Addendum to the U.S. Environmental Protection Agency Chesapeake Bay Program Office Grant and Cooperative Agreement Guidance: Most Effective Basins Funding May 18, 2020

A. INTRODUCTION

In the U.S. Environmental Protection Agency's (EPA) Fiscal Year (FY) 2020 Appropriations Conference Report, an increase to the Chesapeake Bay Program (CBP) Budget was provided in the amount of $6 million for "state-based implementation in the most effective basins." This addendum to the 2020 EPA Chesapeake Bay Program Office (CBPO) Grant and Cooperative Agreement Guidance (grant guidance), finalized in December 2019, provides guidance on the allocation, grant vehicle(s), eligible uses and recipients, and other important information about these funds.

B. EFFECTIVENESS

The most effective basins to reduce the effects of excess nutrient loading to the Bay were determined considering two factors: cost effectiveness and load effectiveness. Cost effectiveness was considered as a factor to assure these additional funds result in state-based implementation of practices that achieve the greatest benefit to water quality overall. It was evaluated by reviewing what the jurisdictions have reported in their Phase III Watershed Implementation Plans (WIPs) as the focus of their upcoming efforts, and by evaluating the average cost per pound of reduction for Best Management Practices (BMP) implementation by sector.

Past analyses of cost per pound of reduction have shown that reducing nitrogen is less costly by far than reducing phosphorus. Based on that fact, EPA determined that the focus of this evaluation would be to target nitrogen reductions in the watershed. Further, BMPs placed in the agricultural sector have been identified as the most cost effective BMPs.

Load effectiveness[1] is a measure of the ability of management practices implemented in each area (basin) to have a positive effect on dissolved oxygen in the Bay. Load effectiveness is the combination of three factors: land to water, delivery, and dissolved oxygen response. There are 383 basins identified in the entire watershed. Each basin was evaluated for its relative effectiveness (or degree of impact) based on the ability to deliver nitrogen to the Bay and cause change in Deep Channel Dissolved Oxygen of the bay. This is consistent with how the partnership has studied the dissolved oxygen needs for the most critical segments of the Bay.

C. FUNDING ALLOCATION

EPA will provide the most effective basins funding for nitrogen reduction in the agricultural sector to the Chesapeake Bay watershed jurisdictions that have committed to reducing the agricultural contribution of nitrogen in their Phase III Watershed Implementation Plans (Delaware, Maryland, New York, Pennsylvania, Virginia, and West Virginia). The District of

[1] Load effectiveness is the same measure known as relative effectiveness used to calculate allocations as described in Section 6.3 of the 2010 TMDL. It was also used to calculate Phase WIP III nitrogen planning targets in 2017.

Columbia does not have an agricultural commitment through 2025. The allocated amount for each jurisdiction can be found in Table 1 on Page 4.

D. GRANT VEHICLES

EPA will add the most effective basins funding to the Bay jurisdictions' Chesapeake Bay Implementation Grants (CBIG). In some cases, EPA may consider adding this funding to a jurisdiction's Chesapeake Bay Regulatory and Accountability (CBRAP) Grant or may award the funds to a third party through a Request for Applications (RFA). The jurisdictions may use the funds for implementation of the practices identified below, or to provide this funding to state and/or local entities[2] through subgrants or contracts (see Eligible Uses and Recipients on Page 2 for additional details). Third parties will provide this funding to local entities through subgrants or contracts. Implementation of these practices using these funds is to occur in the most effective basins as shown in Table 2.

Grant recipients should be aware that all cost-share requirements apply to this funding as described on Page 57 of the 2020 grant guidance finalized in December 2019. The cost-share amount applies to the total dollar amount of the grant in which a dollar for dollar match is still required.

