILD CARE	YES	NO	NO	NO	NO-based on routine sampling
1220040	BUTTONS & BOWS	YES	NO	NO	NO	NO - based on routine sampling
1220042	U S AIR - ADMIN. BLDG.	NO	NO	YES	NO	?
1220043	U S AIR - HENSON HANGAR	NO	NO	YES	NO	?
1220044	SALISBURY FORD LINCOLN-MERCURY	YES	NO	YES	NO	?
1220045	BAR NONE	YES	NO	NO	NO	NO - based on routine sampling
1220048	TENDER HEART DAY CARE	YES	NO	NO	NO	NO - based on routine sampling
1220049	MAPLE SHADE SCHOOL	YES	NO	NO	NO	?
1220050	FILTRONIC COMTEK	YES	NO	NO	NO	?
1220051	COMMUNITY CENTER CHILD CARE	YES	NO	NO	NO	?
1221035	POHANKA OF SALISBURY INC	YES	NO	Toyota Well 1 & Mazda Well	NO	?
1221086	SALISBURY OFFICE COMPLEX / SKATELAND	YES	NO	NO	NO	NO - based on routine sampling
1221127	SALISBURY-WICOMICO AIRPORT	NO	NO	NO	NO	NO - based on routine sampling
1221134	HICKORY DICKORY TOTS	YES	NO	NO	NO	NO - based on routine sampling

Table 10e (continued). Susceptibility Logic Chart for Microbiological Pathogens

FIGURES

Figure 1. Location Map of the Wicomico County Small Systems Supply Wells

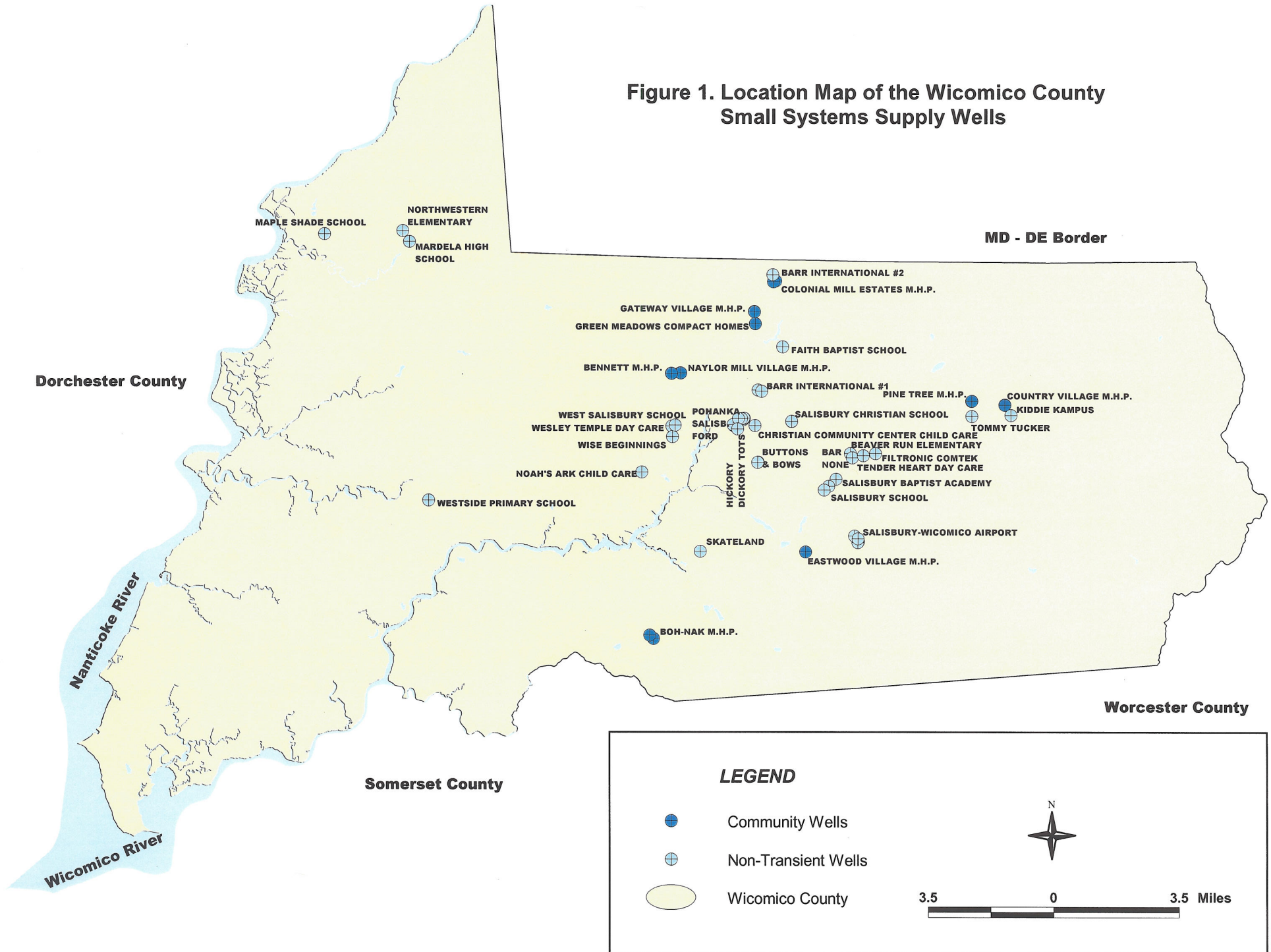


Figure 3. Land Use / Land Cover of Wicomico County

The map displays the following labeled locations and features:

- Maple Shade School**
- Northwestern Elem.**
- Mardela High School**
- Gateway Village M.H.P. Zone 4**
- Barr International 2**
- Colonial Mill Estates M.H.P.**
- Green Meadows Compact Homes**
- Faith Baptist School Zone 4**
- Bennett M.H.P. Zones 2, 3, 4**
- Faith Baptist School**
- Naylor Mill Village M.H.P.**
- Barr International 1**
- Pine Tree M.H.P.**
- Country Village M.H.P.**
- Kiddie Kampus**
- Tommy Tucker Nursery 2**
- Beaver Run Elem. Zone 4**
- Filtronic Comtek**
- Tender Heart Day Care**
- Salisbury School Zones 2,3,4**
- Salisbury Baptist Academy**
- Salisbury School**
- West Salisbury School**
- Wesley Temple Day Care**
- Wise Beginnings**
- Noah's Ark Child Care**
- Westside Primary School**
- Skateland**
- Eastwood Village M.H.P.**
- Eastwood Village M.H.P. Zone 4**
- Boh-Nak M.H.P.**
- U.S. Air Admin. Bldg.**
- U.S. Air Henson Hangar**
- Salisbury - Wico. Co. Airport**
- Salisbury - Wico. Co. Airport Zone 4**
- Pohanka**
- Salisbury**
- Ford**
- Christian Comm. Ctre.**
- Hickory Dickory Tots**
- Beaver Run Elem.**
- Bar None**

Legend:

- Wellhead Protection Area (indicated by a circle)
- Wicomico County 2000 Land Use / Land Cover:
 - Low Density Residential (light pink)
 - Medium Density Residential (medium pink)
 - High Density Residential (red)
 - Commercial (grey)

Surrounding Areas: Dorchester County (west), Somerset County (south), and MD - DE Border (north).

