Appendix D

Outfall Inspection Form (Minimum Control Measure 3)

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Backgr	round Data							
Subwatershed:				Outfall ID:	Outfall ID: Outfall not in inventory:			
Today's date:				Time (Military	Time (Military):			
Investigators:				Form completed by:				
Temperature (°F): Rainfa			fall (in.): Last 24 hours:	Last 48 hours:				
Latitude:		Longitude:		GPS Unit:		Location As Mapped:		
Camera:				Photo #s:				
Land Use in Drainage	ge Area (Check all that	apply):			Maintenance Priority:			
☐ Industrial	Open S	Space			☐ Priority 1 ☐ Pr	riority 2	☐ Priority 3	
Ultra-Urban Resid	idential	ıtional			Notes:			
☐ Suburban Residen	ntial Other:							
☐ Commercial	Known Ir	ndustries:						
Notes (e.g., origin of					•			
I								
~					<u>.l</u>			
Section 2: Outfall LOCATION	ll Description MATER	DTAL	SHAPE		DIMENSIONS	DIMENSIONS IN		
LUCATION	RCP		☐ Circular	MPE ☐ Single	Diameter/Dimension		SU MERGED In Water:	
I					Diameter/Dimension	S:	□ No	
	□ PVC	HDPE	☐ Eliptical	Double			☐ Partially ☐ Fully	
☐ Closed Pipe	☐ Steel		Вох	Triple			With Sediment:	
I	Other:		☐ Other:	Other:	-		□ No □ Partially	
<u> </u>							Fully	
	☐ Concrete				Depth:			
	☐ Earthen		☐ Trapezoid	-				
Open drainage	☐ rip-rap		Parabolic		Top Width:			
	Other:		Other:		Bottom Width:	=		
☐ In-Stream		(applicable when collecting samples)						
Flow Present?	Yes	□ No	_	p to Section 5				
Flow Description (If present)	☐ Trickle							
Section 3: Quanti	itative Character	rization						
			FIELD DATA FOR FL	LOWING OUTF	ALLS			
PAR	RAMETER		RESULT		UNIT	E	UIPMENT	
□Flow #1	Volume				Liter		Bottle	
	Time to fill				Sec			
ı	Flow depth				In		ape measure	
□Flow #2	Flow width	$\dashv=$,,		Ft, In		ape measure	
ı	Measured length	$\perp \!\!\! \perp =$	·		Ft, In		ape measure	
	Time of travel				S		Stop watch	
Temperature				oE	T	hermometer		

pH Units

mg/L

Test strip/Probe

Test strip

pН

Ammonia

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only Are Any Physical Indicators Present in the flow?
Yes □ No (If No, Skip to Section 5) **CHECK if** INDICATOR **DESCRIPTION RELATI E SE ERITY INDE** Present ☐ Rancid/sour ☐ Petroleum/gas ☐ Sewage ☐ 3 – Noticeable from a Odor ☐ 1 – Faint ☐ 2 – Easily detected distance Sulfide Other: Clear ☐ Brown ☐ Gray ☐ Yellow 2 – Clearly visible in ☐ 3 – Clearly visible in ☐ 1 – Faint colors in Color outfall flow sample bottle sample bottle Green ☐ Orange Red Other: ☐ 1 – Slight cloudiness \square 2 – Cloudy 3 – Opaque Turbidity See severity \square 2 – Some; indications 3 - Some; origin clear Floatables Sewage (Toilet Paper, etc.) ☐ Suds ☐ 1 – Few/slight; origin of origin (e.g., (e.g., obvious oil -Does Not Include sheen, suds, or floating not obvious possible suds or oil Other: Petroleum (oil sheen) Trash!! sheen) sanitary materials) Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls Are physical indicators that are not related to flow present? \square Yes \square No (If No. Skip to Section 6) **INDICATOR CHECK if Present DESCRIPTION COMMENTS** Spalling, Cracking or Chipping ☐ Peeling Paint Outfall Damage П Corrosion Other: Deposits/Stains П Oily Flow Line Paint Excessive Inhibited Abnormal Vegetation ☐ Colors ☐ Excessive Algae ☐ Odors ☐ Suds ☐ Floatables ☐ Oil Sheen Poor pool quality Other: ☐ Brown ☐ Orange Green Other: Pipe benthic growth **Section 6: Overall Outfall Characterization** Suspect (one or more indicators with a severity of 3) Potential (presence of two or more indicators) Obvious Unlikely **Section 7: Data Collection** Sample for the lab? Yes ☐ No ☐ Flow ☐ Pool If yes, collected from:

Caulk dam

Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

☐ Yes

Intermittent flow trap set?

□ No

Appendix E

Illicit Discharge Law (Minimum Control Measure 3)

CERTIFICATION

I have reviewed Local Law No. 6 of the Year 2007, entitled "A Local Law to Prohibit Illicit Discharges, Activities and Connections to Separate Storm Sewer System," which has been duly filed with the New York State Secretary of State. I have also reviewed a model local law, entitled "Model Local Law to Prohibit Illicit Discharges, Activities and Connections to Separate Storm Sewer System", that was developed by the New York State Department of Environmental Conservation ("NYSDEC") (the "Model Law").

My examination shows that Local Law No. 6 is identical in all respects to the Model Law.

Accordingly, I hereby certify that Local Law No. 6 is equivalent to the Model Law.

Philip H. Dixon, Esq.

Whiteman Osterman & Hanna LLP

Special Counsel to the Town of East Greenbush

	(Use t	his form to file a local law with the Secretary	of State.)
	should be given to indicate new	n as amended. Do not include matter being elim matter.	STATE CE TO WELL SON DEPARTMENT OF STATE
County City Town	of	EAST GREENBUSH	
Village Local Law No		7 OF THE YEAR 2007	MISCELLANEOUS STATE RECORDS
A local law	Erosion. Sedi (Insert Title)	ment Control and Stormwater Management	Local Law
Be it enacted by	the(Name	TOWN BOARD e of Legislative Body)	of the
County City		2,	

Local Law #7 as Attached

This Local Law shall take effect immediately.

(Complete the certification in the paragraph that applies to the filing of this local law and strike out that which is not applicable.)

1. (Final adoption by local legislative body only.)						
I hereby certify that the local law annexed hereto, designated as local law No. 7 of 2007 of the (County)(City)(Town)(Village) of East Greenbush was duly passed by the						
Town Board on December 12, 2007 in accordance with the applicable provisions of law.						
(Name of Legislative Body)						
2. (Passage by local legislative body with approval, no disapproval or repassage after disapproval by the Elective Chief Executive Officer*.)						
I hereby certify that the local law annexed hereto, designated as local law No of 20						
of the (County)(City)(Town)(Village) of was duly passed by the						
on						
(Name of Legislative Body)						
disapproval) by the and was deemed duly adopted on 20, (Elective Chief Executive Officer*)						
(Elective Chief Executive Officer*)						
in accordance with the applicable provisions of law.						
3. (Final adoption by referendum.)						
I hereby certify that the local law annexed hereto, designated as local law No of 20						
of the (Country)(City)(Term)(Village) of						
on 20 and was (approved)(not disapproved)(repassed after						
(Name of Legislative Body)						
(Name of Legislative Body) disapproval) by the						
(Elective Chief Executive Officer*)						
submitted to the people by reason of a (mandatory) (permissive) referendum, and received the						
affirmative vote of a majority of the qualified electors voting thereon a the (general)(special)						
(annual) election held on20, in accordance with the applicable						
provisions of law.						
4. (Subject to permissive referendum and final adoption because no valid petition was						
filed requesting referendum.)						
I hereby certify that the local law annexed hereto, designated as local law No of 20						
of the (County)(City)(Town)(Village) ofwas duly passed by theon						
on ,20 and was (approved) (not disapproved) (repassed after						
(Name of Legislative Body)						
(Name of Legislative Body) disapproval) by the						
(Elective Chief Executive Officer*)						
subject to permissive referendum and no valid petition requesting such referendum was filed as						
of20, in accordance with the applicable provisions of law.						
*Elective Chief Executive Officer means or includes the chief executive officer of a county elected on a						

^{*}Elective Chief Executive Officer means or includes the chief executive officer of a county elected on a county-wide basis or, if there be none, the chairman of the county legislative body, the mayor of a city or village, or the supervisor of a town where such officer is vested with the power to approve or veto local laws or ordinances.

revision by petition.)
hereto, designated as local law No of 20, having been submitted to referendum pursuant to funicipal Home Rule Law, and having received the fied electors of such eity voting thereon a the (special), became operative.
ion of Charter.)
State of New York, having been submitted to the 20, pursuant to Municipal Home Rule Law, and having received the fied electors of the cities of said county as a unit and a wns of said county considered as a unit voting at said
as been followed, please provide an appropriate certification.)
cript therefrom and of the whole of such original local er indicated in paragraph 1, above. Clerk of the County Legislative body, City, Town of Village Clerk or officer designated by the local legislative body Date:
ey, Corporation Counsel, Town Attorney, Village Attorney or
foregoing local law contains the correct text and that aken for the enactment of the enactment of the local Signature TOWN ATTORNEY Title

TOWN OF EAST GREENBUSH Date: 12/13/07

Erosion, Sediment Control and Stormwater Management Local Law

Subdivision Regulations

Article 4 of the Land Subdivision Regulations of the Town of East Greenbush is hereby amended by adding the following to the information submission requirements:

- A. For Preliminary Subdivision Plat add: Stormwater Pollution Prevention Plan: A Stormwater Pollution Prevention Plan (SWPPP) consistent with Local Law No. 7, shall be required for Preliminary Plat approval. The SWPPP shall meet the performance and design criteria and standards set forth in Local Law No. 7 and applicable New York State Department of Environmental Conservation regulations in effect at the time of the project. The approved Preliminary Subdivision Plat shall be consistent with the provisions of Local Law No. 7.
- B. For Final Subdivision Plat add: Stormwater Pollution Prevention Plan: A Stormwater Pollution Prevention Plan (SWPPP) consistent with Local Law No. 7 shall be required for Final Plat approval. The SWPPP shall meet the performance, design criteria and standards set forth in Local Law No. 7 applicable New York State Department of Environmental Conservation regulations in effect at the time of the project. The approved Final Subdivision Plat shall be consistent with the provisions of Local Law No.7.

Zoning Law

The Comprehensive Zoning Law of the Town of East Greenbush is hereby amended to include Article 9, a new supplemental regulation titled Stormwater Control.

Site Plan Review

Section 5.32 of The Comprehensive Zoning Law of the Town of East Greenbush is hereby amended by adding the following to the information submission requirements:

For Site Plan Review add: Stormwater Pollution Prevention Plan: A Stormwater Pollution Prevention Plan (SWPPP) consistent with Local Law No. 7 shall be required for Site Plan approval. The SWPPP shall meet the performance, design criteria and standards set forth in Local Law No. 7 applicable New York State Department of Environmental Conservation regulations in effect at the time of the project. The approved Site Plan shall be consistent with the provisions of Local Law No. 7.

Special Use Permit

Section 5.33of The Comprehensive Zoning Law of the Town of East Greenbush is hereby amended by adding the following to the information submission requirements:

For Special Use Permit Review add: Stormwater Pollution Prevention Plan: A Stormwater Pollution Prevention Plan (SWPPP) consistent with Local Law No. 7 shall be required for Special Use Permit approval. The SWPPP shall meet the performance, design criteria and standards set forth in Local Law No. 7 applicable New York State Department of Environmental Conservation regulations in effect at the time of the project. The approved Special Use Permit shall be consistent with the provisions of Local Law No. 7.

Erosion, Sediment Control and Stormwater Management Local Law

Section 1. Findings of Fact

It is hereby determined that:

- 1.1 Uncontrolled drainage and runoff associated with land development has a significant impact upon the health, safety and welfare of the community.
- 1.2 Eroded soil endangers water resources by reducing water quality and causing the silting of streams, lakes and other water bodies adversely affecting aquatic life.
- 1.3 Stormwater runoff and sediment transports pollutants such as heavy metals, hydrocarbons, nutrients and bacteria to water resources, degrading water quality.
- 1.4 Eroded soil necessitates repair and accelerates the maintenance needs of stormwater management facilities.
- 1.5 Clearing, grading and altering natural topography during construction tends to increase erosion.
- 1.6 Improper design and construction of drainage facilities can increase the velocity of runoff, thereby increasing stream bank erosion and sedimentation.
- 1.7 Impervious surfaces increase the volume and rate of stormwater runoff and allow less water to percolate into the soil, thereby decreasing groundwater recharge and stream base flow.
- 1.8 Improperly managed stormwater runoff can increase the incidence of flooding and the severity of floods that occur, endangering property and human life.
- 1.9 Substantial economic losses can result from these adverse impacts.
- 1.10 Stormwater runoff, soil erosion and nonpoint source pollution can be controlled and minimized through the regulation of land development activities.

2 Section 2. Purpose

The purpose of this local law is to safeguard persons, protect property, and prevent damage to the environment in the Town of East Greenbush, New York. This local law will also promote the public welfare by guiding, regulating, and controlling the design, construction, use, and maintenance of any land development activity as it relates to erosion and sedimentation control and stormwater management. This local law seeks to meet these purposes by achieving the following objectives:

2.1 Meet the requirements of minimum control measures four (construction site stormwater runoff control) and five (post-construction stormwater management) of the State Pollution Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s), Permit GP-02-02 or as amended or revised.

- 2.2 Require land development activities to conform to the substantive requirements of the NYS Department of Environmental Conservation (SPDES) General Permit for Construction Activities GP-02-01 or as amended or revised.
- 2.3 Minimize soil erosion and sedimentation impacts on streams, water bodies, and neighboring properties.
- 2.4 Avoid excessive and/or unnecessary tree and vegetation removal.
- 2.5 Minimize windblown soil associated with properties being cleared and graded for development.
- 2.6 Maintain the integrity of watercourses and sustain their hydrologic functions.
- 2.7 Minimize increases in the magnitude and frequency of stormwater runoff to prevent an increase in flood flows and the hazards and costs associated with flooding.
- 2.8 Minimize decreases in groundwater recharge and stream base flow to maintain aquatic life, assimilative capacity, and water supplies.
- 2.9 Facilitate the removal of pollutants in stormwater runoff to perpetuate the natural biological function of water bodies.

3 Section 3. Statutory Authority

In accordance with Article 10 of the Municipal Home Rule Law of the State of New York, the governing Board of the Town of East Greenbush has the authority to enact local laws and amend local laws for the purpose of promoting the health, safety or general welfare of the Town of East Greenbush and for the protection and enhancement of its physical environment. The Town Board may include in any such local law provisions for the appointment of any municipal officer, employees, or independent contractor to effectuate, administer and enforce such local law.

4 Section 4. Applicability

- 4.1 Except as otherwise provided herein, no person shall commence or perform any land development activity, as defined herein, without the approval of a Stormwater Pollution Prevention Plan (SWPPP).
- 4.2 Applicants shall also obtain all other permits required by state, federal, and local laws. Whenever the particular circumstances of proposed land development activity require compliance with special use, site plan, or subdivision procedures of the Town of East Greenbush, the responsible board shall integrate the requirements prescribed herein as appropriate and determine the adequacy of the SWPPP.

Deleted: <sp>

4.3 Redevelopment Projects

Redevelopment projects as defined herein provide an opportunity to reduce pollutant discharges and the rate, the amount and quality of stormwater runoff leaving the redevelopment site. However, the nature of the site, particularly in an urban location, may impose constraints that prevent implementation of full post construction compliance. Chapter 9 of the New York State Stormwater Management Design Manual sets forth the standards for compliance with water quality and quality standards and specifications. Consideration shall be given to using alternative stormwater management practices such as rain gardens, pervious pavers, green roofs and other low impact development techniques to reduce stormwater impacts.

4.4 No SWPPP is required for the following exempt activities:

- 4.4.1 Any emergency activity that is immediately necessary for the protection of life, property, or natural resources.
- 4.4.2 Agricultural operations conducted as a permitted principal or accessory use, including the construction of structures where the land disturbance is less than one acre.
- 4.4.3 Routine maintenance activities that disturb less than five acres and are performed to maintain the original line and grade, hydraulic capacity, or original purpose of a stormwater management facility.
- 4.4.4 Mining as defined herein.
- 4.4.5 The renovation/replacement of a septic system serving an existing dwelling or structure.
- 4.4.6 Normal lawn and landscaping activities/maintenance.
- 4.4.7 Activities of an individual engaging in home gardening by growing flowers, vegetables and other plants primarily for use by that person and his or her family.
- 4.4.8 Selective cutting of trees as defined herein, except log haul roads and landing areas are subject to this law. (Landing areas are cleared areas to which trees are hauled for their storage before being transferred offsite).
- 4.4.9 Repairs and maintenance of any stormwater management practice or facility.

5 Section 5. Definitions

Agriculture – The use of land for sound agricultural purposes, including farming, dairy, horse boarding, pasturing, grazing, horticulture, floriculture, viticulture, timber harvesting, animal and poultry husbandry, and those practices necessary for the on-farm production, preparation, and marketing of agricultural commodities. Agriculture does not include dude ranches or similar operations.

Certified Professional in Erosion & Sediment Control (CPESC) - A person who has received training and is certified by CPESC Inc, to review, inspect and/or maintain erosion and sediment control practices.

Commencement of Construction – The initial disturbance of soils associated with clearing, grading, or excavating activities, or other construction activities.

Clearing - Any activity that removes the vegetative surface cover.

Design Manual - The New York State Stormwater Management Design Manual, most recent version including applicable updates, which serves as the official guide for stormwater management principles, methods and practices.

Erosion – The wearing away of the land surface by action of wind, water, gravity, or other natural forces.

Erosion Control Manual - The most recent version of the "New York Standards and Specifications for Erosion and Sediment Control" manual, commonly known as the "Blue Book".

Erosion and Sediment Control Plan - A set of plans prepared by or under the direction of a licensed/certified professional indicating the specific measures and sequencing to be used to control sediment and erosion on a development site during and after construction.

Grading - Excavation of fill, rock, gravel, sand, soil or other natural material, including the resulting conditions therefrom.

Land Development Activity – Construction activity including clearing, grading, excavating, soil disturbance, or placement of fill resulting in land disturbance of equal to or greater than one acre. Also includes activities disturbing less than one acre of total land area that are part of a larger common plan of development or sale, even though multiple separate and distinct land development activities may take place at different times on different schedules.

Licensed/Certified Professional – A person currently licensed to practice engineering, or Landscape Architecture in New York State or is a Certified Professional in Erosion and Sediment Control (CPESC).

Mining – Any excavation subject to permitting requirements of the State Department of Environmental Conservation under the Mined Land Reclamation Law (Environmental Conservation Law, Article 23, Title 27).

