Department of the Environment

Maryland Governor's Grants Training Conference 2014

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Engineering and Capital Projects Program

Office of Budget and Infrastructure Financing

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MDE

Maryland Chesapeake Bay Watershed Implementation Plan

Target Loads (2025) for Maryland's Major Basins

(Million pounds per year)

Major Basin	Nitrogen	Phosphorus	Sediment
Susquehanna	1.19	0.06	64
Eastern Shore	11.82	1.02	189
Western Shore	9.77	0.55	243
Patuxent	3.10	0.24	123
Potomac	15.29	0.94	731
Total	**41.17**	**2.81**	**1,350**

(10/2012)

Maryland Chesapeake Bay Total Maximum Nitrogen Loading Goal

Total Nitrogen (TN) Loading by Sector (WIP Phase-II - 03/2012) (million lbs per year)

Sector	Progress Thru 2010	Final Target Load (2025)	% Reduction Needed
Stormwater	9.48	7.55	20%
Agriculture	19.95	15.22	24%
Septic	3.00	1.85	38%
Forest	5.29	5.31	0%
Atmospheric	0.66	0.66	N/A
Wastewater	14.37	10.58	26%
Total	52.76	41.17	22%

MD1985 Baseline Load: 76.56 million lbs/year

WIP: Watershed Implementation Plan

Bay Restoration Fund (BRF)

The BRF was enacted into law in 2004, to create a dedicated source of revenue. The BRF is made up of two separate funds with specific uses under State law:

1. Bay Restoration (WWTP) Fund: Includes deposits of fees collected from most users served by wastewater treatment plants in Maryland.

2. Bay Restoration (Septic) Fund: Includes deposit of fees collected from users on onsite sewage disposal systems such as septic systems or holding tanks located in Maryland.

WWTP: Wastewater Treatment Plant

Bay Restoration (WWTP) Fund

BRF (WWTP) Current Fee Rate

- Effective 7/1/12, the BRF fee doubled for most users, where the WWTP discharges into the Chesapeake or Atlantic Coastal Bays, to $5.00/month per household or equivalent dwelling unit (EDU). Fee rate was $2.50/month/EDU from FY 2005 – 2012. Households pay a flat fee; businesses pay based on water consumption converted to EDU.
- The fee remained at $2.50/month per household/EDU for users where the WWTP does not discharge to the Chesapeake or Atlantic Coastal Bay (no fee increase).
- BRF (WWTP) fee revenue: ~**$110 million/year (FY 2014).**
- Fee reverts back to $2.50/month rate starting July 1, 2030.

Bay Restoration (WWTP) Fund

Primary Purpose (Initial): To upgrade by 2017, the 67 major (design flow > 0.50 million gallons per day) Wastewater Treatment Plants (WWTP) that discharge to the Chesapeake Bay watershed, to Enhanced Nutrient Removal (ENR) technologies - nitrogen reduction from 8 mg/l (BNR level) to 3 mg/l.

ENR Capital Cost: = $1.3 billion (8/2014 estimate)

