

Updates

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

October 2015

**North Country Stormwater Tradeshow &
Conference**



Construction General Permit (CGP) Renewal

- GP-0-10-001 expired January 28, 2015
- 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 (CGP) Renewal

- 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)
- 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

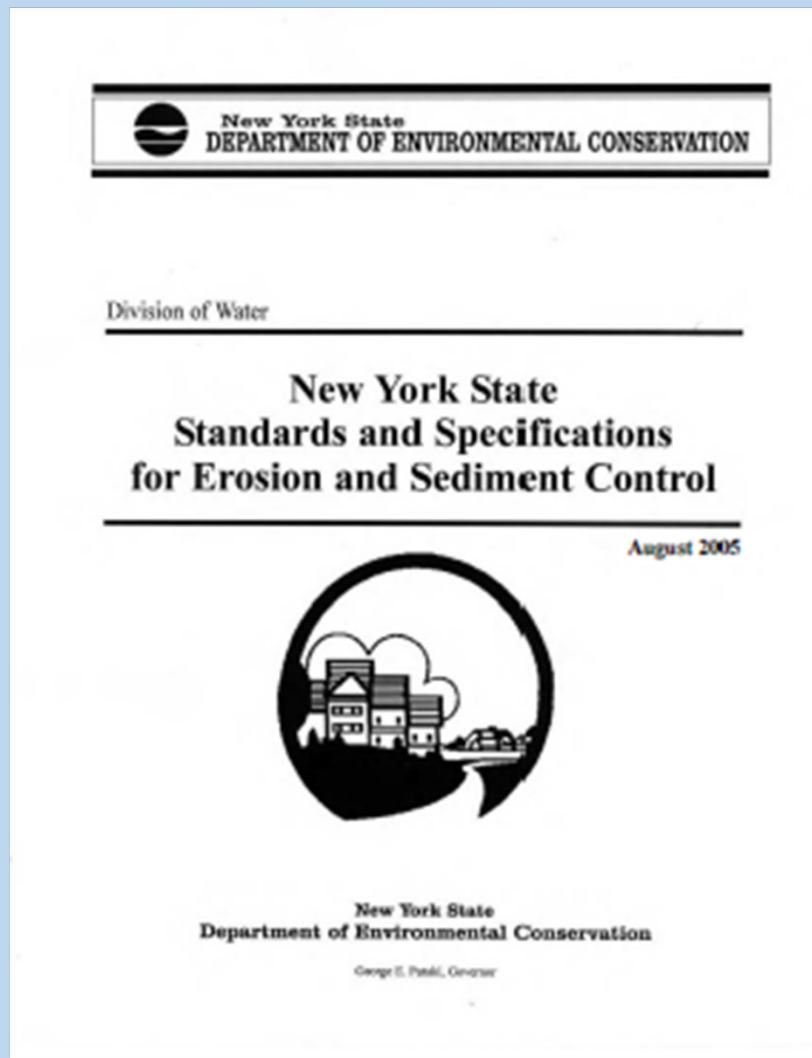
- Part I.B has been added to incorporate EPA's final ELGs.
- ELGs apply primarily to the selection, design, and implementation of the erosion and sediment controls ("ESC") to be used on the site.
- Technology based effluent limitations that represent the degree of reduction attainable by the application of best practicable technology currently available.



EPA's Construction and Development ELGs, cont.d

- 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.





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.....

Updated Blue Book coming soon!

NYS Department of Environmental Conservation



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 the *performance criteria* (Required Elements) and clarifies when deviations are allowed
 - Part I.C.2 specifies the *sizing criteria* (i.e. WQv, RRv, Cpv, Qp and Qf) and clarifies that deviations are not allowed
 - *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 – Redevelopment Activity*:

WQv

1. Reduce impervious by 25% and restore to pervious or
2. 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 redefined 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

