



## **Chesapeake Bay Program**

*Science. Restoration. Partnership.*

### Agriculture Workgroup

## Prioritization Matrix for 2018-2019 Work Plan

*Based on Feedback from AgWG Membership*

### **Scope and Purpose**

*The charge of the Agriculture Workgroup is*  
to provide expertise and leadership on development and implementation of  
policies, programs, and research



to reduce pollutant loads delivered from agricultural lands and animal  
operations to upstream waters and the Chesapeake Bay

## **Areas of Focus**

### **Implementation**

Taking state and county watershed implementation plans from theory to on-the-ground practices.

### **Verification**

Ensuring that Best Management Practices are accurately reported to the Chesapeake Bay Program for credit towards water quality goals.

### **Phase 6.0 Model Updates**

Ensuring that the agricultural sector is represented in the most accurate terms available in the Phase 6.0 Watershed Model.

### **Innovative Practices/Approaches**

Keeping up-to-date on and incorporating, when appropriate, new practices and approaches that have been proven effective in addressing the challenges to water quality improvement in the Chesapeake Bay watershed.

### **Climate Change**

Addressing the key components of the agriculture sector's role in adaptation to, and mitigation of, climate change.

## Prioritization Considerations

### *Impact Factor*

| <b>High</b>   | <b>Medium</b>   | <b>Low</b>   |
|---|---|--|
| Will <u>significantly aid</u> in achieving the charge of the Workgroup. | Will <u>aid</u> in achieving the charge of the Workgroup. | Will <u>potentially aid</u> in achieving the charge of the Workgroup now or into the future. |

### *States/Regions Incorporated*

Efficient and effective use of funding and resources should take into account the applicability of a prioritized item across the watershed. It may be preferable to prioritize items that influence a broader swath of the watershed. However, there may be cases where the impact factor for an item that applies to a small portion of the watershed is high enough that it can be considered high priority in the pursuit of improved water quality for the Bay and its many tributaries.

### *Resource Requirements*

| <b>High</b>  | <b>Medium</b>                                       | <b>Low</b>                             |
|--|---|--|
| Funding, time dedicated, or both, will be substantial. | Funding, time dedicated, or both, will be moderate. | Money, time, or both are not an issue. |

### *Priority Level*

| <b>High</b>                          | <b>Medium</b>                       | <b>Low</b>  |
|--------------------------------------|-------------------------------------|---|
| Imperative to AgWG Scope and Purpose | Important to AgWG Scope and Purpose | Relevant to AgWG Scope and Purpose but without urgency. |

