

Adopted 6/26/2020

CMP POLICY & IMPLEMENTATION COMMITTEE MEETING

This meeting was conducted remotely

All participants were present via Zoom conference

The public could view/comment through Pinelands Commission YouTube link:

<https://www.youtube.com/channel/UCBgpC8sbR3Acrjo7ppxs3Uw>

Meeting ID: 833 5477 1666.

May 29, 2020 - 9:30 a.m.

MINUTES

MEMBERS IN ATTENDANCE: Chairman Richard Prickett, Sean Earlen, Jordan Howell, Jerome H. Irick, Ed Lloyd, and Mark Lohbauer

STAFF PRESENT: Nancy Wittenberg, Stacey P. Roth, Susan R. Grogan, Marci Green, Charles Horner, Paul Leakan, Jessica Lynch, April Field, Brian Szura, Ernest Deman, Jessica Noble, Ed Wengrowski and Betsy Piner. Also present was Craig Ambrose, with the Governor's Authorities Unit and DAG Kristina Miles.

GUEST SPEAKER: Gabriel Mahon, Bureau Chief, New Jersey Department of Environmental Protection, Bureau of Nonpoint Pollution Control

1. Call to Order

Chairman Prickett called the meeting to order at 9:33 a.m. and, following a roll call, recognized the contributions of the late Commissioner Candace McKee Ashmun (*who passed away on Saturday, May 23, 2020*). He noted that she would admonish the Commission to “soldier on” in advancing its mandate to continue to protect the Pinelands. He said the Commission would recognize her formally at its June 12, 2020 meeting.

Commissioner Lloyd said it was difficult to express what “Candy” meant to the people of New Jersey and the environmental community and to him personally. He said he would deeply miss his pal and in tribute to her, the Commission should continue to ask “What would Candy do?” in order to protect the Pines as she had done.

2. Adoption of minutes from the April 24, 2020 CMP Policy and Implementation Committee meeting

Commissioner Lohbauer moved the adoption of the minutes of the April 24, 2020 Committee meeting. Commissioner Irick seconded the motion and the minutes were adopted with all voting in favor.

3. Alternate Design Treatment Systems Pilot Program

Ms. Wittenberg noted that today's meeting would include a lot of very technical rules and it would not be an easy meeting.

Ms. Grogan said the Committee packet included a draft of the full formal septic rule proposal, including all the explanatory material and required impact statements. She said the draft amendment was the same as what the Committee had reviewed previously with one exception, as described in her cover memo, that of retaining the HOOT system in the pilot program. She said the Commission had only just received notice of the first installation of this system and it is hoped that more will follow so it would remain in the program for further testing and evaluation, and not removed as previously recommended. She said Ms. Green, who is in this meeting this morning, had drafted this proposal and that it had been shared with and returned by the Governor's Authorities Unit with some very minor comments. She said, should the Committee make its recommendation today, it could be authorized by the full Commission at its June 12, 2020 meeting to start the formal rulemaking period.

Ms. Grogan said the procedural steps will include publication of the proposal in the New Jersey Register with a 60-day comment period, a public hearing, probably in September, with comments shared with the Commission, and possibly adoption at the Commission's November meeting, leading to an effective date before the end of the year.

Commissioner Lohbauer stated that he had not realized that the alternative systems were allowed only for residential use and that he hoped they would be available for small businesses. Ms. Grogan said the pilot program is only for testing systems on residential lots. She said there are opportunities for these systems to be used for non-residential development, but that is outside of the pilot program.

Mr. Wengrowski said domestic wastewater has a very narrowly defined set of characteristics (BOD, total nitrogen, etc.) and the *ad hoc* Committee (*the Ad Hoc Committee on Alternative Septic Systems*) felt that commercial uses had such a range of effluent characteristics that disparate wastewater from, for example, a butcher shop vs. a lawyer's office, would not be suitable for the testing of treatment technologies in a pilot program. Commercial applications are evaluated on a case-by-case basis. He said the vendors are required to demonstrate the efficacy of these systems elsewhere in treating wastewater with a makeup that is similar to the proposed use. Commercial projects require a licensed wastewater treatment system operator, with testing in perpetuity. He said a legal agreement must be entered into with the Commission that requires remedies in the event that the system is not functioning properly. The remedies consist of increasingly stringent steps that must be taken to resolve problems, and if necessary, the Commission would prohibit any discharge from any system that is not meeting standards, including requiring expensive and frequent pumping of the system, requiring that the system function as a holding tank, until the issue is resolved. He said that such measures had been

required in one recent case and at considerable cost. He said there are four systems currently serving non-residential projects and an application for a fifth that is about to be approved. He said it is particularly useful to allow commercial development using advanced wastewater treatment systems in the Villages where lot sizes are too small for development to meet the groundwater quality standard by dilution alone.