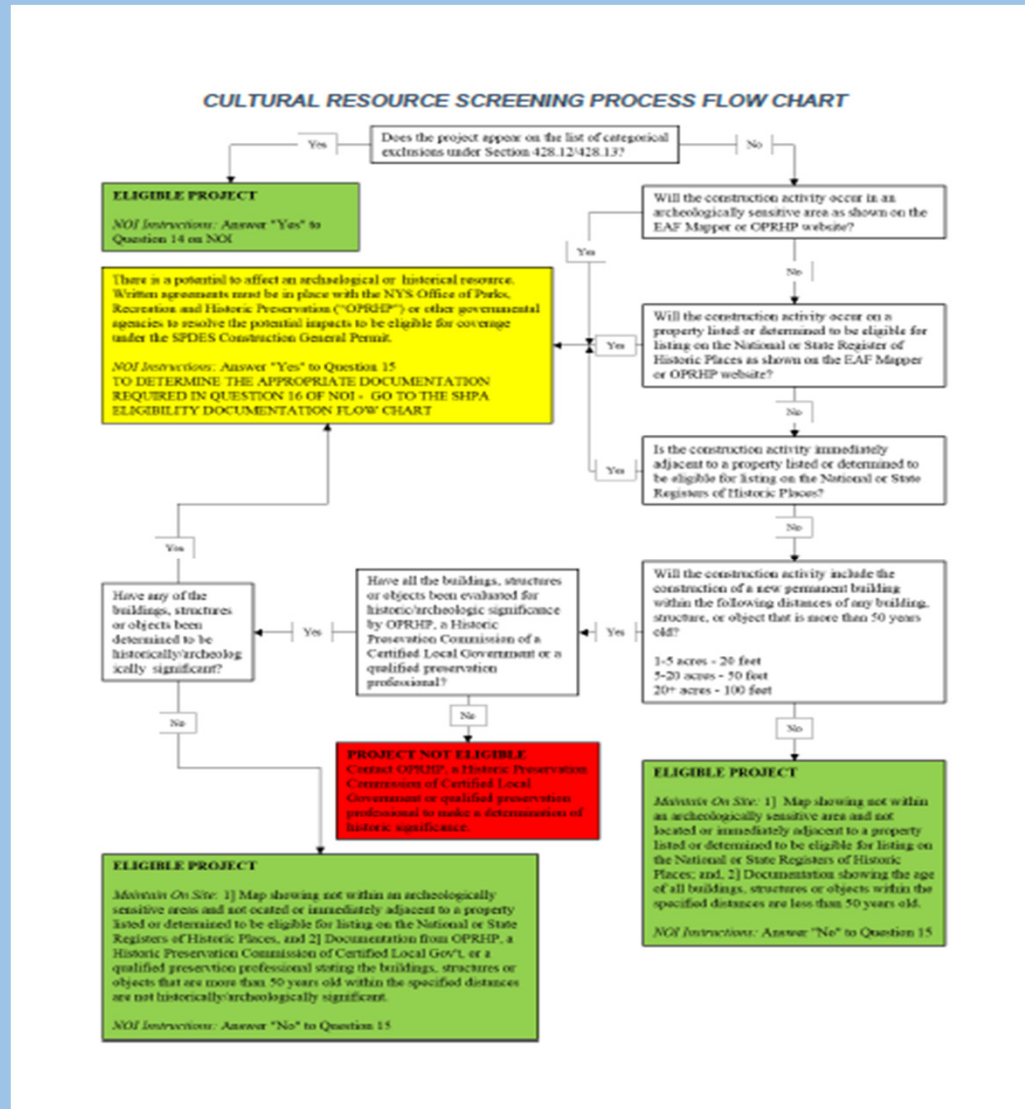


NYS Historic Preservation Act (SHPA)

