

**DRAFT**

**STORMWATER POLLUTION  
PREVENTION PLAN  
FOR  
CONSTRUCTION ACTIVITIES**



**TWIN LAKES – PROPOSED COMMERCIAL  
DEVELOPMENT**

**Town of Manlius, Onondaga County, New York**

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## INTRODUCTION

Twin Shores Properties, LLC (Twin Shores) proposes to construct a commercial development upon 9.83 acres of a 129.80-acre parcel of land located in the Town of Manlius, Onondaga County, New York. The site is located on the east side of North Burdick Street (CR 94) and is adjacent to the northern boundary of the Village of Fayetteville. In general, the project includes the construction of three (3) commercial buildings that will be occupied by restaurant and retail establishments. Refer to the *Site Location Map* provided in *Appendix 1* and the attached *Site Plan (Sheet SP-1)* for additional information.

This report outlines the methodology for controlling storm water discharges from the site in accordance with the State Pollution Discharge Elimination System's (SPDES) *General Permit for Stormwater Discharges from Construction Activity* (GP-0-20-001) administered by the NYSDEC. It includes storm water design information, erosion and sediment control feature requirements, construction details, and inspection and maintenance procedures to be incorporated into the reclamation of the former quarry site.

According to the State's *Cultural Resource Information System (CRIS)* data base, the subject site is not located within an archeologically and culturally sensitive area. However, a request for project review was submitted to the Office of Parks, Recreation and Historic Preservation's (OPRHP) in order to verify that the proposed project does not impact archeological and/or historic resources. Upon the completion of their review, OPRHP issued a determination of *No Impact* upon archeological and/or historic resources. Please refer to *Appendix 3* for additional information.

## PROPOSED SITE DEVELOPMENT INFORMATION

The proposed commercial structures include multiple building sizes with footprints ranging from 2,450 square feet to 3,625 square feet. Related site improvements include the construction of a new access road to be dedicated to the Town, sanitary and storm sewers, water and natural gas distribution systems, parking and loading areas, drive aisles, and stormwater management facilities. Additionally, a flood control spillway will be constructed in order to expand the available floodplain storage associated with Limestone Creek. The project will be constructed in substantial conformance with the Town of Manlius zoning ordinances and the New York State building code, as applicable.

The construction of the proposed roadway, buildings, corresponding parking areas and stormwater management practices will impact approximately 13.60 acres (10.5%) of the subject 129.80-acre property. The proposed building, roadways, drive aisles and corresponding parking areas will occupy approximately 4.25 acre (3.3%). Approximately 4.70 acres (3.6%) will be regraded and utilized for the siting of subsurface stormwater detention systems and landscaped lawn areas. An additional 4.65 (3.6%) acres will be used as an earthwork borrow source and will facilitate the construction of the flood control spillway. The balance of the site is comprised of the north and south quarry ponds and the Limestone Creek corridor which will remain largely undisturbed. The proposed site features and lot coverage information is provided on the enclosed *Proposed Drainage Plan (Sheet PD-1)*.

## BACKGROUND INFORMATION

### Existing Conditions

The site is located adjacent to the east side of North Burdick Street and south of the Old Erie Canal State Park. Additionally, the site is bordered by Limestone Creek to the east; the Fayetteville Towne Center to the west and on the opposite side of North Burdick Street from the site; and vacant land, residential properties and the municipal boundary between the Town of Manlius and Village of Fayetteville to the south. Existing ground cover includes scrub brush, wooded areas, gravel haul roads and residential lawns and asphalt driveways. The subject property is occupied by two (2) residential homes, eight (8) vacant residential structures and an abandoned mining site that also generated sand and gravel spoils and areas of construction and demolition (C&D) fill. Additionally, the north and south quarry ponds occupy approximately 15.1 and 23.4 acres, respectively.

The property generally slopes from west (N. Burdick St.) to east toward Limestone Creek. Surface slopes range from 0.5% to 10% in undisturbed areas of the site; while mined embankments have slopes approaching 70%. Existing drainage patterns are generally characterized by overland flow toward the quarry ponds and Limestone Creek. Limestone Creek discharges to Chittenango Creek prior to its confluence with Oneida Lake. The proposed site improvements are located within a drainage watershed that contains two (2) sub-catchments identified as *CM-1* and *2* in this report.