Commissioner Lohbauer said he was relieved to know that the systems could be applied to commercial uses.

In response to Chairman Prickett's question as to how often changes are made to rule proposals as a result of public comment, Ms. Grogan said minor clarifications can be done easily. However, those of a more substantive nature require a re-proposal. There may be situations where the bulk of the proposal can be advanced without a portion that may require more attention. She said, in some cases, entire sets of rules can be eliminated to be proposed later.

Commissioner Earlen recommended that the Commission propose the CMP amendments related to the septic pilot program. Commissioner Lohbauer seconded the motion and all voted in favor.

4. Stormwater Management Regulations

Ms. Grogan said Mr. Wengrowski would provide an overview of the Commission's current stormwater regulations and then Mr. Gabe Mahon, with the New Jersey Department of Environmental Protection (NJDEP) would review its new regulations.

Mr. Wengrowski provided an overview of the existing CMP stormwater rules and how they had developed since 1980. (*Attachment A to these minutes and posted on the Commission's website at: <https://www.state.nj.us/pinelands/home/presentations/Stormwater%20PI%205.29.pdf>*)

Mr. Wengrowski's first slide showed a typical large stormwater basin, the legacy design in which the developer selects the topographic low point on the site and all the stormwater runoff is directed to a single large basin. He said it is preferable to have multiple smaller basins scattered throughout a project.

Mr. Wengrowski noted that the Committee would hear the term "BMP's", short-hand for Best Management Practices and noted it is a terribly confusing term in that it denotes both the practices, e.g., minimizing impervious surfaces, and also the constructed structures used for stormwater control.

Mr. Wengrowski said in 1980, the CMP was forward-thinking regarding the principles of stormwater, recognizing that stormwater runoff is a natural resource to be collected and not a waste product to be discarded. He said, at the same time the CMP recognized that stormwater runoff could be a source of pollution (chemical fertilizers, road salts, heavy metals from guard rails and conveyance pipes, petroleum and bacteria), and can cause soil erosion and flooding. He said the CMP introduced modern concepts such as prohibiting direct discharge of stormwater

runoff into wetlands, mandating recharge to the aquifer, allowing direct discharge of pollutant-free rooftop stormwater to dry wells, requiring pretreatment of polluted runoff by vegetative filtration and discouraging the direct discharge of stormwater to excessively drained soils, the clean “sugar sand” that cannot provide adequate filtration.

Mr. Wengrowski described the stormwater basin requirements of the mid-1990’s. He said, as a result of a 2003 grant from NJDEP, Commission staff, including Mr. Szura, analyzed some 46 basins in the Mullica Watershed and determined that 70% of them were not functioning properly, that is, they were not draining completely within three days as required. The lessons learned from that study were incorporated into the 2006 CMP amendments.

Mr. Wengrowski said NJDEP amended its stormwater rules in 2004 and published the New Jersey Stormwater BMP Manual to provide guidance. He said this was a novel and progressive rule, as described in his slides.

Mr. Wengrowski said, in 2006, funded by a NJDEP grant, the Commission hired two engineering consultants to incorporate the NJDEP rules into the CMP while retaining special Pinelands protections related to 10-year storm recharge requirements, prohibition of discharge to streams or wetlands, special treatment of runoff from high pollutant loading areas, and emphasizing soil testing and as-built certifications. He said that NJDEP has amended its rules again to emphasize green infrastructure with the goal of mimicking natural hydrology post-development. He said staff will need to update the CMP to incorporate these new rules. He noted that Ms. Grogan and Ms. Roth had recently been impressed by a presentation by our guest speaker today and had invited him to speak before the Committee on NJDEP’s new rules.

Commissioner Lloyd said it appears that the intensity of storms is increasing and he asked if the definition of 10-year and 100-year storm is changing.

Mr. Mahon said he felt that when looking at a project, one needed to look at the lifetime of a project and consider the rainfall towards the end of its lifetime, not the rainfall as it is today. He said New Jersey depends upon the National Oceanographic and Atmospheric Administration (NOAA) as the source of data but unfortunately that was last updated twenty years ago.

Chairman Prickett asked about using native plants in stormwater basins.

Mr. Wengrowski responded that he thought Mr. Kim Laidig, the staff botanist, would be a better source of that information but in the Commission’s own basin, volunteer plants have moved in through old field succession, noting that vegetation in the infiltration basin is beneficial. He said that Ocean County planted wet tolerant maples in basins and found that the root structure creates pathways to allow water to recharge efficiently.