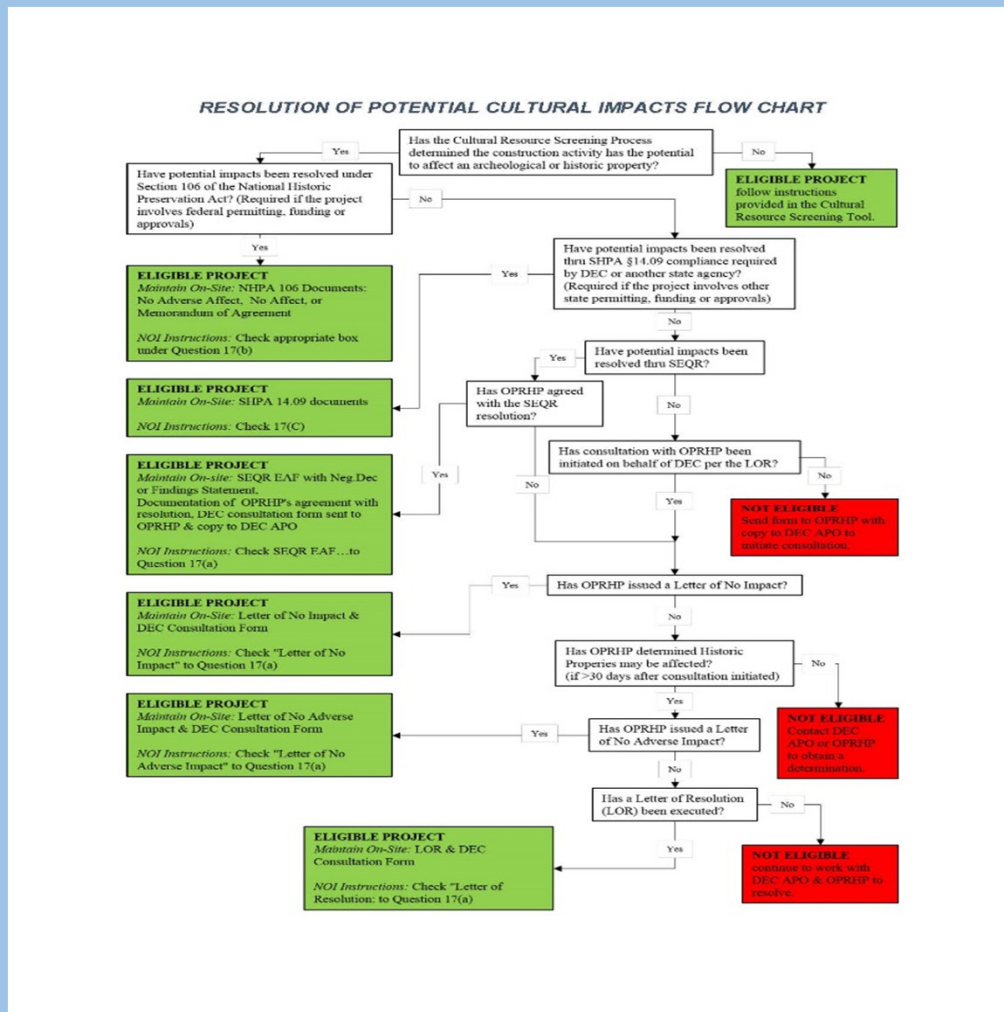
- DEC must comply with SHPA (14.09) when issuing the Construction General Permit (CGP)
- SHPA intended to prevent historic, cultural or archeological resources from being adversely affected
- CGP ties compliance with SHPA to permit eligibility
- Part I.F.8 dictates when a construction activity is eligible for coverage and specifies documentation necessary to demonstrate eligibility
- DEC/OPRHP to provide outreach/training on process
- Guidance - <http://www.dec.ny.gov/chemical/43133.html>
- NOI to be updated to document eligibility with SHPA



Cultural Resource Screening Process



Resolution of Potential Impacts



Cultural Resource Mapping Tool

NEW YORK STATE

Services News Government

CRIS
Cultural Resource Information System

SIGN IN
Forgot your username or password?
NY gov ID - Terms of Service

PROCEED AS GUEST

SIGN UP NOW
To have the full functionality and data of CRIS available, sign up for an NY gov ID.

Onondaga State Social Complex
FEB 20 2017
ROCHESTER, N.Y. 14603

DESCRIPTION
1. HISTORIC: a. single b. group c. individual d. multiple
2. ARCHITECTURAL: a. single b. group c. individual d. multiple
3. STRUCTURAL: a. single b. group c. individual d. multiple
4. SYSTEM: a. single b. group c. individual d. multiple
5. OF INTEREST: a. single b. group c. individual d. multiple
6. OTHER: a. single b. group c. individual d. multiple

0 0.2 0.4mi

POWERED BY **esri**



New York State Office of Parks, Recreation and Historic
Preservation
Field Services Bureau
Pebbles 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
Albany, NY 12233-4255

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 archeological resources or both in 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 (GP-0-15-002) dated _____.