Notice of Intent (NOI) — A permit application prepared and filed by an owner or operator with the Department of Environmental Conservation as an affirmation that a stormwater pollution prevention plan (SWPPP) has been prepared and will be implemented in compliance with the State Pollution Discharge Elimination System General Permit for Stormwater Runoff for Construction Activity (GP-02-01).

Operator – The person, persons, or legal entity which owns or leases the property on which the construction activity is occurring.

Perimeter Control - A barrier that prevents sediment from leaving a site by filtering sediment-laden runoff or diverting it to a sediment trap or basin.

Phasing - Clearing a parcel of land in distinct phases, with the stabilization of each phase completed before the clearing of the next.

Project (Major) – Any land development activity that disturbs one (1) acre or more, including all commercial, industrial, or mixed use development, as well as any residential development consisting of buildings that contain two or more dwelling units, or any land development activity not classified as a minor project. (The operator of a major project must submit a SWPPP that addresses water quality and quantity controls in addition to erosion and sedimentation controls.)

Project (Minor) – Any land development activity associated with a permitted agricultural use or single family residential construction/subdivision that disturbs between one (1) and five (5) acres and is not discharging stormwater directly to a water body listed on New York State 2002 Section 303(d) list of impaired water bodies. (At present in Rensselaer County, Snyders Lake is the only water body on the list due to phosphorous levels associated with urban runoff). (The operator of a minor project must submit a SWPPP that addresses, erosion and sedimentation controls.)

Redevelopment – refers to the reconstruction or modification to any existing, previously developed land such as residential, commercial, industrial, institutional, or road or highway which involves soil disturbance.

Selective Cutting- The cutting of more than one—half of the existing living trees measuring 6 inch diameter at breast height (DBH) in an area of one acre or more, over a period of two (2) consecutive years.

Sediment – Solid material, both mineral and organic, which is in suspension, is being transported, has been deposited, or has been removed from its site of origin.

Site - A parcel of land or a contiguous combination thereof, where grading work is performed as a single unified operation.

Site Development Permit - A permit issued by the municipality for the construction or alteration of ground improvements and structures for the control of erosion, runoff, and grading.

Slopes (steep) – Ground areas with a slope greater than fifteen percent (15 %) covering a minimum horizontal area of ¼ acre or 10,890 square feet and a minimum horizontal dimension of ten (10) feet.

Slopes (severe) – Ground areas with a slope greater than twenty-five percent (25 %) covering a minimum horizontal area of ¼ acre or 10,890 square feet and a minimum horizontal dimension of ten (10) feet.

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-02-01—A Permit under the New York State Pollutant Discharge Elimination System (SPDES) issued to developers of construction activities to regulate disturbance of one or more acres of land.

SPDES General Permit for Stormwater Discharges from Municipal Separate Stormwater Sewer Systems GP-02-02—A Permit under the New York State Pollutant Discharge Elimination System (SPDES) issued to municipalities to regulate discharges from municipal separate storm sewers for compliance with EPA established water quality standards and /or to specify stormwater control standards.

Stabilization – Means covering or maintaining an existing cover or soil. Cover can be vegetative (e.g. grass, trees, seed and mulch, shrubs, or turf) or non-vegetative (e.g. geotextiles, riprap, or gabions).

Stabilization (Final) – Means that all soil disturbing activities at the site have been completed, and that a uniform perennial vegetative cover with a density of 80 percent has been established or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed on all unpaved areas and areas not covered by permanent structures.

Start of Construction - The first land-disturbing activity associated with a development, including land preparation such as clearing, grading, and filling.

Stormwater Pollution Prevention Plan – A plan for controlling stormwater runoff and pollutants from a site during and after construction activities.

Surface Waters of the State of New York – Lakes, bays, sounds, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic Ocean within the territorial seas of the state of New York and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface or underground waters), which are wholly or partially within or bordering the state or within its jurisdiction.

Storm sewers and waste treatment systems, including treatment ponds or lagoons which also meet the criteria of this definition are not waters of the state. This exclusion applies only to manmade bodies of water which neither were originally created in waters of the state (such as a disposal area in wetlands) nor resulted from impoundment of waters of the state.

Watercourse - Any body of water, including but not limited to lakes, ponds, rivers, streams, and intermittent streams.

Watercourse Buffer -- A horizontal distance 50 feet away from and parallel to the high water level of a watercourse.

Wetlands – Those areas that are inundated or saturated by surface or ground water at a frequency or duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands include those areas determined to be wetlands by the U.S. Army Corps of Engineers and the New York State Department of Environmental Conservation.

6 Section 6. Review and Approval

- 6.1 No application for a land development activity shall be approved until the responsible board and/or department has received a Stormwater Pollution Prevention Plan (SWPPP) prepared in accordance with the specifications contained herein.
- 6.2 For land development activity not subject to special permit, site plan, or subdivision requirements, the Town Engineer, or designated agent, shall review the SWPPP to determine its completeness and conformance with the provisions herein. Within thirty (30) days of receipt of a SWPPP, or sixty (60) business days if the SWPP identifies practices or designs that deviate from the proscribed standards established by Section 11 of this code, the Town Engineer, or designated agent, shall make a determination as to whether it is complete. If it is deemed incomplete, the applicant shall be notified in writing as to the deficiencies in the plan and the requirements for completeness. Within 30 days after receiving a complete plan, the Town Engineer, or designated agent shall, in writing:
 - 6.2.1 Approve the permit application;
 - 6.2.2 Approve the permit application subject to such reasonable conditions as may be necessary to secure substantially the objectives of this regulation, and issue the permit subject to these conditions; or
 - 6.2.3 Disapprove the permit application, indicating the reason(s) and procedure for submitting a revised application and/or submission.
 - 6.2.4 Failure of the Town Engineer, or designated agent, to act on a complete original or revised application within 30 days of receipt shall authorize the applicant to proceed in accordance with the plans as filed unless such time is extended by agreement between the applicant and the Town. Pending preparation and approval of a revised plan, land development activities shall not be allowed to proceed. Nothing herein shall relieve an applicant's need to obtain a building permit as required by Town Code or file an NOI with the NYS Department of Environmental Conservation.
- 6.3 For land development activity subject to special permit, site plan, or subdivision requirements, the responsible board shall incorporate the required SWPPP into the review process, allowing for public review and comment on the SWPPP. The responsible board, in consultation with the Town Engineer, or designated agent, shall determine the adequacy of the SWPPP. For projects subject to subdivision

- requirements, preliminary plat approval shall not be granted until the Planning Board has received a SWPPP prepared in accordance with the specifications contained herein.
- In its review of the plan, the responsible board or municipal official may consult with the Town Engineer, the Rensselaer County Soil and Water Conservation District, the New York State Department of Environmental Conservation, or retain any other licensed/certified professionals qualified in the review and/or design of stormwater management and erosion control plans as are determined to be necessary to carry out the review of an SWPPP. Payment for the services of such professionals shall comply with Section 17 herein.

Section 7. Stormwater Pollution Prevention Plan Contents

All designs and procedures to prevent stormwater pollution as set forth within the SWPPP shall be designed in compliance with the New York Standards and Specifications for Erosion and Sediment Control and the New York State Stormwater Management Design Manual as stipulated in Section 11 of this code.

The SWPPP shall include the following:

- A written narrative identifying the project's scope including the location, type, and size of the project.
 - A site map/construction drawing(s) for the project, including a general location map. At a minimum, the site map should show the total site area; all improvements; areas of disturbance; areas that will not be disturbed; locations of off-site material, waste, borrow or equipment storage areas; and location(s) of stormwater discharge(s). The specific location(s), size(s), and length(s) of each erosion and sediment control practice shall also be shown. Site maps/construction drawings shall be at a scale no smaller than I inch equal 100 feet.
 - A natural resources map identifying existing vegetation; on-site and adjacent offsite surface water(s), wetlands, and drainage patterns that could be affected by the construction activity; and existing and final slopes.
 - A description of soil(s) present at the site along with any existing data that describes the stormwater runoff characteristics at the site.
 - A construction phasing plan describing the intended sequence of construction activities including clearing and grubbing; excavation and grading; utility and infrastructure installation, and any other activity at the site that results in soil disturbance. Phasing shall identify the expected date on which clearing will begin, the estimated duration of exposure of cleared areas, areas of clearing, installation of temporary erosion and sediment control measures, and establishment of permanent vegetation. Consistent with the New York Standards and Specifications Page 9

for Erosion and Sediment Control, there shall not be more than five (5) acres of disturbed soil at any one time without prior written approval from the Department of Environmental Conservation.

- 7.7 A description of the pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a pollutant source in the stormwater discharges and runoff.
- 7.8 A description of construction and waste materials expected to be stored on-site with updates as appropriate, and a description of controls to reduce pollutants from these materials including storage practices to minimize exposure of the materials to stormwater, and spill prevention and response.
- 7.9 A description of the temporary and permanent structural and vegetative measures to be used for soil stabilization, runoff control and sediment control for each stage of the project from initial land clearing and grubbing to project close-out. Depending upon the complexity of the project, the drafting of intermediate plans may be required at the close of each season.
- 7.10 The dimensions, material specifications (e.g. seeding mixtures and rates, types of sod, kind and quantity of mulching) and installation details for all erosion and sediment control practices, including the siting and sizing of any temporary sediment basins. Temporary practices that will be converted to permanent control measures shall be shown.
- 7.11 An implementation schedule for staging temporary erosion and sediment control practices, including the timing of initial placement and the duration that each practice should remain in place.
- 7.12 A maintenance schedule to ensure continuous and effective operation of the erosion and sediment control practices including estimates of the cost of maintenance.
- 7.13 Name(s) of the receiving water(s) and any existing data that describes the stormwater runoff at the site.
- 7.14 Identification of the person or entities responsible for implementation of the SWPPP for each part of the site.
- 7.15 A description of structural practices to divert flows from exposed soils, store flows, or otherwise limit runoff and the discharge of pollutants from exposed areas of the site to the degree attainable.
- 7.16 A site map/construction drawing(s) of each post-construction stormwater practice including a description of each post-construction stormwater control practice including, specific location(s) and size(s), dimensions, material specifications and

installation details. The New York State Stormwater Management Design Manual shall serve as the technical design standard. Deviations from this Design Manual are permitted subject to review and approval by the New York State Department of Environmental Conservation within 60 business days of receipt of a completed Notice of Intent (NOI).

For major projects, the following shall also be provided:

- 7.17 A hydrologic and hydraulic analysis for all structural components of the stormwater control system for the applicable design storms.
- 7.18 A comparison of post-development stormwater runoff conditions with pre-development conditions.
- 7.19 Maintenance schedule to ensure continuous and effective operation of each postconstruction stormwater control practice.
- 7.20 Maintenance easements to ensure access to all stormwater management practices at the site for the purpose of inspection and repair. Easements shall be recorded on the plan and shall remain in effect with transfer of title to the property.
- 7.20 Inspection and maintenance agreement binding on all subsequent landowners served by the on-site stormwater management measures in accordance with Article 2, Section 4 of this local law.

8 Section 8. Plan Certification

8.1 The SWPPP shall be prepared by a licensed/certified professional. The SWPPP must be signed by the professional preparing the plan and shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that false statements made herein are punishable as a class A misdemeanor pursuant to Section 210.45 of the Penal Law."

9 Section 9. Contractor Certification

9.1 The SWPPP must clearly identify each contractor(s) and subcontractor(s) involved in soil disturbance that will implement each stormwater and erosion control measure. Each contractor and subcontractor identified in the SWPPP shall sign a copy of the following certification statement before undertaking any land development activity:

"I certify under penalty of law that I understand and agree to comply with the terms and conditions of the Stormwater Pollution Prevention Plan (SWPPP) as a condition of authorization to discharge stormwater. I also understand that the operator must comply with the terms and conditions of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards."

- 9.2 The certification must include the name and title of the person providing the signature, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification is made.
- 9.3 The certification statement(s) shall become part of the SWPPP for the land development activity.

10 Section 10. SWPPP Review and Amendment

- 10.1 The permittee shall amend the SWPPP whenever there is a significant change in design, construction, operation, or maintenance which may have a significant effect on the potential for the discharge of pollutants to the waters of the United States and which has not otherwise been addressed in the SWPPP; or
- 10.2 The SWPPP proves to be ineffective in:
 - 10.2.1 Eliminating or significantly minimizing pollutants from sources identified in the SWPPP, or
 - 10.2.2 Achieving the general objectives of controlling pollutants in stormwater discharges from permitted construction activity.
- 10.3 Additionally, the SWPPP shall be amended to identify any new contractor or subcontractor that will implement any measure of the SWPPP.
- 10.4 Significant amendments or changes to the SWPPP as outlined above in 10.1 and 10.2 may be subject to review and approval in the same manner as Section 6 herein.

11 Section 11. Design and Performance Standards

11.1 Grading, erosion, and sediment control practices, and waterway crossings shall meet the design criteria set forth in the most recent version of the "New York Standards and Specifications for Erosion and Sediment Control" published by the Empire State Chapter of the Soil and Water Conservation Society. For the design

of post-construction structures, the technical standards are currently detailed in the publication "New York State Stormwater Management Design Manual" published by the Department of Environmental Conservation.

Where stormwater management practices are not in accordance with above design and technical standards, the applicant or developer must demonstrate equivalence to the design and technical standards set forth in this Section and the equivalence shall be documented and certified by a licensed/certified professional as part of the SWPPP.

- 11.2 Cut and fill slopes shall be no greater than 2:1, except where retaining walls, structural stabilization or other methods acceptable to the Town Designated Licensed/Certified Professional are used. Disturbed areas shall be restored as natural appearing landforms, and shall blend in with the terrain of adjacent undisturbed land. Abrupt, angular transitions shall be avoided.
- 11.3 Clearing and grading shall be substantially confined to designated building envelopes, utility easements, driveways, and parking footprint. Clearing and grading techniques that retain natural vegetation and drainage patterns, as described in the most recent version of "Standards and Specifications for Erosion and Sediment Control" referenced above shall be used to the satisfaction of the responsible board. No clearing or grading shall take place within the established 50 foot watercourse buffer area except to provide road crossings where permitted.
- 11.4 Clearing, except that necessary to establish sediment control devices shall not begin until all sediment control devices have been installed and have been stabilized.
- 11.5 Phasing shall be required on all sites disturbing greater than 30 acres, with the size of each phase to be established at plan review and as approved by the responsible board. There shall not be more than five (5) acres of disturbed soil at any one time without prior written approval from the NYS Department of Environmental Conservation.
- 11.6 The permittee shall initiate stabilization measures as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. This requirement does not apply in the following instances:
 - 11.6.1 Where the initiation of stabilization measures by the 14th day after construction activity temporarily or permanently ceased is precluded by snow cover or frozen ground conditions, stabilization measures shall be initiated as soon as practicable;
 - 11.6.2 Where construction activity on a portion of the site is temporarily ceased, and earth-disturbing activities will be resumed within twenty-one (21)

days, temporary stabilization measures need not be initiated on that portion of the site.

- 11.7 The mere parking and moving of construction vehicles around the site does not constitute construction or earth disturbing activity. If the permittee is not diligently pursuing the project toward completion as determined by the Town Zoning Enforcement Officer or designated agent, he/she may issue a notice of violation (see Section 19.1) and stipulate that the stabilization measures as outlined above shall be undertaken to prevent site erosion.
- 11.8 If seeding or another vegetative erosion control method is used, it shall become established within 14 days or the applicant may be required to re-seed the site or use a non-vegetative option.
- 11.9 Special techniques that meet the design criteria outlined in the most recent version of "Standards and Specifications for Erosion and Sediment Control" shall be used to ensure stabilization on steep slopes or in drainage ways.
- 11.10 Soil stockpiles must be stabilized or covered at the end of each workday.
- 11.11 The entire site must be stabilized, using a heavy mulch layer or another method that does not require germination to control erosion, at the close of the construction season.
- 11.12 Techniques shall be employed to prevent the blowing of dust or sediment from the site.
- 11.13 Techniques that divert upland runoff past disturbed slopes shall be employed.
- 11.14 Adjacent properties shall be protected by the use of a vegetated buffer strip in combination with perimeter controls.
- 11.15 In general, wetlands and watercourses should not be filled, graded or altered. The crossing of watercourses should be avoided to the maximum extent practicable. When protection of wetlands, watercourses, trees, steep slopes or other environmentally sensitive area is required, the location shall be shown on the erosion control plan and the method of protection during construction identified (e.g., silt fence, construction fence, stakes, etc.). [A vegetative buffer (25' minimum) shall be maintained between disturbed areas and protected federal wetlands that are not proposed to be filled as part of an Army Corps of Engineers wetlands permit. In the case of state designated wetlands, the 100' adjacent area shall not be disturbed without a NYS Department of Environmental Conservation permit.

- 11.16 Stabilization shall be adequate to prevent erosion located at the outlets of all pipes and paved/rip-rap channels.
- 11.17 Sediment shall be removed from sediment traps or sediment ponds whenever their design capacity has been reduced by fifty (50) percent.
- 11.18 Development should relate to site conditions and disturbance of steep slopes avoided. Grading should be minimized by utilizing existing topography whenever possible. Roads and driveways shall follow the natural topography to the greatest extent possible.
- 11.19 In areas of severe slopes (exceed 25 percent), land-disturbing activities are not permitted. A 25-foot buffer must be maintained between any disturbed area and the top of slopes 25 percent and greater.
- 11.20 Maintenance Easement(s) Prior to the issuance of any approval that has a stormwater management facility as one of the requirements, the applicant or developer must execute a maintenance easement agreement that shall be binding on all subsequent landowners served by the stormwater management facility. The easement shall provide for access to the facility at reasonable times for periodic inspection by the Town of East Greenbush to ensure that the facility is maintained in proper working condition to meet design standards and any other provisions established by this local law. The easement shall be recorded by the grantor in the office of the County Clerk after approval by the counsel for the Town of East Greenbush.
- 11.21 Maintenance Agreements The Town of East Greenbush shall approve a formal maintenance agreement for stormwater management facilities binding on all subsequent landowners and recorded in the office of the County Clerk as a deed restriction on the property prior to final plan approval. The maintenance agreement shall be consistent with the terms and conditions of Schedule B of this local law entitled Sample Stormwater Management System Maintenance Agreement. The Town of East Greenbush, in lieu of a maintenance agreement, at its sole discretion may accept dedication of any existing or future stormwater management facility, provided such facility meets all the requirements of this local law and includes adequate and perpetual access and sufficient area, by easement or otherwise, for inspection and regular maintenance.

12 Section 12. Water Quality Standard

Any land development activity shall not result in:

- 12.1 An increase in turbidity that will cause a substantial visible contrast to natural conditions in surface waters of New York State;
- 12.2 An increase in suspended, colloidal and settleable solids that will cause deposition or impair the waters for their best uses; or
- 12.3 Residue from oil and floating substances, nor visible oil film, or globules of grease.