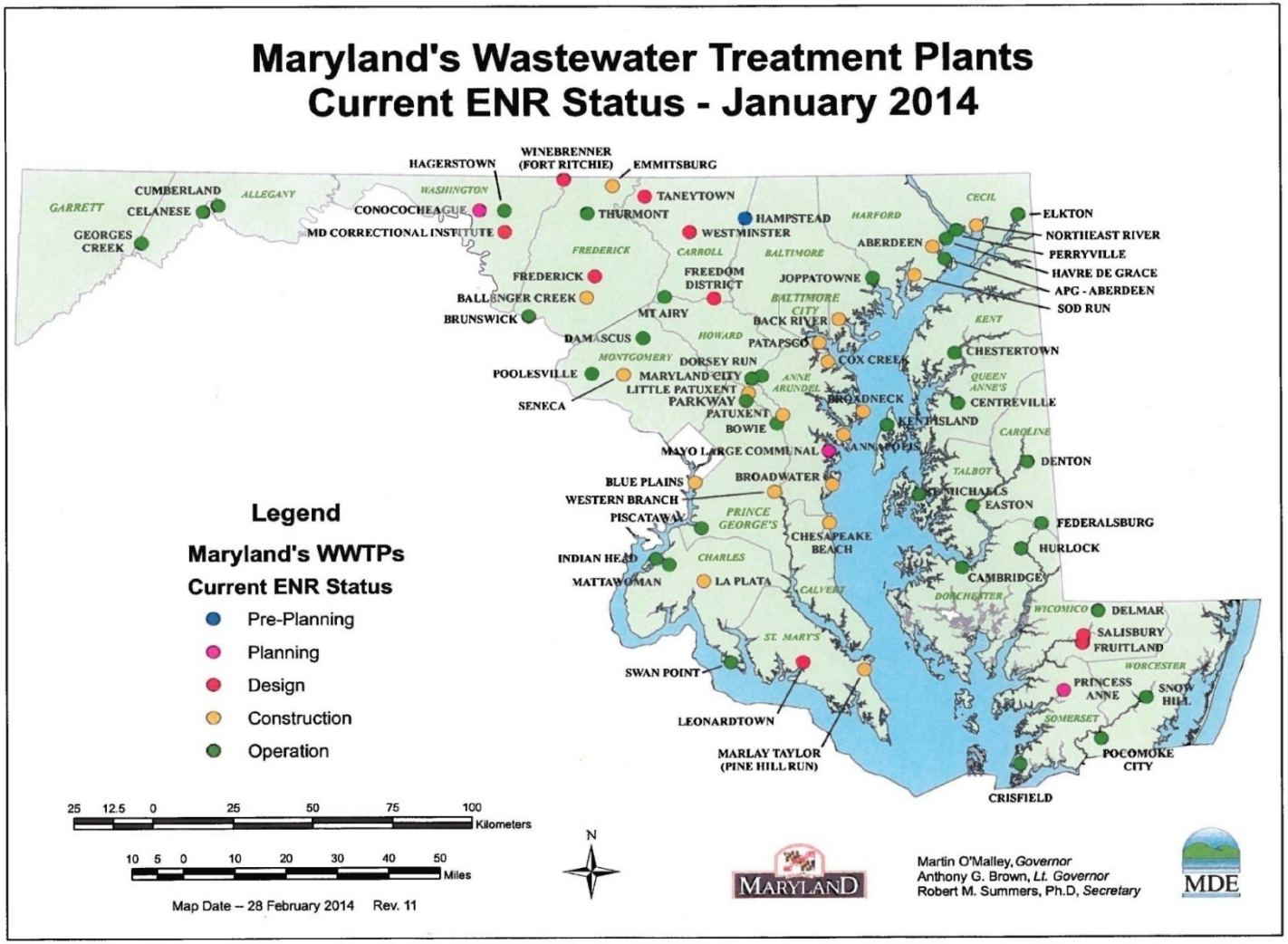
Total MD WWTP design flow = ~700 MGD*

The BRF can provide up to 100% in State grant funding for the capital cost of ENR upgrade.

