

Project Overview and Outline prepared by Jeremy Hanson for WTWG discussion and feedback, May 3, 2017

Project Title (tentative)

Chesapeake Bay Program Quick Reference Guide for Best Management Practices (BMPs):
Nonpoint Source BMPs Approved by the CBP Partnership to Reduce Nitrogen, Phosphorus and
Sediment Loads

Background and description

As of April 2017 the Chesapeake Bay Program (CBP) partnership has over 200 approved Best Management Practices (BMPs) available for application in the Phase 6 Chesapeake Bay Watershed Model (CBWM). Many BMPs are split for modeling specificity and can be understood categorically, e.g., cover crops. Even so, CBP partners have dozens of BMPs to consider in the development of their Phase III Watershed Implementation Plans (WIPs) and beyond.

Coordination, planning and implementation by state, regional and local partners is strengthened when all parties have a consistent understanding of CBP-approved BMPs that are eligible for nitrogen, phosphorus and sediment reductions toward their forthcoming Phase III WIP planning targets. However, basic key information about these BMPs – while publicly available online – is scattered among lengthy reports, appendices and dense spreadsheets.^{1, 2} This disparate information adds further confusion to already complex processes for Phase III WIP development, 2-year milestone development, and annual BMP reporting.

There are some examples of explanatory materials that are more accessible to a state/regional/local partner or layperson who wants a clearer sense of the basic elements of specific CBP-approved BMPs, e.g., Chesapeake Stormwater Network Fact Sheets.³ Unfortunately, this information is not available for all sectors and all BMPs, particularly BMPs reviewed and approved prior to 2012. Therefore, Pennsylvania and other partners have expressed interest in the development of a “guide” with basic information for each CBP-approved BMP summarized in a brief and consistent (two page) format. For purposes of this project the BMP-specific two page document are referred to as “information sheets,” “quick info sheets,” or “reference sheets” to distinguish them from more detailed “fact sheets” that already exist for some CBP-approved BMPs. Combined together, the information sheets comprise the overall “guide” document.

Scope

The main purpose of this project is to develop a “guide” document that includes a short (2-page) quick reference sheet for each Phase 6 CBP-approved BMP. The reference sheets will be grouped according to sector (see Table 1 and subsequent draft outline below). Additionally, the

¹ http://www.chesapeakebay.net/groups/group/bmp_expert_panels

² <http://casttool.org/Documentation.aspx>

³ <http://chesapeakestormwater.net/bay-stormwater/fact-sheets/>

document will include a brief introductory section to provide necessary background about the overall document, including an overview of the “guide” contents and organization, and a simplified summary of how BMPs fit into the overall Phase 6 suite of modeling tools.

The exact outline and the contents of each information sheet are subject to change based on feedback and needs of the partnership. That said, the information contained in each BMP info sheet can be broken down into three categories: 1) general descriptive information about the practice(s); 2) specific information for CBP partnership modeling, reporting or tracking purposes, and; 3) supplementary information of broader partnership, federal or state interest. Sample questions for each of these categories are listed below for illustrative purposes. Ultimately, the information from these three categories is conveyed through the elements of the “draft quick info sheet outline” at the end of this document.

General descriptive info about the practice(s)

- What is the BMP?
- What does it do?
- What does it look like?
- What kind of variety is there?

BMP information specific to CBP partnership, modeling or TMDL purposes

- What is the CBP definition?
- How is the BMP simulated in the CBWM?
- What average TN, TP and TSS reductions does it achieve in the CBWM?
- What CBWM land use(s) is it reported on?
- Which data elements are required for reporting and incorporation into the CBWM?
- What is the credit duration for the BMP in the CBWM?
- When was the BMP and its reductions defined?
- What is the link to BMP panel report?

Supplementary and supporting information of interest to the audience

- Federal- or State-Specific links to BMP standards/specs, manuals or programmatic pages (E.g., NRCS Practice Standards, cost-share programs, stormwater BMP manuals, etc.)
- Other helpful links (e.g., ChesapeakeTrees.net)

The final document must be organized to allow for addition of new BMPs, as well as for revisions to existing Phase 6 BMPs. The individual BMP sheets should be available for individual download, but the document should also be available to download in more aggregated formats (whole document and by sector).