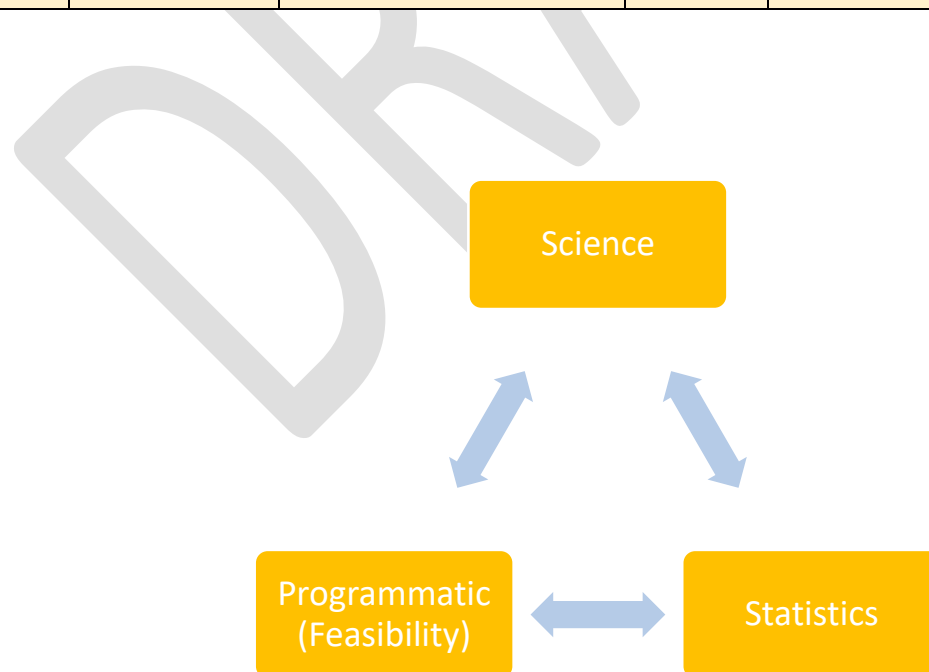
## Implementation

| Topic                      | Sub-topic   | Related Issues   | Possible Speakers/Resources  | Impact Factor | States/Regions Incorporated | Resource Requirements                   | Priority Level |
|----------------------------|---|--|--|---------------|-----------------------------|---|----------------|
| Communication              | Farmer buy-in   | Social & Cultural/Economic   | soil conservation districts  | High          | ALL                         | ?                                       |                |
|                            | Education and outreach                                  | Farmer input   | soil conservation districts  | High          | ALL                         | ?                                       |                |
|                            | Farmer input  | Education and outreach   | soil conservation districts; Farm Bureau; Industry Associations                | High          | ALL                         | ?                                       |                |
| Barriers                   | Economic  | Impact on Farmers; Farm Crisis Management; cost share affordability      | soil conservation districts reps; farmer/operators ; ag focused social workers | High          | ALL                         | ?                                       |                |
|                            | Social & Cultural                                       |  |  | High          | ALL                         | ?                                       |                |
|                            | Leased land   | Formalizing of lease agreements  | Sarah Everhart, UMD  | ?             | ALL                         | ?                                       |                |
| Opportunities              | Focusing BMP implementation to maximize load reductions | Use of remote sensing technology; GIS mapping; water monitoring stations | USGS; CBPO;  | High          | ALL                         | Analysis in progress and data available |                |
| Resources                  | Technical Assistance                                    | State Level; Federal Level; BMP crosswalks/definitions                   | Various states, NRCS, NGOs, citizen groups, CBPO                               | High          | ALL                         | n/a                                     |                |
|                            | Cooperative Agreements                                  | Land Grant Universities, EPA funding sources                             |  | High          | ALL                         | n/a                                     |                |
| Cross-Sector Collaboration | Forestry Workgroup                                      | Riparian Forest Buffers  | CBPO Workgroup Coordinators and  |               | ALL                         | ?                                       |                |

|                                 |                               |   |   |  |     |  |              |
|---------------------------------|-------------------------------|---|---|--|-----|--|--------------|
|                                 | Toxic Contaminants Workgroup  | STAC Workshop: Contaminants of Concern in Agricultural Settings   | members, state/county agency reps, NGOs |  | ALL |  |              |
|                                 | Wetlands Workgroup            | Non-tidal Wetland Rehabilitation, Enhancement, and Creation BMP Expert Panel                                    |   |  | ?   |  |              |
|                                 | Trading and Offsets Workgroup |   |   |  | ?   |  |              |
|                                 | Climate Resiliency Workgroup  | Carbon Sequestration; modified BMP efficiencies   |   |  | ALL |  |              |
|                                 | Co-benefits of BMPs           | Cross-reference to Model Inputs   |   |  | ALL |  |              |
| WIP Development/ Implementation |                               | BMP Co-benefits; idea-sharing across jurisdictions; NEIEN; CAST; maximize load reductions; Technical Assistance | State and county-level reps; CBPO staff |  | ALL |  | AgWG Support |

## Verification

| Topics              | Sub-topic                   | Related Issues  | Possible Speakers/Resources              | Impact Factor | States/Regions Incorporated | Resource Requirements | Priority Level             |
|---------------------|-----------------------------|---|--|---------------|-----------------------------|-----------------------|----------------------------|
| AgWG vs. EPA role   |                             | QA/QC methods;  |  |               | ALL                         |                       | EPA with individual states |
| State Approaches    |                             | Cross-jurisdictional idea-sharing                       | State and county-level reps;             |               | ALL                         |                       | Lessons learned approach   |
| Alternative Methods | Transect Survey             | QA/QC; Statistical significance; emerging technologies; | State and county-level reps; CBPO staff; |               |                             |                       |                            |
|                     | Remote Sensing              |   |  |               |                             |                       |                            |
|                     | Producer/Farmer Self-Survey |   |  |               |                             |                       |                            |
| Resources           | Technical Assistance        | Funding and logistics for verifying BMPs                | State and county-level reps; CBPO staff  |               |                             |                       |                            |
|                     |                             |   |  |               |                             |                       |                            |



