

STORMWATER POLLUTION PREVENTION PLAN CERTIFICATION

THE BOROUGH OF LAKEHURST
NJPDES GENERAL PERMIT # NJG0147761
PROGRAM INTEREST ID # 203008

David Winton

David Winton

Stormwater Coordinator (Print or Type)

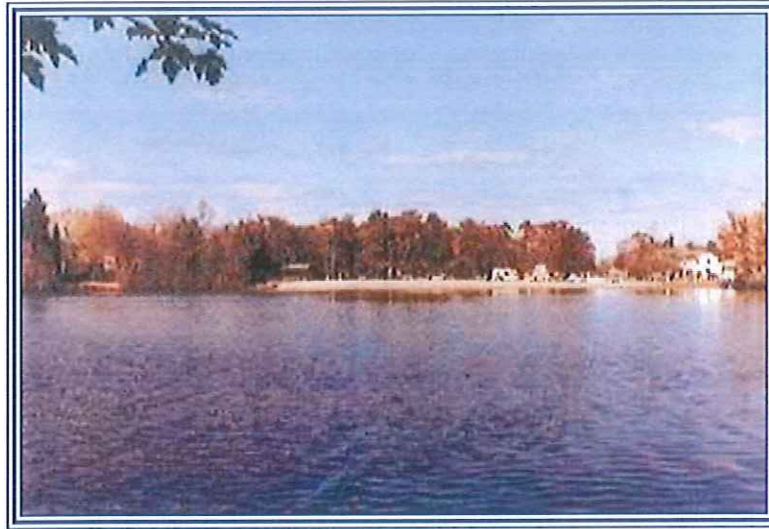
[Handwritten Signature]

Signature

May 28, 2018

Date

THE BOROUGH OF LAKEHURST
OCEAN COUNTY
NEW JERSEY



NJDPES MUNICIPAL STORMWATER REGULATION PROGRAM
STORMWATER POLLUTION PREVENTION PLAN

N.J.A.C. 7:14A-1-16; N.J.A.C. 7:14A-24; N.J.A.C. 7:14A-25
NJDPES GENERAL PERMIT # **NJG0147761**

PROGRAM INTEREST ID # **203008**

PREPARED FOR:



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DRAFT DATE: FEBRUARY 7, 2005

REVISED MAY 28, 2018

TABLE OF CONTENTS

1.0 INTRODUCTION	6
2.0 BACKGROUND.....	7
2.1 LAKEHURST BOROUGH	7
2.2 PERMIT APPLICATION	7
2.3 STORMWATER POLLUTION PREVENTION PLAN (SPPP)	7
2.4 STATEWIDE BASIC REQUIREMENTS AND IMPLEMENTATION SCHEDULE	7
2.4.1 <i>Post-Construction Stormwater Management in New Development and Redevelopment</i>	8
2.4.2 <i>Local Public Education</i>	8
2.4.3 <i>Improper Waste Disposal</i>	9
2.4.4 <i>Solids and Floatable Control</i>	9
2.4.5 <i>Maintenance Yard Operations</i>	10
2.4.6 <i>Employee Training</i>	11
2.5 Additional Permit Requirements (February 1, 2013).....	11
2.5.1 <i>Inventory Requirements</i>	11
2.5.2 <i>Mapping Requirements</i>	12
2.5.3 <i>Inspection Schedule</i>	12
TABLE 1.0 – MSRP IMPLEMENTATION SCHEDULE	13
FIGURE 1.0 - TIER A STORMWATER PROGRAM CHART.....	14
FIGURE 2.0 - NJDEP IMPORTANT CONTACT INFORMATION.....	15

LIST OF APPENDICES

<u>Appendix Number</u>	<u>Description</u>
1	Stormwater Pollution Prevention Team Members
2	Inventory Requirements
3	Developing A Site Map Site Map
4	Initial Facility Assessment Photographs
5	Best Management Practices Source Material Guidance Process Wastewaters Aboveground Storage Tanks
6	Maintenance Plan
7	Inspection Schedule
8	Coordination of SPPP with Other Existing Environmental Management Plans
9	Employee Training Borough of Lakehurst Employee Training Program E-JIF Municipal Stormwater Regulation Employee Training Program Training Documentation Sheet
10	Annual Inspection Schedule
A	Stormwater Pollution Prevention Team Members
B	Public Notice
C	New Development and Redevelopment Program
D	Local Public Education Program Local Public Education Log
E	Storm Drain Inlet Labeling
F	MS4 Outfall Pipe Mapping
G	Illicit Connection Elimination Program Illicit Connection and Closeout Forms

H	Illicit Connection Records
I	Yard Waste Ordinance/Collection Program
J	Ordinances
K	Storm Drain Inlet Retrofitting
L	Street Sweeping and Road Erosion Control Maintenance Street Sweeping Log Road Erosion Control Log
M	Stormwater Facility Maintenance Stormwater Inlet Mapping Catch Basin Cleaning Form Stormwater Facility Maintenance Log
N	Outfall Pipe Stream Scouring Remediation Scouring Maintenance Log
O	De-icing Material Storage De-icing Log
P	Standard Operating Procedures SOPs Source Material Inventory
Q	Employee Training Employee Training Logs

LIST OF ATTACHMENTS

Attachment I	Tier A Stormwater Permit (NJ0141852)
Attachment II	Annual Report and Certification
Attachment III	Annual Report Supplemental Questionnaire
Attachment IV	"Solutions to Stormwater Pollution" Brochure
Attachment V	Optional Educational Information
Attachment VI	Storm Drain Labeling Guidelines
Attachment VII	Electronic Report and Forms
Attachment VIII	Household Hazardous Waste Disposal Program
Attachment IX	Ordinance 05-05 Pet Waste
Attachment X	Ordinance 05-06 Wildlife Feeding Prohibition
Attachment XI	Ordinance 05-07 Municipal Storm Water System MS-4
Attachment XII	Ordinance 05-08 Litter Control
Attachment XIII	Ordinance 06-07 Stormwater Control
Attachment XIV	Ordinance 09-09 Stormwater Control Addendum
Attachment XV	Ordinance 06-06 Flood Damage Prevention

1.0 INTRODUCTION

In response to an estimate that up to 60% of our existing water pollution problems are attributable to stormwater (nonpoint source) pollution, the United States Environmental Protection Agency published the Phase II Stormwater Rules in December of 1999, which implemented Section 402(p)(6) of the Federal Clean Water Act. In response to the Federal Rule, the New Jersey Department of Environmental Protection (NJDEP) developed the Municipal Stormwater Regulation Program (MSRP) operated by local, State, interstate or Federal government agencies, referred to as "municipal separate storm sewer systems" (MS4s).

In order to facilitate the implementation of the MSRP, the NJDEP adopted amendments to the New Jersey Pollutant Discharge Elimination System (NJPDES) Rules. These revised stormwater rules were signed into law on January 5, 2004.

The Municipal Stormwater Regulation Program regulates all 566 municipalities within the State of New Jersey. In addition, NJPDES permits are required for public complexes and highway systems. Under the program, municipalities are assigned to either Tier A or Tier B.

Under the newly implemented Stormwater Permitting Program, Lakehurst Borough is designated as a Tier A municipality. Tier A municipalities are generally located within the more densely populated regions of the state, near the coast, or other environmentally sensitive area.

As of February 1, 2013, all existing permittees reauthorized under the General Permit automatic renewal procedures are required to submit the Certification Form along with their Annual Certification, certifying that they have updated their existing SPPP to include the additional permit requirements listed below.

1. Inventory Requirements

- a. List all seasonal activities conducted at the facility that are exposed to stormwater runoff;
- b. Include a list of process wastewaters generated at the facility, including but not limited to pressure-wash wastewater, hydro-blasting wastewater, boat bottom wash wastewater, vehicle and equipment wash wastewater; and
- c. Include a list of all other permit approvals issued by the NJDEP to the facility for the activities listed (i.e. air, solid waste, land use, etc.)

2. Mapping Requirements

- a. The property boundary
- b. Additional stormwater control features including stormwater catch basins and designed stormwater basins (e.g. infiltration, detention, retention); and
- c. The location(s) where the additionally listed process waste waters (pressure-wash wastewater, hydro-blasting wastewater, boat bottom wash wastewater, vehicle and equipment wash wastewater) generated at the facility enter a storm conveyance that discharges to waters of the State.

3. Inspection Schedule

- a. Conduct monthly Maintenance Inspections to ensure that all BMP's identified in the SPPP are being properly implemented and/or maintained; and
- b. Maintain monthly inspection records onsite and available for Department review.

2.0 BACKGROUND

2.1 LAKEHURST BOROUGH

The Borough of Lakehurst, previously the Village of Manchester, was incorporated in 1921. It is bordered by the Lakehurst Naval Air Station and Manchester Township. Lakehurst is a total of 1 square mile (0.9 square mile of land, 0.1 square mile of water). Including Lake Horicon, the total area of the Borough is 8.91 % water. Lakehurst is located within the Mullica-Toms River Watershed.

2.2 PERMIT APPLICATION

Under New Jersey's NJPDES Stormwater/UIC rules (N.J.A.C. 7:14A-25.4 and 25.8(b)) a general permit application packet (including a Request for Authorization (RFA) form) was mailed by the Department to all the affected parties. The deadline to apply was March 3, 2004. The permit is a five (5) year permit which is automatically renewable. NJDEP will also charge an annual permit fee, based upon population, for permit maintenance.

The permits address stormwater quality related issues to new and existing development and redevelopment by requiring the preparation of a stormwater program and implementation of specific permit requirements referred to as Statewide Basic Requirements (SBRs).

The effective date of permit authorization (EDPA) for the municipality's general stormwater permit is April 1, 2004. Implementation schedules will correspond with the EDPA for each of the Statewide Basic Requirements (SBRs) addressed in the Tier A General Stormwater Permit. This permit is presented in Attachment I.

2.3 STORMWATER POLLUTION PREVENTION PLAN (SPPP)

The permit requires the completion of a Stormwater Pollution Prevention Plan (SPPP) twelve (12) months from the EDPA. The SPPP is a prescriptive plan that describes in detail the permittee's implementation of the SBRs in accordance with the specific permit requirements. Annually, the NJDEP will conduct compliance and enforcement audits at which time the SPPP will be reviewed for consistency with the permit requirements.

The SPPP will identify the person(s) responsible for implementing or coordinating the SPPP activities, which will be included in Appendix 1. This plan will include an implementation schedule consistent with SBRs, including interim milestones, as well as maintenance and inspection schedules where applicable. In instances of shared operations, including, but not limited to, street sweeping and catch basin cleaning requirements, written agreements will be attached. Maps and diagrams referenced in the SPPP are included where appropriate.

2.4 STATEWIDE BASIC REQUIREMENTS AND IMPLEMENTATION SCHEDULE

The following information describes in summary the SBRs detailed under the Tier A General Stormwater Permit as well as the corresponding schedule for the implementation of those requirements. A summarized version of the implementation schedule is presented in Table 1.0.

2.4.1 Post-Construction Stormwater Management in New Development and Redevelopment

The Post-Construction Stormwater Management SBR addresses compliance with the Watershed Management Rules (N.J.A.C. 7:8) for development and redevelopment projects that disturb one acre or more, including projects that are less than one acre that are part of a larger common plan of development or sale, that discharge into the municipality's small municipal separate storm sewer system (MS4), and requires compliance with the new design standards for storm drain inlets. These items must be addressed twelve (12) months from the EDPA.

In addition, this SBR also requires that the permittee ensures the long-term operation and maintenance of the Best Management Practices (BMPs) installed in accordance with the requirements of N.J.A.C. 7:8 for stormwater management immediately upon the EDPA.

The following items, required under this SBR, are addressed in Appendix C:

- ❖ Adoption of Stormwater Management
- ❖ Adoption of Stormwater Control Ordinance
- ❖ Compliance with Residential Site Improvement Standards
- ❖ Compliance with Storm Drain Inlets Design Standards
- ❖ Implementation of Best Management Practices (BMP)

2.4.2 Local Public Education

The Local Public Education SBR requires permittees to distribute a nonpoint source educational brochure, provided by the NJDEP, to all residents and business owners within the municipality starting 12 months from the EDPA. In addition, the brochure, and other optional educational material, must be made available at an annual event, also beginning 12 months from the EDPA. A copy of this brochure is presented in Attachment III. Additional education requirements in the form of the labeling of municipal storm drain inlets next to sidewalks, or within plazas, parking areas or maintenance yards, is required to be completed within 60 months of the EDPA, with 50% completed within 36 months of the EDPA.

The following items, required under this SBR, are outlined in Appendices D and E:

- ❖ Annual Mailing – NJDEP "Solutions to Stormwater Pollution" Brochure is distributed annually to all residents and business within the municipality with its Calendar mailed in January and provided on the Borough's website. The NJDEP brochure is presented in Attachment III.
- ❖ Annual Event – The municipality holds annual events such as the Borough's National Night Out, Barnegat Bay Blitz, and July 4th Celebration at which the required mailing is available. The municipality provides additional optional education materials to strengthen their local public education program.
- ❖ Storm Drain Labeling – All storm drain inlets within the Borough of Lakehurst have been labeled in accordance with the Storm Drain Labeling Guidelines for New Jersey. The Storm Drain Labeling Guidelines for New Jersey are presented in Attachment V.

Optional educational materials may include the following, which can be found in Attachment IV:

- ❖ NJDEP "Pet Waste Pollutes Our Waters" Handout
- ❖ NJDEP "Clean Water Rangers Coloring Book"
- ❖ Rutgers Cooperative Extension Fact Sheets
 - Home Composting
 - Yard Trimmings Management Strategies
 - Using Leaf Compost
 - Minimizing Waste Disposal: Grass Clippings
 - Backyard Leaf Composting

2.4.3 Improper Waste Disposal

The Improper Waste Disposal SBR requires permittees to adopt and enforce ordinances controlling the improper disposal of waste material (i.e. waste automotive fluids, household chemicals, etc.), pet waste, litter, yard waste, and prohibiting of wildlife feeding 18 months from the EDPA. Municipalities should distribute the NJDEP pet waste information sheet, presented in Attachment IV, with pet licenses, as a mechanism for public outreach and awareness. The Borough has adopted ordinances controlling the improper disposal of waste material (i.e. waste automotive fluids, household chemicals, etc.), pet waste, litter, yard waste, and prohibiting of wildlife feeding. The following ordinances can be found in Attachments VIII, IX, X and XI.

Within the same 18 month timeframe, permittees must also develop and enforce an illicit connection identification program, which includes the enforcement of an ordinance prohibiting unauthorized connections to the MS4. Dry weather flow inspections must be completed initially for each outfall and follow up investigations must be completed in the event of a complaint or identification of dry weather flow during routine maintenance. The Borough has adopted an ordinance addressing illicit connections see Attachment X. The Borough has one (1) outfall and performed an initial inspection in 2005 and inspects the outfall on a regular basis.

The last of the requirements under this SBR includes the mapping of all MS4 outfalls owned or operated by the municipality on a tax map or equivalent drawing. This also includes the application of an alphanumeric identification number for each permitted outfall and the identification of the receiving water body. The regulations require the municipality to be divided into two sectors with the first sector mapped 36 months from the EDPA and the second 60 months from the EDPA. Illicit connection inspections described above, and outfall scouring inspections described below, should also be completed concurrent with outfall mapping. As, previously stated the Borough has one (1) outfall and is inspected regularly for dry weather flow, evidence of an intermittent non-stormwater flow, erosion or scouring.

The following items are required under this SBR:

- ❖ Adopting and Enforcing Ordinances – Referenced in Appendix J, the six ordinances outlined above have been adopted and can be found in the Attachments.
- ❖ Development of Illicit Connection Identification Program – Municipalities must develop, implement and enforce an illicit connection elimination program to detect and eliminate illicit connections into the municipality's small MS4. The program, described in Appendix G, includes an illicit connection elimination program.
- ❖ Maintain Illicit Connection Records – Municipalities must record outfall inspections on the NJDEP Illicit Connection Inspection Report Form presented in Appendix G. The Closeout Investigation Form, also presented in Appendix G, is only to be submitted to the NJDEP once the appropriate amount of investigation has been completed. A summary of these inspections/investigations is required in Appendix H.
- ❖ Outfall Mapping – A copy of the Borough's storm sewer system map is include with Appendix M (Borough Inlets highlighted in blue).

2.4.4 Solids and Floatable Control

The following items are required under this SBR:

- ❖ Street Sweeping – Under the solid and floatable control SBR, municipalities are required to sweep all maintenance yards and municipally owned and operated curbed streets with storm drains that have a posted speed limit of 35 miles per hour or less (excludes on/off ramps), located in predominantly commercialized areas, at least once per month. Exclusions from this requirement only occur if weather does not permit the completion of sweeping activities. These activities must commence twelve (12) months from the EDPA. This requirement is addressed in Appendix L. The Borough of Lakehurst does not currently own or operate any roadways that meet the criteria for streets to be swept

monthly. The Borough maintains its existing street sweeping agreement with Ocean County.

- ❖ Storm Drain Inlet Retrofitting – Permittees must retrofit existing storm drain inlets, that are impacted during road repair or resurfacing projects, with inlets that comply with the new design standards and the Residential Site Improvement Standards for bicycle safe grates. These new designs must be included in any project that was designed or awarded subsequent to March 3, 2004. Certain flood prone areas can be exempted from this requirement with a Professional Engineers Certification. This requirement is addressed in Appendix K.
- ❖ Stormwater Facility Maintenance – In addition to the above, the municipality must also develop a maintenance program for all stormwater facilities operated by the municipality that includes the annual cleaning of all catch basins and ensures the proper function of stormwater systems. This requirement must commence 12 months from the EDPA. If the municipality is unable to comply with this schedule, both justification and an alternative schedule must be included in the SPPP. Documentation of inspections, cleaning and repairs must be kept as part of the SPPP. This requirement is addressed in Appendix M.
- ❖ Road Erosion Control Maintenance – The municipality must develop a Road Erosion Control Maintenance Program to identify and repair erosion along municipally owned roadways. The dates of all inspection and repairs must be documented in the plan. This must start 18 months from the EDPA. This requirement is addressed in Appendix L.
- ❖ Outfall Pipe Stream Scouring Remediation – An Outfall Pipe Stream Scouring Remediation Program must be developed by the municipality to detect, remediate, and maintain stream bank scouring in the vicinity of outfalls. The municipality must document all inspections, repairs, and must implement this within 18 months of the EDPA. This requirement is addressed in Appendix N.

2.4.5 Maintenance Yard Operations

The following items are required under this SBR:

- ❖ Source Material Inventory – The permittee must perform an inventory of all materials and machinery stored at maintenance facilities, or activities conducted that could be a source of pollutants in stormwater runoff from the site. A list of the source materials and BMPs being implemented to reduce pollutant runoff from these locations must be incorporated into the SPPP. This must be completed within 12 months of the EDPA. An inventory of source material has been completed and presented in Appendix P.
- ❖ De-icing Material Storage – Permittees are required to permanently cover all deicing material using a permanent building or other enclosure which contains an impervious floor. Regular maintenance of the structure and inspections must also be completed. Clean sand may be stored outside and uncovered if a 50-foot set back from a water body or stormwater collection system is maintained. The municipality's de-icing material storage practices are outlined in Appendix O.
- ❖ Implementation of Standard Operating Procedures (SOPs) – Municipalities must develop and implement a Standard Operating Procedure (SOP) for vehicle fueling and bulk deliveries associated with fuel dispensing systems owned by the municipality. This includes requirements to prevent spills during fueling and bulk deliveries and includes the protection of storm drain inlets to prevent the impact to surface water in the event a spill should occur. These requirements must be implemented 12 months from the EDPA. The SOPs are outlined in Appendix P attachments.

Within 12 months of the EDPA, the permittee must develop and implement an SOP that addresses vehicle maintenance and repairs and reduces their impact on stormwater quality. The SOP must include performance of these activities indoors when practical and on an impervious surface. Outdoor repairs must incorporate drip pans and rain shields for repairs that exceed one day. The SOP must include the inspection of all areas and vehicles. The Borough no longer maintains or repairs their vehicles on-site. The work is subcontracted out.

Permittees must implement good housekeeping procedures in accordance with the permit requirements within 12 months of the EDPA. These requirements include proper labeling of all containers, maintenance, and covering. If indoor storage is not practical, containers may be stored outside, covered, and on spill platforms. Inspections for spills must be conducted regularly and cleanup must be conducted immediately upon identification.

SOPs to be implemented at all municipal maintenance yards, where applicable, are outlined in Appendix P.

2.4.6 Employee Training

The following item, required under this SBR, is outlined in Appendix Q:

- ❖ Municipalities must train all appropriate employees annually beginning 12 months from the EDPA. Employees must be trained on appropriate topics and trainings must be documented.

2.5 Additional Permit Requirements (February 1, 2013)

As of February 1, 2013, all existing permittees reauthorized under the General Permit automatic renewal procedures are required to submit the Certification Form along with their Annual Certification, certifying that they have updated their existing SPPP to include the additional permit requirements listed below:

2.5.1 Inventory Requirements

The Permittees are required to list all seasonal activities conducted at the facility that are exposed to stormwater runoff; Include a list of process wastewaters generated at the facility, including but not limited to pressure-wash wastewater, hydro-blasting wastewater, boat bottom wash wastewater, vehicle and equipment wash wastewater; and Include a list of all other permit approvals issued by the NJDEP to the facility for the activities listed (i.e. air, solid waste, land use, etc.)