Deliverables and draft timeline

Draft outline of overall document and individual BMP reference sheets: **May 2017**

Draft mock-up/examples: **May 2017**

Review/feedback from WTWG of draft outline and mock-ups; work with CBP communications team on quality info sheet template: **May – June 2017**

Fill in draft info sheets, work internally with CBP staff and with external partners as needed (Feedback requested: **Should we prioritize particular sectors or particular info sheets in any way?**) **June – August 2017**

Share draft document with WTWG and sector workgroups for general feedback and addition of missing state-specific information (Feedback requested: **Is it preferable to receive the full draft document with all info sheets at once for review? Or, in batches as the draft sheets become available? Or something else?**): **September – October 2017**

Make edits and improvements based on feedback; work with CBP communications team: **November – December 2017**

Share draft-final document for final corrections/edits: **December 2017 – January 2018**

Final “guide” document published for use by partners during Phase III WIP development: **January-February 2018**

Parties subject to requests for responsive feedback on document

Watershed Technical Workgroup members for initial feedback on project, draft outline and mock-ups, in addition to review of draft-final document.

CBP Modeling Team and Scenario Builder team for QA/QC of statements in the BMP information sheets pertaining to the BMPs in the Phase 6 modeling tools.

State WIP leads for feedback on content and design of draft BMP information sheets.

Sector workgroup members and interested parties for providing state- and program-specific links of interest for respective sector BMPs.

CBP Communications Team to assist with quality improvements to document template and to ensure incorporation of document as part of Midpoint Assessment and Phase III WIPs communication strategy.

Miscellaneous unresolved questions

Where to store/post/share documents for internal (and external) viewing and feedback?

Where to internally store the document files for future revisions and add-ons?

Table 1 - List of Phase 6 BMPs, full list with strikethrough for illustrative purposes

Sector	Sheet #	Practice
Agriculture	1	Alternative Crops
Agriculture	2	Animal Waste Management System
Agriculture	3	Barnyard Runoff Control
Agriculture	4	Biofilters
Agriculture	5	Cover Crops Commodity Early
Agriculture		Cover Crop Commodity Late
Agriculture		Cover Crop Commodity Normal
Agriculture		Cover Crop Traditional Annual Legume Early Aerial
Agriculture		Cover Crop Traditional Annual Legume Early Drilled
Agriculture		Cover Crop Traditional Annual Legume Early Other
Agriculture		Cover Crop Traditional Annual Legume Normal Drilled
Agriculture		Cover Crop Traditional Annual Legume Normal Other
Agriculture		Cover Crop Traditional Annual Ryegrass Early Aerial
Agriculture		Cover Crop Traditional Annual Ryegrass Early Drilled
Agriculture		Cover Crop Traditional Annual Ryegrass Early Other
Agriculture		Cover Crop Traditional Annual Ryegrass Normal Drilled
Agriculture		Cover Crop Traditional Annual Ryegrass Normal Other
Agriculture		Cover Crop Traditional Barley Early Aerial
Agriculture		Cover Crop Traditional Barley Early Drilled
Agriculture		Cover Crop Traditional Barley Early Other
Agriculture		Cover Crop Traditional Barley Normal Drilled
Agriculture		Cover Crop Traditional Barley Normal Other
Agriculture		Cover Crop Traditional Brassica Early Aerial
Agriculture		Cover Crop Traditional Brassica Early Drilled
Agriculture		Cover Crop Traditional Brassica Early Other
Agriculture		Cover Crop Traditional Forage Radish Early Aerial
Agriculture		Cover Crop Traditional Forage Radish Early Drilled
Agriculture		Cover Crop Traditional Forage Radish Early Other
Agriculture		Cover Crop Traditional Forage Radish Plus Early Aerial
Agriculture		Cover Crop Traditional Forage Radish Plus Early Drilled
Agriculture		Cover Crop Traditional Forage Radish Plus Early Other
Agriculture		Cover Crop Traditional Forage Radish Plus Normal Drilled
Agriculture		Cover Crop Traditional Forage Radish Plus Normal Other
Agriculture		Cover Crop Traditional Legume Plus Grass 25-50% Early Aerial
Agriculture		Cover Crop Traditional Legume Plus Grass 25-50% Early Drilled
Agriculture		Cover Crop Traditional Legume Plus Grass 25-50% Early Other
Agriculture		Cover Crop Traditional Legume Plus Grass 25-50% Normal Drilled