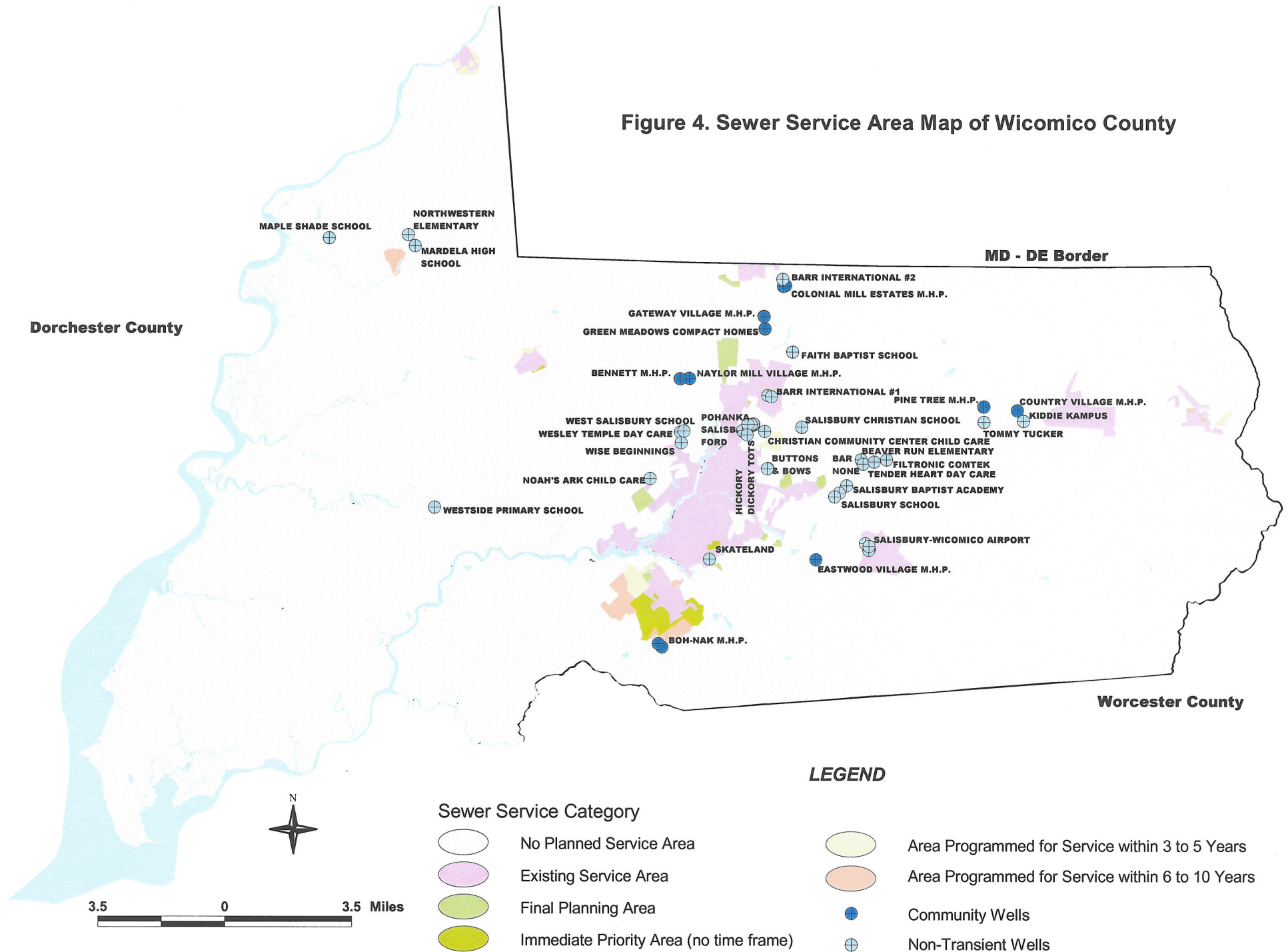
Wicomico County 2000 Land

 Medium Density Residue

Commercial

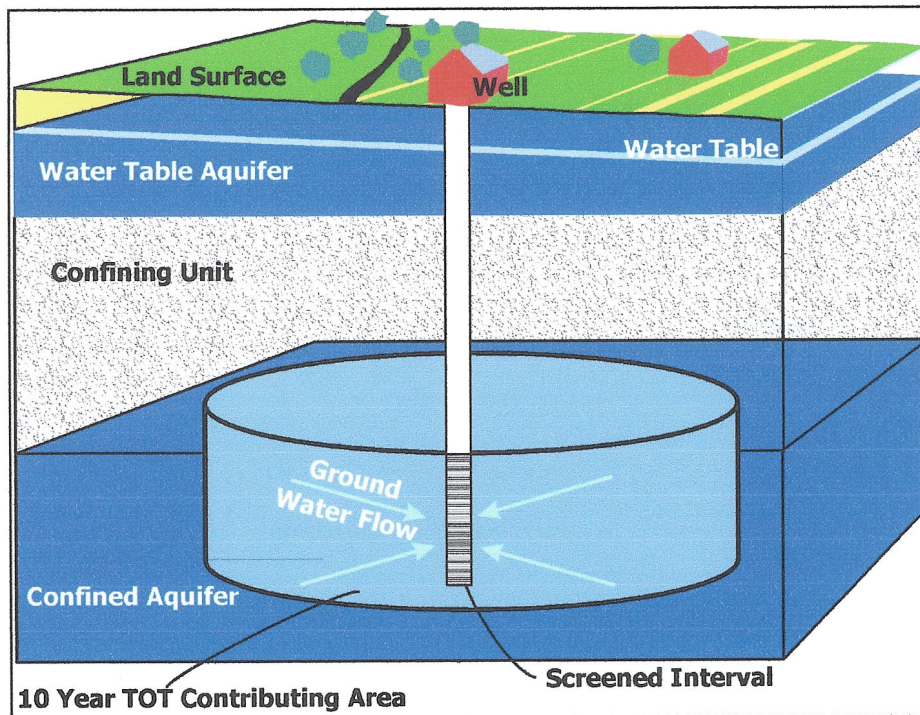
Commercial

Figure 4. Sewer Service Area Map of Wicomico County



Source: MD Office of Planning 1995 Wicomico County Sewerage Coverage Map

**Figure 5. Diagram of a Wellhead Protection Area
In a Confined Aquifer Setting**



APPENDICES

APPENDIX A

Report of open cases within or near WHPAs from MDE Oil Control Program.