The following items, required under this SBR, are outlined in Appendices 2, 4, 5 & 6

- ❖ List all industrial activities conducted at the Facility – The Permittee is required to list all seasonal activities conducted at the facility that are exposed to stormwater runoff. There are no storm drains on-site. The floor drains within the building have been sealed with concrete. All materials are stored within buildings or above-ground storage tanks which are within concrete containment areas. There is minimal if any exposure to stormwater runoff.
- ❖ List process wastewaters generated at the Facility – The Permittee is required to list any process wastewaters generated at the facility, including but not limited to pressure-wash wastewater, hydro-blasting wastewater, boat bottom wash wastewater, vehicle and equipment wash wastewater. There are no wastewaters generated at the facility. All vehicle washing is done at the Ocean County Washing Facility and vehicle maintenance is subcontracted out.

- ❖ List all other permit approvals issued by the NJDEP to the Facility – The Permittee is required to list all other permit approvals issued by the NJDEP to the facility for the activities listed (i.e. air, solid waste, land use, etc.) There are no other NJDEP permits for the Facility.

2.5.2 Mapping Requirements

The Permittees are required to provide mapping which includes the property boundary, additional stormwater control features including stormwater catch basins and designed stormwater basins (e.g. infiltration, detention, retention), and the location(s) where the additionally listed process waste waters (pressure-wash wastewater, hydro-blasting wastewater, boat bottom wash wastewater, vehicle and equipment wash wastewater) generated at the facility enter a storm conveyance that discharges to waters of the State.

The following items, required under this SBR, are outlined in Appendices 3 and attachment.

- ❖ Facility Mapping – The Permittee is required to provide a map of the facility to include the property boundary, stormwater control features and the location(s) where the process waters enter a stormwater conveyance that discharges to waters of the State. A map of the facility is attached. There are no stormwater structures at the facility. With the exception of the buildings the remainder of the property is previous surface. There are no process waters generated at the facility.

2.5.3 Inspection Schedule

The Permittee is required to conduct monthly Maintenance Inspections to ensure that all BMP's identified in the SPPP are being properly implemented and/or maintained; and Maintain monthly inspection records onsite and available for Department review.

The following items, required under this SBR, are outlined in Appendices 7

TABLE 1.0 – MSRP IMPLEMENTATION SCHEDULE *ALL TASKS ARE COMPLETE

DATE OF COMPLETION	TASKS TO BE COMPLETED
April 1, 2005	<ul style="list-style-type: none"> • Implement Stormwater Pollution Prevention Plan (SPPP) • Adopt a Stormwater Management Plan and submit to County review agency • Implement Fueling Operation SOP • Implement Vehicle Maintenance SOP • Implement Good Housekeeping SOP • Begin monthly street sweeping, where appropriate
May 2, 2005	<ul style="list-style-type: none"> • Complete and Submit Annual Report and Certification (provided in Attachment II) for year one
October 1, 2005	<ul style="list-style-type: none"> • Adopt Pet Waste Ordinance • Adopt Litter Ordinance • Adopt Improper Waste Disposal Ordinance • Adopt Wildlife Feeding Ordinance • Adopt Containerized Yard Waste Ordinance • Adopt Illicit Connection Ordinance • Begin Illicit Connection Elimination Program • Begin Roadside Erosion Maintenance • Begin Outfall Pipe Stream Scouring Program
April 1, 2006	<ul style="list-style-type: none"> • Stormwater Control Ordinance Adopted • Educational Brochure Distributed and Documented • Annual Educational Event Completed and Documented • Employees Trained and Documented • Annual Catch Basin Complete
May 2, 2006	<ul style="list-style-type: none"> • Complete and Submit Annual Report and Certification (provided in Attachment II) for year two
April 1, 2007	<ul style="list-style-type: none"> • 1st Sector Completed for Outfall Mapping • 1st Sector Completed for Catch Basin Labeling • Permanent Storage Structure for De-Icing Material
May 2, 2007	<ul style="list-style-type: none"> • Complete and Submit Annual Report and Certification (provided in Attachment II) for year three
May 2, 2008	<ul style="list-style-type: none"> • Complete and Submit Annual Report and Certification (provided in Attachment II) for year four
April 1, 2009	<ul style="list-style-type: none"> • Outfall Mapping complete • Inlet Labeling Complete
May 2, 2009	<ul style="list-style-type: none"> • Complete and Submit Annual Report and Certification (provided in Attachment II) for year five

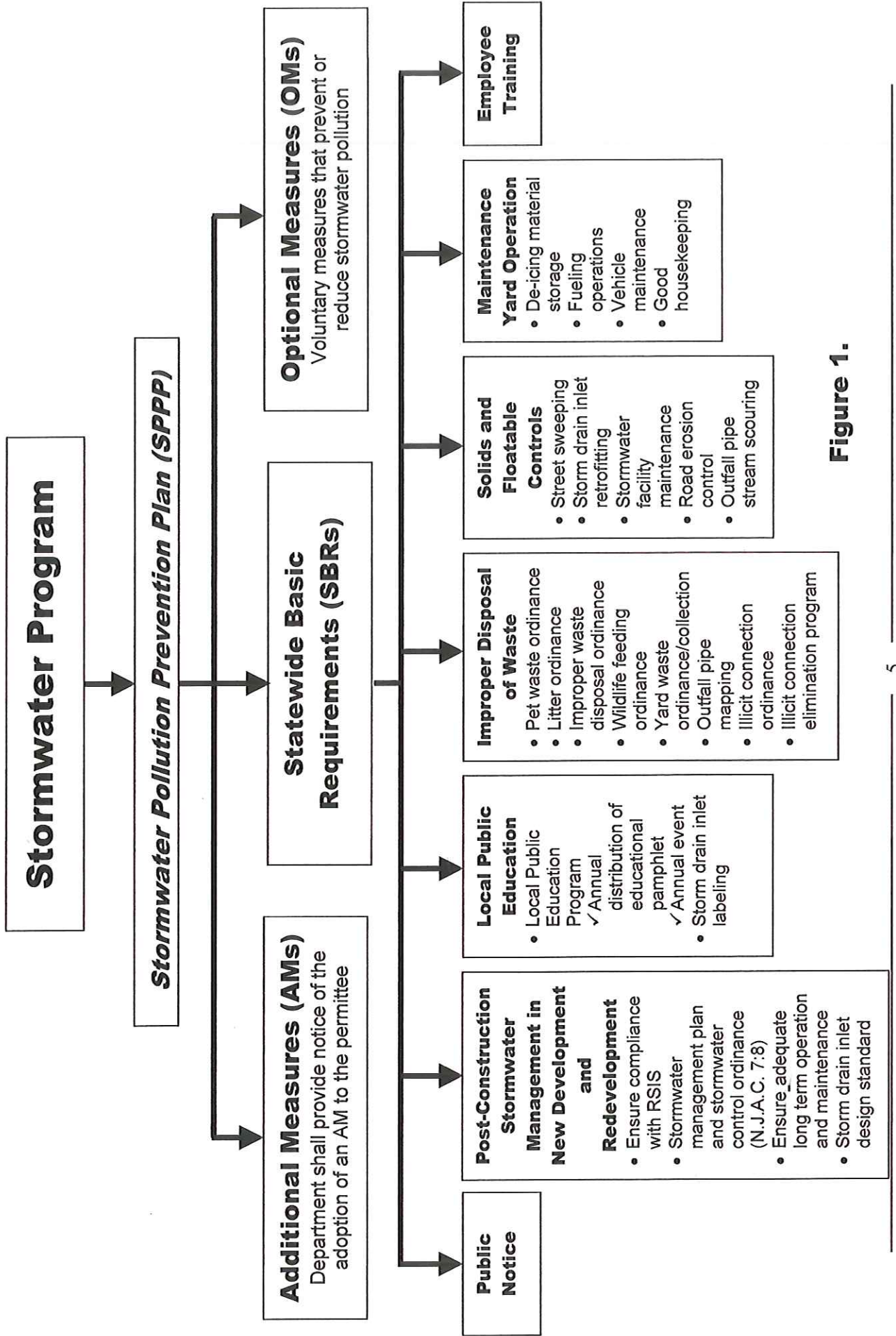


Figure 1.

Important Names, Addresses and Contacts

NJDEP CONTACT INFORMATION

Bureau of Nonpoint Pollution Control

Division of Water Quality

Mail Code 401-02B

PO Box 420

Trenton, New Jersey 08625-0420

(609) 633-7021

Issues NJPDES permits for industrial stormwater discharges and discharges to ground water.

Permits Administrative Section

Division of Water Quality

Mail Code 401-02B

PO Box 420

Trenton, New Jersey 08625-0420

(609) 984-4428

Receives and conducts the administrative review of Requests for Authorization (RFAs) under the Basic Industrial Stormwater General Permit. RFA, permit fee and billing questions should be submitted to this bureau.

Surface Water Permitting

Division of Water Quality

Mail Code 401-02B

PO Box 420

Trenton, New Jersey 08625-0420

(609) 292-4860

Issues permits for non-stormwater discharges to surface water including process wastewater, non-contact cooling water, or domestic sewage discharges.

Regional NJDEP Water Compliance and Enforcement Offices

Conducts compliance evaluation inspections of NJPDES permitted facilities.

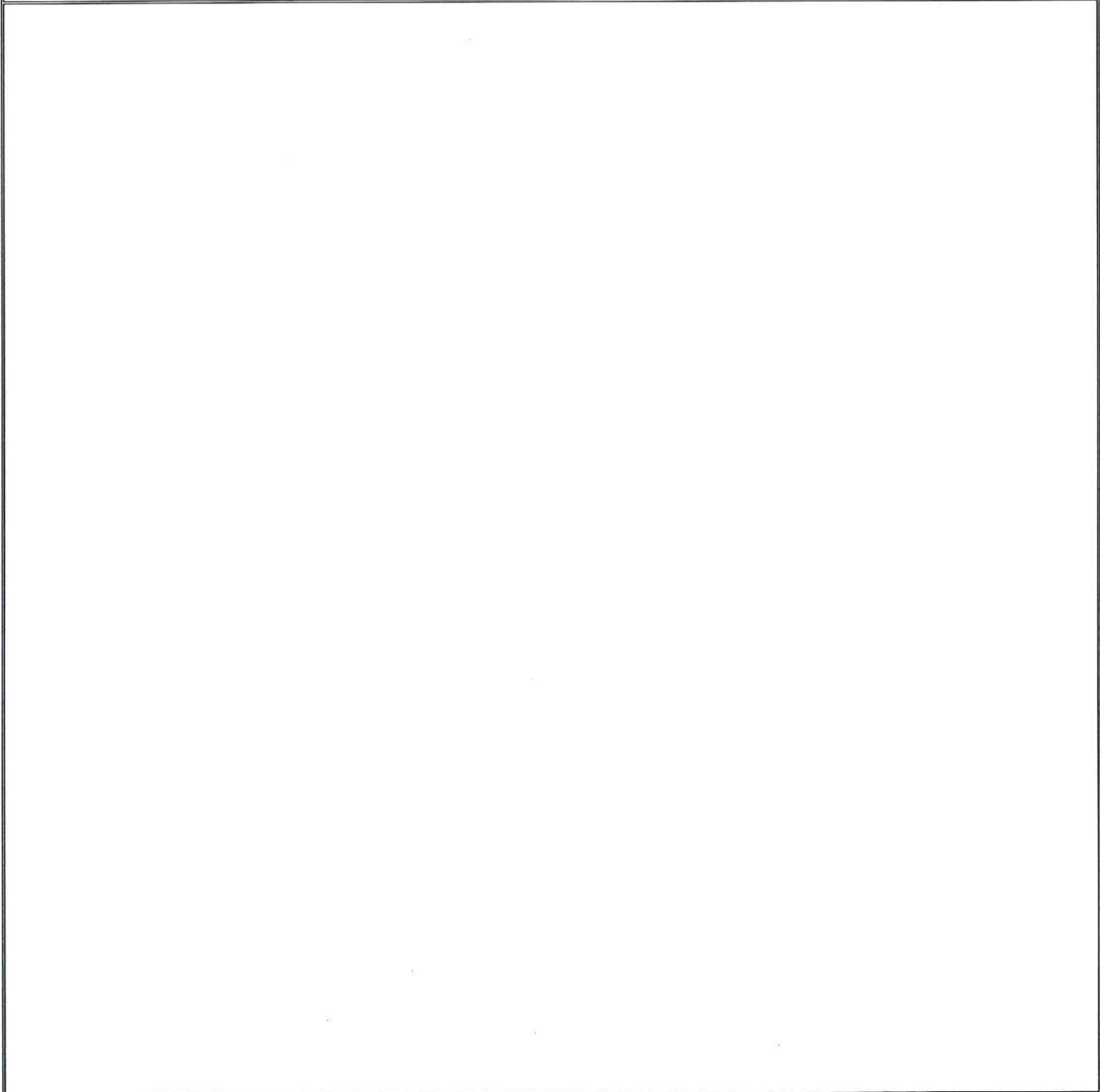
Northern 7 Ridgedale Avenue Cedar Knolls, NJ 07927 (973) 656-4099 Fax: (973) 656-4400 (serves Bergen, Essex, Hudson, Hunterdon, Morris, Passaic, Somerset, Sussex & Warren Counties)	Central Mail Code 44-03 22 S. Clinton Avenue, 4 Station Plaza PO Box 420 Trenton, NJ 08625-0420 (609) 292-3010 Fax: (609) 292-6493 (serves Mercer, Middlesex, Monmouth, Ocean & Union Counties)	Southern One Port Center 2 Riverside Drive, Suite 201 Camden, NJ 08103 (856) 614-3655 Fax: (856) 614-3608 (serves Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester & Salem Counties)
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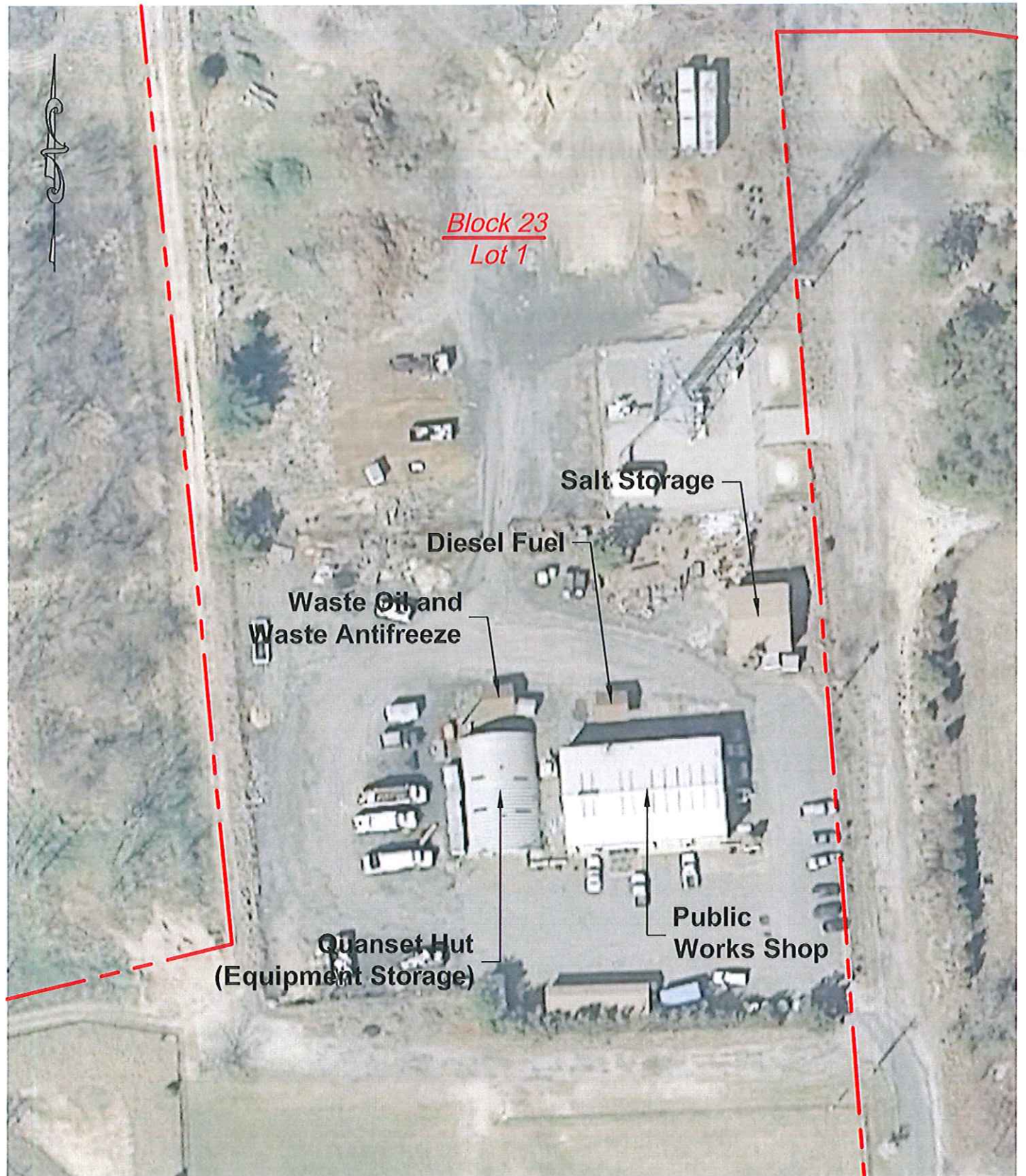
SPPP Form 3 – Developing a Site Map

Facility
Information

Facility Name:Lakehurst Public Works County:Ocean County
NJPDES # : NJG147761 PI ID #:203008
Team Member/Title:David Winton, Public Works Supervisor
Effective Date of Permit Authorization (EDPA):April 1, 2004
Date of Completion: 5/28/2018 Date of most recent update:

Attach a map (preferably drawn to scale) of your site. Existing engineered drawings should be used if available. Hand drawn maps are acceptable if all features are clearly indicated and labeled.





- PUBLIC WORKS FACILITY MAP -

LOCATION MAP

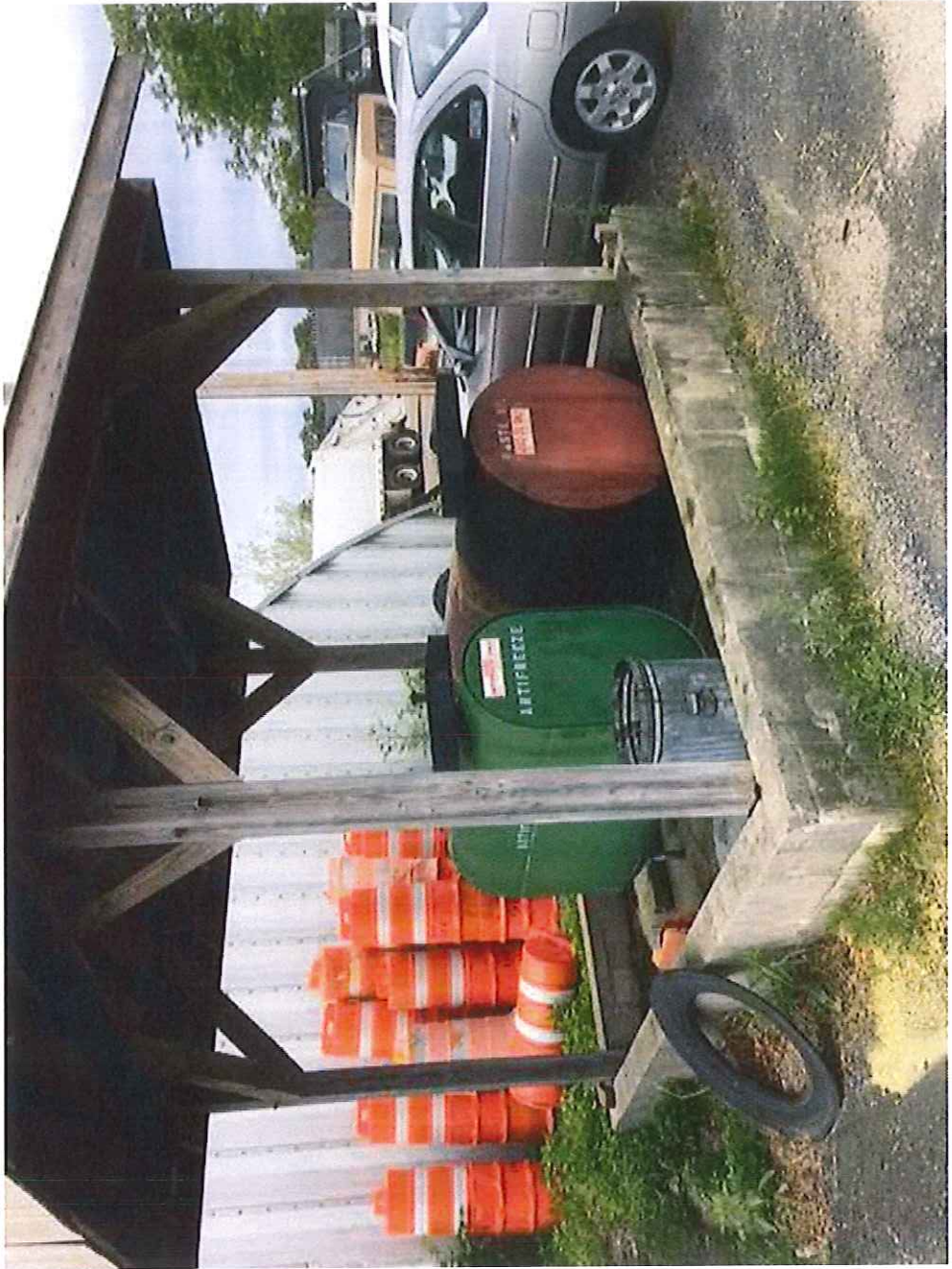
Borough of Lakehurst
OCEAN COUNTY, NEW JERSEY



**REMINGTON & VERNICK
ENGINEERS**

9 ALLEN STREET, TOMS RIVER, NJ 08753, (732) 286-9220
~ENGINEERING EXCELLENCE~

SCALE: N.T.S.	DATE: 5 - 30 - 18	DRAWN BY: BK	CHECKED BY: MG	JOB No.: 1514 - T - 103	SHEET No. OF 1 / 1
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“Source Material” Guidance

This guidance is provided to help facilities distinguish between source materials and non-source materials.