BNR: Biological Nutrient Reduction

** Includes MD share of flow (~169 MGD) at Blue Plains WWTP (Washington DC)*

Major WWTPs



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WWTP ENR Upgrade Status

Grant Awards to WWTP Owners: $932 million

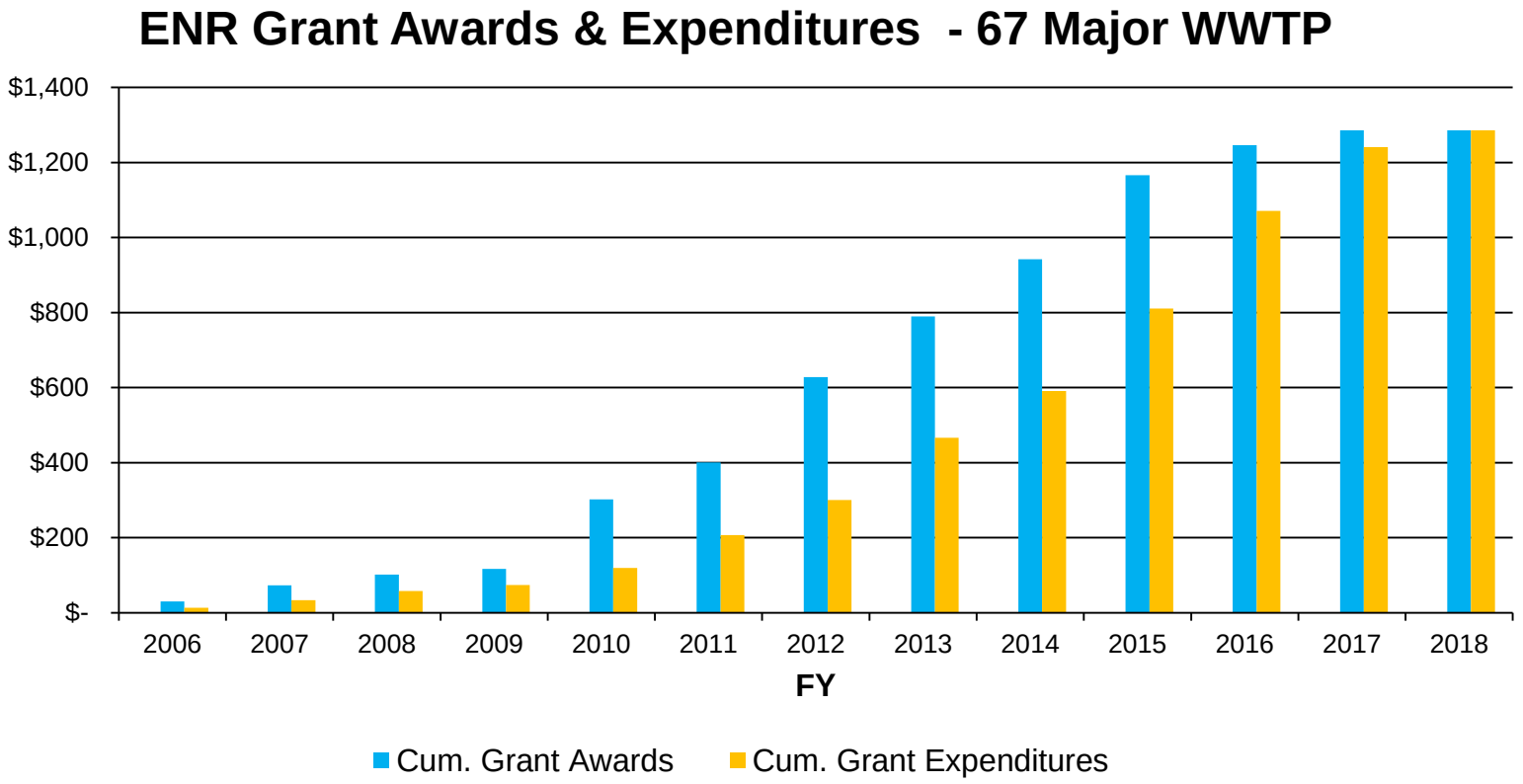
Grant Payment Expenditures: $596 million

Payments are made based on work completed

(As of 6/30/14)

