

### CHESAPEAKE BAY WATERSHED BASIN ISSUES AND STRATEGIES FOR THE ANIMAL PRODUCTION INDUSTRY

Describing Impact of Chesapeake Bay Restoration:  
Total Maximum Daily Loads (TMDL)  
Watershed Implementation Plan (WIP)  
Events from 2011-2025

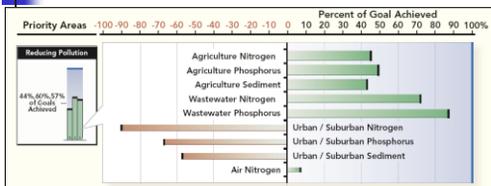
James L. McNaughton, Ph.D.  
AHPPharma, Inc.  
116 W. Chestnut Street  
Salisbury, MD 21801



#### Where is the Poultry Industry in this process:

- Frankly, after studying EPA TMDL WIP proposals for two years, the Poultry Industry is still confused on how EPA expects to reach their objective of Bay Restoration.
- If implemented as defined by EPA, using their *Computer Model*, Delmarva Peninsula will fall the December 31, 2011 TMDL process. We have deemed the methodology unachievable.
- The Poultry Industry strategy has been to try to understand the complicated TMDL process, developed by EPA and define what BMPs that may be incorporated into the process.
- At least 27 Maryland BMPs have been identified that may help reduce nutrient loading of the Bay. Only 5/27 have been "accepted" by EPA through it's rigorous process.
- Defining economic impact, competitive position alterations, and business sustainability has had little impact with EPA and our politicians in Washington.

#### Bay Restoration Progress for each Pollution Sector



Source: EPA-Chesapeake Bay Program- 2007  
[www.chesapeakebay.net/status\\_restoration.aspx](http://www.chesapeakebay.net/status_restoration.aspx)

**CREATION OF AN ILLUSION of public opinion**  
(Dramatized & Perpetuated by EPA)

Intensive farming practices, in the PRESS,

- = AGRICULTURE in general
- = Chicken farming (on Eastern Shore)
- = Manure piles that covers the entire earth
- = "Agriculture Pollution"
- = Demonization of one segment of Agriculture (i.e., poultry industry)
- = Entire Bay pollution problem

Therefore, EPA and public conclusion is: "We all will die."



4

**Reason for EPA urgency for Bay Restoration**

- In 1998, major portions of Chesapeake Bay were identified as not meeting water quality standards and listed as impaired, even after spending \$6 billion over 25 years.
- **PROBLEM MODEL:** Water Nitrogen (N), Phosphorus (P) and Sediments and *Pollution Sectors* were named as creators of "dead zones" caused by algae growth that reduces dissolved oxygen levels.
- May 2009 President Obama declared, "The Chesapeake Bay a 'National Treasure' and *entrusted in a new era of federal leadership, action and accountability.*" Consequently, EPA has been empowered to develop programs that *ensure accountability.*  
Source: President Executive Order 13508 - Chesapeake Bay Protection and Restoration, May 15, 2009.
- The Bay has recently improved to a Bay Barometer Grade of **C** up from **D** in 1998. This seems to be disappointing to Environmental Groups and EPA, especially since EPA's environmental corrective action has NOT begun.
- To date, no magic bullets have been found; therefore, EPA believes that a broad-approach is essential, regardless of cost.
- EPA's approach is to equally reduce **N** and **P** in all areas rather than the most likely "hot-spots" causes of Chesapeake Bay pollution.

5

**Public/private agencies that will carry out Bay Restoration**

- **Federal:** Environmental Protection Agency (EPA)      Regulatory Assurance/policing  
Department of Interior      Public perception  
USDA      Development of BMPs for TMDL  
Federal politicians      Fund & codify TMDL programs
- **State:** Departments of Environment (6 states & DC)      Will assure access to local land/farms  
Departments of Agriculture (6 states & DC)      Manage local State TMDLs  
State & local politicians      Fund & codify TMDL programs
- **USDA/NRCS:** Specific "friendly" assistance in cost-sharing (EQIP) farming/chicken grower BMPs programs.
- **Public:** Assure that Bay Restoration is the "very top priority" and the Bay is a "national treasure", regardless of economical cost to local businesses.
- **Specific Businesses** (SECTORS that are actually expected to reduce TMDL nutrient loads):  
Animal/Poultry Industry  
Farming/Crop Industry  
Local stormwater runoff & sewer programs  
Urban dwellers (sewer systems)