CASE NO.	NAME	LOCATION	STATUS AS OF NOVEMBER 2002
91-1454WI	Delmarva Power - Southern Division	Naylor Mill Rd. & MD Rt. 13	High levels of dissolved phase hydrocarbons (VOCs) continue to be detected in monitoring well sampling results. The Oil Control Program is requiring additional remediation work to be performed on-site.
93-1372WI	K&G Market & Gas	Old Ocean City Rd. & Walston Switch Rd.	Petroleum hydrocarbons detected periodically in monitoring well sampling results. On-going remediation at the site.
9-1897WI	Ellison Marine Svc. (formerly Shore Fuel Oil)	1918 N. Salisbury Blvd.	Ground water contamination is present on-site. Contamination is being remediated by a recovery system. The Oil Control Program is overseeing the clean-up efforts.
96-0149WI	Lester's Getty Garage	28441 Old Quantico Rd.	The present property owner refuses to properly abandon the USTs on-site. The extent of ground water contamination (if any) is unknown at the present time. A complaint and order has been issued to the property owner regarding the tanks.
01-0540WI	Salisbury Baptist Academy	6413 Hobbs Rd.	Contaminated soil was excavated & removed. MTBE detected in quarterly sampling results. Rusty, old ASTs containing gasoline product remain on the property. Site is being monitored by the Wicomico Co. Health Dept. & MDE.
91-0704WI	B&J Market	31795 Mt. Herman Rd.	Petroleum hydrocarbons detected in sampling results on-site. Quarterly sampling is conducted by Southern Maryland Oil.

MDE Oil Control Program Open Cases within or near Wellhead Protection Areas

APPENDIX C

Ground water discharge permits summaries within or near WHPAs



MDE

MARYLAND DEPARTMENT OF THE ENVIRONMENT
2500 Broening Highway • Baltimore, Maryland 21224
(410) 631-3000

Parris N. Glendening
Governor

Jane T. Nishida
Secretary

STATE DISCHARGE PERMIT NUMBER	97-DP-3231
UIC PERMIT NUMBER	UIC0455W003
EFFECTIVE DATE	October 1, 1997
EXPIRATION DATE	October 1, 2002

Pursuant to the provisions of Title 9 of the Environment Article, Annotated Code of Maryland and regulations promulgated thereunder, the Department of the Environment, hereinafter referred to as the "Department," hereby authorizes

Nordstrom Chevrolet Geo Inc.
P.O. Box 3376
Salisbury, Maryland 21802

TO DISCHARGE FROM

an automobile sales and service facility

LOCATED ON

2531 North Salisbury Blvd., Salisbury, MD 21801

VIA OUTFALL

001, as identified and described herein

TO

ground waters of the State in accordance with the following special and general conditions and map made a part hereof.

I. SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the effective period of this permit, the permittee is authorized to discharge vehicle exterior wash water to a drainfield via Outfall 001.

As specified below, such discharge shall be limited and monitored by the permittee prior to discharge into the drainfield.

EFFLUENT CHARACTERISTICS

EFFLUENT LIMITATIONS

MONITORING REQUIREMENTS

	<u>EFFLUENT LIMITATIONS</u>		<u>MONITORING REQUIREMENTS</u>	
	Quarterly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow	(1) gpd	(1) gpd	1/Month	Estimated
Total Petroleum Hydrocarbons	N/A	15 mg/l	1/Month ⁽²⁾	Grab

(1) Monitoring required without limits.

(2) After 12 months of sampling, the permittee may request a reduction in the sampling frequency.

**Industrial Discharge Program
Groundwater Permits Division
Summary Report and Fact Sheet**

Type: Industrial/ Groundwater/ New

State Application No.: 97-DP-3231

UIC No:

Facility Name: Courtesy Chevrolet, Geo

Address: 2531 N. Salisbury Blvd., Salisbury, MD 21801

County: Wicomico County

Contact (name,title): Ms. Laurie Waugh, Secretary-Treasurer-
Controller

Bob Orgain - Environmental Consulting Services, Inc.

Phone: (410) 749-7100, Bob Orgain (410) 543-0068

SIC Codes: 5511

Applicant is engaged in automobile sales and service.

Legal Name of Applicant: Nordstrom Chevrolet Geo, Inc.

Address: P.O. Box 3376

Salisbury, MD 21802

Receiving Water Name (Class): Quaternary unconsolidated sediments

Type I aquifer

Basin Code: 02.13.03.04

Subject to EPA Review? No

Application Rec.: 4/1/97

Assigned:

Project Manager: Michael H. Eisner

Phone: (410) 631-3771

Date Completed:

Reviewed by

Date:

Industrial Operations Which Generate Wastewater

The applicant operates a car dealership and service center. The discharge consists of exterior vehicle wash water. Wastewater from washing vehicle exteriors flows to a floor drain then into an oil/water separator, and will then flow into a new, dedicated drainfield. They wash an average of 5 cars per day, with a maximum of 8.



ENVIRONMENTAL
CONSULTING
SERVICES, INC.
PO BOX 1615
SALISBURY, MD.
21802-1615

TITLE: TREATMENT EQUIPMENT CONFIGURATION DIAGRAM

PROJECT: COURTESY CHEVROLET GEO

LOCATION: SALISBURY, MARYLAND

PROJECT NO.

36300197

SCALE

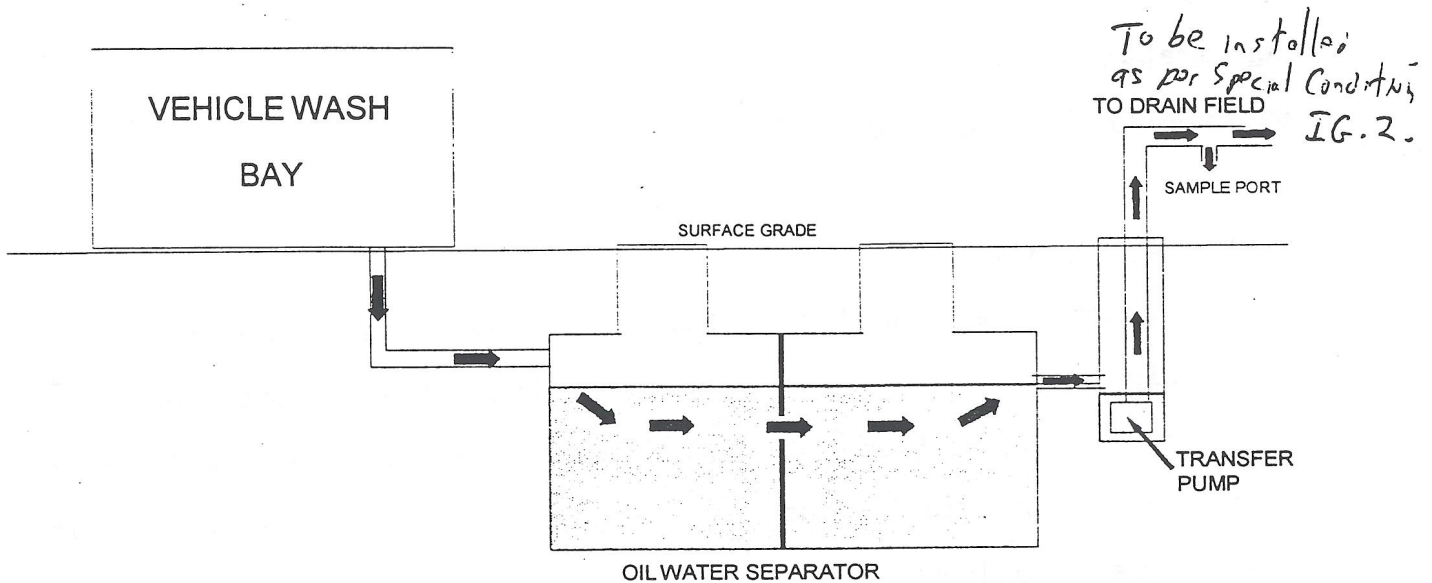
NTS

DATE

03/05/97

DRAWING NO.

