# VILLAGE OF TARRYTOWN STORMWATER EDUCATION & OUTREACH OUTLINE

Stormwater contact: Donato R. Pennella, P.E., Village Engineer

Stormwater Hotline: 914-631-3668 Building Department

dpennella@tarrytowngov.com

# Village of Tarrytown Stormwater Website:

http://www.tarrytowngov.com/engineering-department/pages/stormwater-education-outreach-program

# What is an Illicit Discharge?

A discharge to the storm sewer that is not entirely storm water. Examples are sewage in the storm line, dumping of motor oil, household toxics, pesticides, paint, grease, pet waste, detergents and other materials into the storm sewer. **DUMPING ANY MATERIAL OR LIQUID, OTHER THAN WATER, INTO THE VILLAGE STORM DRAINS IS ILLEGAL**. Should you need to dispose of materials that cannot be placed in the garbage for collection by the Sanitation Department, please contact Westchester County Household Material Recovery Facility (H-MRF) for hazardous waste disposal. Should you see an Illicit Discharge or suspicious material in the storm drains, report it to the Building Department at (914) 631-3668.

Please refer to **Attachment 1** for the following information:

**Exempt Discharges** 

# What is the big deal about Stormwater?

Stormwater *runoff* is water from rain or even melting snow that doesn't soak into the ground, but runsoff over roads, paved areas, lawns, bare soils, etc., then into the storm sewer system or directly into waterways. The runoff picks up pollutants such as oil and grease, pesticides, animal wastes, salt, petroleum and other chemicals and materials along the way. One of the major sources of contamination in the Nation's waterbodies is polluted stormwater runoff.

# What is an MS4 Permit and the Village of Tarrytown's requirements under one?

An MS4 is a *Municipal Separate Storm Sewer System* or, the entire storm sewer system within a municipal boundary. The MS4 system typically would not include the sanitary system, with the exception of combined sewer systems. There are no combined sewer systems in the Village of Tarrytown.

The Environmental Protection Agency implemented the Stormwater Program in an effort to improve the Nation's water from polluted stormwater runoff. Phase I of the Program focuses on areas with populations of 100,000 or greater. Phase II focuses on areas with populations smaller than 100,000. Municipalities under Phase II must obtain a State permit to address and discharge stormwater into their municipal storm sewer system (MS4). The Village of Tarrytown obtained MS4 permit coverage in 2003.

The Village of Tarrytown, a municipality with a population under 100,000, falls under the Phase II Stormwater Program, and is therefore required to abide by the terms and conditions of the New York State Department of Environmental Conservation's SPDES General Permit for Stormwater Discharges

from Municipal Separate Storm Sewer Systems (i.e. 'the NYSDEC MS4 Permit'), and to meet the six Minimum Measure requirements noted below.

# Minimum Measure I: Public Outreach and Education on Stormwater

Identify Pollutants of Concern (POCs), waterbodies of concern, geographic areas of concern, and target audiences (see the Stormwater Website link for more information). Implement a public education and outreach program to describe the impacts of stormwater discharges on waterbodies, the POCs and their sources, and the steps that contributors of these pollutants can take to reduce pollutants in stormwater runoff.

# Pollutants of Concern identified in the Village of Tarrytown:

- Floatables & Trash Accumulation in the storm sewer system and waterbodies.
- Sediment. The loose sand, clay, silt and other particles that settle at the bottom of a body of water. The EPA lists sediment as the most common pollutant in waterbodies.
- Phosphorus & Nitrogen. Nutrients that can cause the overgrowth of algae in waterbodies.
   Found in yard wastes like grass clippings and leaves, pet wastes, lawn fertilizers and detergents (car washing) carried directly into the catch basin or picked up in stormwater and carried to lakes, rivers and streams when it rains. The EPA considers phosphorus one of the most troublesome pollutants.

# What you can do:

Many people do not realize it, but there are a number of simple things that homeowners can do to prevent storm water pollution.

# Car Washing, Gutters and Sump Pumps:

Direct water to grassy areas instead of down the driveway. Lawns cleanse the water of pollutants. Collect roof runoff in rain barrels and use this water on your lawn and garden.

# Pet Waste:

Bag it and throw it in the trash. Nitrogen and Phosphorus in pet waste (as well as bacteria and pathogens) is a large contributor of stormwater runoff pollution.

#### Lawn Maintenance:

Keeping grass clippings and leaves out of the catch basins has great benefits on the receiving lakes and streams. Never drop leaves or grass clippings into the storm drain. This will cause clogging and flooding in the storm sewer system, and will flush nutrients in to the receiving water body which will cause algae ("scum") growth. Blow grass clippings on to the lawn and not the street when mowing, and never hose clippings into the catch basin. See the Village website for leaf mulching-in-place instructions, and the Public Works page for the leaf pick-up program and yard waste collection schedule.

<u>NEVER DUMP ANYTHING DOWN THE STORM DRAIN:</u> Contact the Westchester County Hazardous Material Recovery Facility (H-MRF) for disposal of used oil, paint, etc.

Refer to the Westchester County Step-to-Step Guide to Cleaner Water at:

http://planning.westchestergov.com/images/stories/stormwater/stepbystep.pdf.

# What's the connection between residents and Storm Water?



Village rainwater flows into storm drains and rapidly discharges into receiving water bodies, carrying with it pollutants such as oil, trash, pathogens, and Nitrogen and Phosphorus that can lead to excess algae growth.

# How can you help minimize this impact?

Residents can offer a big hand reducing pollutants in the Village's receiving water bodies. The EPA lists Phosphorus as one of the most troublesome pollutants in the nation's waterways.

Visit

Tarrytown Environmental Advisory Council at

www.Tarrytownenvironmental.org
for info and community events.

# PHOSPHORUS & NITROGEN\*\*

Lawn Maintenance:

Phosphorus generate from yard waste (leaves and grass clippings), pet waste, and excess fertilizer. Proper lawn maintenance has great benefits on the receiving water. Keep yard waste out of catch basins and never dump into the storm sewer. Consider mulching inplace and phosphate free gardening techniques.



Car Washing, Gutters and Sump Pumps: Direct water to the lawn and not the driveway. Soaps will harm waterways but lawns will filter out contaminants. Collect roof runoff in rain barrels and use this water on your lawn and garden.

# Pet Waste:

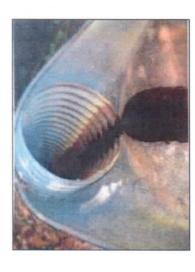
Bag it and throw it away. Animal waste is a large contributor of storm water pollution, also leeching pathogens.

# TRASH, DUMPING\*\*

# Ilicit Discharge:

Should you see an Illicit Discharge such as suspicious and/or odorous material in the storm drains, report it to the Building Department at (914) 631-3668.

Contact Household IT IS AGAINST VILLAGE CODE TO OIL, PAINT. ETC...INTO Material Recovery Facility (H-MRF) or hazardous waste disposal. WASTE, DRAIN County USED GREASE, PET OF STORM Westchester DISPOSE THE



Visit <a href="www.tarrytowngov.com">www.tarrytowngov.com</a> and click on the Stormwater link for more information and further links.

\*\*Refer to Westchester County website for lawn maintenance, vehicle washing, pet waste & household chemicals and more at: http://planning.westchestergov.com/environment/stormwater-management



# The Tarrytown Lakes

# What is the problem?

Algae in the Upper Reservoir. An unusually high concentration of Nitrogen and Phosphorus are entering the Upper Reservoir during rain events. The Tarrytown Lakes is a shallow lake bed that is particularly susceptible to algae blooms. If your property is located in the drainage area of the Tarrytown Lakes (see next page), you can help in giving the Lakes a hand!