13 Section 13 Maintenance During Construction

13.1 The applicant or developer of the land development activity or their representative shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the applicant or developer to achieve compliance with the conditions of this local law. Sediment shall be removed from sediment traps or sediment ponds whenever their design capacity has been reduced by fifty (50) percent.

14 Section 14. Erosion and Sediment Control Inspection

- 14.1 The Town Zoning Enforcement Officer or designated agent may require such inspections as necessary to determine compliance with this law and may either approve that portion of the work completed or notify the applicant wherein the work fails to comply with the requirements of this law and the SWPPP as approved. To obtain inspections, the applicant shall notify the Zoning Enforcement Officer or designated agent at least 48 hours before the following as required by the SWPPP:
 - 14.1.1 Start of construction and initial installation of sediment and erosion controls
 - 14.1.2 Installation of sediment and erosion measures as site clearing and grading progresses
 - 14.1.3 Completion of site clearing
 - 14.1.4 Completion of rough grading
 - 14.1.5 Completion of final grading
 - 14.1.6 Close of the seasonal land development activity
 - 14.1.7 Completion of final landscaping
 - 14.1.8 Successful establishment of landscaping in public areas

If any violations are found, the applicant and developer shall be notified in writing of the nature of the violation and the required corrective actions. Corrective actions may include the repair/restoration of offsite impacts. No further work shall be conducted except for site stabilization until any violations are corrected and all work previously completed has received approval by the Town Zoning Enforcement Officer or designated agent.

14.2 For land development activities, the applicant shall have a qualified professional conduct an assessment of the site prior to the commencement of construction and

certify in an inspection report that the appropriate erosion and sediment controls described in the SWPPP have been adequately installed or implemented to ensure overall preparedness of the site. Following the commencement of construction, site inspections shall be conducted by a qualified professional at least every seven (7) calendar days and within 24 hours of the end of a storm event 0.5 inches or greater. The purpose of such inspections will be to determine the overall effectiveness of the plan and the need for additional control measures. During each inspection, the licensed/certified professional shall record the following information:

- 14.2.1 On a site map, indicate the extent of all disturbed site areas and drainage pathways. Indicate site areas that are expected to undergo initial disturbance or significant site work within the next 14-day period;
- 14.2.2 Indicate on a site map all areas of the site that have undergone temporary or permanent stabilization;
- 14.2.3 Indicate all disturbed site areas that have not undergone active site work during the previous 14-day period;
- 14.2.4 Inspect all sediment control practices and record the approximate degree of sediment accumulation as a percentage of the sediment storage volume;
- 14.2.5 Inspect all erosion and sediment control practices and record all maintenance requirements such as verifying the integrity of barrier or diversion systems and containment systems. Identify any evidence of rill or gully erosion occurring on slopes and any loss of stabilizing vegetation or seeding/mulching. Document any excessive deposition of sediment or ponding water along barrier or diversion systems. Record the depth of sediment within containment structures, any erosion near outlet and overflow structures, and verify the ability of rock filters around perforated riser pipes to pass water; and
- 14.2.6 All deficiencies that are identified with the implementation of the SWPPP.
- 14.3 A copy of the NOI and a brief description of the project shall be posted at the construction site in a prominent place for public viewing. A copy of the SWPPP shall be retained at the site of the land development activity during construction from the beginning of construction activities to the date of final stabilization. The SWPPP and inspection reports are public documents that the operator must make available for inspection, review and copying by any person within five (5) business days of the operator receiving a written request by such person to review the SWPPP and/or the inspection reports. Copying of documents will be done at the requester's expense.
- 14.4 The operator shall maintain a record of all inspection reports in a site logbook.

 The site log book shall be maintained on site and be made available to the Town upon request. The operator shall post at the site, in a publicly accessible location, a summary of the site inspection activities on a monthly basis.

- 14.5 The applicant or developer or their representative shall be on site at all times when construction or grading activity takes place and shall inspect and document the effectiveness of all erosion and sediment control practices.
- 14.5 The Zoning Enforcement Officer, or designated agent, shall enter the property of the applicant as deemed necessary to make regular inspections to ensure the validity of the reports filed under subsection 14.3 above.

15 Section 15. Project Completion

15.1 Inspections of Stormwater Management Practices (SMP's)

The Town Zoning Enforcement Officer or designated agent is responsible for conducting inspections of stormwater management practices (permanent water quantity/ quality improvement structures). All operators are required to submit "as built" plans certified by a professional engineer for any permanent stormwater management practices located on site after final stabilization. The plan must show the final design specifications for all stormwater management facilities and must be certified by a professional engineer. Operators shall also provide the owner(s) of such structure(s) with a manual describing the operation and maintenance practices that will be necessary in order for the structure to function as designed. The operator must also certify that the permanent structure(s) have been constructed as described in the SWPPP. This certification can be accomplished by providing to the Town a copy of the Notice of Termination (NOT) filed with the NYS DEC.

15.2 All certified "as built" plans, lands, structures, and/or appurtenances, to be dedicated to the Town shall be reviewed, inspected and approved by the Town Engineer or designated agent prior to Town acceptance.

15.3 Notice of Termination (NOT)

Upon certification by the operators licensed/certified professional that a final site inspection has been conducted and that "final stabilization" has been accomplished and all Stormwater Management Practices have been constructed as described in the SWPPP the Operator shall complete and file an NOT as proscribed by the NYSDEC and file a copy with the Town to notify them that they have complied with Section 14.1 and that the project is complete.

16 Section 16. Post Construction Activities

16.1 Maintenance after Construction

The owner or operator of permanent stormwater management practices installed in accordance with this law shall ensure they are operated and maintained to achieve the goals of this law. Proper operation and maintenance also includes, at a minimum, the following:

^{*&}quot;Final Stabilization" means that all soil disturbing activities at the site have been completed and a uniform perennial vegetative cover with a density of eighty (80) percent has been established or equivalent stabilization measures (such as the use of mulches, or geotextile mass) have been employed on all unpaved areas and areas not covered by permanent structures.

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- 16.1.1 A preventive/corrective maintenance program for all critical facilities and systems of treatment and control (or related appurtenances) which are installed or used by the owner or operator to achieve the goals of this law.
- 16.1.2 Written procedures for operation and maintenance and training new maintenance personnel.
- 16.1.3 Discharges from the SMPs shall not exceed design criteria or cause or contribute to water quality standard violations in accordance with Section 12.

16.2 Inspection of Stormwater Facilities after Project Completion

Inspection programs shall be established on any reasonable basis, including but not limited to: routine inspections; random inspections; inspections based upon complaints or other notice of possible violations; inspection of drainage basins or areas identified as higher than typical sources of sediment or other contaminants or pollutants; inspections of businesses or industries of a type associated with higher than usual discharges of contaminants or pollutants or with discharges of a type which are more likely than the typical discharge to cause violations of state or federal water or sediment quality standards or the SPDES stormwater permit; and joint inspections with other agencies inspecting under environmental or safety laws. Inspections may include, but are not limited to: reviewing maintenance and repair records; sampling discharges, surface water, groundwater, and material or water in drainage facilities; and evaluating the condition of drainage control facilities and other stormwater management practices.

16.3 Submission of Reports

The Town of East Greenbush Stormwater Management Officer may require monitoring and reporting from entities subject to this law as are necessary to determine compliance with this law.

16.4 Right-of-Entry for Inspection

When any new stormwater management facility is installed on private property or when any new connection is made between private property and the public storm water system, the landowner shall grant to the Town of East Greenbush the right to enter the property at reasonable times and in a reasonable manner for the purpose of inspection as specified in Section 16.2.

17 Section 17. Performance Guarantee

17.1 Construction Completion Guarantee

The applicant or developer may be required to provide, prior to construction, a performance bond, cash escrow, or irrevocable letter of credit, from an appropriate financial or surety institution which guarantees satisfactory completion of the project and names the Town of East Greenbush as the beneficiary. The security shall be in an amount determined by the Town of East Greenbush based on submission of final design plans, with reference to actual construction and landscaping costs. The performance guarantee shall remain in force until the surety

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is released from liability by the Town of East Greenbush, provided that such period shall not be less than one year from the date of final acceptance or such other certification that the facilities have been constructed in accordance with the approved plans and specifications and that a one year inspection has been conducted and the facilities have been found to be acceptable to the Town. Per annum interest on cash escrow deposits shall be reinvested in the account until the surety is released from liability.

17.2 Maintenance Guarantee

Where stormwater management and erosion and sediment control facilities are to be operated and maintained by the developer or by a corporation that owns or manages a commercial or industrial facility, the developer, prior to construction, may be required to provide the Town of East Greenbush with an irrevocable letter of credit from an approved financial institution or surety to ensure proper operation and maintenance of all stormwater management and erosion control facilities both during and after construction, and until the facilities are removed from operation. If the developer or landowner fails to properly operate and maintain stormwater management and erosion control facilities, the Town may, upon notification, draw upon the account to cover the costs of proper operation and maintenance, including engineering and inspection costs.

17.3 Record Keeping

The Town of East Greenbush may require entities subject to this law to maintain records demonstrating compliance with this law.

18 Section 18. Retention of Licensed/Certified Professional: Payment

- 18.1 The responsible board or municipal official is hereby authorized to retain Licensed/Certified Professionals as are determined to be necessary to carry out the review of a SWPPP or to make regular or final inspections of all control measures, lands, structures, and/or appurtenances, to be dedicated to the Town in accordance with the approved plan.
- 18.2 Payment for the services of such professionals is to be made from funds deposited by the applicant with the Town in escrow accounts for such purposes,
- 18.3 It shall be the responsibility of the applicant to submit to the Town certified check(s) in amounts equal to the estimate of the Licensed/Certified Professional for the cost of services to be rendered. Estimates shall reflect reasonable costs at prevailing rates. The Town shall make payments to said professional for services rendered to it upon acceptance by the Town of said service.

19 Section 19. Enforcement and Penalties

19.1 Notice of Violation.

The operator and all contractors and subcontractors must comply with all conditions of a SWPPP submitted pursuant to this local law. In the event that the Town Page 20

determines that a land development activity is not being carried out in accordance with the requirements of this local law, the Zoning Officer may issue a written notice of violation to the operator/landowner, applicant and all contractors/subcontractors subject to the provisions of this local law. The notice of violation shall contain:

- The name and address of the operator/landowner, developer, or applicant;
- The address of the site or a description of the building, structure or land upon which the violation is occurring;
- A statement specifying the nature of the violation;
- A description of the remedial measures necessary to bring the land development activity into compliance with this local law and a time schedule for the completion of such remedial action;
- A statement of the penalty or penalties that can be assessed against the person to whom the notice of violation is directed;

Within fifteen (15) days of notification of violation (or as otherwise provided by the Town) the violator shall take the remedial measures necessary to bring the land development activity into compliance with this local law.

19.2 Stop Work Order.

The Town Zoning Enforcement Officer may issue a stop work order for violation of this local law. Persons receiving a stop work order shall be required to halt all land development activities, except those activities that address the violation(s) identified in the stop work order. The stop work order shall be in effect until the Town confirms that the land development activity is in compliance and the violation has been satisfactorily addressed. Failure to address a stop work order in a timely manner may result in civil, criminal, and/or monetary penalties in accordance with this local law.

19.3 Violations

The Town of East Greenbush may require entities subject to this law to maintain records demonstrating compliance with this law.

19.4 Penalties.

Any person violating any of the provisions of this ordinance shall be deemed guilty of a misdemeanor and each day during which any violation of any of the provisions of this ordinance is committed, continued, or permitted, shall constitute a separate offense. Upon conviction of any such violation, such person, partnership, or corporation shall be punished by a fine of not more than \$250 for each offense. In addition to any other penalty authorized by this section, any person, partnership, or corporation convicted of violating any of the provisions of this local law shall be required to bear the expense of such restoration. To the extent that the noncompliance with this local law constitutes a violation of the Clean Water Act and the Environmental Conservation Law, there may be substantial criminal, civil, and administrative penalties depending upon the nature and degree of the offense.

19.5 Withholding Certificate of Occupancy.

If any building or land development activity is installed or conducted in violation of this local law the Town Zoning Enforcement Officer may prevent the occupancy of said building or land.

19.6 Restoration of Lands

Any violator may be required to restore land to its undisturbed condition. In the event that restoration is not undertaken within a reasonable time after notice, the Town of East Greenbush may take necessary corrective action, the cost of which shall become a lien upon the property until paid.

20 Section 20. Separability

20.1 The provisions and sections of this local law shall be deemed to be separable, and the invalidity of any portion of this local law shall not affect the validity of the remainder.

Appendix F

ESC Law (Minimum Control Measure 4&5)

CERTIFICATION

I have reviewed Local Law No. 7 of 2007, entitled "Erosion, Sediment Control and Stormwater Management Local Law," the terms of which were subsequently codified in Section 3.13 of the Comprehensive Zoning Law of the Town of East Greenbush (Local Law No. 1 of 2008), entitled "Erosion, Sediment Control and Stormwater Management" (the "Zoning Law"). I have also reviewed a model local law, entitled "Sample Local Law for Stormwater Management and Erosion and Sediment Control," that was developed in 2006 and 2016 by the New York State Department of Environmental Conservation ("NYSDEC") (the "Model Law").

The Zoning Law is very similar but not identical to the Model Law. In all substantive areas, however, the Zoning Law provisions correspond to those in the Model Law.

Accordingly, I certify that Section 3.13 of the Zoning Law is equivalent to the Model Law. The following is a discussion of the substantive provisions, following the order in which they are presented, in Section 3.13 of the Zoning Law.

Section 3.13.1 (Findings of Fact) – The items in this prefatory section are presented in a different format from the Model Law, but contain the major findings in the Model Law.

Section 3.13.2 (Purpose) – This section mirrors to a large extent the Model Law. It does not specifically use the phrase "green infrastructure" (which was not being widely used when the

Zoning Law was adopted), but it does identify goals consistent with such infrastructure, such as to "[m]inimize decreases in groundwater recharge and stream base flow to maintain adequate life, assimilative capacity, and water supplies" (§ 3.13.2.08). See, also, the provisions of Section 13.3.4.

Section 13.3.3 (Statutory Authority) – This section is the same as the Model Law.

Section 13.3.4 (Applicability) – This section is substantively identical to the provision in the Model Law. It applies to all land development activities, as well as site plans, special use permits, and subdivisions. In addition, it states that "[c]onsideration shall be given to using alternative stormwater management practices such as rain gardens, pervious pavers, green roofs and other low impact development techniques to reduce stormwater impacts" (§ 3.13.4.c). This section also contains a list of exempt activities that is generally consistent with the Model Law.

Section 13.3.5 (Definitions) – This section is consistent with the Model Law.

Section 13.3.6 (Review and Approval) – This section includes the Model Law's general requirement for maintaining a current and accurate SWPPP, and also adds a variety of procedural approval requirements.

Section 13.3.8 (Plan Certification) – This section is consistent with the Model Law.

Section 13.3.9 (Contractor Certification) – This section is identical to the Model Law.

Section 3.13.10 (SWPPP Review and Amendment) – This section requires amendment of the SWPPP where conditions have changed on the SWPPP is not achieving the general objectives of controlling pollutants in stormwater discharges.

Section 3.13.11 (Design and Performance Standards) – This section cites as standards the NYSDEC's Stormwater Management Design Manual and the Standards and Specifications for Erosion and Sediment Control of the Empire State Chapter of the Soil and Water Conservation Society, both specified in the 2006 Model Law.

Section 3.13.12 (Water Quality Standard) – This section prohibits an increase in turbidity, solids and/or oil that impair waters from their best uses. It is consistent with the Model Law.

Section 3.13.13 (Maintenance During Construction – This section requires the developer to properly operate and maintain all treatment facilities and remove sediment from traps or ponds. It is identical to such a provision in the Model Law.

Section 3.13.14 (Erosion and Sediment Control Inspection) – This section provides a detailed description of inspection requirements. Its schedule of inspections is consistent with the Model Law.

Section 3.13.15 (Project Completion) – This section sets forth requirements for final inspections and certifications and is consistent with the Model Law.

Section 3.13.16 (Post Construction Activities) – This section governs post-construction

maintenance and inspection procedures and mirrors provisions of the Model Law.

Section 3.13.17 (Performance Guarantee) – This section is identical to the provision in the

Model Law.

Section 3.13.18 (Retention of Licensed/Certified Professional/Payment) - This section

mirrors the provision in the Model Law.

Section 3.13.19 (Enforcement and Penalties) – This section tracks the provisions of the

Model Law, except that the potential penalties for violations are higher. The Model Law provides

for a maximum penalty of \$350 for each week of violation. This section establishes a maximum

penalty of \$250 per day of violation (or \$1,750 per week).

Section 3.13.20 (Separability) – This section is identical to the provision in the Model Law.

Philip H. Dixon, Esq.

Whiteman Osterman & Hanna LLP

Special Counsel to the

Town of East Greenbush

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Section 13.3.3 (Statutory Authority) – This section is the same as the Model Law.

Section 13.3.4 (Applicability) – This section is substantively identical to the provision in the Model Law. It applies to all land development activities, as well as site plans, special use permits, and subdivisions. In addition, it states that "[c]onsideration shall be given to using alternative stormwater management practices such as rain gardens, pervious pavers, green roofs and other low impact development techniques to reduce stormwater impacts" (§ 3.13.4.c). This section also contains a list of exempt activities that is generally consistent with the Model Law.

Section 13.3.5 (Definitions) – This section is consistent with the Model Law.

Section 13.3.6 (Review and Approval) – This section includes the Model Law's general requirement for maintaining a current and accurate SWPPP, and also adds a variety of procedural approval requirements.

Section 13.3.8 (Plan Certification) – This section is consistent with the Model Law.

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Town of East Greenbush

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local law Be it enacted by	To Prohibit (Insert Title) the(Na	TOWN BOARD	of the

Local Law #6 as Attached

This Local Law shall take effect immediately.

or ordinances.

(Complete the certification in the paragraph that applies to the filing of this local law and strike out that which is not applicable.)

