Updates

SPDES General Permit for Stormwater Discharges from Construction Activity
(GP-0-15-002)
&
Technical Standards

October 19, 2016 Southeast NY Stormwater Conference



Construction General Permit (GP-0-15-002)

- GP-0-15-002 effective January 29, 2015, 5 year permit
- GP changes limited to those required by new regulation/law and to provide clarification of existing requirements
- GP changes required corresponding updates to Design Manual



Construction General Permit (GP-0-15-002)

- Fact Sheet Summarizes Changes
- Responsiveness Summary
- http://www.dec.ny.gov/chemical/43133.html



Significant Changes to CGP

- Inclusion of EPA's Narrative Effluent Limitation Guidelines (ELGs) for Construction and Development (2009)
- Inclusion of Sizing Criteria from NYS Stormwater Management Design Manual (Design Manual)
- Clarification of screening process to address NYS Historic Preservation Act, Section 14.09, Subpart A, Part 428.4 and demonstrate eligibility
- Heightened stabilization and inspection requirements for projects in TMDL watersheds, or discharging to 303d waters



EPA's Construction and Development ELGs

- Part I.B has been added to incorporate EPA's final ELGs.
- ELGs apply primarily to the selection, design, and implementation of the erosion and sediment controls ("ESC") to be used on the site.
- Control measures in the NYS Standards & Specifications for Erosion & Sediment Control have been determined to be technologically available and economically achievable and practicable.
- ESCs documented in the Stormwater Pollution Prevention Plan (SWPPP) must be installed and implemented to achieve the effluent limits contained in Part I.B.





Division of Water

New York State Standards and Specifications for Erosion and Sediment Control

August 2005



New York State Department of Environmental Conservation

George St. Twold, Generally

Adherence to the Blue Book standards in design, construction and maintenance of E&S practices is deemed to meet DEC's and EPA's ELG's.....



Addition of Sizing Criteria from Design Manual

- Part I.C. specifies the criteria for the selection, design, installation and maintenance of post construction stormwater management practices
 - Part I.C.1 specifies *performance criteria = Required Elements* from Design Manual. <u>Deviation</u> if design does not conform to *Required Elements*
 - Part I.C.2 specifies the *sizing criteria* (i.e. WQv, RRv, Cpv, Qp and Qf) and clarifies that <u>deviations are not allowed</u>
 - Performance Criteria, Sizing Criteria and Equivalence defined in Appendix A
 - Required corresponding changes to Design Manual



Practice Sizing Criteria – New Development:

Runoff Reduction Volume (RRv)

- RRv Reduce 100% WQv, unless site limitations
 - WQv calculated using Chapter 4 or 10
 - If *site limitations*, all new impervious area directed to RR technique or Standard SMP w/RRv Capacity unless *infeasible*. RRv achieved must be greater than Minimum RRv
 - Remaining WQv treated w/Standard SMP

Water Quantity Control

- CPv extended detention of 1yr for 12 or 24 hrs, unless 5th order discharge or infiltration
- Qp (10 yr) & Qf (100 yr) released at predevelopment rate, unless 5th order discharge or downstream analysis



Practice Sizing Criteria – <u>Re</u>development Activity*:

WQv

- 1. Reduce impervious by 25% and restore to pervious or
- Treat 25% WQv w/standard practices for existing disturbed impervious or
- 3. Treat 75% WQv w/ approved proprietary practices for existing disturbed impervious or
- 4. Weighted average of above
- * Redevelopment Project <u>redefined</u> as Redevelopment Activity *disturbance and reconstruction of existing impervious area.*



Redevelopment Activity Sizing Criteria (cont.)