36300197B



Detailed Assessment of Liquid Wastes

Type of wastewater in outfall 001: Wash water from exterior washing of cars.

Discharge: Type - Intermittent Period - year round

Flow: Average - 250 gpd Maximum - 400 gpd Design - N/A

Ph: N/A

Temperature: ambient

Stormwater Contribution: N/A

Wastewater Analysis

The wastewater was sampled on March 13, 1997 by Environmental Consulting Services, Inc. by Water Testing Laboratories and analyzed for volatile organic chemicals by EPA Method's 624 and Total Petroleum Hydrocarbons by EPA Method 418.1. The results of the analysis follows.

<u>Effluent Constituents</u>	<u>Concentrations (ppb)</u>	<u>MCL'S</u>
Total Petroleum Hydrocarbons	14 ppm	None
<u>EPA 624</u>		
Methylene chloride *	93 ppb	5 ppb
Tetrachloroethene	6.3 ppb	5 ppb
Toluene	5.9 ppb	1000 ppb

* Claimed to be contamination by consultant.

<u>Constit.'s</u>	<u>Loadings</u>		<u>Conc.'s</u>		<u>Requirements</u>	<u>Self</u>
	<u>Avg</u>	<u>Max</u>	<u>Avg</u>	<u>Max</u>	<u>Frequency</u>	<u>Monitoring</u> <u>Type of</u> <u>Sample</u>
Flow (GPD)	N/A	N/A	*	*	1/Month	Estimated
Total Petroleum Hydrocarbons	N/A	N/A	*	15mg/L	1/Month ⁽²⁾	Grab
Total Volatile Organics ⁽³⁾	N/A	N/A	*	100 ppb	1/Quarter ⁽²⁾	Grab
Tetrachloroethene *	N/A	N/A	*	5 ppb	1/Quarter ⁽²⁾	Grab

Monitoring required without limits.

(2)

After 12 months of sampling, the permittee may request a reduction in the sampling frequency.

(3)

Total Volatile Organics is defined as the sum of the concentrations of the constituents present in the wastewater according to EPA Method 624. The permittee shall include in the quarterly Discharge Monitoring Report the total sum and each individual concentration of detected constituents.

Rationale:

TPH: A daily maximum of 15 mg/l is attainable as a result of gravity separation in an oil/water separator. This limit is set under a controlled flow situation and is used in similar treatment systems throughout the State. Monitoring for volatile organics is required due to the presence of solvents in the effluent analysis. Under conditions of the permit, solvents will be prohibited from being discharged into the disposal system.

County Water & Sewer PlanYes X No **208 Water Quality Mgmt. Plan**Yes X No **Source of Water:** Well.**SAP or GAP Number:****Summary of Plant Visits and Meetings:**

Site visit by Roger Simon.

Wastewater Operator Requirement: No.**Sanitary Waste Handling:** On-site septic system.**Other Environmental Permits:** N/A.**Recommended Enforcement Activities:** Routine visits to the facility.



MARYLAND DEPARTMENT OF THE ENVIRONMENT

2500 Broening Highway □ Baltimore, Maryland 21224

410-631-3000 □ 1-800-633-6101 □ <http://www.mde.state.md.us>

Parris N. Glendening
Governor

Merrylin Zaw-Mon
Acting Secretary

April 26, 2002

Mr. Michael Flynn
First State Packaging, Inc.
P.O. Box 3037
Salisbury, MD 21802-3037

Dear Mr. Flynn:

This letter is a follow-up to my site inspection on April 24, 2002, of First State Packaging, Inc. located at 511 Naylor Mill Road, Salisbury, MD. During this inspection, it was found that vehicle washwater is discharged to a stormwater pond. The discharge of vehicle washwater to the ground via a stormwater pond or to surface waters typically requires a state discharge permit. A permit has operational and maintenance requirements, as well as wastewater testing requirements deemed necessary to protect ground and surface waters.

We agree that choosing to wash vehicles offsite at the Penske location is a practical solution to managing the discharge of your vehicle washwater. With this plan, a permit will not be required for your Naylor Mill Road operations. It is important for you to verify that the washwater at the Penske location is either discharged to the public sanitary sewer system, or that the Penske facility has a discharge permit for washwater discharge.

Please contact the Department in the future if you would like to wash vehicles onsite, or learn more about the permitting process. Thank you very much for your cooperation in these matters and agreeing to stop washing the three truck cabs at your site. If you have any questions, please feel free to contact Michael Eisner, at 410-631-3771, or me at (410) 631-3101.

Sincerely,

Susan M. Allen
Environmental Specialist II

General Information

Permit Type: ☐ WMA3 ☐ GROUNDWATER INDUSTRIAL DISCHRG
App. #: 99DP3288 Permit #: 99DP3288
Permit Category: VEHICLE WASH
App. Description: FOR 500 & 100 GAL/DAY AVERAGE DISCHARGE FROM 2 SITES OWNED BY CAR DEALER
NPDES #: ☐ CHADEAYNE ☐ TED
Date Received: 10/27/1998 ☒ Admin. Procedures Act Permit Revised: 10/27/1998

Status Information

Permit Status: ☐ IN ☒ ISSUED-NEW

Date Status Changed:	11/06/2000	Complete Application:	11/25/1998
Acknowledgment Sent:	11/25/1998	Renewal Notice Sent:	
Initial Protected Issuance:	07/27/1999	Total Processing Delay (Initial Issuance):	Rqst/Submt
Revised Protected Issuance:		Total Processing Delay (Rev Issuance):	Proc Delays
Last Permit Issued:	01/01/2001	First Est. Tentative Determination:	
Permit Expiration:	01/01/2006	Revised Est. Tentative Determination:	
Prev. Permit Expiration:		Tentative Determination Complete:	09/12/2000

Application Info

Contacts

Public Participation

Adjudication

Watersh

Permit Detail

Billing/Prints

Cancel/Retain List

Cancel

Ok

Facility

GOOD NEWS NISSAN

1969

List of Valid Facilities

General Information

Permit Type

WMA3

GROUNDWATER INDUSTRIAL DISCHRG

App #

99DP3289

Permit #

99DP3289

Permit Category

VEHICLE WASH

App Description

FOR DISCHARGE OF 100 GALLONS PER DAY AVERAGE TO DRAINFIELD.

NPDES #

Project Manager

Date Received

10/27/1998

Admin Procedures Act

☒

Permit Revised

10/27/1998

Status Information

Permit Status

☒ XR

☒ HISTORY REPLACED

Date Status Changed

05/17/2000

Acknowledgement Sent

Initial Projected Issuance

07/27/1999

Revised Projected Issuance

Last Permit Issued

Permit Expiration

Prev Permit Expiration

☒ HB9 Refund Requested?

Complete Application

Renewal Notice Sent

Total Processing Delay (Initial Issuance)

Total Processing Delay (Rev Issuance)

First Est. Tentative Determination

Revised Est. Tentative Determination

Tentative Determination Complete

Rqst/Submit

Expc Delays

Permit Detail

Billing/Prints

Cancel-Return List

Cancel

OK

Application Info

Contacts

Public Participation

Adjudication

Watersh

E x e c u t i v e S u m m a r y

Groundwater Discharge Permit

State Application No.: 97-DP-2920

Facility Name and Location: Salisbury Ford Lincoln-Mercury, Inc.

