

Water Quality Improvement Fund Stabilization Stakeholder Advisory Group
West Reading Room, Patrick Henry Building, Richmond, Virginia
Tuesday, June 13, 2017

Stakeholder Advisory Group Members Present

The Honorable L. Preston Bryant, Jr.
The Honorable David L. Bulova, Virginia House of Delegates
Richard Chaffin, Virginia Association of Soil and Water Conservation Districts
Clyde Cristman, Department of Conservation and Recreation
The Honorable Emmett Hanger, Virginia Senate
Adrienne Kotula, James River Association
Martha Moore, Virginia Farm Bureau Federation
Anne Oman, House Appropriations Committee
Jason Powell, Senate Finance Committee
Peggy Sanner, Chesapeake Bay Foundation
Richard Street, Virginia Soil and Water Conservation Board
Dr. Kendall Tyree, Virginia Association of Soil and Water Conservation Districts
The Honorable Molly Ward, Secretary of Natural Resources

DCR Staff Present

Rochelle Altholz, Deputy Director of Administration
David Dowling, Deputy Director of Soil and Water Conservation and Dam Safety and Floodplain Management
Michael Fletcher, Board and Constituent Services Liaison
Darryl Glover, Director, Division of Soil and Water Conservation
Wendy Howard Cooper, Business and Administration Manager
Stephanie Martin, Soil and Water Conservation District Liaison
Lisa McGee, Director of Policy and Planning
Christine Watlington, Senior Policy and Planning Analyst

Others Present

Riley Henry, Chesapeake Bay Foundation
Matt Kowalski, Chesapeake Bay Foundation
Larry Land, VACO
Ann Jennings, Chesapeake Bay Commission
Lisa Ochsenhirt, VAMWA, VAMSA
Daniel Peifer, Chesapeake Bay Foundation
Matt Rowe, Virginia Farm Bureau Federation
Lucia Suarez, Grupo Urban
Joe Wood, Chesapeake Bay Foundation

WELCOME

Director Cristman called the meeting to order and asked everyone to introduce themselves. He noted that much of the morning’s presentations would be focused on answering questions asked by the Stakeholder Advisory Group (SAG) at the May meeting.

PRESENTATION AND DISCUSSION

Director Cristman reviewed the following:

FY2017 fiscal expenditure update

Director Cristman gave an overview of current and projected expenditures from the FY2017 appropriation to the Virginia Natural Resources Commitment Fund.

- FY2017; \$61.7 million surplus; \$10 million NGF Appropriation
 - Budgeted \$52.6 million for implementation of agricultural best management practices
 - § \$26.6 for implementation of previously approved livestock exclusion practices
 - \$7.4 million for technical assistance for SWCDs
 - \$8.2 million for Water Quality Improvement Fund Reserve
 - \$1.65 million for CREP, Golf Course BMPs, Silviculture, Database



FY2017 Cost-Share Fiscal Expenditures

(as of June 1, 2017)

| | |
|---|---------------|
| Total Funding Allocated by VSWCB to SWCDs | \$52.6 |
| Total Funding Requested by Producers | \$47.4 |
| Total Funding Approved by SWCDs | \$43.1 |
| Total Funding Pending Approval | \$4.1 |
| Subtotal | \$47.2 |
| Total Obligations Paid | \$15.5 |
| Additional amount obligated to livestock exclusion | \$28.7 |
| Additional amount obligated to other engineered practices | \$1.3 |
| Additional amount obligated to cover crops | \$1.6 |
| Subtotal of paid and obligated | \$47.1 |

As of June 1, unobligated balance is \$5.2 M.
 Between 1998 and 2016, \$230,419,419 was spent on state cost-share. (Handout 1)

Handout 1, included as Attachment A, shows the historical cost data for Agricultural BMPs completed by Fiscal Year. This information was taken from the FY2016 Chesapeake Bay and Virginia Waters Clean-Up Plan.

Current BMP statistics

- Priority practices
 - Chesapeake Bay Commission Report (December 2004)
 - § “Cost-Effective Strategies for the Bay”
 - Chesapeake Bay TMDL, Phase 1 WIP (2010)
 - § Nutrient Management
 - § Vegetative Buffers (grass and forest)
 - § Conservation Tillage
 - § Cover Crops
 - § Livestock Stream Exclusion
- Between 2009 – 2017
 - Almost 60 BMPs in current cost-share manual
 - 111,111 BMPs installed (both cost-share and tax credit)
 - Table shows 21 most highly utilized BMPs (96,000)
 - § Nitrogen, phosphorus, sediment reduction costs

Director Cristman noted that the process of distributing the funds to Soil and Water Conservation Districts (SWCDs) begins at the Virginia Soil and Water Conservation Board meeting in December and carries through a series of three meetings from March through May.

Director Cristman reviewed a second handout entitled “BMP Summary from 7/1/2009 through 6/2/2017.” A copy of this handout is included as Attachment B.

Mr. Street asked that in the column for minimum lifespan the designation of year be included with the numerical reference.

