

Chesapeake Bay Program Partnership's Basinwide BMP Verification Framework: *proving return on investment*

Chesapeake Bay Commission
September 5, 2014



Chesapeake Bay Program
A Watershed Partnership



Verification Definition

“Verification: the process through which agency partners ensure practices, treatments, and technologies resulting in reductions of nitrogen, phosphorus, and sediment pollutant loads are implemented and operating correctly.”

Verification: *proving return on investment*



Why so critically important?

- will confirm our progress under a voluntary approach towards achieving implementation goals; for the first time ever, state's will know what has been accomplished
- translates our “demonstration & education” cost-share programs into “implementation” programs
- promotes permanency for voluntary practices
- modelling Bay clean-up progress requires a “good model” and “accurate input data”, garbage in?

Verification Points

- We need verification of Ag & urban BMPs with or without a Bay TMDL
- Urban practices become part of SW management system (quality & quantity) – MS4 permits
- Ag BMPs are largely voluntary; public cost-sharing creates public expectation
- Can we expect taxpayers to continue to fund BMPs if agencies are unable to confidently report on levels of implementation?

Example: VA Ag cost-share since 1987 >\$212 M (no USDA or producer funds included) Need \$340 M in Bay for FY2016-FY2022 to advance VA WIP for Ag BMPs (state share only)