RRv

 RRv techniques/sizing criteria not required for redevelopment activity

Water Quantity Control

- Cpv Not required unless increase in hydrology
- Qp (10 yr) Not required unless increase in hydrology
- Qf (100yr) Not required unless increase in hydrology



Combination Redevelopment Activity and New Development

- Practices must meet sizing criteria calculated as an aggregate of Redevelopment and New Development sizing criteria (see Part I.C.2.d.)
- Redevelopment Chapter 9 Design Manual
- New Development Chapters 4 or 10 Design Manual



Summary Question

 What are the five sizing criteria used to design post-construction stormwater management controls in the NYS Stormwater Management Design Manual?

NYS Historic Preservation Act (SHPA)

- DEC must comply with SHPA (14.09) when issuing the Construction General Permit (CGP)
- CGP ties compliance with SHPA to permit eligibility. Part I.F.8 dictates when a construction activity is eligible for coverage and specifies documentation necessary to demonstrate eligibility
- NOI to be updated to document eligibility with SHPA
- SHPA screening /compliance required for majority of construction projects (see Attachment 2 of LOR for exclusions)



Exclusions Construction GP/SHPA Screening

- Single family house constructed on single lot
- Utility lines (i.e. water, sewer, electric, gas, etc.) located between existing edge of road and far edge of existing drainage ditch or utility lines with some exceptions
- Repair/replacement of utilities in same trench where excavation will not exceed width and depth of existing work
- Lighting and minor drainage where no other work is needed outside previously disturbed
- Ground disturbance within 10 ft of existing 1900 century or later structures

(See Attachment 2 in Letter of Resolution (LOR))



Screening Process/Eligibility Determination

- Screening tools (OPRHP/CRIS, DEC/Environmental Mapper)
- Project is eligible if screening determines that it:
 - 1. is not within *archeologically sensitive* area as indicated on sensitivity map, and
 - 2. is not on an historic property, and
 - 3. is not *immediately adjacent* to an *historic property,* and
 - 4. does not include construction of new permanent building on site within following distances of Unevaluated Property: (1-5 acre disturbance = 20'; 5-20 acre = 50'; 20 acre + = 100', and



Screening, Cont'd

5. does include construction of a new permanent building within distances in 4 of an *Unevaluated Property;* but OPRHP, a Historic Preservation Commission of Certified Local Gov't, or qualified preservation professional has determined it is <u>not a historically significant</u> building, structure or object.

Note: Supportive documentation (maps, determination letters, pictures, etc.) required in all cases.



Screening, Cont'd.

- If screening determines that project:
 - 1. is within *archeologically sensitive* area as indicated on sensitivity map, or
 - 2. is on an *historic property*, or
 - 3. is *immediately adjacent* to an *historic property,* there is a potential to affect historic properties. Written agreements must be in place with OPRHP or other governmental agency to resolve potential impacts. May require submittal of OPRHP consultation form.



Screening, Cont'd.

• If screening determines that project does include construction of a new permanent building within distances in 4 of an *Unevaluated Property*, and OPRHP, a Historic Preservation Commission of Certified Local Gov't, or qualified preservation professional has determined it is a historically significant building, structure or object; there is a potential to affect historic properties. Written agreements must be in place with OPRHP or other governmental agency to resolve potential impacts. May require submittal of consultation form

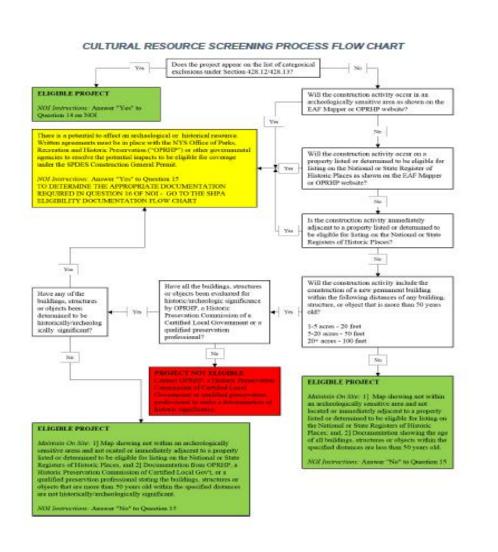


CGP/SHPA Definition of Key Terms

- Immediately Adjacent shared property line, excluding projects across a public highway
- Historic Property any building, structure, object or district that is listed or has been determined to be eligible for listing on State or National Registers of Historic Places
- Unevaluated Property buildings, structures or objects that are greater than 50 years of age that have not been evaluated for eligibility for listing on State or National Registers of Historic Places (*Note: can be on or adjacent to construction site)



