

## Plan Information Checklists

PWQ CM REQUIRED PLAN INFORMATION CHECKLIST  
EXTENDED DETENTION BASINS (EDB)

Included			Plan Requirements
Yes	No	N/A	
<b>1. General Requirements</b>			
			A. Title block, north arrow, scale, paper size, and legend
			B. WQCV
			C. WQCV Drain time
			D. Water Surface Elevations (WQCV, 100-year)
			E. Depth to bedrock and groundwater
<b>2. Basin Configuration and Site Grading</b>			
			A. Location of labels for basin and other major components (forebay, trickle channel, micropool, outlet structure, spillway, maintenance paths)
			B. Grading (labeled contours)
			C. Volume (acre-feet)
			D. Right-of-way
			E. Utility locations
			F. Bottom (sloped to drain at 2%) and side slopes (3:1 max)
			G. Top soil and/or soil amendment specs for side slopes and bottom of basin.
			H. Native and/or wetland seed mix design(s).
			I. Pipe sizes, types, and lengths of inflow/outflow pipes
<b>3. Forebay</b>			
			A. Forebay location
			B. Structure dimensions/layout
			1. Depth
			2. Width and length
			3. Thickness, length, width, and height of walls
			4. Slab thickness
			5. Reinforcing details
			6. Bottom and side slopes
			7. Location, size, and invert of incoming pipes
			C. Release structure details
			D. Release rate
			E. Maximum allowed sediment depth
			F. Volume
			G. Invert/top of slab elevations
<b>4. Concrete Trickle Channel</b>			
			A. Channel location and alignment
			B. Typical channel section
			1. Width (minimum 84")
			2. Depth (minimum 6")
			3. Centerline
			4. Thickness of concrete sides and bottom
			5. Reinforcing details
			C. Channel slope (between 0.4% and 1.0%)
			D. Flowline elevations
<b>5. Concrete Micropool</b>			
			A. Micropool location
			B. Structure dimensions/layout
			1. Depth
			2. Width and length

Included			Plan Requirements
Yes	No	N/A	
			3. Side slopes
			4. Thickness, length, width, and height of walls
			5. Slab thickness
			6. Reinforcing details
			C. Invert elevation
			D. Surface Area
			E. Volume
			F. Permanent pool elevation
<b>6. Outlet Structure</b>			
			A. Outlet structure location
			B. Structure dimensions/layout
			1. Thickness, length, width, and height of walls
			2. Thickness, length, width, height, and slope of wingwalls
			3. Thickness of bottom slab
			4. Location, size, and invert of incoming pipes
			5. Top of wall and top of slab elevations
			6. Reinforcing details
			C. Trash rack dimensions and details
			D. Orifice plate size and configuration
			E. Orifice dimensions
			F. Top of box trash rack dimensions and details
			G. Connection details
<b>7. Overflow Spillway</b>			
			A. Spillway location and overflow path
			B. 100-year spillway flowrate
			C. 100-year freeboard
			D. Surface Spillway
			1. Spillway section with length and height
			2. Embankment protection details
			3. Crest elevation
			4. Top of embankment elevation
			E. Enclosed Spillway
			1. Depth, length, and width of drop box outlet structure
			2. Thickness, length, width, and height of walls
			3. Invert elevation
			4. Safety grate details (dimensions and connections)
			5. Reinforcing details
			6. Crest elevation of drop box
<b>8. Maintenance Paths</b>			
			A. Maintenance trail location and alignment
			B. Typical section
			1. Width
			2. Depth of surfacing
			3. Slope (transverse and longitudinal)
			4. Surfacing material details

