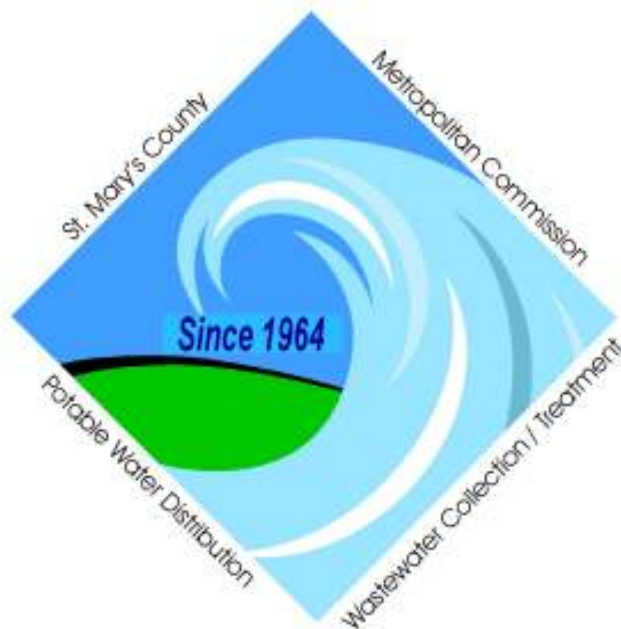


# ST. MARY'S COUNTY METROPOLITAN COMMISSION



## 2008 ANNUAL REPORT

# **ST MARY'S COUNTY METROPOLITAN COMMISSION ANNUAL REPORT**

## **INTRODUCTION LETTER**

The St. Mary's County Metropolitan Commission was created by the State Legislature in 1957 as a quasi-governmental, non profit body, to supply water and sewer service to St. Mary's County and has been providing those services since 1964.

MetCom is committed to providing quality, reliable services to St. Mary's County. Because the water and sewer facilities are primarily underground, the services offered by MetCom are not at the forefront, unless service is interrupted. Our staff takes great pride in providing outstanding customer service while maintaining very high standards of environmental compliance and resource management. MetCom is governed by a Board of Commissioners consisting of seven voting members, and one non voting member. Voting members represent the Election Districts of St. Mary's County and are appointed by the Board of County Commissioners to serve three year staggered terms. The eighth and non voting member of the Commission is the Commanding Officer of the Naval Air Station Patuxent River, or his designated representative.

MetCom currently employs 87 staff members and serves 12,950 water customers and 10,833 sewer customers. In addition, MetCom operates 27 individual water systems; 69 wells; 52 water pumping stations; 13 elevated water storage tanks; 40 ground storage and hydropneumatic tanks; over 190 miles of water lines; 5 waste water treatment facilities; 61 sewage pumping stations; 1,450 grinder pumps; and over 200 miles of sanitary sewer lines.

The Metropolitan Commission administrative offices are located at 43990 Commerce Avenue in the St. Mary's Industrial Park in Hollywood, Maryland. The phone number to the main office is (301)-373-4733 and the night emergency line is (301)-373-5305. Office hours are 7:30 a.m. to 4:30 p.m. Monday through Friday. Additional information about MetCom and its staff can be obtained at [www.metcom.org](http://www.metcom.org).

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Jacquelyn V. Meiser, Director/General Counsel



## **MISSION STATEMENT**

To construct, operate and maintain public water supply and public wastewater conveyance and treatment systems in a manner that is sustainable, reliable, economical and safe for the Commission's employees, the environment, and the citizens of St. Mary's County; and to ensure that construction is timely and in accordance with the St. Mary's County Comprehensive (Land Use) Plan.

## **BOARD MEMBERS**

Pursuant to the Code of St. Mary's County, the Board of Commissioners is comprised of seven (7) voting members, representing each Election District within the County, and one (1) non-voting member, representing the Patuxent River Naval Air Station.

