Comparison matrix of sector (GIT3) and habitat (GIT2) workgroup BMP verification protocols

	Agriculture	Forestry	Urban stormwater	Wastewater	Streams	Wetlands
D	TBD, following 11/29	-	USWG Final Review	0.440.400.40	(140,10013	(110,100.10
Protocol version	AGWG meeting	9/4/2012	Draft, 11/11/2012	9/12/2012	6/19/2012	6/19/2012
Annual		√ expanded tree cover; urban riparian forest buffers; ag forest buffers and ag tree planting; forest harvesting	√ operational BMPs (ESC, IDDE, UNM, street sweeping)	N/A		
Structural		N/A	√ 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.)	√ Non-significant WWTPs; CSOs; on-site systems		
Regulated source		Unclear	√ MS4 communities; semi-regulated BMPs installed under state construction general permit	√ Non-significant WWTPs; CSOs; on-site systems		
Non-regulated source		Unclear	√ Voluntary BMPs not triggered by MS4 permit or regulation	N/A		
Presence of a verification mechanism		Unclear	√ MS4 permits, construction general permits	√ installation/O&M inspections for septics; monitoring requirements in permits and reporting into DMR for non-sigs; construction and post-construction verification and monitoring for CSOs		
Reliance on statistical sampling		$\sqrt{\text{sampling is}}$ mentioned as an option for all four BMPs	√ one suggested option for semi-regulated BMPs	X		
Reliance on site/field visit		$\sqrt{\rm suggested}$ as an option, when possible	√ post-construction inspections for all BMPs; periodic (every 3-5 years) maintenance inspections	V		
Frequency of verification (once, annually, once- per-permit cycle, etc.)		$\sqrt{\ }$ varies by BMP and option	at least once every other permit cycle for regulated areas;	√ for septics, recommendations will be made by OWTS expert panel; regular monitoring and inspection requirements for non- sigs and CSOs		
Verification types (regulatory/inspe ctor, 3rd party, self-certified or reported, citizen monitoring)		√ varies; for expanded tree cover, a "trusted urban forestry partner" is suggested	√ regulatory/certified inspector in MS4 areas; various options for semi-regulated and voluntary BMPs	√ inspections by government agencies or certified service providers		
Reliance on selection of verification technique appropriate to practice		√Unclear	√verification schedules/techniques recommended by BMP expert panels	V		
Addresses functional equivalency		X	X	X		

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Credit discounting based verification	√For expanded tree cover and urban riparian forest buffers, levels of credit based on likelihood to attain net gain in tree cover and monitoring	see option 4 for semiregulated BMPs	X	
Addresses practice lifespans	X	√ prioritize verification inspections for oldest legacy BMPs		
Equity within sector/habitat (intra-sector Principle 5)	X	X	X	
Achieved Principle 2 (scientific rigor)	X	$\sqrt{\text{generally supported}}$ throughout protocol; specific protocols to be based on expert panels	X	
Incorporated transparency (Principle 3)	X	√ generally supported throughout protocol	X	

Key: $\sqrt{}$ = yes, the protocol discusses this factor (followed by narrative description or summary, if needed) X = Either (a) could not be determined or (b) the current version of the protocol does not address this factor N/A = This factor is not applicable to this sector or habitat