Agriculture	Cover Crop Traditional Legume Plus Grass 25-50% Normal Other
Agriculture	Cover Crop Traditional Legume Plus Grass 50% Early Aerial
Agriculture	Cover Crop Traditional Legume Plus Grass 50% Early Drilled
Agriculture	Cover Crop Traditional Legume Plus Grass 50% Early Other
Agriculture	Cover Crop Traditional Legume Plus Grass 50% Normal Drilled
Agriculture	Cover Crop Traditional Legume Plus Grass 50% Normal Other
Agriculture	Cover Crop Traditional Oats, Winter Hardy Early Aerial
Agriculture	Cover Crop Traditional Oats, Winter Hardy Early Drilled
Agriculture	Cover Crop Traditional Oats, Winter Hardy Early Other
Agriculture	Cover Crop Traditional Oats, Winter Hardy Normal Drilled
Agriculture	Cover Crop Traditional Oats, Winter Hardy Normal Other
Agriculture	Cover Crop Traditional Oats, Winter Killed Early Aerial
Agriculture	Cover Crop Traditional Oats, Winter Killed Early Drilled
Agriculture	Cover Crop Traditional Oats, Winter Killed Early Other
Agriculture	Cover Crop Traditional Rye Early Aerial
Agriculture	Cover Crop Traditional Rye Early Drilled
Agriculture	Cover Crop Traditional Rye Early Other
Agriculture	Cover Crop Traditional Rye Late Drilled
Agriculture	Cover Crop Traditional Rye Late Other
Agriculture	Cover Crop Traditional Rye Normal Drilled
Agriculture	Cover Crop Traditional Rye Normal Other
Agriculture	Cover Crop Traditional Triticale Early Aerial
Agriculture	Cover Crop Traditional Triticale Early Drilled
Agriculture	Cover Crop Traditional Triticale Early Other
Agriculture	Cover Crop Traditional Triticale Late Drilled
Agriculture	Cover Crop Traditional Triticale Late Other
Agriculture	Cover Crop Traditional Triticale Normal Drilled
Agriculture	Cover Crop Traditional Triticale Normal Other
Agriculture	Cover Crop Traditional Wheat Early Aerial
Agriculture	Cover Crop Traditional Wheat Early Drilled
Agriculture	Cover Crop Traditional Wheat Early Other
Agriculture	Cover Crop Traditional Wheat Late Drilled
Agriculture	Cover Crop Traditional Wheat Late Other
Agriculture	Cover Crop Traditional Wheat Normal Drilled
Agriculture	Cover Crop Traditional Wheat Normal Other
Agriculture	Cover Crop Traditional with Fall Nutrients Annual Ryegrass Early Drilled
Agriculture	Cover Crop Traditional with Fall Nutrients Annual Ryegrass Early Other
Agriculture	Cover Crop Traditional with Fall Nutrients Annual Ryegrass Normal Drilled
Agriculture	Cover Crop Traditional with Fall Nutrients Annual Ryegrass Normal Other
Agriculture	Cover Crop Traditional with Fall Nutrients Barley Early Drilled
Agriculture	Cover Crop Traditional with Fall Nutrients Barley Early Other