It would be impossible for the Department to compile a complete list of source materials that are applicable to each specific industry within the federal definition of "stormwater discharges associated with industrial activity". Instead, the Department has developed this self-screening procedure as a means for identifying source materials that must be addressed under this program based on their physical and chemical properties. This can be accomplished via a visual inspection to ascertain whether materials themselves are being transported by stormwater or if materials are producing pollutants that can be transported by stormwater.



The following basic criteria shall be applied:

1. **Is the material an industrial liquid that is exposed to and easily transported by stormwater?**
Examples include coolants, lubricants, fuels, antifreeze, additives, other chemicals and trash.
2. **Is the material eroding or easily susceptible to erosion by water or wind?**
Examples include piles of raw materials, powders, and pellets.
3. **Is some or all of the material dissolving in stormwater or easily susceptible to dissolving or transport by stormwater?**
Examples include lubricants, protective coatings on finished products, solvents, degreasers, and salt piles.
4. **Will the material degrade, break down, or disintegrate in such a manner as to add pollutants if the stormwater were to come into contact with it?**
Examples include degradation or corrosion that results in flaking or crumbling of plastic or rusty metal.
5. **Does the material add a distinct odor or color to the stormwater discharge?**
Examples include dyes, pigments, mulch, food wastes.

If you answered **YES** to any of these, the material in question is a **SOURCE MATERIAL** and your facility must implement BMPs to ensure that they are not exposed to stormwater that discharges to the surface and or groundwaters of the State. If the substance in question does not have one of the above mentioned physical states, then that material generally may not be considered a source material. However, please keep in mind that the physical properties as listed above, although representative, do not comprise a complete list of applicable situations in which substances would be classified as source material.

The Department has developed specific guidance regarding the following:

Materials Intended for Outside Use

Examples of materials that generally will not be considered source materials (unless any of the above criteria are met) are: finished pre-cast concrete products; stone and gravel which is pre-washed prior to delivery; clean, wooden pallets; and clean, solid, durable finished products intended for outdoor use, such as structural steel beams and outdoor furniture. Such materials should not have any coatings on their exterior such as creosote or a lubricant film.

Drums – New and Used

The Department has determined that drums that hold or have held material, are source material, regardless of the type and condition of the drums, the varying products they contain, and the varying handling techniques applied. This does include factory sealed unopened drums which contain materials. However, drums that remain empty after their previous contents have been removed, cleaned thoroughly in a manner not contributing pollutants to the land or water, and where no residue of materials remain on the drums, shall not be considered a source material. Additionally, new unused drums that are devoid of contents will not be considered source materials.

Dumpsters and Roll-Off Containers

Dumpsters and roll-off containers which receive the following materials as waste: industrial raw materials, intermediate products, by-products, waste products or residues from material handling equipment, shall be considered source materials unless the dumpsters are covered and watertight, and maintained so as to prevent any leaking materials from mixing with stormwater running off the site. In addition, there should be no evidence of debris or other contaminants on the exterior of the dumpster including the cover. Even if a dumpster or roll-off container meets these conditions, they should still be identified in the SPPP. If a dumpster is receiving non-industrial waste only (e.g., office waste or cafeteria waste), the dumpster does not need to be addressed in the SPPP, as the dumpster will not be considered a source material by the Department. Similarly, this guidance shall apply to smaller waste containers such as garbage cans.

Vehicles and Industrial Machinery

Vehicles and industrial machinery shall be considered source materials where engines, grease, oil, antifreeze, or other vehicle or machinery fluids are exposed to storm water. For vehicles whose engines are under hoods, only exposure of engines and vehicle fluids shall be considered source materials. An example is increased exposure due to vehicle maintenance or dismantling activities. However, exposed source materials transported by or left as residues on vehicles or machinery after transporting source materials, must be addressed in the facility's SPPP. All facilities that fuel vehicles and/or machinery must prevent the discharge to surface water of stormwater that has come into contact with fuels at the facility. This may be accomplished with a variety of best management practices (BMPs) solely or in combination, such as roofing the fueling area and preventing storm water run-on and run-through that area, or fuel/spill containment BMPs that do not allow any discharge of fuels or storm water exposed to fuels to surface waters. Furthermore, residues from wash water and cleansing agents that are used to clean vehicles or machinery shall be considered source materials if exposed to stormwater.

Materials not Associated with Industrial Activity

Materials that are stored in minimal quantities outdoors, which do not pertain to the facility's primary industrial function(s), and which are stored on a temporary basis for purposes such as emergency repairs, alterations, recycling, or maintenance activities such as landscaping, minor construction, etc., will not be considered a source material. The material must not be stored for longer than fourteen (14) days in order to be considered temporary, nor exceed ten (10) cubic yards of material in order to be considered a minimal amount. However, in all scenarios source materials should be covered whenever feasible.

Source Material Exceptions for Discharges to Ground Water

In situations where a facility discharges stormwater to ground water only either via overland flow or through a unit designed to discharge to ground water (with no overflow weir, outfall or spillway), certain materials are not considered a source material because they do not have the potential to impact ground water quality. Specifically in these situations, solid materials such as sand, aggregate piles, or soil piles are NOT considered source materials

Process Wastewaters

The discharge of process wastewaters, including but not limited to leachate, contact cooling water, pressure-wash wastewater, hydro-blasting wastewater, boat bottom wash wastewater, and vehicle and equipment wash wastewater is not authorized under this General Permit. Unless such discharges are authorized by a separate New Jersey Discharge Elimination System (NJPDES) discharge permit, these discharges are in violation of both the Water Pollution Control Act and the NJPDES rules.



Facilities must eliminate the unpermitted discharge of process wastewaters, including rinse water with or without detergents, by either installing a wastewater reclaim system, capturing and hauling the wastewater for proper disposal, connecting to sanitary sewer (where applicable and approved by local authorities), ceasing the activity and/or applying for and obtaining a separate NJPDES permit. Below are examples of ways that a facility can properly manage their process wastewater discharges.

1. Install a wastewater reclaim system

Numerous systems are commercially available that recycle and treat wash wastewater for reuse, which can be sized for a wide range of flows. A wastewater reclaim system usually includes a sump, or some other mechanism to collect the water, a treatment system using one or more treatment technologies to remove contaminants, and a tank to store the treated water that is then reused. The Department has found that these systems offer many advantages including flexibility of design, relatively low initial capital costs, low operational costs, low disposal costs (when compared to discharges to sanitary sewer), significant reduction in water usage and no requirement for a NJPDES discharge permit, since there is no discharge to surface or ground water. Below is a list of five treatment technologies that may be used individually or in combination as part of a wastewater reclaim system:

Technology	How it works
Electrocoagulation	As wastewater travels through a series of cells, an electrical current is applied to the stream providing an electromotive force that allows certain compounds to approach a more stable state. Typically, the more stable state for an element or compound results in a solid form that is removed by settling or filtration. The pollutant removal efficiency of electrocoagulation systems can be maintained throughout a range of influent pollutant concentrations. This process effectively removes emulsified oils and hydrocarbons, suspended solids, and heavy metals.
Filtration	Filters can mechanically separate various components of a waste stream. Filter selection is an important part of a facility's assessment of this technology. The different filter media used by various manufacturers are designed to remove a wide range of pollutants, but certain media are only appropriate for particular compounds. For instance, activated carbon filter media are efficient at removing sediment and volatile organic compounds, not necessarily inorganic compounds like metals. Typical maintenance of these systems is the replacement of filter cartridges after periods of use.

Chemical Treatment	Certain chemicals may be added to a waste stream to remove particular pollutants of concern. Various chemicals achieve pollutant removal through a number of chemical or mechanical processes. Examples include pH adjustment to neutralize wastewater, pH adjustment to facilitate the precipitation of metals or the addition of flocculants to improve settling of solids. The quantity of chemicals fed into the treatment process may change depending on the strength of pollutants entering the treatment system. Chemical treatment is generally effective; however, it can be cost prohibitive and require properly trained operators.
Settling	Settling is the process by which particulates, aided by gravity, settle to the bottom of a liquid and form sediment. The settling efficiency is dependent on the particle properties and the time given to the wastewater volume to remain at a low flow. Some pollutants, such as metals, may be chemically trapped in solution and the act of settling will not reduce the concentration of these pollutants.
Biological Treatment	Biological treatment utilizes bacteria that feed on organic materials, reducing pollutant load, specifically nutrients, biochemical oxygen demanding (BOD) substances, and oil and grease. Biological treatment is generally used to treat sanitary waste streams and require a constant source of organic matter and therefore may not be suitable for treatment of wash wastewater.

2. Capture and haul the wastewater for proper disposal

Facilities may construct or use an existing impervious area with berms or other methods to facilitate the collection of wastewater and then have the wastewater hauled for proper disposal. The wastewater would need to be characterized and based on that characterization may be accepted at a sewage treatment plant or may need to be disposed of as a hazardous waste.

3. Connect to sanitary sewer (where applicable and approved by local authorities)

It may be acceptable in some areas to connect to and discharge the wastewater directly to a sanitary sewer. However, facilities will need prior approval from the local sewerage authority prior to connection. Sewerage authority may require characterization of the wastewater prior to discharging and based on that characterization may require pretreatment of the wastewater. In addition, the sewerage authority may require that the wastewater meet pretreatment standards and require regular monitoring of the discharge to ensure the discharge meets these standards. Lastly, most sewerage authorities will require a connection fee and will charge a monthly sewerage fee.

4. Cease the activity

Your facility may find that ceasing the discharge of wastewater to be the easiest and most cost effective option. If you are simply washing a fleet of cars, trucks or buses it may be more cost efficient to take them to a commercial car or truck wash facility rather than install a treatment system.

5. Apply for and obtain a separate NJPDES permit

A facility always has the option to apply for a separate NJPDES permit that will specifically authorize the wastewater discharge. NJPDES permits limit the mass and/or concentration of pollutants discharged to surface or ground water of the State. Discharges must meet effluent limitations set in the permit designed to protect surface and ground water quality. In order to meet the effluent limitation in the NJPDES permit a facility would need to design and build a treatment unit. Permit holders are required to monitor the discharges, likely on a monthly basis, and submit discharge monitoring reports (DMRs). Facilities that exceed their permitted discharge limits and/or fail to submit the DMR are subject to significant mandatory penalties. In addition, NJPDES permits have an annual fee based on pollutant load. The minimum fee during fiscal year 2012 for an individual DSW permit was \$4, 200.

Aboveground Storage Tanks

Spills and releases of chemicals from Aboveground Storage Tanks (ASTs) can contaminate stormwater and degrade surface and/or ground water quality. Common causes of spills and releases include external corrosion, structural failure, installation problems, product transfer, overfilling, and equipment leaks including leaking tanks, pumps, valves, piping, flanges, hoses, and couplings.



Step 1: Inspect the integrity of any ASTs located at your facility

- ◆ Inspect all ASTs prior to installation.
- ◆ After installation, ensure that operators routinely inspect ASTs including tank foundations, tank walls (shell), connections and piping for corrosion, leaks, or other physical damage that may weaken the system.
- ◆ Ensure that a qualified professional conducts integrity testing (hydrostatic test) periodically.
- ◆ Inspect ASTs regularly to identify and address any leaks that may occur. Maintain areas surrounding ASTs free of all contaminants and pollutants.

Step 2: Ensure compliance with applicable state and federal regulations

- ◆ Determine if your facility is subject to federal Spill Prevention, Control and Countermeasure (SPCC) regulations at 40 CFR 112 and/or the state Discharge Prevention, Containment and Countermeasure (DPCC) and Discharge Cleanup and Removal plan (DCR) regulations at N.J.A.C. 7:1E.
- ◆ If subject, pursuant to the Basic Industrial Stormwater General Permit (General Permit), you must cross-reference the SPCC and/or DPCC/DCR plan in your Stormwater Pollution Prevention Plan (SPPP).

Step 3: Ensure safeguards are in place

- ◆ Install safeguards such as: overflow protection devices, protective guards around tanks and piping, and labeling of all valves and pumps.
- ◆ Train AST operators at least annually pursuant to the General Permit on the proper maintenance and operation of ASTs, ancillary pumps and valves (AST system).
- ◆ Locate ASTs within secondary containment. The capacity of the secondary containment must be the volume of the largest tank within the secondary containment plus additional capacity to accommodate six inches rainwater unless otherwise required by regulation.
- ◆ Use secondary containment made of impermeable materials and maintain the impermeable condition.
- ◆ Perform necessary maintenance to ensure the integrity of all containment structures.
- ◆ Ensure that any discharge valves in secondary containment structures are in the closed shut-off position during normal conditions.
- ◆ Ensure that stormwater that accumulates in secondary containment structures is discharged to surface or groundwater only in accordance with the Discharge of Accumulated Stormwater from Secondary Containment BMP.

Borough of Lakehurst Employee Training Program

2005

Course Topics	Date of Training	Employees Trained
Waste Disposal Education		Public Works Employees
Municipal Ordinances		Public Works Employees Local Police Authorities Code Enforcement Officer
Yard Waste Collection Program		Public Works Employees
Illicit Connection Elimination and Outfall Pipe Mapping		Public Works Employees
Street Sweeping		Public Works Employees
Stormwater Facility Maintenance		Public Works Employees
Road Erosion Control and Outfall Pipe Stream Scouring Remediation		Public Works Employees
Maintenance Yard Operations		Public Works Employees
Construction Activity/Post-Construction Storm- water Management in (Re-)Development		Public Works Employees

Additional Notes/Comments

** ALL TRAINING IS DONE IN DECEMBER*

E-JIF Municipal Stormwater Regulation

EMPLOYEE TRAINING PROGRAM



The E-JIF Municipal Stormwater Regulation Employee Training Program was produced in cooperation with the New Jersey Department of Environmental Protection Bureau of Nonpoint Pollution Control.



THIS PROJECT WAS MADE POSSIBLE BY THE

**ENVIRONMENTAL JOINT INSURANCE FUND
EXECUTIVE COMMITTEE**

100 PARK ROAD, SUITE 201
EDISON, NJ 07033
TEL: 908.272.2100

Please note that each municipal representative may not be required to view this video in its entirety to satisfy their annual training requirements. The E-JIF requests that you please refer to your Municipal Stormwater Pollution Prevention Plan to determine which topics are required to be viewed by your employees and public officials.
Thank you.

EJIF

Environmental Joint Insurance Fund

Tier A Municipal Stormwater Regulation Program

Stormwater Pollution Prevention Team Members

Number of team members may vary.

Completed by: David Winton

Title: Department of Public Works

Date: February 7, 2005

Municipality: Lakehurst Borough

County: Ocean County

NJPDES #: NJG0147761

PI ID #: 203008 See Updated SPPP Form 1

Stormwater Program Coordinator: David Winton

Title: Department of Public Works

Office Phone #: 732-657-9797

Emergency Phone #: 732-657-7812

Public Notice Coordinator: Norbert MacLean

Title: Administrator

Office Phone #: 732-657-4141

Emergency Phone #: 732-657-7812

Post-Construction Stormwater Management Coordinator: Alan Dittenhoffer

Title: Borough Engineer

Office Phone #: 732-286-9220

Emergency Phone #: 732-657-7812

Local Public Education Coordinator: David Winton

Title: Department of Public Works

Office Phone #: 732-657-9797

Emergency Phone #: 732-657-7812

Ordinance Coordinator: Bernadette Dugan

Title: Borough Clerk

Office Phone #: 732-657-4141

Emergency Phone #: 732-657-7812

Public Works Coordinator: Alfred Sloan

Title: Public Works Supervisor

Office Phone #: 732-657-9797

Emergency Phone #: 732-657-7812

Employee Training Coordinator: David Winton

Title: Department of Public Works

Office Phone #: 732-657-9797

Emergency Phone #: 732-657-7812

Other: _____

Title: _____

Office Phone #: _____

Emergency Phone #: _____

SPPP Form 2 - Public Notice

Municipality
Information

Municipality: Lakehurst Borough

County: Ocean County

NJPDES # : NJG0147761

PI ID #: 203008

Team Member/Title: Stephen Childers, Lakehurst Borough Admin

Effective Date of Permit Authorization (EDPA): April 1, 2004

Date of Completion: February 7, 2005

Date of most recent update: May 28, 2018

Briefly outline the principal ways in which you comply with applicable State and local public notice requirements when providing for public participation in the development and implementation of your stormwater program.

Compliance with Public Notice Requirements:

For meetings where public notice is required under the Open Public Meetings Act ("Sunshine Law," N.J.S.A. 10:4-6 et seq.), Lakehurst Borough provides public notice in a manner that complies with the requirements of that Act.

In regards to the passage of ordinances, Lakehurst Borough provides public notice in a manner that complies with the requirements of N.J.S.A. 40:49-1 et seq.

For municipal actions (e.g., adoption of the municipal stormwater management plan) subject to public notice requirements in the Municipal Land Use Law (N.J.S.A. 40:55D-1 et seq.), Lakehurst Borough complies with those requirements.

Public notices are published in the following manner:

- Asbury Park Press
- Lakehurst Borough Website

SPPP Form 3 – New Development and Redevelopment Program

Municipality Information

Municipality: Lakehurst Borough County Ocean County
 NJPDES #: NJG0147761 PI ID #: 203008
 Team Member/Title: Alan Dittenhoffer, Borough Engineer
 Effective Date of Permit Authorization (EDPA): April 1, 2004
 Date of Completion: February 7, 2005 Date of most recent update: May 28, 2018

Describe in general terms your post-construction stormwater management in new development and redevelopment program (post-construction program), and how it complies with the Tier A Permit minimum standard. This description must address compliance with the Residential Site Improvement Standards for stormwater management; ensuring adequate long-term operation and maintenance of BMPs (including BMPs on property that you own or operate); design of storm drain inlets (including inlets that you install); and preparation, adoption, approval, and implementation of a municipal stormwater management plan and municipal stormwater control ordinance(s). Attach additional pages as necessary. Some additional specific information (mainly about that plan and ordinance(s)) will be provided in your annual reports.

To control stormwater from new development and redevelopment projects throughout Lakehurst Borough (including projects the Borough operates) the following actions will be implemented:

Compliance with Residential Site Improvement Standards (RSIS):

Lakehurst Borough is currently ensuring that all new residential development and redevelopment projects that are subject to the Residential Site Improvement Standards for stormwater management (including NJDEP Stormwater Management rules, N.J.A.C. 7:8, referenced in those standards) are in compliance with those standards. The Borough's planning and zoning boards ensure such compliance before issuing preliminary or final subdivision or site plan approvals under the Municipal Land Use Law.

Operation and Maintenance of Best Management Practices (BMPs):

The Borough of Lakehurst has adopted a Stormwater Control Ordinance 25-15 on March 16, 2006. The Stormwater Control Ordinance 25-15 was repealed in its entirety and Stormwater Control Ordinance 25-16 was adopted on October 5, 2006. Amendments to Stormwater Control Ordinance 25-16 were adopted on May 7, 2009. The current ordinance can be found in the appendix.

For any BMP that is installed in order to comply with the requirements of the Borough's post-construction program, Lakehurst will ensure adequate long-term operation as well as preventative and corrective maintenance (including replacement) of BMPs.

Storm Drain Inlet Design:

Any storm drain inlets installed will comply with the standards in Attachment V of this plan. Lakehurst will ensure the construction, operation and maintenance for any new development or redevelopment projects on Borough property by enforcing compliance with the requirements of the Stormwater Control Ordinance 25-16.

Stormwater Management Plan and Stormwater Control Ordinance:

The Stormwater Control Ordinance 25-16 was adopted on October 5, 2006. Amendments to Stormwater Control Ordinance 25-16 were adopted on May 7, 2009, this ordinance is administered by Lakehurst's code enforcement officer to control stormwater from non-residential development and redevelopment projects and also control aspects of residential development and redevelopment projects that are not subject to the Residential Site Improvement Standards.

Lakehurst Borough also enforces, through the municipal stormwater control ordinance, compliance with the design standard in Attachment C of the permit to control passage of solid and floatable materials through storm drain inlets. Lakehurst Borough expects that for most projects, such compliance will be achieved by installation of the NJDOT bicycle safe grate and (if needed) a curb opening with a clear space no bigger than two inches across the smallest dimension.