DATE: _____ COUNTY _____
PROJECT NAME: _____ NAME OF OWNER / OPERATOR OF PROPOSED CONSTRUCTION ACTIVITY _____
PROJECT LOCATION _____ TELEPHONE _____
CITY/TOWN/VILLAGE _____ E-MAIL: _____

CONSULTATION WITH OPRHP CRIS WEB SITE AT <http://cris.parks.ny.gov> or the DEC EAF Mapper <https://www.dec.ny.gov/eafmapper> indicates the Project Site:

is within an archeologically sensitive area as indicated on the sensitivity map
 is immediately adjacent to or contains an historic property
 OTHER _____

PLEASE ADVISE ON:

G Need for Survey / Scope of Survey Needed G Adequacy of Survey To-Date
G Significance of Identified Unevaluated Property¹ G Significance of Identified Archeological Resources
G Impact on Significant Cultural Resources G Project Alternatives (As Described) G Need for Mitigation
G Other _____

ENCLOSURES
DESCRIPTIONS, MAPS, STUDIES, ETC. AS APPROPRIATE ARE ENCLOSED _____

AGREEMENT REACHED WITH OPRHP THROUGH THE STATE ENVIRONMENTAL QUALITY REVIEW ACT OR OTHER DOCUMENTATION THAT IMPACTS TO HISTORIC PROPERTIES OR ARCHEOLOGICAL RESOURCES OR BOTH HAVE BEEN ADDRESSED (attach) _____ OPRHP PROJECT NUMBER (Assigned by OPRHP): PRV _____

¹ 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 Registers of Historic Places.

OPRHP Consultation Form



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.

15. Will the construction activity:

- occur within an *archeologically sensitive area* indicated on the sensitivity map, or
- 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
- 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:

- 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
- 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's agreement with the resolution; or
 - documentation from OPRHP that the construction activity will result in No Impact; or
 - documentation from OPRHP providing a determination of No Adverse Impact; or
 - 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
- 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
- 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.



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 reduce less than 100% of the WQv
 - Projects that cannot reduce 100% of WQv due to site limitations 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)

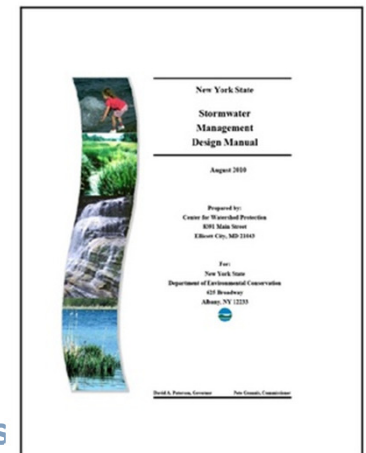


Application Criteria - Alternate WQv sizing criteria may be applied if:

- 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.



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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