1. (Final adoption by local legislative body only.)
I hereby certify that the local law annexed hereto, designated as local law No. 6 of 2007
of the (County)(City)(Town)(Village) of <u>East Greenbush</u> was duly passed by the
Town Board on December 12, 2007 in accordance with the applicable provisions of law.
Name of Legislative Body)
2. (Passage by local legislative body with approval, no disapproval or repassage after
disapproval by the Elective Chief Executive Officer*.)
I hereby certify that the local law appexed hereto, designated as local law No of 20
of the (County)(City)(Town)(Village) of the (County)(City)(Town)(Village) of
of the (County)(City)(Town)(Village) of was duly passed by the on20 _ and was (approved)(not disapproved)(repassed after (Name of Legislative Body)
(Name of Legislative Body) disapproval) by the and was deemed duly adopted on 20, (Elective Chief Executive Officer*)
disapproval) by the and was deemed duly adopted on 20,
(Elective Chief Executive Officer*)
in accordance with the applicable provisions of law.
3. (Final adoption by referendum.)
I hereby certify that the local law annexed hereto, designated as local law No of 20
of the (County)(City)(Town)(Village) of was duly passed by the
on
disapproval) by the
(Elective Chief Executive Officer*)
submitted to the people by reason of a (mandatory) (permissive) referenced in the
affirmative vote of a majority of the qualified electors voting thereon a the (general)(special)
(annual) election held on20, in accordance with the applicable
provisions of law.
4. (Subject to permissive referendum and final adoption because no valid petition was
filed requesting referendum.)
I hereby certify that the local law annexed hereto, designated as local law Noof 20
of the (County)(City)(Town)(Village) of was duly passed by the
of the (County)(City)(Town)(Village) of was duly passed by the on,20 _ and was (approved)(not disapproved)(repassed after
(Name of Legislative Body)
(Name of Legislative Body) disapproval) by the
(Elective Chief Executive Officer*)
subject to permissive referencement and no varia permon requesting such referencem was med as
of
*Elective Chief Executive Officer means or includes the chief executive officer of a county elected on a
county-wide basis or lifthere be none, the chairman of the county legislative hody, the mayor of a city or

village, or the supervisor of a town where such officer is vested with the power to approve or veto local laws

5 (City local law concerning Char	ter revision by petition.)
of the City of the provisions of section (36)(37) of taffirmative vote of a majority of the c	exed hereto, designated as local law No of 20 having been submitted to referendum pursuant the Municipal Home Rule Law, and having received the qualified electors of such city voting thereon a the (special)
(general) election held on	20, became operative.
6. (County local law concerning ac	doption of Charter.)
of the County of	state of New York, having been submitted to the evember20, pursuant to the Municipal Home Rule Law, and having received the qualified electors of the cities of said county as a unit and a he towns of said county considered as a unit voting at said
(If another authorized form of final adopt	ion has been followed, please provide an appropriate certification.
office and that the same is a correct to	the preceding local law with the original on file in this ranscript therefrom and of the whole of such original local nanner indicated in paragraph 1, above. Clerk of the county Legislative body, City, Town of Village Clerk or
	officer designated by the local legislative body
(Seal)	Date: <u>12/13/07</u>
(Certification to be executed by County A other authorized attorney of locality.)	ttorney, Corporation Counsel, Town Attorney, Village Attorney o
STATE OF NEW YORK COUNTY OF RENSSELAER	
	t the foregoing local law contains the correct text and that I or taken for the enactment of the enactment of the local
	Signature
	TOWN ATTORNEY Title
	TOWN OF EAST GREENBUSH

Date: 12/13/07

Model Local Law

to

Prohibit Illicit Discharges, Activities and Connections to Separate Storm Sewer System

SECTION 1. PURPOSE/INTENT.

The purpose of this law is to provide for the health, safety, and general welfare of the citizens of the Town of East Greenbush through the regulation of non-stormwater discharges to the municipal separate storm sewer system (MS4) to the maximum extent practicable as required by federal and state law. This law establishes methods for controlling the introduction of pollutants into the MS4 in order to comply with requirements of the SPDES General Permit for Municipal Separate Storm Sewer Systems. The objectives of this law are:

- 1.1 To meet the requirements of the SPDES General Permit for Stormwater Discharges from MS4s, Permit no. GP-02-02 or as amended or revised;
- 1.2 To regulate the contribution of pollutants to the MS4 since such systems are not designed to accept, process or discharge non-stormwater wastes;
- 1.3 To prohibit Illicit Connections, Activities and Discharges to the MS4;
- 1.4 To establish legal authority to carry out all inspection, surveillance and monitoring procedures necessary to ensure compliance with this law; and
- 1.5 To promote public awareness of the hazards involved in the improper discharge of trash, yard waste, lawn chemicals, pet waste, wastewater, grease, oil, petroleum products, cleaning products, paint products, hazardous waste, sediment and other pollutants into the MS4.

SECTION 2. DEFINITIONS.

Whenever used in this law, unless a different meaning is stated in a definition applicable to only a portion of this law, the following terms will have meanings set forth below:

- 2.1 <u>Best Management Practices (BMPs)</u>. Schedules of activities, prohibitions of practices, general good house keeping practices, pollution prevention and educational practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants directly or indirectly to stormwater, receiving waters, or stormwater conveyance systems. BMPs also include treatment practices, operating procedures, and practices to control site runoff, spillage or leaks, sludge or water disposal, or drainage from raw materials storage.
- 2.2 <u>Clean Water Act</u>. The Federal Water Pollution Control Act (33 U.S.C. § 1251 et seq.), and any subsequent amendments thereto.

- 2.3 <u>Construction Activity</u>. Activities requiring authorization under the SPDES permit for stormwater discharges from construction activity, GP-02-01, as amended or revised. These activities include construction projects resulting in land disturbance of one or more acres. Such activities include but are not limited to clearing and grubbing, grading, excavating, and demolition.
- 2.4 Department. The New York State Department of Environmental Conservation.
- 2.5 <u>Design professional</u>. New York State licensed professional engineer or licensed architect.
- 2.6 <u>Hazardous Materials</u>. Any material, including any substance, waste, or combination thereof, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, a substantial present or potential hazard to human health, safety, property, or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.
- 2.7 <u>Illicit Connections</u>. Any drain or conveyance, whether on the surface or subsurface, which allows an illegal discharge to enter the MS4, including but not limited to:
 - 1. Any conveyances which allow any non-stormwater discharge including treated or untreated sewage, process wastewater, and wash water to enter the MS4 and any connections to the storm drain system from indoor drains and sinks, regardless of whether said drain or connection had been previously allowed, permitted, or approved by an authorized enforcement agency; or
 - 2. Any drain or conveyance connected from a commercial or industrial land use to the MS4 which has not been documented in plans, maps, or equivalent records and approved by an authorized enforcement agency.
- 2.8 <u>Illicit Discharge</u>. Any direct or indirect non-stormwater discharge to the MS4, except as exempted in Section 6 of this law.
- 2.9 <u>Individual Sewage Treatment System</u>. A facility serving one or more parcels of land or residential households, or a private, commercial or institutional facility, that treats sewage or other liquid wastes for discharge into the groundwaters of New York State, except where a permit for such a facility is required under the applicable provisions of Article 17 of the Environmental Conservation Law.
- 2.10 <u>Industrial Activity</u>. Activities requiring the SPDES permit for discharges from industrial activities except construction, GP-98-03, as amended or revised.
- 2.11 <u>MS4</u>. Municipal Separate Storm Sewer System.
- 2.12 <u>Municipal Separate Storm Sewer System</u>. A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):
 - 1. Owned or operated by the Town of East Greenbush;

- 2. Designed or used for collecting or conveying stormwater;
- 3. Which is not a combined sewer; and
- 4. Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40CFR 122.2
- 2.13 Municipality. The Town of East Greenbush.
- 2.14 <u>Non-Stormwater Discharge</u>. Any discharge to the MS4 that is not composed entirely of stormwater.
- 2.15 <u>Person</u>. Any individual, association, organization, partnership, firm, corporation or other entity recognized by law and acting as either the owner or as the owner's agent.
- 2.16 <u>Pollutant</u>. Dredged spoil, filter backwash, solid waste, incinerator residue, treated or untreated sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, agricultural waste and ballast discharged into water; which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards.
- 2.17 <u>Premises</u>. Any building, lot, parcel of land, or portion of land whether improved or unimproved including adjacent sidewalks and parking strips.

2.18 Special Conditions.

- 1. <u>Discharge Compliance with Water Quality Standards</u>. The condition that applies where a municipality has been notified that the discharge of stormwater authorized under their MS4 permit may have caused or has the reasonable potential to cause or contribute to the violation of an applicable water quality standard. Under this condition the municipality must take all necessary actions to ensure future discharges do not cause or contribute to a violation of water quality standards.
- 2. 303(d) Listed Waters. The condition in the municipality's MS4 permit that applies where the MS4 discharges to a 303(d) listed water. Under this condition the stormwater management program must ensure no increase of the listed pollutant of concern to the 303(d) listed water.
- 3. Total Maximum Daily Load (TMDL) Strategy. The condition in the municipality's MS4 permit where a TMDL including requirements for control of stormwater discharges has been approved by EPA for a waterbody or watershed into which the MS4 discharges. If the discharge from the MS4 did not meet the TMDL stormwater allocations prior to September 10, 2003, the municipality was required to modify its stormwater management program to ensure that reduction of the pollutant of concern specified in the TMDL is achieved.
- 4. The condition in the municipality's MS4 permit that applies if a TMDL is approved in the future by EPA for any waterbody or watershed into which an MS4 discharges. Under this condition the municipality must review the applicable TMDL to see if it includes requirements for control of stormwater discharges. If an MS4 is not meeting the TMDL

stormwater allocations, the municipality must, within six (6) months of the TMDL's approval, modify its stormwater management program to ensure that reduction of the pollutant of concern specified in the TMDL is achieved.

- 2.19 State Pollutant Discharge Elimination System (SPDES) Stormwater Discharge Permit. A permit issued by the Department that authorizes the discharge of pollutants to waters of the state.
- 2.20 Stormwater. Rainwater, surface runoff, snowmelt and drainage.
- 2.21 <u>Stormwater Management Officer (SMO)</u>. An employee, the municipal engineer or other public official(s) designated by the Town of East Greenbush to enforce this local law. The SMO may also be designated by the municipality to accept and review stormwater pollution prevention plans, forward the plans to the applicable municipal board and inspect stormwater management practices.
- 2.22 303(d) List. A list of all surface waters in the state for which beneficial uses of the water (drinking, recreation, aquatic habitat, and industrial use) are impaired by pollutants, prepared periodically by the Department as required by Section 303(d) of the Clean Water Act. 303(d) listed waters are estuaries, lakes and streams that fall short of state surface water quality standards and are not expected to improve within the next two years.
- 2.23 TMDL. Total Maximum Daily Load.
- 2.24 <u>Total Maximum Daily Load</u>. The maximum amount of a pollutant to be allowed to be released into a waterbody so as not to impair uses of the water, allocated among the sources of that pollutant.
- 2.25 <u>Wastewater</u>. Water that is not stormwater, is contaminated with pollutants and is or will be discarded.

SECTION 3. APPLICABILITY.

This law shall apply to all water entering the MS4 generated on any developed and undeveloped lands unless explicitly exempted by an authorized enforcement agency.

SECTION 4. RESPONSIBILITY FOR ADMINISTRATION.

The Stormwater Management Officer(s) (SMO(s)) shall administer, implement, and enforce the provisions of this law. Such powers granted or duties imposed upon the authorized enforcement official may be delegated in writing by the SMO as may be authorized by the municipality.

SECTION 5. SEVERABILITY.

The provisions of this law are hereby declared to be severable. If any provision, clause, sentence, or paragraph of this law or the application thereof to any person, establishment, or circumstances shall be held invalid, such invalidity shall not affect the other provisions or application of this law.

SECTION 6. DISCHARGE PROHIBITIONS.

- 6.1 Prohibition of Illegal Discharges.
 - No person shall discharge or cause to be discharged into the MS4 any materials other than stormwater except as provided in Section 6.1.1. The commencement, conduct or continuance of any illegal discharge to the MS4 is prohibited except as described as follows:
 - 6.1.1 The following discharges are exempt from discharge prohibitions established by this local law, unless the Department or the municipality has determined them to be substantial contributors of pollutants: water line flushing or other potable water sources, landscape irrigation or lawn watering, existing diverted stream flows, rising ground water, uncontaminated ground water infiltration to storm drains, uncontaminated pumped ground water, foundation or footing drains, crawl space or basement sump pumps, air conditioning condensate, irrigation water, springs, water from individual residential car washing, natural riparian habitat or wetland flows, dechlorinated swimming pool discharges, residential street wash water, water from fire fighting activities, and any other water source not containing pollutants. Such exempt discharges shall be made in accordance with an appropriate plan for reducing pollutants.
 - 6.1.2 Discharges approved in writing by the SMO to protect life or property from imminent harm or damage, provided that, such approval shall not be construed to constitute compliance with other applicable laws and requirements, and further provided that such discharges may be permitted for a specified time period and under such conditions as the SMO may deem appropriate to protect such life and property while reasonably maintaining the purpose and intent of this local law.
 - 6.1.3 Dye testing in compliance with applicable state and local laws is an allowable discharge, but requires a verbal notification to the SMO prior to the time of the test.
 - 6.1.4 The prohibition shall not apply to any discharge permitted under an SPDES permit, waiver, or waste discharge order issued to the discharger and administered under the authority of the Department, provided that the discharger is in full compliance with all requirements of the permit, waiver, or order and other applicable laws and regulations, and provided that written approval has been granted for any discharge to the MS4.
- 6.2 Prohibition of Illicit Connections.
 - 6.2.1 The construction, use, maintenance or continued existence of illicit connections to the MS4 is prohibited.
 - 6.2.2 This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.
 - 6.2.3 A person is considered to be in violation of this local law if the person connects a line

conveying sewage to the municipality's MS4, or allows such a connection to continue.

SECTION 7. PROHIBITION AGAINST FAILING INDIVIDUAL SEWAGE TREATMENT SYSTEMS

No persons shall operate a failing individual sewage treatment system in areas tributary to the municipality's MS4. A failing individual sewage treatment system is one which has one or more of the following conditions:

- 7.1 The backup of sewage into a structure.
- 7.2 Discharges of treated or untreated sewage onto the ground surface.
- 7.3 A connection or connections to a separate stormwater sewer system.
- 7.4 Liquid level in the septic tank above the outlet invert.
- 7.5 Structural failure of any component of the individual sewage treatment system that could lead to any of the other failure conditions as noted in this section.
- 7.6 Contamination of off-site groundwater.

SECTION 8. PROHIBITION AGAINST ACTIVITIES CONTAMINATING STORMWATER

- 8.1 Activities that are subject to the requirements of this section are those types of activities that:
 - 8.1.1 Cause or contribute to a violation of the municipality's MS4 SPDES permit.
 - 8.1.2 Cause or contribute to the municipality being subject to the Special Conditions as defined in Section 2 (Definitions) of this local law.
- 8.2 Such activities include failing individual sewage treatment systems as defined in Section 7, improper management of pet waste or any other activity that causes or contributes to violations of the municipality's MS4 SPDES permit authorization.
- 8.3 Upon notification to a person that he or she is engaged in activities that cause or contribute to violations of the municipality's MS4 SPDES permit authorization, that person shall take all reasonable actions to correct such activities such that he or she no longer causes or contributes to violations of the municipality's MS4 SPDES permit authorization,

SECTION 9. REQUIREMENT TO PREVENT, CONTROL, AND REDUCE STORMWATER POLLUTANTS BY THE USE OF BEST MANAGEMENT PRACTICES.

- 9.1 Best Management Practices
 Where the SMO has identified illicit discharges as defined in Section 2 or activities
 contaminating stormwater as defined in Section 8 the municipality may require
 implementation of Best Management Practices (BMPs) to control those illicit discharges and
 activities.
 - 9.1.1 The owner or operator of a commercial or industrial establishment shall provide, at their own expense, reasonable protection from accidental discharge of prohibited

materials or other wastes into the MS4 through the use of structural and non-structural BMPs.

- 9.1.2 Any person responsible for a property or premise, which is, or may be, the source of an illicit discharge as defined in Section 2 or an activity contaminating stormwater as defined in Section 8, may be required to implement, at said person's expense, additional structural and non-structural BMPs to reduce or eliminate the source of pollutant(s) to the MS4.
- 9.1.3 Compliance with all terms and conditions of a valid SPDES permit authorizing the discharge of stormwater associated with industrial activity, to the extent practicable, shall be deemed compliance with the provisions of this section.
- 9.2 Individual Sewage Treatment Systems Response to Special Conditions Requiring No Increase of Pollutants or Requiring a Reduction of Pollutants

Where individual sewage treatment systems are contributing to the municipality's being subject to the Special Conditions as defined in Section 2 of this local law, the owner or operator of such individual sewage treatment systems shall be required to:

- 9.2.1 Maintain and operate individual sewage treatment systems as follows:
 - 1. Inspect the septic tank annually to determine scum and sludge accumulation. Septic tanks must be pumped out whenever the bottom of the scum layer is within three inches of the bottom of the outlet baffle or sanitary tee or the top of the sludge is within ten inches of the bottom of the outlet baffle or sanitary tee.
 - 2. Avoid the use of septic tank additives.
 - 3. Avoid the disposal of excessive quantities of detergents, kitchen wastes, laundry wastes, and household chemicals; and
 - 4. Avoid the disposal of eigarette butts, disposable diapers, sanitary napkins, trash and other such items

(Most tanks should be pumped out every two to three years. However, pumping may be more or less frequent depending on use. Inspection of the tank for cracks, leaks and blockages should be done by the septage hauler at the time of pumping of the tank contents)

- 9.2.2 Repair or replace individual sewage treatment systems as follows:
 - 1. In accordance with 10NYCRR Appendix 75A to the maximum extent practicable.
 - 2. A design professional licensed to practice in New York State shall prepare design plans for any type of absorption field that involves:
 - 1. Relocating or extending an absorption area to a location not previously approved for such.
 - 2. Installation of a new subsurface treatment system at the same location.
 - 3. Use of alternate system or innovative system design or technology.
 - 3. A written certificate of compliance shall be submitted by the design professional to the municipality at the completion of construction of the repair or replacement system.

SECTION 10. SUSPENSION OF ACCESS TO MS4. Illicit Discharges in Emergency Situations.

- 10.1 The SMO may, without prior notice, suspend MS4 discharge access to a person when such suspension is necessary to stop an actual or threatened discharge which presents or may present imminent and substantial danger to the environment, to the health or welfare of persons, or to the MS4. The SMO shall notify the person of such suspension within a reasonable time thereafter in writing of the reasons for the suspension. If the violator fails to comply with a suspension order issued in an emergency, the SMO may take such steps as deemed necessary to prevent or minimize damage to the MS4 or to minimize danger to persons.
- 10.2 Suspension due to the detection of illicit discharge. Any person discharging to the municipality's MS4 in violation of this law may have their MS4 access terminated if such termination would abate or reduce an illicit discharge. The SMO will notify a violator in writing of the proposed termination of its MS4 access and the reasons therefore. The violator may petition the SMO for a reconsideration and hearing. Access may be granted by the SMO if he/she finds that the illicit discharge has ceased and the discharger has taken steps to prevent its recurrence. Access may be denied if the SMO determines in writing that the illicit discharge has not ceased or is likely to recur. A person commits an offense if the person reinstates MS4 access to premises terminated pursuant to this Section, without the prior approval of the SMO.