The SL-6 funding shows only the cost for installation; the producer is responsible for maintaining the project for the duration of ten years. The ongoing maintenance costs borne by the producer are not included in the costs shown.

Overview of agricultural needs assessment

Agricultural Needs Assessment Overview

§10.1-2128.1 (Code of Virginia)

- Requires DCR, in consultation with stakeholders to determine funding needs for effective SWCD technical assistance and implementation of agricultural BMP practices
 - Required every two years for development of biennial budget in accordance with §2.2.1504 (COV)
 - Refinements made annually

Needs Assessment Methodology

- Pollution reduction goals based on current version of the Chesapeake Bay Model (5.3.2) and Virginia Assessment and Scenario Tool (VAST)

- Revised in 2015 to account for livestock exclusion initiative
- Remaining reductions needs were recalculated
- Funding levels based on 60% for Chesapeake Bay
- Funding needs will change based on new Bay Model, new targets, and new tools.

Director Cristman referenced a handout entitled “2016 Agricultural Needs Assessment – Biennial Needs Summary.” A copy of this handout is included as Attachment C.

Director Cristman noted that the same level of scientific assessment that is available in the Chesapeake Bay watershed is not available outside the Chesapeake Bay watershed. He advised that once the Chesapeake Bay watershed needs have been determined, an additional 40% of the projected cost is added for watersheds outside of the Bay watershed in accordance with the Code of Virginia.

Mr. Dowling reported that every two years, DCR staff works with a stakeholder group to refine the needs assessment projections. He noted that prior to the FY 2016 report, the numbers for SL-6 had not been included as a separate item in the needs assessment. As the SL-6 has been such a significant initiative, it was determined to separate this significant initiative from the cost-share program needs.

Director Cristman pointed out that the amount of funding available for the current fiscal year was \$74.5 million. According to the needs assessment, the actual amount needed would be closer to \$197 million. There have been previous questions from the General Assembly members and others asking if SWCDs could deliver the cost-share program at the funding levels recommended in the needs assessment. This would double the cost-share allocations for most SWCDs and would require additional administrative, operational, and technical assistance funding provided to the SWCDs. He noted that SWCDs had been able to obligate about 90% of the funding available in the current cycle.

Mr. Dowling provided a more detailed overview of the needs assessment and noted that it includes funding from all sources (state, federal, producer, etc.). A member suggested that a breakout of the state needs would be helpful.

What we don't know

- New Chesapeake Bay Model (6.0)
- New Pollution reduction targets (Spring 2018)
- New Tool – Chesapeake Bay Scenario Builder (2018)
- Livestock exclusion
 - Existing \$20.3 million backlog
 - To determine additional needs, must have:
 - § Accurate stream buffer locations
 - § Confirmed animal operations data
 - § Locations of voluntary fencing
 - If funding available, could determine where additional livestock exclusion efforts could be targeted.

The current needs assessment is based on the amounts of nitrogen, phosphorus and sediment reductions needed to meet the Chesapeake Bay TMDL. With a new model, new tools, and new targets, it is anticipated

that the needs assessment funding estimates will change. It was mentioned that the new model was to be released for a preliminary review within the week.

Stabilization

- Provide the annual consistency by establishing a predictable funding source to adequately support operational need, technical assistance, and cost-share to SWCDs for agricultural BMPs to meet the TMDLs.
 - While recognizing the need of all water quality programs (wastewater, urban stormwater, and agricultural best management practices)
 - Ensuring faith and confidence in needs projections

Funding options

- Stabilize cost-share funding at \$35 million
 - Use of priority practices
- Total Operational Support for the SWCDs
- Combines administration, operation, and technical assistance
 - Use of remaining recordation percentage
 - Use of general funds
- Use of unclaimed Land Preservation Tax Credit funds
- Line of credit
- Other ideas

Director Cristman noted that the issue of stabilization was the primary purpose for the establishment of the SAG. Director Cristman advised that the SAG was looking at a more balanced approach for funding over the biennium and that the amount available for funding is not predictable.

Director Cristman suggested that the SAG start by discussing a stable base of funding at around \$35 million annually for the Virginia cost-share program. In the event that the Water Quality Improvement Fund (WQIF) deposit for agricultural BMPs was less than \$35 million, the additional funding necessary to meet the \$35 target would come from the general fund. In the event that the WQIF deposit for agricultural BMPs exceeded \$35 million, the funds provided above the \$35 million would be deposited to the WQIF reserve until the following year's funding level was determined.

The base operational support for SWCDs has always been supported through the general fund and allows SWCDs to provide basic services. Funding for technical assistance, which provides for personnel, is not included in the operational support for SWCDs.

Including the necessary technical assistance funding as part of the base funding for SWCDs would reduce the need to address the technical assistance funding as part of the WQIF deposit and would stabilize the funding for SWCDs.

A portion of the funding provided to the WQIF comes from the \$20 recordation fee. Fifty percent of the revenue generated from the recordation fee is allocated to the WQIF; the remaining 50% is provided to the general fund. The amount generated from this revenue stream is volatile and is dependent on the success of

the real estate market. The revenue generated for agricultural BMPs from this funding source has been hovering between \$8 and \$9 million annually.

