# Chesapeake Bay Program Verification

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# Verification Defined

- The Bay Program has formally defined verification as "the process through which agency partners ensure practices, treatments and technologies resulting in reductions of nitrogen, phosphorus and/or sediment pollutant loads are implemented and operating correctly."

# Verification Framework

- ✓ **BMP Verification Principles**
- ✓ BMP Verification Review Panel
- ✓ Source sector and habitat specific BMP verification guidance
- Practice life spans
- Ensuring full access to federal cost-shared agricultural conservation practice data
- Enhance data collection and reporting of federally cost-shared practices
- Accounting for non-cost-shared practices
- Preventing double counting
- **Clean-up of historical BMP databases**
- **Development and documentation of jurisdictional BMP verification programs**
- **Partnership processes for evaluation and oversight**
- Communications and outreach

# Verification Principals

- Practice Reporting - Affirms that verification is required for practices reported for load reduction credit through the Bay Program.

- Scientific Rigor - Scientifically rigorous and defensible, professionally established and accepted sampling, inspection and certification protocols in balance with cost-effectiveness and prioritization.

- Public Confidence - Calls for transparency in verification processes and the underlying data. Recognizes that levels of transparency will vary.

- Adaptive Management - Recognizes that advancements are integral to assuring desired long-term outcomes. Recognizes existing funding and allows for reasonable levels of flexibility in the allocation of funds.

- Sector Equity - Strive to achieve equity in the measurement of functionality and effectiveness of implemented BMPs among and across the source sectors.

# Clean-up of Historical BMP Databases

- Agriculture
  - DCR VACS Database
  - DCR NutMan Database
  - NRCS?
- Urban
  - Grant RFA to Local governments and PDCs
  - Previously reported BMPs (MS4 & Bay Act Reports, Recent WIP related reporting)
  - MS4 Action Plans
  - Nutrient management database
- Septic/Onsite
  - VDH VENIS Database
- Forestry
- Extractive
- Wastewater
- Federal Facilities

# Documentation of Verification Program

- Cite verification documents for all partners which are actively reporting implementation, which will be reported by the jurisdiction for nutrient and sediment pollutant load reduction credit
- Cite specific references to the BMP verification guidance and procedures
- Describe any variations from verification guidance and procedures
- **Document decisions for verification priorities and BMP grouping**
- **Document verification protocols , how they will be implemented, by whom, and through what programs/mechanisms**
- Document procedures already in place, fully operational, and being routinely carried out
- Document procedures planned for future implementation and programmatic changes necessary to make them fully operational and routinely carried out

# Partnership Processes for Evaluation

- Initial Verification Program Plan - June 30, 2015
- Verification Panel Review – August 7, 2015
- Final Verification Program Plan – October 1, 2015
- Verification Panel Recommendations – October 16, 2015
- Jurisdiction Response – November 16, 2015
- EPA Review and Approval – December 18, 2015
  - "EPA will only approve a jurisdiction's proposed verification protocol, procedure or process if it is fully consistent with and supportive of the Chesapeake Bay Program's adopted verification principles."
  - "An approvable jurisdictional quality assurance plan could also provide a detailed schedule and process for how the proposed verification protocols, procedures, and processes will become fully consistent over time."
- Report to Management Board and PSC – January 2016

# Verification Protocol Design

| A. Sector | B. Data Grouping | C. BMP Type | D. Initial Inspection | | | | E. Follow-up Check | | | F. Lifespan/Sunset | G. Data QA, Recording & Reporting |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | *(Is the BMP there?)* | | | | *(Is the BMP still there?)* | | | | |
| | | | Method | Frequency | Who inspects | Documentation | Follow-up Inspection | Statistical Sub-sample | Response if Problem | *(Is the BMP no longer there?)* | |
| | | | | | | | | | | | |

- General Approach: 100% initial onsite inspection and follow-up checks with sufficient rigor and frequency to ensure BMPs are still there and functioning
- BMP Grouping by Sector and
  - Practice type
  - Implementation process
  - Susceptibility of the practice to failure

# Agricultural BMP Grouping Concept

- State or Federal Cost-Share in contractual period
  - High risk of failure
  - Low risk of failure
- State or Federal Cost-Share out of contractual period or voluntary meeting program design standards
  - High risk of failure
  - Low risk of failure
- Voluntary Resource Improvement practices
  - High risk of failure
  - Low risk of failure
- State or Federal Cost-Share tillage practices or cover crops
- Voluntary tillage practices
- Voluntary cover crops meeting program design standards
- Manure transport
- Nutrient management plans
- Soil conservation and water quality plans

# Urban BMP Grouping Concept

- BMPs installed pursuant to MS4 permit requirement
- BMPs installed pursuant to Bay Act requirement
- BMPs installed pursuant to Construction GP and VSMP requirement
- BMPs installed voluntarily (no program/permit requirement)
  - High risk of failure
  - Low risk of failure
- Homeowner BMPs
- Urban nutrient management plans
- Nutrient management homeowner pledge
- Street sweeping
- Erosion and sediment control (below regulatory threshold)

# Other BMPs Grouping Concept

**Septic/Onsite**

- Pumpouts
- Connection to sewer
- Nitrogen reducing systems

**Forest**

- Forest Harvesting Practices
- Forest Conservation

**Extractive**

- Erosion and Sediment Control on Extractive
- Dirt/Gravel Roads BMPs
- Mine Reclamation

# Verification Program Plan

- Integrate into Existing DEQ Quality Assurance Project Plan (QAPP)
  - Initial Verification Program Plan - June 30, 2015
  - Final Verification Program Plan – October 1, 2015
- Work with State agencies to develop QAPPs or comparable documents for their data
  - DCR
  - DOF
  - VDH
  - DMME
- Work with other data providers to document QA/QC procedures
  - USDA
  - Federal Facilities
  - Local Governments
  - NGOs

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# Verification Questions

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