# Agricultural Modeling Team (AMT) Structure and Decision Making

Tom Butler, EPA

# Outline

Organization

Roles and commitments

Focus Topics

Decision making

# Structure



**Chesapeake Executive Council**

**Principals' Staff Committee**

**Management Board**

**Goal Implementation Teams**

| Sustainable Fisheries | Habitat |
| --- | --- |
| Water Quality | Maintain Healthy Watersheds |
| Fostering Chesapeake Stewardship | Enhance Partnering, Leadership and Management |

**Workgroups and Action Teams** −

- Agriculture Workgroup
- BMP Expert Panels
- BMP Verification Ad-hoc Action Team
- Best Management Practices (BMP) Verification Committee
- Federal Facilities Workgroup
- Forestry Workgroup
- Land Use Workgroup
- Local Planning Goals Task Force
- Milestones Workgroup
- Reevaluation Technical Workgroup*
- Sediment Workgroup*
- Toxic Contaminants Workgroup
- Trading and Offsets Workgroup
- Urban Stormwater Workgroup
- Wastewater Treatment Workgroup
- Watershed Technical Workgroup

**Agricultural Modeling Team**

- Under Agriculture Workgroup
- Science based
- Consensus as defined by the Water Quality GIT

# Expertise

**\*\*Represent technical expertise\*\***

| **Agricultural systems** | **Application/storage of both manure and fertilizer** | **Agricultural nutrient modeling data within the Chesapeake Bay watershed** |
|---|---|---|
| • Bovine<br>• Equine<br>• Hogs<br>• Poultry<br>• Livestock Feed<br>• Row Crops<br>• Hay and Ag Open Space<br>• Specialty Crops<br>• Pasture and Riparian Pasture | • Storage and handling<br>• Transport<br>• Nutrient Management<br>• Soil Phosphorus<br>• Volatilization | • CAST<br>• SPARROW<br>• USDA<br>• Land Use<br>• Data management<br>• Model my watershed<br>• Climate change |

# Group Structure

12 voting members

- Chair
- Six states
- EPA
- Four at large positions

*NOTE*

We ENCOURAGE participation from nonvoting members.

# AMT Voting Structure

| Affiliation | Primary | Alternate |
|---|---|---|
| Chair | Zach Easton, VT | None |
| Delaware | Chris Brosch (DDA) | Clint Gill (DDA) |
| Maryland | Alisha Mulkey (MDA) | None |
| New York | Cassie Davis (NYS DEC) | Emily Dekar (Upper Susquehanna Coalition) |
| Pennsylvania | Scott Heidel (PA DEP) | Kate Bresaw (PA DEP) |
| Virginia | Robert Shoemaker (VA DCR) | Rebecca Barlow (VA DCR) |
| West Virginia | Dave Montali (Tetratech) | Kristen Bisom (WV Conservation Agency) |
| U.S. Environmental Protection Agency | Jeff Sweeney (EPA) | None |
| At Large | Ken Staver, UMD | None |
| At Large | Tamie Veith, USDA-ARS | Curtis Dell, USDA-ARS |
| At Large | Candiss Williams, USDA-NRCS | Lisa Duriancik, USDA-NRCS |
| At Large | Alex Soroka, USGS | None |

# AMT Non-Voting Structure

| Affiliation | Primary | Alternate |
|---|---|---|
| *Modeling | Gary Shenk USGS | None |
| *CAST | Olivia Devereux, Devereux Consulting | Jessica Rigelman, J7llc. |
| *CAST Data Processing Expert | Sucharith Ravi, UMD | None |
| *CBP Ag Advisor | Mark Dubin, UMD | None |
| *CBP NPS Expert | Ruth Cassilly, UMD | None |
| * Staffer | Jackie Pickford, CRC | None |
| *Coordinator | Tom Butler, EPA | None |
| * AgWG Coordinator | Loretta Collins, UMD | None |

# General member estimated commitment

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

# Chair estimated commitment

| Table 3. 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 |

# Partnership Requested Topics

| CROP | ANIMAL | MANURE | INORGANIC FERTILIZER | MODELING |
|---|---|---|---|---|
| Crop nutrient application | Reevaluate animal types | Dissolved Air Flocculants (DAF) | Soil and Water Extractable Phosphorus | Nutrient Application |
| Agricultural plant categories | Feeding operations | Manure Storage | Fertilizer breakdown | Land Use |
| Legume nitrogen fixation | Animal mortality | Nitrogen mineralization | Revisit AAPFCO NH4 to NO3 | Cover factors |
| Timing of crop nutrient applications | Size | Transport | Biologicals | Evaluation of alternative agricultural data sources |
| Nutrient use Efficiency | Feeding additives | Storage and handling losses | | Model Structure |
| Double cropping | | | | |
| Climate change effects on crop types | | | | |
| Crop uptake vs removal | | | | |

# Structure (Consensus)

**The AMT will make decisions itself**

1) Discuss item

2) Form Proposal

3) Call for consensus

4) Identify and address concerns

5) Modify proposal

# Consensus Continuum

| Stop | Hold | Stand Aside | Agreement with Reservations | Endorsement |
|---|---|---|---|---|
| "I do not agree and feel the need to stand in the way of this decision" | "I believe more work is needed before we make a decision" | "I trust the group and will not block this decision but need to register my disagreement" | "I can live with it" | "I like it" |

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# Summary

## We will:

- Discuss a data item
- Examine issues associated with it
- Propose solutions
- Decide on the best one

# Questions?

**Discuss Item**

Should a group continue to conduct meetings virtually or switch to in person?

**Form Proposal**

We propose that we should meet in person 100% of the time.

**Call for consensus**

We all agree that 100% of meetings should be in person.

We do NOT all agree that 100% of meetings should be in person

**Reach agreement OR Identify and address concerns**

We will hold 100% of meetings in person!!!

We found out that half the group now lives six hours away.

**Modify proposal**

We propose that 10% of meetings should be in person with 90% being virtually.

**Call for consensus**

We all agree

We do not all agree

**Reach agreement**

We will meet in person 10% of the time and virtually 90% of the time

We will keep all meetings virtual (status quo)

Pass topic to AgWG

# AMT Membership

| Ag Modeling Team Voting members | * = Non-Voting | |
|---|---|---|
| Affiliation | Primary | Alternate |
| Chair | Zach Easton, VT | None |
| Delaware | Chris Brosch (DDA) | Clint Gill (DDA) |
| Maryland | Alisha Mulkey (MDA) | None |
| New York | Cassie Davis (NYS DEC) | Emily Dekar (Upper Susquehanna Coalition) |
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