SECTION 11, INDUSTRIAL OR CONSTRUCTION ACTIVITY DISCHARGES.

Any person subject to an industrial or construction activity SPDES stormwater discharge permit shall comply with all provisions of such permit. Proof of compliance with said permit may be required in a form acceptable to the municipality prior to the allowing of discharges to the MS4.

SECTION 12. ACCESS AND MONITORING OF DISCHARGES.

- 12.1 Applicability. This section applies to all facilities that the SMO must inspect to enforce any provision of this Law, or whenever the authorized enforcement agency has cause to believe that there exists, or potentially exists, in or upon any premises any condition which constitutes a violation of this Law.
- 12.2 Access to Facilities.
 - 12.2.1 The SMO shall be permitted to enter and inspect facilities subject to regulation under this law as often as may be necessary to determine compliance with this Law. If a discharger has security measures in force which require proper identification and clearance before entry into its premises, the discharger shall make the necessary arrangements to allow access to the SMO.
 - 12.2.2 Facility operators shall allow the SMO ready access to all parts of the premises for the purposes of inspection, sampling, examination and copying of records as may be required to implement this law.

- 12.2.3 The municipality shall have the right to set up on any facility subject to this law such devices as are necessary in the opinion of the SMO to conduct monitoring and/or sampling of the facility's stormwater discharge.
- 12.2.4 The municipality has the right to require the facilities subject to this law to install monitoring equipment as is reasonably necessary to determine compliance with this law. The facility's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the discharger at its own expense. All devices used to measure stormwater flow and quality shall be calibrated to ensure their accuracy.
- 12.2.5 Unreasonable delays in allowing the municipality access to a facility subject to this law is a violation of this law. A person who is the operator of a facility subject to this law commits an offense if the person denies the municipality reasonable access to the facility for the purpose of conducting any activity authorized or required by this law.
- 12,2.6 If the SMO has been refused access to any part of the premises from which stormwater is discharged, and he/she is able to demonstrate probable cause to believe that there may be a violation of this law, or that there is a need to inspect and/or sample as part of a routine inspection and sampling program designed to verify compliance with this law or any order issued hereunder, then the SMO may seek issuance of a search warrant from any court of competent jurisdiction.

SECTION 13. NOTIFICATION OF SPILLS.

Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation has information of any known or suspected release of materials which are resulting or may result in illegal discharges or pollutants discharging into the MS4, said person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release. In the event of such a release of hazardous materials said person shall immediately notify emergency response agencies of the occurrence via emergency dispatch services. In the event of a release of non-hazardous materials, said person shall notify the municipality in person or by telephone or facsimile no later than the next business day. Notifications in person or by telephone shall be confirmed by written notice addressed and mailed to the municipality within three business days of the telephone notice. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least three years.

SECTION 14. ENFORCEMENT.

14.1 Notice of Violation.

When the municipality's SMO finds that a person has violated a prohibition or failed to meet a requirement of this law, he/she may order compliance by written notice of violation to the responsible person. Such notice may require without limitation:

- 14.1.1 The elimination of illicit connections or discharges;
- 14.1.2 That violating discharges, practices, or operations shall cease and desist;
- 14.1.3 The abatement or remediation of stormwater pollution or contamination hazards and the restoration of any affected property;
- 14.1.4 The performance of monitoring, analyses, and reporting;
- 14.1.5 Payment of a fine; and
- 14.1.6 The implementation of source control or treatment BMPs. If abatement of a violation and/or restoration of affected property is required, the notice shall set forth a deadline within which such remediation or restoration must be completed. Said notice shall further advise that, should the violator fail to remediate or restore within the established deadline, the work will be done by a designated governmental agency or a contractor and the expense thereof shall be charged to the violator.

14.2 Penalties

In addition to or as an alternative to any penalty provided herein or by law, any person who violates the provisions of this local law shall be guilty of a violation punishable by a fine not exceeding three hundred fifty dollars (\$350) or imprisonment for a period not to exceed six months, or both for conviction of a first offense; for conviction of a second offense both of which were committed within a period of five years, punishable by a fine not less than three hundred fifty dollars nor more than seven hundred dollars (\$700) or imprisonment for a period not to exceed six months, or both; and upon conviction for a third or subsequent offense all of which were committed within a period of five years, punishable by a fine not less than seven hundred dollars nor more than one thousand dollars (\$1000) or imprisonment for a period not to exceed six months, or both. However, for the purposes of conferring jurisdiction upon courts and judicial officers generally, violations of this local law shall be deemed misdemeanors and for such purpose only all provisions of law relating to misdemeanors shall apply to such violations. Each week's continued violation shall constitute a separate additional violation.

SECTION 15. APPEAL OF NOTICE OF VIOLATION.

Any person receiving a Notice of Violation may appeal the determination of the SMO to the **Town Board** within 15 days of its issuance, which shall hear the appeal within 30 days after the filing of the appeal, and within five days of making its decision, file its decision in the office of the municipal clerk and mail a copy of its decision by certified mail to the discharger.

SECTION 16. CORRECTIVE MEASURES AFTER APPEAL.

16.1 If the violation has not been corrected pursuant to the requirements set forth in the Notice of Violation, or, in the event of an appeal, within 5 business days of the decision of the municipal authority upholding the decision of the SMO, then the SMO shall request the owner's permission for access to the subject private property to take any and all measures

- reasonably necessary to abate the violation and/or restore the property.
- 16.2 If refused access to the subject private property, the SMO may seek a warrant in a court of competent jurisdiction to be authorized to enter upon the property to determine whether a violation has occurred. Upon determination that a violation has occurred, the SMO may seek a court order to take any and all measures reasonably necessary to abate the violation and/or restore the property. The cost of implementing and maintaining such measures shall be the sole responsibility of the discharger.

SECTION 17. INJUNCTIVE RELIEF.

It shall be unlawful for any person to violate any provision or fail to comply with any of the requirements of this law. If a person has violated or continues to violate the provisions of this law, the SMO may petition for a preliminary or permanent injunction restraining the person from activities which would create further violations or compelling the person to perform abatement or remediation of the violation.

SECTION 18. ALTERNATIVE REMEDIES.

- 18.1 Where a person has violated a provision of this Law, he/she may be eligible for alternative remedies in lieu of a civil penalty, upon recommendation of the Municipal Attorney and concurrence of the Municipal Code Enforcement Officer, where:
 - 18.1.1 The violation was unintentional
 - 18.1.2 The violator has no history of pervious violations of this Law.
 - 18.1.3 Environmental damage was minimal.
 - 18.1.4 Violator acted quickly to remedy violation.
 - 18.1.5 Violator cooperated in investigation and resolution.
- 18.2 Alternative remedies may consist of one or more of the following:
 - 18.2.1 Attendance at compliance workshops
 - 18.2.2 Storm drain stenciling or storm drain marking
 - 18.2.3 River, stream or creek cleanup activities

SECTION 19. VIOLATIONS DEEMED A PUBLIC NUISANCE.

In addition to the enforcement processes and penalties provided, any condition caused or permitted to exist in violation of any of the provisions of this law is a threat to public health, safety, and welfare, and is declared and deemed a nuisance, and may be summarily abated or restored at the violator's expense, and/or a civil action to abate, enjoin, or otherwise compel the cessation of such nuisance may be taken.

SECTION 20. REMEDIES NOT EXCLUSIVE.

The remedies listed in this law are not exclusive of any other remedies available under any applicable federal, state or local law and it is within the discretion of the authorized enforcement agency to seek

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SECTION 21. ADOPTION OF LAW.

This law shall be in full force and effect __ days after its final passage and adoption. All prior laws and parts of law in conflict with this law are hereby repealed.

PASSED AND ADOPTED this 12th day of December, 2007, by the following vote:

COUNCILPERSON KENNEDY	VOTED	
COUNCILPERSON INDELICATO	VOTED	
SUPERVISOR McCABE	VOTED	
COUNCILPERSON DANAHER	VOTED	
COUNCILPERSON CRISTO	VOTED	

Appendix G

Construction Site Inspection Form (Minimum Control Measure 4)

ATTACHMENT 1

Construction Stormwater Compliance Inspection Report

Project	ot No.	me o	nd Location:	<u> </u>	Date:	Page 1 of 2
Trojec	ı i Ndl	iic dl	id Location.	Dut.	1 age 1 of 2	
					Permit # (if any):	NYR
Munio	cipali	ty:	County:		Entry Time:	Exit Time:
On-site Representative(s) and contact information: Weather Cond						ns:
Name	and.	Addr	ess of SPDES Permittee/Title/Phone/Fax Numbers: Conta	cted: Yes No		
CDDE	S. A	ı	INSPECTION	CHECKLIST		
SPDES						
	No					Law, rule or permit citation
1.			Is a copy of the NOI posted at the construction site for public	ě		
2.			Is an up-to-date copy of the signed SWPPP retained at the co Is a copy of the SPDES General Permit retained at the constr			
J. ப	۰	_	is a copy of the St DES General Fernit retained at the constr	uction site:		
SWPP	P Co	nten	<u>t</u>			
Yes	No	N/A				Law, rule or permit citation
4. □			Does the SWPPP describe and identify the erosion & sedime	ent control measures to b	e employed?	
5. 🗖			Does the SWPPP provide a maintenance schedule for the ero	osion & sediment control	measures?	
6. 🛮			Does the SWPPP describe and identify the post-construction	SW control measures to	be employed?	
7. 🗖			Does the SWPPP identify the contractor(s) and subcontractor	or(s) responsible for each	measure?	
8. □			Does the SWPPP include all the necessary 'CONTRACTOR	R CERTIFICATION' sta	tements?	
9. 🗖			Is the SWPPP signed/certified by the permittee?			
Record	lkeer	oing				
Yes	No	N/A				Law, rule or permit citation
10. 🗖			Are inspections performed as required by the permit (every	7 days and after ½" rain o	event)?	
11. 🗖			Are the site inspections performed by a qualified professional	al?		
12. 🗖			Are all required reports properly signed/certified?			
13. 🗖			Does the SWPPP include copies of the monthly/quarterly with	ritten summaries of comp	oliance status?	
Visual	Obse	ervat	tions _			
Yes	No	N/A				Law, rule or permit citation
14. 🗖			Are all erosion and sediment control measures installed/cons	structed?		
15. 🗆			Are all erosion and sediment control measures maintained pr	roperly?		
16. 🗖			Have all disturbances of 5 acres or more been approved price	or to the disturbance?		
17. Are stabilization measures initiated in inactive areas?						
18. □ □ □ Are permanent stormwater control measures implemented?						
19. 🗖			Was there a discharge into the receiving water on the day of	•		
20. 🗆			Are receiving waters free of there evidence of turbidity, sed	imentation, or oil ? (If no	o, complete Page 2	2)
Over	all Iı	ispe	ction Rating: Satisfactory Marginal Unsatisfa	ctory		•
Nam Lead	e/Age Insp	ency ecto	of r:	Signature of Lead Inspector:		
Nam				<u>-</u>		
Othe						

Water	Quality	Observation	S

Describe the discharge(s) [source(s), impact on receiving water(s), etc.]		
Describe the quality of the receiving water(s) both upstream and downstream of	f the discharge	
Describe any other water quality standards or permit violations		
Additional Comments:		

Appendix H

Post Construction Inventory and Inspection Manual

(Minimum Control Measure 5)

Municipal Separate Storm Sewer System Town of East Greenbush, NY

Post Construction Inventory & Inspection Manual

July 2018



Municipal Separate Storm Sewer System

Town of East Greenbush, NY

Post Construction Inventory & Inspection Manual

July 2018

Prepared For:

Town of East Greenbush 225 Columbia Turnpike Rensselaer, New York 12144

Prepared By:

Barton & Loguidice, D.P.C. 10 Airline Drive, Suite 200 Albany, New York 12205

				TOWN OF E	AST GREENBUSH POST-CO	ONSTRUC [*]	TION STORI	MWATER M	ANAGEMEN	NT PRACTICE INVENTO	RY from 2003-Pre	esent (Create	d 7/13/2018)					
NOI Submittal Date	Facility Name	Field Name	Street	Facility Side of Street	Cross Street	Distance to Cross Street (ft)	Direction to Cross Street	X coord	Y coord	O & M Responsibility	Type of Proprietary Practice	# of Practices	Pond Type	Wetland Type	Channel Type	Infiltration Type	Filter Type	Alternative Practice Type
09-May-05	HAWTHORNE RIDGE	Site 1	30 COMMUNITY WAY		MICHAEL ROAD	1600	North	606947	471893	Hawthorne Ridge		1	P1			I1		
	HAWTHORNE RIDGE	Site i	30 COMMONTT WAT		IVIICHAEL ROAD	1000	NOLLI	000947	4/1073	Hawthorne Ridge								
06-Dec-07												1	P2					
	VILLAGE AT TEMPEL FARM	Site 2	TEMPEL LANE		RED MILL RD	1072	South	606256	4720104	NIGRO COMPANIES								
02-Sep-16	NYISO SHIPPING & RECEIVING BUILDING	Site 3	3 KREY BOULEVARD	East	3RD AVENUE EXTENSION	650	North				H (Hydro International - Downstream Defender)							
20 Fab 11		+		Last				(0510/	4710070	TOWALOF FACT COFFAIRLICH		1				12		
28-Feb-11	WITBECK SUBDIVISION	Site 4	MARYLAND AVENUE EAST		SUMMIT AVENUE	50	West	605106	4718972	TOWN OF EAST GREENBUSH			25	10.0		IZ		
24-Apr-09	DISCOVERY DRIVE EXTENSION	Site 5	DISCOVERY DRIVE		RED MILL ROAD (NYS ROUTE 151)	0	West	604274	4720343	TOWN OF EAST GREENBUSH			P5	W4				
40549												1	P5					
	KENSEY SENIOR HOUSING	Site 6	56 ELLIIT RD	East	ENGLEWOOD AVENUE	50	East	606337	4716991	FUTURE OWNER								

Town of East Greenbush Post-Construction Stormwater Management Practice Inventory

Facility Name: HAWTHORNE RIDGE

Field Name: Site 1
of Practices: 1

Type of Practices: Pond P1 (Micropool Extended Detention Pond)

Map



Stormwater Pond/Wetland Operation, Maintenance and Management Inspection Checklist

Site Status:	
Date:	
Date: Time:	
Inspector:	

Maintenance Item	Satisfactory/ Unsatisfactory Comment			
1. Embankment and emergency spillway (Annual, Afte	r Major Storms)			
1. Vegetation and ground cover adequate				
2. Embankment erosion				
3. Animal burrows				
4. Unauthorized planting				
5. Cracking, bulging, or sliding of dam				
a. Upstream face				
b. Downstream face				
c. At or beyond toe				
downstream				
upstream				
d. Emergency spillway				
6.Pond, toe & chimney drains clear and functioning				
7.Seeps/leaks on downstream face				
8.Slope protection or riprap failure				
9. Vertical/horizontal alignment of top of dam "As-Built"				

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
10. Emergency spillway clear of obstructions and debris		
11. Other (specify)		
2. Riser and principal spillway (Annual)	•	•
Type: Reinforced concrete Corrugated pipe Masonry 1. Low flow orifice obstructed		
Low flow trash rack. a. Debris removal necessary		
b. Corrosion control		
Weir trash rack maintenance a. Debris removal necessary		
b. corrosion control		
4. Excessive sediment accumulation insider riser		
Concrete/masonry condition riser and barrels a. cracks or displacement		
b. Minor spalling (<1")		
c. Major spalling (rebars exposed)		
d. Joint failures		
e. Water tightness		
6. Metal pipe condition		
7. Control valve a. Operational/exercised		
b. Chained and locked		
Pond drain valve a. Operational/exercised		
b. Chained and locked		
9. Outfall channels functioning		
10. Other (specify)		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
3. Permanent Pool (Wet Ponds) (mon	thly)	
Undesirable vegetative growth		
2. Floating or floatable debris removal required		
3. Visible pollution		
4. Shoreline problem		
5. Other (specify)		
4. Sediment Forebays		
1.Sedimentation noted		
2. Sediment cleanout when depth < 50% design depth		
5. Dry Pond Areas		
1. Vegetation adequate		
2. Undesirable vegetative growth		
3. Undesirable woody vegetation		
4. Low flow channels clear of obstructions		
5. Standing water or wet spots		
6. Sediment and / or trash accumulation		
7. Other (specify)		
6. Condition of Outfalls (Annual, After Major Storm	ns)	
1. Riprap failures		
2. Slope erosion		
3. Storm drain pipes		
4.Endwalls / Headwalls		
5. Other (specify)		
7. Other (Monthly)		
1. Encroachment on pond, wetland or easement area		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
2. Complaints from residents		
3.Aesthetics a. Grass growing required		
b. Graffiti removal needed		
c. Other (specify)		
4. Conditions of maintenance access routes.		
5. Signs of hydrocarbon build-up		
6. Any public hazards (specify)		
8. Wetland Vegetation (Annual)		
Vegetation healthy and growing Wetland maintaining 50% surface area coverage of wetland plants after the second growing season. (If unsatisfactory, reinforcement plantings needed)		
Dominant wetland plants: Survival of desired wetland plant species Distribution according to landscaping plan?		
3. Evidence of invasive species		
Maintenance of adequate water depths for desired wetland plant species		
5. Harvesting of emergent plantings needed		
6. Have sediment accumulations reduced pool volume significantly or are plants "choked" with sediment		
7. Eutrophication level of the wetland.		
8. Other (specify)		
Comments:		

Actions to be Taken:			

Town of East Greenbush Post-Construction Stormwater Management Practice Inventory

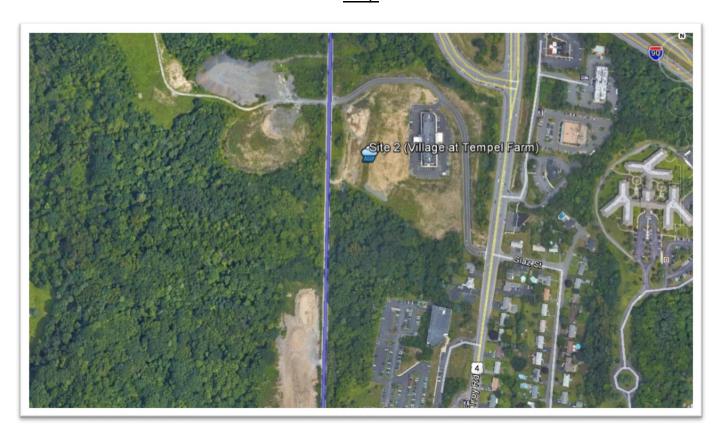
Facility Name: VILLAGE AT TEMPEL FARM (project stalled)