Sub-catchment *CM-1* is primarily comprised of vacant land with ground cover characterized by scrub brush and wooded areas. However, the sub-catchment also includes a portion of the N. Burdick St. right-of-way and abandoned residential home sites that direct stormwater runoff toward low-lying lands located within its limits. Surface runoff generated by *CM-1* is directed toward Limestone Creek.

Sub-catchment *CM-2* directs surface runoff toward the south quarry pond. The quarry pond is an isolated water body created during past mining operations that does not discharge to downgradient waterways (e.g., Limestone Creek or Old Erie Canal). As such, the water body essentially serves as a retention pond that provides surface storage of stormwater runoff with no outflow other than evaporation and/or infiltration. Note that the surface area of the quarry pond was modeled as a drainage sub-catchment in order to evaluate increases in the water surface elevation (WSEL) of the pond resulting from stormwater discharges received from contributing drainage areas and the rainfall that lands directly on the surface of the ponds during storm events.

Additionally, the south quarry pond also receives off-site discharges from the developed sites located on the west side of N. Burdick St. and adjacent to its intersection with Medical Center Drive via an 18-inch diameter culvert crossing. The culvert crossing appears to convey stormwater discharge from three (3) off-site drainage catchments to the south quarry pond. The off-site sub-catchments were evaluated and modeled in the project SWPPP<sup>1</sup> prepared for the *Towne Center Retirement Community*

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<sup>1</sup> *Stormwater Pollution Prevention Plan for Resort Lifestyle Communities*, prepared by Napierala Consulting, dated June 5, 2015.

and were identified as *DP2.1*, *2.2* and *2.3*. Note that the nomenclature for these sub-catchments was maintained and utilized in this report.

Additionally, hydrological parameters, including catchment land areas, curve numbers (CN) and time of concentrations (Tc), from the previously referenced SWPPP were utilized as input data for calculations associated with the preparation of this report. Please note that outflow hydrographs reflecting the attenuation provided by the stormwater detention systems (e.g., detention basins and subsurface storage systems) located at the off-site properties was not included in the previously prepared SWPPP. As such, peak discharge rates and routing calculations included for these catchments in this report are conservative. Peak discharges are likely of a smaller magnitude and peak time durations longer. However, the runoff volume from each off-site sub-catchment impacts the WSEL of the south quarry pond during storm events and is accounted for in this report. Please note that the off-site properties also include water quality measures and no additional treatment of runoff generated by off-site drainage catchments is required for or provided by the proposed project. Please refer to the *Existing Drainage Plan (Sheet ED-1)* and *Proposed Condition Watershed Mapping* provided in *Appendix 5* for additional information.

### **Proposed Conditions**

Proposed drainage patterns will remain generally consistent with existing conditions; with the exception of surface runoff generated under proposed conditions being directed toward a network of open and closed-channel conveyance and stormwater management systems. All stormwater generated by the proposed commercial properties will be treated by the utilization of subsurface detention and water quality filters that discharge to the south quarry pond and Limestone Creek.

Sub-catchment *CM-1* is further delineated into five (5) additional sub-catchments identified as *CM-1A*, *B*, *C*, *D* and *E* in this report. *CM-1A* is comprised primarily of paved surfaces associated with N. Burdick Street. Surface runoff from *CM-1A* will be directed to the county-owned drainage sluice located adjacent to the subject property's southern boundary and ultimately Limestone Creek.

Sub-catchments *CM-1B* and *1C* will direct surface runoff toward a detention and water quality treatment system that consists of subsurface storage chambers located upstream of a *BayFilter Stormwater Treatment System*. This treatment system will discharge to the south quarry pond.

Sub-catchment *CM-1D* will also direct surface runoff toward a subsurface detention and treatment system similar to the one described above. This system will provide water quantity and quality treatment prior to its discharge toward the Limestone Creek floodplain.

Sub-catchment *CM-2* will continue to discharge directly to the south quarry pond; while sub-catchment *CM-1E* will remain undisturbed and continue to discharge directly to Limestone Creek. Refer to the *Proposed Drainage Plan (Sheet PD-1)* in *Appendix 5* of this report for more information.