$$(RRv_{min} = P_{1yr} \times Rv \times A_i/12)$$

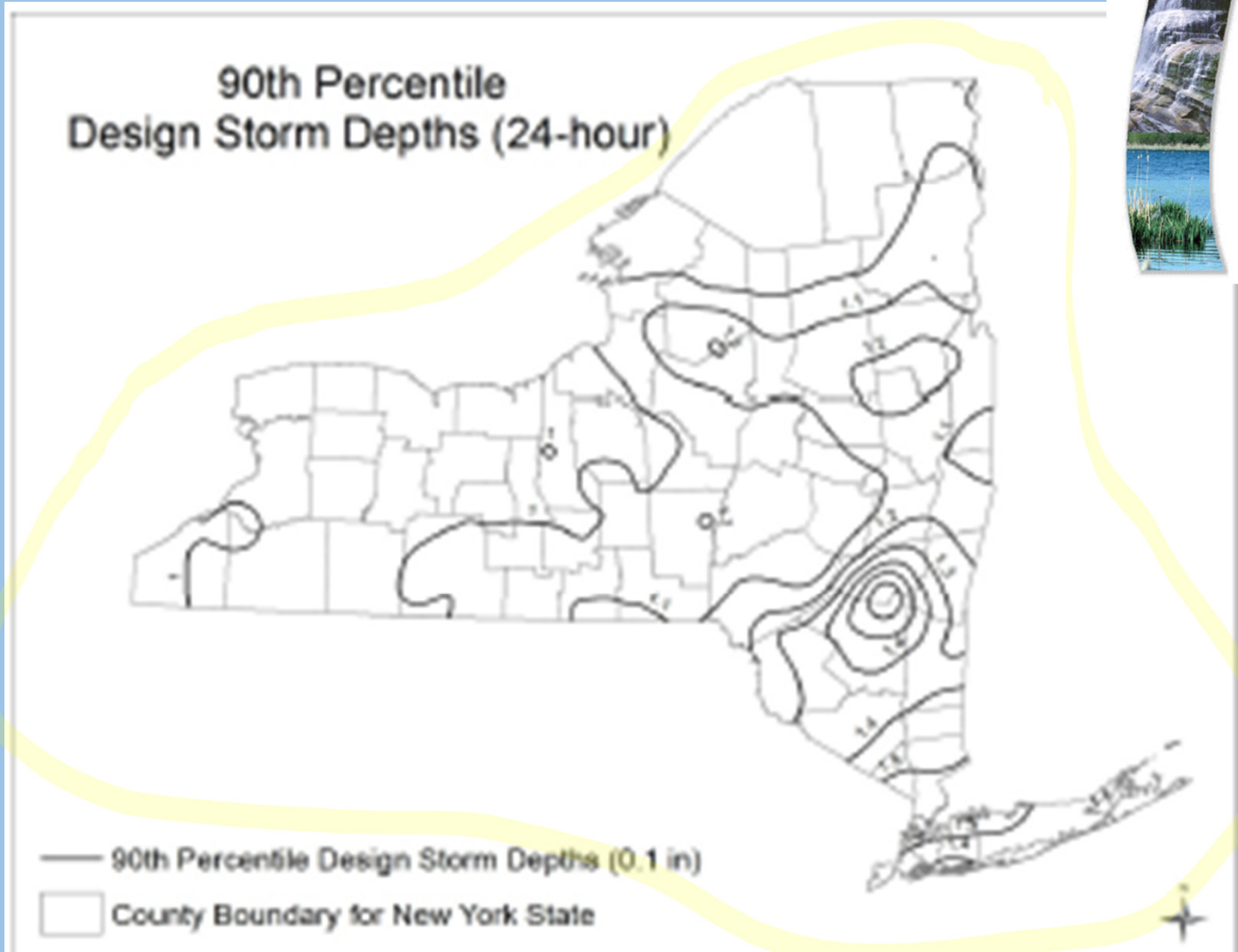


Storm Precipitation Data Update

- Design Storm Maps (90th, 1-year, 2-year, 10-year and 100-year) have been updated to reflect up-to-date storm data



Updated Design Storm Maps



New York State Stormwater Management Design Manual

August 2003

Prepared by
Center for Watershed Protection
8390 Main Street
Ellicott City, MD 21045

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



George E. Pataki, Governor Erin M. Grady, Commissioner



Design Storm Maps (cont'd.)

Figure 4.2 One-Year Design Storm (2013)

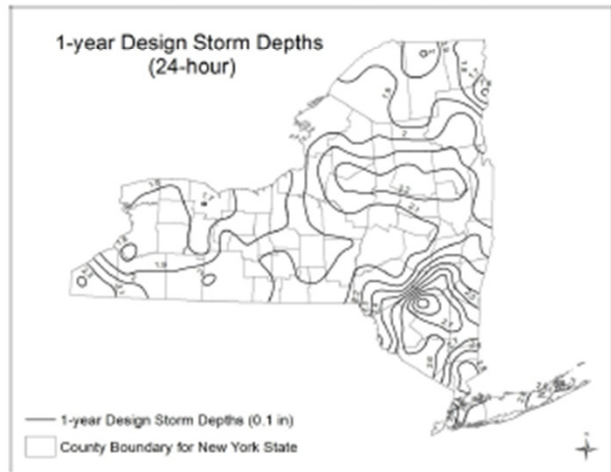


Figure 4.5: 2-Year Design Storm (2013)