1902 N. Salisbury Blvd.

Salisbury, MD 21801

Description Of Facility: An automobile sales and service facility.

Facility Discharges: Vehicle exterior wash water.

Pollutants Limited: Total petroleum hydrocarbons (15 mg/l).

Changes From Previous Permit: This is the former Cavanaugh Motors, Inc. facility. Eliminate emergency surface outfall and related testing for total suspended solids.

Controversial Provisions: None.

Unusual Conditions: None.

Major Facility: No.

State Discharge Permit 97-DP-2920: Salisbury Ford Lincoln-Mercury, Inc., 1902 Salisbury Blvd., Salisbury, Maryland 21801, applied for renewal of the permit to discharge exterior vehicle wash water from an automobile sales and service facility, located at the above address, to ground water via overland flow.

A tentative determination has been made by the Department to reissue the permit with the following effluent limitations: flow, monitored without limits; and total petroleum hydrocarbons limited to a daily maximum of 15 mg/l.

STATE DISCHARGE PERMIT NUMBER	97-DP-2920
EFFECTIVE DATE	
EXPIRATION DATE	

Pursuant to the provisions of Title 9 of the Environment Article, Annotated Code of Maryland and regulations promulgated thereunder, the Department of the Environment, hereinafter referred to as the "Department," hereby authorizes

Salisbury Ford Lincoln-Mercury, Inc.
1902 N. Salisbury Blvd.
Salisbury, Maryland 21802

TO DISCHARGE FROM

an automobile sales and service center

LOCATED AT

1902 N. Salisbury Blvd.
Salisbury, Wicomico County, Maryland 21802

VIA OUTFALL

001, (overland flow) as identified and described herein

TO

ground waters of the State in accordance with the following special and general conditions and map made a part hereof.

I. SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the effective period of this permit, the permittee is authorized to discharge vehicle exterior washwater to groundwater via overland flow.

As specified below, such discharge shall be limited and monitored by the permittee after treatment by the oil/water separator and before overland flow.

<u>EFFLUENT CHARACTERISTICS</u>	<u>EFFLUENT LIMITATIONS</u>		<u>MONITORING REQUIREMENTS</u>	
	<u>(lbs/day)</u>		<u>Other Units (Specify)</u>	
	<u>Quarterly Average</u>	<u>Daily Maximum</u>	<u>Quarterly Average</u>	<u>Daily Maximum</u>
Flow	N/A	N/A	(1) gpd	1/Month
Total Petroleum Hydrocarbons	N/A	N/A	15 mg/l	1/Month
				Estimated
				Grab

(1) Monitoring required without limits.

DEPARTMENT OF THE ENVIRONMENT
Division of Residential Sanitation

Groundwater Discharge Permit
Summary Report and Fact Sheet

Project Type: Spray Irrigation

State Application No.: 92-DP-2922

Facility Name: Wor-Wic Tech. Community College Wastewater Treatment Facilities

Address: US Route 50 and Walston Switch Road
Salisbury, Maryland 21801

County: Wicomico

Contact (Name, Title): Mark Rudnick, Vice President for Administrative Service

Phone: (301) 749-8181

Applicant is engaged in: Education

Legal Name of Applicant: Wor-Wic Tech Community College

Address: 1409 Wesley Drive
Salisbury, Maryland 21801

Basin Code: 02.13.03.01

Receiving Water Name (class)
:groundwater type I aquifer

EC : 4952

CGA: Salisbury

Public Notice No.

Public Notice Date

Groundwater Discharge Permit
Summary Report and Fact Sheet
Page 2

Application Received: Aug 9, 1991 assigned:

Project Manager: Ching-Tzone Tien, Phone: 631-3652

Date Completed:

Wastewater Characteristics

Average Flow: 60,000 gpd

Peak Flow: 60,000 gpd

Proposed Discharge Period: all seasons (except for inclement weather)

<u>Parameter</u>	<u>Raw Concentration</u>	<u>Treated Concen.</u>
BOD ₅	200 mg/l	30 mg/l
TSS	200 mg/l	90 mg/l
Nitrogen(total as N)		

PRETREATMENT FLOW DIAGRAM

Sewage Influent ----> Lagoon ----> Chlorination ----> Spray irrigation

Assimilative Capacity

<u>Limiting Parameter (s)</u>	<u>Loading Rate</u>	<u>Land Required</u>
Hydraulic Loading	2"/wk	17 acres

Nitrogen Balance

$$\begin{aligned}
 W &= (4.43 C + a (p-ET) - cp) / (y-a-y(d+n)) \\
 &= (4.43 \times 249.01 + 10(44.05 - 31.72) - 0.5 \times 44.05) / (22-10-22 \times 0.2) \\
 &= 158.47"/yr \text{ or } 3.96"/wk \text{ annual average (use 40 weeks irrigation time).} \\
 &\text{P\&ET data (see p.41 of Hydro report)}
 \end{aligned}$$

GROUNDWATER SYSTEM

Aquifer Name: Columbia Group (Pleistocene)

Aquifer Type: I

Estimated Aquifer Transmissivity (T): 13,370 ft²/day (average for 21 samples) *

Estimated Aquifer Permeability (P): 148.5 ft/day (based on 90' aquifer depth)

Estimated Total Dissolved Solids Concentration: 32 to 114 mg/l *

Other Properties: Storage coefficient 0.0001-0.2; Specific Capacity 2.5 to 20
gpm/ft*

Present Use: There are three (3) supply wells approximately 1,000 ft to the northwest of the site; two (2) supply wells approximately 1500 feet to the southwest and five (5) to six (6) wells approximately 1000 feet southeast of the site. All wells are screened at a depth below the shallow clay layer. (see page 20 of Hydro report)

Projected Impact: The shallow clay layer, which underlies the sandy soil, has a permeability of 2.29×10^{-7} to 4.0×10^{-7} cm/sec with a minimum thickness of 5' (see page 26 of Hydro report). Based on the thickness and permeability of the clay on-site, impact to the supply well should be minimal.

* from " Aquifer Identification and Injection Well Inventory, State of Maryland, May, 1981", The Johns Hopkins University.

The applicant has applied for a permit to discharge treated sewage effluent to the land and subsequently to groundwaters of the State. Significant information involving the application, additional data and determinations made by the State may be summarized as follows:

Description of the Facility:

The proposed spray irrigation site is located at the southeastern quadrant of the intersection of Maryland Route 50 and Walston Switch Road. The spray fields consist of 17 acres forested land to be used for the disposal/renovation of treated sewage effluent from approximately 3000 students.