Field Name: Site 2

of Practices: 1

Type of Practices: Pond P2 (Wet Pond)

Map



Stormwater Pond/Wetland Operation, Maintenance and Management Inspection Checklist

Site Status:	
Date:	
Date: Time:	
Inspector:	

Maintenance Item	Satisfactory/ Unsatisfactory	Comments		
Embankment and emergency spillway (Annual, After Major Storms)				
1. Vegetation and ground cover adequate				
2. Embankment erosion				
3. Animal burrows				
4. Unauthorized planting				
5. Cracking, bulging, or sliding of dam				
a. Upstream face				
b. Downstream face				
c. At or beyond toe				
downstream				
upstream				
d. Emergency spillway				
6.Pond, toe & chimney drains clear and functioning				
7.Seeps/leaks on downstream face				
8.Slope protection or riprap failure				
9. Vertical/horizontal alignment of top of dam "As-Built"				

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
10. Emergency spillway clear of obstructions and debris		
11. Other (specify)		
2. Riser and principal spillway (Annual)	•	•
Type: Reinforced concrete Corrugated pipe Masonry 1. Low flow orifice obstructed		
Low flow trash rack. a. Debris removal necessary		
b. Corrosion control		
Weir trash rack maintenance a. Debris removal necessary		
b. corrosion control		
4. Excessive sediment accumulation insider riser		
Concrete/masonry condition riser and barrels a. cracks or displacement		
b. Minor spalling (<1")		
c. Major spalling (rebars exposed)		
d. Joint failures		
e. Water tightness		
6. Metal pipe condition		
7. Control valve a. Operational/exercised		
b. Chained and locked		
Pond drain valve a. Operational/exercised		
b. Chained and locked		
9. Outfall channels functioning		
10. Other (specify)		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
3. Permanent Pool (Wet Ponds) (mon	thly)	
Undesirable vegetative growth		
2. Floating or floatable debris removal required		
3. Visible pollution		
4. Shoreline problem		
5. Other (specify)		
4. Sediment Forebays		
1.Sedimentation noted		
2. Sediment cleanout when depth < 50% design depth		
5. Dry Pond Areas		
1. Vegetation adequate		
2. Undesirable vegetative growth		
3. Undesirable woody vegetation		
4. Low flow channels clear of obstructions		
5. Standing water or wet spots		
6. Sediment and / or trash accumulation		
7. Other (specify)		
6. Condition of Outfalls (Annual, After Major Storm	ns)	
1. Riprap failures		
2. Slope erosion		
3. Storm drain pipes		
4.Endwalls / Headwalls		
5. Other (specify)		
7. Other (Monthly)		
1. Encroachment on pond, wetland or easement area		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
2. Complaints from residents		
3.Aesthetics a. Grass growing required		
b. Graffiti removal needed		
c. Other (specify)		
4. Conditions of maintenance access routes.		
5. Signs of hydrocarbon build-up		
6. Any public hazards (specify)		
8. Wetland Vegetation (Annual)		
Vegetation healthy and growing Wetland maintaining 50% surface area coverage of wetland plants after the second growing season. (If unsatisfactory, reinforcement plantings needed)		
Dominant wetland plants: Survival of desired wetland plant species Distribution according to landscaping plan?		
3. Evidence of invasive species		
Maintenance of adequate water depths for desired wetland plant species		
5. Harvesting of emergent plantings needed		
6. Have sediment accumulations reduced pool volume significantly or are plants "choked" with sediment		
7. Eutrophication level of the wetland.		
8. Other (specify)		
Comments:		

Actions to be Taken:			

Facility Name: NYISO SHIPPING & RECEIVING BUILDING

Field Name: Site 3
of Practices: 1

Type of Practices: Hydrodynamic Separator H (Hydro International Downstream Defender)







Operation and Maintenance Manual

Downstream Defender®

Table of Contents

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 - Applications
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- 4 Maintenance
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 - Determining You Maintenance Schedule
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- 8 Downstream Defender® Installation Log
- 9 Downstream Defender® Inspection and Maintenance Log

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DISCLAIMER: Information and data contained in this manual is exclusively for the purpose of assisting in the operation and maintenance of Hydro International plc's Downstream Defender[®]. No warranty is given nor can liability be accepted for use of this information for any other purpose. Hydro International plc have a policy of continuous product development and reserve the right to amend specifications without notice.

Hydro International (Stormwater), 94 Hutchins Drive, Portland ME 04102 Tel: (207) 756-6200 Fax: (207) 756-6212 Web: www.hydro-int.com

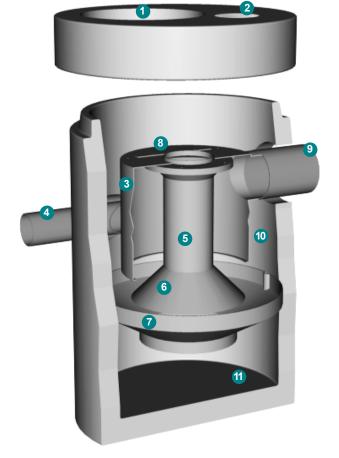
Downstream Defender® by Hydro International

The Downstream Defender® is an advanced Hydrodynamic Vortex Separator designed to provide high removal efficiencies of settleable solids and their associated pollutants, oil, and floatables over a wide range of flow rates.

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The Downstream Defender® has unique, flow-modifying internal components developed from extensive full-scale testing, CFD modeling and over thirty years of hydrodynamic separation experience in wastewater, combined sewer and stormwater applications. These internal components distinguish the Downstream Defender® from simple swirl-type devices and conventional oil/grit separators by minimizing turbulence and headlosses, enhancing separation, and preventing washout of previously stored pollutants.

The high removal efficiencies and inherent low headlosses of the Downstream Defender® allow for a small footprint making it a compact and economical solution for the treatment of non-point source pollution.



Benefits of the Downstream Defender®

- · Removes sediment, floatables, oil and grease
- · No pollutant washouts
- · Small footprint
- · No loss of treatment capacity between clean-outs
- · Low headloss
- Efficient over a wide ranges of flows
- Easy to install
- · Low maintenance

Applications

- New developments and retrofits
- Utility yards
- Streets and roadways
- Parking lots
- · Pre-treatment for filters, infiltration and storage
- · Industrial and commercial facilities
- · Wetlands protection

Downstream Defender® Components

- 1. Central Access Port
- 2. Floatables Access Port (6-ft., 8-ft. and 10-ft. models only)
- 3. Dip Plate
- 4. Tangential Inlet
- 5. Center Shaft
- 6. Center Cone
- 7. Benching Skirt
- 8. Floatables Lid
- 9. Outlet Pipe
- 10. Floatables Storage
- 11. Isolated Sediment Storage Zone

HYDRO MAINTENANCE SERVICES

Hydro International has been engineering stormwater treatment systems for over 30 years. We understand the mechanics of removing pollutants from stormwater and how to keep systems running at an optimal level.

NOBODY KNOWS OUR SYSTEMS BETTER THAN WE DO



AVOID SERVICE NEGLIGENCE

Sanitation services providers not intimately familiar with stormwater treatment systems are at risk of the following:

- Inadvertently breaking parts or failing to clean/replace system components appropriately.
- Charging you for more frequent maintenance because they lacked the tools to service your system properly in the first place.
- Billing you for replacement parts that might have been covered under your Hydro warranty plan
- Charging for maintenance that may not yet have been required.

LEAVE THE DIRTY WORK TO US

Trash, sediment and polluted water is stored inside treatment systems until they are removed by our team with a vactor truck. Sometimes teams must physically enter the system chambers in order to prepare the system for maintenance and install any replacement parts. Services include but are not limited to:

- Solids removal
- · Removal of liquid pollutants
- Replacement media installation (when applicable)



BETTER TOOLS, BETTER RESULTS

Not all vactor trucks are created equal. Appropriate tools and suction power are needed to service stormwater systems appropriately. Companies who don't specialize in stormwater treatment won't have the tools to properly clean systems or install new parts.



SERVICE WARRANTY

Make sure you're not paying for service that is covered under your warranty plan. Only Hydro International's service teams can identify tune-ups that should be on us, not you.

TREATMENT SYSTEMS SERVICED BY HYDRO:

- Stormwwater filters
- Stormwater separators
- · Baffle boxes
- · Biofilters/biorention systems
- Storage structures
- Catch basins
- Stormwater ponds
- Permeable pavement





SAVE TIME & MONEY: CALL HYDRO FOR A QUOTE

1 (888) 382-7808

LEARN MORE AT HYDRO-INT.COM/SERVICE

Operation

Introduction

The Downstream Defender® operates on simple fluid hydraulics. It is self-activating, has no moving parts, no external power requirement and is fabricated with durable non-corrosive components. No manual procedures are required to operate the unit and maintenance is limited to monitoring accumulations of stored pollutants and periodic clean-outs. The Downstream Defender® has been designed to allow for easy and safe access for inspection/monitoring and clean-out procedures. Entry into the unit or removal of the internal components is not necessary for maintenance, thus safety concerns related to confined-space-entry are avoided.

Pollutant Capture and Retention

The internal components of the Downstream Defender® have been designed to protect the oil, floatables and sediment storage volumes so that separator performance is not reduced as pollutants accumulate between clean-outs. Additionally, the Downstream Defender® is designed and installed into the storm drain system so that the vessel remains wet between storm events. Oil and floatables are stored on the water surface in the outer annulus separate from the sediment storage volume in the sump of the unit providing the option for separate oil disposal, and accessories such as adsorbant pads. Since the oil/floatables and sediment storage volumes are isolated from the active separation region, the potential for re-suspension and washout of stored pollutants between clean-outs is minimized.

Wet Sump

The sump of the Downstream Defender® retains a standing water level between storm events. The water in the sump prevents stored sediment from solidifying in the base of the unit. The clean-out procedure becomes more difficult and labor intensive if the system allows fine sediment to dry-out and consolidate. Dried sediment must be manually removed by maintenance crews. This is a labor intensive operation in a hazardous environment.

Blockage Protection

The Downstream Defender® has large clear openings and no internal restrictions or weirs, minimizing the risk of blockage and hydraulic losses. In addition to increasing the system headloss, orifices and internal weirs can increase the risk of blockage within the unit

Maintenance

Overview

The Downstream Defender® protects the environment by removing a wide range of pollutants from stormwater runoff. Periodic removal of these captured pollutants is essential to the continuous, long-term functioning of the Downstream Defender®. The Downstream Defender® will capture and retain sediment and oil until the sediment and oil storage volumes are full to capacity. When sediment and oil storage capacities are reached, the Downstream Defender® will no longer be able to store removed sediment and oil. Maximum pollutant storage capacities are provided in Table 1.

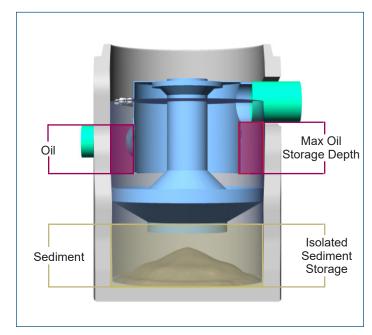


Fig.1 Pollutant storage volumes of the Downswtream Defender®.

The Downstream Defender® allows for easy and safe inspection, monitoring and clean-out procedures. A commercially or municipally owned sump-vac is used to remove captured sediment and floatables. Access ports are located in the top of the manhole. On the 6-ft, 8-ft and 10-ft units, the floatables access port is above the outlet pipe between the concrete manhole wall and the dip plate. The sediment removal access ports for all Downstream Defender® models are located directly over the hollow center shaft.

Maintenance events may include Inspection, Oil & Floatables Removal, and Sediment Removal. Maintenance events do not require entry into the Downstream Defender®, nor do they require the internal components of the Downstream Defender® to be removed. In the case of inspection and floatables removal, a vactor truck is not required. However, a vactor truck is required if the maintenance event is to include oil removal and/or sediment removal.

Determining Your Maintenance Schedule

The frequency of cleanout is determined in the field after installation. During the first year of operation, the unit should be inspected every six months to determine the rate of sediment and floatables accumulation. A simple probe such as a Sludge Judge® can be used to determine the level of accumulated solids stored in the sump. This information can be recorded in the maintenance log (see page 9) to establish a routine maintenance schedule.

The vactor procedure, including both sediment and oil/flotables removal, for a 6-ft Downstream Defender® typically takes less than 30 minutes and removes a combined water/oil volume of about 500 gallons.

Inspection Procedures

Inspection is a simple process that does not involve entry into the Downstream Defender[®]. Maintenance crews should be familiar with the Downstream Defender[®] and its components prior to inspection.

Schedulina

- It is important to inspect your Downstream Defender® every six months during the first year of operation to determine your site-specific rate of pollutant accumulation
- Typically, inspection may be conducted during any season of the year
- Sediment removal is not required unless sediment depths exceed 75% of maximum clean-out depths stated in Table 1

Recommended Equipment

- Safety Equipment and Personal Protective Equipment (traffic cones, work gloves, etc.)
- Crow bar or other tool to remove grate or lid
- Pole with skimmer or net
- Sediment probe (such as a Sludge Judge®)
- Trash bag for removed floatables
- Downstream Defender® Maintenance Log

Table 1. Downstream Defender® Pollutant Storage Capacities and Max. Cleanout Depths.

Unit Diameter (feet)	Total Oil Storage (gallons)	Oil Clean-out Depth	Total Sediment Storage (gallons)	Sediment Clean-out Depth (inches)	Max. Liquid Volume Removed (gallons)
4	70	<16	141	<18	384
6	216	<23	424	<24	1,239
8	540	<33	939	<30	2,884
10	1,050	<42	1,757	<36	5,546
12	1,770	<49	2,970	<42	9,460

NOTES

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- 1. Refer to Dowmstream Defender[®] Clean-out Detail (Fig. 1) for measurement of depths.
- 2. Oil accumulation is typically less than sediment, however, removal of oil and sediment during the same service is recommended.
- 3. Remove floatables first, then remove sediment storage volume.
- 4. Sediment removal is not required unless sediment depths exceed 75% of maximum clean-out depths stated in Table 1.





Inspection Procedures

- 1. Set up any necessary safety equipment around the access port or grate of the Downstream Defender® as stipulated by local ordinances. Safety equipment should notify passing pedestrian and road traffic that work is being done.
- 2. Remove the lids to the manhole (Fig. 4). NOTE: The 4-ft Downstream Defender® will only have one lid.
- 3. Without entering the vessel, look down into the chamber to inspect the inside. Make note of any irregularities. See Fig.7 and 8 for typical inspection views.
- 4. Without entering the vessel, use the pole with the skimmer net to remove floatables and loose debris from the outer annulus of the chamber.
- 5. Using a sediment probe such as a Sludge Judge®, measure the depth of sediment that has collected in the sump of the vessel (Fig.5).
- 6. On the Maintenance Log (see page 9), record the date, unit location, estimated volume of floatables and gross debris removed, and the depth of sediment measured. Also note any apparent irregularities such as damaged components or blockages.



Fig.7 View over center shaft into sediment storage zone.

- 7. Securely replace the grate or lid.
- 8. Take down safety equipment.
- 9. Notify Hydro International of any irregularities noted during inspection.

Floatables and Sediment Cleanout

Floatables cleanout is typically done in conjunction with sediment removal. A commercially or municipally owned sump-vac is used to remove captured sediment and floatables (Fig.6).

Floatables and loose debris can also be netted with a skimmer and pole. The access port located at the top of the manhole provides unobstructed access for a vactor hose and skimmer pole to be lowered to the base of the sump.

Schedulina

- · Floatables and sump cleanout are typically conducted once a year during any season.
- If sediment depths are greater than 75% of maximum cleanout depths stated in Table 1, sediment removal is required.
- · Floatables and sump cleanout should occur as soon as possible following a spill in the contributing drainage area.



Fig. 8 View of outer annulus of floatables and oil collection zone.

Recommended Equipment

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- Safety Equipment (traffic cones, etc)
- Crow bar or other tool to remove grate or lid
- Pole with skimmer or net (if only floatables are being removed)
- Sediment probe (such as a Sludge Judge®)
- · Vactor truck (6-inch flexible hose recommended)
- Downstream Defender® Maintenance Log
- 1. Set up any necessary safety equipment around the access port or grate of the Downstream Defender® as stipulated by local ordinances. Safety equipment should notify passing pedestrian and road traffic that work is being done.
- 2. Remove the lids to the manhole (NOTE: The 4-ft Downstream Defender® will only have one lid).
- 3. Without entering the vessel, look down into the chamber to inspect the inside. Make note of any irregularities.
- 4. Using the Floatables Port for access, remove oil and floatables stored on the surface of the water with the vactor hose or the skimmer net (Fig.9).
- 5. Using a sediment probe such as a Sludge Judge[®], measure the depth of sediment that has collected in the sump of the vessel and record it in the Maintenance Log (Pg.9).
- 6. Once all floatables have been removed, drop the vactor hose to the base of the sump via the Central Access Port. Vactor out the sediment and gross debris off the sump floor (Fig.6).

- 7. Retract the vactor hose from the vessel.
- 8. On the Maintenance Log provided by Hydro International, record the date, unit location, estimated volume of floatables and gross debris removed, and the depth of sediment measured. Also note any apparent irregularities such as damaged components or blockages.
- 9. Securely replace the grate or lid.

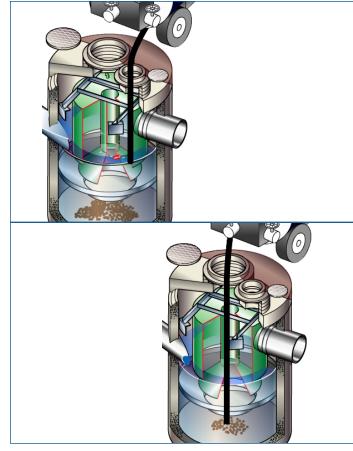


Fig.9 Floatables and sediment are removed with a vactor hose

Maintenance at a Glance

Activity	Frequency
Inspection	Regularly during first year of installationEvery 6 months after the first year of installation
Oil and Floatables Removal	- Once per year, with sediment removal - Following a spill in the drainage area
Sediment Removal	- Once per year or as needed - Following a spill in the drainage area

NOTE: For most cleanouts it is not necessary to remove the entire volume of liquid in the vessel. Only removing the first few inches of oils/floatables and the sediment storage volume is required.



Downstream Defender® Installation Log

HYDRO INTERNATIONAL REFERENCE NUMBER:					
SITE NAME:					
SITE LOCATION:					
OWNER:	CONTRACTOR:				
CONTACT NAME:	CONTACT NAME:				
COMPANY NAME:	COMPANY NAME:				
ADDRESS:	ADDRESS:				
TELEPHONE:	TELEPHONE:				
FAX:	FAX:				
INSTALLATION DATE: / /					
MODEL (CIRCLE ONE): 4-FT 6-FT	8-FT 10-FT CUSTOM				



Downstream Defender® Inspection and Maintenance Log

Date	Initials	Depth of Floatables and Oils	Sediment * Depth Measured	Volume of Sediment Removed	Site Activity and Comments
					·

*Note: Sediment removal is not required unless sediment depths exceed 75% of maximum clean-out depths stated in Table 1.