Figure 4.3: 10-Year Design Storm (2013)

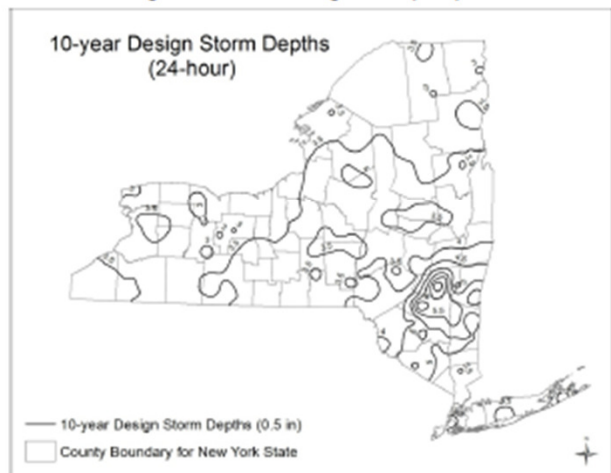
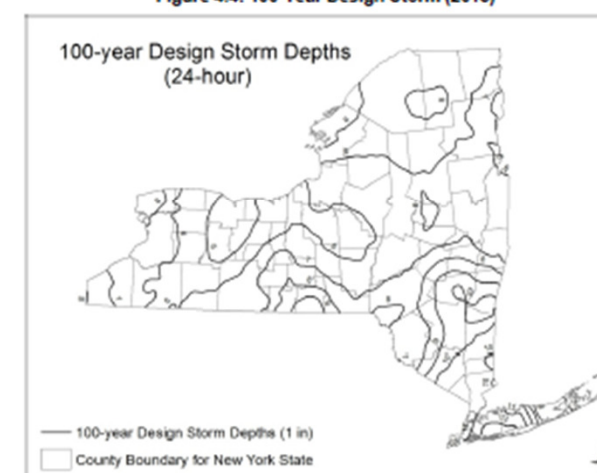


Figure 4.4: 100-Year Design Storm (2013)



New York State Stormwater Management Design Manual

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George E. Pataki, Governor Erin M. Coty, Commissioner

rvation



Up to Date Storm Data

Extreme Precipitation in New York & New England An Interactive Web Tool for Extreme Precipitation Analysis

About this Project

Data & Products

Daily Monitoring

Documentation

Select Product ?

Extreme Precipitation
Tables - HTML ?

Extreme Precipitation
Tables - Text/CSV ?

Partial Duration Series -
by Point ?

Partial Duration Series -
by Station ?