SPPP Form 4- Local Public Education Program

Municipality
Information

Municipality: Lakehurst Borough

County Ocean County

NJPDES #: NJG0147761

PI ID #: 203008

Team Member/Title: David Winton, Department of Public Works

Effective Date of Permit Authorization (EDPA): April 1, 2004

Date of Completion: February 7, 2005

Date of most recent update: 5/28/18

Local Public Education Program

Describe your Local Public Education Program. Be specific on how you will distribute your educational information, and how you will conduct your annual event. Attach additional pages with the date(s) of your annual mailing and the date and location of your annual event.

Annual Mailing Requirement:

To fulfill the annual distribution requirement of the local public education program, Lakehurst Borough distributes the NJDEP "Solutions to Stormwater Pollution" brochure with its Calendar mailed in January to all residents and businesses and can be found on the Borough's website. Extra copies will be made available at the Borough's municipal building.

Annual Event Requirement:

Educational materials are also made available at Lakehurst's annual events, which will be held in coordination with the Borough's National Night Out, Barnegat Bay Blitz, and July 4th Celebration. Educational materials targeted towards a younger audience may also be made available at various youth and recreational events and school programs held randomly throughout the year.

- Record keeping logs have been included.

Attachments:

- Attachment III – NJDEP "Solutions to Stormwater Pollution" Brochure
- Attachment IV – Optional Educational Materials
 - NJDEP "Pet Waste Pollutes Our Waters" Handout
 - Rutgers Cooperative Extension Fact Sheets
 - Home Composting
 - Yard Trimmings Management Strategies
 - Using Leaf Compost
 - Minimizing Waste Disposal: Grass Clippings
 - Backyard Leaf Composting

SPPP Form 5 – Storm Drain Inlet Labeling

Municipality
Information

Municipality: Lakehurst Borough

County Ocean County

NJPDES #: NJG0147761

PI ID #: 203008

Team Member/Title: David Winton, Department of Public Works

Effective Date of Permit Authorization (EDPA): April 1, 2004

Date of Completion: February 7, 2005

Date of most recent update: May 28, 2018

Storm Drain Inlet Labeling

Describe your storm drain inlet labeling program, including your labeling schedule, the details of your long-term maintenance plan, and plans on coordinating with watershed groups or other volunteer organizations.

Storm Drain Inlet Labeling Program and Schedule:

All storm drain inlets along municipal streets with sidewalks, and all drain inlets with plazas, parking areas or maintenance yards that are operated by Lakehurst Borough are labeled in accordance with the Storm Drain Labeling Guidelines for New Jersey.

Long-Term Maintenance:

During the annual catch basin cleaning program, the Borough will be checking these labels to ensure they that they are still visible. Labels that are not visible will be replaced immediately.

Description of Labels:

In addition, plastic labels depicting a fish and reading "ONLY RAIN IN THE DRAIN – FLOWS TO BARNEGAT BAY", provided by the Barnegat Bay Watershed and Estuary Foundation, have been utilized where appropriate. Other labels include stencils depicting a similar education message.



Attachment:

- Attachment VI – Storm Drain Labeling Guidelines

SPPP Form 6 – MS4 Outfall Pipe Mapping

Municipality
Information

Municipality: Lakehurst Borough

County Ocean County

NJPDES #: NJG0147761

PI ID #: 203008

Team Member/Title: David Winton, Department of Public Works

Effective Date of Permit Authorization (EDPA): April 1, 2004

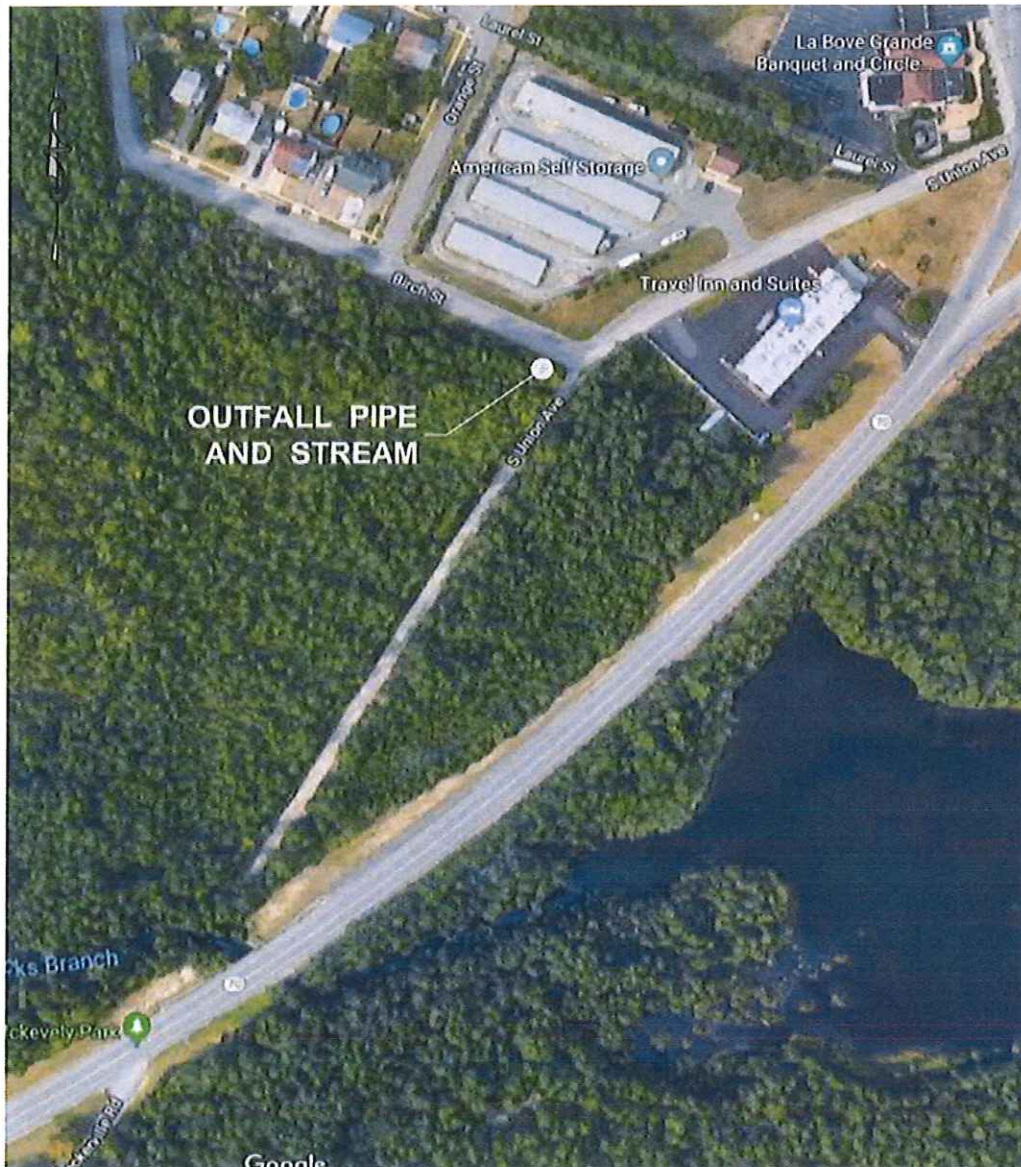
Date of Completion: February 7, 2005

Date of most recent update: May 28, 2018

Explain how you will prepare your map (include its type and scale, and the schedule for the mapping process). Who will prepare your map (e.g., municipal employees, a consultant, etc.)?

Outfall Mapping:

The Lakehurst Borough Public Works Department has provided the following outfall map. There is one (1) outfall owned/operated by the Borough.



SPPP Form 7 – Illicit Connection Elimination Program

Municipality Information

Municipality: Lakehurst Borough

County Ocean County

NJPDES # :NJG0147761

PI ID #: 203008

Team Member/Title: David Winton, Department of Public Works

Effective Date of Permit Authorization (EDPA): April 1, 2004

Date of Completion: February 7, 2005

Date of most recent update: May 28, 2018

Describe your Illicit Connection Elimination Program and explain how you plan on responding to complaints and/or reports of illicit connections (e.g., hotlines, etc.). Attach additional pages as necessary.

Initial Physical Inspection:

Lakehurst Borough Department of Public Works has conducted an initial physical inspection of the municipalities one (1) outfall pipe during the mapping process. The Inspection was conducted using the DEP Illicit Connection Inspection Report Form. This form is kept with Lakehurst Borough's SPPP records.

Illicit Connection Elimination Program:

If the Outfall pipe is found to have dry weather flow or evidence of an intermittent non-stormwater flow an investigation to locate the illicit connection will be performed. If the Borough is able to locate the illicit connection (and the connection is within Lakehurst) the responsible party will be notified immediately, and a citation will be issued if the connection is not corrected within six (6) months of discovery.

If, after the appropriate amount of investigation, Lakehurst is unable to locate the source of the illicit connection, the Closeout Investigation Form will be submitted with the Annual Inspection and Recertification.

If an illicit connection is found to originate from another public entity, Lakehurst Borough will report the illicit connection to the Department, and also notify the municipality from which the dry weather flow appears to originate.

Reporting Illicit Connections

Residents can report illicit connections to the Borough by contacting the local police department at (732) 657-7812, or the NJDEP Hotline at 1-877-WARNDEP.

- The following NJDEP forms have been included:
 - Illicit Connection Inspection Form, to be completed for each municipal outfall
 - Closeout Investigation Form, to be completed and submitted when appropriate

If dry weather flow is observed, Illicit Connection Inspection Report Form and the Closeout Investigation Form must be submitted to NJDEP along with the Annual Certification Report. Otherwise, all Illicit Connection Inspection Forms must be kept with the SPPP for NJDEP review.

SPPP Form 8 – Illicit Connection Records

Municipality Information	Municipality: <u>Lakehurst Borough</u>	County <u>Ocean County</u>
	NJPDES #: <u>NJG0147761</u>	PI ID #: <u>203008</u>
	Team Member/Title: <u>David Winton, Department of Public Works</u>	
	Effective Date of Permit Authorization (EDPA): <u>April 1, 2004</u>	
	Date of Completion: <u>February 7, 2005</u>	Date of most recent update: <u>May 28, 2018</u>

Prior to May 2, 2018

Note: Attach a copy of each illicit connection report form for outfalls found to have a dry weather flow.

Total number of inspections performed this year? 5

Number of outfalls found to have a dry weather flow? 0

Number of outfalls found to have an illicit connection? 0

How many illicit connections were eliminated? N/A

Of the illicit connections found, how many remain? N/A

May 2, 2006 – May 1, 2019

Note: Attach a copy of each illicit connection report form for outfalls found to have a dry weather flow.

Total number of inspections performed this year? _____

Number of outfalls found to have a dry weather flow? _____

Number of outfalls found to have an illicit connection? _____

How many illicit connections were eliminated? _____

Of the illicit connections found, how many remain? _____

May 2, 2007 – May 1, 2020

Note: Attach a copy of each illicit connection report form for outfalls found to have a dry weather flow.

Total number of inspections performed this year? _____

Number of outfalls found to have a dry weather flow? _____

Number of outfalls found to have an illicit connection? _____

How many illicit connections were eliminated? _____

Of the illicit connections found, how many remain? _____

May 2, 2008 – May 1, 2021

Note: Attach a copy of each illicit connection report form for outfalls found to have a dry weather flow.

Total number of inspections performed this year? _____

Number of outfalls found to have a dry weather flow? _____

Number of outfalls found to have an illicit connection? _____

How many illicit connections were eliminated? _____

Of the illicit connections found, how many remain? _____

Containerized Yard Waste Ordinance / Yard Waste Collection Program Ordinance:	Containerized Yard Waste Ordinance
10. Date adopted:	03/17/2005
11. Illicit Connection Ordinance:	Yes
12. Date adopted:	03/17/2005
13. Refuse Container/Dumpster Ordinance:	Yes
14. Date adopted:	05/07/2009
15. Private Storm Drain Inlet Retrofitting Ordinance:	Yes
16. Date adopted:	05/07/2009
17. Status of these ordinances (if not adopted):	
18. Method(s) of enforcement (e.g., summons, warnings, additional signs, etc.):	All of the above
19. Are you distributing the Pet Waste Information Sheets with pet licenses?	Yes

Report Details - Part D

MS4 Outfall Pipe Mapping

1. Has the municipality completed the mapping of the MS4 outfall pipes?	Yes
2. Date completed:	04/22/2005
3. Number of outfall pipes that you operate in the municipality:	1
4. How many MS4 outfall pipes are mapped?	1

Illicit Connection Elimination Program

1. Does the municipality have an ongoing program to detect and eliminate illicit connections to municipally owned or operated outfall pipes?	Yes
2. How many outfall pipes were inspected during the past calendar year?	1
3. Number of illicit connections detected during the past calendar year:	0
4. Number of illicit connections eliminated during the past calendar year:	0
<p>Please attach, in a format provided by the Department, a list of all outfalls found to have an illicit connection since the inception of the program. The list must include the outfall</p>	

SPPP Form 9 – Yard Waste Ordinance/Collection Program

Municipality Information

Municipality: <u>Lakehurst Borough</u>	County <u>Ocean County</u>
NJPDES # : <u>NJG0147761</u>	PI ID #: <u>203008</u>
Team Member/Title: <u>David Winton, Department of Public Works</u>	
Effective Date of Permit Authorization (EDPA): <u>April 1, 2004</u>	
Date of Completion: <u>February 7, 2005</u>	Date of most recent update: <u>May 28, 2018</u>

Please describe your yard waste collection program. Be sure to include the collection schedule and how you will notify the residents and businesses of this schedule. Attach additional pages as necessary.

Yard Waste Collection:

Lakehurst Borough is currently meeting the option to prohibit non-containerized yard waste from being placed in the street through existing Municipal Code 17-1.1 c, which states:

“Leaves shall be placed in a container from which or in which they may be readily loaded in Borough disposal trucks.”

Leaves may be placed at curbside in untied bags or containers only on the following Fridays:



Spring Collection..... April

Fall Collection..... November

This information is posted on the Borough of Lakehurst's website at:

www.lakehurst-nj.gov/

under the Department of Public Works, which can be accessed by following the Departments link.

The Borough currently does not collect grass clippings from residents.

SPPP Form 10 - Ordinances

Municipality Information	Municipality: <u>Lakehurst Borough</u>	County: <u>Ocean County</u>
	NJPDES #: <u>NJG0147761</u>	PI ID #: <u>203008</u>
	Team Member/Title: <u>Bernadette Dugan, Borough Clerk</u>	
	Effective Date of Permit Authorization (EDPA): <u>April 1, 2004</u>	
	Date of Completion: <u>February 7, 2005</u>	Date of most recent update: <u>May 28, 2018</u>

For each ordinance, give the date of adoption. If not adopted, explain the development status:

Pet Waste: Ordinance No. 05-05 adopted March 17, 2005

Are information sheets regarding pet waste distributed with pet licenses? Y (X) N ()

Litter: Ordinance No. 89-05

Litter Control: Ordinance No. 05-08 adopted March 17, 2005

Improper Waste Disposal: Ordinance No. 05-07 adopted March 17, 2005

Wildlife Feeding: Ordinance No. 05-06 adopted March 17, 2005

Yard Waste: Municipal Code § 17.4

Illicit Connections: Ordinance No. 05-07 adopted March 17, 2005

Stormwater Control: Ordinance No. 06-07 adopted October 5, 2006 and amended by Ordinance No. 09-09 adopted May 7, 2009

Flood Damage Prevention: Ordinance No. 06-06 adopted July 20, 2006

All Ordinances can be found in the Attachments

How will these ordinances be enforced?

Enforcement of Ordinances:

Our code enforcement officers and local police officers will enforce these ordinances. If someone is found to be in violation of an ordinance, they will be issued a written warning for first time offenses, and penalties will be issued for subsequent offenses.

SPPP Form 11 – Storm Drain Inlet Retrofitting

Municipality Information

Municipality: Lakehurst Borough

County Ocean County

NJPDES #: NJG0147761

PI ID #: 203008

Team Member/Title: Alan Dittenhoffer, Borough Engineer

Effective Date of Permit Authorization (EDPA): April 1, 2004

Date of Completion: February 7, 2005

Date of most recent update: May 28, 2018

What type of storm drain inlet design will generally be used for retrofitting?

For most projects Lakehurst Borough will use the NJDOT bicycle safe grate style and (if needed) a curb opening with a clear space no bigger than two inches across the smallest dimension.

Repaving, repairing, reconstruction or alteration project name	Projected start date	Start date	Date of completion	# of storm drain inlets	# of storm drains w/ hydraulic exemptions
Orange Street & Laurel Street	7/11/05	7/11/05	12/05/05	12	
Mill & Overlay	3/30/09	3/30/09		8	
Willow Street	3/2019			3	
Pine Street	3/2019			6	

Are you claiming any alternative device exemptions or historic place exemptions for any of the above projects? Please explain:

None

SPPP Form 12 – Street Sweeping and Road Erosion Control Maintenance

Municipality Information

Municipality: Lakehurst Borough

County Ocean County

NJPDES # :NJG0147761

PI ID #: 203008

Team Member/Title: David Winton, Public Works Supervisor

Effective Date of Permit Authorization (EDPA): April 1, 2004

Date of Completion: February 7, 2005

Date of most recent update: May 28, 2018

Street Sweeping

Please describe the street sweeping schedule that you will maintain.

(NOTE: Attach a street sweeping log containing the following information: date and area swept, # of miles swept and the total amount of materials collected.)

Street Sweeping Schedule:

The Borough of Lakehurst does not currently own or operate any roadways that meet the criteria (i.e. predominantly commercial) for streets to be swept monthly.

The Borough intends on maintaining its existing street sweeping program for all roadways, which currently includes sweeping streets once a year, through an agreement with the Ocean County Road Department.

- A street sweeping log has been included.

Road Erosion Control Maintenance

Describe your Road Erosion Control Maintenance Program, including inspection schedules. A list of all sites of roadside erosion and the repair technique(s) you will be using for each site should be attached to this form.

(NOTE: Attach a road erosion control maintenance log containing the following information: location, repairs, date)

Road Erosion Control Maintenance Program:

Lakehurst Borough will use the Public Works Department to monitor all their roads and streets for erosion problems during normal patrols. All identified road erosion problems will be reported to Dave Winton, the Public Works Department Supervisor. During SPPP Team meetings, identified areas of erosion will be discussed and repairs prioritized. All maintenance personnel will then be assigned to the areas of concern, and the areas identified to have road erosion problems will be repaired in accordance with the Standards for Soil Erosion and Sediment Control in New Jersey. All maintenance personnel will maintain an inspection log, and Dave Winton will maintain a list of all repairs and the dates completed. The status of the Road Erosion Control Maintenance Program will be included in the Annual Report and Recertification.

- A road erosion control maintenance log has been included.

Street Sweeping Log

Date	Sweepings	
	Location(s)	Swept By:
		<input type="checkbox"/> Sweeper <input type="checkbox"/> By Hand
		<input type="checkbox"/> Sweeper <input type="checkbox"/> By Hand
		<input type="checkbox"/> Sweeper <input type="checkbox"/> By Hand
		<input type="checkbox"/> Sweeper <input type="checkbox"/> By Hand
		<input type="checkbox"/> Sweeper <input type="checkbox"/> By Hand
		<input type="checkbox"/> Sweeper <input type="checkbox"/> By Hand
		<input type="checkbox"/> Sweeper <input type="checkbox"/> By Hand

Additional Information regarding shared services and outside contractors:

# of Miles Swept	Approx. Amount Collected

SPPP Form 13 – Stormwater Facility Maintenance

Municipality
Information

Municipality: Lakehurst Borough

County Ocean County

NJPDES #: NJG0147761

PI ID #: 203008

Team Member/Title: David Winton, Public Works Supervisor

Effective Date of Permit Authorization (EDPA): April 1, 2004

Date of Completion: February 7, 2005

Date of most recent update: May 28, 2018

Please describe your annual catch basin cleaning program and schedule. Attach a map/diagram or additional pages as necessary.

Catch Basin Cleaning Program:

Lakehurst Borough currently owns and maintains 78 catch basins. An annual catch basin cleaning program will be implemented to maintain catch basin function and efficiency. All catch basins will be inspected once each year. If, at the time of inspection, no sediment, trash or debris is observed in the catch basin, then that catch basin will not be cleaned. All catch basins will be inspected annually, even if they were found to be "clean" the previous year. At the time of cleaning, the catch basins will also be inspected for proper function. Maintenance will be scheduled for those catch basins that are in disrepair. The annual catch basin cleaning program will begin in April 2005.

- A map depicting municipally owned storm drain inlets (highlighted blue) has been included.

Please describe your stormwater facility maintenance program for cleaning and maintenance of all stormwater facilities operated by the municipality. Attach additional pages as necessary.

(NOTE: Attach a maintenance log containing information on any repairs/maintenance performed on stormwater facilities to ensure their proper function and operation.)