Hydro International (Stormwater), 94 Hutchins Drive, Portland ME 04102 Tel: (207) 756-6200 Fax: (207) 756-6212 Web: www.hydro-int.com

Notes



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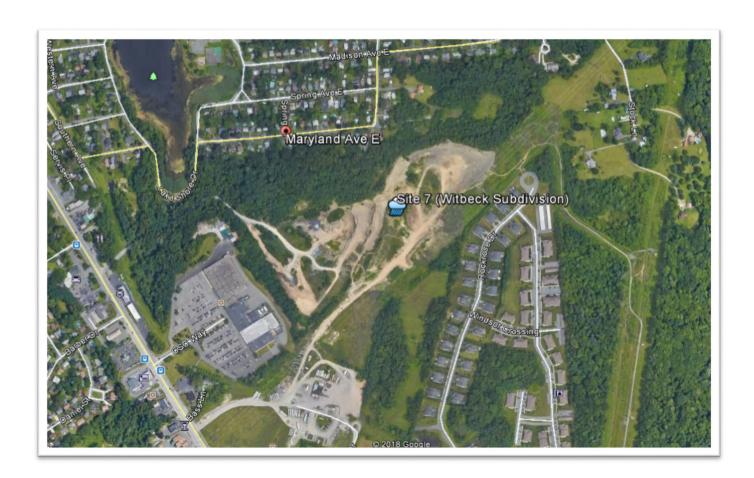
stormwaterinquiry@hydro-int.com

www.hydro-int.com

Facility Name: WITBECK SUBDIVISION

Field Name: Site 4
of Practices: 1

Type of Practices: Infiltration I2 (Infiltration Basin)



Project:

Infiltration Trench Operation, Maintenance, and Management Inspection Checklist

Location: Site Status:		
Date:		
Time:		
Inspector:		
MAINTENANCE İTEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
1. Debris Cleanout (Monthly	<i>'</i>)	
Trench surface clear of debris		
Inflow pipes clear of debris		
Overflow spillway clear of debris		
Inlet area clear of debris		
2. Sediment Traps or Forebays (A	nnual)	
Obviously trapping sediment		
Greater than 50% of storage volume remaining		
3. Dewatering (Monthly)		
Trench dewaters between storms		
4. Sediment Cleanout of Trench	(Annual)	
No evidence of sedimentation in trench		
Sediment accumulation doesn't yet require cleanout		
5. Inlets (Annual)		

Maintenance Item	SATISFACTORY / UNSATISFACTORY	COMMENTS
Good condition		
No evidence of erosion		
6. Outlet/Overflow Spillway (Annua	l)	
Good condition, no need for repair		
No evidence of erosion		
7. Aggregate Repairs (Annual)		
Surface of aggregate clean		
Top layer of stone does not need replacement		
Trench does not need rehabilitation		
Comments:		
Actions to be Taken:		

Facility Name: DISCOVERY DRIVE EXTENSION

Field Name: Site 5

of Practices: 2

Type of Practices: Pond P5 (Pocket Pond); Wetland W4 (Pocket Wetland)



Site Status:	
Date:	
Date: Time:	
Inspector:	

Maintenance Item	Satisfactory/ Unsatisfactory	Comments		
Embankment and emergency spillway (Annual, After Major Storms)				
1. Vegetation and ground cover adequate				
2. Embankment erosion				
3. Animal burrows				
4. Unauthorized planting				
5. Cracking, bulging, or sliding of dam				
a. Upstream face				
b. Downstream face				
c. At or beyond toe				
downstream				
upstream				
d. Emergency spillway				
6.Pond, toe & chimney drains clear and functioning				
7.Seeps/leaks on downstream face				
8.Slope protection or riprap failure				
9. Vertical/horizontal alignment of top of dam "As-Built"				

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
10. Emergency spillway clear of obstructions and debris		
11. Other (specify)		
2. Riser and principal spillway (Annual)	•	•
Type: Reinforced concrete Corrugated pipe Masonry 1. Low flow orifice obstructed		
Low flow trash rack. a. Debris removal necessary		
b. Corrosion control		
Weir trash rack maintenance a. Debris removal necessary		
b. corrosion control		
4. Excessive sediment accumulation insider riser		
Concrete/masonry condition riser and barrels a. cracks or displacement		
b. Minor spalling (<1")		
c. Major spalling (rebars exposed)		
d. Joint failures		
e. Water tightness		
6. Metal pipe condition		
7. Control valve a. Operational/exercised		
b. Chained and locked		
Pond drain valve a. Operational/exercised		
b. Chained and locked		
9. Outfall channels functioning		
10. Other (specify)		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
3. Permanent Pool (Wet Ponds) (mon	thly)	
1. Undesirable vegetative growth		
2. Floating or floatable debris removal required		
3. Visible pollution		
4. Shoreline problem		
5. Other (specify)		
4. Sediment Forebays		
1.Sedimentation noted		
2. Sediment cleanout when depth < 50% design depth		
5. Dry Pond Areas		
1. Vegetation adequate		
2. Undesirable vegetative growth		
3. Undesirable woody vegetation		
4. Low flow channels clear of obstructions		
5. Standing water or wet spots		
6. Sediment and / or trash accumulation		
7. Other (specify)		
6. Condition of Outfalls (Annual, After Major Storn	ns)	
1. Riprap failures		
2. Slope erosion		
3. Storm drain pipes		
4.Endwalls / Headwalls		
5. Other (specify)		
7. Other (Monthly)		
1. Encroachment on pond, wetland or easement area		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
2. Complaints from residents		
3.Aesthetics a. Grass growing required		
b. Graffiti removal needed		
c. Other (specify)		
4. Conditions of maintenance access routes.		
5. Signs of hydrocarbon build-up		
6. Any public hazards (specify)		
8. Wetland Vegetation (Annual)		
Vegetation healthy and growing Wetland maintaining 50% surface area coverage of wetland plants after the second growing season. (If unsatisfactory, reinforcement plantings needed)		
Dominant wetland plants: Survival of desired wetland plant species Distribution according to landscaping plan?		
3. Evidence of invasive species		
Maintenance of adequate water depths for desired wetland plant species		
5. Harvesting of emergent plantings needed		
6. Have sediment accumulations reduced pool volume significantly or are plants "choked" with sediment		
7. Eutrophication level of the wetland.		
8. Other (specify)		
Comments:		

Actions to be Taken:			

Facility Name: KENSEY SENIOR HOUSING

Field Name: Site 6

of Practices: 1

Type of Practices: Pond P5 (Pocket Pond)



Site Status:	
Date:	
Date: Time:	
Inspector:	

Maintenance Item	Satisfactory/ Unsatisfactory	Comments			
Embankment and emergency spillway (Annual, After Major Storms)					
1. Vegetation and ground cover adequate					
2. Embankment erosion					
3. Animal burrows					
4. Unauthorized planting					
5. Cracking, bulging, or sliding of dam					
a. Upstream face					
b. Downstream face					
c. At or beyond toe					
downstream					
upstream					
d. Emergency spillway					
6.Pond, toe & chimney drains clear and functioning					
7.Seeps/leaks on downstream face					
8.Slope protection or riprap failure					
9. Vertical/horizontal alignment of top of dam "As-Built"					

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
10. Emergency spillway clear of obstructions and debris		
11. Other (specify)		
2. Riser and principal spillway (Annual)	•	•
Type: Reinforced concrete Corrugated pipe Masonry 1. Low flow orifice obstructed		
Low flow trash rack. a. Debris removal necessary		
b. Corrosion control		
Weir trash rack maintenance a. Debris removal necessary		
b. corrosion control		
4. Excessive sediment accumulation insider riser		
Concrete/masonry condition riser and barrels a. cracks or displacement		
b. Minor spalling (<1")		
c. Major spalling (rebars exposed)		
d. Joint failures		
e. Water tightness		
6. Metal pipe condition		
7. Control valve a. Operational/exercised		
b. Chained and locked		
Pond drain valve a. Operational/exercised		
b. Chained and locked		
9. Outfall channels functioning		
10. Other (specify)		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments		
3. Permanent Pool (Wet Ponds) (monthly)				
1. Undesirable vegetative growth				
2. Floating or floatable debris removal required				
3. Visible pollution				
4. Shoreline problem				
5. Other (specify)				
4. Sediment Forebays				
1.Sedimentation noted				
2. Sediment cleanout when depth < 50% design depth				
5. Dry Pond Areas				
1. Vegetation adequate				
2. Undesirable vegetative growth				
3. Undesirable woody vegetation				
4. Low flow channels clear of obstructions				
5. Standing water or wet spots				
6. Sediment and / or trash accumulation				
7. Other (specify)				
6. Condition of Outfalls (Annual, After Major Storn	ns)			
1. Riprap failures				
2. Slope erosion				
3. Storm drain pipes				
4.Endwalls / Headwalls				
5. Other (specify)				
7. Other (Monthly)				
1. Encroachment on pond, wetland or easement area				

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
2. Complaints from residents		
3.Aesthetics a. Grass growing required		
b. Graffiti removal needed		
c. Other (specify)		
4. Conditions of maintenance access routes.		
5. Signs of hydrocarbon build-up		
6. Any public hazards (specify)		
8. Wetland Vegetation (Annual)		
Vegetation healthy and growing Wetland maintaining 50% surface area coverage of wetland plants after the second growing season. (If unsatisfactory, reinforcement plantings needed)		
Dominant wetland plants: Survival of desired wetland plant species Distribution according to landscaping plan?		
3. Evidence of invasive species		
Maintenance of adequate water depths for desired wetland plant species		
5. Harvesting of emergent plantings needed		
6. Have sediment accumulations reduced pool volume significantly or are plants "choked" with sediment		
7. Eutrophication level of the wetland.		
8. Other (specify)		
Comments:		

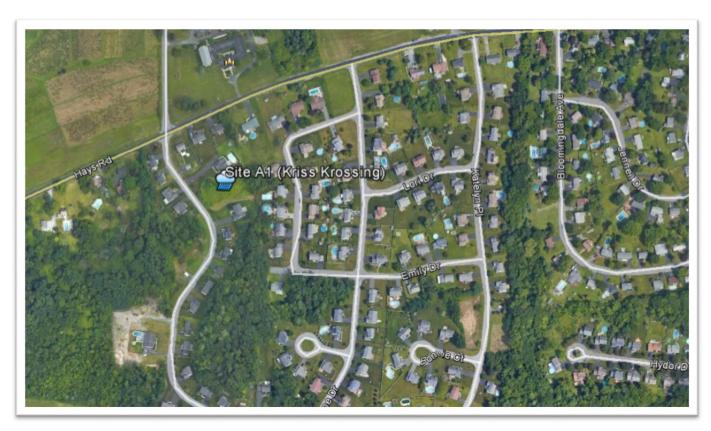
Actions to be Taken:			

Facility Name	Field Name	X,Y Coordinate (Pond 1)	Map Link (Pond 1)	X,Y Coordinate (Pond 1)	Map Link (Pond 1)	Notes
radinty riamo	110101101110	My oberamate (Ferrally	map zmm (r one s)	A, r see amate (r s. a. r)	iviap zmit (t ona 1)	110100
	Site A1	42.585035, -73.713330	https://goo.gl/maps/qXBUq6HPbJm	42.584265, -73.713799	https://goo.gl/maps/LnvX4EJ2FhJ2	PB Project #03-16
KRISS KROSSING						
	Site A2	42.583382, -73.708946	https://goo.gl/maps/RcJBQj9FQEn			PB Project #86-114k
KATELYN PLACE						
HYDOR DRIVE	Site A3	42.583271, -73.707374	https://goo.gl/maps/tUbfKktQi9y			PB Project #88-47
ELECTRIC AVENUE	Site A4	42.583382, -73.708946	https://goo.gl/maps/ppmxbpyWSXq			
FORREST POINTE	Site A5	42.609288, -73.719145	https://goo.gl/maps/av1kEjTapwP2			PB Project #03-25
	Site A6	42.612010, -73.728836	https://goo.gl/maps/1aZGSVvRnbH2			Built in the 70's
BARBER DRIVE/HOFFMANS						
	Site A7	42.609108, -73.728292	https://goo.gl/maps/yQyhHTu73UU2			Built in the 70's
	Jite 117	12.007100, 70.720272	mtps://goo.gr/maps/yeyrima/0002			Built in the 70 3
CELECTE DDIVE						
CELESTE DRIVE LAKESHORE DRIVE AND PARK DRIVE (BEACH HOUSE)	Site A8	42.616908, -73.724470	https://goo.gl/maps/FYesF38k3CK2			
EMESTIONE BRIVE MID I MIK BRIVE (BENOTH 1003E)	Siterio	12.010700, 70.721170	Tittps://goo.g//maps//16s/ookook2			
VEDNACNIT AVENUE AND NEW HANADSHIDE AVE	Cito AO	42 424 424 - 72 720027	https://goo.gl/mapa/gluus/aFoo22			
VERMONT AVENUE AND NEW HAMPSHIRE AVE	Site A9	42.626436, -73.728837	https://goo.gl/maps/gkyua4sFee22			
BROOK STREET	Site A10		https://goo.gl/maps/aDxZpmjMdvr (could not locate the detention pond)			PB Project # 93-14
MALIBU HILL AND VALLEY VIEW AVENUE	Site A11	42.640242, -73.731638	https://goo.gl/maps/eFb9ELuBkZp			PB Project #85-42
While of the Prints where the White the Control	Sito / til	12.0 102 12, 70.70 1000	Titles, 7, good gy Tides, or 2,722 as tep			15116]661#66 12
REDWOOD COURT	Site A12	42.642083, -73.721492	https://goo.gl/maps/yg8xVC5h2xK2			PB Project #99-38
PARK RIDGE DRIVE/LUTHER ROAD	Site A13	42.603127, -73.654401	https://goo.gl/maps/xQVCRmi9V5y	42.597292, -73.655861	https://goo.gl/maps/4qtTiRHXxBJ2	PB Project #03-05

Facility Name: KRISS KROSSING

Field Name: Site A1

Type of Practice: Pond



Site Status:	
Date:	
Date: Time:	
Inspector:	

Maintenance Item	Satisfactory/ Unsatisfactory	Comments			
Embankment and emergency spillway (Annual, After Major Storms)					
1. Vegetation and ground cover adequate					
2. Embankment erosion					
3. Animal burrows					
4. Unauthorized planting					
5. Cracking, bulging, or sliding of dam					
a. Upstream face					
b. Downstream face					
c. At or beyond toe					
downstream					
upstream					
d. Emergency spillway					
6.Pond, toe & chimney drains clear and functioning					
7.Seeps/leaks on downstream face					
8.Slope protection or riprap failure					
9. Vertical/horizontal alignment of top of dam "As-Built"					

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
10. Emergency spillway clear of obstructions and debris		
11. Other (specify)		
2. Riser and principal spillway (Annual)	•	•
Type: Reinforced concrete Corrugated pipe Masonry 1. Low flow orifice obstructed		
Low flow trash rack. a. Debris removal necessary		
b. Corrosion control		
Weir trash rack maintenance a. Debris removal necessary		
b. corrosion control		
4. Excessive sediment accumulation insider riser		
Concrete/masonry condition riser and barrels a. cracks or displacement		
b. Minor spalling (<1")		
c. Major spalling (rebars exposed)		
d. Joint failures		
e. Water tightness		
6. Metal pipe condition		
7. Control valve a. Operational/exercised		
b. Chained and locked		
Pond drain valve a. Operational/exercised		
b. Chained and locked		
9. Outfall channels functioning		
10. Other (specify)		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments		
3. Permanent Pool (Wet Ponds) (monthly)				
1. Undesirable vegetative growth				
2. Floating or floatable debris removal required				
3. Visible pollution				
4. Shoreline problem				
5. Other (specify)				
4. Sediment Forebays				
1.Sedimentation noted				
2. Sediment cleanout when depth < 50% design depth				
5. Dry Pond Areas				
1. Vegetation adequate				
2. Undesirable vegetative growth				
3. Undesirable woody vegetation				
4. Low flow channels clear of obstructions				
5. Standing water or wet spots				
6. Sediment and / or trash accumulation				
7. Other (specify)				
6. Condition of Outfalls (Annual, After Major Storn	ns)			
1. Riprap failures				
2. Slope erosion				
3. Storm drain pipes				
4.Endwalls / Headwalls				
5. Other (specify)				
7. Other (Monthly)				
1. Encroachment on pond, wetland or easement area				

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
2. Complaints from residents		
3.Aesthetics a. Grass growing required		
b. Graffiti removal needed		
c. Other (specify)		
4. Conditions of maintenance access routes.		
5. Signs of hydrocarbon build-up		
6. Any public hazards (specify)		
8. Wetland Vegetation (Annual)		
Vegetation healthy and growing Wetland maintaining 50% surface area coverage of wetland plants after the second growing season. (If unsatisfactory, reinforcement plantings needed)		
Dominant wetland plants: Survival of desired wetland plant species Distribution according to landscaping plan?		
3. Evidence of invasive species		
Maintenance of adequate water depths for desired wetland plant species		
5. Harvesting of emergent plantings needed		
6. Have sediment accumulations reduced pool volume significantly or are plants "choked" with sediment		
7. Eutrophication level of the wetland.		
8. Other (specify)		
Comments:		

Actions to be Taken:			

Facility Name: KATELYN PLACE

Field Name: Site A2

Type of Practice: Pond

<u>Map</u>



Site Status:	
Date:	
Date: Time:	
Inspector:	

Maintenance Item	Satisfactory/ Unsatisfactory	Comments	
Embankment and emergency spillway (Annual, After Major Storms)			
1. Vegetation and ground cover adequate			
2. Embankment erosion			
3. Animal burrows			
4. Unauthorized planting			
5. Cracking, bulging, or sliding of dam			
a. Upstream face			
b. Downstream face			
c. At or beyond toe			
downstream			
upstream			
d. Emergency spillway			
6.Pond, toe & chimney drains clear and functioning			
7.Seeps/leaks on downstream face			
8.Slope protection or riprap failure			
9. Vertical/horizontal alignment of top of dam "As-Built"			

