MEMORANDUM OF UNDERSTANDING BETWEEN

THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION

AND

THE NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION

CONCERNING TRANSPORTATION PROJECTS IN

THE WATERSHED OF THE NEW YORK CITY WATER SUPPLY

WHEREAS:

A. The City of New York ("City") owns and operates a water supply system with portions in the Counties of Ulster, Greene, Delaware, Schoharie, Sullivan, Westchester, Putnam, and Dutchess. This water supply system is the source of drinking water for approximately nine million citizens of New York State, residing within and outside the City.

B. The City, with the approval of the New York State Department of Health, has promulgated Rules and Regulations for the Protection from Contamination, Degradation and Pollution of the New York City Water Supply and Its Sources, 10 NYCRR Part 128; 15 RCNY Ch. 18 ("Watershed Regulations") which govern, among other things, stormwater discharges from construction activities and the creation of impervious surfaces. The Watershed Regulations are administered by the New York City Department of Environmental Protection ("NYCDEP").
C. By virtue of State law, State agencies, including the New York State Department of Transportation ("NYSDOT"), are exempt from compliance with the requirements of the Watershed Regulations.

D. In recognition of the imperative to assure continued protection of the City’s drinking water supply, on May 20, 1997, the Governor issued Executive Order No. 51, governing the activities of State agencies within the New York City Watershed. Executive Order No. 51 directs any State agency that undertakes any regulated activity in the watershed to comply with the substantive requirements of the Watershed Regulations. On January 1, 2011, Governor Andrew Cuomo issued a continuation of Executive Order 51.

E. This Memorandum of Understanding ("MOU") implements the intent of Executive Order No. 51 by establishing a framework for the application of the Watershed Regulations to NYSDOT’s construction and maintenance activities within the watershed by striking a proper balance between protecting surface water resources within the watershed of the New York City drinking water supply system ("Watershed") while, at the same time, recognizing the importance of providing the public with adequate, safe, balanced, efficient, and environmentally sound transportation at a reasonable cost. This document supersedes the original MOU signed by NYCDEP on January 4, 1999 and by NYSDOT on March 11, 1999.

NOW THEREFORE, it is agreed by NYSDOT and NYCDEP as follows:

1. NYSDOT will employ appropriate erosion and sediment control practices on each of its construction and maintenance projects in the Watershed. NYCDEP has reviewed NYSDOT’s statewide standards and specifications for stormwater management, including erosion and sediment control, and has found that those generic standards and
specifications are satisfactory. These standards and specifications may, however, be amended as necessary to suit each individual project.

2. The Watershed Regulations, as amended April 4, 2010, incorporate by reference the New York State Department of Environmental Conservation’s (NYSDEC) State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity, Permit No. GP-0-10-001 (General Permit), and by extension, the New York State Stormwater Management Design Manual, August 2010 (Stormwater Design Manual) and the New York State Standards and Specifications for Erosion and Sediment Control, August 2005.

3. Widening of an existing road or highway is permitted. In accordance with Section 18-39(a)(6)(v) of the Watershed Regulations, whenever an existing roadway is widened, the widening shall occur on the side furthest away from the water body to the maximum extent feasible and practical, if within the following limiting distances:
   a) Within 300 feet of a reservoir, reservoir stem or controlled lake,
   b) Within 100 feet of a perennial stream, or
   c) Within 50 feet of an intermittent stream or a NYSDEC regulated wetland.

4. All bridges, crossings, pipes, diversions and culverts shall be constructed to prevent adverse impacts on water quality.

5. Routine maintenance of existing roadways and other impervious surfaces such as parking lots and bike paths is permitted. NYSDOT projects that are considered routine maintenance in nature are projects that disturb less than 1 acre of land in the West of Hudson watershed and less than 5000 square feet of land in the East of Hudson watershed, maintain the approximate original line and grade, do not significantly alter the existing drainage patterns, and maintain the original capacity and purpose of the road or
highway. NYSDOT projects that are routine maintenance in nature are exempt from notification requirements to NYCDEP.

Spot realignments of unsafe and substandard roadways and temporary detours are allowed in connection with maintenance of an existing roadway. If such minor realignments or detours require the creation of new impervious surfaces, NYSDOT must notify NYCDEP.

