



Maryland

Department of the Environment

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor

Ben Grumbles, Secretary
Horacio Tablada, Deputy Secretary

October 30, 2020

The Honorable Bill Ferguson
President of the Senate
State House, H-107
100 State Circle, Annapolis, MD 21401-1991
21401-1991

The Honorable Adrienne A. Jones
House Speaker
State House, H-101
100 State Circle, Annapolis, MD

The Honorable Paul G. Pinsky
Chair, Senate Education, Health, and Environmental
Transportation Affairs Committee
2 West Miller Senate Office Building
11 Bladen Street
Annapolis, MD 21401-1991

The Honorable Kumar P. Barve
Chair, House Environment &
Committee
251 House Office Building
6 Bladen Street
Annapolis, MD 21401-1991

Dear President Ferguson, Speaker Jones, and Chairs Pinsky and Barve:

Enclosed please find the Clean Water Commerce Act of 2017 Implementation Report, as required per Chapters 366 & 367 of 2017.

If you or your staff should have any questions, please contact me at (410) 537-3087 or via email at ben.grumbles@maryland.gov.

Sincerely,

Ben Grumbles
Secretary

Enclosure



Maryland
Department of
the Environment

Larry Hogan, Governor
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The Clean Water Commerce Act of 2017

Implementation Report

One-Time Report

Report to:
Governor Larry Hogan

President of the Senate
Speaker of the House
Senate Education, Health, and Environmental Affairs Committee
House Environment and Transportation Committee

The Clean Water Commerce Act of 2017 Implementation Report

Background

In support of the state's efforts to restore the health of the Chesapeake Bay, the Maryland General Assembly passed the Clean Water Commerce Act (CWCA or “the act”) during the 2017 Session and Governor Larry Hogan signed the bill into law (CH366/367). This act expanded the uses of the Bay Restoration Fund (BRF) to include the costs associated with the purchase of cost-effective nitrogen, phosphorus, or sediment load reductions, not to exceed \$4 million in FY18 , \$6 million in FY19, and \$10 million in FY20 and FY21. The nitrogen, phosphorus, and sediment load reductions purchased cannot come from the agriculture sector. The Maryland Department of the Environment (MDE) may enter into any contract until June 30, 2021, and may be funded for the expected life of the best management practice resulting from nutrient load reduction. On or before October 1, 2020, MDE is required to report to the House Environment and Transportation Committee and the Senate Education, Health, and Environmental Affairs Committee on the implementation of the act.

In April 2018, MDE adopted regulations with the input of stakeholders, as required by the act, to implement the program. Shortly after the adoption of the regulations, the solicitation for proposals was forwarded to all known potential sellers in order to utilize FY19 authorized funding. The required implementing regulations were not completed in time to utilize FY18 funds.

Proposals & Awards

FY19 Proposals Received:

Applicant	Nitrogen (\$/Lb/yr)	Phosphorus (\$/Lb/yr)	Sediment (\$/Ton/yr)	Evaluation Results
HGS, LLC (a RES company)	\$105.12	\$144.34	\$552.80	Selected
OptiRTC, Inc.	\$265.00	\$1,535.00	\$1,995.00	Not Selected

FY19 Grant Awards:

Tributaries to Winters Run Stream Restoration by HGS, LLC (a RES company)

On April 24, 2019, the Board of Public Works [approved](#) up to \$4,409,300 in grants for HGS, LLC to restore approximately 6,236 linear feet of degraded stream channel. Current stream bank erosion is significant, resulting in downstream pollution from sediment loss. The proposed project will stabilize the stream and greatly improve water quality for the Winters Run watershed and ultimately the Chesapeake Bay. Upon completion of the construction, HGS will provide 20 years of monitoring and maintenance activities, and all restoration areas will be protected in perpetuity by deed restrictions. MDE will provide annual payments for the purchase of verified annual reductions of nitrogen, phosphorus and sediment based on the agreed upon unit prices. Annual purchases are estimated to be between \$220,000 and \$375,000 depending on the actual verified reductions.