## **COMPARISON OF PRE-DEVELOPMENT AND POST-DEVELOPMENT RUNOFF CONDITIONS**

### **Methodology**

The present hydrology was compared to that of the developed conditions. This was accomplished by using a computer stormwater modeling program produced by Haestad Methods known as *Pond Pack*. The peak discharge from both conditions was calculated by using this software in conjunction with site-specific input. The *Pond Pack* program is based on the calculation procedure from the United States Department of Agriculture's (USDA's) *TR-55, Urban Hydrology for Small Watersheds*.

As part of this study, the Onondaga County Soil Survey, prepared by the Natural Resources Conservation Service (NRCS), was also reviewed. It indicates that approximately 8.9%, 8.7%, 3.5%, 8.8%, and 20.3% of the proposed site consists of Cazenovia silt loam (CfB and CgD), Hamlin silt loam (Hb), Palmyra gravelly loam (PgB), Teel silt loam (Te) and a Wayland soils complex (Wn), respectively. The balance of the site is occupied by gravel pits (17.5%) and surface water (32.3%).

Soils are assigned a hydrological soil group (HSG) that ranks soil types from A to D, with A having a lower potential for generating storm water runoff and a higher infiltration rate, and D having a higher runoff potential and lower infiltration rate. The Cazenovia, Hamlin and Palmyra loam series have HSG classifications of C, B and A, respectively; while the Teel and Wayland soil series have HSG classifications of D. Note that gravel pits are not assigned a HSG classification by the NRCS. As such, hydrologic calculations performed for this report assumed a HSG D classification for these areas. For additional information please refer to the soil report located in *Appendix 2*.

Rainfall data was obtained from the Northeast Regional Climate Center (NRCC) and utilized in the hydrologic calculations performed for this report. The site-specific *Extreme Precipitation Table* provided in *Appendix 5* provides precipitation estimates for each design storm.

### **Water Quality and Runoff Reduction Volumes**

The Water Quality (WQv) and Runoff Reduction (RRv) volumes associated with the project were calculated based upon the proposed site improvements (e.g., building and parking areas) located within sub-catchments *CM-1A*, *1B*, *1C* and *1D* while water quantity calculations account for existing and proposed conditions within the local drainage watershed. The following table provides a summary of the WQv calculations for the proposed development.



**Table 1: Water Quality Volume Summary**

Catchment ID	Area (ac)	Imp. Area (ac)	I (%)	Rv	P (in)	WQv (ac-ft)
1A	2.10	1.39	66.19	0.65	1.0	0.113
1B	5.61	4.17	74.33	0.72	1.0	0.336
1C	1.50	0.77	51.33	0.51	1.0	0.064
1D	0.54	0.46	85.98	0.82	1.0	0.037
TOTAL	9.75	6.79				0.550

WQv treatment for sub-catchments *CM-1B*, *1C* and *1D* will be provided by two (2) *BayFilter Stormwater Treatment Systems*. Due to the topography of the N. Burdick St. right-of-way, stormwater from the roadway corridor cannot be directed toward the proposed stormwater management systems. However, the two (2) *BayFilter Stormwater Treatment Systems* were sized to treat the 1-yr, 24-hr peak discharge rates from their respective contributing drainage areas. As such, the treatment systems provide additional WQv treatment that accounts for the required WQv associated with *CM-1A*.

Additionally, the proposed water quality treatment systems for *CM-1B* and *1C* discharge to the south quarry pond. Proposed site improvements include the installation of a discharge control structure within the quarry pond that includes a v-notched weir set at an elevation of 419.15. During the 1-yr, 24-hr design storm, the WSEL of the south quarry pond routes to an elevation of 419.05. As such, the entire WQv, RRv and *Channel Protection Volume (Cpv)* associated with the proposed project are retained within the quarry pond with no off-site discharge other than evaporation and/or infiltration. The following table provides a summary of the WQv treatment and RRv provided by the proposed stormwater management system.

