

- The following document may have slightly different final language to accommodate the AgWG's input and decision making process.
- We would request the following **decision**:
 - The AgWG is asked to approve the proposed Agricultural Modeling Team Phase 7 charge and call for nominations.

Agricultural Modeling Team (AMT) Phase 7: Charge and call for nominations

BACKGROUND:

The Chesapeake Bay Program is in the process of updating its suite of modeling tools, including the Watershed Model (WSM) which is used to estimate pollution reductions in the Chesapeake Bay Watershed. This process will require technical knowledge to improve model data inputs for agriculture between now and 2025. The current Agriculture Workgroup (AgWG) lacks the capacity to adequately address these data issues. Therefore, an Agricultural Modeling Team (AMT) is necessary to ensure the best data inputs are used for the WSM.

CHARGE:

The AMT will provide agricultural modeling assistance to support the (AgWG) through the development of the Phase 7 (WSM) inputs.

FUNCTIONS:

Support will be accomplished by providing the capacity for in-depth analyses of agricultural items of interest brought forward by the partnership. From these in-depth analyses, technical decisions will be made regarding the processing of input data in the Phase 7 WSM. The functions of the group will be to:

- Review data preprocessing methods and agricultural inputs to ensure that Phase 7 WSM utilizes the best available information to reflect agricultural conditions in the watershed and how they change through time.
- Review current [Phase 6] WSM assumptions related to the applications of nutrients on agricultural lands and determine if changes are appropriate for Phase 7. Several examples of relevant topics include: manure and fertilizer nutrient inputs; legume fixation; crop application goals; cover-factors for RUSLE*; climate change considerations; and soil phosphorus data.
- Consider land use/load source category changes.
- Coordinate with USDA agencies to identify analysis methods and agricultural databases.
- Make decisions on what the most appropriate agricultural input data are for the Phase 7 WSM.

*RUSLE or the Revised Universal Soil Loss Equation estimates soil loss from rill and interrill erosion caused by rainfall on cropland.

MEMBERSHIP:

Membership on the AMT is for individuals with an expertise in agricultural systems, the application/storage of both manure and fertilizer, as well as agricultural nutrient modeling data within the Chesapeake Bay watershed. **More detailed fields of expertise can be seen in Table 1 below.**

Table 1. Specific areas of expertise desired for participation on the AMT. (Please note the following is not a comprehensive list and the AMT is open to other expertise.)

| Agricultural systems | Application/storage of both manure and fertilizer | Agricultural nutrient modeling data within the Chesapeake Bay watershed |
|---|--|--|
| <ul style="list-style-type: none">• Bovine• Equine• Hogs• Poultry• Livestock Feed• Row crop• Hay and Ag Open Space• Pasture and Riparian Pasture• Specialty Crops | <ul style="list-style-type: none">• Storage and handling• Transport• Nutrient Management• Soil Phosphorus• Nutrient volatilization | <ul style="list-style-type: none">• CAST• SPARROW• USDA• Land Use• Data management• Model My Watershed• Climate change |

AMT membership will consist of 12 voting members with potential for alternates to be identified. Voting members will be the AMT chair, representatives from the six signatory states of the Chesapeake Bay Program Partnership, the EPA, and four at large positions (Table 2.). To empower non-signatory partners in the decision-making process, priority for at-large membership will be reserved for federal agencies, and academic institutions with relevant experience as listed in table 1. (***NOTE. If a person is currently a voting representative of the AgWG they cannot be a voting member of the AMT.**)

| Table 2. AMT voting member structure. | | |
|---------------------------------------|----------------|------------------|
| <u>Affiliation</u> | <u>Primary</u> | <u>Alternate</u> |
| Chair | | NONE |
| Delaware | | |
| Maryland | | |
| New York | | |
| Pennsylvania | | |
| Virginia | | |
| West Virginia | | |
| U.S. EPA | | |
| At Large | | |
| At Large | | |
| At Large | | |
| At Large | | |