Mr. Mahon made a presentation on NJDEP’s new rules addressing post-construction stormwater management (*Attachment B to these minutes and posted on the Commission’s website at:*

<https://www.state.nj.us/pinelands/home/presentations/Stormwater%20Management%20Rules%20Presentation%20-%20Pinelands.pdf>.

Mr. Mahon said the recently adopted rules (March 2, 2020) focus on green infrastructure (GI) to manage stormwater. He said the municipalities will be provided with ordinances to implement the new rules and the operative date will be March 2, 2021 to allow time for them to be disseminated and adopted.

In response to Commissioner Lohbauer's question regarding the need for the Commission to amend the CMP for the Pinelands municipalities, Mr. Mahon said the one-year extension would apply although it is likely that extensions will be granted if needed. He said Commission and NJDEP staff would work together to develop new ordinances for the Pineland municipalities.

Mr. Mahon described the projects that were required to comply with the new rules, noting that certain dates had been inserted to reflect what is a "new" project so as not to capture areas of historic disturbance. He said GI is defined as measures that manage stormwater close to its source, by treating stormwater runoff through infiltration into subsoil, treating stormwater runoff through filtration through vegetation or soil or storing stormwater for reuse. GI must be used to address recharge quantity and quality. He provided tables describing how the various BMPs address these standards. He added that non green-infrastructure BMPs are permitted only with a waiver or variance.

In response to Commissioner Lohbauer's question regarding vegetative filter strips as listed in Table 5-1, Mr. Mahon said it is vegetation such as grass and trees with uniform slope along the upslope side of a basin to provide filtration to remove pollutants as the water flows to the basin.

In response to Chairman Prickett's question as to what is a blue roof, as listed in Table 5-3, Mr. Mahon said it is a detention basin on a roof; it is not widely used but is useful in a city and captures roof runoff before it is discharged. Typically it would be installed on a large commercial building where the weight would not be a concern.

Mr. Mahon further described the new rules regarding water quality standards as relating to motor vehicle surfaces instead of impervious surfaces, requiring groundwater quality and quantity to be addressed onsite in each drainage area unless they converge before leaving the property and that the new rule has moved the required groundwater mounding analysis from recharge standard section of the rule so that it now applies to all infiltration BMPs.

In response to Commissioner Irick's question if the methodology for the mounding calculations is clarified, Mr. Mahon said yes, in Chapter 13 of the BMP manual, noting that USGS has developed a spreadsheet based on the Hantush method for determining groundwater mounding and that the BMP manual now contains several groundwater mounding calculation examples.

Mr. Mahon said there will be no deed restriction required for small scale nonstructural BMPs. Instead, a deed notice must be recorded that contains the location of existing measures. Requiring a deed notice as opposed to a deed restriction should provide more flexibility in the future if stormwater measures need to be moved or changed while still maintaining the recharge quality and quantity.

Mr. Mahon discussed combined (stormwater and domestic wastewater) sewage overflow (CSO). He said water quality treatment is required for discharges into CSOs, that water quantity control is required in tidal areas except discharges directly into the lower reach of major tidal waterbodies, and create an option for a community basin that will allow several properties in a combined sewer systems (CSS) community to use a single basin for quantity control.

Mr. Mahon discussed changes to the BMP manual, and how variances and mitigation projects may be granted.

Mr. Mahon said NJDEP is continuing to look at additional amendments and Mr. Wengrowski and Mr. Szura have been part of those discussions. He invited the Commission to reach out to him with any questions or concerns.

1. Continued discussion of draft CMP amendments related to coordinated permitting

Ms. Wittenberg said that Ms. Green is now a part of the rulemaking process. She said before this Committee speaks with Deputy Attorney General (DAG) Kristina Miles today, she wanted them to know that she and Ms. Roth have been doing a lot of research regarding those projects that are exempt from the municipal review process. She said Ms. Roth had focused on the Municipal Land Use Law (MLUL), while she had been reviewing how local planning boards handle matters and she has found that they all do so differently. She said she believed staff needs the Commission to start from scratch with these “gap rules”, and identify what they want to accomplish before the staff proceeds with writing rules. She noted that although it will mostly be those projects receiving exemption by the Board of Public Utilities (BPU), she was concerned there could be smaller projects that perhaps are of no concern to the Commission and she didn’t want to inadvertently capture those.

Chairman Pickett asked whether the Executive Director could consult with the Commission when such small projects are proposed to determine how the Commission wished to handle them. Ms. Wittenberg said that process would need to be written into any rule.