**Table 2: WQv and RRv Summary**

Catchment ID	Treatment Method	WQv Treatment Required (ac-ft)	RRv Provided (ac-ft)	WQv Treatment Provided (ac-ft)
1A	—	0.113	0.000	0.000
1B	BayFilter & S. Pond Retention	0.336	0.559	0.559
1C	BayFilter & S. Pond Retention	0.064	0.133	0.133
1D	BayFilter	0.037	0.000	0.068
TOTAL		0.550	0.692	0.760

As indicated in *Table 2*, the provided WQv of 0.760 acre-feet and RRv of 0.692 acre-feet exceed the required WQv of 0.550 acre-feet. As such, the proposed stormwater management system satisfies the WQv and RRv criteria.



### **Water Quantity Controls**

The Channel Protection Volume (CPv) is equivalent to the surface runoff volume generated by the post-developed site during the 1-year, 24-hour storm event. The CPv for sub-catchments *CM-1B* and *1C* will be retained within the south quarry pond. The south quarry pond will also provide controlled discharge of the runoff volumes generated by the 10 and 100-year storm events and satisfy the NYSDEC's Overbank Flood Control (Qp) and Extreme Flood Control (Qf) requirements.

The CPv, Qp and Qf associated *CM-1D* will be provided by a 2-inch diameter orifice and the controlled discharge provided by the water quality filter. *Tables 3 and 4* provided below summarize drainage calculations for existing and proposed conditions; while *Table 5* provides a direct comparison of existing and proposed peak discharge rates.

### **Peak Discharge Calculation Summary**

**Table 3: Existing Conditions**

	Existing		Watershed Total
	CM-1	CM-2	
<b>Area – Total (acres)</b>	35.29	17.17	52.46
Pervious	33.90	10.26	44.16
Impervious	1.39	6.91	8.30
<b>Curve Number</b>	73	82	
<b>Time of Concentration (hrs)</b>	1.316	0.125	
<b>Runoff (acre-feet)</b>			<b>At Analysis Pt. 1</b>
1-year/24-hour	0.976	0.973	0.976
10-year/24-hour	3.253	2.464	3.253
100-year/24-hour	8.385	5.407	8.385
<b>Peak Discharge (cfs)</b>			
1-year/24-hour	3.75	16.36	3.75
10-year/24-hour	15.86	43.21	15.86
100-year/24-hour	43.52	93.91	43.52

**Table 4: Proposed Conditions**

	Proposed						Watershed Total
	CM-1A	CM-1B	CM-1C	CM-1D	CM-1E	CM-2	
<b>Area – Total (acres)</b>	2.10	5.61	1.50	0.54	25.07	17.75	52.57
Pervious	0.71	4.12	0.73	0.08	25.07	11.76	42.47
Impervious	1.39	1.49	0.77	0.46	0.00	5.99	10.10
<b>Curve Number</b>	90	92	89	95	71	82	
<b>Time of Con. [Tc] (hrs)</b>	0.158	0.100	0.171	0.100	1.174	0.125	
<b>Runoff (acre-feet)</b>							<b>Analysis Pt. 1</b>
1-year/24-hour	0.199	0.599	0.133	0.068	0.579	1.007	0.797
10-year/24-hour	0.417	1.200	0.286	0.128	2.083	2.548	2.567
100-year/24-hour	0.810	2.267	0.564	0.231	5.587	5.592	
<b>Peak Discharge (cfs)</b>							
1-year/24-hour	3.07	10.67	2.18	1.17	2.20	16.90	3.36
10-year/24-hour	6.34	20.66	4.57	2.12	10.71	44.53	11.49
100-year/24-hour	11.95	37.50	8.70	3.69	31.37	96.78	32.92

**Table 5: Comparison of Existing and Proposed Conditions**

Storm Event	Existing (cfs)	Proposed (cfs)
1-year, 24-hour	3.75	3.36
10-year, 24-hour	15.86	11.49
100-year, 24-hour	43.52	32.92

As indicated in *Tables 3 through 5*, proposed peak discharge rates are less than existing conditions and satisfy both NYSDEC and Town requirements. Please refer to the drainage calculations and *PondPack* reports provided in *Appendix 5* for additional information.