Due to the scientific foundation for decisions within this group we would encourage all interested parties to review ethical considerations found in the [CBP Governance document](#), like conflict of interest. Nominated members must not represent entities with potential conflicts of interest, such as entities that could receive a financial benefit from changes to agricultural inputs. Those nominated to serve on the AMT are asked to identify any potential financial or other conflicts of interest prior to serving on the group.

| Table 3. General member time commitment breakdown | |
|---|---------------------------|
| Activity | Time commitment (Hrs/Mo.) |
| Meeting preparation | 4 |
| General activities | 4 |
| Monthly meetings | 2 |
| TOTAL | 10 |

Voting member nominations will be submitted by the AgWG or directly recruited by the AMT coordinator. Nominees will be asked to submit their CV or resume, and a signed [conflict of interest document](#). These documents can be submitted to Butler.Thomas01@epa.gov and will be vetted and approved by the AgWG. At large membership will be determined by the level of endorsement from the AgWG voting members. The AMT coordinator will directly contact approved nominees to describe member responsibilities and determine the nominee's area(s) of expertise, willingness, and availability to serve on the group.

AMT general members will be expected to spend approximately 10 hours a month on the AMT, see the breakdown in Table 3. Members will be expected to engage in group activities for a term of approximately two years but can refresh their term with AMT approval. The AMT chair will be voted on by the general members at the first meeting of the AMT and as needed thereafter. This nomination will then be reported back to the AgWG for approval or rejection. The chair will be expected to contribute approximately 20 hours a month to the AMT a further breakdown is seen in Table 4. The chair will be expected to commit to a term of two years.

| Table 4. Chair time commitment breakdown | |
|--|---------------------------|
| Activity | Time commitment (Hrs/Mo.) |
| Meeting preparation | 6 |
| General activities | 4 |
| Monthly meetings | 2 |
| Meeting agendas | 2 |
| Direct group work | 4 |
| Preparatory meetings | 1 |
| Post meeting briefs | 1 |
| TOTAL | 20 |

The AMT will strive to have a broad representation of expertise across all jurisdictions to ensure a balanced perspective. Additional experts or stakeholders will be consulted by the AMT as needed

according to the topic, but consensus decisions will reflect the views of the members. To facilitate effective operations and decision-making, the group's membership will consist of approximately 12 members. Throughout the group's discussions, members are expected to provide their input in a timely manner and engage as needed based on their respective role and expertise.

A list of voting individuals will be periodically updated on the [AMT Phase 7](#) web page.

TOPICS:

A list of [preliminary topics](#) was identified from the [CAST Issue Tracker](#), previous STAC workshops, and expert opinions. Due to the changing needs of both the AgWG and CAST, the AMT coordinator will make a monthly report to the AgWG and determine if any new topics of interest should be considered. In addition, a nonvoting seat within the AMT will be reserved for the AgWG coordinator should they wish to bring up any new topics for consideration. New topics will be added to the groups list as lower priority items to be completed as time allows. The exception to this is if the AgWG, or other higher-level group, assigns the new topic as being the highest priority. In this case the AMT will stop evaluating all other items and focus on the new topic. The list of current topics can be found on the [AMT Phase 7](#) webpage.

GOVERNANCE:

This group will operate on a [consensus based](#) decision making process outlined in the [CBP Governance and Management Framework document](#). This means that the AMT will work to make decisions related to agricultural data inputs as a stand-alone entity. If no decision can be reached the item will revert to its phase 6 status quo unless voting members choose to advance the topic to the AgWG for review. To ensure transparency in decision making meetings will be open to the public. All group materials will be posted to the AMT webpage. Decisions will be recorded in minutes and in the Phase 7 CAST documentation.

TIMELINE (Tentative):

- July 21st, 2022 – AgWG will review, and approve finalized charge and tasks for AMT
 - Nomination's process will begin. (Please include name, contact info, and CV/resume)
- August 18th, 2022 – Deadline to submit AMT nominations to Tom Butler
Butler.Thomas01@epa.gov
- August 18th to September 15th, 2022- Seek AgWG approval of proposed AMT membership
- October 2022 (tentative)- Mandatory Immersive Workshop to introduce materials, discuss charge, and set a timeline
- November 2022 through 2026 – Hold monthly AMT meetings