### **Commissioner**

Kathleen Werner, Chairperson  
Thomas C. Lancaster, Vice Chairman  
Bryan M. Barthelme  
Brenda L. Hanson  
Charles V. Owens  
Joseph A. St. Clair  
Frank E. Taylor  
Captain Andrew Macyko

### **Area Represented**

8<sup>th</sup> Election District  
1<sup>st</sup> Election District  
4<sup>th</sup> & 5<sup>th</sup> Election Districts  
2<sup>nd</sup> & 9<sup>th</sup> Election Districts  
6<sup>th</sup> Election District  
7<sup>th</sup> Election District  
3<sup>rd</sup> Election District  
Patuxent River Naval Air Station

## KEY STAFF

The administrative leadership of the Commission is comprised of an Executive Director, Assistant Director, and four (4) Department Heads as follows:

Jacquelyn V. Meiser, Esq., Director/Legal Counsel

Daniel F. Ichniowski, P.E., Assistant Director

Rebecca B. Shick, Chief Financial Officer

Chester I. Frederick, Jr., P.E., Chief Engineer

Michael W. Sullivan, Chief of Facilities and Operation

Ann Mary B. Cullins, Director of Human Resources

## FACILITIES DESCRIPTIONS

### WASTEWATER FACILITIES

#### Marlay-Taylor Water Reclamation Facility

The Marlay-Taylor Water Reclamation Facility (MTWRF) is the largest treatment plant operated by MetCom and serves the Lexington Park, Hollywood and Piney Point areas of St. Mary's County. The plant is currently designed to treat 6.0 million gallons of sewerage per day. The flow to the plant is currently 3.3 million gallons per day; so a little less than half of the plant's capacity remains available for growth in the community.



Aerial view of the Marlay-Taylor Facility located at 48020 Pine Hill Run Road, Lexington Park, Maryland

In addition to the Marlay-Taylor facility, MetCom operates four additional wastewater treatment facilities as follows:

### **Wicomico Shores Wastewater Treatment Facility**

The Wicomico Shores facility is located in the Wicomico Shores Subdivision in Sanitary District No. 1 in the Northwest section of St Mary's County. The plant is designed to accommodate residents within the Wicomico Shores Subdivision and is designed to treat 141,000 gallons of wastewater per day.

### **St. Clements Shores Wastewater Treatment Facility**

The St. Clements Shores plant is located off Rosebank Road in the Compton area of St. Mary's County, and serves residences in the St. Clements Shores subdivision and surrounding area. The plant is designed to treat 100,000 gallons of sewage per day.



Pat Hanners, Lab Technician performing wastewater sample testing at Marlay-Taylor WRF

### **Forrest Farm Wastewater Treatment Facility**

The Forrest Farm system is located in the Forrest Farm subdivision, on Brown Road. At buildout, the plant will serve 230 residential homes and treat 57,500 gallons of sewerage per day.

### **Airedale Road Wastewater Treatment Facility**

This facility is located along Rte 5, Point Lookout Road, outside the Ridge Village Center. The facility serves the homes along Airedele Road, and is limited to serving 75 homes

## WATER DISTRIBUTION FACILITIES

MetCom operates 27 water supply and distribution systems throughout the County. The largest of the 27 water systems is the Lexington Park water system, which serves 35,400 citizens of St. Mary's County, and consists of 21 wells and over 3.2 million gallons of water storage capacity in aboveground storage tanks. The current daily demand is 2.7 million gallons per day, with the ability to supply 4.3 million gallons of water per day. The remaining 26 water systems are located throughout the County, as follows:

<u>Water System</u>	<u>Aquifer</u>	<u>Total Gallons per Year</u>	<u>Average Daily Gallons</u>	<u>EDU's</u>
Birch Manor	Aquia	6,255,300	17,138	100
Breton Bay	Patapsco	23,526,000	64,455	369
Cedar Cove	Aquia	57,207,000	156,732	941
Charlotte Hall	Aquia	28,718,300	78,680	121
Country Lakes	Aquia	82,038,300	224,762	1094
Fenwick Manor (Primary)	Patapsco	7,338,200	20,105	84
Fox Meadow	Piney Point	3,055,400	8,371	47
Forrest Farm	Patapsco	16,738,400	45,859	168
Greenbrier Wells	Patapsco	11,612,418	31,815	347
Heart's Desire	Aquia/Magothy	1,159,000	3,175	24
Holland Forest	Patapsco	3,309,200	3,066	51
Hunting Quarter	Aquia	16,959,200	46,464	255
King & Kennedy	Aquia	5,097,120	13,956	61
Laurel Ridge	Aquia	16,375,000	44,863	205
Leonardtwn Farm	Patapsco	2,410,100	6,603	22
Mulberry South (primary)	Patapsco	1,507,028	4,129	23
Persimmon Hill	Aquia	9,215,900	25,249	101
Piney Point	Aquia	21,891,000	59,975	240
Piney Point Landings	Aquia	5,704,500	15,629	84
Rolling Acres	Aquia	18,904,800	51,794	257
St. Clements Shores	Aquia	11,750,100	32,192	225
Southgate	Aquia	3,068,700	8,407	64
Villages of Leonardtown	Aquia	9,027,300	24,732	88
Wicomico Shores	Patapsco	27,647,100	75,745	461
Wild Goose Crest	Patapsco	460,447	1,261	3
Wilderness Run / Kingston	Aquia	15,324,800	41,986	185
<b>TOTAL</b>		<b>406,300,613</b>	<b>1,107,143</b>	<b>5,620</b>