E. ELIGIBLE USES AND RECIPIENTS

This funding is intended for use by state and local entities. For purposes of this addendum, "state entity" may include any branch of state government and any political subdivision of the state. "Local entity" may include counties, municipalities, cities, towns, or townships, as well as local public authorities or districts (including conservation districts or regional planning districts), organizations representing local governments, or watershed organizations. After a Bay watershed jurisdiction or other grantee is awarded most effective basins funding, they are expected to provide this funding directly to support implementation projects, or through contracts or subgrants to state and/or local entities, based on the state and local entities' ability to reduce nitrogen loads from the agricultural sector through implementation of BMPs with the greatest effectiveness in reducing nitrogen; and, to the maximum extent possible, in the effective basins identified in Table 2 in this addendum. Where work in these most effective basins may not be immediately feasible, a grant recipient should contact the CBPO Project Officer for guidance on other priority effective basins. Where a jurisdiction chooses to award these funds to state or local entities, Bay watershed jurisdictions must describe in their grant work plan the mechanisms they will use to distribute their share of this funding (see Incorporation into Grant Work Plan on Page 3 for additional details) for implementation of projects in the agricultural sector in these basins.

Implementation activities in the most effective basins will be in support of the 2014 Chesapeake Watershed Agreement, including Bay watershed jurisdictions' Watershed Implementation Plans (WIPs). Jurisdictions should consider funding activities that address the issues raised by EPA in its evaluations of the jurisdictions' final Phase III WIPs, including implementing those

[2] For purposes of this guidance, "local entity" may include counties, municipalities, cities, towns, or townships, as well as local public authorities or districts (including conservation districts or regional planning districts), organizations representing local governments, or watershed organizations that support local government implementation.

agriculture BMPs highlighted by EPA. Jurisdictions should give priority to funding those activities that will accelerate the pace for meeting WIP commitments, address co-benefits beyond just water quality improvements, and/or have the greatest impact on reducing nitrogen loads in the agricultural sector. In deciding which implementation activities to fund, jurisdictions should also consider the timeliness and cost-effectiveness of the activities in contributing to nitrogen reduction.

Jurisdictions should consider this funding for "shovel-ready" projects. In certain circumstances funds may be allowed to be directed toward implementation projects that require engineering, design, and permitting costs, which will require the approval of the EPA Project Officer and CBPO Director or Deputy Director. These funds are not to be used to fund agency personnel costs.

The following priority BMPs should be targeted for implementation:

- Tillage Management - High, Low, Conservation
- Alternative Crops - Switchgrass, Carbon Sequestration
- Horse Pasture Management
- Sorbing Materials in Agriculture Ditches
- Wetland Restoration – Headwater or Floodplain
- Prescribed Grazing
- Retirement of Highly Erodible Land
- Manure Incorporation/Injection
- Manure Transport to lands for application at agronomic rates according to a nutrient management plan; to lands for reclamation purposes; or to manure treatment or waste to energy facilities
- Barnyard and Feedlot Runoff Abatement Controls
- Cover Crops, not manured/not fertilized
- Livestock Exclusion Measures, including stream fencing, stream crossings, off-stream watering, pasture fencing with forest and grass buffers
- Streamside/Riparian Forest and Grass Buffers in agricultural areas
- Implementation of Nutrient Management practices such as precision agriculture practices that ensure the right rate, timing, and placement of nutrients on cropland to minimize nutrient losses
- Implementation of Soil and Water Conservation Plans

Jurisdictions are expected to be able to track BMP implementation activities they fund with this money. They should submit these practice implementation data to CBPO through the National Environmental Information Exchange Network (NEIEN), in accordance with Attachment 6 of the December 2020 grant guidance. Jurisdictions should use their existing CBRAP funding if they need to improve tracking, verification, and reporting of these implementation activities.

F. INCORPORATION INTO GRANT WORK PLAN

Jurisdictions will need to incorporate the most effective basins funding into their CBIG grant work plan. In some cases, EPA may consider adding this funding to a jurisdiction's Chesapeake CBRAP grant. Jurisdictions should include this funding as a new objective or objectives in the

work plan for the most effective basins funding (see Attachment 4, Work Plan Template in the December 2020 grant guidance). This part of the addendum describes the information EPA expects jurisdictions to include in the most effective basins objective of their work plan. This information is in addition to what is included in the Attachment 4, Work Plan Template and within the Work Plan section starting on page 26 of the grant guidance.