BMP Verification Life Cycle

BMP no longer present/functional removed from database

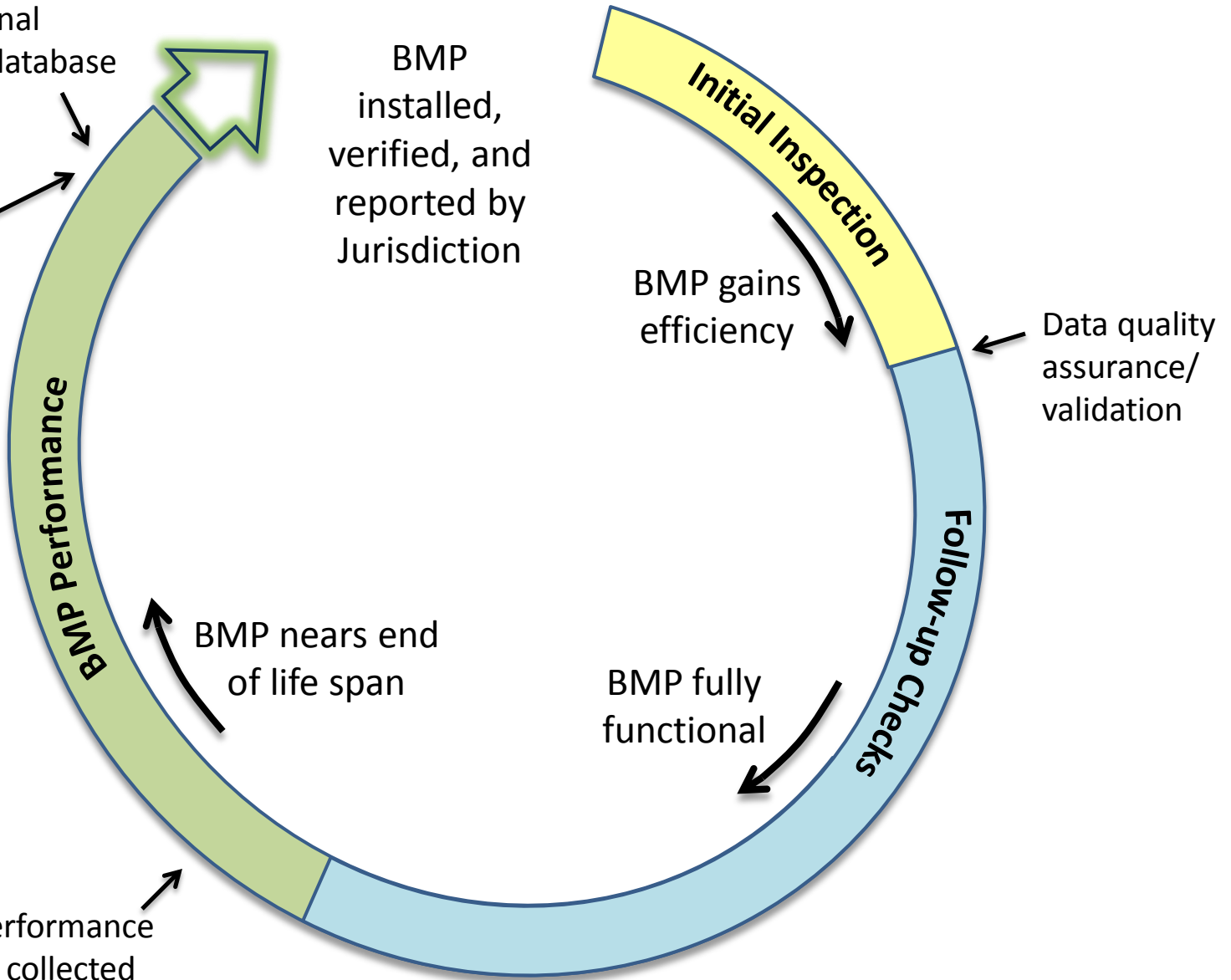
OR

BMP verified/ upgraded with new technology

BMP installed, verified, and reported by Jurisdiction

BMP lifespan ends – re-verify

BMP performance metrics collected



12 Framework Elements

- 1) BMP verification principles
- 2) BMP Verification Review Panel
- 3) Source sector and habitat specific BMP verification guidance
- 4) Practice life spans
- 5) Ensuring full access to federal cost-shared agricultural conservation practice data
- 6) Enhance data collection and reporting of federally cost shared practices

12 Framework Elements

- 7) Accounting for non-cost shared practices
- 8) Preventing double-counting of BMPs
- 9) Clean-up of historic BMP databases
- 10) Development and documentation of jurisdictional BMP verification programs
- 11) Partnership processes for evaluation and oversight
- 12) Communications and outreach

Verification Framework Accomplishments

- ✓ BMP verification principles adopted

Practice Reporting Scientific rigor Public confidence

Adaptive management Sector equity

- ✓ BMP Verification Review Panel convened

- ✓ Source sector verification guidance drafted

*Agriculture *Forestry *Stormwater *Streams

*Wastewater/septic systems *Wetlands

Panel's Recommendations

- Use the Panel's Products
 - Verification program design matrix
 - 14 verification program development decision steps
 - State protocol components checklist
- Address certification/training of verifiers
- Aim high or explain why
- Prioritize verification towards priority practices
- Robust upfront verification yields less intensive follow-up reviews
- Build in time for continuous improvement early

Illustration of Diversity of Verification Approaches Tailored to Reflect Practices

Sector	Inspected	Frequency	Timing	Method	Inspector	Data Recorded	Scale
Stormwater	All	Statistics	<1 year	Monitoring	Independent	Water quality data	Site
	Percentage	Targeting	1-3 yrs	Visual	Regulator	Meets Specs	Subwatershed
	Subsample	Law	3-5 yrs	Aerial	Non-Regulator	Visual functioning	County
	Targeted	Funding	>5 yrs	Phone Survey	Self	Location	State
Agriculture	All	Statistics	<1 year	Monitoring	Independent	Water quality data	Site
	Percentage	Targeting	1-3 yrs	Visual	Regulator	Meets Specs	Subwatershed
	Subsample	Law	3-5 yrs	Aerial	Non-Regulator	Visual functioning	County
	Targeted	Funding	>5 yrs	Phone Survey	Self	Location	State
Forestry	All	Statistics	<1 year	Monitoring	Independent	Water quality data	Site
	Percentage	Targeting	1-3 yrs	Visual	Regulator	Meets Specs	Subwatershed
	Subsample	Law	3-5 yrs	Aerial	Non-Regulator	Visual functioning	County
	Targeted	Funding	>5 yrs	Phone Survey	Self	Location	State

Framework Implementation

Decision Making Roles with the CBP

- CBP BMP Verification Review Panel
- CBP Principals' Staff Committee
- CBP Advisory Committees
- CBP Technical Workgroups
- Jurisdictions
- Federal Agencies and Federal Facilities
- U.S. EPA