Commissioner Lohbauer said he was concerned with projects that receive no local review. He wanted the public to be able to present their concerns and to have an evidentiary hearing.

Ms. Wittenberg asked how that would work for the Commission. Who would serve as the Commission’s attorney? She said it couldn’t be Ms. Roth as she is not the Commission’s

attorney. Would it be the DAG? Would an additional DAG be needed? She said these are process questions that would need to be answered.

Commissioner Irick referenced a recent application by a Board of Education where the neighbors had concerns about stormwater runoff that the Commission couldn't address. He said with the BPU-exempted applications, he would like to see the Commission become more involved.

Mr. Horner said the Board of Education matter involved concerns by neighbors with an existing parking lot. The applicant's engineer represented that what was being proposed would improve that situation. He said the application before the Commission complied with CMP stormwater standards for the proposed development. The Commission often cannot find a way to address pre-existing conditions and staff did its best but within the limits of the regulations.

Commissioner Lloyd said by bypassing the local planning boards, there is no opportunity for public involvement and cross examination.

Ms. Roth indicated that it was possible that DAG Miles would not be permitted to represent the Commission in evidentiary hearings before it relating to development applications exempt from municipal review ("gap applications"). She reminded the Commissioners that DAG Miles is assigned to provide legal advice to the Commission. Consequently, when an application matter is sent to the Office of Administrative Law for a call up hearing, another DAG is assigned to represent the Commission at the hearing and DAG Miles is ethically walled off from that matter so that she can provide legal advice to the Commission during its review of the Administrative Law Judge's Initial Decision as part of the Commission's issuance of its Final Decision on that matter. Ms. Roth said a similar process may be required for gap applications.

Ms. Wittenberg said she had not yet discussed this with DAG Miles as she first wanted to understand what it is the Commission wanted.

Ms. Miles said she was here today to listen to the Commission's issues.

Commissioner Earlen said, from a local perspective, he agreed with expanding and opening the public process but he was concerned as to who would be allowed to present objections. He said at the local level, usually they are those who have proven standing. In cases like these BPU municipal exemptions, how would the objectors be identified and given status, he asked.

Commissioner Irick said generally, it is the list of property owners within 200 feet of a project. Those parties generally have more standing than someone living at a distance.

Ms. Roth said that is consistent with MLUL and case law, which is why she and DAG Miles need more information.

Commissioner Lloyd said he sees the Commission as analogous to a planning board but certainly objectors would not be limited to those owners of property within 200 feet of a project and environmental advocacy groups should have standing.

DAG Miles asked, to what extent did the Commission think it could use the call-up process?

Commissioner Lloyd said he believed that was possible and Commissioner Lohbauer said he favored that approach while recognizing there may be some minor applications to be carved out of the process.

At Ms. Wittenberg's suggestion that staff further explains the call-up process, Ms. Roth said it is a hearing conducted before the Executive Director involving the applicant and staff. She said it is quasi-adjudicatory, but there is no sworn testimony. The public may attend to listen and present their comments. The recommendation of the Executive Director is then presented to the Commission for a final decision.

Commissioner Lloyd said he believed use of the call-up process deserved more consideration. Commissioner Irick said he agreed, although it did not allow the hearing to be conducted before the full Commission. He said it should be the job of the Commission to determine the status of the objectors.

Commissioner Lohbauer said he supported the evidentiary approach and getting the broadest possible base of information.

Chairman Prickett asked the staff to write up and summarize today's discussion.

Ms. Wittenberg said staff will continue with its research and develop some concepts. She said they would look closely at both the BPU process and the Commission's call-up process.

Commissioner Lohbauer asked that any process err on the side of allowing public involvement.

Commissioner Howell supported gathering more information.

Commissioner Irick said he felt staff would provide the pros and cons of any approach.

Commissioner Earlen said he would reserve comment until more information is provided. He said the local planning board does not allow the public to grill the professionals. He said the public can submit comment but must have some standing to cross-examine. He said he could be open to some sort of hybrid procedure.

Chairman Prickett said he believed the public needs full representation and an opportunity to express how they are being affected by a project. He also was interested in the role environmental advocates would play in the process.

6. Public Comment

Mr. Fred Akers, with the Great Egg Harbor Watershed Association, said he felt the stormwater presentation was excellent. He said it was a big issue for his organization. He said he was glad that the new NJDEP rules recognized there is a difference as to where stormwater runoff is directed to tidal waterbodies. He noted that the aging stormwater basin at the Hamilton Mall had been a problem for years. He said it took a new application to the Pinelands Commission to resolve the issue as the applicant was required to repair the basin.