The following were the approved prices and estimated budget:

Reduction Type	Estimated Units/Year		Delivery Factor	Unit/Year Delivered	Price per Unit/Year	Total Price/Year
Nitrogen	1,626.00	Lbs/yr	0.43	699.18	\$105.12	\$73,497.80
Phosphorus	749.00	Lbs/yr	0.68	509.32	\$144.34	\$73,515.25
Sediment	129.00	Tons/yr	1.03	132.87	\$552.80	\$73,450.54
Total Annual Price						\$220,463.59
Practice Useful Life (years)						20
Total Over 20 Years						\$4,409,271.73

FY20 Proposals Received:

Applicant	Nitrogen (\$/Lb/yr)	Phosphorus (\$/Lb/yr)	Sediment (\$/Ton/yr)	Evaluation Results
Broadneck WRF	\$75.00	\$100.00	\$300.00	Selected
Annapolis WRF	\$75.00	\$100.00	\$300.00	Selected
Little Patuxent WRF	\$79.00	\$99.00		Selected
HGS, LLC (a RES company)	\$105.12	\$144.34	\$552.80	Not Selected
Blue Oyster Environmental	\$750.00	\$8,000		Not Selected

FY20 Grant Awards:

Little Patuxent Water Reclamation Plant Advanced Process Instrumentation and Control System

On August 14, 2019, the Board of Public Works [approved](#) up to \$1,818,450 in grants for Howard County Department of Public Works to implement advanced online instrumentation coupled with automated control and active management, along with expanded treatment regime to achieve treatment level and performance exceeding Enhanced Nutrient Removal (ENR) to provide additional nitrogen and phosphorus reductions from the original goals. MDE will provide annual payments for the purchase of verified annual reductions of nitrogen and phosphorus beyond ENR based on the agreed upon unit prices. Annual purchases are estimated to be between \$146,000 and \$746,520 depending on the actual verified reductions.

The following were the approved prices and estimated budget:

Reduction Type	Estimated Units/Year		Delivery Factor	Unit/Year Delivered	Price per Unit/Year	Total Price/Year
Nitrogen	589	Lbs/yr	0.80	471	\$75.00	\$35,325.00
Phosphorus	2,000	Lbs/yr	0.74	1,480	\$99.00	\$146,520.00
Total Annual Price						\$181,845.00
Practice Useful Life (years)						10
Total Over 20 Years						\$1,818,450.00

Broadneck and Annapolis Water Reclamation Facilities (WRFs)

On April 1, 2020, the Board of Public Works [approved](#) up to \$8,181,550 in grants for Anne Arundel County Department of Public Works to develop and implement an advanced online instrumentation

coupled with automated control and active management, along with expanded treatment regime to achieve treatment level and performance exceeding the ENR in order to provide additional nitrogen, phosphorus and sediment reductions from the original goals. will provide annual payments for the purchase of verified annual reductions of nitrogen, phosphorus and sediment beyond ENR based on the agreed upon unit prices. Annual purchases are estimated to be between \$1 and \$2 million depending on the actual verified reductions.

The following were the approved prices and estimated budget:

Reduction Type	Estimated Units/Year		Delivery Factor	Unit/Year Delivered	Price per Unit/Year	Total Price/Year
Nitrogen	20,626	Lbs/yr	1.00	20,626	\$75	\$1,546,950
Phosphorus	3,840	Lbs/yr	1.00	3,840	\$99	\$380,160
Sediment	285	Tons/yr	1.00	285	\$300	\$85,500

Total Annual Price \$2,012,610
 Practice Useful Life (years) 5
 Total Over 20 Years \$10,063,050
 (Only \$8,181,550 are available)

FY21 Proposals Received:

In December 2019, MDE solicited \$10 million for FY21 CWCA authorized funds. On January 31, 2020, MDE received seven proposals: six were from WWTPs and only one was from a nonpoint source practice. MDE developed a second solicitation to allow for more time and competition. On June 1, 2020, MDE received 14 proposals for the second solicitation; eight were from WWTPs and six were from nonpoint source practices.

Applicant	Nitrogen (\$/Lb/yr)	Phosphorus (\$/Lb/yr)	Sediment (\$/Ton/yr)	Evaluation Results
Patuxent	\$ 50.00	\$ 75.00	\$ 250.00	Selected
Cox Creek	\$ 50.00	\$ 75.00	\$ 250.00	Selected
Damascus	\$ 72.50	\$ 95.00	\$ -	Not Selected
Western Branch	\$ 75.00	\$ 99.00	\$ -	Not Selected
Seneca	\$ 72.50	\$ 95.00	\$ -	Not Selected
Parkway	\$ 72.50	\$ 95.00	\$ -	Not Selected
Piscataway	\$ 75.00	\$ 99.00	\$ -	Not Selected
North East River	\$ 72.00	\$ 94.00	\$ 250.00	Not Selected
Rockville Rest	\$ 63.50	\$ 84.10	\$ 254.70	Not Selected
Pea Hill Branch	\$ 69.00	\$ 89.00	\$ 289.00	Not Selected
Irvine Old Pond	\$ 95.95	\$ 590.77	\$ 4,022.83	Not Selected
Oyster Aquaculture	\$ 150.00	\$ 1,500.00	\$ -	Not Selected
Cheston Point	\$ 285.86	\$ 765.73	\$ 761.90	Not Selected
Winters Run	\$ 55.20	\$ -	\$ 40.00	Selected