Description of the Treatment System

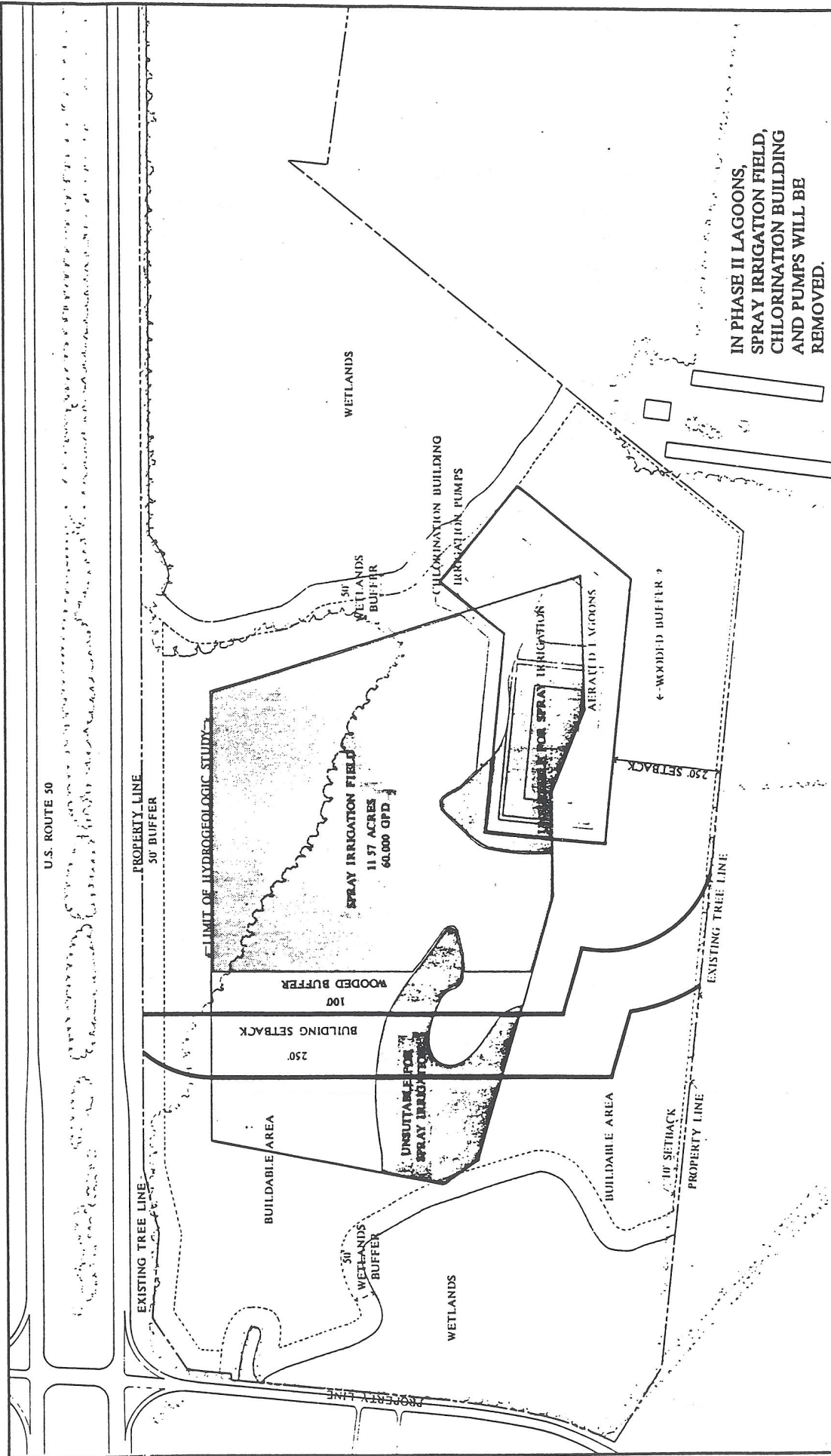
The proposed sewage treatment system consists of a lagoon and a chlorination facility. Sewage effluent from the lagoon will be pumped to the spray irrigation field for disposal.


Tentative Agency Decision:

Issue State Groundwater Discharge Permit with the following limitations and conditions: (1) BOD₅: 30 mg/l monthly average ; (2) suspended solids: 90 mg/l monthly average; (3) pH 6-8.5; (4) fecal coliform < 200 MPN/100ml; (5) total flow: 60,000 gpd. The following conditions are also a part of this permit : The hydraulic loading rate shall be limited to 2"/wk. and 2) The permittee shall install a storage pond with 90 days detention time.

Rationale For Permit Conditions

1. The maximum hydraulic loading rate of 2"/wk and a storage time of 90 days are based on the recommendations included in the hydrogeologic report.





WOR-WIC TECH COMMUNITY COLLEGE

CONSULTANTS

GRAHAM LANDSCAPE ARCHITECTURE

WHITNEY, BAILEY, COX, MAGNANI

WOR-WIC TECH COMMUNITY COLLEGE

MASTER PLAN

SITE ANALYSIS

AYERS

SAINT

GROSS

AUGUST 1991

SCALE: 1" = 20'

8

APPENDIX D

General information of sanitary landfills within or near WHPAs
from MDE Solid Waste Program

3.0 SITE OVERVIEW

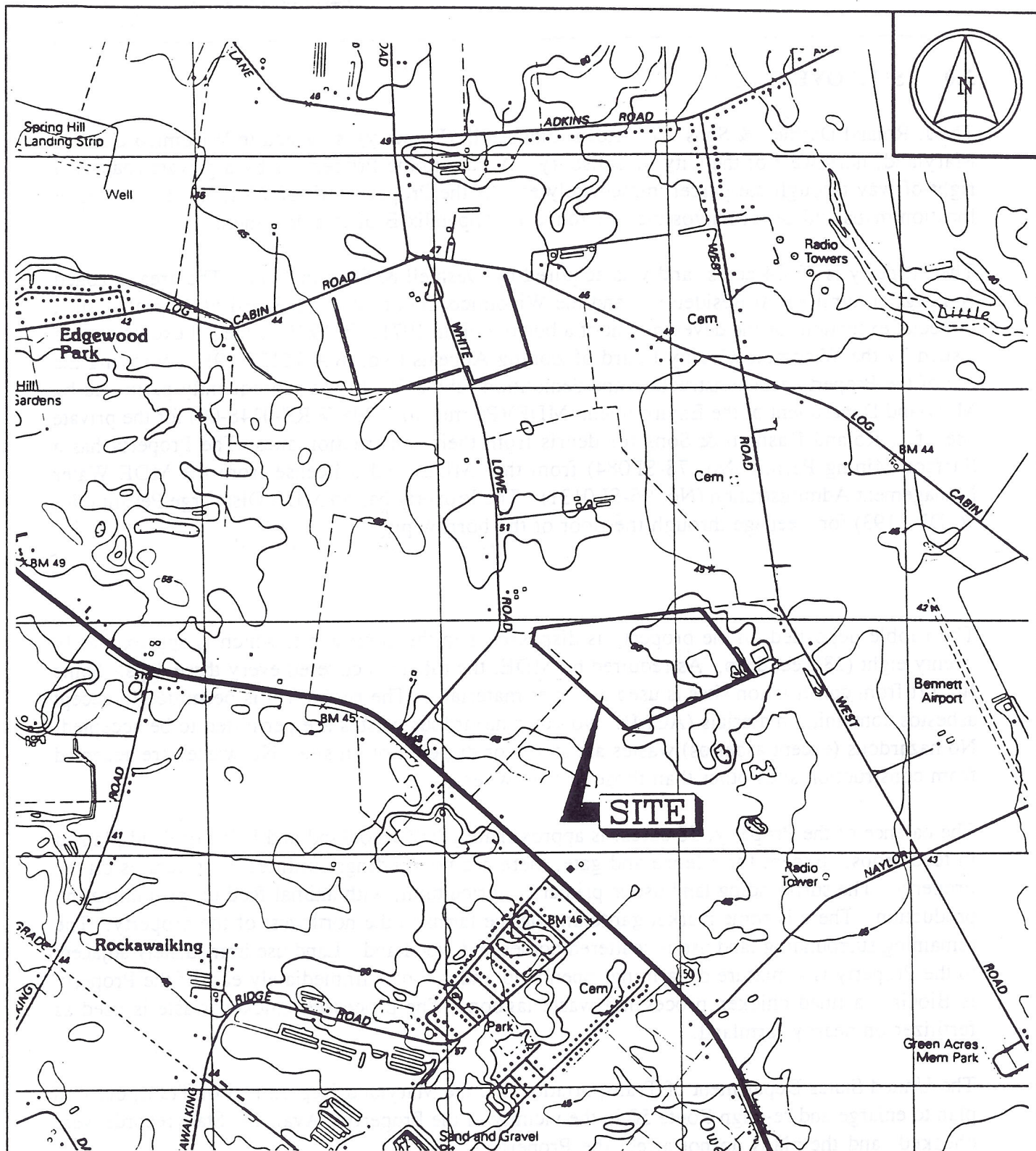
The J. Roland Dashiell & Sons West Road Rubble Fill (Property) is located in Wicomico County, Maryland, northwest of the City of Salisbury. Access to the Property is by a private road on a right-of-way through the parcel immediately east of the Property, off of West Road. Copies of location maps and aerial photos may be found in Appendix B of this document.