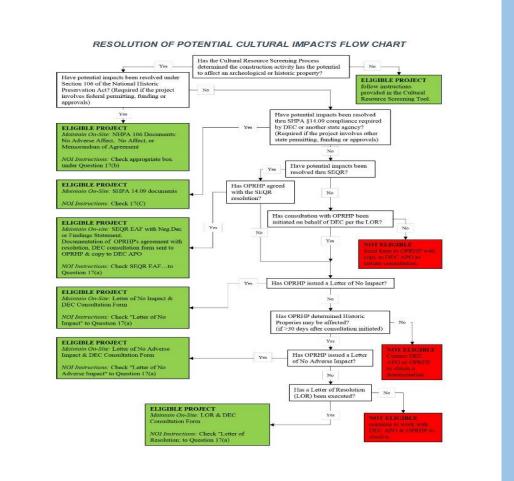
Cultural Resource Screening Process





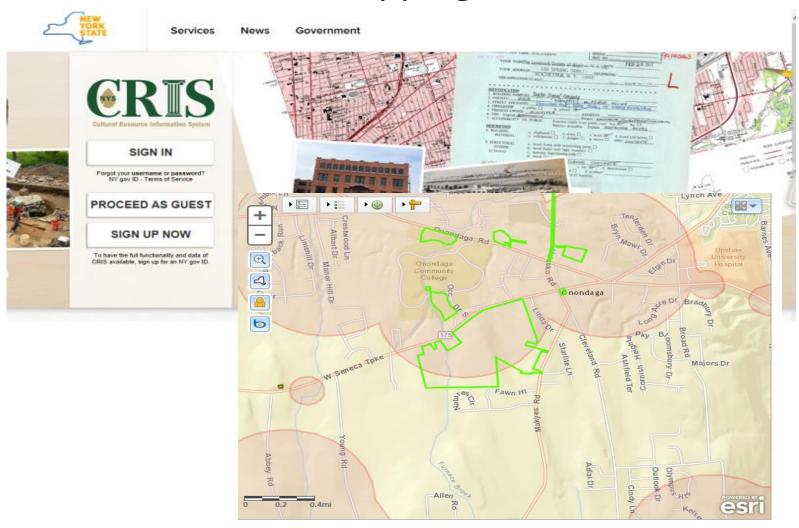
Department of Environmental Conservation

Resolution of Potential Impacts





Cultural Resource Mapping Tool



New York State Office of Parks, Recreation and Historic Preservation Field Services Bureau Peebles Island State Park Waterford, NY 12188-0189

Copy to:
New York State Department of Environmental Conservation
Agency Historic Preservation Officer
Division of Lands and Forests
625 Broadway
Abany, NY 12233-4255

DATE:

Registers of Historic Places.

Attachment 3

STORMWATER CONSTRUCTION GENERAL PERMIT REQUEST FOR STATE HISTORIC PRESERVATION ACT REVIEW

This form is being submitted to OPRHP to request consultation on historic properties or a reheological resources or both is accordance with the Letter of Resolution between NYS Department of Environmental Conservation and the NYS Office of Parks, Recreation and Historic Preservation regarding compliance with PRHPL § 14.09 for the State Pollution Discharge Elimination System General Permit For Stormwater Discharges From Construction Activity (679-0.15-002) dated