Agriculture		Cover Crop Traditional with Fall Nutrients Barley Normal Drilled
Agriculture		Cover Crop Traditional with Fall Nutrients Barley Normal Other
Agriculture		Cover Crop Traditional with Fall Nutrients Brassica Early Drilled
Agriculture		Cover Crop Traditional with Fall Nutrients Brassica Early Other
Agriculture		Cover Crop Traditional with Fall Nutrients Forage Radish Plus Early Drilled
Agriculture		Cover Crop Traditional with Fall Nutrients Forage Radish Plus Early Other
Agriculture		Cover Crop Traditional with Fall Nutrients Forage Radish Plus Normal Drilled
Agriculture		Cover Crop Traditional with Fall Nutrients Forage Radish Plus Normal Other
Agriculture		Cover Crop Traditional with Fall Nutrients Oats, Winter Hardy Early Drilled
Agriculture		Cover Crop Traditional with Fall Nutrients Oats, Winter Hardy Early Other
Agriculture		Cover Crop Traditional with Fall Nutrients Oats, Winter Hardy Normal Drilled
Agriculture		Cover Crop Traditional with Fall Nutrients Oats, Winter Hardy Normal Other
Agriculture		Cover Crop Traditional with Fall Nutrients Rye Early Drilled
Agriculture		Cover Crop Traditional with Fall Nutrients Rye Early Other
Agriculture		Cover Crop Traditional with Fall Nutrients Rye Late Drilled
Agriculture		Cover Crop Traditional with Fall Nutrients Rye Late Other
Agriculture		Cover Crop Traditional with Fall Nutrients Rye Normal Drilled
Agriculture		Cover Crop Traditional with Fall Nutrients Rye Normal Other
Agriculture		Cover Crop Traditional with Fall Nutrients Triticale Early Drilled
Agriculture		Cover Crop Traditional with Fall Nutrients Triticale Early Other
Agriculture		Cover Crop Traditional with Fall Nutrients Triticale Late Drilled
Agriculture		Cover Crop Traditional with Fall Nutrients Triticale Late Other
Agriculture		Cover Crop Traditional with Fall Nutrients Triticale Normal Drilled
Agriculture		Cover Crop Traditional with Fall Nutrients Triticale Normal Other
Agriculture		Cover Crop Traditional with Fall Nutrients Wheat Early Drilled
Agriculture		Cover Crop Traditional with Fall Nutrients Wheat Early Other
Agriculture		Cover Crop Traditional with Fall Nutrients Wheat Late Drilled
Agriculture		Cover Crop Traditional with Fall Nutrients Wheat Late Other
Agriculture		Cover Crop Traditional with Fall Nutrients Wheat Normal Drilled
Agriculture		Cover Crop Traditional with Fall Nutrients Wheat Normal Other
Agriculture	6	Cropland Irrigation Management
Agriculture	7	Dairy Precision Feeding and/or Forage Management
Agriculture	8	Forest Buffer
Agriculture		Forest Buffer Narrow
Agriculture		Forest Buffer Narrow with Exclusion Fencing
Agriculture		Forest Buffer Streamside with Exclusion Fencing
Agriculture	9	Grass Buffer
Agriculture		Grass Buffer – Narrow

Agriculture		Grass Buffer Narrow with Exclusion Fencing
Agriculture		Grass Buffer Streamside with Exclusion Fencing
Agriculture	10	Horse Pasture Management
Agriculture	11	Irrigation Water Capture Reuse
Agriculture	12	Lagoon Covers
Agriculture	13	Land Retirement to Ag Open Space
Agriculture		Land Retirement to Pasture
Agriculture	14	Loafing Lot Management
Agriculture	15	Manure Composting Forced Aeration High CN
Agriculture		Manure Compost Forced Aeration Low CN
Agriculture		Manure Compost Static Pile Windrow
Agriculture		Manure Compost Static Pile Windrow High CN
Agriculture		Manure Compost Static Pile Windrow Low CN
Agriculture		Manure Compost Turned Pile Windrow
Agriculture		Manure Compost Turned Pile Windrow High CN
Agriculture		Manure Compost Turned Pile Windrow Low CN
Agriculture	16	Manure Incorporation High Disturbance Early
Agriculture		Manure Incorporation High Disturbance Late
Agriculture		Manure Incorporation Low Disturbance Early
Agriculture		Manure Incorporation Low Disturbance Late
Agriculture	17	Manure Injection
Agriculture	18	Manure Transport
Agriculture	19	Manure Treatment Combustion
Agriculture		Manure Treatment Direct Monitor
Agriculture		Manure Treatment Fast Pyrolysis
Agriculture		Manure Treatment Forced Aeration
Agriculture		Manure Treatment High Heat Combustion
Agriculture		Manure Treatment High Heat Gasification
Agriculture		Manure Treatment Low Heat Gasification
Agriculture		Manure Treatment Rotating Bin
Agriculture		Manure Treatment Rotating Bin High CN
Agriculture		Manure Treatment Rotating Bin Low CN
Agriculture		Manure Treatment Slow Pyrolysis
Agriculture	20	Mortality Composters
Agriculture	21	Nutrient Management Core N
Agriculture		Nutrient Management Core P
Agriculture		Nutrient Management N Placement
Agriculture		Nutrient Management N Rate
Agriculture		Nutrient Management N Timing
Agriculture		Nutrient Management P Placement
Agriculture		Nutrient Management P Rate