The resurfacing of existing pavements and bridges or the full depth replacements of existing pavements and bridges in like or similar kind and at approximately the same location are not considered to be new impervious surfaces. The construction of new rest areas and the construction of new travel or turning lanes are examples of new impervious surfaces.

6. In accordance with Section 18-39(b)(3) of the Watershed Regulations, NYSDOT will prepare a Stormwater Pollution Prevention Plan (SWPPP)\(^1\) for each project which involves:

(a) The disturbance\(^2\) of five or more acres anywhere in the watershed;

(b) Land clearing or grading involving the disturbance of two or more acres located at least in part within the limiting distance of 100 feet of a watercourse or NYSDEC regulated wetland, or within the limiting distance of 300 feet of a reservoir, reservoir stem or controlled lake, or on a slope exceeding 15 percent (not including roadway embankments);

\(^1\)Additional requirements for SWPPPs in the New York City Watershed are included in Section 18-39(e) of the Watershed Regulations and Chapter 10 of the NYS Department of Environmental Conservation Stormwater Design Manual; a number of those additional requirements are included in Section 9 of this document.

\(^2\)Disturbance means that the imperviousness of an area has or will be permanently changed. Disturbance does not include activities required to replace or restore existing impervious areas.
(c) Construction of a new road (not including road or shoulder widening) within the following limiting distances:

1. Within 50' of an intermittent stream;

2. Between 50' and 100' of a NYSDEC regulated wetland or perennial stream.

(d) The creation of an impervious surface totaling over 40,000 square feet in size that is not part of a road widening.

7. Unless specifically requested to do so by NYCDEP, NYSDOT shall not be required to conduct a coliform analysis as described in section 18-39 (c)(1).

8. When a SWPPP is required for a NYSDOT project in accordance with item 6 of this MOU, it shall include the following elements, and will be kept on the project site or field office by the NYSDOT Engineer-in-Charge ("EIC"):

   a) A photocopy of the Notice of Intent required by the General Permit (if applicable);

   b) The stormwater management and erosion and sediment control narratives, details, notes, and specifications developed by the design team and included in the contract documents;

   c) The NYSDOT measures for temporary and permanent erosion and sediment control work, and schedule of operations as required by Sections 107-12 and 209 of the NYSDOT's Standard Specifications and required certification statements as approved by NYSDOT; prior to start of construction, the approved contractor's written construction schedule and sequence of construction activities will be forwarded to NYCDEP once it is received and accepted by NYSDOT; when
significant alterations to the original schedule and sequence occur, NYSDOT shall submit an updated schedule and sequence to NYCDEP;

d) A list of relevant state and federal water-related permits required for the project;
e) Any project plans and drawings relevant to the water quality issues; and
f) Other relevant information prepared by the design team, including any drainage studies.

9. The following considerations pertain when applying the requirements of the Watershed Regulations, the General Permit and the Stormwater Design Manual to NYSDOT projects requiring SWPPPs:

a) When feasible\(^3\) and practical\(^4\), SWPPPs shall include measures to capture and treat the greater of the volume of runoff generated by the 1-year, 24-hour storm (as per Table 10.3 of the Stormwater Design Manual) or the Water Quality Volume (as per Section 4.2 of the Stormwater Design Manual), in accordance with Section 18-39(c)(3), and requires the use of standard hydrologic calculations from the Soil Conservation Service (SCS) methods (Technical Release 20 and Technical Release 55);

b) NYSDOT shall consider incorporating standard stormwater management practices, green infrastructure practices and site planning techniques to meet the runoff reduction requirements defined in Chapters 3, 4 and 5 of the Stormwater Design Manual when feasible and practical;

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\(^{3}\)A project is deemed "feasible" if it can be designed and engineered to function effectively as designed.

\(^{4}\)A project is practical if the costs are within reasonable limits for the completed work to meet the intended goals of the construction activity.
c) SWPPPs prepared by NYSDOT shall provide for the maintenance of natural drainage systems, including perennial and intermittent streams, and the use of swales and drainage ditches in an open condition, when feasible and practical;

d) NYSDOT shall incorporate practices to provide Channel Protection Storage volume (1 year storm), Overbank Flood (10 year storm) peak flow attenuation, and Extreme Flood (100 year storm) peak flow attenuation as defined in Chapter 4 of the Stormwater Design Manual. If the project does not require that Channel Protection Volume, Overbank Flood and Extreme Flood be addressed as per the Stormwater Design Manual, but NYCDEP has identified a significant concern for water quantity control, NYSDOT will incorporate practices to address NYCDEP’s concerns when feasible and practical;