# What you can do:

- <u>Car Washing</u>, <u>Outdoor washing</u>: Direct wash water to the <u>lawn and not the driveway</u>, which will flow to catch basins then waterways. Soaps can contain phosphorus that will contribute to algae growth.
- Pet Waste: Bag it and throw it away. Animal waste contains Nitrogen and Phosphorus.
- <u>Proper Lawn Maintenance</u>: Nitrogen and Phosphorus generate mostly from yard waste (leaves, grass clippings) and excess fertilizer. If using fertilizers/pesticides, only apply at the proper rate. Keep yard waste out of catch basins. Consider leaving grass clippings in place for organic fertilizer that breaks down quickly, mulching in-place, and phosphate free gardening. See the Village of Tarrytown website for Love 'em and Leave 'em leaf management. Proper lawn maintenance has great benefits on the receiving water.
- <u>Illicit Discharge</u>: Should you see an **Illicit Discharge** such as suspicious and/or odorous material in the storm drains (most commonly septic), report it to the Building Department at (914) 631-3668.

# Make sure that your landscape contractor is registered with the Village.

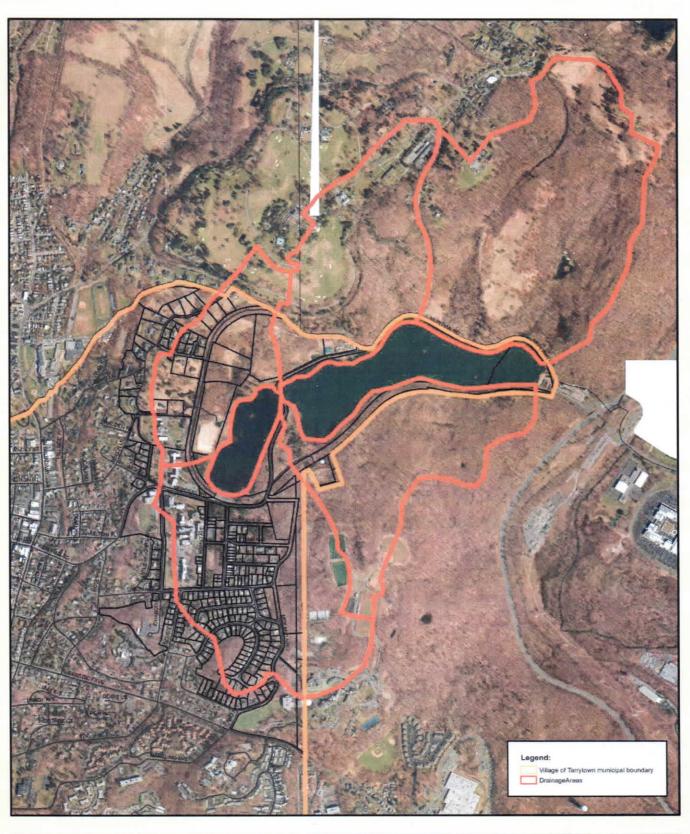
A landscaper is defined as a **Green Industry Contractor** by law and must be registered to legally work with the Village (Chapter 205). Registered workers are given orange permits which must be affixed to the left rear of the work vehicle.

# PLEASE NOTE:

IT IS AGAINST VILLAGE CODE TO DISPOSE OF USED OIL, PAINT, GREASE, TRASH, PET WASTE, ETC...INTO THE STORM DRAIN. Contact Westchester County Household Material Recovery Facility (H-MRF) for hazardous waste disposal.

Is your property is located in the drainage area of the Tarrytown Lakes?

Please see next page.





Tarrytown Lakes Drainage Areas Base planimetric data provided by
Westchester County GIS data warehouse and
NYS GIS Data Clearinghouse
Drainage Area delineated from
Tarrytown Lakes Watershed Drainage Study SWMP (2005)

### Refer to the EPA's Homeowner brochures at:

https://www3.epa.gov/npdes/pubs/solution\_to\_pollution.pdf https://www3.epa.gov/npdes/pubs/after the storm.pdf

#### Minimum Measure II: Public Involvement/Participation in Stormwater

Provide a local stormwater public contact (listed above). Identify key individuals/groups who are affected by the Stormwater Management Plan, and record participation activities such as water quality hotline for reporting illicit discharges, stream cleanups, storm drain marking, and other volunteer water quality activities.

# For participation opportunities, please see the following:

- Tarrytown Environmental Advisory Council (TEAC): <a href="http://www.tarrytownenvironmental.org/">http://www.tarrytownenvironmental.org/</a>
- Friends of the Riverwalk: www.frw-ttown.org
- Friends of Neperan Park: www.friendsofneperanpark.org
- NYSDEC Citizens Statewide Lake Assessment Program (CSLAP): www.dec.ny.gov/chemical/81576.html

# Minimum Measure III: Illicit Discharge Detection and Elimination

Implement and enforce a program to detect and eliminate **illicit discharges** into the storm sewer system. Maintain a stormwater outfall inventory and a map showing the stormwater outfalls, the receiving surface waters, the storm sewersheds, and map new outfalls as they are constructed or newly discovered.

Adopt a local law to prohibit illicit discharges into the storm sewer system and implement appropriate enforcement procedures (see Village Code, Chapter 258: Stormwater Management; Article II: Prohibition of Illicit Discharges and Connections to Separate Storm Sewer System).

Please refer to Attachment 2 for the following information (2014):

Village of Tarrytown Storm SewerShed Map Village of Tarrytown Outfall Map spreadsheet

### Minimum Measure IV: Construction Site Stormwater Runoff Control

Address stormwater runoff from construction activities of one acre or more and maintain an inventory of such sites with owner/operator contact information. Adopt a local law to address stormwater management and erosion and sediment control and ensure construction site operators have received erosion and sediment control training (see Village Code, Chapter 258: Stormwater Management; Article I, Stormwater Management and Erosion and Sediment Control). Such sites must submit and abide by all Stormwater Pollution Prevention Plan requirements, and local laws.

Please refer to <u>Attachment 3</u> for the following information (2014):

Village of Tarrytown Construction Site inventory (October 2014)

# Minimum Measure V: Post-Construction Stormwater Management

Maintain an inventory of post-construction stormwater management practices, and ensure the adequate long-term operation and maintenance of such practices to ensure they are performing properly. Adopt a local law to reduce pollutants in stormwater runoff from post-construction practices, and after completion of construction (see Village Code, Chapter 258: Stormwater Management; Article I, Stormwater Management and Erosion and Sediment Control).

To reduce pollutants in post-construction stormwater runoff, construction site operators would build permanent stormwater management practices (structural) and/or other measures (non-structural) as defined in the New York State stormwater design manual to reduce the discharge of pollutants to the Maximum Extent Practicable (MEP) in to the municipal storm sewer system (MS4).

Please also refer to <u>Attachment 3</u> for the following information (2014): Village of Tarrytown Post-Construction Sites Map (October 2014) Village of Tarrytown Post-Construction Sites spreadsheet (October 2014)

# Minimum Measure VI: Pollution Prevention/Good Housekeeping For Municipal Operations

Incorporates an employee Pollution Prevention and Good Housekeeping training program. Addresses municipal operations and facilities that contribute or potentially contribute Pollutants of Concern to the storm sewer system.

At a minimum of once every 3 years, perform and document a self-assessment of all the Village's municipal operations and facilities to determine their potential sources of pollutants; and identify the Village's facilities that will be addressed by the Pollution Prevention and Good Housekeeping program. A Best Management Practices manual has been created based on the self-assessment, and will be updated accordingly.

Please refer to <u>Attachment 4</u> for the following information:

Village of Tarrytown MS4 Best Management Practices Manual (Simplified)

\*All MS4 other documents, mapping, records, etc., are maintained at the Village of Tarrytown Building Department

# VILLAGE OF TARRYTOWN STORMWATER OUTREACH & EDUCATION:

# MAKING YOUR HOUSE AND LAWN STORMWATER SAFE:

Refer to Westchester County's information for properly mowing and maintaining your Lawn, Septic System, as well as salt, household chemicals and vehicle washing.

http://planning.westchestergov.com/environment/stormwater-management

Refer to the Westchester County Step-to-Step Guide to Cleaner Water at:

http://planning.westchestergov.com/images/stories/stormwater/stepbystep.pdf.