## FINANCING AND BILLING RATES

The St. Mary's County Metropolitan Commission does not receive funding from St. Mary's County Government, or from any other tax revenue. MetCom's operating and capital budgets are funded from user service charges and new customer connection fees. The three primary charges are; Water and Sewer Service Charges; System Improvement Charges; and Capital Contribution Charges, as discussed below.

Water and Sewer Service Charges cover the daily operation and maintenance costs of MetCom facilities. These charges are billed monthly to all MetCom customers. The current rates are:

### *Water Service Charge*

Non-metered Rate per EDU per month	\$24.62
Metered Rate per Meter per month – up to 18,000 gal/qtr	\$14.64
Overage Rate (per 1,000 gal. in excess of 18,000 gal/qtr)	\$ 2.65

### *Sewer Service Charge*

Non-metered Rate per EDU per month	\$26.39
Metered Rate per Meter per month – up to 16,200 gal/qtr	\$22.41
Overage Rate (per 1,000 gal. in excess of 16,200 gal/qtr)	\$ 4.27

System Improvement Charges cover the debt service costs associated with the upgrading and replacing existing water and sewer systems and the costs associated with upgrading wastewater treatment plant to serve current customers. Each class of customers pays the same System Improvement Charge per equivalent dwelling unit (EDU). All properties that abut a public water line or sewer line and that have been allocated capacity are required to pay this charge, even if a property remains to be connected to a water or sewer system. This charge can be revised annually and replaces the former Benefit Assessment charges. The current rates are:

### *Water*

Residential per EDU per Month	\$ 5.27
Commercial per EDU per Month	\$ 6.32

### *Sewer*

Residential per EDU per Month	\$ 8.75
Commercial per EDU per Month	\$10.50

Capital Contribution Charges cover the costs associated with the expansion of existing facilities and the addition of new facilities to accommodate growth. This charge is paid by all new residential and commercial development and is a one-time charge paid at the time a building permit is obtained. The current rates are:

*Water*

Residential per EDU per Connection	\$774.91
Commercial per EDU per Connection	\$929.89

*Sewer*

Residential per EDU per Connection	\$1,744.78
Commercial per EDU per Connection	\$2,093.74

*NOTE:* An EDU is an Equivalent Dwelling Unit and represents the amount of water usage by a typical residential home. Commercial uses may be assigned more than one (1) EDU depending upon the nature of the specific commercial use.



Chris Soussanin, Senior Construction Inspector and Norm Downs, Inspector, reviewing construction documents

## SUMMARY OF FISCAL YEAR 2009 OPERATING AND CAPITAL PROJECT BUDGETS

### INCOME:

Sewer Service Charges	\$5,850,000
Water Service Charges	\$3,819,000
Engineering Fees	\$763,000
Other Income	\$185,000
Sewer System Improvement Charges	\$2,154,000
Water System Improvement Charges	\$1,352,000
Sewer Capital Contribution Charges	\$471,000
Water Capital Contribution Charges	\$206,000
Reserves	\$492,000

**TOTAL INCOME** **\$15,292,000**

### EXPENSES:

Sewer Operations	\$5,800,000
Water Operations	\$3,704,000
Engineering Services	\$763,000
Debt Service Sewer	\$2,465,000
Debt Service Water	\$1,483,000
Pay-Go Sewer	\$593,000
Pay-Go Water	\$134,000

**TOTAL EXPENSES** **\$14,942,000**

**INCOME ALLOCATED TO RESERVES** **\$350,000**

## CALENDAR YEAR 2008 ACCOMPLISHMENTS

### Quality Assurance Efforts

- During the year the Metropolitan Commission conducted hundreds of water samples tests in order to determine the presence of any radioactive, biological, volatile organic, or synthetic organic contaminants. All tests showed that the maximum contaminant levels detected were below EPA safe drinking water standards.
- Three wells in the Hollywood area were known to contain arsenic levels above the EPA recommended levels. Two of these wells were replaced and a third was bypassed and put out of service. All water in MetCom's supply system currently meets arsenic level requirements.