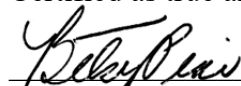
Ms. Rhyen Grech, with the Pinelands Preservation Alliance (PPA), referencing the coordinated permitting process, said the Commission needed the opportunity to examine an application thoroughly through an evidentiary hearing with sworn testimony.

Commissioner Lohbauer said, with the passing of Candy Ashmun, this is a sad time for the Commission and he thanked Chairman Prickett for helping to relieve the grief.

Chairman Prickett said, in tribute to Candy Ashmun, he would close the meeting by saying "Check out the CMP".

There being no further business, Commissioner Lohbauer moved the adjournment of the meeting. Commissioner Irick seconded the motion and all agreed. The meeting adjourned at 11:43 a.m.

Certified as true and correct:



Betsy Piner

Principal Planning Assistant

Date: June 16, 2020

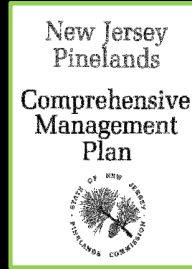
Stormwater Management In the New Jersey Pinelands



Pinelands Policy & Implementation Committee
May 29, 2020

CMP P&I Committee 5/29/2020 Attach
A

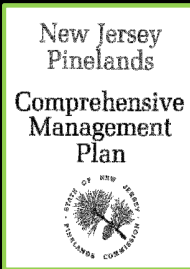
Original CMP adopted November 21, 1980



- Stormwater
 - A valuable natural resource
 - Aquifer recharge
 - Wetlands
 - Stream flow
 - A source of water-borne pollution
 - Turf and agricultural fertilizers
 - Petroleum hydrocarbons
 - De-icing salts (Na, Ca, Cl ions)
 - Heavy metals (Lead & Zinc)
 - Bacteria
 - A contributor to soil erosion
 - Development sites and stream banks
 - Cause of localized flooding
 - Roads, bridges and structures

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Introduced Modern Concepts in Stormwater Management



- Minimize non-point pollution by eliminating direct discharge to wetlands and surface water bodies.
- Recharge stormwater to the K/C aquifer to maintain groundwater supplies, wetlands, and stream and river flow.
- Separate pollutant-free stormwater from rooftops for direct discharge to dry wells.
- Stormwater runoff contaminated by oils, grease, metals or animal waste to be pretreated by vegetal filtration prior to groundwater recharge.
- Do not recharge in areas underlain by excessively or somewhat excessively drained soils.

CMP P&I Committee 5/29/2020 Attach
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Pollutants carried in stormwater



Nitrogen
Phosphorous
Bacterial pathogens
Deicing salts
Heavy metals
Oil
Gasoline
Sediment
Trash & Floatables

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Since the mid 1990's- The CMP has required :



Stormwater runoff from new impervious surfaces from the 10-year storm event (5+ inch rainfall) to be recharged to groundwater.

No increase in the rates of runoff leaving the site from the 2-year, 10-year, and 100-year storm event.

In April 2003, DEP grant funding for the Commission to evaluate stormwater basins in the Mullica Watershed.

This study found that 70% of infiltration basins were not functioning as intended – still holding water 3 days after the storm event.

Lessons learned in the Mullica Watershed study were incorporated in the May 1, 2006 CMP stormwater rule amendments.

CMP P&I Committee 5/29/2020 Attach
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Advances in Stormwater Management Standards

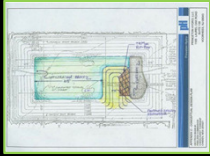



<http://www.northsacambia.com/2016/08/sacambia-county-to-host-low-impact-design-workshops>

CMP P&I Committee 5/29/2020 Attach
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- DEP amended N.J.A.C. 7-8 in Feb. 2004 & Published the NJ Stormwater BMP Manual in April 2004.
- Introduced Low Impact Design and Non-Structural Strategies:
- Protect areas that provide water quality benefits;
 - Minimize impervious cover , disconnect impervious surfaces;
 - Protect natural drainage features;
 - Slow down the time of concentration of stormwater runoff;
 - Minimize land disturbance;
 - Minimize soil compaction;
 - Use native vegetation;
 - Use vegetated open-channel conveyances;
 - Provide preventive source controls.

Advances in Stormwater Management Standards

Commission amended N.J.A.C. 7:50-6.84 in 2006

The work to amend the CMP stormwater rules was funded by NJDEP grant.