PROJECT NAME:	COUNTY
	NAME OF OWNER / OPERATOR OF PROPOSED CONSTRUCTION ACTIVITY
PROJECT LOCATION	TELEPHONE
CITY/FOWN/VILLAGE	E-MAIL.
CONSULTATION WITH OPRHP CRIS WEB SITE AT http://www.dec.nv.gov/enfmapper indicates the Project Si is within an archeologically sensitive area as indicated is immediately a discent to or contains an historic prop OTHER	te: on the sensitivity map enty
PLEASE A DVISE ON:	
G Need for Survey / Scope of Survey Needed	G Adequacy of Survey To-Date
G Significance of Identified Unevaluated Property $^{\rm I}$	G Signi ficance of Identified Archeological Resources
G Impact on Significant Cultural Resources	G Project Alternatives (As Described) G Need for Mitigation
G Other	_
ENCLOSURES . DESCRIPTIONS, MAPS, STUDJES, ETC. AS A PPROPR	IATE ARE ENCLOSED
	HE STATE ENVIRONMENTAL QUALITY REVIEW ACT OR OTHER ROPERTIES OR ARCHEOLOGICAL RESOURCES OR BOTH P PROJECT NUMBER (Assigned by OPRHP); PRV

OPRHP Consultation Form



Department of Environmental Conservation

Buildings, structures or objects that are greater than 50 years of age that have not been evaluated for eligibility for listing on the State or National

Upcoming New NOI Questions

14. Is the construction activity designated by the Commissioner of the Office of Parks, Recreation and Historic Preservation (OPRHP), pursuant to 9 NYCRR §§428.12 or 428.13 as exempt from the State Historic Preservation Act (SHPA) review (see Attachment 2 of the Letter of Resolution between the NYSDEC and OPRHP, dated ???)

Yes No

If Yes, go to question 18. If No, go to question 15.

Will the construction activity:

- a) occur within an archeologically sensitive area indicated on the sensitivity map, or
- b) have the potential to affect a property that is listed or determined to be eligible for listing on the National or State Registers of Historic Places, or
- c) include a new permanent building on the construction site within the following distances from a building, structure, or object that is more than 50 years old and OPRHP, a Historic Preservation Commission of a Certified Local Government, or a qualified preservation professional has determined is a historically/archeologically significant building, structure, or object:
 - 1-5 acres of disturbance 20 feet
 - 5-20 acres of disturbance 50 feet
 - 20+ acres of disturbance 100 feet

Yes No

If Yes, go to question 17. If No, go to question 16.

- 16. Is there documentation at the construction site demonstrating:
 - a) that the construction activity is not within an archeologically sensitive area indicated on the sensitivity map, and that the construction activity is not immediately adjacent to a property listed or determined to be eligible for listing on the National or State Registers of Historic Places, and
 - b) that there is no new permanent building to be built on the construction site within the following distances from a building, structure, or object that is more than 50 years old, or if there is such a new permanent building on the construction site within those parameters that OPRHP, a Historic Preservation Commission of a Certified Local Government, or a qualified preservation professional has determined that the building, structure, or object more than 50 years old is not historically/archeologically significant:

- 1-5 acres of disturbance 20 feet
- 5-20 acres of disturbance 50 feet
- 20+ acres of disturbance 100 feet?

Yes No

If Yes, go to question 18.

If No, the construction activity is not eligible for coverage under the General Permit so NOI cannot be processed.

17. Have the impacts to historic properties been resolved. Yes No

If Yes, which of the following documentation is at the construction site:

- DEC consultation form sent to OPRHP, and copied to the NYS DEC Agency Historic Preservation Officer (APO), and
 - the State Environmental Quality Review (SEQR) Environmental Assessment Form (EAF) with a negative declaration or the Findings Statement, with documentation of OPRHP is agreement with the resolution; or documentation from OPRHP that the construction activity will result in No
 - documentation from OPRHP providing a determination of No Adverse Impact,
 - a Letter of Resolution signed by the owner/operator, OPRHP and the DEC which allows for this construction activity to be eligible for coverage under the general permit under SHPA; or
 - a. Documentation of satisfactory compliance with Section 106 of the National Historic Preservation Act for a coterminous project area:

No Effect/No Historic Properties Affected

No Adverse Effect

Executed Memorandum of Agreement

b. Documentation that

SHPA Section 14.09 has been completed by NYS DEC or another state agency.