Patuxent and Cox Creek Water Reclamation Facilities:

The Anne Arundel County Department of Public Works will develop and implement at Cox Creek and Patuxent Water Reclamation Facilities advanced automated control and active management mechanisms. The two facilities will also have expanded treatment regime to achieve treatment level and performance exceeding the ENR and provide additional nitrogen and phosphorus reductions from the original goals. MDE will provide annual payments for the purchase of verified annual reductions of nitrogen and phosphorus beyond ENR based on the agreed upon unit prices.

The following were the approved prices and estimated budget:

Reduction Type	Estimated Units/Year		Delivery Factor	Unit/Year Delivered	Price per Unit/Year	Total Price/Year
Nitrogen	27,500	Lbs/yr	0.80-1.00	26,000	\$50	\$1,300,000
Phosphorus	850	Lbs/yr	0.75-1.00	759	\$75	\$56,925
Total Annual Price						\$1,356,925
Practice Useful Life (years)						7
Total Over 20 Years						\$9,498,475

Tributaries to Winters Run Stream Restoration by HGS, LLC (a RES company)

On April 24, 2019, the Board of Public Works [approved](#) up to \$4,409,300 in grants for HGS, LLC to restore approximately 6,236 linear feet of degraded stream channel. This action would obligate an additional \$501,525 to purchase additional nitrogen and sediment reductions, thereby increasing the state grant funds from \$4,409,300 to \$4,910,825.

Current stream bank erosion throughout the Winters Run Stream course is significant, resulting in downstream pollution from sediment loss. The proposed project will stabilize the stream and greatly improve water quality for the Winters Run watershed and ultimately the Chesapeake Bay. Upon completion of the construction, HGS will provide 20 years of monitoring and maintenance activities, and all restoration areas will be protected in perpetuity by deed restrictions. MDE will provide annual payments for the purchase of verified annual reductions of nitrogen, phosphorus and sediment based on the agreed upon unit prices.

The following were the approved prices and estimated budget:

Reduction Type	Estimated Units/Year		Delivery Factor	Unit/Year Delivered	Price per Unit/Year	Total Price/Year
Nitrogen	1,407.00	Lbs/yr	0.43	605.0	\$50.00	\$30,250.00
Sediment	873.80	Tons/yr	1.03	900.0	\$40.00	\$36,000.00
Total Annual Price						\$66,250
Practice Useful Life (years)						20
Total Available Grants						\$501,525

Observations & Recommendations

- The number of submitted proposals have been steadily increasing as more solicitations are made and the program becomes more well known to more potential applicants.
- Practices that previously received grants from MDE appear to have the competitive advantage and are offering the lowest prices resulting in their selections.
- The CWCA program has been successful and should be reauthorized. The program has demonstrated promise in the initial pilot and with the improvements recommended below, could be even more successful in helping the state meet its requirements under the Chesapeake Bay Total Total Maximum Daily Load (TMDL):
 - There should be limited or no funding available to environmental practices that have previously received state grant funding, including wastewater treatment plants that have been upgraded to ENR with BRF funds. These practices are at a competitive advantage in the program because the state has already made substantial capital investments in these practices and the investment needed to achieve additional reductions is minimal compared to other environmental practices. There are also other state programs that provide incentives to achieve additional reductions at ENR WWTPs, including the BRF Operations and Maintenance Grant Program and the Water Quality Trading Program. Limiting or removing these practices will incentivize other participants and practices that are currently at a disadvantage.
 - The prohibition on the agriculture sector participating in the program should be reconsidered and removed. Agricultural practices tend to be lower cost and including these practices will improve competition in the program and enhance water quality.
 - The CWCA Program should be more closely linked to the Water Quality Trading Program. At the time of CWCA enactment, the Maryland Water Quality Trading Program was not yet developed. More closely linking these two programs will provide consistency for entities that are evaluating the development of environmental practices and deciding which program to pursue.
 - The CWCA program should provide incentives for the following:
 - Innovative practices – The CWCA could be a driver for environmental innovation;
 - Practices that benefit disadvantaged communities – To provide funding equity and improve the environment in disadvantaged communities; and
 - Practices with co-benefits – To look at project benefits holistically, including climate resiliency and ecosystem benefits.
 - The CWCA program should continue to use a pay-for-performance procurement approach, with flexibility in payment structures.