Retained Stormwater Management Consulting and Princeton Hydro to assist in rule development and to develop a Model Stormwater Control Ordinance for Pinelands Area Municipalities

Adopted relevant sections of NJDEP's Stormwater Rules

Enhanced those rules by incorporating special protection standards in the CMP:

- 10-year storm recharge requirement
- Prohibition on discharging stormwater to wetlands/streams
- Special treatment of runoff from HPLA
- Emphasis on soil testing and as-built certifications

Advances in Stormwater Management Standards



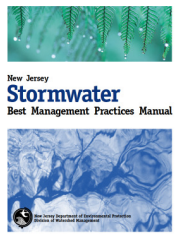
DEP has recently amended N.J.A.C. 7:8 Operative March 3, 2021

Mandatory use of Green Infrastructure BMPs

- Treat stormwater runoff through infiltration into the subsoil;
- Treat stormwater through filtration by vegetation or soil; or
- Storing stormwater runoff for reuse.
- Goal is to create hydrologically functional landscapes to maintain or reproduce the natural hydrologic cycle for the developed area.
- Commission's rules will need to be amended to harmonize with DEP's rules and to retain the desired enhanced protections in the current standards.

https://www.com/futgerswater/docs/gi-brochure_web-view

CMP P&I Committee 5/29/2020 Attach
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Guest presenter:

Gabriel Mahon, Chief
Bureau of Nonpoint Pollution Control
Division of Water Quality

N.J.A.C. 7:8
STORMWATER MANAGEMENT
Statutory Authority: N.J.S.A. 12:5-3, 13:1D-1 et seq., 13:9A-1 et seq., 13:19-1 et seq., 40:55D-93 to 99, 58:4-1 et seq., 58:10A-1 et seq., 58:11A-1 et seq. and 58:16A-50 et seq.
Date last amended: March 2, 2020

CMP P&I Committee
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Stormwater Management Rules Applicability and Amendments

Gabriel Mahon
Bureau of Nonpoint Pollution Control
Division of Water Quality
New Jersey Department of Environmental Protection

May 29, 2020

What Projects Must Comply?

- “Major Development” means an individual “development,” as well as multiple developments that individually or collectively result in:
 1. The disturbance of one or more acres of land since February 2, 2004;
 2. The creation of one-quarter acre or more of “regulated impervious surface” since February 2, 2004;
 3. The creation of one-quarter acre or more of “regulated motor vehicle surface” since March 2, 2021; or
 4. A combination of 2 and 3 above that totals an area of one-quarter acre or more.
- If reviewed by the municipality
 - Through RSIS – ultimate disturbance of one acre or more
 - Through Stormwater Control Ordinance – as defined in ordinance (but must at least cover projects where the ultimate disturbance is one acre or more)

How is Post-construction Stormwater Managed in NJ?

- Stormwater Management rules at N.J.A.C. 7:8
 - Compliance required through permits issued by the NJDEP-Division of Land Use Regulation
 - Direct Implementation by NJDEP
 - Compliance required through MS4 Permits issued by the NJDEP-DWQ-Bureau of Nonpoint Pollution Control
 - Implementation by municipality
 - RSIS for residential projects
 - Stormwater Control Ordinance for non-residential projects

Rule Layout – Existing/Prior to Adoption

SUBCHAPTER 5. DESIGN AND PERFORMANCE STANDARDS FOR STORMWATER MANAGEMENT MEASURES

- 7:8-5.1 Scope
- 7:8-5.2 Stormwater management measures for major development
- 7:8-5.3 Nonstructural stormwater management strategies
- 7:8-5.4 Erosion control, groundwater recharge and runoff quantity standards
- 7:8-5.5 Stormwater runoff quality standards
- 7:8-5.6 Calculation of stormwater runoff and groundwater recharge
- 7:8-5.7 Standards for structural stormwater management measures
- 7:8-5.8 Maintenance requirements
- 7:8-5.9 Sources for technical guidance

Amendments to Stormwater Management Rules

- Dec. 3, 2018: NJDEP proposed amendments to the Stormwater Management rules.
- Jan. 8, 2019: Public Hearing
- Feb. 1, 2019: Close of 60-day public comment period
- Dec. 3, 2019: NJDEP filed adoption package to OAL
- March 2, 2020: Adoption of Rule
 - One year delayed operative date, effective 3-2-2021
 - Current rules are in effect until 3-1-2021
 - Same timeframe municipalities have to update ordinances in accordance with MS4 permits