If No, the construction activity is not eligible for coverage under the General Permit and the NOI cannot be processed.



Department of Environmental Conservation

Summary Question

• What is the name of the screening tool that NYS OPRHP developed to assist project owners/designers in meeting the SHPA?

Heightened Requirements – Projects in TMDL or Discharging to 303(d)

- Stabilization in 7 days versus 14 day (see Part I.B.1.b.)
- 2 inspections every 7 days by "Qualified Inspector" (see Part IV.C.2.e.)
- Consistent with EPA's Construction General Permit



Minor Changes - CGP

- Electronic submittal of NOI (eNOI)
- Inclusion of Kinderhook Lake as a watershed where enhanced phosphorus removal standards are required.
- Inclusion of 2014 303(d) list of impaired waters
- Clarification that maintenance inspections be performed by a "Trained Contractor"
- Other minor revisions that either expand or provide clarification of permit requirements.



Permit Authorization

5 days for eNOI filing

10 days for paper NOI filing

60 days for technical deviations (in non MS4 areas)



Corresponding Changes to the Design Manual

- Clarifications to Chapters 3 and 4 on RRv Sizing Criteria to support inclusion in the CGP
- Clarifications to Chapter 9 on redevelopment to support inclusion of sizing criteria in CGP
- Clarifications to Chapter 10 on calculation of minimum RRv to support inclusion in the CGP
- Addition of pond safety provisions to satisfy ECL 17-0810, effective September 2011
- Updated isohyets maps to reflect most recent climatic data
- 2015 Design Manual (http://www.dec.ny.gov/chemical/29072.html)



Chapter 3 and 4 Updates - RRv Sizing Criteria

- Chapters 3 and 4 updated to clarify when projects may <u>reduce</u> less than 100% of the WQv
 - Projects that cannot reduce 100% of WQv due to *site imitations* shall direct runoff from all newly constructed impervious areas to a RR technique or standard SMP with RRv capacity unless *infeasible*
 - In no case shall RRv achieved from new impervious areas be less than Minimum RRv
 - Site limitations defined as site conditions that prevent use of infiltration technique or infiltration of total WQv (includes seasonal high GW, shallow bedrock, infiltration rate < 0.5 "/hr)
 - *Infeasible* not technologically possible, or not economically practicable and achievable in light of best industry practices



Updated RRv Credit – Standard SMPs with RRv Capacity

Table 3.5 Runoff Reduction Capacity for Standard SMPs	
SMP	RRv Capacity (% of WQv provided by practice)
Infiltration Practices (by source control)	100%
Bioretention Practice	100% in HSG A and B (without underdrain) 40% HSG C and D (with underdrain)
Dry Swale (Open Channel Practice)	40% in HSG A and B 20% in HSG C and D



Chapter 9 Updates - Redevelopment

- Application criteria in Section 9.3.1 has been removed
- Clarifies that Chapter 9 requirements only apply to disturbance and reconstruction of existing impervious surfaces
- "Redevelopment project" replaced with "redevelopment activity" in Chapters 3 and 9.
- Expansion of impervious area must comply with new development requirements (Chapters 4 or 10)



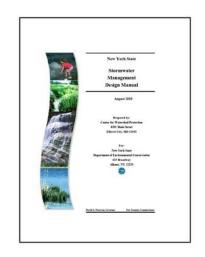
Application Criteria - Alternate WQv sizing criteria may be applied if:

- An existing impervious area is disturbed and then reconstructed and
- There is inadequate space for controlling runoff and
- The physical constraints of the site do not allow standard treatment.