# FERTILIZING YOUR LAWN:

Refer to NYSDEC's information to 'Look for the Zero, Protect your Waters'. http://www.dec.ny.gov/docs/water\_pdf/fertflyer15.pdf

### NATIVE LANDSCAPING:

Refer to Westchester County's information on Native Landscaping http://planning.westchestergov.com/images/stories/stormwater/GoNative.pdf

# **RAIN GARDENS & RAIN BARRELS:**

Refer to Westchester County's information on Rain Gardens & Rain Barrels, http://planning.westchestergov.com/rain-gardens

http://planning.westchestergov.com/rain-barrels

Rain Barrels/Permeable Pavement/Green Lawns Blue Waters (League of Women Voters): http://www.watpa.org/lwv/greenlawnsbrochures/index.html

#### EPA KIDS FUN GAMES FOR NON-POINT POLLUTION:

http://water.epa.gov/polwaste/nps/kids/index.cfm

# REGULATORY LINKS:

#### VILLAGE OF TARRYTOWN:

Green Industry Contractor

http://www.tarrytowngov.com/department-of-public-works/pages/leaf-blowers-and-landscapers-laws

#### NYSDEC:

**NYSDEC Contractor Training:** 

http://www.dec.ny.gov/chemical/8699.html

NYSDEC Storwater MS4 Permit and Forms

http://www.dec.ny.gov/chemical/43150.html

Fertilizer and Detergent Law:

http://www.dec.ny.gov/chemical/67239.html

# **ENVIRONMENTAL PROTECTION AGENCY:**

EPA Stormwater Homepage:

http://water.epa.gov/polwaste/npdes/stormwater/

EPA Green Infrastructure training:

http://water.epa.gov/infrastructure/greeninfrastructure/gi training.cfm

# WESTCHESTER COUNTY:

Westchester County Household Material Recovery Facility (H-MRF) http://environment.westchestergov.com/new-h-mrf

Septic System Management:

http://health.westchestergov.com/septic-systems

# **ATTACHMENT 1**

**Exempt Discharges** 

# **Exempt Discharges**

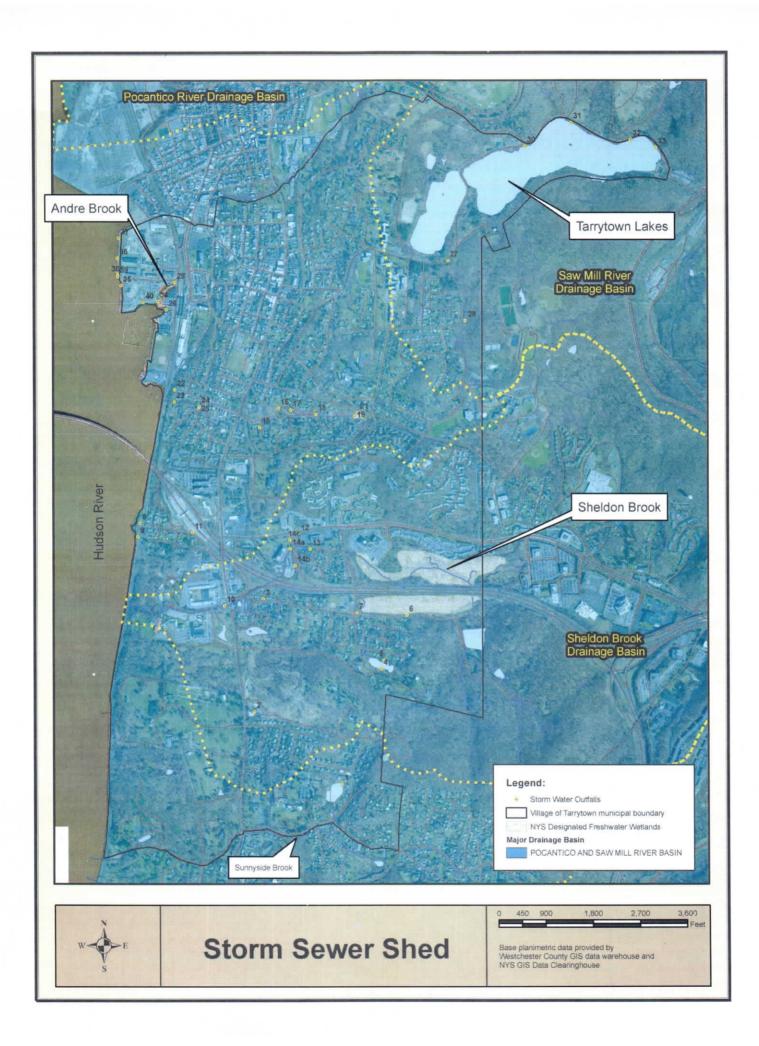
The following are listed as *Exempt Non-Stormwater Discharges* per the NYSDEC MS4 Permit and will remain as such unless the NYSDEC will determine them to be substantial contributors of pollutants.

- a. water line flushing
- b. landscape irrigation
- c. diverted stream flows
- d. riding ground waters
- e. uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20))
- f. uncontaminated ground water
- g. discharges from potable water sources
- h. foundation drains
- i. air conditioning condensate
- j. irrigation water
- k. springs
- I. water from crawl space and basement sump pumps
- m. footing drains
- n. lawn and landscape watering runoff provided that all pesticides and fertilizers have been applied in accordance with the manufacturer's product label;
- o. water from individual residential car washing
- p. flows from riparian habitats and wetlands
- q. dechlorinated swimming pool discharges
- r. residual street wash water
- s. discharges or flows from fire fighting activities
- t. dechlorinated water reservoir discharges
- u. any SPDES permitted discharge

# **ATTACHMENT 2**

Village of Tarrytown Storm Sewershed Map Village of Tarrytown Outfall Map Spreadsheet