The Property is 70.04 acres, and was acquired by Dashiell & Sons in 1971. The area is zoned A-1 Agricultural-Rural Residential, and the Wicomico County Zoning Board of Appeals issued a special exception for the development of a borrow pit in 1971. In 1975, a special exception was issued by the Wicomico County Board of Zoning Appeals (No. WA-75127-89F) approving the use of the Property as a construction and demolition rubble fill. It was subsequently permitted by Maryland Department of the Environment (MDE)(Permit No. 1995-WRF-0348-00) for the private use of J. Roland Dashiell & Sons for debris from their construction sites. The Property has a Surface Mining Permit (No. 78-SP084) from the MDE, and a license from the MDE Water Management Administration (No. 96-SL0131). The Property has an MDE Discharge Permit (No. 96-DP-3193) for seepage through the floor of the borrow pit.

The rubble deposited on the property is disposed of in the borrow pit, which is approximately twenty eight (28) feet deep. As required by MDE, the rubble is covered every three days. Some fill dirt from construction sites is used as cover material. The rubble fill is permitted to accept asbestos containing materials (ACM). No other hazardous wastes are permitted to be accepted. No hazardous (except asbestos) wastes are stored or disposed of on site. No wastes are accepted from construction sites other than those of the owner.

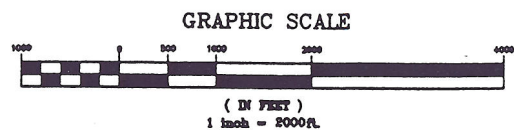
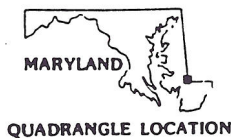
The balance of the Property, 58 acres, is approximately half woodland and half farmland planted in feed crops. Except for a fence and gate, there are no buildings, utilities or structures on the Property. The surrounding land use is primarily agricultural, with animal feed crops dominating production. There is some market gardening on the farms to the northwest of the property. The remaining surrounding land use is scattered homes and woodland. Land use immediately adjacent to the Property is a mixture of farming, open land and woods. Immediately east of the Property is BioGro, a lined chicken processing waste lagoon. The processed chicken waste is used as fertilizer on nearby farmland.

The United States Department of Transportation and the Maryland Department of Transportation plan to enlarge and re-align Route 50 in the vicinity of the Property. Available State records were checked, and the plans do not affect the Property.



MAP REFERENCE:

HEBRON, MARYLAND-DELAWARE USGS QUADRANGLE
7.5 MINUTE SERIES, 1992 EDITION
DELMAR, MARYLAND-DELAWARE USGS QUADRANGLE
7.5 MINUTE SERIES, 1992 EDITION



RUST ENVIRONMENT & INFRASTRUCTURE

SITE LOCATION MAP
WEST ROAD RUBBLE LANDFILL
J. ROLAND DASHIELL REALTY COMPANY
WICOMICO COUNTY,
MARYLAND

APPENDIX E

General information of sites with known contamination
near WHPAs from MDE Waste Management Administration

MD-321
Wicomico County

1977 Property purchased by
George R. Adams.

Adams Co. & Son began
operations as an industrial
paint contracting firm.

1988 Waste paint was observed
on the soil and reported to
have been improperly
stored in drums at the site.

HSWMA issued Site
Complaints SC-0-89-100
(July) and SC-0-98-010
(August).

HSWMA collected
samples from drum
contents and stained soil.

Ten to 18 drums of waste
paint were removed from
the site.

1989 Maryland Attorney
General's Office issued
criminal indictments
against Adams Co. & Son
and George Adams.

1991 MDE prepared a
Preliminary Assessment
report recommending No
Further Remedial Action
Planned.

ADAMS COMPANY & SON
Salisbury, Maryland

Site Location

The Adams Company and Son, Inc. site is located in the Northwood Industrial Park at the northeast corner of Northwood Drive and Arlington Road, Salisbury, Wicomico County, Maryland. The surrounding area is commercial. One building on the site housed the company offices, shop, and storage areas. The site is graded and it appears that much of the original topsoil layer was removed. The geographic coordinates of the property are

Site History

George R. Adams purchased the 1.03-acre property in January 1977 from Deer's Head Realty Liquidating Trust. Use of the land prior to 1977 is unknown. Adams Company & Son, Inc. began operations on the site 1977 as an industrial paint contracting firm that was reported to paint metal tanks, towers, and other industrial materials. Adams Company transported the paint and painting materials to the industrial site and the painting was performed there. Any unused paint was left with the customer.

Environmental Investigations

Waste paint was observed on the ground at the Adams site in 1988 and was also reported to have been improperly stored in drums located at the site. These wastes were evidently removed from the site and transported to a property located southeast of Salisbury owned by Danny and Ruth Wilkerson. The wastes were later removed from the Wilkerson property and disposed of under the auspices of the Maryland Department of the Environment's (MDE) Hazardous and Solid Waste Management Administration (HSWMA).

The HSWMA issued Site Complaint SC-0- 89-100 to Adams Company & Son, Inc. on July 31, 1988. The complaint cited the company for an observed yellow material in the northeast corner of the site that appeared to be paint and for subsurface oil contamination revealed during on-site excavation of what appeared to be an underground storage tank. The complaint directed Adams Company and Son, Inc. to fill the excavation with clean fill and to cease and desist all excavations. The complaint further directed that all excavated materials, paint wastes, and tanks were to remain on site until disposal could be properly directed by HSWMA.