PWQ CM REQUIRED PLAN INFORMATION CHECKLIST  
SAND FILTERS

Included			Plan Requirements
Yes	No	N/A	
<b>1. General Requirements</b>			
			A. Title block, north arrow, scale, paper size, and legend
			B. WQCV
			C. WQCV drain time
			D. Water surface elevations (WQCV, 100-year)
			E. Depth to bedrock and groundwater
<b>2. Basin Configuration and Site Grading</b>			
			A. Location and labels for basin and other major components (inflow location, embankment, sand filter, outlet)
			B. Grading labeled contours
			C. Filter area
			D. Basin volume
			E. Right-of-way
			F. Utility locations in the vicinity
			G. Side slopes
			Typical cross section
			1. Inflow out outflow locations
			2. Dimensions of basin
			3. Side slopes
			4. Filter material
			H. Top soil and/or soil amendment specifications for side slopes
			I. Native seed mix design(s) for side slopes
			J. Pipe sizes and lengths of inflow/outflow pipes
<b>3. Forebay and Energy Dissipation</b>			
			A. Forebay location
			B. Structure dimensions/layout
			1. Depth
			2. Width and length
			3. Thickness, length, width, and height of walls
			4. Slab thickness
			5. Reinforcing details
			6. Bottom and side slopes
			7. Location, size, and invert of incoming pipes
			C. Release structure details
			D. Release rate
			E. Maximum allowed sediment depth
			F. Volume
			G. Invert/top of slab elevations
			H. Details of energy dissipation (e.g. riprap, drop, etc)
<b>4. Underdrain System</b>			
			A. Geomembrane liner
			B. Geotextile separator fabric
			C. Cover over the top of the liner
			D. Adhesive around pipe perforations
			E. Underdrain pipe dimensions, layout, slope, inverts
			F. Connection details

Included			Plan Requirements
Yes	No	N/A	
			G. Depth and type of fill materials
5. Outlet Structure			
			A. Outlet structure location
			B. Structure dimensions/layout
			1. Thickness, length, width, and height of walls
			2. Thickness, length, width, height, and slope of wingwalls
			3. Thickness of bottom slab
			4. Location, size, and invert outlet pipes
			5. Top of wall and top of slab elevations
			6. Reinforcing details
			C. Trash rack dimensions and details on overflow
			D. Orifice plate size and configuration and how removed
			E. Orifice dimensions
			F. Connection details
6. Maintenance			
			A. Maintenance access location and alignment
			B. Typical section of maintenance access
			1. Width
			2. Depth of surfacing
			3. Slope (transverse and longitudinal)
			4. Surfacing material details
			C. Cleanout location details

PWQ CM REQUIRED PLAN INFORMATION CHECKLIST  
PROPRIETARY STRUCTURE

Included			Plan Requirements
Yes	No	N/A	
<b>1. General Requirements</b>			
			A. Title block, north arrow, scale, paper size, and legend
			B. Nearby utilities
			C. Right-of-way
<b>2. Design Information</b>			
			A. Water quality peak flow rate to treat
			B. 100-year peak flow rate to pass
			C. Structure dimensions and layout
			D. Appurtenant pipe sizes, materials, inverts, slopes
<b>3. Required Certification</b>			
			A. NJDEP Certification
			B. WSDOE Certification
			1. Conditional use level designation (CULD)
			2. General use level designation (GULD)
<b>4. Maintenance</b>			
			A. Maintenance access for vac truck location and alignment
			B. Typical section of maintenance access
			1. Width
			2. Depth of surfacing
			3. Slope (transverse and longitudinal)
			4. Surfacing material details

PWQ CM REQUIRED PLAN INFORMATION CHECKLIST  
MEDIA FILTER DRAIN (MFD)

Included			Plan Requirements
Yes	No	N/A	
<b>9. General Requirements</b>			
			A. Title block, north arrow, scale, paper size, and legend
			B. Calculated runoff treatment flow rate
			C. Calculated long-term infiltration rate of media filter drain mix
			D. Water surface elevations
			E. Depth to bedrock and groundwater
<b>10. MFD Layout and Configuration</b>			
			A. Location of MFD and tributary area
			B. Grading (labeled contours)
			C. Right-of-way
			D. Utility locations
			E. Length of MFD
			F. MFD type and typical cross section
			1. Slope (minimum depends on MFD type)
			2. Location and labels for MFD and its major components (no-vegetation zone, grass strip, mix bed, compost blanket)
			G. Top soil and/or soil amendment specifications
			H. Location, size, type, length, and invert of incoming pipe
<b>11. No-Vegetation Zone</b>			
			A. Layout on section view
			1. Depth of surfacing
			2. Width (between 1' and 3')
			3. Location, size, and invert of incoming pipes
			B. Gravel bedding materials
<b>12. Grass Strip</b>			
			A. Layout on section view
			1. Depth of topsoil or other materials
			2. Width (minimum 3')
			B. Soil mix
			C. Seed mix
<b>13. Media Filter Drain Mix Bed</b>			
			A. Layout on section view
			1. Depth of layers of bed mix and/or other layers used
			2. Width (varies based on structural considerations)
			B. MFD mix specifications and other material specifications
<b>14. Conveyance System</b>			
			A. Layout on section view
			1. Depth or surrounding material layer
			2. Width (minimum 2')
			3. Dimensions of backfill around drain
			4. Underdrain pipe size, type, depth, perforations
			B. Gravel backfill for drains
			C. Crushed surfacing base course