Framework Implementation

Evaluation and Oversight

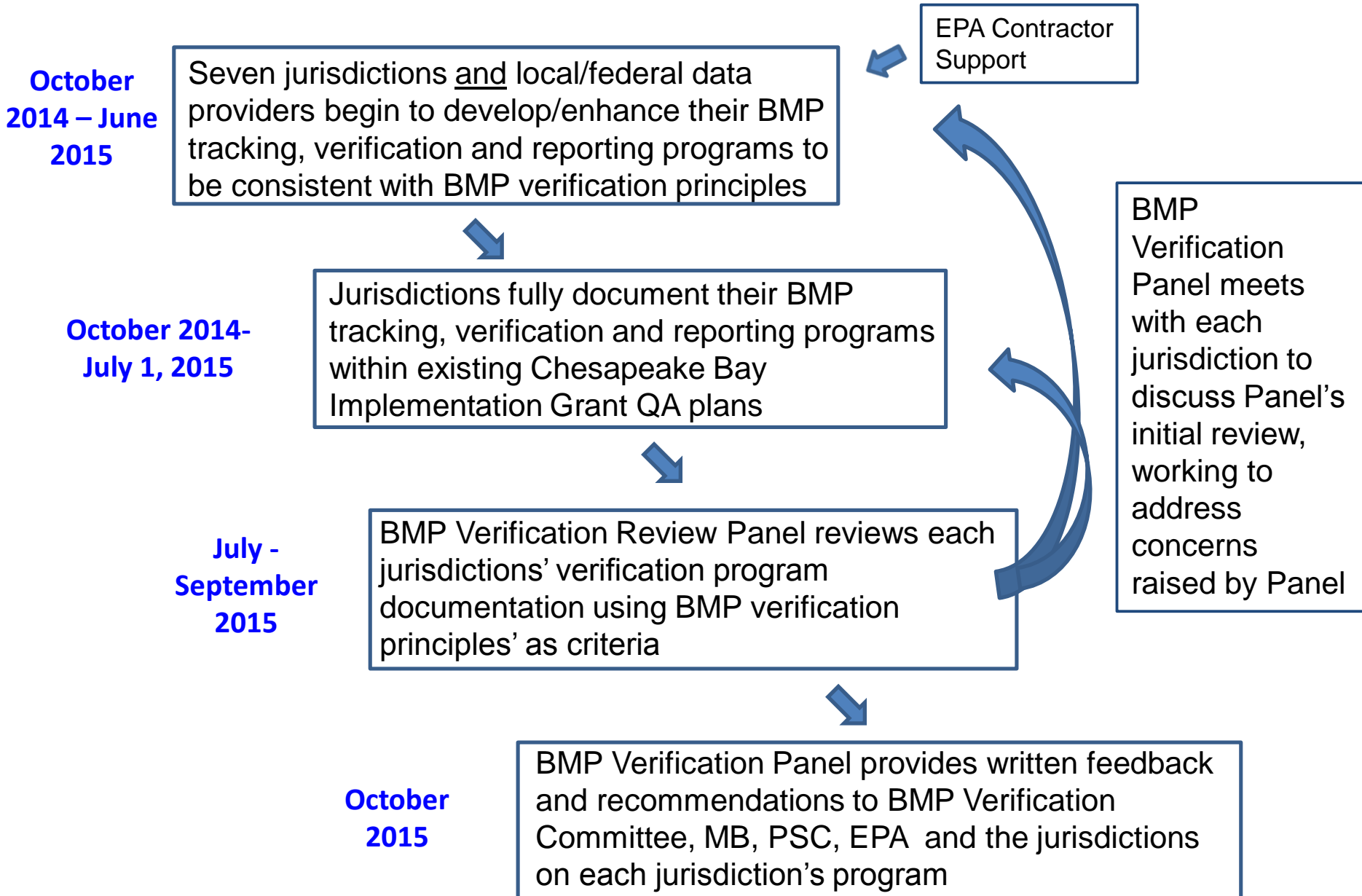
- Amend Partnership BMP protocol to address verification
- Amend CBP Grant Guidance
- Annual reviews of progress data submissions
- Annual EPA reviews of changes to quality assurance plans
- Periodic EPA audits of jurisdictions' BMP verification programs