Onitial Custom to	<u> </u>	Signatura	Cincusors Dutfall Shape	Mainist	Dath! Tage	Manac Dra-sage Page	Tra-som Basin	School and School	PQINT 3	) Linda	Spirits
4 110	S Page Work	è	.p. 40.0	. ,	100 cg 1	The second sections with the second		9	2501.1257.3	AUS 20,834H	Ontain sort to provide some public later show that free any can be seen.
	19.00 m	,	ş	ù	Classed Ama	100 mm m	Sheapin Sough Egille	<u>-</u>	23/88/85	E(465%).7.7E5	To apply Apply and programmer and apply casping at death metrols and perfect and the authors and any and the same and the
	Autographic and a second		ž0	Capterin	Adic S Viver	With the best seek to be the best of	Sheide 1 Sreak Rega-	, ja	100.000	31,554,7521	mays annoughly ben whatne shall several severals and panels.
4 CT-(ct X - 25gpp 4 2 2 2 2	rest on the state of an execution	1	300	dW	CPARTS No.	Persention and Sear of Physics Roma.	Thomas Brant &c. is:	ş	6790 5.6124	8125 P. 4%31	તાલુકાટ પ્રાપ્ય કર્યા ( કોક્સ કર્યા કરા કરા કર્યા કરા કરા કર્યા કરા કર્યા કર્યા કર્યા કર્યા કરા કર્યા કરા કરા કર્યા કર્યા કરા કરા કરા કરા કરા કરા કરા કરા કરા કર
. E	ere.	3	4	204	3	- i	Station to out Brown	3	973027,7607	811577.5773	DOSENCTERST AND EAST OF THE WORLD THAT IS NOT A POTTED THE TOTAL THE DESCRIPTION AND A SAME.
A CR DR Myndon Arehon	flooring or the formation Westerda	~	ja O	dNO	Citaza Age		Shelder Brook Besin	8	075870.1852	811.543,2735	and the construction of Whitehold W.W. Special Class 2
73-55	Speaking printed 2 colourer Westends	-2. 4 16-		Name and hopies come process of section	Coses Pipo		Straton Stock Popla	Ş	076515 2848	81759C 4507	Some Serial real-free some Aprilians (Arehand to Alex, Abstractions at
	Abdress River							ē	554 to 2, 885°.	4084 - FELLER	egeneral to tring my least to be more about the form of the control of the control of the control of the control
	Hadson Proc				,	most her billing and base for the		ş	2706.145.000	33 SOUT 3,33	eta jest joueid maj skido pa judge monent e uge o "Gastern open", en en o oseno esposoro a
	Anna Banas	\$ x > AC.P	See See	स्थान वर्गा स्थापन्य सुन्तरं सन्तरं (हाकं स्थाप)	Carectope	Monthly and Saw Villia on Para	Series Prese Broad	9.	463- Hiter 36	85.42.870	and the second s
72	Huthur Roye	ž	aroke.	<b>*</b> ***	d P	Same from sent Star Milk von Bosa		:) <del>,</del>	94-385.446	845346,7163	18 (18) 18 (18) 18 (18) 18 (18) 18 (18) 18 (18) 18 (18) 18 (18) 18 (18) 18 (18) 18 (18) 18 (18) 18 (18) 18 (18)
:: "5	A DOCUMENT OF THE PROPERTY OF	1.0	, tens.	EGR	Caract Plea	The state of Libert Well River Team	and the result of the	જૂ	10000000000	815.05 0734	TV-18-50
11.5	Suppose 600 ca	r, r. Apr		Share wait a gh Pan a central of at an	16/4 b250 T		Stekon Brock Batin	ç	556522.3255	At paint many	
2 5	Mercan Brook	5		Lorizoto	Classed Pipe	Programme av Albam (Alf River Bestig	Shelson Propi Balin	, Ox	265, 022099	F127.13 0.034	
17	200 to 000 to 00	-5	In colum	à	40.454.00		Sektor Propilition	ŝ	438414.1062	4188758448	
9 d d	F - Kraii Enits	ž.	Ť S	(C)	Correct Pine		St. As an Broak Room	NG	548233 Tac?	47.574 8.67	To the control to the
Š	Peter conferring violent of burners	27. x 43.	À	.**.d.)	Charlops	on as one military Mat Royal Process		9	Cultimora SS a h	945x29.9000	
į	Section of the sectio	ż		2	1. ZSG-15 Park	の間が当内と関いる場合を		e)e	- es 225 es	3377 Valle ( 3	
. 15	Control of Control of Control	Ŀ	ì	Cost and pull Cost for Cost (Sp. )	SUPPRINT:	The thing to the time of Ellin or Specimens		9	\$6025.4110	*****	
				3+4	100	And the second of the second o		9	2121 5000	210,435,7,7285	
	construction of the state of the state of			Transfer Press				3	10 to	×344€; 348;	
5	The second secon	<u> </u>									
19 On 20 Bennanch Processiver	Value Action of the Control of the C		*****************		Cinedo	Application operations with Rade Final		(A)	Negative:	#4524L (4.204	1967 S. 2007 S. 2008 S. 2008 C. 2008 C
20. Office America Americal Ac-	Surface technic	. 29	400	22	Consect Plans	Journal of State Athing continue		65	0.78 54 66.0	S25-108-7-20	
to Grand Emissions	Washington Translating Williams and the second	10.	Distribut	(PO	Espiration Co.	Vacuation and Some Spill Brown Rook		ON.	667.23.33	#15-43 VIIIS	A. A
21 SECT LAND AND (BOD)	remember transmitter freiheam framer	2	Clearly	PENCY 1	Coeca Man	i ocaonine und Saw Mill Richt Sawk		O <sub>N</sub>	2:22 585,655	215634 R-C	
24 Christistical	to married its forthing as the chain Cheer	Ħ	D poster	15	E overd 1 type	Pocarotion or 5 Saw 6614 Roses Barier		O.A.	£6757.1813	1015.0.1815	ARRENDER DET ALLEGE & 25 SEGRECT BROKETT
15 CASE CASH LANGUAGE	Authorized Talantary Be Halfratt Shelf	2	3 2 0	**	Court for	Part of the sand Saw Mild Rows Big.		9%	099 (15,44	80300 738	ENTRY TO MERCHANICULAR TO AS A PROMOTORING CONTROL
	it. In. Error		A 20.0	ą.	Time & Figs.	Pura inica - Lass All Rues Books		40:	Cotally, 2016	\$17372 6223	
	servicion la ies	*	ş Ö	1.44	1.3780 Fig.	Pacartery and Surf Mill Rote #36sh	sow William to sin	Ġ.	(0.7727/80)	81525 5346	
¥.	Section and Section	75.440	C Saries.	2.12	1 3840 hae	mest rand for sea our approach	San Burer Barn	9	4726C1 2522	27 % F.M.	
87.6	Hodge Boose	3182	Bers	sterio'i	10000	Proprieto and Saw Mil Higher Busin		ĝ	(60,512,14,86)	\$1.90 Years	form of Effects Phillips of Child Investigate
Local hills program of hand of the Transfer III.		à	Certain	REF	S. I (MSC.)	Tocha the and they will Report Boston	Same Adulfacer Sanda	92	472752-8540	F705/II.7-83	
31 DS-11 Repairs from 6 New Role	famplique Lake.	<u>-</u> 17	Chephan	5	Age I hoose ?	Percenting and Sace 641 (Regulation	Year N. I Born Barde	92	\$7468(62%)	30E-01-396	
V. 01'02 Scorranthad	Turn of core Latter	13.	9 (1) (1)	è	Court Pay	Car selement Saw Mill Rever Brain	S'ver 52 = 18 vert 80sen.	S.	455/87.4942	970073 1150	
8	Tarytone Lakes	H	- App	<u>6</u>	Curved Page	Potamina Saw Milkwa Bath	Saul Nº 48 wer Basen	Ú,	676246.2532	\$20473 6346	
3,	7-00-16 cm2-14	12,	A G	*G#	2, 3500 F pc	Pocambro and New Nationines Bosin		9	(30.31 (30)	317.03/18	Serti X14
i i	F. Boon River	7	Sinado	a. L	F goods.	With the state of the Ball Roth Brain		int.	6.6675 \$4:0	2178.1.S1E	After a 2011, Government and Applications (Secretary)
å	Philippe Names	- 1	26,69-0	p. E	Cossettie	Pacameters and Saw Main Phone Bushin		يا ۽ ه	189803-03	#6451# (N) +	ARKE ON U. G. TOWN PERSONS OF PROPERTY DESIGN
ŝ	P. Jean Bion	åo	A. Gg	ğ	(meec#59	feerwheren Says Nei Row Bron		- X	994 05694		Aderson (1, 2007). Green protection to an inches of the
90.00	had an Rear	127	Especa	ď	Cyrot fige	Presente out fau Mo River Burn		34	2659704.333	91925 203	Achter F XX C
83	Walan Sno:	ĝ;	P. O. C.	87.8	Cusked Por	LACHTE CAND SLAF NOT REPORTED IN		3	642970.6333	\$1800N.S17?	Aren ir 2003.
9 3	subserv Study	12.	Dieze-	5	K. d Space	Closed Pine Pockrish pand Sam ME River Batin		**	8254 SE2999	A17518, 4039	Mars. if 2014, command 32, FCP hard spated batterian's or Son a Person of companies.