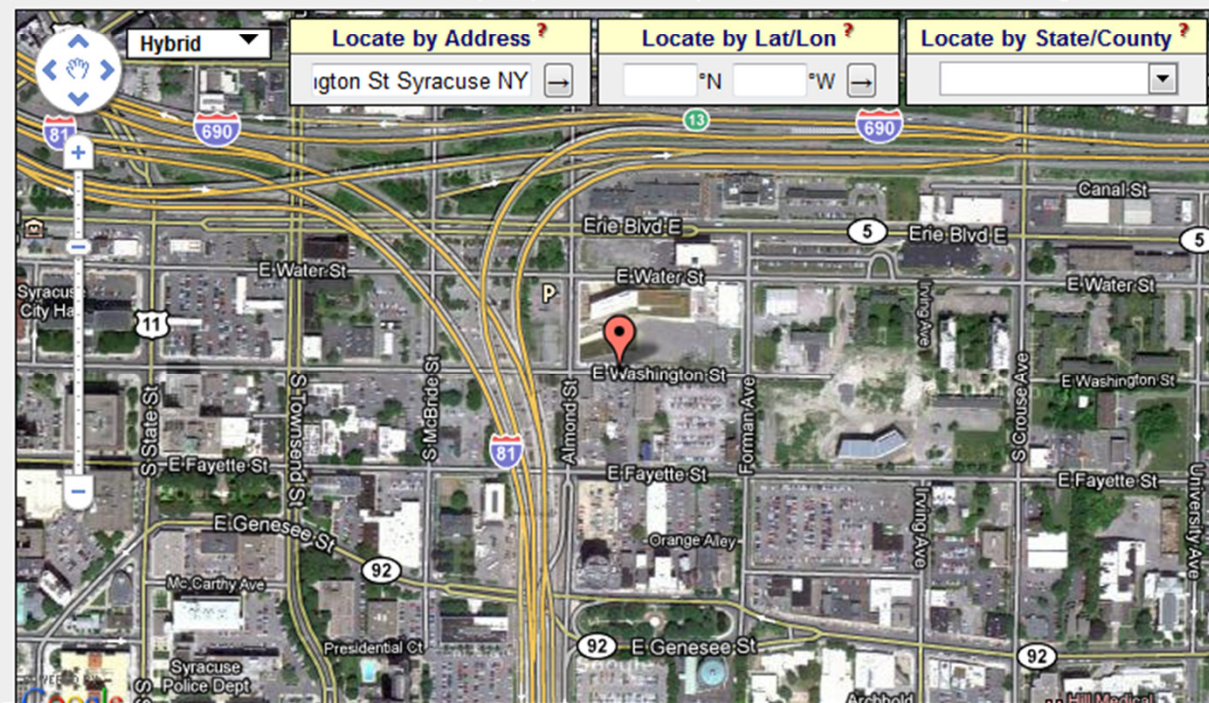
Distribution Curves -
Graphical ?

Distribution Curves -
Text/TBL ?

Intensity Frequency
Duration Graphs ?

Precipitation Frequency
Duration Graphs ?

Select Location ? Double-click the map to place a marker, or enter address or latitude/longitude.



<http://precip.eas.cornell.edu/>

NYS Department of Environmental Conservation



Extreme Precipitation Tables

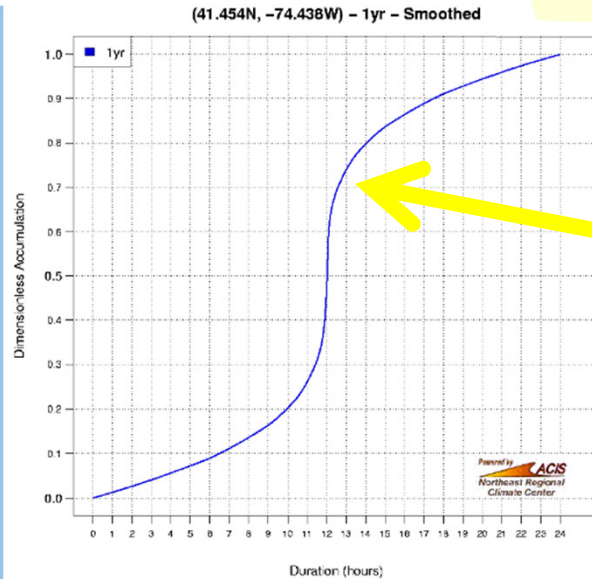
Northeast Regional Climate Center

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

Smoothing	Yes
State	New York
Location	near 727 E Washington St, Syracuse, NY 13210, USA
Longitude	76.142 degrees West
Latitude	43.049 degrees North
Elevation	405 feet
Date/Time	Tue, 15 Nov 2011 15:28:04 -0500

Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.28	0.43	0.54	0.70	0.88	1.08	1yr	0.76	0.98	1.22	1.46	1.72	2.02	2.25	1yr	1.79	2.17	2.59	3.13	3.65	1yr
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	5.38	500yr	3.72	4.25	6.02	6.85	7.57	8.18	9.77	500yr	7.24	9.39	10.22	11.14	11.85	500yr