Stormwater Facility Maintenance Program:

Lakehurst Borough has implemented a stormwater facility maintenance program to ensure that all stormwater facilities operated by the Borough function properly. Lakehurst Borough operates the following:

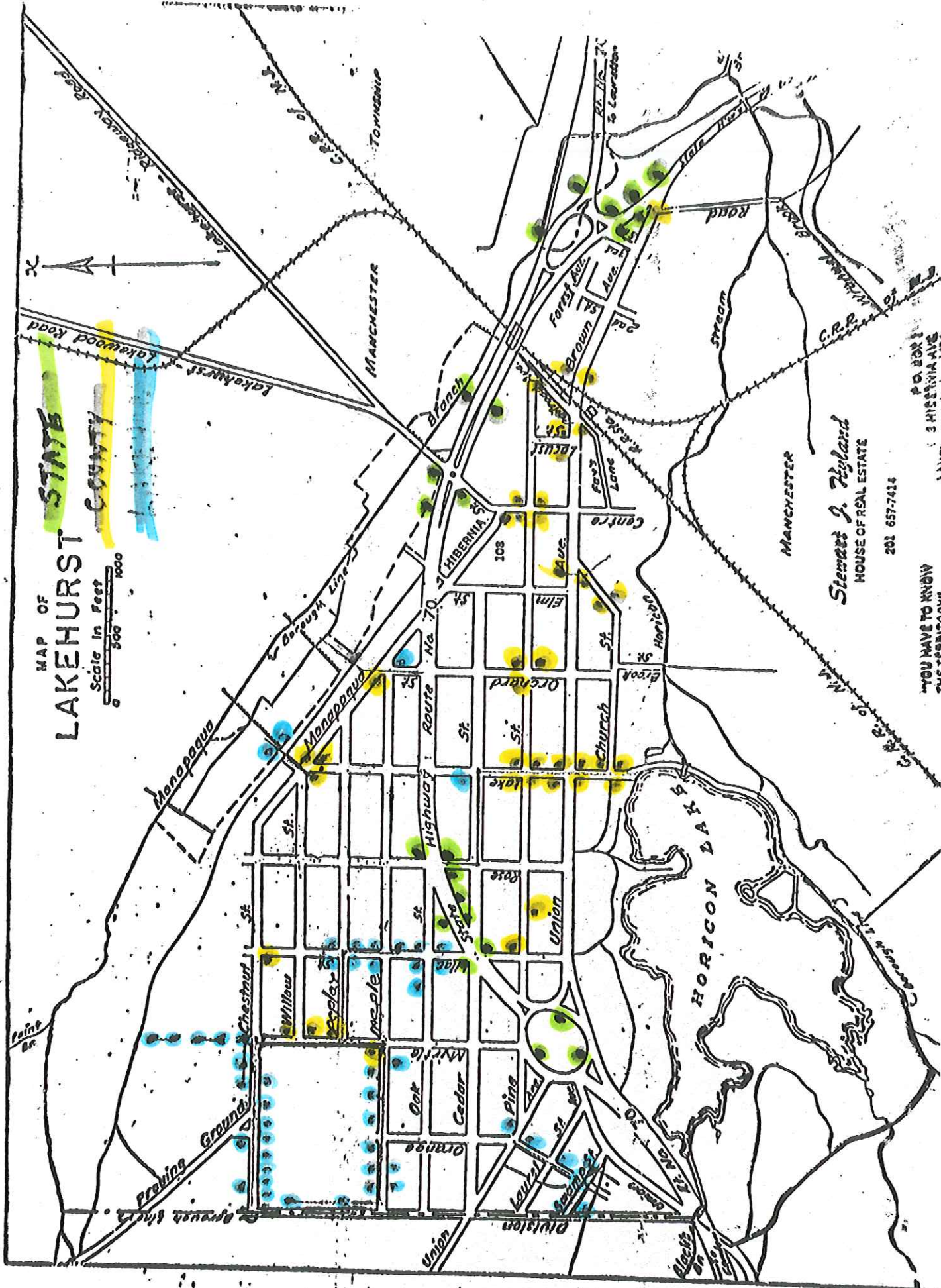
- Catch basins
- Storm drains
- Ditch

These stormwater facilities will be inspected annually to ensure they are functioning properly. In high risk areas, preventative maintenance will be performed on all stormwater facilities to ensure that they do not begin to fail.

- A Stormwater Facility Maintenance Log has been included.

MAP OF
LAKEHURST STATE
COUNTY

Scale in Feet
 0 500 1000



Stewart J. Hyland
 HOUSE OF REAL ESTATE

201 657-7414

"YOU HAVE TO KNOW"
 P.O. BOX 1
 3 HIBERNIA AVE
 P.O. BOX 1000
 LAKEHURST, N.J. 08033

Borough of Lakehurst
Tier A Stormwater Permit
Catch Basin Cleaning Form

Location	ID	Date	Cleaned	Inspected	Labeled	Needs Repair	Comments
Cedar Street & Lake Street	1						
Birch Street & Division Street	2						
Birch Street & Division Street	3						
Birch Street & Orange Street	4						
Birch Street & Orange Street	5						
Orange Street & Laurel Street	6						
Orange Street & Laurel Street	7						
Orange Street & Laurel Street	8						
Orange Street & Union Avenue	9						
Orange Street & Pine Street	10						
Orange Street & Union Avenue	11						
Orange Street & Union Avenue	12						
Orange Street & Cedar Street	13						
Orange Street & Cedar Street	14						
Orange Street & Cedar Street	15						
Orange Street & Cedar Street	16						
Orange Street & Oak Street	17						
Orange Street & Oak Street	18						
824 Maple Street	19						
820 Maple Street	20						
D Street & Maple Street	21						
D Street & Maple Street	22						
D Street & Maple Street	23						
Orange Street & Maple Street	24						
Orange Street & Maple Street	25						
In Front of 708 Maple Street	26						
In Front of 708 Maple Street	27						

SPPP Form 14 - Outfall Pipe Stream Scouring Remediation

Municipality
Information

Municipality: Lakehurst Borough

County Ocean County

NJPDES # :NJG0147761

PI ID #: 203008

Team Member/Title: David Winton, Public Works Supervisor

Effective Date of Permit Authorization (EDPA): April 1, 2004

Date of Completion: February 7, 2005

Date of most recent update: May 28, 2018

Describe your stormwater outfall pipe scouring detection, remediation and maintenance program to detect and control active, localized stream and stream bank scouring. Attach additional pages as necessary.

(NOTE: Attach a prioritized list of sites observed to have outfall pipe stream and stream bank scouring, date of anticipated repair, method of repair and date of completion.)

Outfall Pipe Stream Scouring, Detection, Remediation and Maintenance Program:

Lakehurst Borough will check the outfall pipes for signs of scouring when completing the illicit connection part of this program. All repairs will be a priority and made in accordance with the Standards for Soil Erosion and Sediment Control in New Jersey. In addition, repairs that do not need NJDEP permits may be done first.

Each repair will be monitored annually by inspection to ensure the scouring has not resumed.

- An Outfall Pipe Stream and Stream Bank Scouring Maintenance Log has been included.

SPPP Form 15 – De-icing Material Storage

Municipality
Information

Municipality: Lakehurst Borough

County Ocean County

NJPDES # :NJG0147761

PI ID #: 203008

Team Member/Title: David Winton, Department of Public Works

Effective Date of Permit Authorization (EDPA): April 1, 2004

Date of Completion: February 7, 2005

Date of most recent update: May 28, 2018

De-icing Material Storage

Describe how you currently store your municipality's de-icing materials and describe your inspection schedule for the storage area. If your current storage practices do not meet the de-icing material storage SBR describe your construction schedule and your seasonal tarping interim measures. If you plan on sharing a storage structure, please include its location, as well as a complete list of all concerned public entities. If you store sand outdoors, describe how it meets the minimum standard.

De-icing Material Storage:

Lakehurst Borough constructed a permanent storage structure for the de-icing material stored at the Public Works Department from October 15 through April 30. This area will be inspected monthly to ensure the material is maintained and stored properly.

- An inspection log has been included.

The following standard operating procedures for good housekeeping of salt and de-icing material handling will be implemented to ensure minimal environmental impact:

- Prevent and/or minimize the spillage of salt and de-icing materials during loading and unloading activities.
- At the completion of loading and unloading activities, spilled salt and de-icing materials shall be removed using dry cleaning methods and either reused or properly disposed of.
- Sweeping by hand or mechanical means of storage and loading/unloading areas shall be done on a regular basis. More frequent sweeping is required following loading/unloading activities. Sweeping shall also be conducted immediately following, as practicable, loading/unloading activities.
- Minimize the distance salt and de-icing materials are transported during loading/unloading activities.

SPPP Form 16 – Standard Operating Procedures

Municipality Information	Municipality: <u>Lakehurst Borough</u>	County: <u>Ocean County</u>
	NJPDES #: <u>NJG0147761</u>	PI ID #: <u>203008</u>
	Team Member/Title: <u>David Winton, Department of Public Works</u>	
	Effective Date of Permit Authorization (EDPA): <u>April 1, 2004</u>	
	Date of Completion: <u>February 7, 2005</u>	Date of most recent update: <u>May 28, 2018</u>

BMP	Date SOP went into effect	Describe your inspection schedule
Fueling Operations (including the required practices listed in Attachment D of the permit)	April 1, 2005	<p>All fueling locations within the Borough's municipal maintenance yards will be inspected monthly.</p> <ul style="list-style-type: none"> ▪ Fueling SOPs have been included.
Vehicle Maintenance (including the required practices listed in Attachment D of the permit)	April 1, 2005	<ul style="list-style-type: none"> ▪ Vehicle Maintenance SOPs have been included and Vehicle Washing are subcontracted out and no longer done at the Facility.
Vehicle Storage	May 28, 2018	<p>Monthly inspections of vehicles will be held</p> <ul style="list-style-type: none"> ▪ Pick-Up Trucks are stored within building and Sanitation and Dump Trucks are kept outside. Hydraulic Lift not in use and stored within building.
Good Housekeeping Practices (including the required practices listed in Attachment D of the permit) Attach inventory list required by Attachment D of the permit.	April 1, 2005	<p>Monthly inspections of all municipal maintenance yards and ancillary operations will be held.</p> <p>The following items have been included:</p> <ul style="list-style-type: none"> ▪ Good Housekeeping SOPs ▪ Source Material Inventory

BOROUGH OF LAKEHURST

TIER A STORMWATER PERMIT

STANDARD OPERATING PROCEDURES

GOOD HOUSEKEEPING



INTRODUCTION

This SOP contains the basic practices of good housekeeping to be implemented at maintenance yards including maintenance activities at ancillary operations in the Borough of Lakehurst.

SCOPE

This SOP applies to all maintenance yards including maintenance activities at ancillary operations in the Borough of Lakehurst.

STANDARDS AND SPECIFICATIONS (GENERAL)

- All containers should be properly labeled and marked, and the labels must remain clean and visible.
- All containers must be kept in good condition and tightly closed when not in use.
- When practical, chemicals, fluids and supplies should be kept indoors.
- Store materials such as grease, cleaners, and paints, materials in appropriate, labeled containers.
- Store batteries indoors whenever possible. If outdoors, batteries should be placed on an elevated surface and covered.
- Keep tires indoors or covered to prevent contact with rainwater.
- Keep storage areas clean and well organized.
- Absorbent spill clean-up materials must be available in maintenance areas and shall be disposed of properly after use.
- Place trash, dirt and other debris in the dumpster.
- Collect waste fluids in properly labeled containers and dispose of them properly.

STANDARDS AND SPECIFICATIONS (SPECIFIC)

- If containers are stored outside, they must be covered and placed on spill platforms.
- Gasoline, engine fluids, freon and other contaminated liquids must be drained from scrapped items in a designated area and disposed of or recycled properly before the items are placed in the scrap storage area.
- The waste oil storage area will be inspected daily to ensure there are no drips or spills.
- Spill kits and drip pans must be kept near any liquid transfer areas, protected from rainfall.
- Ensure that garbage dumpsters have covers, that covers are properly utilized, and that covers are maintained in working order.
- Inspect dumpsters and other waste containers periodically. Repair or replace leaky dumpsters and containers.
- Cover roadway generated waste to prevent contact with precipitation, and store on an impervious surface.

STANDARDS AND
SPECIFICATIONS
(SALT AND DE-
ICING MATERIAL
HANDLING)

- During loading and unloading of salt and de-icing materials, prevent and/or minimize spills. If salt or de-icing materials are spilled, remove the materials using dry cleaning methods. All collected materials shall be either reused or properly discarded.
- Sweeping should be conducted as needed to get rid of dirt and other debris. Sweeping should also be conducted immediately following loading/unloading activities, when practical.
- Minimize the tracking of materials from storage and loading/unloading areas.
- Minimize the distance that salt and de-icing materials are transported during loading/unloading activities.
- Any materials that are stored outside must be tarped when not actively being used.
- If interim seasonal tarping is being implemented, de-icing materials may be stored outdoors only between October 15th through April 30th.
- Uncovered clean sand storage will remain at a 50 foot setback from all stormwater conveyances.

SPILL RESPONSE
AND REPORTING

- Employees must be trained in spill cleanup procedures, and appropriate cleanup materials must be stocked near the fluid draining areas.
- Conduct clean up of any spill(s) immediately after discovery.
- Spills are to be cleaned using dry cleaning methods only.
- Contact the local police department at 732-657-7812, or 911.
- Contact the NJDEP Spill Hotline at 1-877-WARNDEP
- Contact the EJIF hotline at 1-800-289-6681

MAINTENANCE
AND INSPECTION

- Periodically check for leaks and damaged equipment and make repairs as necessary.
- Perform monthly inspections of all (indoor and outdoor if applicable) storage locations.

Lakehurst Borough: 2005 Monthly Good Housekeeping SOP Compliance Inspection

MONTH	INCLUDE DATES OF INSPECTION, PROBLEMS OBSERVED AND CORRECTIONS	SIGNATURE
January	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
February	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
March	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
April	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
May	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
June	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
July	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
August	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
September	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
October	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
November	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
December	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	

BOROUGH OF LAKEHURST

TIER A STORMWATER PERMIT

STANDARD OPERATING PROCEDURES

VEHICLE MAINTENANCE



INTRODUCTION	basic practices of vehicle maintenance to be implemented at all maintenance yards including maintenance activities at ancillary operations in the Borough of Lakehurst.
SCOPE	This SOP applies to all maintenance yards including maintenance activities at ancillary operations in the Borough of Lakehurst.
STANDARDS AND SPECIFICATIONS	<ul style="list-style-type: none">• Vehicle maintenance operations are currently performed at Halls Automotive Repair on 670 Route 70 and B&K Equipment on 622 West Veterans Highway.• Vehicle Washing is done at the Ocean County Washing Facility. If Maintenance is to occur on-site, the following procedures shall be followed:<ul style="list-style-type: none">• When possible, perform all vehicle and equipment maintenance at an indoor location with on an impervious surface.• Always use drip pans.• Absorbent spill clean-up materials shall be available in maintenance areas and shall be disposed of properly after use.• Use portable tents or construct a roofing-device over long-term maintenance areas and for projects that must be performed outdoors.• Do not dump or dispose oils, grease, fluids, and lubricants onto the ground, into a floor drain system, or sink.• Do not dump or dispose of batteries, used oils, antifreeze and other toxic fluids into a storm drain watercourse.• Properly cover and dispose of tires.• Collect waste fluids in properly labeled containers and dispose of properly.• Store used vehicle parts indoors or undercover.• Do not allowed vehicle and equipment washwater to enter into the stormwater collection system.
SPILL RESPONSE AND REPORTING	<ul style="list-style-type: none">• Provide spill containment dikes or secondary containment around stored oils and other fluid storage drum(s).• Conduct cleanups of any fuel spills immediately after discovery.• Spills are to be cleaned using dry cleaning methods only. Spills shall be cleaned up with a dry, absorbent material (e.g. kitty litter, sawdust, etc.) and the rest of the area is to be swept.• Collected waste is to be disposed of properly.• Contact the local police department at 732-657-7812, or 911.• Contact the NJDEP Spill Hotline at 1-877-WARNDEP• Contact the EJIF hotline at 1-800-289-6681
MAINTENANCE AND INSPECTION	<ul style="list-style-type: none">• Periodically check for leaks and damaged equipment and make repairs as necessary.

This SOP
contains the

Lakehurst Borough: 2005 Monthly Vehicle Maintenance SOP Compliance Inspection

MONTH	INCLUDE DATES OF INSPECTION, PROBLEMS OBSERVED AND CORRECTIONS	SIGNATURE
January	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
February	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
March	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
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October	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
November	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
December	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	

BOROUGH OF LAKEHURST

TIER A STORMWATER PERMIT

STANDARD OPERATING PROCEDURES

VEHICLE AND EQUIPMENT FUELING



INTRODUCTION

Vehicle and equipment fueling procedures and practices are designed to minimize pollution of surface or ground waters. Understanding the procedures for delivering fuel into vehicles, mobile fuel tanks, and storage tanks, as well as the removal of waste oil, is critical for this purpose.

SCOPE

This SOP applies to all maintenance yards including maintenance activities at ancillary operations in the Borough of Lakehurst. Lakehurst currently owns/ operates the following storage tanks, located at the Department of Public Works:

- **500-gallon waste oil AST**
- **Two (2) 550-gallon diesel ASTs**
- **275-gallon waste antifreeze AST**

STANDARDS AND SPECIFICATIONS (FOR VEHICLE AND EQUIPMENT FUELING)

- Shut the engine off
- Never leave vehicle unattended during fueling
- Ensure that the fuel is the proper type of fuel
- Absorbent spill clean-up materials and spill kits shall be available in the fueling areas and on mobile fueling vehicles and shall be disposed of properly after use.
- Nozzles used in vehicles and equipment fueling shall be equipped with an automatic shut-off to prevent overfill
- Fuel tanks shall not be "topped off"
- Mobile fueling shall be minimized. Whenever practical, vehicles and equipment shall be transported to the designated fueling area in the maintenance yard.
- Clearly post, in a prominent area of the facility, instructions for safe operation of fueling equipment, and appropriate contact information for the person(s) responsible for spill response.

STANDARDS AND
SPECIFICATIONS
(FOR PRODUCT
TRANSFER)

- Drip pans or absorbent pads shall be used under all hose and pipe connections and other leak-prone areas during product transfer
- Block storm sewer inlets, or contain tank trucks used for bulk transfer, with temporary berms or temporary absorbent booms during the transfer process. If temporary berms are being used instead of blocking the storm sewer inlets, all hose connection points associated with the transfer of fuel must be within the temporary berms during the loading/unloading of bulk fuels.
- Protect fueling areas with berms and/or dikes to prevent run-on, runoff, and to contain spills.
- A trained employee must always be present to supervise during bulk transfer.

SPILL RESPONSE
AND REPORTING

- Conduct cleanups of any fuel spills immediately after discovery
- Uncontained spills are to be cleaned using dry, absorbent material (e.g. kitty litter, sawdust, etc.) and absorbent materials shall be swept up.
- Collected waste is to be disposed of properly
- Contact the local police department at 732-657-7812, or 911.
- Contact the NJDEP Spill Hotline at 1-877-WARNDEP
- Contact the EJIF hotline at 1-800-289-6681

MAINTENANCE AND
INSPECTION

- **Clean all tank surfaces of residual material on a regular basis.**
- Fueling areas and storage tanks shall be inspected monthly.
- Keep an ample supply of spill cleanup material on-site.
- Any equipment, tanks, pumps, piping and fuel dispensing equipment found to be leaking or in disrepair must be repaired or replaced immediately.

Lakehurst Borough: 2005 Monthly Vehicle & Equipment Fueling SOP Compliance Inspection

MONTH	INCLUDE DATES OF INSPECTION, PROBLEMS OBSERVED AND CORRECTIONS	SIGNATURE
January	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
February	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
March	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
April	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
May	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
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July	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
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September	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
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November	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
December	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	

**Lakehurst Borough Department of Public Works
Maintenance Yard
Source Material Inventory**

Potential Source Material	Recommendation	Addressed in SOP:
Salt/De-icing Material	<ul style="list-style-type: none"> Kept in a permanent structure from October 15 through April 30. 	Good Housekeeping
Top Soil Storage	<ul style="list-style-type: none"> Keep 50-foot setback from stormwater collection 	Good Housekeeping
Leaves/Brush	<ul style="list-style-type: none"> Prevent from entering the stormwater collection system 	Good Housekeeping
Street Sweepings	<ul style="list-style-type: none"> Store covered on an impervious surface 	Good Housekeeping
Drums	<ul style="list-style-type: none"> Stored in Public Works Garage 	Good Housekeeping
Dumpsters/ Roll-off Containers	<ul style="list-style-type: none"> Cover contents to prevent exposure to precipitation 	Good Housekeeping
Waste Oil Storage/Waste Anti-Freeze	<ul style="list-style-type: none"> Stored in Containers within Concrete Containment Area. 	Good Housekeeping
Dust Control	<ul style="list-style-type: none"> R-Blend and Asphalt millings surface 	Good Housekeeping
Source Material Operations	Recommendation	Addressed in SOP:
Vehicle Washing	<ul style="list-style-type: none"> Vehicle washing and Maintenance are no longer done at the Facility. 	Vehicle Maintenance
Vehicle Storage	<ul style="list-style-type: none"> Pick-Up Trucks are stored within building and Sanitation and Dump Trucks are kept outside. Hydraulic Lift not in use and stored within building. 	Vehicle Storage
Vehicle Fueling	<ul style="list-style-type: none"> Keep spill kits nearby in case of spills during fuel transfer 	Vehicle Fueling

SPPP Form 17 – Employee Training

Municipality Information

Municipality: Lakehurst Borough

County: Ocean County

NJPDES # : NJG0147761

PI ID #: 203008

Team Member/Title: Dave Winton, Department of Public Works

Effective Date of Permit Authorization (EDPA): April 1, 2004

Date of Completion: February 7, 2005

Date of most recent update: _____

Describe your employee training program. For each required topic, list the employees that will receive training on that topic, and the date the training will be held. Attach additional pages as necessary.