Department of Environmental Conservation



Chapter 10 Updates - Minimum RRv Calculation

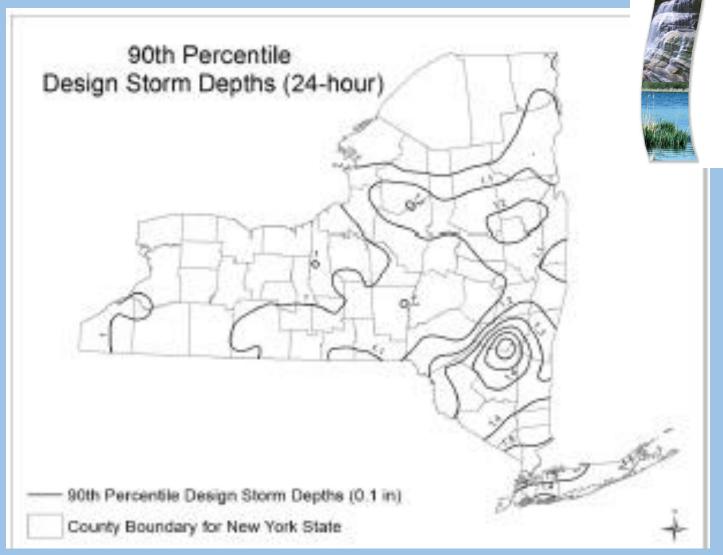
 Designers shall use the Simple Method (see Chapter 4) with the 1 year storm event to calculate the minimum RRv (RRv min = P_{1yr} x Rv x A_i/₁₂)



Summary Question

 Which of the 5 sizing criteria from the Design Manual do not have to be met as part of project that just includes redevelopment activity?

Updated Design Storm Maps



New York State Stormwater Management Design Manual

August 2003

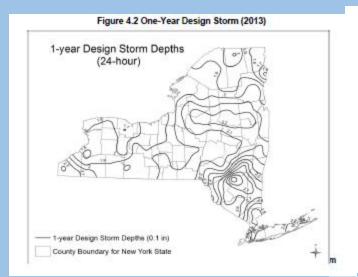
Prepared by Center for Watershed Protection 8390 Main Street Elliott City, MD 21043

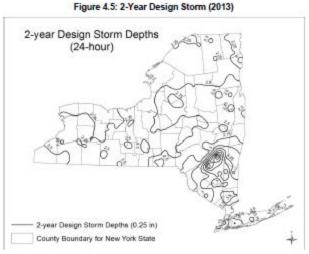
For: New York State Department of Environmental Conservation 625 Broadway Albany, NY 12233



George E. Pataki, Governor Frin M. Crotty, Commissioner

Design Storm Maps (cont'd.)







New York State Stormwater Management Design Manual

August 2003

Prepared by Center for Watershed Protection 8390 Main Street Ellicott City, MD 21043

New York State
Department of Environmental Conservation
625 Broadway
Alberry, NY 12233

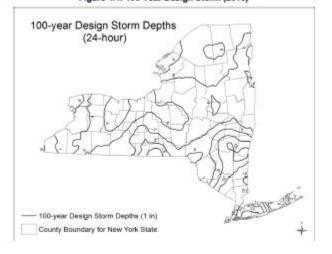


George F. Pataki, Genomor - Frin M. Crotty, Commissioner

Figure 4.3: 10-Year Design Storm (2013)



Figure 4.4: 100-Year Design Storm (2013)



Up to Date Storm Data



Extreme Precipitation Tables

Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

Smoothing Yes

New York State

near 727 E Washington St, Syracuse, NY 13210, USA Location

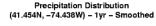
76.142 degrees West Longitude 43.049 degrees North Latitude