# **ATTACHMENT 3**

Village of Tarrytown Construction Site Inventory
Village of Tarrytown Post-Construction Sites Map
Village of Tarrytown Post-Construction Sites Spreadsheet

	- 16					
<i>≩</i> ≸	37.573	37.1 south Becomings Tayson, 137	MYR: (XV251	SREGUENT ARSOUMTES LLC	271 Swan Broawny Earymwn, ref - 1658 i	214. QBF 7.496
The Gestle	2123	499 Benedec Averue Entyteen 179	NYR-GV77!	LEVIMENTUS NY, ING	Jonata America Tanjawa, W. 1662 :	214-521-1583
Greystane on Kludson Phase I	:3 56.8	Souri Broodings Tsirphone, 34	N-7810V634	EROADWAY ON HUDSON ESTATES LLG	15 Parkner Lune Darbbe VY 1170	2E10-039-0135
Prerion Part & Artin Brook Resultation	71.8/9	Ab (Amerikana) Jewang pegga area an observation Fore	#K/RIBWS62	VELNGE GE T NEW TOWN	(Medical Plants Tambases NY 17807	986 986 987
Commune Perking Los Improvements		Opposition Street Carbon Street	NYRi au 34	VILLAGE OF TARRETOWN	Dopol Plans	860 129 AM
Legends at Wisson Park	13.0.00	V) Ison Pass Drea Partition, Ly	ZZPĄGE-KW	10.1 <b>(8</b> 40-388) (10	SO Memmi Workheyor Bluf 100 Fasted NY 145594	845-9930
Tertifichen Schaufe fludiech Phenoigik Pek	¥6.	Etpadici West Marc Opport	Sae Crossia.	w Add Off Marketown	ConselPhone Tornsown NY 10597	976-051 1895
Briarolff Manor Pump Buthon (Isfarolff Marky NY Water Suppy Project)	9 Peton	Septem Plant Temperan Plant	N/18:100,468	VE : AGE OF BPUARCLIFF MANOR	11: Pinasumbilik Roed Biograf Manor VV 1858	2467 171715
Tarytown Rivervalk Improtements	.230	Vien Attent American In Systematics Pentals Pensistence, Att	NYS CAMP	FETOPESTER COUNTY PEPASTAENT OF PLANNES	nag Mari se Awarus Minna Plana, Min 1900 I	914,485,4315
New construction of Village Halt, Court & Police Headqueters	2000	Lospe: Placa Lospent, MY	CEGNOI 9XIV	HACE OF FARMY COM	CH Mikitay Skiner, Village Hall Tarykawa, NY, 1659 I	F14-601-0986
Ferry Landings	628/95	Manin Serent Taroplasma, NV	NYB (4.25)	MATRORY, PESCUPICES	485 Webs P. Jromos Avenue Greenwich, CT. 78630	Z.J.461.0057
Gracomuse (Yany Stared States) (Lockin Estose) Housing Overlapheri	906.4	S. zer Brazelsany T-veyteren, N.Y.	NYB: QJB)	3 M; PYSI	4 West fand Ebrei Iuw York, 37 1886	08ev-617-312
liszlen		Medican flows Medican Cross Trade, Philips 9 C Brow MICE-Miles The states MY	原物にしる	A Line of the second se	at Widding Street, 2005-20-18-3 Tarybowy, NY 1008 [	P14-4821 - 20248





Post Construction
Storm Water Practices

0 450 900 1,800 2,700 3,600 Fe

Base planimetric data provided by Westchester County GIS data warehouse and NYS GIS Data Clearinghouse