Employee Training Program: SEE SPPP FORM 9 – EMPLOYEE TRAINING

Course Topic	Who will attend:
Waste Disposal Education	Public works employees
Municipal Ordinances	Code enforcement, local police, Clerk, Administrator, public works employees
Illicit Connection Elimination and Outfall Pipe Mapping	Public works employees
Street Sweeping	Public works employees
Stormwater Facility Maintenance	Public works employees
Road Erosion Control and Outfall Pipe Stream Scouring Remediation	Public works employees
Maintenance Yard Operations	Public works employees
Construction Activity / Post-Construction Stormwater Management in New Development and Redevelopment	Public works employees

- Illicit Connection Elimination and Outfall Pipe Mapping field training will include procedures to properly conduct illicit connection detections, investigations and eliminations.
- Maintenance Yard Operations field training will include SOPs for fueling, vehicle and equipment maintenance, general good housekeeping, and good housekeeping fore de-icing materials storage.

Dates for the above training programs are yet to be determined.

The following items have been included:

- Employee Training Logs
- Sign-in Sheets

Appendix I

Tier A Stormwater Permit (NJ0141852)



NEW JERSEY POLLUTANT DISCHARGE ELIMINATION SYSTEM

Permit Number: NJ0141852
P.I. ID #50577

Final: Tier A Municipal Stormwater Master General Permit

Permittee:

Division Of Water Quality
401 E State Street
Trenton, New Jersey 08625

Co-Permittee:

Property Owner:

Location Of Activity:

NJPDES Master General Permit Program
Interest
401 E State Street
Trenton, New Jersey 08625

Authorization(s) Covered Under This Approval	Issuance Date	Effective Date	Expiration Date
R9 -Tier A Municipal Stormwater General Permit	02/02/2004	03/03/2004	02/28/2009

By Authority of:

Commissioner's Office

DEP AUTHORIZATION
Barry Chalofsky, P.P., Chief
Bureau of Nonpoint Pollution Control
Division of Water Quality

(Terms, conditions and provisions attached hereto)

Tier A Municipal Stormwater General Permit (NJ0141852)

PART I NARRATIVE REQUIREMENTS:

A. Authorization Under this Permit

1. Permit Area

- a. This permit applies to all areas of the State of New Jersey.

2. Eligibility

- a. This permit may authorize all new and existing stormwater discharges to surface water and groundwater from small municipal separate storm sewer systems (MS4s) owned or operated by municipalities assigned to Tier A under N.J.A.C. 7:14A-25.3(a)1 (Tier A Municipalities), except as provided in A.5 below.
- b. On a case-by-case basis, the Department may use this permit to authorize new and existing stormwater discharges to surface water and groundwater from small MS4s (or portions of small MS4s) owned or operated by Tier B Municipalities. As used in this permit, the term "Tier A Municipality" includes Tier B Municipalities that seek or obtain authorization pursuant to this provision of this permit.
- c. After the Effective Date of Permit Authorization (EDPA), the permit authorizes the following new and existing non-stormwater discharges from small MS4s owned or operated by Tier A Municipalities:
 - i. Water line flushing and discharges from potable water sources
 - ii. Uncontaminated ground water (e.g., infiltration, crawl space or basement sump pumps, foundation or footing drains, rising ground waters)
 - iii. Air conditioning condensate (excluding contact and non-contact cooling water)
 - iv. Irrigation water (including landscape and lawn watering runoff)
 - v. Flows from springs, riparian habitats and wetlands, water reservoir discharges and diverted stream flows
 - vi. Residential car washing water, and residential swimming pool discharges
 - vii. Sidewalk, driveway and street wash water
 - viii. Flows from fire fighting activities
 - ix. Flows from rinsing of the following equipment with clean water:
 - Beach maintenance equipment immediately following their use for their intended purposes; and
 - Equipment used in the application of salt and de-icing materials immediately following salt and de-icing material applications. Prior to

rinsing with clean water, all residual salt and de-icing materials must be removed from equipment and vehicles to the maximum extent practicable using dry cleaning methods (e.g., shoveling and sweeping). Recovered materials are to be returned to storage for reuse or properly discarded.

Rinsing of equipment in the above situations is limited to exterior, undercarriage, and exposed parts and does not apply to engines or other enclosed machinery.

d. If any of the discharges listed in 2.c above are identified by the municipality as a significant contributor of pollutants to or from the MS4, the Tier A Municipality must address the discharge as an illicit connection or as an improper disposal of waste as specified in Part I, Section F of this permit

3. Authorization

a. In order to obtain authorization under this permit (except for automatic renewal of authorization under A.4 below) a complete Request for Authorization (RFA) shall be submitted in accordance with the requirements of this permit. Upon review of the RFA, the Department may, in accordance with N.J.A.C. 7:14A-6.13, either:

- i. Issue notification of authorization under this permit, in which case, authorization is deemed effective the first day of the following month of the date of the notification of authorization;
- ii. Deny authorization under this permit and require submittal of an application for an individual permit; or
- iii. Deny authorization under this permit and require submittal of an RFA for another general permit.

b. For discharges from a small MS4 authorized by this permit, the Tier A Municipality is exempt from N.J.A.C. 7:14A-6.2(a)2. This exemption means that the discharge of any pollutant not specifically regulated in the NJPDES permit or listed and quantified in the NJPDES application or RFA shall not constitute a violation of the permit.

c. Authorization under this permit shall cease to be effective under N.J.A.C. 7:14A-6.13(f), (h), (j) and (o), where applicable.

4. Automatic Renewal of Authorization

a. Authorization under this permit will be automatically renewed when this general permit is reissued as provided by N.J.A.C. 7:14A-6.13(d)9 and 25.4(a)3 so long as the discharge authorized under the general permit continues to be eligible. The Department shall issue a notice of renewed authorization to the Tier A Municipality.

b. If the Tier A Municipality is aware of any information in the most recently submitted RFA that is no longer true, accurate, and/or complete, the Tier A Municipality shall provide the correct information to the Department within 90 days of the effective renewal authorization notice.

5. Stormwater Discharges Not Authorized

a. This permit does not authorize "stormwater discharge associated with industrial

activity” as defined in N.J.A.C. 7:14A-1.2. Types of facilities that a Tier A Municipality may operate and that are considered to be engaging in “industrial activity” include but are not limited to certain landfills and recycling facilities, certain transportation facilities (including certain local passenger transit and air transportation facilities), certain facilities handling domestic sewage or sewage sludge, steam electric power generating facilities, and construction activity that disturbs five acres or more (see N.J.A.C. 7:14A-1.2 for the full definition of “stormwater discharge associated with industrial activity”). Any municipality that operates an industrial facility with such a discharge must submit a separate request for authorization (RFA) or individual permit application for that discharge. An RFA submitted for the Tier A Municipal Stormwater General Permit does not qualify as an RFA for such a discharge.

i. Deadlines to apply for a NJPDES permit for “stormwater discharge associated with industrial activity” are set forth in N.J.A.C. 7:14A-24.4(a)1. If such a discharge is from a facility (other than an airport, powerplant, or uncontrolled sanitary landfill) that is owned or operated by a municipality with a population of less than 100,000, the municipality shall submit the RFA or individual permit application by March 3, 2004. If such a discharge is from any other industrial facility, N.J.A.C. 7:14A-24.4(a)1 specifies earlier deadlines to apply.

b. This permit does not authorize “stormwater discharge associated with small construction activity” as defined in N.J.A.C. 7:14A-1.2. In general, this is the discharge to surface water of stormwater from construction activity that disturbs at least one but less than five acres (see N.J.A.C. 7:14A-1.2 for the full definition). Any municipality that operates a construction site with such a discharge must submit a separate RFA or individual permit application for that discharge. An RFA submitted for the Tier A Municipal Stormwater General Permit does not qualify as an RFA for such a discharge.

c. This permit does not authorize any stormwater discharge that is authorized under another NJPDES permit. A municipality does not have to implement measures contained in this NJPDES permit for stormwater discharges at facilities owned or operated by that municipality that are regulated under a separate NJPDES stormwater permit authorizing those discharges.

d. This permit does not authorize stormwater discharges from projects or activities that conflict with an adopted areawide or Statewide WQM plan.

B. Requests for Authorization Requirements

1. Deadline for Requesting Authorization for an Existing Discharge

a. An RFA for the existing discharges from the small MS4 owned or operated by a Tier A Municipality must be submitted to the Department on or before March 3, 2004, except as provided below.

i. If a municipality receives notice from the Department that it has been reassigned from Tier B to Tier A, or that a special designation is made under N.J.A.C. 7:14A-25.2(a)4, the deadline to submit an RFA is 180 days after the receipt of that notice, unless the Department approves a later date.

ii. The Department may, in its discretion, accept an RFA submitted after the

foregoing deadline; however, the municipality may still be held liable for violating the deadline to apply in accordance with N.J.A.C. 7:14A-25.4 and for discharging pollutants without a valid NJPDES permit in accordance with N.J.A.C. 7:14A-2.1(d).

2. Deadline for Requesting Authorization for a New Discharge

a. An RFA for discharges from a new small MS4 owned or operated by a Tier A Municipality must be submitted to the Department at least ninety (90) days prior to the operation of the new MS4 system.

i. A Tier A Municipality that already has authorization to discharge from a small MS4 under the Tier A Municipal Stormwater Permit does not need to submit an additional RFA for the expansion of an existing small MS4.

ii. A new small MS4 is a small MS4 that did not exist on March 3, 2004 and results in a new discharge to surface or ground waters of the State.

3. Requesting Authorization

a. A separate RFA shall be submitted by each Tier A Municipality applying for authorization under this permit.

b. A single RFA is required for the entire stormwater discharge from the small MS4 owned or operated by and located within a single municipality. Multiple RFAs are not required for multiple municipal operations (e.g., municipally owned and operated maintenance facilities, garages, and/or offices).

4. Contents of the Request for Authorization

a. A completed RFA shall include all of the following information regarding the Tier A Municipality and shall be completed using the Department's RFA form:

i. The name of the municipality that operates the small MS4, county it is located in, and the address of the main municipal office (e.g., city hall, town hall, or municipal building).

ii. The name and mailing address of the Municipal Stormwater Program Coordinator who will submit any reports or certifications required by the permit and to whom the Department shall send all correspondence concerning the permit.

iii. A certification acknowledging the best management practices and measurable goals specified in the permit.

iv. Additional information may be required by the Department to be included as part of the RFA if the Department determines that such additional information (including other data, reports, specifications, plans, permits, or other information) is reasonably necessary to determine whether to authorize the discharge under this permit.

5. Where to Submit

a. A completed and signed RFA shall be submitted to the Department at the address specified on the Department's RFA form.

C. Definitions

1. The following definitions apply to this permit.

- a. "EDPA" means Effective Date of Permit Authorization.
- b. "Illicit connection" means any physical or non-physical connection that discharges the following to a municipal separate storm sewer system, unless that discharge is authorized under a NJPDES permit other than the NJPDES permit for discharges from that system (non-physical connections may include, but are not limited to, leaks, flows, or overflows into the municipal separate storm sewer system):
 - i. Domestic sewage;
 - ii. Non-contact cooling water, process wastewater, or other industrial waste (other than stormwater); or
 - iii. Any category of non-stormwater discharges that the Tier A Municipality identifies as a source or significant contributor of pollutants pursuant to 40 C.F.R. 122.34(b)(3)(iii).
- c. "MS4" means a municipal separate storm sewer system.
- d. "Municipality" means a "municipality" as defined in the Municipal Land Use Law at N.J.S.A. 40:55D-5, that is, any city, borough, town, township, or village.
- e. "Municipal separate storm sewer" means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains):
 - i. Owned or operated by the United States, an interstate agency, a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe organization, or a designated and approved management agency under section 208 of the CWA that discharges to surface water or groundwater;
 - ii. Designed and used for collecting or conveying stormwater;
 - iii. Which is not a combined sewer;
 - iv. Which is not part of a POTW; and
 - v. Which is not either of the following:
 - A separate storm sewer(s) that is at an industrial facility, and that collects or conveys stormwater discharges associated with industrial activity that occurs at that facility; or
 - A separate storm sewer(s) that is at a construction site, and that collects or conveys stormwater discharges associated with small construction activity that occurs at that site.

- f. “Small municipal separate storm sewer system” or “small MS4” means all municipal separate storm sewers (other than “large” or “medium” municipal separate storm sewer systems as defined in N.J.A.C. 7:14A-1.2) that are:
- i. Owned or operated by municipalities described under N.J.A.C. 7:14A-25.1(b);
 - ii. Owned or operated by county, State, interstate, or Federal agencies, and located at public complexes as described under N.J.A.C. 7:14A-25.2(a)2; or
 - iii. Owned or operated by county, State, interstate, or Federal agencies, and located at highways and other thoroughfares as described under N.J.A.C. 7:14A-25.2(a)3; or
 - iv. Owned or operated by county, State, interstate, Federal, or other agencies, and receive special designation under N.J.A.C. 7:14A-25.2(a)4.
- g. “Solid and floatable materials” means sediment, debris, trash, and other floating, suspended, or settleable solids.
- h. “Stormwater” means water resulting from precipitation (including rain and snow) that runs off the land’s surface, is transmitted to the subsurface, is captured by separate storm sewers or other sewerage or drainage facilities, or is conveyed by snow removal equipment.

D. Special Conditions

1. Sharing of Responsibilities

- a. A Tier A Municipality may rely on another governmental, private, or nonprofit entity (for example, a watershed association) to satisfy the municipality’s NJPDES permit obligations to implement one or more control measures (or components (s) thereof) pursuant to N.J.A.C. 7:14A-25.7(a) if:
- i. The other entity, in fact, implements the measure(s), or component(s) thereof;
 - ii. The particular measure(s), or component(s) thereof, is at least as stringent as the corresponding NJPDES permit requirement;
 - iii. The other entity agrees in writing (or is required by law) to implement the measure(s), or component(s) thereof, on the Tier A Municipality’s behalf. The municipality is responsible for compliance with this permit if the other entity fails to implement the measure(s), or component(s) thereof. In the annual reports the municipality must submit under Part I, Section H.3, the municipality shall specify that it is relying on another entity to satisfy some of the Tier A Municipality’s NJPDES permit obligations.
 - iv. If the municipality is relying on another entity regulated under the NJPDES permit program to satisfy all of that Tier A Municipality’s NJPDES permit obligations, including that municipality’s obligation to file these annual reports, the municipality shall notify the Department of this reliance in writing, and shall also note this reliance in the municipality’s SPPP.

E. Stormwater Program and Stormwater Pollution Prevention Plan

1. Stormwater Program

a. Tier A Municipalities are required to develop, implement, and enforce a stormwater program. This program shall be designed to reduce the discharge of pollutants from the municipality's small MS4 to the maximum extent practicable, to protect water quality, and to satisfy the appropriate water quality requirements of the Federal Act and the State Act by including the Statewide Basic Requirements (SBRs) set forth in Part I, Section F and any Additional Measures (AMs) required under Part I, Section G below. At the municipality's discretion, the stormwater program may also include Optional Measures (OMs) also in accordance with Part I, Section G below.

2. Stormwater Pollution Prevention Plan (SPPP)

a. Tier A Municipalities shall prepare and implement a written Stormwater Pollution Prevention Plan (SPPP) that describes the Tier A Municipality's stormwater program and serves as the mechanism for the implementation of the Statewide Basic Requirements. The SPPP must address stormwater quality issues related to new development, redevelopment and existing development. The SPPP shall be prepared and implemented in accordance with the deadlines specified in Part I, Section H. The SPPP shall include, at a minimum, all of the information and items identified in Attachment A.

i. The SPPP shall be signed, dated and retained by the Municipal Stormwater Program Coordinator.

b. For any projects or activities which the municipality contracts out to private contractors after the EDPA, the awarded contract must contain conditions that the contractor must conduct such projects or activities in such a manner that is in compliance with the municipality's SPPP and this permit's conditions. The municipality is responsible for any violations of this permit resulting from a contractor's noncompliance.

c. SPPPs may be amended so long as they continue to meet the requirements of this permit. Any amended SPPPs shall be signed, dated, implemented, retained, and otherwise treated in the same manner as the original SPPP. The Tier A Municipality shall retain each previous SPPP for a period of at least five years from the date of that previous SPPP. This period may be extended by written request of the Department at any time.

F. Statewide Basic Requirements (SBRs)

1. Stormwater quality issues related to new development, redevelopment and existing development are to be addressed through the implementation of the following Statewide Basic Requirements (SBRs). The permit specifies the BMPs that will be implemented for those SBRs. These SBRs and related BMPs are to be detailed in the municipality's SPPP.

a. Additional information is provided and each of the SBRs and related BMPs are described in more detail in the Department's Tier A Municipal Stormwater Permit Guidance Document.

2. Public Notice

- a. Minimum Standard - Tier A Municipalities shall comply with applicable State and local public notice requirements when providing for public participation in the development and implementation of the Tier A Municipality's stormwater program.
- b. Measurable Goal - Tier A Municipalities shall certify annually that all applicable State and local public notice requirements were followed.
- c. Implementation – Upon the effective date of permit authorization (EDPA).

3. Post-Construction Stormwater Management in New Development and Redevelopment

- a. Minimum Standard - To prevent or minimize water quality impacts, the Tier A Municipality shall develop, implement, and enforce a program to address stormwater runoff from new development and redevelopment projects (including projects operated by the municipality itself) that disturb one acre or more, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the municipality's small MS4. The municipality shall in its post-construction program:
 - i. Adopt and reexamine a municipal stormwater management plan (or adopt amendments to an existing municipal stormwater management plan) in accordance with N.J.A.C. 7:8-4.
 - ii. Adopt and implement a municipal stormwater control ordinance or ordinances in accordance with N.J.A.C. 7:8-4. The ordinance(s) will control stormwater from non-residential development and redevelopment projects.
 - iii. Ensure that any residential development and redevelopment projects that are subject to the Residential Site Improvement Standards for stormwater management (N.J.A.C. 5:21-7) comply with those standards (including any exception, waiver, or special area standard that was approved under N.J.A.C. 5:21-3).
 - iv. Where necessary to implement the municipal stormwater management plan, the municipal stormwater control ordinance(s) will also:
 - Control aspects of residential development and redevelopment projects that are not pre-empted by the Residential Site Improvement Standards; and
 - Set forth special area standards approved by the Site Improvement Advisory Board for residential development or redevelopment projects under N.J.A.C. 5:21-3.5.
 - v. Ensure adequate long-term operation and maintenance of BMPs.
 - vi. Enforce, through the stormwater control ordinance(s) or a separate ordinance, compliance with standards set forth in Attachment C of the permit to control passage of solid and floatable materials through storm drain inlets.
 - vii. This post-construction program shall also require compliance with the applicable design and performance standards established under N.J.A.C. 7:8 for major development, unless:

- Those standards do not apply because of a variance or exemption granted under N.J.A.C. 7:8; or
- Alternative standards are applicable under an areawide or Statewide Water Quality Management Plan adopted in accordance with N.J.A.C. 7:15.

b. Measurable Goal – Tier A Municipalities shall certify annually that that they have developed, implemented, and are actively enforcing a program to address stormwater runoff from new development and redevelopment projects that discharge into the Tier A Municipality’s small MS4 in accordance with the minimum standard.

c. Implementation

i. Upon the effective date of permit authorization, Tier A Municipalities shall for new development and redevelopment projects:

- Ensure that any residential development and redevelopment projects that are subject to the Residential Site Improvement Standards for stormwater management (N.J.A.C. 5:21-7) comply with those standards (including any exception, waiver, or special area standard that was approved under N.J.A.C. 5:21-3).
- Ensure adequate long-term operation and maintenance of BMPs on property owned or operated by the municipality.

ii. Within 12 months from the effective date of permit authorization, Tier A Municipalities shall:

- Adopt a municipal stormwater management plan (or adopt amendments to an existing municipal stormwater management plan) pursuant to the Stormwater Management Rules (N.J.A.C. 7:8-4);
- Comply with the standards set forth in Attachment C of the permit to control passage of solid and floatable materials through storm drain inlets for storm drain inlets the municipality installs within the Tier A Municipality’s small MS4.

iii. Within 12 months from the adoption of the municipal stormwater management plan, Tier A Municipalities shall adopt a stormwater control ordinance(s) to implement that plan, and shall submit the adopted municipal stormwater management plan and ordinance(s) to the appropriate county review agency for approval.

iv. Tier A Municipalities shall enforce stormwater control ordinance(s) when approved in accordance with N.J.A.C. 7:8-4.

v. Within 24 months from the effective date of permit authorization Tier A Municipalities shall:

- Ensure adequate long-term operation and maintenance of BMPs on property not owned or operated by the municipality;
- Enforce, through the stormwater control ordinance(s) or a separate ordinance compliance with the standards set forth in Attachment C of the permit to control passage of solid and floatable materials through storm drain inlets for storm drain inlets not installed by the Tier A Municipality.