Agriculture		Nutrient Management P Timing
Agriculture	22	Off Stream Watering Without Fencing
Agriculture	23	Poultry Litter Amendments (alum, for example)
Agriculture	24	Poultry Nutrient Reduction
Agriculture	25	Precision Intensive Rotational/Prescribed Grazing
Agriculture	26	Soil Conservation and Water Quality Plans
Agriculture	27	Sorbing Materials in Ag Ditches
Agriculture	28	Swine Phytase
Agriculture	29	Tillage Management-Conservation
Agriculture		Tillage Management-Continuous High Residue
Agriculture		Tillage Management-Low Residue
Agriculture	30	Tree Planting
Agriculture	31	Water Control Structures
Agriculture	32	Wetland Creation--Floodplain
Agriculture		Wetland Creation--Headwater
Agriculture	33	Wetland Restoration--Floodplain
Agriculture		Wetland Restoration--Headwater
Developed	1	Advanced Grey Infrastructure Nutrient Discovery Program (IDDE)
Developed	2	Street Sweeping-Advanced Sweeping Technology--1 pass/12 weeks
Developed		Advanced Sweeping Technology--1 pass/2 weeks
Developed		Advanced Sweeping Technology--1 pass/4 weeks
Developed		Advanced Sweeping Technology--1 pass/8 weeks
Developed		Advanced Sweeping Technology--1 pass/week
Developed		Advanced Sweeping Technology--2 pass/week
Developed		Advanced Sweeping Technology--fall 1 pass/1-2 weeks else monthly
Developed		Advanced Sweeping Technology--spring 1 pass/1-2 weeks else monthly
Developed	3	Bioretention/raingardens--A/B soils, no underdrain
Developed		Bioretention/raingardens--A/B soils, underdrain
Developed		Bioretention/raingardens--C/D soils, underdrain
Developed	4	Bioswale
Developed	5	Dirt & Gravel Road Erosion & Sediment Control --Driving Surface Aggregate + Raising the Roadbed
Developed		Dirt & Gravel Road Erosion & Sediment Control --Driving Surface Aggregate with Outlets
Developed		Dirt & Gravel Road Erosion & Sediment Control --Outlets only
Developed	6	Dry Detention Ponds and Hydrodynamic Structures
Developed	7	Dry Extended Detention Ponds
Developed	8	Erosion and Sediment Control Level 1
Developed		Erosion and Sediment Control Level 2
Developed		Erosion and Sediment Control Level 3
Developed	9	Filter Strip Runoff Reduction
Developed		Filter Strip Stormwater Treatment