## Technology Efforts

- MetCom has systematically begun installation of a new SCADA facilities monitoring system, which allows remote monitoring of sewerage treatment plants, sewage pumping stations, well sites, and water towers. Because the SCADA system allows for the monitoring and recording of data at a central location, fewer on-site trips are necessary, and a significant savings in manpower realized. Improvements to the system continue, and 5 new installations were completed this year.



Bobby Moore, Licensed Operator checking controls on a SCADA TCU Unit

## System Improvement Efforts

- Infiltration and inflow of rain water into the sewer system adversely affect the sewerage treatment process at the MTWRF. During heavy storms rain water enters the sanitary sewer system through breaks in the sewer lines, manholes or illegal connections of sump pumps and down spouts. This storm water then flows to the treatment plant where it has to be treated, and can result in unbalancing the hydraulic flow and biological treatment process. MetCom completed \$180,000 in repair projects to sewer lines and manholes to help reduce the inflow of rain water. This program will continue in future years.
- The extension of sewer service to the Andover Estates area of the County was completed this year. Homes in this area had failing septic systems 51 new grinder pumps and sewer lines were installed to correct this problem. Completion of the project alleviates the environmental problems of failing septic systems.

## Planning Efforts

- MetCom and St. Mary's County cooperated in a joint effort to plan for water and sewer facilities in the 8<sup>th</sup> and 5<sup>th</sup> Sanitary Districts. These Sanitary Districts correspond to the Lexington Park, Hollywood, and Piney Point areas of St. Mary's County. The Facility Plan projects the future growth anticipated in these areas and determines the new water and sewer facilities that will be needed to serve the growing population. In addition, a comprehensive review of the existing facilities was made, in order to plan for the replacement of aging infrastructure. The planning efforts neared

completion in 2008 and a final facilities plan will be adopted in 2009 after a public review process.

### Conservation/Environmental Efforts

- The Operating Budget for FY 2009 maintained the basic service rates for water and sewer customers. A small increase in the Overage Rate for both water and sewer was made, however, in order to promote conservation efforts and minimize excessive use. These Overage Rates apply only to those customers who use more than 18,000 gallons of water in a three month period.
- Septic tank, portable toilet waste, and grease trap waste disposal rates were increased this year. The new charges more closely reflect the cost of treating these highly concentrated wastes at the MTWRF. Efforts were made to increase the treatment charges for septic tank, portable toilet and grease trap waste. Because of their extremely high concentration, the cost to MetCom to treat these wastes is far greater than the costs to treat typical sewerage waste. As the result of these efforts, the costs to treat the concentrated wastes are more equitably allocated to septage haulers, rather than being absorbed by all of the Commission's customers.



Freddie Swann, VacTor Operator and Thomas Somerville, Maintenance Specialist, performing preventive maintenance on sewer lines

## **CALENDAR YEAR 2009 PLANS**

### System Improvement

- As part of the Chesapeake Bay clean-up initiative all wastewater treatment plants in Maryland are required to further minimize the quantity of biological nutrients contained in treated effluent. Accordingly, by the year 2012, all Maryland wastewater treatment facilities are required to upgrade treatment processes to implement what is called Enhanced Nutrient Removal (ENR) technology. Under current standards, the wastewater effluent discharged into the Chesapeake Bay must contain a nitrogen level of 8 milligrams per liter, or less. The new ENR standards will reduce the permissible nitrogen level at the time of discharge to a maximum of 3 milligrams per liter.

Design will begin in 2009 to modify the MTWRF to meet these increased requirements. Anticipated cost of the entire project is \$36,600,000. Facilities Plan for the 8<sup>th</sup> and 5<sup>th</sup> Sanitary Districts, which will provide a framework for the expansion of water and sewer services within these districts, will be presented to the public for review and comments at the beginning of 2009. Upon completion of the public hearing process, the Plan will be finalized and formally adopted.

