

Comparison Matrix of Source Sector and Habitat Workgroup BMP verification Protocols

	Agriculture	Forestry	Urban stormwater	Wastewater	Wetlands	Streams
Protocol version	Version 3.5.3 (2/14/2013)	2/14/2013	USWG Final Review Draft, 11/11/2012	2/14/2013	3rd draft, 2/14/2013	1/22/2013
Annual	√ Annual BMPs listed in Protocol Concept version 3.5; Management BMPs-Plans; Management BMPs-Practices	√ forest harvesting	√ operational BMPs (ESC, IDDE, UNM, street sweeping)	√ on-site treatment systems pumpouts	N/A	N/A
Structural	√ AWMS; barnyard runoff control; biofilters; loafing lot management, etc. See protocol	√ expanded tree cover; urban riparian forest buffers; ag forest buffers and ag tree planting;	√ Traditional BMPs (e.g., wet ponds, dry ED ponds, bioswales, etc.); Runoff Reduction (e.g., ESD and LID under new performance standards); and Restoration BMPs (retrofits, stream restoration, etc.)	√ WWTPs; CSOs; on-site BMP systems	√	√
Regulated source	√ CAFOs	N/A, except in some states (harvesting)	√ MS4 communities; semi-regulated BMPs installed under state construction general permit	√ WWTPs; CSOs; on-site BMP systems (in some states)	√ fed and state wetland restoration projects discussed in the protocols	√ existing MS4 permits and 404/401 permits
Non-regulated source	√ voluntary, NGO- and private-funded BMPs	√ private forest lands	√ Voluntary BMPs not triggered by MS4 permit or regulation	√ on-site BMP systems (in some states)	√	√
Presence of a verification mechanism	√ state and federal cost share contracts	√ some cost-share programs, and some harvesting permits	√ MS4 permits, construction general permits	√ installation/O&M inspections for septic; monitoring requirements in permits and reporting into DMR for non-sigs; construction and post-construction verification and monitoring for CSOs	√ state and federal cost share contracts in the cases of WRP, CRP, and CREP	√ MS4 permits, 404/401 permits, USFWS Rapid Stream Monitoring Protocol
Reliance on statistical sampling	√	√	√ one suggested option for semi-regulated BMPs	X	X	?
Reliance on site/field visit	√ (depending on specific conservation practice)	√ for buffers and harvesting	√ post-construction inspections for all BMPs; periodic (every 3-5 years) maintenance inspections	√	√	√
Frequency of verification (once, annually, once-per-permit cycle, etc.)	√	√ varies by BMP	√ at least once every other permit cycle for regulated areas;	√ for septic, recommendations will be made by OWTS expert panel; regular monitoring and inspection requirements for non-sigs and CSOs	√ varies by funding mechanism	√ See #8
Verification types (regulatory/inspector, 3rd party, self-certified or reported, citizen monitoring)	√ (all of the types listed in first column depending on conservation practice)	√ regulatory/third-party	√ regulatory/certified inspector in MS4 areas; various options for semi-regulated and voluntary BMPs	√ inspections by local government agencies or certified service providers	√ clarified in section 4 of protocol	√ See #3: certified inspectors under MS4 (urban projects); regulatory/inspectors under state and federal agricultural cost-share programs (non-urban projects)
Reliance on selection of verification technique appropriate to practice	√	√	√ verification schedules/techniques recommended by BMP expert panels	√	√ verification techniques will continue to be what are already used, as indicated in section 3	√ based on recommendations of BMP expert panel
Addresses functional equivalency	√	X	X	X	X	X

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Credit discounting based verification	N/A -- Any procedures that demonstrate 80% or greater confidence level are given full credit	N/A	√ see option 4 for semi-regulated BMPs	N/A	X	√ see #9 in protocol
Addresses practice lifespans	√	N/A	√ prioritize verification inspections for oldest legacy BMPs	√	√ see section 4 of protocol	√ see #4
Achieves Principle 1 (Practice Reporting)	√	√	√	√	√ section 4	√
Achieves Principle 2 (Scientific Rigor)	√ verification categories' "relative scientific defensibility" is scored high, medium, or low	√?	√ generally supported throughout protocol; specific protocols to be based on expert panels	√	√ section 4	√
Incorporates Principle 3 (Public Confidence and transparency)	√ verification categories' "relative transparency" is scored high, medium, or low; Workgroup requests clarification on definition of "transparency"	√	√ generally supported throughout protocol	√	√ section 4	√
Incorporates Principle 4 (Adaptive Management)	√	√	√	X	√ section 4	√
Achieves Principle 5 (Sector Equity*)	√	√	√	√	√ section 4	√

DRAFT; updated February 20th, 2013

Key:

√ = yes, the protocol discusses this factor (followed by narrative description or summary, if needed)

X = the current version of the protocol does not address this factor

N/A = This factor is not applicable to this sector or habitat

*Intra-sector only; cross-sector equity not evaluated in this matrix