#### village of Yarrytown Post-Construction Sites (Simulified)

Property	Areu	Practike 1	Practice 2	Method	Sucelving Water	Oreinage Sasin
Windson Estates	14412.35	Decoration Basin	Offender: Som	supdate	Next pent then wilege of icongton 1954	Potantico anii Saw Mill Biver Basin
Windsor Estates	Aftir AS	Vza er tipseldy flasio	Will Basin	Stendard	Next point their Williage of Irva grain MS4	Posantico and Save Mel River Resea
Briantiiff Manor Pung Station	12841.04	Pocket Wetlena	No.4	Normal and	Tarrysown takes	Suw Atti River Basin
i Inclina l'istatos	9918 49	Detaeltion fact in	Getention Basin	Standard	Sheldov Aroqk	Sheldon Brook Wasin
Legends et Wisson Park	<b>5</b> 986 78	Apriles Roses	\$24	Stre-us. d	Foreglonen Lakes	Saw Mail Ram Hasar
diegends at Volkon Park	9704 66	Forket Fond	P5	Stanoar d	Taizytuwn Lakes	Saw Mill Royer Basin
Legend: at Wilsun Park	a724 41	Packet Fand	29	San-oper 5	Farrytoson Lakes	Sans Sins Royar Sasar
Legands all Wilson Hark	4274.90	Process Fored	μs	.taste d	Salkan Male	Succe-tion and Saw Will Brown States
Logends at Wilson Fark	£29.00	Wetsvale	0.7	Standard	Grownd Water	Sanov Médi Revert Basins
Logovik of Weson Fack	995.62	West so, de	13-7	Namino d	écons Water	Ganv Mid River Basio
The Costle	7525.70	Undergraami Intiitration besteen	ம் சிரத்	Standard wyARv Capacity	Sheldan Yraak	Sheldon Brook Basin
The Custic	7709.45	tlos≜o gua auf hridhation aystem	ia (tus)	itanderd v./96v/Capedty	sheidan Br <b>ook</b>	Shefaloa Brook Basin
The Castle	3494,61	Green Paaf	Garyan Rovel	RR+Techniques (volume Resuction)	NA	Sheiden Breok Basin
Sreystona oo Hudvon	31000 31	arrogoligas Basas	L <sup>a</sup>	scandaro wilkiko bayantay	Ground Water	Socarcico anui Sase Mill River Basin
Semptions on a subsen	1667.21	winterwood Gaste	6		Cround Weser	Cocamico ano Saur (SIII Ruses Besan
Greystone an Hadica	4378.59	P. 18-1 Pend	P.)	Standard	Hudson Piver	Pocantico and Saw Mill River Usain
Grégatore de l'échien	3019.63	Infiltration Gasen	:2	Streetland suffREV Cop Intly		Pokaste o vari Now Military widayan
Integstrate on Health	2675.63	Infrittation Secen	.2	Standard wiftEM Impacty	Silvumd Water	Publishing and Save SAR Silver Study
блеужине оп Нивкол	5826 59	befellrateon Mysere	. ر		ti osa d Water	Ponamico and Save Mill Picer Busin
Greestone on Hudson	5653.85	Infiltration desir.	12		6) pero! Webe:	Poparopo and Juse (All Hver 5-se)
Province Park & Andre Bance Restoration	597.65	Sedio dan			Anera Brock	Pocentico and Saw Sell River Shain
Communer for Improvements	1195 59	Ory Smese	91		of situes House	Procession and Serv Mell Styre Brain
Sewers Caren unity Center on the History.	4397.05	Underground - perceation System	14 (0.45)		etudson Ricer	Sheksom Brook Besin
Pierspo Parr & Andra Brook Resucceson	#38# 64	Supred crations	8-5	Stunnard w/32V tupacte	Andre tugok	Pocantico and Saw Mill River Basin
Norman Handward Savery reside Florida	360,54	Oranstention	F-5	Standard w/RPV Capacity	Hudson Brve:	Posterior and beer Mick Kiren Buren
Service Hindson Nivermalik Park	246.7b	Baretenien	i.s	Stondard wyRRV Copacyty	Hudson Nive:	Pocanssico and Saw Mill River Sauti
Scott: Harkon Riverwalk Park	3 <b>7</b> 1.56	Gioretennos	P-S		Hardwan News	Postantisco and Saw Mill Siver Basin
Scena hadson Reenwee Park	873.83	Bosetenhora	F-S	Standard vdRRv Capacity	ingdyna Moen	Population and Saw M48 Siege Seam
acenic itudson Nyentoly Park	A72.07	Boretention	F-5	StareAnd w/RRV Capacity	Hodosia Rowar	Podantico and Saw Mill Hiver Desir
nortic Hadson Rivered CPark	162.36	Bips attention	5.6	Son Salo w/KKV Caparity	physican Rasia	Processing and Sew Well Power Regin
Scenir, Hudson Riverwalls, Park	214 95	Harmatastas	5.5	Scendary w/PRV Capacity	Hardson Brenz	For antico and Satz Mill Roser Basin
Science Haute on Roverwalli, Park	362.41	filoreresion	s <u>*</u>	Sandari w/BRV Capacity	riurKon Perri	Pocasisko and Saw Mill Rive Dusin
Scone Hotson Euverwalk Perk	१६.५३	Samet-Antion:	F-5	Standers w/TRV Capacity	Gusson Pixer	Proposition and Saw Will knyes Basen
Scener Hudson Rivertwalk Park	198.04	Segetention	÷ 5	50 red and mylitPV stap acty	Fluidson Piliter	Porantico and Saw Mili River 3458
Scenic Musicon Riversusk Park	.592.78	Recetention	fis		Hudson Fitze	Puzantico and have NRH Siver during
Scenic Nauson Riversesk Park	303,47	Renews agent in page 1	1.5		is almai Sive	Pocamico and Save Mill River Busin
Scenic Huuson Pavernaux Park	438.80	išiga vienal - sa	153		Studson Arver	Pozantico and Saw Mill River Busin
Scenic Hudson Reversedt: Park	447.75	Sionetermon	Fo		Hudson River	Pocentico and Jew Mill Hiver Budy
Secule Hudson Row and Real	153.42	30meteraon	6.5	Standard od/SRV Capacity	Hirthor Sizer	Present colored Saw Mills River Basin
County Hadson River walk Park	224.85	sourten,um	0.5	Standard w/BNV Castachty	Hudson River	Pocsecro and Saw Mill River Basin
Scene: Hadson Sivermalk Park	661.79	is a stertion	- 5	Stomian dow/RRV tapasety	Piudsan Niver	Pocastino and Saw Add Anser States
Score conducte Regeneralik Park	138.62	8-pretention	7-5	Standard w/PRV Capatily	Pludson River	President and Saw Mild River Basin
Scene Nudson Niversials Hick	.95 34	Signetonition	£ 4.	Standard w/RPV Capacity	- Lidsgra River	Postantico and Saw add River Base.
Pierson Park & Angre Honok Restouchers	toek 76	Bear (Kerlind)	f-5	Standard w/RRV Capacity	studiosi diver	Persenting and Saw Mill Room State.
Scenic Hadson Reversory Park	63.843	Sinceter#-on	6-1	Stan Lito w/REV classicity	Balduch Rows	Ponuntino and Saw Mill River Basin
Scenic Hodson Riversos's Park	1213.65	Sipretention	1.5	Standoning/REO : apacty	Внеть Яв-я	Pocantico and Saw Nell Piner Ossin
Goede Hudson Rivarvaik Part	596.41	destent-r-	55	Standard bulkky Capacity	Budson Siver	Pocyriuso and Saw (All River Ni-ym)
Samuel Hamberto Roversovick Park	602.86	- Usus et es it in it	₽.5	Scoretard of BRY Copus 49	Husken Boun	Pocaratico sual Saw Vill Ober Dash
Science Hudson Eiszensen's Park	6/09/	New Policies	€-9	Standarú sw/RRV Capaciny	el salvon Filcer	Posancico end New Mill Saver Rosen
Scenec Hudson túverwsk Park	253.90	Secretarion	\$-5	Standard wylli'W Capacity	Fludson Piver	Axamico and Saw felil Aiver Basin
Norwe Mulicipe Reviewskik Field	1603.15	Bioratention	. f-8	St ground with the county	Nurbon Prote	Posantico and Saw (dill River Dasin
Pierson Park & Andra Brook Reshmelion	194.95	discretization contributing	F-S contributing	Standard or/RRV Capacity	Hudson River	Discontinuated Saw Mill Breed Heart
Pierson Park & Andre Brook Resnautrion	277.EC	dioretendos contidentaj	7-5 contributing	Standar si se/NKe Capatito	Hodeon River	Pocaeting and Saw Mill River Karm
Person Firik & Andre Frank Restoration	495.18	évovetention contributing	F-5 contributing	Standard sof Shat Capating	irtodosia River	Pocantico and Saw MAII Niver dawn
Apracos Park & Andre Broce Restoration	262.46	Reset-velon confributing	F-5 contributing	Standard w/ARV Capacits	Sudion Resor	For witing and Saw M-II dever flasor
Piersner Park & Andre Brage Restoration	31072	Below and on contributing	5 Standalades	Scandord w/RkV Capacity	Stadeon PvAr	Population and Sale Mall Roser Resin
Piersen Park is Studie Brank Restoration	271 of	Bioletectron centributing	5-3 contributing	Standaro w/SBV Capanty	ziszlegen Horre	Fox an tico sind Serv 55ill River (faso)
Pierson Park & Andre Brook Kernotasion	R36.44	Binectention contributing	E-Standishatory	Standard wy SPV Capacity	Fjugspn Fire:	Pacamura and Sep Mile Rise (Lean
Pierson Park & Andre Brook Restoration	12973	Vegetised Open imple	Vegetated Open Dwale	896 Fechniques (Velicine Reductions)	Austi - Bonek	Posantico and Saw Will River Basin
Prenson Park & Andre Brook Restoration	420-51	Vegetated Open South	Vegetated Egren Swale	Rity Techniques (Volume Reduction)	Autor a Brook	Posanjiro and Saw Mill Reer Busin
Person Park & Andre Since Restorator  Person Park & Andre Since Restorates	1675.77	Vegetates Coeti Switin	Vegetaird Dum Sweit	Hey for hangues (Valuates Read), Such	Audie Brack	Posentico and Sew Mill River Pasin
				Diagram of the Miller Congression	Hadson River	Proceedings and Saw BAR River Section
Pierson Pukk & Andre Stook Restoration	71.2.98	to destact contributing	5-5 cu ambuting	and the state of the State Service of N		A

# **ATTACHMENT 4**

Village of Tarrytown MS4 Best Management Practices Manual (Simplified)

# Best Management Practices (BMP) Manual





Municipal Highway Garage
Village of Tarrytown Shaft 10 Pump Station

NEW YORK STATE
DEPARTMENT OF ENVIROMENTAL CONSERVATION
SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM
Municipal Separate Storm Sewer Systems
(MS4)



VILLAGE OF TARRYTOWN
Westchester County, New York

# **BEST MANAGEMENT PRACTICES (BMP) MANUAL**

# Introduction

This Manual is designed for use by the municipal operations located within the Village of Tarrytown. The Village of Tarrytown is an operator of a small municipal separate storm sewer system (MS4) located in an urbanized area. As such, coverage must be obtained under the NYSDEC SPDES General Permit for Storm Water Discharges from Municipal Separate Storm Sewer Systems (MS4). Permit requirements mandate that a Storm Water Management Program (SWMP) be developed and implemented to be authorized to discharge storm water to the storm sewer system. This BMP Manual has been created as part of the SWMP.

# **Purpose**

Permit requirements mandate that all permittees perform a self-assessment to (1) address municipal operations and facilities that contribute or potentially contribute Pollutants of Concern (POCs) to the MS4 system; (2) determine the source of pollutants potentially generated by the covered entity's operations and facilities; and (3) identify the municipal operations and facilities that will be addressed by the pollution prevention and good housekeeping program.