Framework Implementation

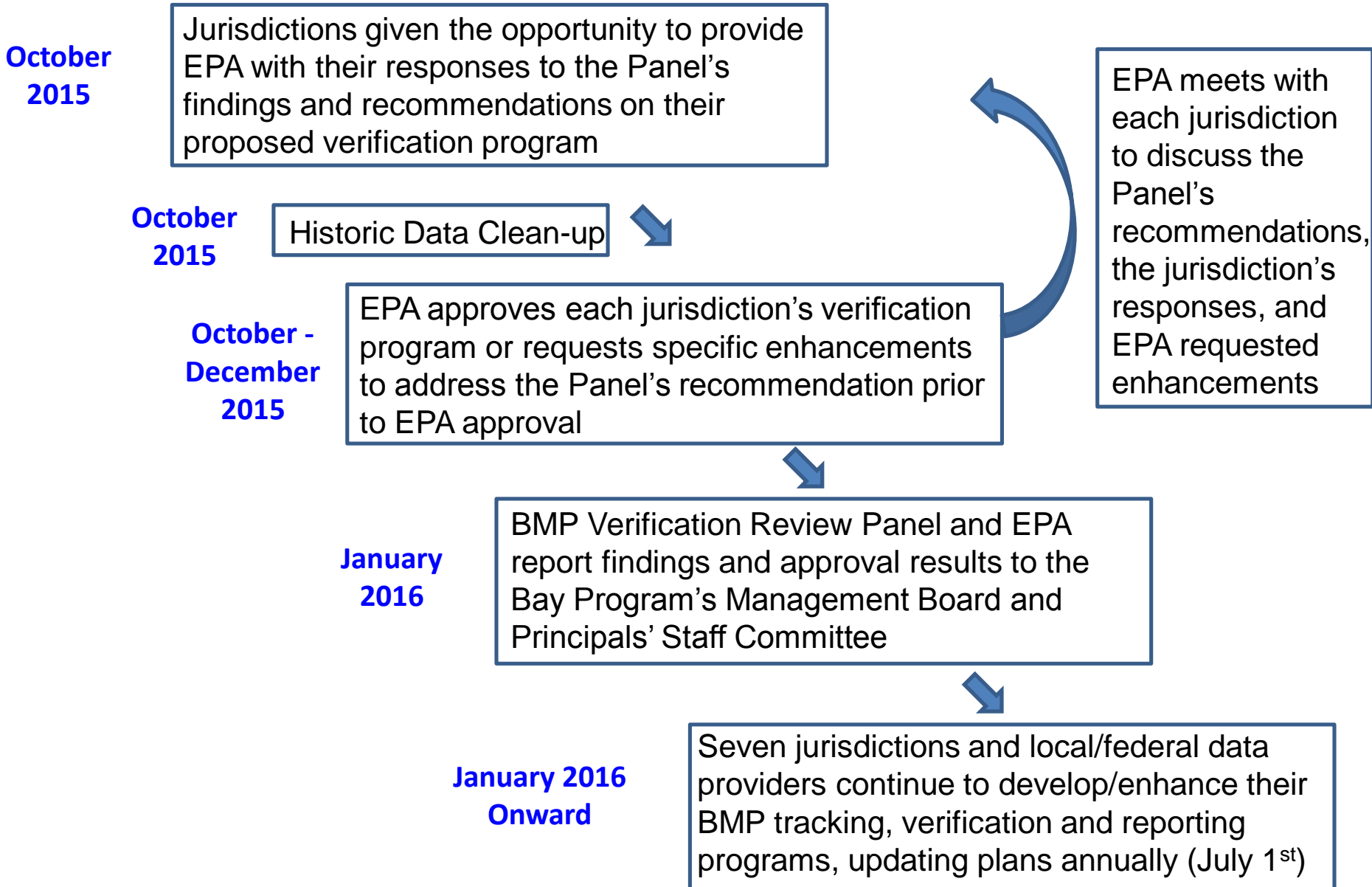
Other Implementation Elements

- BMP Verification Principles
- BMP verification guidance
- BMP data transparency, privacy, and public access
- Practice lifespans
- Ensuring jurisdictions' full access to federal conservation practice data
- Clean-up of historical BMP databases
- Annual progress reporting

Framework Implementation Timeline



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Framework Implementation Timeline

July 1, 2016,
July 1, 2017

The jurisdictions update Chesapeake Bay Implementation Grant QA plans to document verification program enhancements

December
2017 – April
2018

The jurisdictions develop 2018-2019 Milestones understanding that verification rules will apply beginning with the 2018 Progress run

July 1, 2018

The jurisdictions update their Chesapeake Bay Implementation Grant QA plans to document verification programs fully consistent w/principles

January –
October
2018

The jurisdictions develop Phase 3 WIPs with input from local and federal partners. WIPs will include descriptions of relevant verification program elements

December
2018

Full Verification Implementation: Effective for the 2018 Progress run meaning practices for which documentation of verification has not been provided may not be credited

Current Text: In the first full annual progress reporting cycle coming two years after the date of adoption of the basinwide BMP verification framework by the Principals' Staff Committee, those reported practices, treatments or technologies for which documentation of verification has not been provided through each jurisdictions' NEIEN-based report systems may not be credited for nitrogen, phosphorus or sediment pollutant load reductions for that year.

➡ Unclear as to exactly when this would take effect

Recommended Revised Text: Effective for the 2018 Progress run, those reported practices, treatments or technologies for which documentation of verification has not been provided through each jurisdictions' NEIEN-based report systems may not be credited for nitrogen, phosphorus or sediment pollutant load reductions for that year.

➡ Makes it clear would take effect for the 2018 Progress run due Dec. 2018 (following the 2017 Chesapeake Bay TMDL Midpoint Assessment)