The Narrative Summary of Outputs for this objective should briefly describe the state-based implementation work in the most effective basins that will be accomplished with this funding and how the funding will be used in a timely manner. Jurisdictions should also describe how they will decide to distribute this funding to state and/or local entities if they choose to do so. This includes describing what criteria or mechanisms they will use to select state and/or local entities for funding through subgrants or contracts.

EPA expects work plans to include well-defined and measurable outputs related to meeting the goals and outcomes under the 2014 Chesapeake Watershed Agreement and, where applicable, to addressing issues raised by EPA in its evaluations of the jurisdictions' final Phase III WIPs. The work plan should include near-term outputs for state-based implementation activities in the most effective basins.

Other areas of the most effective basins objective should follow the grant guidance finalized in December 2019 and Attachment 4, Work Plan Template. For questions, jurisdictions should contact their EPA project officer.

Table 1 – Fiscal Year 2020 Most Effective Basin Allocation per Jurisdiction

Jurisdiction	Phase III WIP Ag Nitrogen Commitment (million pounds)	Percent of Total Nitrogen Commitment Proposed	MEB Funding Allocations ($)
DC	0.0	0.00	-
DE	2.2	6.08	$ 364,540
MD	4.2	11.60	$ 695,940
NY	0.5	1.33	$ 79,536
PA	22.3	61.59	$ 3,695,112
VA	6.7	18.50	$ 1,110,191
WV	0.3	0.91	$ 54,681
Totals	36.2	100.00	$ 6,000,000

Table 2 – Most Effective Basins Ranked by TN Effectiveness

Rank	Jurisdiction	State Rivers	TN Effectiveness
1	PA	York Indian Rock Dam	23.68
2	PA	Black Creek	18.97
3	PA	Safe Harbor Dam	18.83
4	PA	Codorus Creek	18.27
5	PA	Little Swatara Creek	17.67
6	PA	Chickens Creek	17.08
7	PA	Conestoga Creek	16.74
8	PA	Pequea Creek	16.09
9	PA	Deer Creek	15.55
10	PA	Catawissa Creek	15.42
11	PA	Mill Creek	15.30
12	PA	Shamokin Creek	15.26
13	PA	Codorus Creek West Branch	15.16
14	PA	Mahanoy Creek	15.12
15	PA	Nescopeck Creek	15.04
16	MD	Jones Falls	14.95
17	PA	Swatara Creek	14.89
18	PA	Roaring Creek	14.88
19	PA	Mahantango Creek	14.74
20	MD	Little Pipe Creek	14.74
21	PA	Octoraro Creek	14.72
22	WV	Stony River	14.51
23	MD	Deer Creek	14.46
24	PA	Alvin R. Bush Dam	14.28
25	PA	Sinnemahoning Creek	14.18
26	PA	Middle Creek	14.12
27	PA	Cocalico Creek	14.04
28	PA	East Licking Creek	13.96
29	PA	Buffalo Creek	13.95
30	PA	Tuscarora Creek	13.93
31	WV	Mt. Storm Power Station Dam/StoRiver Dam	13.92
32	PA	Larrys Creek	13.91
33	PA	Wiconisco Creek	13.87
34	MD	Bloomington/Jennings Randolph	13.67
35	PA	Codorus Creek South Branch	13.63
36	PA	Wills Creek	13.31
37	PA	Fishing Creek	13.31
38	PA	Juniata River	13.28

39	MD	Tonoloway Creek	13.17
42	VA	Lower Eastern Shore Tidal Drainage	12.94
60	WV	Potomac River North Branch	12.09
67	VA	Pocomoke River	11.73
83	DE	Lower Eastern Shore Tidal Drainage	10.90
86	NY	Owego Creek	10.71
88	DE	Nanticoke River	10.66
103	VA	Great Wicomico River	10.11
118	DE	Middle Eastern Shore Tidal Drainage	9.59
121	NY	Tioughnioga Creek	9.44
125	NY	Tioughnioga River West Branch	9.26