Another consideration would be to utilize the difference between the land preservation tax credit claimed each year and the program cap; the current program cap is \$75 million. However, this is not a dollar to dollar funding method.

Review of funding strategies presented in previous study efforts

Director Cristman asked Ms. Jennings to review a document that showed potential funding strategies identified in previous study committees, commissions, and other efforts between 1997 and 2017. A copy of this document is included as Attachment D.

Ms. Jennings reviewed the list of dedicated funding options that had been considered over the past twenty years. Some of the suggestions were enacted.

Director Cristman asked if the SAG had funding suggestions. SAG members offered the following comments:

- \$35 million would stabilize the funding, but the needs assessment shows that funding well in excess of \$35 million is needed;
- The funding necessary for technical assistance at SWCDs creates a challenge and impacts the amount of funds available for the cost-share program;
- If the funding documented by the needs assessment cannot be achieved, there should at least be a stable funding amount;
- There is a sense of urgency to meet the necessary Chesapeake Bay reduction goals; and
- Technical assistance would not be included in the \$35 million program.

Delegate Bulova stated that it would be important to implement a stable funding level, which would remove the year-to-year funding determination based on the appropriations level. The hope would be to establish language in the budget or in the *Code of Virginia* and build towards the target amount.

Director Cristman noted that the report is due to the General Assembly on November 15th. He suggested that the SAG needed one more meeting to conclude their work and noted that it would be helpful to schedule the meeting after mid-August, when the amount of the WQIF deposit would be known.

Delegate Bulova expressed a concern regarding the \$35 million amount and noted that the needs assessment shows a higher need. Establishing \$35 million as the stable funding level will not ensure achievement of the Chesapeake Bay TMDL 2025 goals. Any recommendations included in the report need to state that \$35 million would be the base program, but that the funding amount needs to be continually increased to achieve water quality goals.

It was noted that recordation revenue would be in addition to the base program and could be applied to stream exclusion (SL-6).

Senator Hanger suggested that for the next meeting it would be helpful for stakeholder groups such as the Farm Bureau, the Agribusiness Council, SWCDs, and others to provide a summary or recommendation on the funding that is needed and what could be done to stabilize funding.

Delegate Bulova asked if staff had enough information and direction to develop a draft document for SAG review and discussion.

Mr. Dowling replied that with the information provided at the meeting, draft language could be developed although he echoed Senator Hanger's request for additional thoughts or recommendations on potential funding alternatives to be sent to the Department.

Director Cristman asked that SAG members provide information to Christine Watlington within the next several weeks to assist with the development of draft language.

PUBLIC COMMENT

There was no public comment.

NEXT STEPS

Stakeholder groups will be asked to provide input to DCR staff for the purposes of developing draft language for the SAG to review and discuss.

Group members will be polled regarding a meeting in early September.

There was no further business and the meeting adjourned at 11:43 a.m.