4. Local Public Education

a. Local Public Education Program

i. Minimum Standard – The Local Public Education Program shall describe how the Tier A Municipality will distribute educational information and specifics on how educational activities, including the educational event, will be conducted to satisfy this minimum standard. The following SBR and/or BMP topics shall be included in the Local Public Education Program:

- Stormwater/Nonpoint Source Education – impact of stormwater discharges on surface and ground waters of the State and steps that the public can take to reduce pollutants in stormwater runoff.
- Storm Drain Inlet Labeling – hazards of dumping materials into the storm drain, and fact that storm drains are usually connected to water bodies and do not receive treatment.
- Fertilizer/Pesticide Education –proper application, storage and disposal of pesticides and fertilizers, and the benefits of using native or well adapted vegetation that requires little or no fertilization.
- Waste Disposal Education – identification, proper handling and proper disposal of wastes (including the locations of hazardous waste collection facilities in the area) and the hazards associated with illicit connections and improper disposal of waste.
- Pet Waste Ordinance – information regarding the pet waste ordinance and the benefits of proper disposal of pet waste.
- Litter Ordinance - information regarding litter control and fines associated with littering
- Improper Disposal of Waste Ordinance - information regarding this ordinance.
- Wildlife Feeding Ordinance - information regarding the wildlife feeding prohibition.
- Yard Waste - information regarding home composting and yard waste recycling.

Tier A Municipalities shall provide for the duplication and annual mailing (or other means of delivery) to all residents and businesses within the municipality of the informational brochure provided by the Department. The informational

brochure covers all the topics above. The Department may periodically provide the Tier A Municipality with an updated brochure for duplication and distribution.

As part of this program, Tier A Municipalities shall also conduct each year, at minimum, one education effort in the form of an "event." An event may be an activity established primarily to satisfy this requirement or may be part of a bigger existing event such as municipal festivals, county fairs, or an Earth Day, Arbor Day or 4th of July celebration. During this event, the informational brochure shall also be made available to the public.

ii. Measurable Goal - Tier A Municipalities shall certify annually that they have met the Local Public Education Program minimum standard and shall provide the date(s) of the annual mailing (or other means of delivery) and annual event (including a description of the event).

iii. Implementation - Within 12 months from the effective date of permit authorization, Tier A Municipalities shall have developed and begun implementing the Local Public Education Program minimum standard.

b. Storm Drain Inlet Labeling

i. Minimum Standard - Tier A Municipalities shall establish a storm drain inlet labeling program and label all storm drain inlets that are along municipal streets with sidewalks, and all storm drain inlets within plazas, parking areas, or maintenance yards that are operated by the municipality. The program shall establish a schedule for labeling, develop a long term maintenance plan, and when possible, coordinate efforts with watershed groups and volunteer organizations.

ii. Measurable Goal - Tier A Municipalities shall certify annually that a storm drain inlet labeling program has been developed or is being implemented, and shall identify the number of storm drain inlets labeled within each year.

iii. Implementation - Within 12 months from the effective date of permit authorization, Tier A Municipalities shall develop an inlet labeling program for the storm drains identified in the minimum standard. Tier A Municipalities must either:

- Label a minimum of 50% of the storm drain inlets within 36 months from the EDPA; and label all remaining storm drain inlets on or before 60 months from EDPA; or
- Divide the municipality into two sectors for the purposes of storm drain inlet labeling and include a map of the two sectors in the SPPP. Label the storm drain inlets in one sector within 36 months from the EDPA; and label all remaining storm drain inlets on or before 60 months from EDPA.

5. Improper Disposal of Waste

a. Pet Waste Ordinance

i. Minimum Standard - Tier A Municipalities shall adopt and enforce an ordinance that requires pet owners or their keepers to immediately and properly dispose of their pet's solid waste deposited on any property, public or private, not owned or possessed by that person. Information on the Pet Waste Ordinance and the benefits of proper disposal of pet solid waste shall be distributed with pet licenses.

ii. Measurable Goal - Tier A Municipalities shall certify annually that they have met the Pet Waste Ordinance minimum standard.

iii. Implementation - Within 18 months from the effective date of permit authorization, Tier A Municipalities shall have fully implemented the Pet Waste Ordinance minimum standard.

b. Litter Ordinance

i. Minimum Standard - Tier A Municipalities shall adopt and enforce a litter ordinance or enforce the existing State litter statute (N.J.S.A 13:1E-99.3).

ii. Measurable Goal - Tier A Municipalities shall certify annually that they have met the Litter Ordinance minimum standard.

iii. Implementation - Within 18 months from the effective date of permit authorization, Tier A Municipalities shall have fully implemented the Litter Ordinance minimum standard.

c. Improper Disposal of Waste Ordinance

i. Minimum Standard - Tier A Municipalities shall adopt and enforce an ordinance prohibiting the improper spilling, dumping, or disposal of materials other than stormwater into the small MS4 (excluding those authorized in Part I, Section A.2.c).

ii. Measurable Goal - Tier A Municipalities shall certify annually that they have met the Improper Waste Disposal Ordinance minimum standard.

iii. Implementation - Within 18 months from the effective date of permit authorization, Tier A Municipalities shall have fully implemented the Improper Disposal of Waste Ordinance minimum standard.

d. Wildlife Feeding Ordinance

i. Minimum Standard - Tier A Municipalities shall adopt and enforce an ordinance that prohibits the feeding in any public park or on any other property owned or operated by the Tier A Municipality of any wildlife (excluding confined animals, for example, wildlife confined in zoos, parks, or rehabilitation centers or unconfined wildlife at environmental education centers).

ii. Measurable Goal - Tier A Municipalities shall certify annually that they have met the Wildlife Feeding Ordinance minimum standard.

iii. Implementation - Within 18 months from the effective date of permit

authorization, Tier A Municipalities shall have fully implemented the Wildlife Feeding Ordinance minimum standard.

e. Yard Waste Ordinance / Collection Program

i. Minimum Standard - Tier A Municipalities shall either adopt and enforce an ordinance that prohibits placing non-containerized yard wastes in the street or shall develop a yard waste collection and disposal program. The yard waste collection program shall include monthly yard waste pickups from October through December, once in the spring (“spring clean-up”), and on an “as needed” basis for the rest of the year. The frequency of the “as needed” pickups shall be determined at the discretion of the Tier A Municipality. Any area, which the municipality determines to have no yard waste, will be exempt from the collections. The yard waste collection program shall also include the adoption and enforcement of an ordinance prohibiting all yard wastes from being placed at the curb or along the street more than seven (7) days prior to scheduled collection or the placing of yard waste closer than 10 feet from any storm sewer inlet along the street, unless they are bagged or otherwise containerized.

ii. Measurable Goal - Tier A Municipalities shall certify annually that they have met the Yard Waste minimum standard.

iii. Implementation – Within 18 months from the effective date of permit authorization, Tier A Municipalities shall have either developed and begun implementing a Yard Waste Collection Program or have fully implemented the Yard Waste Ordinance in accordance with the Yard Waste Ordinance / Collection Program minimum standard.

6. Illicit Connection Elimination and MS4 Outfall Pipe Mapping

a. Minimum Standard

i. Storm Sewer Outfall Pipe Mapping – Tier A Municipalities must develop a map showing the location of the end of all MS4 outfall pipes that are operated by the Tier A Municipality, and that discharge within the Tier A Municipality’s jurisdiction to a surface water body (e.g., a lake, ocean, or stream including an intermittent stream). This map shall also show the location (and name, where known to the Tier A Municipality) of all surface water bodies receiving discharges from those outfall pipes. Each outfall pipe mapped shall be given an individual alphanumeric identifier, which shall be noted on the map. The outfall pipes shall be mapped on either a tax map prepared in accordance with Title 18, Chapter 23A of the New Jersey Administrative Code or on another map drawn to equal or larger (more detailed) scale. A municipality regulated under the Sewage Infrastructure Improvement Act (SIIA) regulations (N.J.A.C. 7:22A) may use a preliminary or final map prepared pursuant to those regulations. The Tier A Municipality shall submit a copy of its outfall pipe map to the Department upon request.

ii. Ordinance Prohibiting Illicit Connections - Each Tier A Municipality shall, to the extent allowable under State law, effectively prohibit through

ordinance, illicit connections to the Tier A Municipality's small MS4, and implement appropriate enforcement procedures and actions.

iii. Illicit Connection Elimination Program - Each Tier A Municipality must develop and implement a program to detect and eliminate illicit connections into the Tier A Municipality's small MS4. The program, at minimum, must include an initial physical inspection of all its outfall pipes. All outfall pipes that are found to have dry weather flow are to be further investigated.

The inspections of outfall pipes and investigations of dry weather flows are to be conducted in accordance with the procedures for detecting, investigating, and eliminating illicit connections contained in Attachment B of the permit. Results of the inspections of outfall pipes and dry weather flows are to be recorded on the Department's Illicit Connection Inspection Report form. Inspection reports for dry weather flows discovered as a result of initial physical inspections or as part of the ongoing program must be submitted to the Department with the annual certification. If the dry weather flow is intermittent the Tier A Municipality must perform, at minimum, three (3) additional investigations in an attempt to locate the illicit connection. If an illicit connection cannot be located or is found to emanate from another public entity, Tier A Municipalities must submit to the Department a written explanation detailing the results of the investigation and notify that public entity. The Department will determine if such measures were adequate and will notify the Tier A Municipality of the determination. All illicit connections found and subject to the ordinance prohibiting illicit connections must be eliminated within six (6) months of the discovery.

After the completion of the initial physical inspection of all outfall pipes, Tier A Municipalities must maintain an ongoing program to detect and eliminate illicit connections. The ongoing program will respond to complaints and reports of illicit connections, including those from operating entities of interconnected small MS4s, and continue to investigate dry weather flows discovered during routine inspections and maintenance of the small MS4.

b. Measurable Goal

i. Tier A Municipalities shall certify annually that an outfall pipe map has been completed or is being prepared in accordance with permit conditions and shall report the number of outfall pipes mapped within the year being reported and the total number of outfall pipes mapped to date.

ii. Tier A Municipalities shall submit an annual certification to the Department certifying that an ordinance prohibiting illicit connections is in place and is being actively enforced.

iii. Tier A Municipalities shall certify annually that an illicit connection elimination program has been developed in accordance with permit conditions to detect and eliminate illicit connections into the Tier A Municipalities' small MS4. Annual certifications shall also include the number of outfalls physically inspected, the number of outfalls found to have dry weather flow, the number of

illicit connections found and the number of illicit connections eliminated. Copies of inspection reports shall be submitted with the annual certification for those outfalls found to have dry weather flow.

c. Implementation

i. Storm Sewer Outfall Pipe Mapping – Tier A Municipalities shall divide the municipality into two (2) sectors for the purposes of outfall mapping. A diagram of the municipality showing the two (2) sectors shall be part of the Tier A Municipality's SPPP. Tier A Municipalities shall map the location of the end of small MS4 outfall pipes in one sector 36 months from the EDPA; and map the location of the end of all small MS4 outfall pipes on or before 60 months from the EDPA.

ii. Ordinance Prohibiting Illicit Connections - Within 18 months from the EDPA, Tier A Municipalities shall effectively prohibit through ordinance, illicit connections to the Tier A Municipality's small MS4, and implement appropriate enforcement procedures and actions.

iii. Illicit Connection Elimination Program - Within 18 months from the effective date of permit authorization, Tier A Municipalities shall have developed and begun implementing a program to detect and eliminate illicit connections into the Tier A Municipality's small MS4. Tier A Municipalities shall perform an initial physical inspection of all outfall pipes using the Department's Illicit Connection Inspection Report form within 60 months from the EDPA.

7. Solids and Floatable Controls

a. Street Sweeping

i. Minimum Standard - Tier A Municipalities shall sweep all municipally owned or operated curbed streets (including roads or highways) with storm drains that have a posted speed limit of 35 mph or less (excluding all entrance and exit ramps) in predominantly commercial areas at a minimum of once per month, weather and street surface conditions permitting.

ii. Measurable Goal - Tier A Municipalities shall certify annually that they have met the Street Sweeping minimum standard. Tier A Municipalities must maintain records including the date and areas swept, number of miles of streets swept and the total amount of materials collected. Information shall be reported to the Department in the annual report and certification.

iii. Implementation - Beginning 12 months after the effective date of permit authorization Tier A Municipalities shall have developed and begun implementing a street sweeping program that meets the minimum standard above.

b. Storm Drain Inlets

i. Minimum Standard - Retrofitting of existing storm drain inlets to meet the standard contained in Attachment C of the permit is required where such inlets are in direct contact with repaving, repairing (excluding repair of

individual potholes), reconstruction or alterations of facilities owned or operated by the Tier A Municipality. For exemptions to this standard, refer to "Exemptions" in Attachment C.

ii. Measurable Goal – Tier A Municipalities shall certify annually that such storm drain inlets have been retrofitted to meet the minimum standard contained in Attachment C, unless otherwise exempted.

iii. Implementation - Within 12 months of effective date of permit authorization and thereafter, Tier A Municipalities shall retrofit all such storm drain inlets in accordance with the Storm Drainage Inlets minimum standard.

c. Stormwater Facility Maintenance

i. Minimum Standard - Tier A Municipalities shall develop and implement a stormwater facility maintenance program for cleaning and maintenance of all stormwater facilities operated by the Tier A Municipality. Stormwater facilities include, but are not limited to: catch basins, detention basins, filter strips, riparian buffers, infiltration trenches, sand filters, constructed wetlands, wet basins, bioretention systems, low flow bypasses, and stormwater conveyances. The stormwater facility maintenance must be performed as required to ensure the proper function and operation of the stormwater facility. Tier A Municipalities shall also clean all catch basins annually to remove accumulated sediment, trash and debris.

ii. Measurable Goal - Tier A Municipalities shall certify annually that all stormwater facilities are properly functioning and that all catch basins have been cleaned in accordance with the minimum standard. If stormwater facilities were found not to be functioning properly and repairs were not made, a schedule for such repairs shall be included in the annual report and certification. Tier A Municipalities shall also maintain records of inspections, maintenance and repairs that were performed which shall be reported in the annual report and certification.

iii. Implementation - Within 12 months from the effective date of permit authorization, Tier A Municipalities shall have developed and begun implementing a stormwater facility maintenance program in accordance with the minimum standard.

d. Road Erosion Control Maintenance

i. Minimum Standard - Tier A Municipalities shall develop a roadside erosion control maintenance program to identify and repair erosion along streets (including roads or highways) operated by the municipality. Tier A Municipalities are also required to regularly inspect and maintain the stability of shoulders, embankments, ditches and soils along these streets to ensure that they are not eroding and contributing to sedimentation of receiving waters. Repairs shall be made in accordance with the Standards for Soil Erosion and Sediment Control in New Jersey (N.J.A.C. 2:90-1).

ii. Measurable Goal - Tier A Municipalities shall certify annually that they have developed and are implementing a Roadside Erosion Control Maintenance

program. The certification shall also indicate the locations of all problem areas corrected and any maintenance done during that year. The dates of all inspections and employee training sessions shall also be reported in the annual report and certification.

iii. Implementation - Within 18 months from the effective date of permit authorization, Tier A Municipalities shall have developed and begun implementing a roadside erosion control maintenance program in accordance with the minimum standard.

e. Outfall Pipe Stream Scouring Remediation

i. Minimum Standard - Tier A Municipalities shall develop and implement a stormwater outfall pipe scouring detection, remediation and maintenance program to detect and control localized stream and stream bank scouring in the vicinity of outfall pipes operated by the municipality. This program shall identify all areas where localized stream and bank scouring occurs as a result of stormwater discharges from the Tier A Municipality's MS4. These areas shall then be prioritized and repairs shall be scheduled and completed. Repairs shall be made in accordance with the Standards for Soil Erosion and Sediment Control in New Jersey at N.J.A.C. 2:90-1 (e.g., Conduit Outlet Protection 12-1).

ii. Measurable Goal - Tier A Municipalities shall certify annually that they have met the Outfall Pipe Stream Scouring Remediation minimum standard. In addition, the Tier A Municipality shall list the location of outfall scouring identified, the dates control measures are to begin, and the dates any control measures were completed.

iii. Implementation - Within 18 months of the effective date of permit authorization, Tier A Municipalities shall have developed and begun implementing an outfall pipe stream scouring detection, remediation and maintenance program. This program shall identify and prioritize all stormwater outfall pipes needing repairs, and then schedule and complete the repairs.

8. Maintenance Yard Operations (including maintenance activities at Ancillary Operations)

a. De-icing Material Storage

i. Minimum Standard - Tier A Municipalities must construct a permanent structure (a permanent building or permanent structure that is anchored to a permanent foundation with an impermeable floor, and that is completely roofed and walled) for the storage of salt, and other de-icing materials. Once completed, Tier A Municipalities shall perform regular maintenance and inspections of the permanent structure. Seasonal tarping shall be used as an interim BMP until the permanent structure is completed. Sand may be stored outside and uncovered if a 50-foot setback is maintained from storm sewer inlets, ditches or other stormwater conveyance channels, and surface water bodies.

ii. Measurable Goal - Tier A Municipalities shall certify annually that they have met the De-icing Material Storage minimum standard.

iii. Implementation - Within 12 months from the effective date of permit authorization, Tier A Municipalities shall implement the interim seasonal tarping BMP. Within 12 months of the effective date of permit authorization, Tier A Municipalities will comply with the 50-foot buffer requirement for the outside storage of sand. Within 36 months from the effective date of permit authorization Tier A Municipalities shall store all salt and de-icing materials in a permanent structure.

b. Fueling Operations

i. Minimum Standard - Tier A Municipalities must develop and implement standard operating procedures for vehicle fueling, and receiving of bulk fuel deliveries at maintenance yard operations. The standard operating procedures shall incorporate the required practices listed in Attachment D.

ii. Measurable Goal - Tier A Municipalities must certify annually that there is a vehicle fueling and bulk receiving standard operating procedures in place.

iii. Implementation - Within 12 months of the effective date of permit authorization, Tier A Municipalities shall have developed and begun implementing the required standard operating procedures for fueling operations.

c. Vehicle Maintenance

i. Minimum Standard - Tier A Municipalities shall develop and implement a standard operating procedure (SOP) for vehicle maintenance and repair activities that occur at municipal maintenance yard operations. The SOP shall include the required practices listed in Attachment D. The SOP shall include regular inspections of all maintenance areas and activities.

ii. Measurable Goal - Tier A Municipalities must certify annually that there is a vehicle maintenance standard operating procedure in place and that regular inspections and maintenance are being performed.

iii. Implementation - Within 12 months of the effective date of permit authorization, Tier A Municipalities shall have developed and begun implementing the required standard operating procedures for Vehicle Maintenance.

d. Good Housekeeping Practices

i. Minimum Standard - Tier A Municipalities must implement good housekeeping procedures for all materials or machinery listed in the Inventory Requirements for Municipal Maintenance Yard Operations prepared in accordance with Attachment D. These good housekeeping procedures include, but not limited to, the required practices listed in Attachment D at all municipal maintenance yard operations (including maintenance operations at ancillary operations).

ii. Measurable Goal - Tier A Municipalities must certify annually that they have met the Good Housekeeping Practices minimum standard.

iii. Implementation - Within 12 months of the effective date of permit authorization, Tier A Municipalities shall have developed and begun

implementing the required standard operating procedures for Good Housekeeping.

9. Employee Training

a. Minimum Standard - Tier A Municipalities shall develop and conduct an annual employee training program for appropriate employees on appropriate topics. At a minimum, annual employee training will include the following topics:

- i. Waste Disposal Education – Training shall include how to respond to inquiries regarding proper waste disposal.
- ii. Municipal Ordinances – Training shall include an overview of the Pet Waste Ordinance, Litter Ordinance, Illicit Connection Ordinance and Improper Waste Disposal Ordinance, Wildlife Feeding Ordinance, and Yard Waste Ordinance (if applicable), their requirements, enforcement policy, and hazards associated with improper waste disposal.
- iii. Yard Waste Collection Program (if applicable) – Training shall include frequency of yard waste pickups and schedule, policy for when yard waste can be placed curbside, and alternatives such as composting and recycling.
- iv. Illicit Connection Elimination and Outfall Pipe Mapping – Training shall include information regarding the hazards associated with illicit connections and details of the program including investigation techniques, physical observations, field sampling, and mapping procedures.
- v. Street Sweeping – Training shall include sweeping schedules and record keeping requirements.
- vi. Stormwater Facility Maintenance - Training shall include catch basin cleaning schedules and record keeping requirements.
- vii. Road Erosion Control and Outfall Pipe Stream Scouring Remediation – Training shall include identifying road erosion and outfall pipe scouring and repairs.
- viii. Maintenance Yard Operations (including Ancillary Operations) – Training shall include de-icing material storage, fueling, vehicle maintenance, equipment/vehicle washing and good housekeeping SOPs.
- ix. Construction Activity / Post-Construction Stormwater Management in New Development and Redevelopment – Training shall include information regarding the requirement to obtain a NJPDES construction activity stormwater permit (see Part I, Section A.5.a and A.5.b of this permit) and requirements for Post-Construction Stormwater Management in New Development and Redevelopment (See Part I, Section F.3 of this permit) for the permittee’s own construction activities and projects that disturb one acre or more.

b. Measurable Goal - Tier A Municipalities must certify annually the date of the annual employee training.

c. Implementation – Training shall begin 12 months from the effective date of permit authorization.

