



Historic Record of Practice Implementation

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Historic Record of Practice Implementation

- For the Phase 5.3.2 Watershed Model, record of implementation covers the period 1985-2011
 - In 1985:
 - NY = Ag
 - PA = Ag and stormwater
 - MD = Ag and stormwater
 - VA = Ag
 - WV = Ag and forestry



Historic Record of Practice Implementation

- Much of the BMP record was a carry-over from the Phase 4.3 Watershed Model which ended with year 2009.
 - Exceptions among jurisdictions and particular BMPs in a jurisdiction
 - In some cases, all available BMP data was assessed and submitted prior to Phase 5 calibration
 - On-the-ground survey was done after Phase 5 calibration – which would revise history

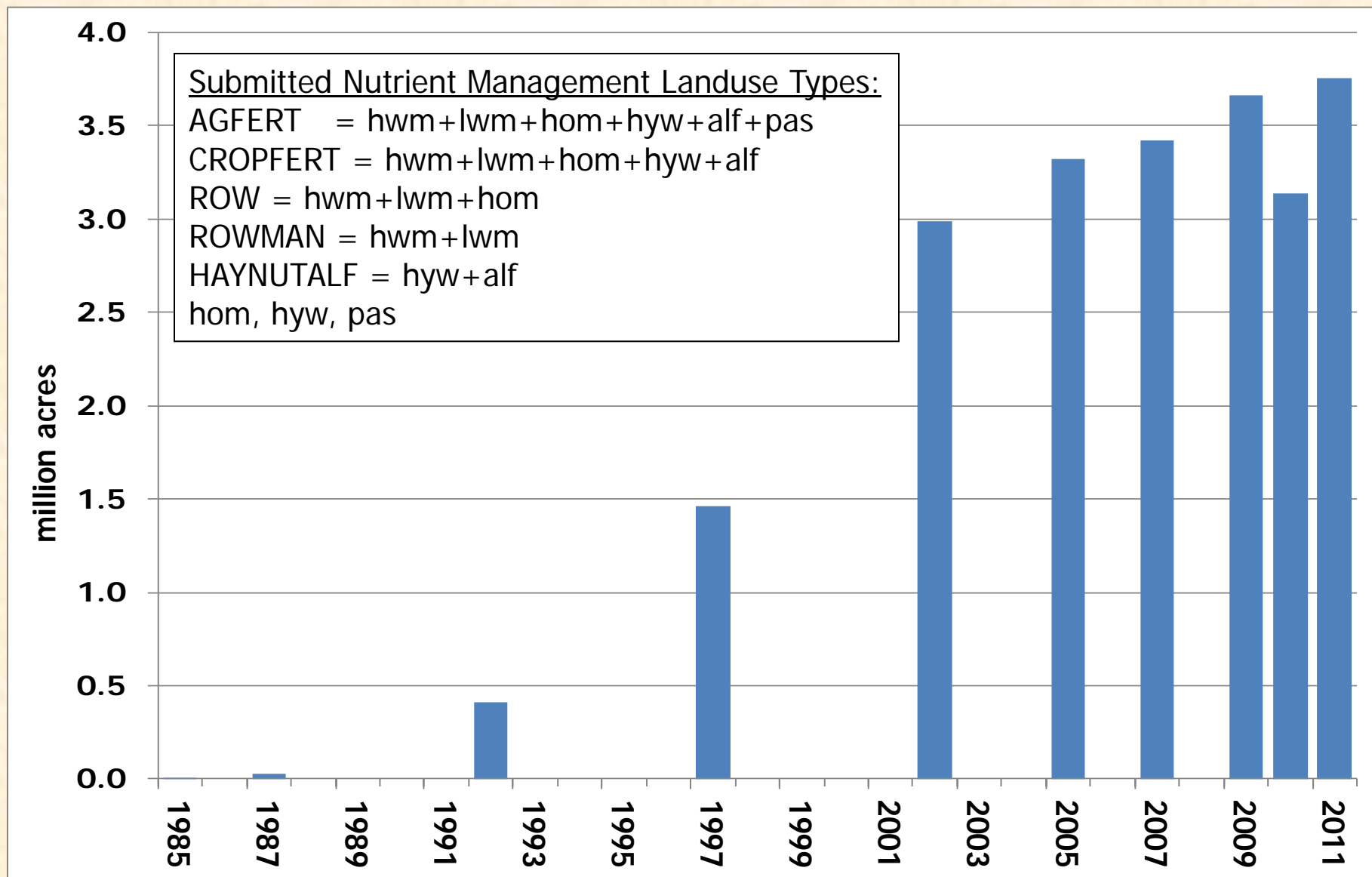


Historic Record of Practice Implementation

- Spatial scale that BMPs were reported at varies among BMP types and years
 - Conversion to county scale from Phase 4.3 to Phase 5 if jurisdiction did not submit comprehensive history
- Landuse types that a BMP applies to can vary among years in a jurisdiction and among jurisdictions