Attachment A
FY 2016 CHESAPEAKE BAY AND VIRGINIA WATERS CLEAN-UP PLAN

Historical Cost Data for Agricultural BMPs Completed by Fiscal Year

| Fiscal Year | Actual BMP Cost | Total Cost-Share Paid | State Cost-Share Paid | Non-State Cost-Share Paid | Other Funding Amount | Farmer Cost Before Tax Credit | Tax Credit Amount Issued |
|--------------|------------------|-----------------------|-----------------------|---------------------------|----------------------|-------------------------------|--------------------------|
| 1998 | \$6,534,510.11 | \$4,063,645.84 | \$3,119,585.67 | \$944,060.17 | \$329,583.37 | \$2,141,280.90 | \$416,228.26 |
| 1999 | \$5,914,234.56 | \$4,439,154.30 | \$4,026,364.92 | \$412,789.38 | \$213,063.44 | \$1,262,016.82 | \$350,507.40 |
| 2000 | \$13,665,995.61 | \$8,307,891.08 | \$8,247,145.15 | \$60,745.93 | \$906,150.61 | \$4,451,953.92 | \$826,214.15 |
| 2001 | \$15,926,641.61 | \$8,029,747.79 | \$6,656,428.78 | \$1,373,319.01 | \$2,575,618.08 | \$5,321,275.74 | \$810,941.47 |
| 2002 | \$23,263,067.57 | \$8,375,730.49 | \$6,590,103.33 | \$1,785,627.16 | \$6,603,096.74 | \$8,284,240.34 | \$903,880.05 |
| 2003 | \$13,894,621.39 | \$3,217,772.88 | \$2,372,051.63 | \$845,721.25 | \$5,033,979.95 | \$5,642,868.56 | \$995,171.35 |
| 2004 | \$10,201,591.85 | \$2,794,389.49 | \$2,414,937.33 | \$379,452.16 | \$3,437,971.92 | \$3,969,230.44 | \$542,586.51 |
| 2005 | \$11,255,876.92 | \$4,339,334.29 | \$3,702,197.42 | \$637,136.87 | \$2,211,960.41 | \$4,704,582.22 | \$607,424.88 |
| 2006 | \$19,457,805.88 | \$9,683,332.26 | \$8,941,513.15 | \$741,819.11 | \$2,866,004.94 | \$6,908,468.68 | \$863,689.42 |
| 2007 | \$24,855,191.08 | \$15,380,874.36 | \$14,262,286.83 | \$1,118,587.53 | \$3,638,152.24 | \$5,836,164.48 | \$950,122.31 |
| 2008 | \$24,644,208.65 | \$14,021,770.37 | \$12,976,639.51 | \$1,045,130.86 | \$3,177,626.66 | \$7,444,811.62 | \$1,074,960.76 |
| 2009 | \$31,503,271.50 | \$16,124,924.01 | \$15,242,615.17 | \$882,308.84 | \$5,893,706.63 | \$9,484,640.86 | \$1,339,704.07 |
| 2010 | \$37,148,730.88 | \$23,523,093.41 | \$22,539,567.71 | \$983,525.70 | \$4,158,980.71 | \$9,466,656.76 | \$1,450,195.70 |
| 2011 | \$17,846,990.64 | \$10,791,380.40 | \$10,343,449.38 | \$447,931.02 | \$1,933,530.72 | \$5,122,079.52 | \$981,519.17 |
| 2012 | \$32,472,795.56 | \$21,657,922.60 | \$21,447,079.23 | \$210,843.37 | \$2,887,203.84 | \$7,927,669.12 | \$1,394,555.40 |
| 2013 | \$37,203,096.60 | \$28,292,986.32 | \$27,972,065.48 | \$320,920.84 | \$3,990,128.97 | \$4,919,981.31 | \$1,075,043.53 |
| 2014* | \$38,907,305.71 | \$29,960,106.81 | \$27,941,178.37 | \$2,018,928.44 | \$3,709,008.93 | \$5,238,189.97 | \$944,772.98 |
| 2015* | \$33,274,216.77 | \$24,600,874.43 | \$23,124,511.67 | \$1,476,362.76 | \$3,078,136.23 | \$5,595,206.11 | \$951,999.99 |
| 2016** | \$13,760,318.82 | \$8,697,652.75 | \$8,499,697.95 | \$197,954.80 | \$516,825.12 | \$4,545,840.95 | \$749,974.46 |
| State Totals | \$411,730,471.71 | \$246,302,583.88 | \$230,419,418.68 | \$15,883,165.20 | \$57,160,729.51 | \$108,267,158.32 | \$17,229,491.86 |

* 2014 and 2015 figures will be adjusted each year as SL-6(T) BMPs that were obligated under the 100% SL-6 funding program are completed

** 2016 figures do not include approved BMPs carried forward into FY 2017 that are awaiting completion

Attachment B

Handout 2

| BMP Summary from 7/1/2009 through 6/2/2017 | | | | | | | | | | | | |
|---|---|--------------------------|-----------------------|------------------------------------|------------------------------|--------------------------------|---|--|---|--|--|--|
| Practice Code | Practice | BMP Group | Number of BMPs | Minimum Lifespan (in Years) | Total Cost Share Paid | Average Cost Share Paid | Total N Reduction Over Practice Lifespan | Cost per Pound of N Reduction over BMP Lifespan | Total P Reduction Over Practice Lifespan | Cost per Pound of P Reduction over BMP Lifespan | Total Soil Reduction Over Practice Lifespan | Cost per Pound of Soil Loss Reduction over BMP Lifespan |
| WP-4B | Loafing lot management system | Animal Waste Management | 54 | 10 | \$1,423,155.18 | \$26,354.73 | 509,750.30 | 2.79 | 111,128.74 | 12.81 | 93,704.10 | 15.19 |
| SL-8 | Protective cover for specialty crops | Cover Crop | 1049 | 1 | \$1,182,170.03 | \$1,126.95 | 561,344.96 | 2.11 | 125,152.03 | 9.45 | 103,296.21 | 11.44 |
| SL-8B | Small Grain and Mixed Cover Crop for Nutrient Management and Residue Management | Cover Crop | 30347 | 1 | \$35,483,631.00 | \$1,169.84 | 17,530,721.05 | 2.02 | 4,262,401.43 | 8.32 | 3,225,767.97 | 11.00 |
| SL-8H | Harvestable Cover Crop | Cover Crop | 6468 | 1 | \$5,922,234.81 | \$915.76 | 5,691,075.91 | 1.04 | 1,241,332.60 | 4.77 | 1,046,153.66 | 5.66 |
| WQ-4 | Legume Based Cover Crop | Cover Crop | 641 | 1 | \$1,090,266.50 | \$1,700.88 | 1,200,238.09 | 0.91 | 280,634.46 | 3.89 | 220,632.00 | 4.94 |
| CRFR-3 | CREP Riparian Forest Buffer Planting | Forest Buffer | 889 | 9 | \$942,566.21 | \$1,092.20 | 1,146,930.97 | 0.82 | 231,704.41 | 4.07 | 210,858.90 | 4.47 |
| FR-3 | Woodland buffer filter area | Forest Buffer | 63 | 10 | \$84,121.67 | \$1,356.80 | 36,638.13 | 2.30 | 7,466.35 | 11.27 | 6,734.95 | 12.49 |
| CRWQ-1 | CREP Grass filter strips | Grass Buffer | 85 | 9 | \$37,350.64 | \$439.42 | 114,767.68 | 0.33 | 20,726.62 | 1.80 | 21,199.10 | 1.76 |
| SL-15A | Continuous High Residue Minimal Soil Disturbance Tillage System | High Residue Tillage Mgt | 1468 | 5 | \$5,321,654.64 | \$3,625.11 | 16,329,015.99 | 0.33 | 4,426,657.14 | 1.20 | 3,001,657.35 | 1.77 |
| SL-1 | Long Term Vegetative Cover on Cropland | Land Retirement | 888 | 1 | \$3,410,966.33 | \$3,841.18 | 2,053,278.71 | 1.66 | 411,534.08 | 8.29 | 377,440.94 | 9.04 |
| SL-11 | Permanent vegetative cover on critical areas | Land Retirement | 189 | 5 | \$528,165.23 | \$2,794.53 | 529,553.14 | 1.00 | 114,240.85 | 4.62 | 97,344.33 | 5.43 |
| WP-3 | Sod waterway | Land Retirement | 67 | 10 | \$241,001.58 | \$3,597.04 | 8,496,411.23 | 0.03 | 1,675,450.74 | 0.14 | 1,561,840.30 | 0.15 |
| NM-1 | Nutrient Management Plan Writing and Revision | Nutrient Management | 13817 | 3 | \$3,395,165.34 | \$245.74 | 27,498,991.53 | 0.12 | 12,762,135.06 | 0.27 | 0.00 | |