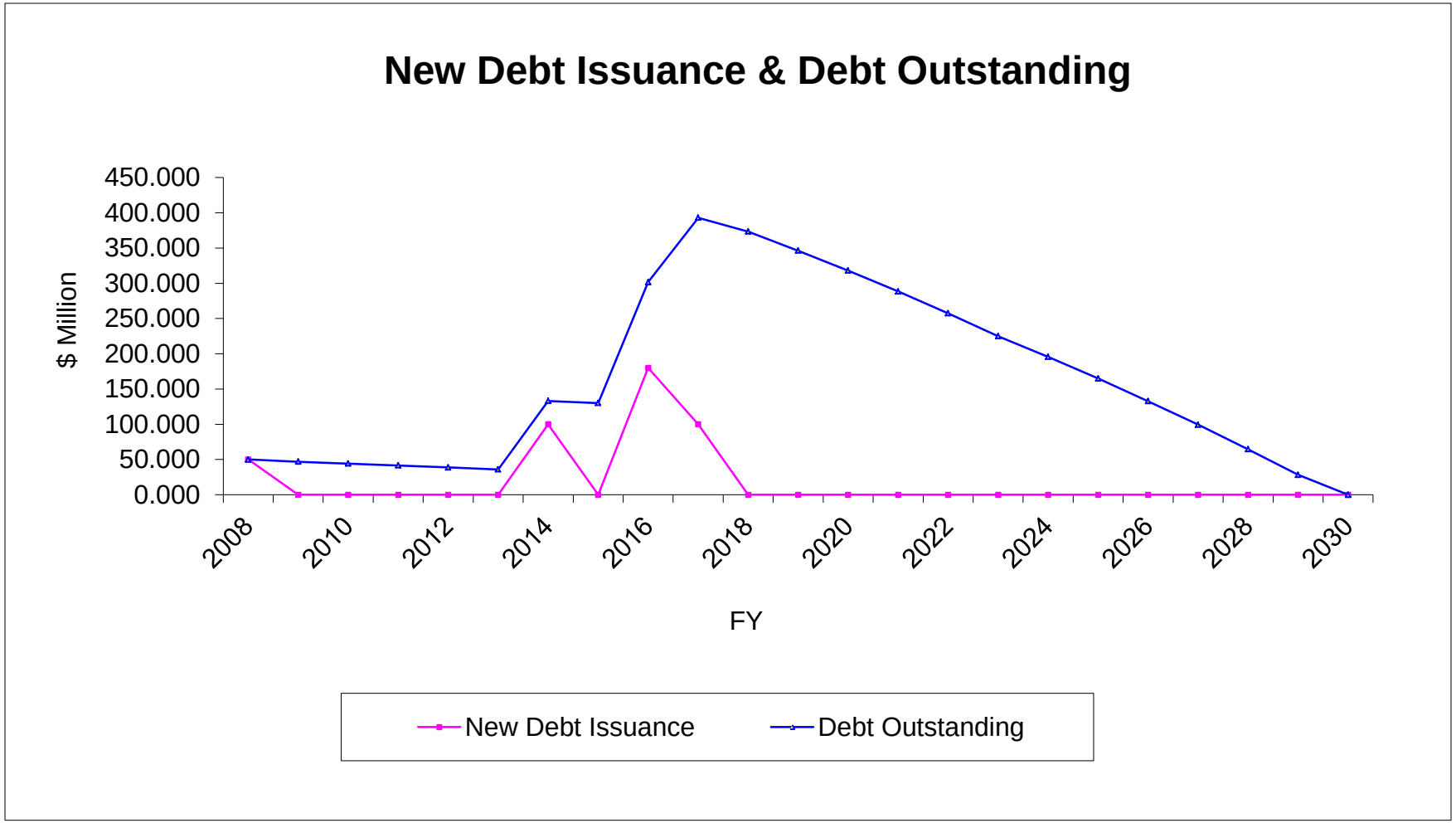
	# of ENR WWTP
ENR Completed:	**35**
Under Construction:	**20**
Under Design/Planning:	**12**
Total (Phase-I)	**67**

Projected ENR Grant Financing
Bay Restoration Fund



Total ENR Capital Funding (67 WWTP): ~$1.3 billion (August 2014 estimate)
Source of Funding: BRF Cash and Revenue Bonds

Bay Restoration (WWTP) Fund



Minor WWTP ENR Upgrades

Prior to FY 2018

COUNTY	Facility Name	BNR/ENR Status
DORCHESTER	TWIN CITIES WWTP	PLANNING
TALBOT	OXFORD WWTP	PLANNING
CAROLINE	GREENSBORO WWTP	DESIGN
KENT	BETTERTON WWTP	DESIGN
KENT	GALENA WWTP	DESIGN
QUEEN ANNE'S	QUEENSTOWN WWTP	CONSTRUCTION
QUEEN ANNE'S	SUDLERSVILLE WWTP	CONSTRUCTION
CECIL	RISING SUN WWTP	CONSTRUCTION

List excludes Minor WWTP ENR upgrades undertaken without BRF grant (e.g., Worton, Boonsboro).