e) Peak flow attenuation intended to meet the goal of no net increase in peak stormwater runoff from pre-project conditions will be assessed at the point of discharge to a watercourse in the New York City water supply system. Where a highway is crossed in multiple locations by the same stream, the peak flow attenuation may be measured at each crossing or at the last point of discharge to the stream as agreed upon by NYSDOT and NYCDEP;

f) NYSDOT will address potential thermal discharges to cold water fisheries from highway stormwater runoff through control of the Water Quality Volume.

10. When water quality and quantity requirements cannot be met within the project limits, NYSDOT shall seek opportunities, when feasible and practical, to meet these requirements outside of the original project limits, but within the same reservoir watershed of the project.
11. For NYSDOT projects that require a SWPPP (as per item 6 of this MOU), the appropriate NYSDOT Region shall send the SWPPP to NYCDEP. NYCDEP will provide NYSDOT with comments within 30 calendar days of receiving the SWPPP; if no comments are received within 30 calendar days then the SWPPP shall be considered complete. NYSDOT will address NYCDEP’s comments and modify the SWPPP in order to comply with the Watershed Regulations where feasible and practical. The final SWPPP and an explanation to any comments that could not be addressed will be sent to NYCDEP 30 calendar days prior to the project Letting date.

12. For non-maintenance type projects that do not require a SWPPP, NYSDOT shall notify NYCDEP of the project at least 30 days before construction begins.

13. Emergency Procedures: If NYSDOT has determined that immediate implementation of an activity that would otherwise require a SWPPP is necessary to respond to an imminent threat to the health and safety of humans and/or animals, or to respond to a substantial imminent threat to property, the procedure described above for NYCDEP’s review of NYSDOT’s draft SWPPP may unilaterally be deemed by NYSDOT as having been temporarily waived for that specific emergency activity. In such a case, before a regulated activity begins, NYSDOT shall notify NYCDEP by telephone or electronic mail (e-mail) of the nature of the imminent threat that necessitates expedited review and shall arrange, if possible, for a meeting with NYCDEP before construction begins to discuss plans for erosion control and stormwater management measures. If it is not possible to arrange a meeting before commencement of construction, NYSDOT shall schedule a meeting as soon as possible.

5When DEP review is temporarily waived pursuant to the emergency procedures described in #13, NYSDOT shall nonetheless make all reasonable efforts to implement erosion and sediment controls in accordance with the Watershed Regulations.
Whether or not a meeting is held, NYSDOT shall submit to NYCDEP a complete SWPPP for the project, as soon as feasible and practical. To expedite the work necessary to address the emergency situation, construction activity is allowed to begin prior to the completion of the SWPPP.

14. NYSDOT will design, construct, and maintain highway and bridge projects in accordance with the substantive requirements of the Watershed Regulations and this MOU to the maximum extent feasible and practical. However, strict conformance may not always be possible because of the unique limitations placed on NYSDOT by narrow rights-of-way, existing adjacent development, and other manmade or natural constraints. Where conformance of the SWPPP to relevant provisions of the Watershed Regulations and this MOU is unattainable, the NYSDOT Regional design staff will provide a written explanation to NYCDEP and in the project files demonstrating that strict conformance is unattainable and explaining how NYSDOT is minimizing any deviation from the substance of the Watershed Regulations and is providing alternative measures to protect water quality and the City's water supply. Such notice must be provided with the submission of the Final SWPPP.

NYCDEP will provide its response to such notice, if a response is necessary, within 30 calendar days of its receipt of the final SWPPP from NYSDOT or the project SWPPP shall be considered complete.

15. If NYCDEP is not able to reach a consensus with the NYSDOT design team for a capital project and believes that the SWPPP does not satisfy the substantive requirements for such plans as contained in the Watershed Regulations and in this MOU, NYCDEP shall provide the NYSDOT Regional Design Engineer with a letter specifically identifying what requirements have not been met and will make specific recommendations for an
appropriate solution. If the project is a maintenance activity requiring a SWPPP, NYCDEP will advise the NYSDOT Regional Transportation Maintenance Engineer (RTME) by a similar letter. If NYSDOT and NYCDEP cannot resolve the concern, NYCDEP may seek assistance from the NYSDOT Regional Director for capital projects. If resolution is still not achieved, the concern will be referred to the NYSDOT Assistant Commissioner for the Engineering Division for capital projects or to the NYSDOT Assistant Commissioner for the Operations and Asset Management Division for maintenance projects. Similarly, if NYSDOT feels that NYCDEP recommendations are unreasonable, NYSDOT may elevate its concerns to the NYCDEP Deputy Commissioner.