- During the summer of 2009, construction will begin on the replacement of water and sewer lines in a portion of the Patuxent Park subdivision in Lexington Park. This is one of the oldest housing areas in St. Mary's County, with an infrastructure of over 60 years old. The project is being



constructed in conjunction with a County Government effort, which will replace streets and sidewalks in the area, under a joint construction contract. Improvements to the balance of the community are planned for future years.

Chermere Briscoe and Kathy Murphy, Operations Administrative Assistants, and Diane Reed, Customer Service Supervisor, reviewing customer accounts

- Rehabilitation of the sewer line in the Piney Point area of the County is also planned for 2009. The sewer lines in this neighborhood are over 60 years old and have been proved to contribute to high amounts of rain water infiltration and inflow during times of excessive rainfall. This rainwater infiltration unnecessarily increases flow quantities which must be treated at the Marlay-Taylor treatment facility. The relining and/or open-trench replacements of these aging pipes are rehabilitative options being considered at this time.
- The Maryland State Highway Administration is planning streetscape improvements to MD RTE 246 in Lexington Park. In conjunction with this project, and in an effort to minimize project costs and disruption, MetCom will be replacing the aging water and sewer lines in the roadway. This project will begin construction during the summer of 2009.

Jim Young, Chief of Construction and Inspection, reviewing inspection documents



- Several wells in St. Mary's County will be added or replaced during 2009.  
These projects include;
  - A new well in the Charlotte Hall area of the County.
  - An additional well in the Country Lakes Subdivision.
  - A new well in the Hickory Hills area of California.
  - A new well at the Piney Point site as well as pump house upgrades.
  - A new backup well in the St. Clements Shores community.
- New water storage tanks are also planned for 2009 This project includes:
  - A new storage tank in the Charlotte Hall area, in conjunction with the new well.
  - A new water storage tank in the Greenbrier Subdivision.
  - A replacement of the tank at the Hickory Hills site in conjunction with the new well.
  - A new water storage tank in the Wildewood Community.
- System improvement efforts will continue throughout 2009, including:
  - additional expansion of MetCom's SCADA remote monitoring system, which allows for more effective and more efficient system management and control;
  - Infiltration and inflow corrections, which will reduce the quantity of rainwater that enters the system, thereby, reducing unnecessary treatment efforts at our treatment facilities;
  - manhole repairs which increase safety and reduces the likelihood of foreign objects from entering the system which can cause significant back-ups and other complications;
  - water tank painting, etc.

### Conservation Environmental Efforts

- During the treatment of wastewater, a significant amount of methane gas is generated, which gas can then be used for the production of electricity; a technology referred to as co-generation. MetCom will begin the construction of a co-generation facility at the MTWRF by the end of 2009. This project will use the methane gas to generate electricity for use at the treatment

plant, thereby, reducing the need for the purchase of electricity. Residual heat from the process will also be used to heat necessary sections of the treatment plant to further reduce operating costs.

- One of the largest cost elements in the MetCom operating budget is electric energy costs. MetCom will investigate alternative energy sources at the 5 other sewage treatment plants MetCom operates. This could include solar power, wind turbines and additional methane co-generation facilities. It is hoped that these efforts will result in lower energy costs and a reduction in MetCom's carbon footprint.



Morgan O'Dell, Senior Wastewater Operator, checking wastewater process status

- Effluent from the St. Clements Shores Wastewater Treatment Plant is used in the irrigation of the Breton Bay Golf Course. The treated wastewater is disposed of in the ground through rapid infiltration basins. The ground water in the area is recovered and then pumped to the golf course as conditions require.
- As equipment is replaced, energy efficient, variable speed drives are specified in order to again reduce energy costs. Considering the number of pieces of equipment used by MetCom, this will amount to considerable savings as energy efficient technology improves.



Harry Pool, Utilities Maintenance Mechanic, performing preventive maintenance on an automated chlorine analyzer

## DATA AND STATISTICS

Sewage Treatment Plants	5
Population Served	47,779
Sewage Pumping Stations	61
Residential Grinder Pumps	1,450
Miles of Gravity Sewer Line	200
Miles of Sewer Force Main	70
Sewer Customers	10,833
Water Systems	27
Population Served	50,916
Well Sites	69
Water Towers	13
Miles of Water Line	190
Water Meters	12,000
Water Customers	12,950
MDE Permits	
Water	35
Sewer	5
Full Time Employees	73
Contract and Part time employees	14
Building Permits Approved	418
Plans Reviewed	51
Connection Permits Issued	325