### **Stormwater Management System**

Sub-catchments *CM-1B* and *1C* direct stormwater runoff to subsurface detention systems comprised of storage chambers. The detention systems are located upstream of a *BayFilter Stormwater Treatment System* (WQU-1) that has a treatment capacity of 1 cubic-foot per second (cfs) that adequately provides treatment of the runoff generated by the 1-yr, 24-hr storm event. Stormwater inflows in excess of 1 cfs will be diverted to the vault's 36-inch diameter outlet pipe via an internal bypass weir. The outlet pipe discharges to the south quarry pond.

The proposed stormwater management system also includes the installation of a discharge control structure within the quarry pond that includes a v-notched weir set at an elevation of 419.15 within a concrete riser with a rim elevation of 426.50. The 1, 10 and 100-yr, 24-hr design storms route to a WSEL of 419.05, 419.31 and 419.77, respectively.

Sub-catchment *CM-1D* directs stormwater runoff to an additional subsurface detention system that is upstream of another *BayFilter Stormwater Treatment System (WQU-2)*. This filter has a treatment capacity of 0.1 cfs and the detention system provides adequate storage in order to facilitate the treatment of the runoff generated during the 1-yr, 24-hr storm event. An internal bypass weir will divert inflow from storm events that exceed the peak discharge rate of the 1-yr, 24-hr design storm to an 18-inch diameter outfall pipe that discharges to Limestone Creek floodplain.

## **EROSION & SEDIMENT CONTROL REQUIREMENTS**

The erosion and sediment control plan has been developed for the construction activities associated with the proposed project. Both temporary and permanent erosion and sediment control devices will be utilized to reduce the erosion potential from construction and ultimate site use, to decrease water quality degradation and to protect downstream waterways. The means and methods provided in the erosion and sediment control plan are based upon the *New York State Standards and Specifications for Erosion and Sediment Control (July 2016)* as summarized below and presented on the *Erosion and Sediment Control Plan and Construction Details*.

### **Temporary Erosion and Sediment Control Facilities**

The locations and construction specifications for the following temporary erosion and sediment control devices are shown on the erosion and sediment control plan and details:

- ✦ *Silt Fence*: Silt fencing will be placed between graded and undisturbed areas to prevent sediment from entering the undisturbed areas. Silt fence will also be placed around stockpile locations and equipment/material staging areas.
- ✦ *Stabilized Construction Entrance*: Stabilized construction entrance will prevent sediment from leaving the limits of disturbance.
- ✦ *Check Dams*: Temporary stone check dams will be constructed within ditches and swales to decrease flow velocities and allow the settlement of sediment from runoff. The check dams shall be removed upon final stabilization of the channel with vegetation.

### **Permanent Erosion and Sediment Control Facilities**

- ✦ *Outlet Protection*: End treatments will be provided at the culvert outlets as shown on the site plan to minimize scour and erosion.
- ✦ *Surface Stabilization*: Stabilization will be accomplished with vegetation and mulch, as indicated in the landscaping specifications.

### **Construction Schedule and Sequence**

Construction of the project is expected to begin in the spring of 2023. The general site notes and anticipated construction sequence for the site improvements consist of the following:

#### ***General Notes:***

1. One (1) week prior to beginning earthwork operations, a pre-construction meeting will be held to discuss the erosion and sediment control plan.
2. Erosion and sediment control measures shall be provided prior to beginning any land disturbance activities. The devices providing protection to a given area shall not be removed until the disturbed lands in that area are stabilized.
3. No disturbed area shall remain exposed for more than 7 calendar days, except for portions of the site in which work will be continuous beyond 7 days (e.g., the building footprint). Temporary vegetation shall be provided in all areas where construction activities have ceased for greater than 7 calendar days.
4. A trained contractor shall be on-site during all land disturbance construction activities in order to inspect the erosion and sediment control measures specified in this document and the construction drawings. Active construction zones shall be inspected daily to ensure the proper installation and maintenance of all erosion and sediment control practices. Corrective measures to address any deficiencies identified by the trained contractor shall be implemented within 24 hours.