| | | | | | | | | | | | | |
|--------|--|---------------------|----------------|----|----------------------|-------------|---------------|------|---------------|-------|--------------|-------|
| NM-1A | Nutrient Management Plan Writing and Revisions | Nutrient Management | 36056 | 1 | \$2,815,744.67 | \$78.09 | 21,975,403.13 | 0.13 | 10,184,738.83 | 0.28 | 0.00 | |
| SL-7 | Extension of CREP Watering Systems | Prescribed Grazing | 113 | 10 | \$705,567.73 | \$6,243.96 | 1,528,090.45 | 0.46 | 285,349.54 | 2.47 | 280,898.98 | 2.51 |
| SL-9 | Grazing Land Management | Prescribed Grazing | 69 | 10 | \$300,045.72 | \$4,348.49 | 625,678.01 | 0.48 | 115,408.79 | 2.60 | 115,014.34 | 2.61 |
| CRSL-6 | CREP Grazing land protection | Stream Exclusion | 787 | 9 | \$3,590,172.06 | \$4,561.85 | 6,529,069.73 | 0.55 | 1,245,265.13 | 2.88 | 1,200,400.64 | 2.99 |
| LE-2 | Livestock Exclusion with Reduced Setback | Stream Exclusion | 85 | 10 | \$306,122.78 | \$3,601.44 | 862,181.19 | 0.36 | 166,058.22 | 1.84 | 158,489.19 | 1.93 |
| SL-6 | Stream Exclusion With Grazing Land Management | Stream Exclusion | 2618 | 10 | \$72,101,951.70 | \$27,688.92 | 29,936,910.26 | 2.41 | 5,606,696.47 | 12.86 | 5,503,108.50 | 13.10 |
| WP-2 | Streambank protection (fencing) | Stream Exclusion | 90 | 5 | \$397,478.81 | \$4,416.43 | 40,107.76 | 9.91 | 6,217.43 | 63.93 | 7,372.75 | 53.91 |
| FR-1 | Afforestation of erodible crop and pastureland | Tree Planting | 268 | 10 | \$768,018.26 | \$2,865.74 | 929,593.72 | 0.83 | 196,048.69 | 3.92 | 170,881.20 | 4.49 |
| | | | | | | | | | | | | |
| | Subtotal of all listed BMPs | | 96,111 | | \$140,047,551 | | | | | | | |
| | Subtotal of all other implemented BMPs | | 15,000 | | \$14,172,073 | | | | | | | |
| | Grand total of all implemented BMPs | | 111,111 | | \$154,219,624 | | | | | | | |