Developed	10	Filtering Practices
Developed	11	Floating Treatment Wetland 10% Coverage of Pond
Developed		Floating Treatment Wetland 20% Coverage of Pond
Developed		Floating Treatment Wetland 30% Coverage of Pond
Developed		Floating Treatment Wetland 40% Coverage of Pond
Developed		Floating Treatment Wetland 50% Coverage of Pond
Developed	12	Forest Buffer
Developed	13	Forest Conservation
Developed	14	Grass Buffers
Developed	15	Impervious Disconnection to amended soils
Developed	16	Impervious Surface Reduction
Developed	17	Infiltration Practices w/ Sand, Veg. - A/B soils, no underdrain
Developed		Infiltration Practices w/o Sand, Veg. - A/B soils, no underdrain
Developed		Mechanical Broom Technology - 1 pass/4 weeks
Developed		Mechanical Broom Technology - 1 pass/week
Developed		Mechanical Broom Technology - 2 pass/week
Developed		Nutrient Management Maryland Commercial Applicators
Developed		Nutrient Management Maryland Do It Yourself
Developed	18	Nutrient Management Plan
Developed		Nutrient Management Plan High Risk Lawn
Developed		Nutrient Management Plan Low Risk Lawn
Developed	19	Permeable Pavement w/ Sand, Veg. - A/B soils, no underdrain
Developed		Permeable Pavement w/ Sand, Veg. - A/B soils, underdrain
Developed		Permeable Pavement w/ Sand, Veg. - C/D soils, underdrain
Developed		Permeable Pavement w/o Sand, Veg. - A/B soils, no underdrain
Developed		Permeable Pavement w/o Sand, Veg. - A/B soils, underdrain
Developed		Permeable Pavement w/o Sand, Veg. - C/D soils, underdrain
Developed	20	Storm Drain Cleaning
Developed	21	Stormwater Performance Standard-Runoff Reduction
Developed		Stormwater Performance Standard-Stormwater Treatment
Developed	22	Urban Tree Canopy Expansion Tree Planting
Developed	23	Urban Forest Planting
Developed	24	Vegetated Open Channels - A/B soils, no underdrain
Developed		Vegetated Open Channels - C/D soils, no underdrain
Developed	25	Wet Ponds and Wetlands
Natural	1	Abandoned Mine Reclamation
Natural	2	Algal Flow-way Non-Tidal Monitored
Natural		Algal Flow-way Non-Tidal
Natural		Algal Flow-way Tidal
Natural		Algal Flow-way Tidal Monitored
Natural	3	Diploid Oyster Aquaculture 2.25 Inches

Natural		Diploid Oyster Aquaculture 3.0 Inches
Natural		Diploid Oyster Aquaculture 4.0 Inches
Natural		Diploid Oyster Aquaculture 5.0 Inches
Natural		Diploid Oyster Aquaculture Greater 6.0 Inches
Natural	4	Forest Harvesting Practices
Natural	5	Non Urban Shoreline Erosion Control Non-Vegetated
Natural		Non Urban Shoreline Erosion Control Vegetated
Natural	6	Non Urban Shoreline Management
Natural	7	Non Urban Stream Restoration
Natural		Non Urban Stream Restoration Protocol
Natural		Site-Specific Monitored Oyster Aquaculture
Natural		Triploid Oyster Aquaculture 2.25 Inches
Natural		Triploid Oyster Aquaculture 3.0 Inches
Natural		Triploid Oyster Aquaculture 4.0 Inches
Natural		Triploid Oyster Aquaculture 5.0 Inches
Natural		Triploid Oyster Aquaculture Greater than 6.0 Inches
Natural		Urban Shoreline Erosion Control Non-Vegetated
Natural		Urban Shoreline Erosion Control Vegetated
Natural		Urban Shoreline Management
Natural		Urban Stream Restoration
Natural		Urban Stream Restoration Protocol
Natural	8	Wetland Enhancement
Natural	9	Wetland Rehabilitation
Septic	1	Septic Connection
Septic	2	Septic Denitrification-Conventional
Septic		Septic Denitrification-Enhanced
Septic	3	Septic Effluent - Enhanced
Septic	4	Septic Pumping
Septic	5	Septic Secondary Treatment Conventional
Septic		Septic Secondary Treatment Enhanced

Draft Outline for overall “CBP BMP Manual”