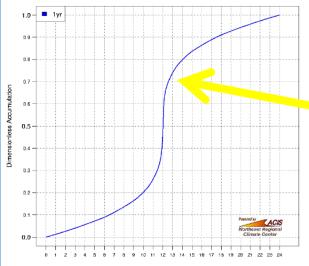
405 feet Elevation

Tue, 15 Nov 2011 15:28:04 -0500 Date/Time

Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		lday	2day	4day	7day	10day	
lyr	0.28	0.43	0.54	0.70	0.88	1.08	lyr	0.76	0.98	1.22	1.46	1.72	2.02	2.25	lyr	1.79	2.17	2.59	3.13	3.65	lyr
2yr	0.33	0.51	0.64	0.84	1.05	1.29	2yr	0.91	1.18	1.46	1.73	2.03	2.36	2.65	2yr	2.09	2.55	3.00	3.60	4.16	2yr
5yr	0.40	0.62	0.77	1.04	1.33	1.64	5yr	1.15	1.46	1.85	2.18	2.53	2.90	3.29	5yr	2.57	3.16	3.67	4.34	4.94	5yr
10yr	0.45	0.71	0.89	1.22	1.58	1.95	10yr	1.36	1.70	2.21	2.59	2.98	3.39	3.87	10yr	3.00	3.72	4.27	5.00	5.64	10yr
25yr	0.54	0.86	1.09	1.51	2.00	2.47	25yr	1.72	2.11	2.79	3.25	3.71	4.16	4.80	25yr	3.68	4.61	5.24	6.03	6.70	25yr
50yr	0.61	0.98	1.26	1.77	2.39	2.97	50yr	2.06	2.47	3.35	3.88	4.38	4.86	5.65	50yr	4.30	5.43	6.11	6.95	7.65	50yr
100yr	0.71	1.15	1.48	2.09	2.85	3.55	100yr	2.46	2.91	3.99	4.60	5.17	5.69	6.66	100yr	5.03	6.40	7.13	8.01	8.72	100yr
200yr	0.82	1.33	1.72	2.47	3.41	4.25	200yr	2.94	3.42	4.77	5.47	6.09	6.65	7.85	200yr	5.88	7.55	8.32	9.23	9.95	200yr
500yr	0.99	1.63	2.13	3.08	4.32				Precipit	ation Dist	ribution				500yr	7.24	9.39	10.22	11.14	11.85	500yr





Duration (hours)

Unique distribution for each storm at each location

Storm Precipitation Data Update

- Recommend use of precip.net data versus static maps w/Type II or III distribution.
- Designers have option of performing analysis using both methods and use more conservative results



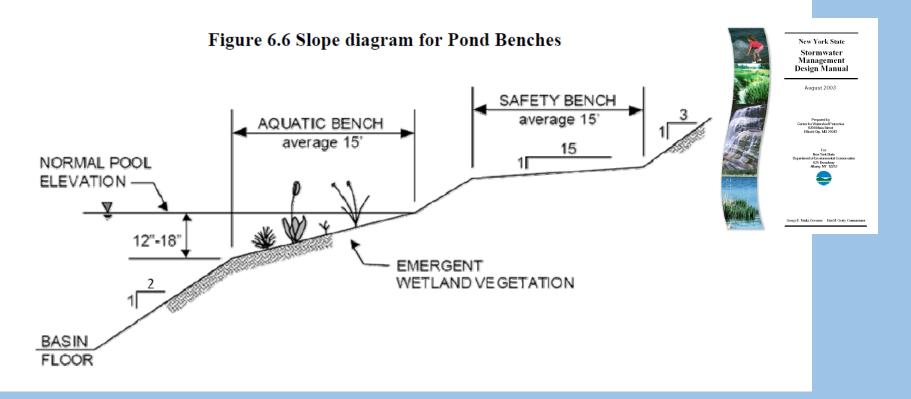
Pond Safety Provisions

- Required by ECL 17-0810
- Updated "Stormwater Pond" section in Chapter 6 as follows:
 - Warning signage moved to "Required Element" section
 - Slope not to exceed 2:1 (h:v) aquatic bench to basin floor
 - Added requirement on establishing vegetation prior to rendering pond in-service
 - Added requirements to inspect and maintain all safety elements on annual basis



Pond Safety Cont'd.

pool water surface elevation. The slope proceeding from the aquatic bench to the pond basin floor *shall* not exceed 2:1 (h:v).