Attachment C

FY 2016 CHESAPEAKE BAY AND VIRGINIA WATERS CLEAN-UP PLAN

2016 Agricultural Needs Assessment - Biennial Needs Summary

| Estimated Costs | Budget Code | FY 2017 Funding | 2017 - 2018 Biennium | | 2019 - 2020 Biennium | | 2021-2022 Biennium | | 2023-2024 Biennium | | 2025 Target Year | Totals: |
|--|-------------|-----------------|----------------------|--------------|----------------------|--------------|--------------------|--------------|--------------------|--------------|------------------|---------------|
| | | | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | |
| Chesapeake Bay Cost-Share ¹ | 50323 | \$12,007,472 | \$28,457,701 | \$29,026,855 | \$29,607,392 | \$30,199,540 | \$30,803,531 | \$31,419,601 | \$32,047,993 | \$32,688,953 | \$33,342,732 | \$277,594,299 |
| Chesapeake Bay SL-6 Backlog ² | 50323 | \$17,625,395 | \$11,300,000 | \$11,300,000 | \$11,300,000 | | | | | | | \$33,900,000 |
| Chesapeake Bay Annual BMP Cost Share ³ | 50323 | \$3,586,647 | \$8,585,154 | \$8,756,857 | \$8,931,994 | \$9,110,634 | \$9,292,846 | \$9,478,703 | \$9,668,277 | \$9,861,643 | \$10,058,876 | \$83,744,984 |
| Chesapeake Bay Tax Credit | TBD | | \$3,613,937 | \$3,686,216 | \$3,759,940 | \$3,835,139 | \$3,911,842 | \$3,990,079 | \$4,069,880 | \$4,151,278 | \$4,234,303 | \$35,252,613 |
| Chesapeake Bay Producer Portion ⁴ | TBD | | \$27,104,528 | \$27,646,618 | \$28,199,551 | \$28,763,542 | \$29,338,813 | \$29,925,589 | \$30,524,101 | \$31,134,583 | \$31,757,274 | \$264,394,597 |
| Chesapeake Bay Federal Portion | TBD | | \$22,587,106 | \$23,038,849 | \$23,499,626 | \$23,969,618 | \$24,449,010 | \$24,937,991 | \$25,436,750 | \$25,945,485 | \$26,464,395 | \$220,328,831 |
| Chesapeake Bay Technical Assistance ⁵ | 50322 | \$4,760,086 | \$4,137,662 | \$4,238,688 | \$4,341,734 | \$2,905,933 | \$3,013,142 | \$3,122,496 | \$3,234,037 | \$3,347,809 | \$3,463,856 | \$31,805,357 |
| Chesapeake Bay RMP Development | 50301 | \$240,000 | \$200,000 | \$200,000 | \$200,000 | \$200,000 | \$200,000 | \$200,000 | \$200,000 | \$200,000 | \$200,000 | \$1,800,000 |
| Southern Rivers Cost-Share ¹ | 50323 | \$8,004,981 | \$18,971,801 | \$19,351,237 | \$19,738,261 | \$20,133,027 | \$20,535,687 | \$20,946,401 | \$21,365,329 | \$21,792,635 | \$22,228,488 | \$185,062,866 |
| Southern Rivers SL-6 Backlog ² | 50323 | \$15,114,327 | \$11,300,000 | \$11,300,000 | \$11,300,000 | | | | | | | \$33,900,000 |
| Southern Rivers Annual BMP Cost Share ³ | 50323 | \$2,391,098 | \$5,723,436 | \$5,837,905 | \$5,954,663 | \$6,073,756 | \$6,195,231 | \$6,319,136 | \$6,445,518 | \$6,574,429 | \$6,705,917 | \$55,829,989 |
| Southern Rivers Tax Credit | TBD | | \$2,409,291 | \$2,457,477 | \$2,506,627 | \$2,556,759 | \$2,607,894 | \$2,660,052 | \$2,713,253 | \$2,767,518 | \$2,822,869 | \$23,501,742 |
| Southern Rivers Producer Portion ⁴ | TBD | | \$18,069,685 | \$18,431,079 | \$18,799,700 | \$19,175,694 | \$19,559,208 | \$19,950,393 | \$20,349,400 | \$20,756,388 | \$21,171,516 | \$176,263,065 |
| Southern Rivers Federal Portion | TBD | | \$15,058,071 | \$15,359,232 | \$15,666,417 | \$15,979,745 | \$16,299,340 | \$16,625,327 | \$16,957,834 | \$17,296,990 | \$17,642,930 | \$146,885,887 |
| Southern Rivers Technical Assistance ⁵ | 50322 | \$3,173,391 | \$3,272,078 | \$3,339,428 | \$3,408,126 | \$1,937,289 | \$2,008,762 | \$2,081,664 | \$2,156,025 | \$2,231,872 | \$2,309,237 | \$22,744,480 |
| Southern Rivers RMP Development | 50323 | \$80,000 | \$50,000 | \$50,000 | \$50,000 | \$50,000 | \$50,000 | \$50,000 | \$50,000 | \$50,000 | \$50,000 | \$450,000 |
| Base Funds for Essential Operations ⁶ | 50320 | \$7,191,091 | \$15,520,554 | \$15,520,554 | \$15,520,554 | \$15,520,554 | \$15,520,554 | \$15,520,554 | \$15,520,554 | \$15,520,554 | \$15,520,554 | \$139,684,986 |