Rule Layout Re-arrangement

SUBCHAPTER 5. DESIGN AND PERFORMANCE STANDARDS FOR STORMWATER MANAGEMENT MEASURES

- 7:8-5.1 Scope
- 7:8-5.2 Stormwater management measures for major development
- 7:8-5.3 Nonstructural stormwater management strategies GI
- 7:8-5.4 Erosion control, groundwater recharge and runoff quantity standards
- 7:8-5.5 Stormwater runoff quality standards
- 7:8-5.6 Calculation of stormwater runoff and groundwater recharge
- 7:8-5.7 Standards for structural stormwater management measures
- 7:8-5.8 Maintenance requirements
- 7:8-5.9 Sources for technical guidance

Rule Layout – As Adopted

SUBCHAPTER 5. DESIGN AND PERFORMANCE STANDARDS FOR STORMWATER MANAGEMENT MEASURES

- 7:8-5.1 Scope
- 7:8-5.2 Stormwater management measures for major development
- 7:8-5.3 Green infrastructure
- 7:8-5.4 Groundwater recharge standards
- 7:8-5.5 Stormwater runoff quality standards
- 7:8-5.6 Stormwater runoff quantity standards
- 7:8-5.7 Calculation of stormwater runoff and groundwater recharge
- 7:8-5.8 Maintenance requirements
- 7:8-5.9 Sources for technical guidance

Table 5-1: BMPs for recharge, quantity, and quality

| Best Management Practice | Quality TSS removal rate (percent) | Quantity | Recharge | Minimum separation from seasonal high water table (feet) |
|---|--|----------|----------|--|
| Cisterns | 0 | Yes | No | - |
| Dry Wells | 0 | No | Yes | 2 |
| Grass Swales | 50 or less | No | No | 2 |
| Green Roofs | 0 | Yes | No | - |
| Manufactured Treatment Device (MTDs) | 50 or 80 | No | No | Dependent upon the device |
| Pervious Paving Systems | 80 | Yes | Yes | 2 |
| Small-scale Bioretention Systems | 80 or 90 | Yes | Yes | 2 |
| Small-scale Infiltration Basins | 80 | Yes | Yes | 2 |
| Small-scale Sand Filters | 80 | Yes | Yes | 2 |
| Vegetative Filter Strips | 60-80 | No | No | - |

Drainage area limitation applies to: dry wells, MTDs, pervious paving system, and small-scale bioretention, infiltration, and sand filters.
Table 1 only includes MTDs that meet the definition of GI

Green Infrastructure Definition N.J.A.C. 7:8-1.2

Means a stormwater management measure that manages stormwater close to its source by:

1. Treating stormwater runoff through infiltration into subsoil;
2. Treating stormwater runoff through filtration by vegetation or soil; or
3. Storing stormwater runoff for reuse.

Table 5-2: BMPs may only be used for quantity

| Best Management Practice | Quality TSS removal rate (percent) | Quantity | Recharge | Minimum separation from seasonal high water table (feet) |
|-------------------------------|--|----------|-----------|---|
| Bioretention Systems | 80 or 90 | Yes | Yes No | 2 1 |
| Infiltration Basins | 80 | Yes | Yes | 2 |
| Sand Filter | 80 | Yes | Yes | 2 |
| Standard Constructed Wetlands | 90 | Yes | No | N/A |
| Wet Ponds | 50-90 | Yes | No | N/A |

Wet ponds used under Table 2 must be designed to have native vegetation and a reuse component

Green Infrastructure Standard N.J.A.C. 7:8-5.3

- GI BMPs must be used to satisfy recharge, quantity, and quality
 - Small-scale (limited drainage area) for recharge and quality
- 3 Tables identifying the performance of each BMP in meeting the 3 standards
 - Table 5-1: Recharge, Quality, and Quantity Control
 - Table 5-2: Quantity Control
 - Table 5-3: Recharge, Quality, and Quantity Control ONLY with Waiver or Variance
- Maintain existing ability to propose an alternative stormwater design. Alternative design must meet GI definition and must meet drainage area limitation if similar to BMP with limit.