Blue Book Update

- Reorganization of standard to reflect recommended planning/design considerations for developing an ESC Plan (i.e. erosion control which includes runoff control and soil stabilization practices, then sediment control).
- Addition of design considerations for the different types of construction projects
- Inclusion of standards and specifications to address EPA's ELGs (e.g. Concrete Truck Washout, Site Pollution Prevention, Soil Restoration, Buffer Filter Strip, and Dewatering Device)
- Addition of new standards/specifications to address changes in technology (i.e. Compost Filter Sock, Drop Inlet Protection, Dewatering Device, Geotextile Filter Bag, Sediment Dike, Anchored Stabilization Matting, Loose Stabilization Blankets, Flow Diffuser)



Blue Book Update, cont'd.

- Deletion of out dated or no longer used practices/standards
- Clarification of the design criteria for the majority of the standards based on current studies and field testing (i.e. Silt Fence, Sediment Basin, Sediment Trap, etc.)
- Deletion of all references on the use of invasive species for the establishment of vegetative cover
- Will require Construction GP modification to reference new Blue Book (July 2016 version)
- Available on Department's webpage



Other Information/Updates

- Final Transition Policy 2015 Design Manual Updates (see http://www.dec.ny.gov/chemical/43133.html)
 - Applies to current permit term only
- Update 4-Hr Erosion and Sediment Control Course
- Maintenance chapter for Post-construction Stormwater Management Controls under development (Contract with CWP)
- Updated Runoff Reduction Worksheets



Design Manual Deviations

- Part III.B.2 of GP requires owner to prepare a SWPPP with practices designed in conformance with "performance critera" in DM or demonstrate equivalence
- Performance criteria defined as design criteria listed under "Required Elements" in Chapters 5, 6 and 10 of DM



Summary Question

• The Blue Book was updated to address which EPA requirements?

Stormwater Webpages

Technical Standards, FAQ's

http://www.dec.ny.gov/chemical/8694.html

General Permit, Forms

http://www.dec.ny.gov/chemical/43133.html



MS4 General Permit Updates

- Current permit expires April 30, 2017
- Draft renewal to be publicly noticed by November 1, 2016
- Opportunities for MS4s and other stakeholders to provide DEC with input.



EPA Remand Rule - Proposal

 NYSDEC must determine the adequacy of BMPS and other requirements and provide public notice and hearing on requirements.

- 3 Options
- Traditional General Permit Approach
- Procedural Approach
- State Choice Approach



EPA Remand Rule

- 3 important Web pages for information and documents related to the rulemaking.
- 1.EPA website
- http://www.epa.gov/npdes/npdes-stormwater-proposed-ms4-general-permit-remand-rule
 - Federal Register publication of the full rule document. Strikeout Version of the Rule Changes for Option 1.
 - Compendium of MS4 General Permit Examples
- 2. Federal Register site for the new proposed rule.
- https://www.federalregister.gov/articles/2016/01/06/2015-33174/national-pollutant-dischargeelimination-system-npdes-municipal-separate-storm-sewer-system-general
 - Public Inspection version (single column double spaced text)
- 3. Docket page for rulemaking
- www.regulations.gov.
 - Docket # EPA-HQ-OW-2015-0671



MS4 Permit Improvement Guide



U.S. ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF WATER

OFFICE OF WASTEWATER MANAGEMENT

WATER PERMITS DIVISION

Permit provisions must be clear, specific, measurable and enforceable

- What needs to happen?
- Who needs to do it?
- How much they need to do
- When they need to get it done

Where it is to be done



Department of Environmental Conservation

Questions

Contact Information

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NYS DEC

Division of Water

General Permits Section

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