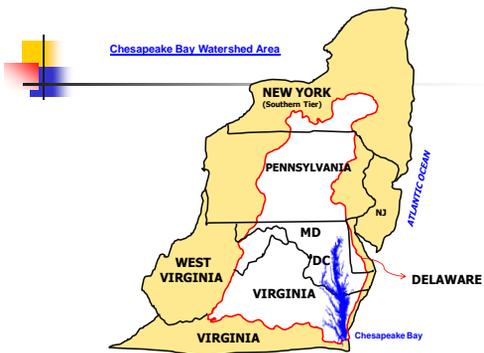


Urban/Suburban



Agriculture

6



7

---

---

---

---

---

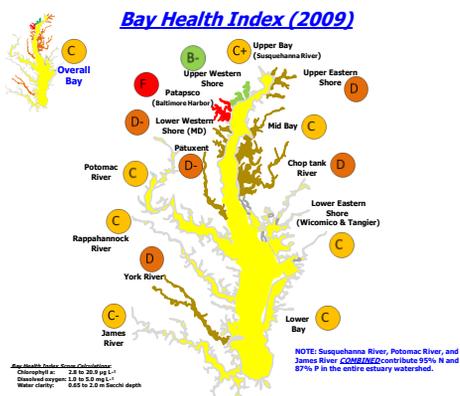
---

---

---

---

---



8

---

---

---

---

---

---

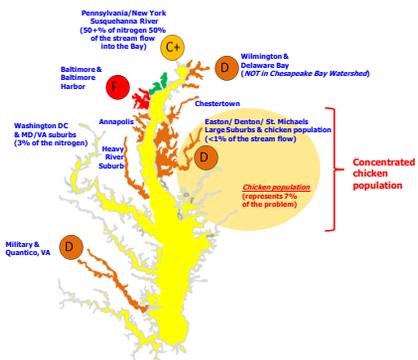
---

---

---

---

**Major Sources for Bay Pollution**



9

---

---

---

---

---

---

---

---

---

---



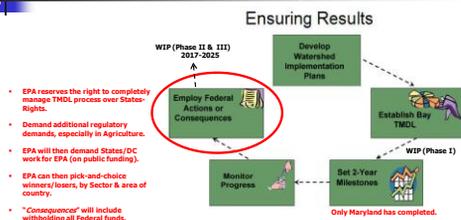


**What EPA has NOT done:**

- Consulted with Poultry Scientists, Poultry Technical Professionals, and Poultry Growers .
- Taken a scientific approach to TMDL and WIP implementation.
- Converted from pollution SECTOR , identified by a Computer Model, to real-time numbers.
- Approved State/DC WIPs , other than MD.
- EPA has NOT "approved" significant numbers of agriculture BMPs and has closed-the-door on additional BMPs being approved during WIP (Phase I), since they DO NOT have time to consider them.
- **LARGEST FLAW:** Recognized that chicken manure, chemical fertilizer and human biosolids are ALL nutrient sources for land application.
- **MOST IMPORTANTLY, to date, EPA has NOT defined Bay Restoration COST.**

16

**EPA Overall Bay Restoration Strategy (due 2017)**



- EPA reserves the right to completely manage TMDL process over State-Rights.
- Demand additional regulatory demands, especially in Agriculture.
- EPA will then demand States/DC work for EPA (on public funding).
- EPA can then pick-and-choose winners/losers, by Sector & area of country.
- "Consequence" will include withholding all Federal funds.

17

**On Delmarva, chicken production will look different in 5-10 years.**

**Reasons:**

- Public's concern over manure land application
- Manure land application will be severely curtailed (and/or eliminated).
- EPAs TMDL demands will increase
- FDA & John Hopkins concerns over antibiotics and arsenic
- Ammonia air emissions standards will increase, especially in WIP (Phase II & III).
- Increased energy savings & use of renewable energy demands.

**How will we get there?**

- Animal-rearing housing will be developed that will reduce/eliminate litter ammonia emissions, reduce litter moisture, manure quality will be improved, and create a better working environment.
- More manure composting, transport to other areas (although this is only short-lived), or manure burning.
- Biosolid usage on chicken farmer land will be BANNED.
- Crop yield will be reduced when chicken manure is used.
- Ultimately, chicken production MAY be eliminated on DMV.

18



**SUMMARY**

- Bay Restoration is an important economic necessity for the Chesapeake Bay Watershed states, Washington DC, and residents.
- The agriculture community hopes that this important goal is achieved fairly across all potential *Pollution Sectors* and across all states within the Bay Watershed.
- Emotionally demonizing one industry just because it is more "*cost-effective*" stands the risk of closing a complete industry and/or rendering it non-competitive both within the US and internationally.
- Only a **SCIENCE-BASED**, non-emotional approach will completely restore our Bay without severe long term damage to local economies.



19

---

---

---

---

---

---

---

---



***Thank You !***

20

---

---

---

---

---

---

---

---