***Construction Sequence:***

Site Preparation

1. Install temporary erosion and sediment control measures as indicated on the ESC plan.

Site Grading and Building Construction

1. Create equipment staging and material stockpile locations, as indicated on the ESC plan.
2. Strip and stockpile gravel surface and subgrade from proposed building footprint as needed.
  - Stockpile the removed material at the designated spoils area identified on the ESC plan.
  - Cover stockpile and provide silt fencing around the perimeter of staged spoils and/or temporarily staged piles of fill.
3. Install additional silt fence, as needed, down-gradient from localized areas of construction activities.
4. Silt fence shall be installed parallel to elevation contours.
5. Install utilities as indicated on construction drawings. Please note that material excavated from utility trenches shall be placed on the upstream side of the trench and backfilled immediately upon completion of work. Additionally, contractor shall seed, mulch and stabilize the disturbed area as soon as work is complete.
6. Construct the proposed building(s) as specified in contract documents prepared by the project architect.

7. Complete earthwork and grading operations, including placement of fill to limits indicated. Note that final grading of the stormwater management areas shall not be initiated until all upstream disturbed areas are stabilized.
8. Upon the stabilization of all upstream areas, perform final pond and bioretention filter grading and planting per specifications.
9. Continually maintain all erosion and sediment control devices during grading operations.

#### **Restoration**

1. Seed, mulch and stabilize all disturbed ground cover (i.e., lawn and detention basin areas).
2. Install landscaping features (i.e., plants, mulch, etc.).
3. Remove temporary erosion control devices once vegetation has been established.

#### **Inspection Procedures and Maintenance**

During construction, the Owner will be responsible for inspecting and maintaining the permanent and temporary erosion control facilities. Also, areas that have been seeded will be inspected regularly after seed germination to ensure complete coverage of exposed areas.

Inspections of all devices should be completed twice per week and after each rainfall event. Repairs should be completed immediately upon discovery.

The inspections shall be performed by a “qualified inspector”, as defined by the DEC’s GP-0-20-001 General Permit Program. The following items shall be documented and the contractor notified of deficiencies requiring corrective action:

- ✦ *Stabilization Measures:* Disturbed areas and areas used for storage of materials that are exposed to precipitation will be inspected for evidence of, or the potential for, pollutants entering the drainage system. After the site is stabilized, inspections will be conducted at least once every month throughout the life of the project.
- ✦ *Structural Controls:* Silt fences, straw bale barriers, and all other erosion and sediment control measures identified in the plan will be inspected regularly for proper positioning, anchoring, and effectiveness in trapping sediments. Sediment will be removed from the upstream or up-slope side of the filter fabric and check dams.
- ✦ *Discharge Points:* Discharge points, as indicated in the facility’s Multi-Sector industrial SPDES permit will be inspected and monitored.
- ✦ *Construction Entrances:* Locations where vehicles enter or exit the site will be inspected for evidence of off-site sediment tracking.

- Accumulated sediments in the temporary sediment basins should be removed when 50% of the storage capacity is filled with sediment, as applicable.
- Sediment around the silt fencing should be removed as needed to maintain the functionality of the devices.
- All seeded areas shall be maintained as follows:
  - Identify seeded areas with stakes, string and brightly colored flagging. Protect seeded areas until vegetation has been established.
  - Immediately re-seed areas which do not establish vegetation.
  - Submit maintenance instructions for fertilizing and lawn care.
- To preserve the functionality of the stormwater management system, a representative of the Owner shall complete the following:
  - Inspect the drainage swales and check dams for subsidence, erosion or tree growth.
  - Coordinate the removal of any accumulated sediment within swales.
  - The inspections will be performed on a monthly basis, or more frequently as weather conditions warrant.
- The Owner will also be responsible for maintaining the lawn areas, in particular the landscaped areas of the swales.

### **Construction Site Wastes**

The following best management practices shall be implemented to ensure proper storage and handling of construction site wastes:

- Non-hazardous construction and demolition material that is suitable for use as fill material shall be transported and placed within the designated stockpile and spoils area identified on the erosion and sediment control plan.
- Designate a waste collection area adjacent to the stockpile and spoils area or within the construction staging area for the management of construction wastes not suitable for use as clean fill material or as deemed appropriate for recycling.
- Ensure that containers have lids so they can be covered before periods of rain, and keep containers in a covered area whenever possible.
- Schedule waste collection to prevent the containers from overfilling.
- Clean up spills immediately. For hazardous materials, follow cleanup instructions on package. Use an absorbent material such as sawdust or kitty litter to contain the spill.