Background and introduction

“Read me” about the document, contents and purpose of BMP info sheets

BMPs in the modeling tools 101: basics about how BMPs are simulated in the model

Agriculture BMPs

A1. Alternative Crops

- A2. Animal Waste Management System
- A3. Barnyard Runoff Control
- A4. Biofilters
- A5. Cover Crops
- A6. Cropland Irrigation Management
- A7. Dairy Precision Feeding and/or Forage Management
- A8. Forest Buffer
- A9. Grass Buffer
- A10. Horse Pasture Management
- A11. Irrigation Water Capture Reuse
- A12. Lagoon Covers
- A13. Land Retirement
- A14. Loafing Lot Management
- A15. Manure Composting
- A16. Manure Incorporation
- A17. Manure Injection
- A18. Manure Transport
- A19. Manure Treatment
- A20. Mortality Composters
- A21. Nutrient Management
- A22. Off Stream Watering Without Fencing
- A23. Poultry Litter Amendments (alum, for example)
- A24. Poultry Nutrient Reduction
- A25. Precision Intensive Rotational/Prescribed Grazing
- A26. Soil Conservation and Water Quality Plans
- A27. Sorbing Materials in Ag Ditches
- A28. Swine Phytase
- A29. Tillage Management
- A30. Tree Planting
- A31. Water Control Structures
- A32. Wetland Creation
- A33. Wetland Restoration

Developed BMPs (Stormwater BMPs)

- D1. Advanced Grey Infrastructure Nutrient Discovery Program (IDDE)
- D2. Street Sweeping
- D3. Bioretention/raingardens
- D4. Bioswale
- D5. Dirt & Gravel Road Erosion & Sediment Control
- D6. Dry Detention Ponds and Hydrodynamic Structures
- D7. Dry Extended Detention Ponds

- D8. Erosion and Sediment Control
- D9. Filter Strip
- D10. Filtering Practices
- D11. Floating Treatment Wetland
- D12. Forest Buffer
- D13. Forest Conservation
- D14. Grass Buffers
- D15. Impervious Disconnection to amended soils
- D16. Impervious Surface Reduction
- D17. Infiltration Practices
- D18. Nutrient Management
- D19. Permeable Pavement
- D20. Storm Drain Cleaning
- D21. Stormwater Performance Standards [for new development]
- D22. Urban Tree Canopy Expansion
- D23. Urban Forest Planting
- D24. Vegetated Open Channel
- D25. Wet Ponds and [constructed] Wetlands

Natural BMPs

- N1. Abandoned Mine Reclamation
- N2. Algal Flow-way
- N3. Oyster Aquaculture
- N4. Forest Harvesting Practices
- N5. Urban and Non Urban Shoreline Erosion Control
- N6. Urban and Non Urban Shoreline Management
- N7. Urban and Non Urban Stream Restoration
- N8. Wetland Enhancement
- N9. Wetland Rehabilitation

Septic BMPs

- S1. Septic Connection
- S2. Septic Denitrification
- S3. Septic Effluent – Enhanced
- S4. Septic Pumping
- S5. Septic Secondary Treatment

Total: 77 BMP info sheets

New BMPs added as next Letter-Number in sequence; Letter-Number unchanged for updates or revisions to a BMP.

Draft outline for each “quick reference sheet” (see draft Conservation Tillage mock-up for example)

Practice Name

Practice Description

CBP definition(s)

Photo(s) [throughout]

Specifications or key qualifying conditions (minimal, not heavy details)

Nitrogen, Phosphorus and Sediment Reductions

Applicable Land Use Types (or other load sources) Treated by the BMP

Brief Description of BMP Simulation in the Model

- BMP type and description;
- Annual or Cumulative? (credit duration)
- Stackable with other BMPs?

Key Elements for State BMP Reporting through NEIEN

- BMP Name
- Measurement name
- Land Use
- Geographic Location
- Date of implementation

Additional Information

- Hyperlink to Expert Panel Report
- NRCS Practice Code Equivalent (or other key programmatic linkages)
- Reasonable number of links to Cost Share Agencies or key state/federal or other partner sites

Version and History Statement (origin, revisions)

- Date when the info sheet was published/revised; date when the BMP definitions and reductions were approved by the WQGIT
- “All BMP effectiveness estimates are subject to potential future reviews according to the availability of new scientific information and CBP partnership needs, as defined in the BMP Review Protocol.”