Bay Restoration (WWTP) Fund

Future: FY 2018 and Beyond

- Estimated $55M/year of fee revenue available (net of revenue bond debt service) for other uses.
- Statute expands the uses of the BRF (WWTP) Fund to provide grants in priority order for:

  ENR upgrade of Minor (design less than 0.5 million gpd) WWTP (up to 100% grant)

  Transfer funds to the BRF (Septic) Fund for permitted uses (BAT upgrades; sewer extension etc.)

  Stormwater BMPs where the entity has established local stormwater fees (up to 50% grant by regulation)

Bay Restoration (Septic) Fund

BRF (Septic) Current Fee Rate

- Effective 7/1/12, the BRF fee on users on septic systems located in the Chesapeake or Atlantic Coastal Bays, is $5.00 per month per user ($60 per year).
- $2.50 per month per user for septic systems located outside the Chesapeake or Atlantic Coastal Bay. (portions of Garrett and Cecil Counties).
- BRF (Septic) fee revenue: ~$28 million/yr (FY 2014).
- Fee reverts back to $2.50/month rate starting July 1, 2030.

Bay Restoration (Septic) Fund

A. To reduce nitrogen from Onsite Sewage Disposal Systems/Septic Systems using Best Available Technology (BAT) or treatment at WWTP or community system (60% of the BRF septic fee).

The BRF program by policy provides 50% or 100% of the BAT capital cost as grants based on homeowner income (> $300K/yr @ 50%). Businesses are eligible for 50% of BAT cost as grant. Government s and non-profits are eligible for 100% of BAT cost as grant. **FY 2014 Revenue: ~$17M**

B. To provide funding to farmers for Cover Crops (40% of BRF septic fee).

This program is managed by the Maryland Department of Agriculture (MDA). Per MDA, in FY 2012, over 600,000 acres were enrolled and MDA spent 19.8 million on cover crops of which $5.6 million came from the BRF septic fee. **FY 2014 Revenue: ~$11 million**.

Bay Restoration (Septic) Fund

Project Prioritization

MDE awards grants annually to County Environmental Health units or their authorized agents, to prioritize funding as follows:

- Failing septic systems in the Chesapeake & Atlantic Coastal Bays (CACB) Critical Area.
- Failing septic systems outside the CACB Critical Area.
- Non-conforming septic systems in CACB Critical Area.
- Non-conforming septic systems outside CACB Critical Area.
- Other septic systems in the CACB Critical Area, including new construction.
- Other septic systems outside CACB Critical Area, including new construction.

Bay Restoration (Septic) Fund

Eligible Uses of Funds

a) The cost to upgrade an existing septic system with the best available technology (BAT) for the removal of nitrogen (~$13K/unit).

(b) The cost difference between an existing conventional septic system and a new system utilizing BAT for the removal of nitrogen (~$12K/unit).

(c) The cost of replacing multiple septic systems located in the same community with a new community sewerage system that is owned by a local government, and that meets ENR removal standards.

(d) The cost to connect septic systems to an existing WWTP at ENR or BNR treatment. (*HB11-2014 session allows sewer connection to BNR WWTP also).*

Note: W*WTP with ENR (TN: 3 mg/l) discharges ~2.3 lbs/yr nitrogen per household, while a traditional septic system discharges ~20 lbs/yr .*

Septic BAT Upgrade Status

Grant Awards:	$80 million
Grant Expenditures:	$71 million

As of 6/30/14

Since FY 2011, grants are awarded to Counties to implement the BAT upgrades

	# of BAT*
Septic BAT Installed:	5,009
a. Critical Areas:	3.069
b. Other Areas:	1,940

* As of 12/31/13

Maryland Department of the Environment

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