| | | | | | | | | | | | | | |
|---|--------------|-----------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-----------|-----------------|
| Engineering Support ⁷ | 50301 | \$297,713 | \$500,000 | \$500,000 | \$500,000 | \$500,000 | \$500,000 | \$500,000 | \$500,000 | \$500,000 | \$500,000 | \$500,000 | \$4,500,000 |
| Training and Certification Program ⁸ | 50301 | \$79,000 | \$125,000 | \$125,000 | \$125,000 | \$125,000 | \$125,000 | \$125,000 | \$125,000 | \$125,000 | \$125,000 | \$125,000 | \$1,125,000 |
| IT Systems Updates and Support | 50301/ 50320 | TBD | \$150,000 | \$150,000 | \$150,000 | \$150,000 | \$150,000 | \$150,000 | \$150,000 | \$150,000 | \$150,000 | \$150,000 | \$1,350,000 |
| Totals: | | - | \$197,136,004 | \$200,315,994 | \$203,559,585 | \$181,186,229 | \$184,560,861 | \$188,002,985 | \$191,513,952 | \$195,095,138 | \$198,747,948 | | \$1,740,118,697 |

Total FY 2017 Funding: \$74,551,201

**Adjusted Total
Need: \$1,665,567,496**

Footnotes:

- ¹ Includes all BMPs with a lifespan greater than 1 year as well as RMP Implementation after plan development.
- ² Backlog from FY15 signup under 100% SL-6 funding guarantee spread across three years.
- ³ Includes annual cover crop and nutrient management plans
- ⁴ Includes producers' inputs from installation of 100% voluntary BMPs and 25% or cost share BMPs.
- ⁵ Technical assistance for FY17-FY25 reflects both the transfer of a significant portion into Base Funds for Operational Support and specific needs due to livestock stream exclusion and other structural best management practices.
- ⁶ This amount represents SWCD budget template submissions and decoupling the majority of technical assistance from cost share.
- ⁷ In the face of expanding program needs for engineering support, this funding builds capacity within DCR to provide engineering support to provide job approval authority to SWCD staff.
- ⁸ Training and Certification funding to develop an internal DCR-SWCD training and certification program to further build SWCD technical capacity.

Notes on 2016 spreadsheet development:

- VACS funding split 77% to non-annual BMPs, 23% to annual BMPs based on previous analysis/splits
- TA sources split 60-40% between CB/OCB then added together for a total
- 17 SL-6 cost-share and 2016 supplemental SL-6 cost-share are added together on the respective CB/OCB SL-6 Backlog lines
- SL-6 Backlog estimates of \$33,900,000 are maintained for CB and OCB, the 2018 and 2019 needs are the remainder after the total 2017 support is subtracted, divided by 2
- RMP development funding includes \$120,000 from CB grant, then \$200,000 split 60-40% between CB/OCB
- Engineering Support funding includes staff salaries, benefits and vehicle costs
- Training and Certification Program funding includes staff salaries, benefits and vehicle costs

ATTACHMENT D

SUMMARY OF NATURAL RESOURCE DEDICATED FUNDING OPTIONS*

PREPARED BY THE CHESAPEAKE BAY COMMISSION, JUNE 7, 2017

| YEAR | SOURCE AND RATE | REVENUE ESTIMATES** | STUDY OR LEGISLATIVE REFERENCE |
|-------------|---|-----------------------|---|
| 2017 | Water Quality Improvement Act line of credit. | Up to \$30 M | Virginia Senate, 2016-2018 Biennium Budget, SB 900. |
| 2016 | Multiple states with volume-related groundwater fees (AK, AZ, CA, CT, KS, ME, MA, MO, TX, RI, VT, and WA) | Variable | Water Resource Planning and Management Study, Joint Legislative Audit and Review Commission. |
| 2013 | Dedicated funding (\$100 M – (\$100 M x CPI-U)) to the Virginia Land Conservation Fund (VLCF). | Up to \$20 M | House Bill 1398, Delegate Lee Ware patron, enacted by Virginia General Assembly. |
| 2012 | Recordation tax surcharge of 0.10 cent. | \$1.3 M | Dedicated Revenue Sources for Land Conservation in Virginia, Joint Legislative Audit and Review Commission. |
| 2012 | Increase the Land Preservation Tax Credit transfer fee from 5% to 5.25%. | \$300,000 | Dedicated Revenue Sources for Land Conservation in Virginia, Joint Legislative Audit and Review Commission. |
| 2012 | Increase the \$1 recordation fee to \$1.50 and expand statewide. | \$400,000 | Dedicated Revenue Sources for Land Conservation in Virginia, Joint Legislative Audit and Review Commission. |
| 2012 | Divert interest on the VLCF funds from the general fund. | \$200,000 | Dedicated Revenue Sources for Land Conservation in Virginia, Joint Legislative Audit and Review Commission. |
| 2012 | Require hunters and anglers to buy an annual conservation stamp. | \$1.2 M | Dedicated Revenue Sources for Land Conservation in Virginia, Joint Legislative Audit and Review Commission. |
| 2012 | Surcharge on state park fees of 5%. | \$800,000 | Dedicated Revenue Sources for Land Conservation in Virginia, Joint Legislative Audit and Review Commission. |
| 2012 | Other state mechanisms: lottery income (MN); dedicated sales tax revenue (NJ). | Variable | Dedicated Revenue Sources for Land Conservation in Virginia, Joint Legislative Audit and Review Commission. |
| 2010 | 50% of a \$20 document recordation fee. | Approx. \$10 M | Enacted by Virginia General Assembly, 2008-2010 Biennium Budget, Chapter 872, Item 3-6.01. |