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
10. Emergency spillway clear of obstructions and debris		
11. Other (specify)		
2. Riser and principal spillway (Annual)	•	•
Type: Reinforced concrete Corrugated pipe Masonry 1. Low flow orifice obstructed		
Low flow trash rack. a. Debris removal necessary		
b. Corrosion control		
Weir trash rack maintenance a. Debris removal necessary		
b. corrosion control		
4. Excessive sediment accumulation insider riser		
Concrete/masonry condition riser and barrels a. cracks or displacement		
b. Minor spalling (<1")		
c. Major spalling (rebars exposed)		
d. Joint failures		
e. Water tightness		
6. Metal pipe condition		
7. Control valve a. Operational/exercised		
b. Chained and locked		
Pond drain valve a. Operational/exercised		
b. Chained and locked		
9. Outfall channels functioning		
10. Other (specify)		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
3. Permanent Pool (Wet Ponds) (monthly)		
1. Undesirable vegetative growth		
2. Floating or floatable debris removal required		
3. Visible pollution		
4. Shoreline problem		
5. Other (specify)		
4. Sediment Forebays		
1.Sedimentation noted		
2. Sediment cleanout when depth < 50% design depth		
5. Dry Pond Areas		
1. Vegetation adequate		
2. Undesirable vegetative growth		
3. Undesirable woody vegetation		
4. Low flow channels clear of obstructions		
5. Standing water or wet spots		
6. Sediment and / or trash accumulation		
7. Other (specify)		
6. Condition of Outfalls (Annual, After Major Storm	ns)	
1. Riprap failures		
2. Slope erosion		
3. Storm drain pipes		
4.Endwalls / Headwalls		
5. Other (specify)		
7. Other (Monthly)		
Encroachment on pond, wetland or easement area		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
2. Complaints from residents		
3.Aesthetics a. Grass growing required		
b. Graffiti removal needed		
c. Other (specify)		
4. Conditions of maintenance access routes.		
5. Signs of hydrocarbon build-up		
6. Any public hazards (specify)		
8. Wetland Vegetation (Annual)		
Vegetation healthy and growing Wetland maintaining 50% surface area coverage of wetland plants after the second growing season. (If unsatisfactory, reinforcement plantings needed)		
Dominant wetland plants: Survival of desired wetland plant species Distribution according to landscaping plan?		
3. Evidence of invasive species		
Maintenance of adequate water depths for desired wetland plant species		
5. Harvesting of emergent plantings needed		
6. Have sediment accumulations reduced pool volume significantly or are plants "choked" with sediment		
7. Eutrophication level of the wetland.		
8. Other (specify)		
Comments:		

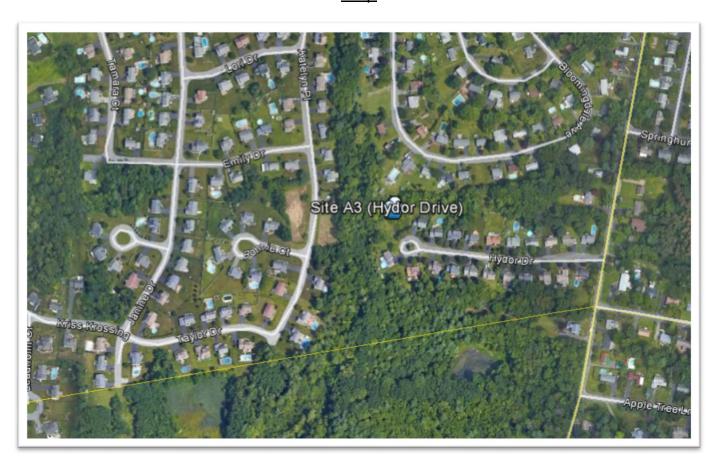
Actions to be Taken:			

Facility Name HYDOR DRIVE

Field Name: Site A3

Type of Practice: Pond

<u>Map</u>



Project		
Location: Site Status:		
Date:		
Time:		
Inspector:		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
1. Embankment and emergency spillway (Annual, After	r Major Storms)	
Vegetation and ground cover adequate		
2. Embankment erosion		
3. Animal burrows		
4. Unauthorized planting		
5. Cracking, bulging, or sliding of dam		
a. Upstream face		
b. Downstream face		
c. At or beyond toe		
downstream		
upstream		
d. Emergency spillway		
6.Pond, toe & chimney drains clear and functioning		
7.Seeps/leaks on downstream face		
8.Slope protection or riprap failure		
9. Vertical/horizontal alignment of top of dam "As-Built"		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
10. Emergency spillway clear of obstructions and debris		
11. Other (specify)		
2. Riser and principal spillway (Annual)	•	•
Type: Reinforced concrete Corrugated pipe Masonry 1. Low flow orifice obstructed		
Low flow trash rack. a. Debris removal necessary		
b. Corrosion control		
Weir trash rack maintenance a. Debris removal necessary		
b. corrosion control		
4. Excessive sediment accumulation insider riser		
Concrete/masonry condition riser and barrels a. cracks or displacement		
b. Minor spalling (<1")		
c. Major spalling (rebars exposed)		
d. Joint failures		
e. Water tightness		
6. Metal pipe condition		
7. Control valve a. Operational/exercised		
b. Chained and locked		
Pond drain valve a. Operational/exercised		
b. Chained and locked		
9. Outfall channels functioning		
10. Other (specify)		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
3. Permanent Pool (Wet Ponds) (mon	thly)	
1. Undesirable vegetative growth		
2. Floating or floatable debris removal required		
3. Visible pollution		
4. Shoreline problem		
5. Other (specify)		
4. Sediment Forebays		
1.Sedimentation noted		
2. Sediment cleanout when depth < 50% design depth		
5. Dry Pond Areas		
1. Vegetation adequate		
2. Undesirable vegetative growth		
3. Undesirable woody vegetation		
4. Low flow channels clear of obstructions		
5. Standing water or wet spots		
6. Sediment and / or trash accumulation		
7. Other (specify)		
6. Condition of Outfalls (Annual, After Major Storn	ns)	
1. Riprap failures		
2. Slope erosion		
3. Storm drain pipes		
4.Endwalls / Headwalls		
5. Other (specify)		
7. Other (Monthly)		
1. Encroachment on pond, wetland or easement area		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
2. Complaints from residents		
3.Aesthetics a. Grass growing required		
b. Graffiti removal needed		
c. Other (specify)		
4. Conditions of maintenance access routes.		
5. Signs of hydrocarbon build-up		
6. Any public hazards (specify)		
8. Wetland Vegetation (Annual)		
Vegetation healthy and growing Wetland maintaining 50% surface area coverage of wetland plants after the second growing season. (If unsatisfactory, reinforcement plantings needed)		
Dominant wetland plants: Survival of desired wetland plant species Distribution according to landscaping plan?		
3. Evidence of invasive species		
Maintenance of adequate water depths for desired wetland plant species		
5. Harvesting of emergent plantings needed		
6. Have sediment accumulations reduced pool volume significantly or are plants "choked" with sediment		
7. Eutrophication level of the wetland.		
8. Other (specify)		
Comments:		

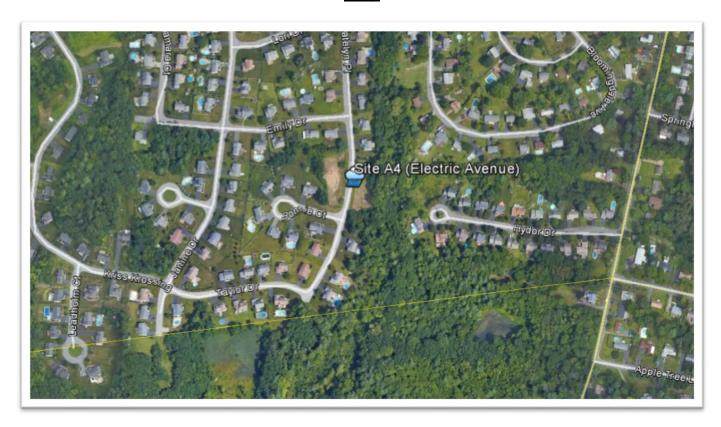
Actions to be Taken:			

Facility Name: ELECTRIC AVENUE

Field Name: Site A4

Type of Practice: Pond

<u>Map</u>



Project		
Location: Site Status:		
Date:		
Time:		
Inspector:		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
1. Embankment and emergency spillway (Annual, After	r Major Storms)	
Vegetation and ground cover adequate		
2. Embankment erosion		
3. Animal burrows		
4. Unauthorized planting		
5. Cracking, bulging, or sliding of dam		
a. Upstream face		
b. Downstream face		
c. At or beyond toe		
downstream		
upstream		
d. Emergency spillway		
6.Pond, toe & chimney drains clear and functioning		
7.Seeps/leaks on downstream face		
8.Slope protection or riprap failure		
9. Vertical/horizontal alignment of top of dam "As-Built"		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
10. Emergency spillway clear of obstructions and debris		
11. Other (specify)		
2. Riser and principal spillway (Annual)	•	•
Type: Reinforced concrete Corrugated pipe Masonry 1. Low flow orifice obstructed		
Low flow trash rack. a. Debris removal necessary		
b. Corrosion control		
Weir trash rack maintenance a. Debris removal necessary		
b. corrosion control		
4. Excessive sediment accumulation insider riser		
Concrete/masonry condition riser and barrels a. cracks or displacement		
b. Minor spalling (<1")		
c. Major spalling (rebars exposed)		
d. Joint failures		
e. Water tightness		
6. Metal pipe condition		
7. Control valve a. Operational/exercised		
b. Chained and locked		
Pond drain valve a. Operational/exercised		
b. Chained and locked		
9. Outfall channels functioning		
10. Other (specify)		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
3. Permanent Pool (Wet Ponds) (mon	thly)	
1. Undesirable vegetative growth		
2. Floating or floatable debris removal required		
3. Visible pollution		
4. Shoreline problem		
5. Other (specify)		
4. Sediment Forebays		
1.Sedimentation noted		
2. Sediment cleanout when depth < 50% design depth		
5. Dry Pond Areas		
1. Vegetation adequate		
2. Undesirable vegetative growth		
3. Undesirable woody vegetation		
4. Low flow channels clear of obstructions		
5. Standing water or wet spots		
6. Sediment and / or trash accumulation		
7. Other (specify)		
6. Condition of Outfalls (Annual, After Major Storn	ns)	
1. Riprap failures		
2. Slope erosion		
3. Storm drain pipes		
4.Endwalls / Headwalls		
5. Other (specify)		
7. Other (Monthly)		
1. Encroachment on pond, wetland or easement area		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
2. Complaints from residents		
3.Aesthetics a. Grass growing required		
b. Graffiti removal needed		
c. Other (specify)		
4. Conditions of maintenance access routes.		
5. Signs of hydrocarbon build-up		
6. Any public hazards (specify)		
8. Wetland Vegetation (Annual)		
Vegetation healthy and growing Wetland maintaining 50% surface area coverage of wetland plants after the second growing season. (If unsatisfactory, reinforcement plantings needed)		
Dominant wetland plants: Survival of desired wetland plant species Distribution according to landscaping plan?		
3. Evidence of invasive species		
Maintenance of adequate water depths for desired wetland plant species		
5. Harvesting of emergent plantings needed		
6. Have sediment accumulations reduced pool volume significantly or are plants "choked" with sediment		
7. Eutrophication level of the wetland.		
8. Other (specify)		
Comments:		

Actions to be Taken:			

Facility Name: FORREST POINTE

Field Name: Site A5

Type of Practice: Pond

<u>Map</u>



Project		
Location: Site Status:		
Date:		
Time:		
Inspector:		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
1. Embankment and emergency spillway (Annual, After	r Major Storms)	
Vegetation and ground cover adequate		
2. Embankment erosion		
3. Animal burrows		
4. Unauthorized planting		
5. Cracking, bulging, or sliding of dam		
a. Upstream face		
b. Downstream face		
c. At or beyond toe		
downstream		
upstream		
d. Emergency spillway		
6.Pond, toe & chimney drains clear and functioning		
7.Seeps/leaks on downstream face		
8.Slope protection or riprap failure		
9. Vertical/horizontal alignment of top of dam "As-Built"		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
10. Emergency spillway clear of obstructions and debris		
11. Other (specify)		
2. Riser and principal spillway (Annual)	•	•
Type: Reinforced concrete Corrugated pipe Masonry 1. Low flow orifice obstructed		
Low flow trash rack. a. Debris removal necessary		
b. Corrosion control		
Weir trash rack maintenance a. Debris removal necessary		
b. corrosion control		
4. Excessive sediment accumulation insider riser		
Concrete/masonry condition riser and barrels a. cracks or displacement		
b. Minor spalling (<1")		
c. Major spalling (rebars exposed)		
d. Joint failures		
e. Water tightness		
6. Metal pipe condition		
7. Control valve a. Operational/exercised		
b. Chained and locked		
Pond drain valve a. Operational/exercised		
b. Chained and locked		
9. Outfall channels functioning		
10. Other (specify)		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
3. Permanent Pool (Wet Ponds) (mon	thly)	
1. Undesirable vegetative growth		
2. Floating or floatable debris removal required		
3. Visible pollution		
4. Shoreline problem		
5. Other (specify)		
4. Sediment Forebays		
1.Sedimentation noted		
2. Sediment cleanout when depth < 50% design depth		
5. Dry Pond Areas		
1. Vegetation adequate		
2. Undesirable vegetative growth		
3. Undesirable woody vegetation		
4. Low flow channels clear of obstructions		
5. Standing water or wet spots		
6. Sediment and / or trash accumulation		
7. Other (specify)		
6. Condition of Outfalls (Annual, After Major Storn	ns)	
1. Riprap failures		
2. Slope erosion		
3. Storm drain pipes		
4.Endwalls / Headwalls		
5. Other (specify)		
7. Other (Monthly)		
1. Encroachment on pond, wetland or easement area		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
2. Complaints from residents		
3.Aesthetics a. Grass growing required		
b. Graffiti removal needed		
c. Other (specify)		
4. Conditions of maintenance access routes.		
5. Signs of hydrocarbon build-up		
6. Any public hazards (specify)		
8. Wetland Vegetation (Annual)		
Vegetation healthy and growing Wetland maintaining 50% surface area coverage of wetland plants after the second growing season. (If unsatisfactory, reinforcement plantings needed)		
Dominant wetland plants: Survival of desired wetland plant species Distribution according to landscaping plan?		
3. Evidence of invasive species		
Maintenance of adequate water depths for desired wetland plant species		
5. Harvesting of emergent plantings needed		
6. Have sediment accumulations reduced pool volume significantly or are plants "choked" with sediment		
7. Eutrophication level of the wetland.		
8. Other (specify)		
Comments:		

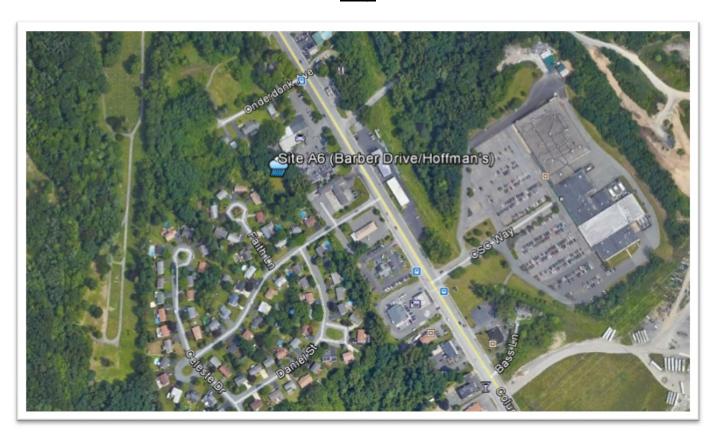
Actions to be Taken:			

Facility Name: BARBER DRIVE/HOFFMANS

Field Name: Site A6

Type of Practice: Pond

Map



Project		
Location: Site Status:		
Date:		
Time:		
Inspector:		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
1. Embankment and emergency spillway (Annual, After	r Major Storms)	
Vegetation and ground cover adequate		
2. Embankment erosion		
3. Animal burrows		
4. Unauthorized planting		
5. Cracking, bulging, or sliding of dam		
a. Upstream face		
b. Downstream face		
c. At or beyond toe		
downstream		
upstream		
d. Emergency spillway		
6.Pond, toe & chimney drains clear and functioning		
7.Seeps/leaks on downstream face		
8.Slope protection or riprap failure		
9. Vertical/horizontal alignment of top of dam "As-Built"		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
10. Emergency spillway clear of obstructions and debris		
11. Other (specify)		
2. Riser and principal spillway (Annual)	•	•
Type: Reinforced concrete Corrugated pipe Masonry 1. Low flow orifice obstructed		
Low flow trash rack. a. Debris removal necessary		
b. Corrosion control		
Weir trash rack maintenance a. Debris removal necessary		
b. corrosion control		
4. Excessive sediment accumulation insider riser		
Concrete/masonry condition riser and barrels a. cracks or displacement		
b. Minor spalling (<1")		
c. Major spalling (rebars exposed)		
d. Joint failures		
e. Water tightness		
6. Metal pipe condition		
7. Control valve a. Operational/exercised		
b. Chained and locked		
Pond drain valve a. Operational/exercised		
b. Chained and locked		
9. Outfall channels functioning		
10. Other (specify)		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
3. Permanent Pool (Wet Ponds) (mon	thly)	
1. Undesirable vegetative growth		
2. Floating or floatable debris removal required		
3. Visible pollution		
4. Shoreline problem		
5. Other (specify)		
4. Sediment Forebays		
1.Sedimentation noted		
2. Sediment cleanout when depth < 50% design depth		
5. Dry Pond Areas		
1. Vegetation adequate		
2. Undesirable vegetative growth		
3. Undesirable woody vegetation		
4. Low flow channels clear of obstructions		
5. Standing water or wet spots		
6. Sediment and / or trash accumulation		
7. Other (specify)		
6. Condition of Outfalls (Annual, After Major Storn	ns)	
1. Riprap failures		
2. Slope erosion		
3. Storm drain pipes		
4.Endwalls / Headwalls		
5. Other (specify)		
7. Other (Monthly)		
1. Encroachment on pond, wetland or easement area		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
2. Complaints from residents		
3.Aesthetics a. Grass growing required		
b. Graffiti removal needed		
c. Other (specify)		
4. Conditions of maintenance access routes.		
5. Signs of hydrocarbon build-up		
6. Any public hazards (specify)		
8. Wetland Vegetation (Annual)		
Vegetation healthy and growing Wetland maintaining 50% surface area coverage of wetland plants after the second growing season. (If unsatisfactory, reinforcement plantings needed)		
Dominant wetland plants: Survival of desired wetland plant species Distribution according to landscaping plan?		
3. Evidence of invasive species		
Maintenance of adequate water depths for desired wetland plant species		
5. Harvesting of emergent plantings needed		
6. Have sediment accumulations reduced pool volume significantly or are plants "choked" with sediment		
7. Eutrophication level of the wetland.		
8. Other (specify)		
Comments:		

Actions to be Taken:				
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