## Phase 6.0 Model Inputs

| Topics            |   | Sub-topic  | Related Issues                    | Possible Speakers/Resources   | Impact Factor | States/Regions Incorporated | Resource Requirements     | Priority Level   |
|-------------------|---|--|-----------------------------------|---|---------------|-----------------------------|---------------------------|------------------|
| BMP Expert Panels | In Progress   | Cropland Irrigation Management                               |                                   | Expert Panel Chairs, AgWG technical advisor; NRCS; soil conservation districts reps | W             | MD; DE;?                    | n/a                       | Forthcoming 2018 |
|                   |   | Agricultural Ditch Management                                | Wetland Expert Panel              |   | ?             | MD; DE;?                    | n/a                       | Forthcoming 2018 |
|                   |   | Animal Mortality Management (RFP published)                  |                                   |   | ?             |                             |                           | Forthcoming 2019 |
|                   | Establishing Re-evaluate (Previous Reports > 5 years old) | Nursery Capture and Reuses (ad hoc group creating EP charge) |                                   |   | ?             | ALL                         | LGU Cooperative Agreement | Medium           |
|                   |   | Pasture Management Conservation Planning                     | Weiner-Simpson Report 2009 report |   | ?             |                             |                           | Medium           |
|                   | BMP Life-Spans vs. CBP Credit Duration                    |  | NRCS; CBPO staff                  |   | Medium        | ALL                         | Medium                    | High             |
|                   |   |  |                                   |   |               |                             |                           |                  |

|                           |                             |   |  |  |      |  |      |
|---------------------------|-----------------------------|---|--|--|------|--|------|
| Crediting Load Reductions | NRCS 1619 Privacy Agreement |   | NRCS; CBPO staff                               |  | ALL  |  | High |
|                           | BMP mapping in CAST         | BMP crosswalks; Technical Assistance  | CBP Funding; NRCS; CBPO staff                  |  | ALL  |  |      |
|                           | Non Cost-Share BMPs         | Practices not picked up in agency record-keeping; Resource Improvement BMPs   | NRCS; CBPO staff; NGOs; farmer/operators; SCDs |  |      |  | High |
|                           | Manure Transport            | Transport occurring outside the bounds of state-subsidized programs may not be tracked effectively for credit; state programs may not provide |  |  | ALL? |  |      |
|                           | Soil Phosphorus             | Management Board Path Forward (Sept 21, 2017)   | CBPO staff;                                    |  | ALL  |  |      |



|      |  |   |             |  |                |  |  |
|------|--|---|-------------|--|----------------|--|--|
| Data | Manure and Litter Nutrient Concentrations                          | Nutrient Concentrations (Broiler, Swine, Turkey, Dairy); public confidence in model         |             |  | State-by-State | Potential for assistance from industry |  |
|      | Manure and Litter Nutrient Concentrations Production (Populations) | Sampling-Compare National ASTM sampling & analysis procedures to operator-retrieved samples |             |  | State-by-State | Potential for assistance from industry |  |
|      |  | (Broiler, Swine, Turkey, Dairy); public confidence in model                                 |             |  | State-by-State |  |  |
|      | Fertilizers  | County-level distribution data; public confidence in model                                  | CBPO staff; |  |                |  |  |
|      | Soil and Manure Analysis   | Regional data management standards; Watershed-wide, county-                                 |             |  | ALL?           |  |  |

|  |  |                                     |  |  |  |  |  |
|--|--|-------------------------------------|--|--|--|--|--|
|  |  | level<br>database to<br>track trend |  |  |  |  |  |
|--|--|-------------------------------------|--|--|--|--|--|

## Innovations

| Topics                               | Sub-topic  | Related Issues  | Possible Speakers/Resources                 | Impact Factor | States/Regions Incorporated | Resource Requirements |   |
|--------------------------------------|--|---|---|---------------|-----------------------------|-----------------------|---|
| Nutrient Application Recommendations | Partnering with Regional Land Grant Universities | Updating nutrient application recommendations based on the newest research                  | Academic researchers; USDA-ARS; CBPO staff  |               | ?                           | ?                     | ? |
| Precision Agriculture                |  | Newest technology for efficient planting, harvesting, and nutrient application; 4 R's       | Tulane Grand Challenge (Nitrogen reduction) |               |                             |                       |   |
| Soil Health                          |  | Carbon Sequestration; conservation tillage; erosion; inter-row mowing for weed suppression; |   |               | ALL                         | ?                     |   |

|                           |  |  |                       |  |   |  |   |
|---------------------------|--|--|-----------------------|--|---|--|---|
|                           |  | cover crops; soil health as BMP; Updated BMP efficiencies  |                       |  |   |  |   |
| Pay-for-Performance       |  | Economic incentivizing through market valuation of BMPs; economic barriers                                 | Winrock International |  | ? |  | ? |
| Discovery Farms (Midwest) |  | farmer-led research and outreach program focused on the relationship between agriculture and water quality |                       |  |   |  |   |

## Climate Change

| Topics               | Sub-topic              | Related Issues            | Possible Speakers/Resources | Impact Factor | States/Regions Incorporated | Resource Requirements |  |
|----------------------|------------------------|---------------------------|-----------------------------|---------------|-----------------------------|-----------------------|--|
| Impacts              |                        | Climate-Resilient Farming | NY- Greg Albrecht           |               | All                         | ??                    |  |
| Carbon Sequestration | Conservation Practices |                           |                             |               |                             |                       |  |

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