Table 5-3: BMPs may only be used with waiver

| Best Management Practice | Quality TSS removal rate (percent) | Quantity | Recharge | Minimum separation from seasonal high water table (feet) |
|-------------------------------|--|----------|----------|--|
| Blue Roofs | 0 | Yes | No | N/A |
| Extended Detention Basins | 40-60 | Yes | No | 1 |
| Manufactured Treatment Device | 50 or 80 | No | No | Dependent upon the device |
| Sand Filters | 80 | Yes | No | 1 |
| Subsurface Gravel Wetlands | 90 | No | No | 1 |
| Wet ponds | 50-90 | Yes | No | N/A |

Water Quality – Motor Vehicle Surface

- The water quality standard will apply to motor vehicle surface instead of impervious surface
 - Rule does not require roofs or sidewalks to be treated – consistent with current implementation
 - Requires pervious motor vehicle surfaces to be treated – consistent with scientific studies
- Include in definition of major development
 - “regulated motor vehicle surface”

Deed Notice

- Remove rule requirement for conservation restriction, or equivalent, for nonstructural strategies
- Maintain existing requirement that maintenance plans be recorded on deed (new N.J.A.C. 7:8-5.2(m)) and, additionally, must now include:
 - Description of the BMP(s); and
 - Location information for the BMP(s)
- Provide a pathway for property owner to alter or replace a BMP provided review agency ensures quantity, quality, and recharge will be maintained. (new N.J.A.C. 7:8-5.2(n))

Definitions to Clarify Applicability N.J.A.C. 7:8-1.2

- Added definition of “regulated motor vehicle surface”
- Added definition of “regulated impervious surface”
- Definitions of regulated motor vehicle surface and regulated impervious surface will include FAQ 10.2 (newly collected impervious surface and changes to existing drainage systems count as “new”)

CSO Related Changes

- Clarify that water quality treatment is required for discharges into combined sewer systems
 - New N.J.A.C. 7:8-5.5(c)
- Clarify that water quantity control is required in tidal areas except discharges directly into lower reach of major tidal waterbodies
 - New N.J.A.C. 7:8-5.6(b)4
- Create the option for a community basin, which will allow several properties in a CSS community to use a single large basin for quantity control
 - Other standards must still be met on-site (including GI)
 - New N.J.A.C. 7:8-4.2(c)14

Clarification of Applicability

- Require quantity, quality, and groundwater recharge to be met in each drainage area on-site (unless they converge before leaving the property)
 - N.J.A.C. 7:8-5.2(l)
- Move mounding analysis requirement from recharge standard to apply to all infiltration BMPs
 - N.J.A.C. 7:8-5.2(h)
 - Chapter 13 of BMP Manual

BMP Manual Changes

- Finalized new chapter on groundwater mounding (chapter 13)
- Released draft for public comment
 - Revised chapter on calculations (chapter 5)
 - Allows infiltration in GI BMPs
 - Revised soil testing (chapter 12)
 - Adds new soil testing requirements for distributed GI systems
- Revised model ordinance
- Additional changes to BMPs coming when chapter 5 is finalized

**Existing Variance
N.J.A.C. 7:8-4.6**

- Municipality may approve a variance or exemption if:
 - Municipal Stormwater Management Plan contains a mitigation plan:
 - that identifies what measures are necessary to offset the deficit created by granting the variance
 - ensures mitigation happens in the same drainage area and for the performance standard for which variance is granted
 - Municipality submits a written report to county review agency and DEP describing the variance or exemption and the required mitigation

**Adopted Variance – Mitigation
N.J.A.C. 7:8-4.6**

- If variance is from green infrastructure
 - Mitigation project must provide green infrastructure BMPs to manage an equivalent or greater area and amount of impervious surface than the area of major development granted the variance
 - Vegetative filter strips and grass swales excluded as mitigation measures if used without other GI BMPs
 - GI BMPs used for mitigation must be sized to manage the Water Quality Design Storm (at a minimum)
 - GI BMPs used for mitigation are subject to a the drainage area limitation

**Adopted Variance
N.J.A.C. 7:8-4.6**

- Municipality may approve a variance if Applicant demonstrates:
 - Technically impracticable to meet any one or more of the design and performance standards on site
 - Technical impracticable exists only when the standard can not be met for engineering, environmental, or safety reasons
 - That the proposed design achieves maximum compliance with the design and performance standard
- Approval of variance applies to individual drainage area and design and performance standard

Questions?

Think of one later?
ask any time:

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**Adopted Variance – Mitigation
N.J.A.C. 7:8-4.6**

- Mitigation:
 - selected from municipal mitigation plan or proposed by applicant, provided it meets the criteria within the municipal mitigation plan
 - be approved no later than preliminary or final site plan approval of the major development
 - be located in the same HUC 14 as the portion of the major development that was granted the variance
 - be constructed prior to or concurrent with the major development
 - comply with the green infrastructure standards at N.J.A.C. 7:8-5.3
 - Applicant or party responsible for the maintenance of the major development shall be responsible for maintenance of mitigation
 - Maintenance responsibility may only be transferred to a public agency, with a written agreement submitted to the review agency
- Approved variance must be submitted to county review agency and DEP within 30 days of approval