- During the demolition phase of construction, provide extra containers and schedule more frequent pickups.
- Collect, remove, and dispose of all construction site wastes at authorized disposal areas. A local environmental agency can be contacted to identify these disposal sites.

The following steps should be taken to ensure the proper disposal of hazardous materials:

- Local waste management authorities should be consulted about the requirements for disposing of hazardous materials.
- A hazardous waste container should be emptied and cleaned before it is disposed of to prevent leaks.
- The original product label should never be removed from the container as it contains important safety information. Follow the manufacturer's recommended method of disposal, which should be printed on the label.
- If excess products need to be disposed of, they should never be mixed during disposal unless specifically recommended by the manufacturer.

The following practices should be used to reduce risks associated with pesticides or to reduce the amount of pesticides that come in contact with storm water:

- Follow all federal, state, and local regulations that apply to the use, handling, or disposal of pesticides.
- Do not handle the materials any more than necessary.
- Store pesticides in a dry, covered area.
- Construct curbs or dikes to contain pesticides in case of spillage.
- Follow the recommended application rates and methods.
- Have equipment and absorbent materials available in areas where pesticides are stored and used in order to contain and clean up any spills that occur.

The following management practices should be followed to reduce the contamination risk associated with petroleum products:

- Store petroleum products and fuel for vehicles in covered areas with dikes in place to contain any spills.
- Immediately contain and clean up any spills with absorbent materials.
- Have equipment available in fuel storage areas and in vehicles to contain and clean up any spills that occur.



To reduce risks of nutrient pollution the following management practices shall apply:

- Have equipment available in fuel storage areas and in vehicles to contain and clean up any spills that occur.
- Apply fertilizers at the minimum rate and to the minimum area needed.
- Work the fertilizer deeply into the soil to reduce exposure of nutrients to storm water runoff.
- Apply fertilizer at lower application rates with a higher application frequency.
- Limit hydro-seeding, which is the simultaneous application of lime and fertilizers.
- Ensure that erosion and sediment controls are in place to prevent fertilizers and sediments from being transported off-site.
- Use detergents only as recommended, and limit their use onsite. Wash water containing detergents should not be dumped into the storm drain system—it should be directed to a sanitary sewer or be otherwise contained so that it can be treated at a wastewater treatment plant.

#### **RECORD RETENTION**

A copy of the SWPPP, signed NOI, and NYSDEC Acknowledgement letter shall be retained at the job site throughout the duration of the project. The Owner shall retain copies of the SWPPP, all reports and records of data used to complete the *Notice of Intent*, for five (5) years from the date the site is finally stabilized.

#### **NOTICE OF TERMINATION**

When the project is completed and the site has been stabilized, a *Notice of Termination (NOT)* shall be submitted to the NYS Department of Environmental Conservation, certifying completion and final stabilization of the project, and compliance with the approved Storm Water Pollution Plan (SWPPP).

The following general requirements must be completed prior to the submission of a *NOT*:

- The execution of a maintenance agreement with the Town of Manlius (Town) or a recorded deed covenant that ensures long-term maintenance of the post-construction stormwater practices.
- Certification from a qualified inspector that the ground surfaces have achieved final stabilization and verification that post-construction stormwater management practices have been constructed in accordance with the design specifications.

The NOT form shall be submitted to the following address:

NYS Department of Environmental Conservation  
Division of Water  
625 Broadway, 4<sup>th</sup> Floor  
Albany, New York 12233-3505

LICENSED PROFESSIONAL’S CERTIFICATION STATEMENT

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.

Date: \_\_\_\_\_  
Name: Joseph Durand, P.E.  
Title: President, Principal  
Firm: TDK Engineering Associates, P.C.  
Address: 19 Genesee Street, Camillus, New York 13031  
Phone: (315) 672-8726

Signature: \_\_\_\_\_