Nutrient Management Plan Submitted Record Chesapeake Watershed-Wide





Historic Record of Practice Implementation

- Need to “clean up” BMP history as best we can
 - Better accounting for changes in monitored loads over time
 - Need to incorporate BMP verification procedures for each sector



Historic Record of Practice Implementation

- Need to “clean up” BMP history as best we can
 - Issue of “cut-off” of implementation in the modeling tools
 - 100% implementation level at the reported scale
 - Watershed Technical Workgroup has considered maximum implementation level in the past, but no consensus agreement
 - WTWG has considered loss of practice in the past due to land conversion, but no consensus agreement
 - Some states consider life-span for some BMPs – others do not



Historic Record of Practice Implementation

- Need to “clean up” BMP history as best we can
 - Issue of “cut-off” of implementation in the modeling tools
 - Not enough acres, systems, AUs, etc. in the tools
 - Supplement data with “local” information but need history and forecast and need to align with, for example, land cover and landuse definitions
 - Landuse Workgroup under WQGIT is jurisdictional priority for Midpoint Assessment.



Historic Record of Practice Implementation

- Options for historic BMP “clean up”
 - For agriculture, NRCS and FSA data supplied to each state from single source in 2012
 - State assurance for single-counting
 - Accommodate federal facilities data
 - Accommodate voluntary practice data
 - Considerable amount of work in regards to verification and “crediting”



Historic Record of Practice Implementation

- Principles and Protocols for Urban BMP Verification

- Urban BMPs – Traditional stormwater, new runoff reduction BMPs, non-structural or operational BMPs, and restoration BMPs
- Regulated BMPs: Phase 1 or 2 MS4 permit with BMP maintenance program and the capacity to inspect within a portion or all of each permit cycle (typically 5 year cycle)
 - Removal Rate Tied to Visual Inspections - Urban BMPs will have a defined time-frame in which the pollutant removal rate applies, which can be renewed or extended based on a visual inspection that confirms that the BMP still exists, is adequately maintained and is operating as designed
- Semi-Regulated BMPs: Installed locally under a state CGP outside MS4 community – not required to have inspection program to enforce maintenance
- Non-regulated BMPs: Voluntarily installed in a non-MS4 community
- Legacy BMPs: Urban BMPs in a community that the state has reported to CBPO for inclusion into any past version of the CBWM
 - Actual BMPs with a geographic address
 - Actual BMPs that lack a specific geographic address
 - Estimated BMPs that were projected based on some assumed level of development activity and compliance with state stormwater regulations
- Discovered BMPs: Any BMP that was installed in the past but was never reported to the state or CBPO
 - Older BMPs installed prior to the establishment of state BMP reporting systems
 - Voluntary BMPs



Historic Record of Practice Implementation

- Draft Agricultural Verification Protocol Concept Version 3.4
 - For all agricultural BMP verification protocol categories, verification procedures must be established that demonstrate an 80% (or greater) confidence level that the subject BMP has been implemented, is currently operational and is being maintained to meet the BMP definition for standards and requirements.



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- **BMP Verification Protocol Category – Verification Method**
 - Permit Issuing Programs - Through on-site permit compliance inspections by trained agency personnel.
 - Regulatory Programs - Through on-site regulatory compliance inspections by trained agency personnel.
 - Financial Incentive Programs - Through on-site contractual compliance inspections by trained agency personnel.
 - Farm Inventory - Through on-site visit by trained personnel while collecting data, check databases; Through on-site visit by trained personnel; Farmer certified during the visit at USDA or governmental office; By farmer self certification when submitted.
 - Office and Farm Records - Trained personnel verify through knowledge of the farm or through calls made to the farmer.
 - Transect Survey - Verified by the trained personnel completing the transect on the ground.
 - CEAP and NASS Survey - NASS certification procedures.
 - Aerial Photography and Remote Sensing - Verification can be same as Aerial Remote Sensing method or by visit to each site to collect and certify data.
 - NRI Point or some other statistically selected sites - NASS certification procedures.



Historic Record of Practice Implementation

- Timeline
 - By mid-2016 for calibration of the next versions of environmental modeling tools for TMDL mid-point evaluation
- How do bring together validation requirements (i.e., timeline) and need for historic BMP record for calibration?
- Resources to complete tasks
 - Please let us know where you need help with this clean-up
 - Tetra Tech
 - CBRAP grants