The following municipal operations have been assessed:

- Municipal Highway Garage
- Village of Tarrytown Shaft 10 Pump Station

# **BEST MANAGEMENT PRACTICES MANUAL**

# for:

Village of Tarrytown Municipal Highway Garage 4 Division Street Tarrytown, NY 10591 (914) 631-0356

Contact(s):

Howard Wessells, Highway Superintendent

# and:

Village of Tarrytown Shaft 10 Pump Station Neperan Road Tarrytown, NY 10591

Contact(s):

Howard Wessells, Highway Superintendent

**BMP Preparation Date:** 

03/15/2014

# Contents

Section	1. Facility and Contact Information	
1.1	Facility Information- Municipal Highway Garage	1
1.2.	Facility Information-Village of Tarrytown Shaft 10 Pump Station	2
1.3.	Mapping	
Section	2. Municipal Highway Garage- Facility Description and Assessment	
2.1.	Facility Description	
2.2.	Assessment of Drainage Features (Indoor and Outdoor)	3
2.3.	Municipal Vehicle Fueling	5
2.4.	Municipal Vehicle Fleet- Parking and Storage of Fleet and Equipment	6
2.5.	Municipal Vehicle Repair	
2.6.	Municipal Vehicle Washing	
2.7.	Chemical Storage Areas	8
2.8.	Interior Fuel Tanks	9
2.9.	Salt Storage	10
2.10.	Stockpiling of Catch Basin and Street Sweeping Spoils	11
2.11.	Application of Fertilizers, Pesticides & Herbicides	
2.12.	Other Materials	13
Section	3. Village of Tarrytown Shaft 10 Pump Station- Facility Description and Assess	mont 11
3.1	Facility Description	
3.2	Assessment of Drainages (Indoor and Outdoor)	
3.3	Vehicle Unloading	
3.4	Interior Material Storage	
3.5	Exterior Fuel Tank	
Castlan	A Camalusiana	20
Section		
4.1	Municipal Highway Garage	
4.2	Village of Tarrytown Shaft 10 Pump Station	20
Section		
5.1	Self-Assessment Schedule	21
BMP Ap	pendices	22
Append		23
Append		
Append	•	
Append	•	
Append	x E. Self-Assessment Reports	27
Append	· · · · · · · · · · · · · · · · · · ·	
Append	ix G. Village of Tarrytown Water Department	
<b>Append</b>	ix H. Village of Tarrytown Marinas (Private Owned)	30

# Storm Water Management Plan (SWMP)



NEW YORK STATE
DEPARTMENT OF ENVIROMENTAL CONSERVATION
SPDES GENERAL PERMIT
FOR STORMWATER DISCHARGES FROM

Municipal Separate Storm Sewer Systems (MS4)



VILLAGE OF TARRYTOWN
Westchester County, New York

November 2012 Updated continually

# STORMWATER MANAGEMENT PLAN

# TABLE OF CONTENTS

Introduction	5
What is an MS4?	5
How was the MS4 Program enacted? The Phase II Stormwater Program Overview	5
Village of Tarrytown MS4 System	5
Exempt Discharges	6
Organizational Structure	7
Adjacent MS4 Map	8
Local Storm Water Contact	8
Measurable Goals	8
Pollutants of Concern (POCs):	8
Geographic Areas of Concern:	8
Waterbodies of Concern:	9
Target Audiences:	9
Measurable Goals to ensure POC reduction:	9
Trash Accumulation:	9
Sediment:	9
Phosphorus & Nitrogen:	10
Other Outreach and Education Materials:	10
Certification of Local Laws	10
MS4 Annual Reports and related correspondence	10
Minimum Measures I-VI	11
Minimum Measure I, Public Education and Outreach:	11
Minimum Measure II, Public Participation and Involvement:	
Minimum Measure III, Illicit Discharge, Detection and Elimination:	11
Certification of Local Law	11
Procedure for conducting Illicit Discharge, Detection and Elimination	11
Outfall Mapping	12

Minimum Measure IV, Construction Site Stormwater Runoff Control:	14
Certification of Local Law	14
Procedure for SWPPP Review	14
Minimum Measure V, Post-Construction Management:	18
Minimum Measure VI, Pollution Prevention and Good Housekeeping for Municipal Operations:	22
Minimum Measure VI BMP Manual	22
Minimum Measure VI Training Sessions	22
Training Certificates	22
Schedule: Catch Basin Cleaning	23
Schedule: Street Sweeping	23
Technical Guidance Manuals available at Highway Department	23
Floor Drains at Highway Department	23
Conclusion	23
Assessment of Measurable Goals	24

# **APPENDICES**

# **APPENDIX I** Certification of Local Laws

# APPENDIX II Storm Water Mapping

- Adjacent MS4's
- Storm Water Outfalls
- Storm Sewer Shed
- Post Construction Storm Water Practices
- Street Sweeping Map

# **APPENDIX III** Other Mapping

- Critical Environmental Areas Map
- Zoning Map (Village of Tarrytown Comprehensive Plan, March 2007)
- Waterbody Inventory- Priority Waterbody List

# Introduction

This Stormwater Management Plan (SWP) has been prepared for the Village of Tarrytown to address the *MS4 system* requirements and oversite. This plan is written in accordance with NYSDEC's SPDES General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s)(GP-0-10-002). The plan will be maintained with the Village's Storm Water Management Program (SWMP) documentation at the Building Department at Village Hall. Per permit requirements, the plan will be periodically assessed and modified as needed to address measurable goals, and select and implement the appropriate measures needed to ensure the reduction of Pollutants of Concern (POCs) in the Village's stormwater discharges to the Maximum Extent Practicable (MEP).

# What is an MS4?

An MS4 is a Municipal Separate Storm Sewer System or, the entirety of the storm sewer system that is maintained within the municipal boundaries. The MS4 system is typically entirely inclusive of storm sewer lines, and would not include the sanitary system, with the exception of combined sewers systems. There are no combined sewers in the Village of Tarrytown.

How was the MS4 Program enacted? The Phase II Stormwater Program Overview The Phase II Stormwater Program was implemented by the Environmental Protection Agency in an effort to preserve, protect and improve the Nation's water resources from polluted stormwater runoff. Phase I of the Program was implemented in 1990 under the Clean Water Act, and relies on National Pollutant Discharge Elimination System (NPDES) permit coverage to address stormwater runoff from MS4s typically servicing populations of 100,000 or greater.

The Phase II effort is EPA's next step effort to protect water resources from polluted stormwater runoff. The Phase II program expands to the Phase I program by addressing stormwater runoff from urbanized MS4s servicing populations smaller than 100,000. Phase II relies on individual State permit coverage to address stormwater runoff from such MS4s.

The Village of Tarrytown, a small urbanized entity with a population of 11,354 (per 2011 census), fits into the category of a "small MS4" under the Phase II Stormwater Program, and is therefore required to abide by the terms and conditions of the New York State Department of Environmental Conservation's SPDES General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems (i.e. 'the NYSDEC MS4 Permit'). The permit was enacted and is enforced by the regulatory oversite agency, the New York State Department of Environmental Conservation. The Village of Tarrytown falls under the requirements of a *traditional land-use control* MS4 per the permit.

# Village of Tarrytown MS4 System

The Village of Tarrytown is a riverfront community, located east of the Hudson River. Topography in the village runs in a downward slope, starting at 400' on the east side of the Village, descending down to the Hudson River (see Appendix II). In accordance with Part VII.A.3.b of the NYSDEC MS4 Permit, all of the outfalls within the jurisdiction of the Village of Tarrytown, known as the 'covered entity', have been

mapped. Mapping also includes the Receiving Water Bodies, the general Storm Sewer Shed, the completed Storm Sewer Lines, Catch Basins, and the Post-Construction Stormwater Management practices.

# **Exempt Discharges**

The following are listed as *Exempt Non-Stormwater Discharges* per Part I.A.2 of the Permit and will remain as such unless the Department will determine them to be substantial contributors of pollutants.