Unique distribution for each storm at each location



Pond Safety Provisions

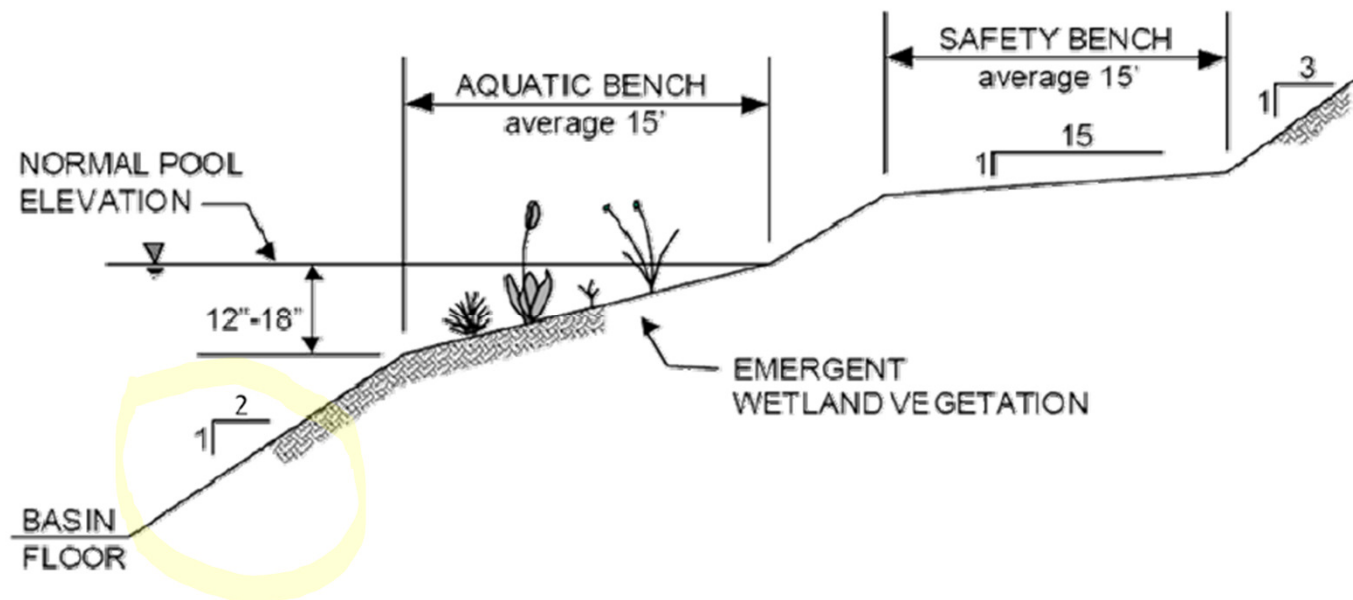
- Required by ECL 17-0810
- Updated “Stormwater Pond” section in Chapter 6 as follows:
 - Warning signage moved to “Required Element” section
 - Slope not to exceed 2:1 (h:v) aquatic bench to basin floor
 - Added requirement on establishing vegetation prior to rendering pond in-service
 - Added requirements 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).

Figure 6.6 Slope diagram for Pond Benches



New York State
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6300 Mass Street
Ellicott City, MD 21045

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Department of Environmental Conservation
625 Broadway
Albany, NY 12233



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Pond Safety Cont'd.

Safety Features

Required Elements

- Side slopes to the pond shall not exceed 3:1 (h:v), and shall terminate at a safety bench.
- Side slope proceeding from aquatic bench to pond basin floor shall not exceed 2:1 (h:v).
- Both the safety bench and the aquatic bench must be landscaped to prevent access to the deep pool. The vegetation must be established before pond is rendered in-service.
- Warning signs must be posted prohibiting swimming, wading, and skating, warning of possible contamination or pollution of pond water, and indicating maximum depth of pond.
- The principal spillway opening shall not permit access by small children, and endwalls above pipe outfalls greater than 48 inches in diameter shall be fenced to prevent a hazard.
- When the pond slope requirements or any other required safety feature cannot be met perimeter fencing is required at or above the maximum water surface level provided that all required maintenance can still be performed.



Examples Pond Fencing / Signs



Blue Book Updates

- 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 Updates, 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
- Soon to be available for public comment and review



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
- Updated Runoff Reduction Worksheets



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>



Questions

- Contact Information

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