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|------|--|----------------------|---|
| 2008 | 20% of recordation taxes not allocated; unallocated land preservation tax credits. | Variable | House Bill 727 (Delegate Scott); Senate Bill 470 (Senator Hanger). |
| 2008 | 10% of one percent sales tax. | Up to \$100 M | House Bill 1335 (Delegate Landes); Senate Bill 511 (Senator Whipple). |
| 2006 | State Corporation Commission license tax revenues from farm owner, homeowner, and commercial insurance policies. | \$43 M | Joint Subcommittee Studying Options to Provide Funding for Clean-Up of Virginia's Polluted Waters, including the Chesapeake Bay and Its Tributaries (HJR 640). |
| 2006 | One percent surcharge on farm owner, homeowner, and commercial insurance policy premiums. | \$19 M | Joint Subcommittee Studying Options to Provide Funding for Clean-Up of Virginia's Polluted Waters, including the Chesapeake Bay and Its Tributaries (HJR 640). |
| 2006 | A sliding scale capital gains tax on the sale of certain real estate. | Not determined. | Joint Subcommittee Studying Options to Provide Funding for Clean-Up of Virginia's Polluted Waters, including the Chesapeake Bay and Its Tributaries (HJR 640). |
| 2005 | Annual wastewater fee of \$52 per year per household and \$1200 per year for industry. | \$160 M | House Bill 2694 (Delegate Pollard); Senate Bill 1240 (Senator Whipple). |
| 2005 | One-twelfth of the revenue from the 2% sales tax. | Up to \$160 M | House Bill 2777 (Delegate Louderback); Senate Bill 1235 (Senator Quayle); and Joint Subcommittee Studying Options to Provide Funding for Clean-Up of Virginia's Polluted Waters, including the Chesapeake Bay and Its Tributaries (HJR 640). |
| 2004 | Document recordation fee of \$10/recording. | \$20 M | House Bill 693 (Delegate H. Morgan); Senate Bill 569 (Senator Deeds). |
| 2003 | Water utility fee of \$2/month for municipal systems. | \$46 M | Governor's Natural Resources Funding Commission. |
| 2003 | Water withdrawal fee of \$1/1,000 gallons. | \$477 M | Governor's Natural Resources Funding Commission. |
| 2003 | Sewer access fee of \$1/connection for residential, commercial, and industrial. | \$22 M | Governor's Natural Resources Funding Commission. |

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|-----------------|--|------------------------|---|
| 2003 | Wastewater discharge or onsite treatment fee of \$1/MGD and \$1/1,000 gallons for permit fees. | \$15 M | Governor's Natural Resources Funding Commission. |
| 2003 and 2006 | Document recording tax of \$0.01/\$100. | \$17 M | Governor's Natural Resources Funding Commission; and Joint Subcommittee Studying Options to Provide Funding for Clean-Up of Virginia's Polluted Waters, including the Chesapeake Bay and Its Tributaries (HJR 640). |
| 2003 | Document recordation fee of \$10/recording. | \$20 M | Governor's Natural Resources Funding Commission. |
| 2003 | Municipal solid waste tipping fee of \$3/1 ton. | \$36 M | Governor's Natural Resources Funding Commission. |
| 2003 | Gas tax of \$0.006/gallon. | \$36 M | Governor's Natural Resources Funding Commission. |
| 2003 | Fertilizer fee of \$1/ton bulk sale and \$1/50 lb. bag non-agriculture use. | \$2.1 M | Governor's Natural Resources Funding Commission. |
| 2003 | Biosolids application fee of \$1/ton. | \$200,000 | Governor's Natural Resources Funding Commission. |
| 2003 | Cell phone surcharge of \$1/month. | \$36 M | Governor's Natural Resources Funding Commission. |
| 2003 | Tax on cigarettes of \$1/pack. | \$600 M | Governor's Natural Resources Funding Commission. |
| 2003 | Motor vehicle registration fee of \$1/vehicle. | \$6 M | Governor's Natural Resources Funding Commission. |
| 2003 | Income tax exemption surcharge of \$1/personal exemption. | \$6.3 M | Governor's Natural Resources Funding Commission. |
| 2003 | Electricity connection fee of \$2/month. | \$75 M | Governor's Natural Resources Funding Commission. |
| 1997 | Water Quality Improvement Act, 10% of annual general fund surplus and 10% of any unreserved general fund balance. | Variable | Enacted by Virginia General Assembly. |
| Multiple | Plastic bag tax. | Not determined. | Legislation introduced in multiple General Assembly sessions. |

* Bolded items recommended in legislation or by study. ** Revenue figures reflective of the year of study.