On August 11, 1988, Site Complaint SC-0-89-010 was issued to Adams Company & Son, Inc. This complaint cited Adams Company and Son, Inc. for the improper removal and disposal of Controlled Hazardous Substances from the property, and for disposing of these wastes in an area likely to pollute the waters of the State. The complaint directed the Adams Company and Son, Inc. to provide for security at the Wilkerson property and obtain a contractor to ensure the proper recovery, packaging,

labeling and disposal of the hazardous substances disposed of at the Wilkerson property by Adams Company.

Samples were collected from the drum contents and the stained soil by the HSWMA in 1988. One soil sample, collected from the northeast corner of the site, contained chromium at 360 parts per million (ppm) in an EP Toxicity (Extraction Procedure Toxicity) analysis. No polychlorinated biphenyls were detected in the soil samples from the site. Several other soil samples were collected from the site, and only one other revealed elevated chromium (> 5 ppm) in EP Toxicity tests. This soil and drum wastes were removed from the site in 1988. The removal included some excavation of the wastes and soil from the northeast corner of the site.

The initial disposal site was not permitted by the MDE, and the HSWMA's Enforcement Program acted to insure that the wastes, which were characterized as hazardous in accordance with EP Toxicity criteria, were transported and disposed of in a proper manner. Approximately 10 to 18 drums of waste paint were removed from the site in 1988. The area of the northeast corner that may have been disturbed by the 1988 excavation was estimated to be less than 5,000 square feet.

The Maryland Attorney General's Office, Environmental Crimes Program, investigated the Adams Company and Son, Inc. regarding the disposal of hazardous paint related wastes at the site, and on July 24, 1989, issued criminal indictments against Adams Company and Sons, Inc. and its president, George R. Adams, for violations of environmental laws. The company reportedly was cleared from further prosecution in this matter.

In April 1991, MDE prepared a *Preliminary Assessment* report of the Adams Company and Son, Inc. property. The site was recommended for No Further Remedial Action Planned (NFRAP) under the Comprehensive Environmental Response, Compensation and Liability Act.

In response to an inquiry by Mrs. Evelyn Adams in 1997, MDE recommended she apply to the Voluntary Cleanup Program to determine whether MDE might require cleanup activities at the site.

Current Status

This site is on the State Master List that identifies potential hazardous waste sites in Maryland. The Master List includes sites currently identified by the Environmental Protection Agency's (EPA) Comprehensive Environmental Response, Compensation and Liability Information System. EPA has given the site a designation of NFRAP. The designation of NFRAP by EPA does not mean that MDE has reached the same conclusion concerning further investigation at the site. The information contained in the fact sheet presents a summary of past investigations and site conditions currently known to MDE.

Facility Contact

Arthur O'Connell, Chief, Site and Brownfields Assessments/State Superfund Division
Maryland Department of the Environment
410-631-3493

MD-093
Wicomico County

From approximately 1951 until 1971, Chevron Chemical Company leased the property and operated a pesticide mixing and storage facility.

In August 1983, DHMH completed a Preliminary Assessment that recommended further investigation to determine if pesticide spillage occurred on site.

In April 1990, the NUS Corporation completed a Site Inspection that revealed soil and subsoil pesticide contamination.

On January 23, 1996, the EPA designated the site as "No Further Remedial Action Planned."

CHEVRON CHEMICAL COMPANY
Salisbury, Maryland

Site Location

The .52-acre level site is located at 125 Bateman Street in a light industrial/commercial section of Salisbury, Maryland. Bateman Street forms the southern border of the site and the Conrail railroad tracks form the site's western border. Commercial sites are located on the north and east sides of the property. There is one building on the premises that currently serves as a furniture warehouse. Approximately 2,500 square feet along the northern boundary of the property is grass covered and approximately 1,000 square feet along the Conrail railroad tracks on the western boundary is exposed soil. The rest of the site is covered with asphalt. A fence with barbed wire restricts access to the northern portion of the site, while access to the rest the property outside the building is unrestricted.

Site History

From 1951 until 1971, the Chevron Chemical Company leased the property from the Second National Bank and operated a pesticide mixing and storage facility. When facilities such as this closed, it was common practice to place floor sweepings, wood scraps, and trash into the dust mill pit and fill it with cement. The dust mill pit is located in the northeast corner of the building. It is possible that some spillage of pesticide materials occurred as a result of routine operations.

Currently, Barbara Cantrell of Lakemont, Georgia owns the property and is leasing it for furniture storage use. Conditions at the site have not changed since the last investigation in 1990.

Environmental Investigations

In August 1983, the Department of Health and Mental Hygiene (DHMH) completed a Preliminary Assessment (PA) in order to assess the potential for the release of hazardous waste as a result of pesticide mixing and storage. The PA indicated that further investigation and sampling would be necessary to verify if spillage had occurred on site and if the pesticides were completely contained in the cemented dust mill vault.

In late August 1983, the DHMH performed a limited Site Investigation and collected samples from three nearby wells and on-site soils. Pesticide contamination from dieldrin, heptachlor, DDT and DDE was detected in the soil samples.

In April 1990, the NUS Corporation completed a Site Inspection. Soil samples collected around a former loading platform adjacent to the railroad tracks revealed pesticide and polycyclic aromatic hydrocarbon contamination. The toxicological evaluation indicated that the levels of contamination detected in the soil and subsoil samples were not expected to produce significant human health effects upon short-term contact and that long-term contact should be avoided.

The U.S. Environment Protection Agency (EPA) designated the site as "No Further Remedial Action Planned" on January 23, 1996.

Current Status

For the 1999 Cooperative Agreement with the EPA, the MDE is conducting a site survey of the Chevron Chemical Company. The Site Survey Initiative was proposed to reassess the status of those sites that were previously designated No Further Remedial Action Planned by the EPA. This initiative is intended to determine if site conditions have remained stable, provide a current description of the site, and identify and address any new pathways for contamination. The initiative is also intended to determine whether the State should recommend further investigation by the EPA; oversight by the State and no further investigation by the EPA; or no further action to be taken by the EPA or the State and that the State designate the site as a "Formerly Investigated Site."

APPENDIX F

Definitions of public water system types

A standard designation for Public Water Systems outlined in Code of Maryland Regulations (COMAR 26.04.01.01) was the basis for categorizing each system type. The system type affects the types of contaminants for which they will be assessed. These are described below:

+ Community water system = a public water system which services at least 15 service connections used by year-round residents, or regularly at least 25 residents throughout the year

+ Nontransient noncommunity water system = a public water system that is not a community and regularly serves at least 25 of the same individuals over 6 months per year

+ Transient noncommunity water system = a noncommunity water system that does not regularly serve at least 25 of the same individuals over 6 months per year

For delineation purposes, the ground water based public water systems are divided into systems that use an average of 10,000 or more gallons per day (gpd) and those that use less than 10,000 gpd. MDE's Water Rights Division requires a detailed hydrogeologic evaluation for ground water appropriation permits using greater than 10,000 gpd, prior to issuance of a permit. As a result, good site specific hydrogeologic information is available for delineation of the areas, which can be used to justify a site specific approach.

Systems using less than 10,000 gpd do not significantly influence regional ambient ground water flow directions or flow systems. Hence, detailed hydrogeologic evaluation is not required for these permittees. The lack of site specific data makes a site specific model inappropriate. Methods being selected for systems in this size category include fixed radial distances and regional interpretation of ground water recharge areas.