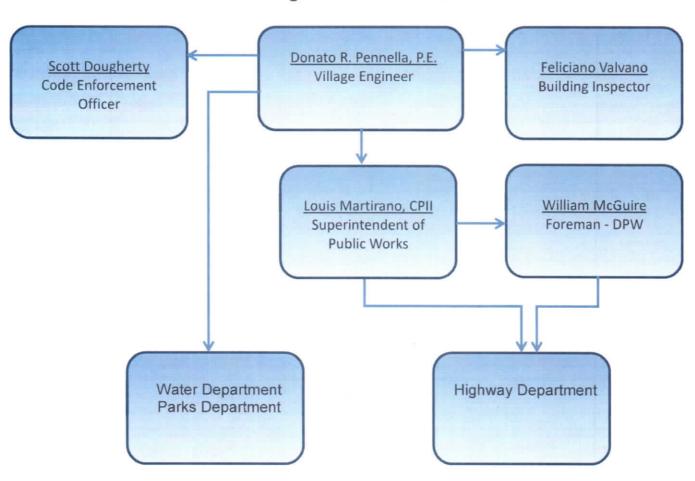
- a. water line flushing
- b. landscape irrigation
- c. diverted stream flows
- d. riding ground waters
- e. uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20))
- f. uncontaminated ground water
- g. discharges from potable water sources
- h. foundation drains
- i. air conditioning condensate
- j. irrigation water
- k. springs
- . water from crawl space and basement sump pumps
- m. footing drains
- n. lawn and landscape watering runoff provided that all pesticides and fertilizers have been applied in accordance with the manufacturer's product label;
- o. water from individual residential car washing
- p. flows from riparian habitats and wetlands
- q. dechlorinated swimming pool discharges
- r. residual street wash water
- s. discharges or flows from firefighting activities
- t. dechlorinated water reservoir discharges
- u. any SPDES permitted discharge

# Organizational Structure

The Stormwater Management Organizational Structure is maintained as outlined and required per the NYSDEC MS4 Permit. Updates to the Structure will be made when required and updated in the SWMP.

# VILLAGE OF TARRYTOWN

# Storm Water Management Program Organizational Structure



# Adjacent MS4 Map

Adjacent MS4 boundaries have been identified on the 'Adjacent MS4 Boundaries' map included in this plan as required by the NYSDEC MS4 Permit (see Appendix II).

# Local Storm Water Contact

The Local Storm Water Contact is listed on the Municipal Compliance Certification (MCC) form of the Annual Report as Donato Pennella, Village Engineer. The Assistant Village Engineer's office is located in the Building Department at the Village Hall, 1 Depot Plaza, Tarrytown, NY.

# Measurable Goals

Per Part V.A, *Program Assessment*, conditions specific to the Village of Tarrytown have been evaluated to determine the Measurable Goals for meeting the requirements of the MS4 program. The Village has selected and implemented the following education and outreach activities and measurable goals to ensure reduction of POC's in stormwater discharges to the MEP. Measurable Goals are outlined below.

The Village of Tarrytown has recognized the following:

# Pollutants of Concern (POCs):

- Floatables & Trash Accumulation in the storm sewer system and waterbodies.
- Sediment, the loose sand, clay, silt and other particles that settle at the bottom of a body of water. The EPA lists sediment as the most common pollutant in waterbodies.
- Phosphorus & Nitrogen. Nutrients that can cause the overgrowth of algae in waterbodies. Yard wastes (leaves and grass clippings), pet wastes, fertilizers and detergents carried through stormwater.

# Geographic Areas of Concern:

- Main Corridor Business Area- For trash and sediment. Swept 6 days per week.
- <u>Village Parks</u> For Trash Accumulation. No Fertilizer or Phosphorus use.

# Waterbodies of Concern:

- Hudson River, Sheldon Brook & Andre Brook- For illicit discharge, trash accumulation and sediment. Multiple Village outfalls located along the Sheldon Brook and its tributaries. Andre Brook at end of conveyance system.
- Tarrytown Upper/Lower Reservoirs- For Trash, Phosphorus & Nitrogen. The Reservoirs can be described as a shallow lake bed. There are four stormwater outfalls and one inlet from the Briarcliff Manor Pump Station stormwater control, a 1.6 Acre development with one pocket wetland (W-4) constructed in 2009. The Legends at Wilson Park subdivision went under construction in 2011 and will discharge to Tarrytown Reservoirs from Water Quality Ponds 1, 4A, 4B. However, the development is being constructed with an on-site storm water management system complete with oil water separators. A covenant has been placed in the Homeowners deed and Homeowners Association documents that prohibits the use of phosphate fertilizers. Organic, non-phosphate fertilizers may be used. Stormwater entering from the surrounding area includes Marymount Campus, Sisters of Sacred Heart Marymount Convent, residential areas on Warner Lane and Lake Terrace, and a portion of the Rockefeller Estates (Village of Tarrytown Comprehensive Plan, March 2007). Outfall 27 contributes from a small culvert area to the Tarrytown Reservoirs. Improvements have included upgrading the walking trails from dirt to gravel and improving some areas of erosion around the reservoirs through a project funded by NYSDEC and matched by the Village.
- NYSDEC 303d List: In accordance with the NYSDEC's Waterbody Inventory/Priority Waterbody List, small segments of the 'Saw Mill River, Upper, and tribs' (WIN H-4) are located within and from the Tarrytown Reservoirs. These segments were 303d listed in 2010 for Chlordane, a pesticide used until 1988, with contaminated sediment listed as the suspected source. There are also some 'Minor Tribs to East of Hudson' that have been UnAssessed, as well as the Hudson River which is listed as Impaired.

#### Target Audiences:

- All Audiences (Homeowners, Businesses, Commercial)
- Homeowners
- Contractors

# Measurable Goals to ensure POC reduction:

# **Trash Accumulation:**

- Clean-up events by local organizations include areas of the Hudson River, Andre Brook, the Tarrytown Reservoirs, and village parks. The waterbodies are listed in the waterbodies of concern, identified in the SMP for floatables/trash accumulation.
- Main Corridor Business Area swept 6 days per week, and other areas swept (see Street Sweeping map).

#### Sediment:

• Street sweeping 6 days per week to keep sediment out of the MS4 system.

- Outreach to contractors during pre-construction meetings for sediment and Village's local law. Must have Erosion and Sediment Control training.
- Construction site inspections are conducted to reduce sediment runoff.
- <u>LeRoy, Loh and Sheldon Avenues</u>- For sediment. Steep slope Avenue with flooding concerns. Catch basins visually inspected frequently and prior to large storm events. Flooding will be mitigated after Loh Park is installed with a straight pipe system (currently in planning).
- <u>Depot Plaza</u>- For sediment. Area of lowest topography in village, more susceptible for sediment build-up. Visually inspected frequently and typically cleaned on seasonal basis.

# Phosphorus & Nitrogen:

- Outreach and Education through the Village storm water website, Tarrytown
   Environmental Advisory Council, and outreach materials distributed at Town Hall.

   Outreach materials have included pesticide free lawn care, mulching in place, the leaf pick
   up and yard waste collection programs.
- For new developments, a covenant is placed in the Homeowners deed and in the Homeowners Association documents that prohibits the use of phosphate fertilizers.

# Other Outreach and Education Materials:

Outreach and Education materials are distributed at Town Hall for Target Audiences.
 Refer to the appropriate binder.

# Certification of Local Laws

As required by the conditions of the NYSDEC MS4 permit, the Village of Tarrytown has enacted and adopted a Local Law for 'Village of Tarrytown Stormwater Management and Erosion and Sediment Control Local Law.' and a Local Law for 'Illicit Discharge, Elimination and Detection Local Law'. Both laws have been certified to be equivalent to the State Model law. See Appendix I.

# MS4 Annual Reports and related correspondence

MS4 Annual Reports and related correspondence (Public Notices, notifications, etc) will be maintained on-file under the corresponding reporting year. Prior to submitting the Annual Report, the Village will present the draft annual report in a format open to the public where they can ask question and make comments per Part VII.A.2.d of the permit. Public notice will be made in accordance with local requirements, and retained with MS4 records.