16. Prime contractors and subcontractors will be required by the NYSDEC General Permit to sign certification statements (CONR-5 form) agreeing to comply with SWPPPs. The signed certification statement will make the contractor responsible for the erosion and sediment control and stormwater management work developed and/or performed by any subcontractor hired by the prime contractor. Additionally, as NYSDOT has no regulatory authority outside of the project limits, the contractor or subcontractor shall be responsible for all erosion and sediment control and NYSDEC General Permit requirements for any offsite soil stockpiles or spoil locations.

17. NYCDEP may enter a project site at any reasonable time, including weekends, holidays and during and after storm events, to ascertain compliance with the SWPPP. NYCDEP shall notify the NYSDOT EIC and NYSDOT Regional Construction Environmental Coordinator no less than 24 hours prior to entering a project site, unless a complaint or problem is observed, then notification shall be made within 24 hours of the site visit. The
goal of such visits is to assure compliance and to remediate any identified problems as quickly as feasible and practical.

18. If NYCDEN believes that construction is proceeding in violation of a SWPPP, NYCDEN shall contact the NYSDOT Engineer-in-Charge or Resident Engineer as appropriate and the Regional Construction Environmental Coordinator or Regional Maintenance Environmental Coordinator as appropriate to attempt to resolve the issue. If NYCDEN and the NYSDOT are unable to resolve the issue(s) at this level, NYCDEN may seek assistance in resolving the matter from the NYSDOT Regional Construction Engineer or Regional Maintenance Engineer, as appropriate or, if necessary, the Regional Director.

19. NYSDOT and NYCDEN shall meet at times mutually agreed upon to review NYSDOT’s upcoming five-year capital and annual maintenance programs, review experiences of the past construction season, the adequacy of State erosion and sediment control and stormwater management standards and specifications, update lists of contact persons, evaluate SWPPP submittals, and review procedures and discuss opportunities to improve coordination, communication, resources protection, construction technologies and administrative processes.

20. NYSDOT shall provide NYCDEN with an opportunity to review and comment on the potential water quality impacts relative to proposals for new/modified NYSDOT sand and salt storage facilities within the Watershed.
21. NYSDOT will implement procedures based on NYSDOT Engineering Instruction EI 07-032 – Maintenance Cleaning and Washing of Bridges – US Customary (and any future revision) when washing bridges over water bodies or wetlands within the New York City Watershed\(^6\).

22. Any identified conflicts with regard to NYCDEP requirements and the requirements of other agencies having jurisdiction over the same matter shall be resolved by NYSDOT in consultation with the involved agencies. NYCDEP shall be actively involved in processes to resolve the conflict among the involved agencies.

23. This MOU may only be modified upon mutual agreement and in writing, as needed, or terminated upon 30 calendar days written notice to either party.

24. This MOU shall be effective as of the latest date of the signatures appearing below.

25. Any notifications to be sent hereunder shall be sent as follows:

To NYCDEP: Brenda Drake, P.E., Chief
Regulatory & Engineering Programs Section
Watershed Protection Programs Division
New York City Department of Environmental Protection
465 Columbus Avenue
Valhalla, NY 10595

Attention: Matthew Giannetta, CPSWQ

To NYSDOT: Daniel P. Hitt, R.L.A.
Acting Co-Director, Office of Environment
Director, Environmental Science Bureau
New York State Department of Transportation
50 Wolf Road, POD #4-1
Albany, New York 12232

Attention: Jonathan Bass

\(^6\) At such time that NYSDOT specifications and/or technical guidance associated with bridge washing or ditch cleaning is updated, NYCDEP will be included as part of any formal clearance review to comment specifically on New York City watershed application.
Paul Rush, P.E.
Deputy Commissioner
New York City Department of Environmental Protection

Phillip Eng, P.E.
Executive Deputy Commissioner
New York State Department of Transportation

Dated 2/18/15

Dated 1/14/15