10. Construction Site Stormwater Runoff Control

a. Pursuant to N.J.A.C. 7:14A-25.6(b)2 and 25.7(b), the Department is responsible for developing, implementing, and enforcing a NJPDES permit program to reduce pollutants in stormwater runoff to small MS4s from construction activities. The Tier A Municipality is not required to include this SBR in its stormwater program or discuss this SBR in its SPPP.

G. Additional Measures and Optional Measures

1. Additional Measures

a. Additional Measures (AMs) are non-numeric or numeric effluent limitations that are expressly required to be included in the stormwater program by an adopted areawide or Statewide Water Quality Management Plan (WQM plan). AMs may modify or be in addition to SBRs. AMs may be required by a TMDL approved or established by USEPA, a regional stormwater management plan, or other elements of adopted areawide or Statewide WQM plans.

b. The Department will provide written notice of the adoption of an AM to each Tier A Municipality whose stormwater program will be affected, and will list each adopted AM in the permit by making a minor modification to the permit. The AMs, other than numeric effluent limitations, will specify the BMPs that must be implemented and the measurable goals for each BMP. The AMs will also specify time periods for implementation.

2. Optional Measures

a. At the Tier A Municipality's discretion, the stormwater program may also include Optional Measures (OMs), which are BMPs that are not implemented for SBRs or AMs but that prevent or reduce the pollution of the waters of the State.

H. Deadlines and Certifications

1. Stormwater Pollution Prevention Plan

a. Within twelve (12) months from the effective date of permit authorization, the Tier A Municipality shall prepare an SPPP.

b. The SPPP shall include, at a minimum, all of the information and items identified in Attachment A. The SPPP shall be signed, dated and retained by the Tier A Municipality.

2. Statewide Basic Requirements

a. Each SBR contained in Part I, Section F of the permit has a specific implementation schedule based on the effective date of permit authorization. Each SBR shall be implemented in accordance with that schedule. Tier A Municipalities shall certify in the Annual Report and Certification the status of the implementation of each SBR and the date implementation was completed, as appropriate.

i. The Department may grant a six-month extension to the deadlines contained in an implementation schedule for any of the SBRs if the Tier A Municipality submits a written request for such extension, at least 30 days prior to the deadline, establishing to the Department's satisfaction that the Federal,

State and local permits and approvals necessary for the construction of best management practices could not with due diligence be obtained within the time period set forth in Section F above. The written request shall be submitted to:

NJDEP
 Division of Water Quality
 Bureau of Nonpoint Pollution Control
 Municipal Stormwater Regulation Program
 P.O. Box 029
 Trenton, NJ 08625-0029

3. Annual Report and Certification

- a. Tier A Municipalities shall complete an Annual Report (on a form provided by the Department) summarizing the status of compliance with this permit including measurable goals and the status of the implementation of each SBR contained in Part I, Section F of the permit. This report shall include a certification that the municipality is in compliance with its stormwater program, SPPP and this permit, except for any incidents of noncompliance. Any incidents of noncompliance with permit conditions shall be identified in the Annual Report and Certification. A copy of each Annual Report and Certification shall be kept at a central location and shall be made available to the Department for inspection.
 - i. If there are incidents of noncompliance, the report shall identify the steps being taken to remedy the noncompliance and to prevent such incidents from recurring.
 - ii. The Annual Report and Certification shall be signed and dated by the Tier A Municipality, and shall be maintained for a period of at least five years. This period may be extended by written request of the Department at any time.
- b. The Annual Report and Certification shall be submitted to the Department pursuant to the following submittal schedule:
 - i. Submit an Annual Report and Certification: on or before May 2, 2005 and every 12 months thereafter.

I. Standard Conditions

1. The following general conditions are incorporated by reference. The Tier A Municipality is required to comply with the regulations, which were in effect as of March 2, 2004.

- a. General Permits N.J.A.C. 7:14A-6.13
- b. Penalties for Violations N.J.A.C. 7:14-8.1 et seq.
- c. Incorporation by Reference N.J.A.C. 7:14A-2.3
- d. Toxic Pollutants N.J.A.C. 7:14A-6.2(a)4i
- e. Duty to Comply N.J.A.C. 7:14A-6.2(a)1 & 4
- f. Duty to Mitigate N.J.A.C. 7:14A-6.2(a)5 & 11
- g. Inspection and Entry N.J.A.C. 7:14A-2.11(e)
- h. Enforcement Action N.J.A.C. 7:14A-2.9
- i. Duty to Reapply N.J.A.C. 7:14A-4.2(e)3
- j. Signatory Requirements for Applications and Reports N.J.A.C. 7:14A-4.9

- k. Effect of Permit/Other Laws N.J.A.C. 7:14A-6.2(a)6 & 7 & 2.9(c)
- l. Severability N.J.A.C. 7:14A-2.2
- m. Administrative Continuation of Permits N.J.A.C. 7:14A-2.8
- n. Permit Actions N.J.A.C. 7:14A-2.7(c)
- o. Reopener Clause N.J.A.C. 7:14A-6.2(a)10, 16.4(b) & 25.7(b)
- p. Permit Duration and Renewal N.J.A.C. 7:14A-2.7(a) & (b)
- q. Consolidation of Permit Process N.J.A.C. 7:14A-15.5
- r. Confidentiality N.J.A.C. 7:14A-18.2 & 2.11(g)
- s. Fee Schedule N.J.A.C. 7:14A-3.1
- t. UIC Corrective Action N.J.A.C. 7:14A-8.4
- u. Additional Conditions Applicable to UIC Permits N.J.A.C. 7:14A-8.9
- v. UIC Operating Criteria N.J.A.C. 7:14A-8.16

2. Operation And Maintenance

- a. Need to Halt or Reduce not a Defense N.J.A.C. 7:14A-2.9(b)
- b. Proper Operation and Maintenance N.J.A.C. 7:14A-6.12

3. Monitoring And Records

- a. Monitoring N.J.A.C. 7:14A-6.5
- b. Recordkeeping N.J.A.C. 7:14A-6.6
- c. Signatory Requirements for Monitoring Reports N.J.A.C. 7:14A-6.9

4. Reporting Requirements

- a. Planned Changes N.J.A.C. 7:14A-6.7
- b. Reporting of Monitoring Results N.J.A.C. 7:14A-6.8
- c. Noncompliance Reporting N.J.A.C. 7:14A-6.10 & 6.8(h)
- d. Hotline/Two Hour & Twenty-four Hour Reporting N.J.A.C. 7:14A-6.10(c) & (d)
- e. Written Reporting N.J.A.C. 7:14A-6.10(e) & (f) & 6.8(h)
- f. Duty to Provide Information N.J.A.C. 7:14A-2.11, 6.2(a)14 & 18.1
- g. Compliance Schedules N.J.A.C. 7:14A-6.4
- h. Transfer N.J.A.C. 7:14A-6.2(a)8 & 16.2

5. Copies of the NJPDES rules may be purchased by contacting West Group, St. Paul, Minnesota, 1-800-808-WEST.

J. Additional Conditions

1. Agency and Public Review

- a. The Tier A Municipality shall make the SPPP available upon request to an authorized representative of the Department and to the owner of and operating entity for any municipal separate storm sewer system that receives discharges from the Tier A Municipality's small MS4.
- b. Upon review by an authorized representative, the Department may notify the Tier A Municipality at any time that the SPPP does not meet one or more of the minimum requirements. Within 30 days after receiving such notification (unless otherwise specified by the Department), the SPPP shall be amended to adequately address all deficiencies, and written certification of such amendments shall be submitted to the Department.
- c. Tier A Municipalities shall make records required by this permit, including its

SPPP, available to the public at reasonable times during regular business hours (see N.J.A.C. 7:14A-18 for confidentiality provisions).

2. Other Laws

a. In accordance with N.J.A.C. 7:14A-6.2(a)7, this permit does not authorize any infringement of State or local law or regulations, including, but not limited to the Pinelands rules (N.J.A.C. 7:50), N.J.A.C. 7:1E (Department rules entitled "Discharges of Petroleum and other Hazardous Substances"), the New Jersey Register of Historic Places Rules (N.J.A.C. 7:4), and all other Department rules. No discharge of hazardous substances (as defined in N.J.A.C. 7:1E-1.6) resulting from an onsite spill shall be deemed to be "pursuant to and in compliance with [this] permit" within the meaning of the Spill Compensation and Control Act at N.J.S.A. 58:10-23.11c.

3. Operations and Maintenance Manual

a. In accordance with N.J.A.C. 7:14A-6.12(c), for a discharge authorized by this permit, the Tier A Municipality is exempt from the requirement to prepare an operations and maintenance manual.

Attachment A
CONTENTS OF THE STORMWATER POLLUTION PREVENTION PLAN

A. SPPP Team

1. The Stormwater Pollution Prevention Plan (SPPP) shall identify the person or persons responsible for implementing or coordinating the SPPP activities (including at the Tier A Municipality's discretion, OMs).

B. Description of Required Best Management Practices

1. The SPPP shall identify and discuss each Statewide Basic Requirement (SBR) and best management practice (BMP) required by the Tier A Municipal Stormwater General Permit.

2. The SPPP shall identify and discuss each Additional Measure (AM), if any, required by the Tier A Municipal Stormwater General Permit.

3. The SPPP shall identify and discuss any Optional Measures (OMs) the Tier A Municipality chooses to include in its stormwater program.

4. For each SBR, AM, or OM included in the Tier A Municipality's stormwater program, the SPPP shall:

- a. Describe the method of implementation;
- b. Include detailed record keeping, as appropriate or as required;
- c. Include an implementation schedule consistent with permit requirements, including interim milestones;
- d. Include any special diagrams required by the permit (i.e., Storm Drain Inlet Labeling and Illicit Connection Elimination and MS4 Outfall Pipe Mapping);
- e. Sharing responsibilities (If the Tier A Municipality wants to share responsibilities for implementing one or more control measures (other than OMs) with one or more other entities pursuant to N.J.A.C. 7:14A-25.7(a), the SPPP must describe which measure(s) the Tier A Municipality will implement, and identify the entity(ies) that will implement the other measure(s));
- f. Include maintenance schedules, as appropriate; and
- g. Include inspection schedules, as appropriate.

C. Identifying Areas Served by Combined Sewer

1. Tier A Municipalities that want to exclude any "combined sewer area" from the stormwater program must include a map showing the boundaries of the combined sewer area. A "combined sewer area" is an area that is excluded because all stormwater from that area (and operated by the municipality) is discharged to combined (or sanitary) sewer systems.

Attachment B

PROCEDURES FOR DETECTING, INVESTIGATING, AND ELIMINATING ILLICIT CONNECTIONS

Detection

An illicit connection for the purposes of this permit, is any physical or non-physical connection that discharges domestic sewage, non-contact cooling water, process wastewater, or other industrial waste (other than stormwater) to the Tier A Municipality's small MS4, unless that discharge is authorized under a NJPDES permit other than this Tier A Municipal Stormwater General Permit (non-physical connections may include, but are not limited to, leaks, flows, or overflows into the municipal separate storm sewer system). An illicit connection is also any category of non-stormwater discharges that a Tier A Municipality identifies as a source or significant contributor of pollutants pursuant to 40 C.F.R. 122.34(b)(3)(iii).

MS4 outfall pipes, for the most part, should not be discharging during substantial dry periods (72 hours after a rain event). Such flow is frequently referred to as "dry weather flow", which may be the result of an illicit connection. All dry weather flows are generally non-stormwater discharges, however not all dry weather flows are illicit connections. Some non-stormwater flows result from the improper disposal of waste (e.g., radiator flushing, engine degreasing, improper disposal of oil) and some may be the result of allowable discharges such as residential car washing, irrigation runoff, permitted (NJPDES) discharges and natural waters (e.g., spring water and groundwater infiltration). By using the Department's Illicit Connection Inspection Report form and making physical observations, a Tier A Municipality will compile information that will help determine if the dry weather flow is an illicit connection and the most likely source of the illicit connection. After making these physical observations, additional chemical field testing will enable a Tier A Municipality to further narrow the potential source(s) of the illicit connection.

The first physical observation is to observe if there is a dry weather flow. Some dry weather discharges are continuously flowing and some are intermittent. Observations will allow the Tier A Municipality to establish with reasonable certainty if there is an intermittent flow. If there are indications of intermittent flows (staining, odors, deterioration of outfall structure) follow-up investigations are required (see Investigation section). An estimate of the flow rate of the discharge shall also be noted (flow rate can be estimated by various methods, including timing how long it takes to fill a container of a known size). Additional physical observations and measurements shall be made for odor, color, turbidity, floatable matter, temperature, deposits and stains, vegetation and algal growth and condition of outfall structure (see Illicit Connection Inspection Report form). Information compiled from physical observations and field monitoring should be used to help identify potential sources. These observations are very important since they are the simplest method of identifying grossly contaminated dry weather flows. If physical observations alone are sufficient to warrant further investigation, then field testing is not required.

If a dry weather flow exists, and after making all physical observations (unless physical observations are enough to warrant further investigation), the Tier Municipality shall field test for surfactants (detergents). If these flows contain surfactants in excess of the detection limit, Tier A Municipalities shall field test for ammonia (as N) and potassium to help distinguish sanitary wastewater sources from other non-stormwater flows that contain detergents. Non-stormwater

discharges that are absent of surfactants shall be tested for fluoride to help distinguish potable from non-potable sources. Municipalities should refer to the Tier A Stormwater General Permit Guidance Manual for assistance and interpretation of field testing results.

All of the tests for the tracing of illicit connections may be performed in the field by employees of the Tier A Municipality or may be contracted out. Lab certification for those parameters is **not** required, however all person(s) responsible for calibrating, maintaining, and taking field samples shall be trained in the use of the equipment and appropriate field testing protocol.

Investigation

Any storm sewer outfall pipe found during the initial inspection or on any subsequent inspection to have a non-stormwater discharge or indications of an intermittent non-stormwater discharge requires further investigation by the Tier A Municipality to identify and locate the specific source. Non-stormwater discharges suspected of being sanitary sewage and/or significantly contaminated shall be prioritized and investigated first. Investigations of non-stormwater discharges suspected of being cooling water, washwater, or natural flows may be delayed until after all suspected sanitary sewage and/or significantly contaminated discharges have been investigated, eliminated and/or resolved.

Dry weather flows believed to be an immediate threat to human health or the environment shall be reported immediately to the Department's Action Hotline at 1-877-WARNDEP (1-877-927-6337).

Physical observations and field testing can help narrow the identification of potential sources of a non-stormwater discharge. However it is unlikely that either will pinpoint the exact source. Therefore, Tier A Municipalities will need to perform investigations "upstream" to identify illicit connections to systems with identified problem outfalls.

All non-stormwater discharges, whether continuous or intermittent must be investigated by the Tier A Municipality. All investigations must be resolved. If the source is found to be a non-stormwater discharge authorized under Part I, Section A.2.c of the permit, no further action is required. If a non-stormwater discharge is found but no source is able to be located within six (6) months of beginning the investigation, then the Tier A Municipality shall submit to the Department a Closeout Investigation form to close out the investigation. The Tier A Municipality must document that a good faith effort was made to find the source of the dry weather discharge and document each phase of the investigation. If the observed discharge is intermittent the Tier A Municipality must document, in the Illicit Connection Inspection Report form, that a minimum three (3) separate investigations were made to observe the discharge when it is flowing. If these attempts are unsuccessful, the Tier A Municipality shall submit to the Department the Closeout Investigation form noted above. However, since this is an ongoing program, the Tier A municipality should periodically recheck these suspected intermittent discharges.

Elimination

Non-stormwater discharges traced to their source and found to be illicit connections subject to the ordinance prohibiting illicit connections shall be eliminated. At the time the illicit connection is detected the responsible party shall be cited for violation of the municipal ordinance prohibiting

illicit connections and given thirty (30) days to cease the non-stormwater discharge. The responsible party may apply for a NJPDES permit for the discharge, but the discharge shall be ceased until a valid NJPDES permit has been issued by the Department. Tier A Municipalities are required to verify that the illicit discharge was eliminated by the responsible party within the specified timeframe and ensure that measures taken to eliminate the discharge are permanent and are not done in such a manner that would allow easy reconnection to the MS4.

When a responsible party fails to eliminate the discharge, Tier A Municipalities shall take the necessary steps to enforce their ordinance, including court action. In such instances the Department shall be notified by written correspondence so it is aware of any pending action and is able to provide assistance if needed.

If an illicit connection cannot be located or is found to emanate from another public entity, Tier A Municipalities must submit to the Department a written explanation detailing the results of the investigation and notify that public entity.

Attachment C

DESIGN STANDARD - STORM DRAIN INLETS

This standard applies to storm drain inlets installed as part of new development and redevelopment projects (public or private) that disturb one acre or more. In addition, retrofitting of existing storm drain inlets to this standard is required where such inlets are in direct contact with repaving, repairing (excluding repair of individual potholes), reconstruction or alterations of facilities owned or operated by the Tier A Municipality. For exemptions to this standard see "Exemptions" below.

Grates in Pavement or Other Ground Surfaces

Design engineers shall use either of the following grates whenever they use a grate in pavement or another ground surface to collect stormwater from that surface into a storm drain or surface water body under that grate:

1. The New Jersey Department of Transportation (NJDOT) bicycle safe grate, which is described in Chapter 2.4 of the NJDOT Bicycle Compatible Roadways and Bikeways Planning and Design Guidelines (April 1996).
2. A different grate, if each individual clear space in that grate has an area of no more than seven (7.0) square inches, or is no greater than 0.5 inches across the smallest dimension.

(In regard to whether the different grate must also be bicycle safe, the Residential Site Improvement Standards include requirements for bicycle-safe grates.)

Examples of grates subject to this standard include grates in grate inlets, the grate portion (non-curb-opening portion) of combination inlets, grates on storm sewer manholes, ditch grates, trench grates, and grates of spacer bars in slotted drains. Examples of ground surfaces include surfaces of roads (including bridges), driveways, parking areas, bikeways, plazas, sidewalks, lawns, fields, open channels, and stormwater basin floors.

Curb-Opening Inlets (Including Curb-Opening Inlets in Combination Inlets)

Whenever design engineers use a curb-opening inlet, the clear space in that curb opening (or each individual clear space, if the curb opening has two or more clear spaces) shall have an area of no more than seven (7.0) square inches, or be no greater than two (2.0) inches across the smallest dimension.

Exemptions

Retrofitting Exemptions

1. Repaving, repairing, reconstruction or alterations projects that began construction prior to March 3, 2004, and projects that were awarded bid prior to March 3, 2004, are exempted from the storm drain inlet design standard.
2. Existing curb-opening inlets do not need to be retrofitted to meet the design standard if each individual clear space in the curb opening has an area of no more than nine (9.0) square inches.

Hydraulic Performance Exemptions

1. New Development and Redevelopment Projects - Where the review agency determines that this standard would cause inadequate hydraulic performance that could not practicably be overcome by using additional or larger storm drain inlets that meet these standards.
2. Retrofitting of existing storm drain inlets - Where the review agency determines that this standard would cause inadequate hydraulic performance.

Alternative Device Exemptions

1. Where flows from the water quality design storm as specified in N.J.A.C. 7:8 are conveyed through any device (e.g., end of pipe netting facility, manufactured treatment device, or a catch basin hood) that is designed, at a minimum, to prevent delivery of all solid and floatable materials that could not pass through one of the following:
 - a. A rectangular space four and five-eighths inches long and one and one-half inches wide (this option does not apply for outfall netting facilities); or
 - b. A bar screen having a bar spacing of 0.5 inches.
2. Where flows are conveyed through a trash rack that has parallel bars with one-inch (1") spacing between the bars, to the elevation of the water quality design storm as specified in N.J.A.C. 7:8.

Note - The preceding exemptions do not authorize any infringement of requirements in the Residential Site Improvement Standards for bicycle-safe grates in new residential development (N.J.A.C. 5:21-4.18(b)2 and 7.4(a)).

Historic Places Exemption

Where the Department determines, pursuant to the New Jersey Register of Historic Places Rules at N.J.A.C. 7:4-7.2(c), that action to meet this standard is an undertaking that constitutes an encroachment or will damage or destroy the New Jersey Register listed historic property.

Attachment D
**REQUIRED PRACTICES FOR FUELING OPERATIONS, VEHICLE
MAINTENANCE, AND GOOD HOUSEKEEPING SBRs**

A. The following BMPs must be implemented at maintenance yards including maintenance activities at ancillary operations (for example, impound yards, solid waste transfer stations, mobile fueling), where applicable, operated by Tier A Municipalities:

1. Inventory Requirements for Municipal Maintenance Yard Operations (including Ancillary Operations)

a. Tier A Municipalities shall include for municipal maintenance yard operations an inventory that includes the following:

i. A list to be made part of the SPPP of general categories of all materials or machinery located at the municipal maintenance yard, which could be a source of pollutants in a stormwater discharge. The materials in question include, but are not limited to: raw materials; intermediate products; final products; waste materials; by-products; machinery and fuels; and lubricants, solvents, and detergents that are related to the municipal maintenance yard operations or ancillary operations. Materials or machinery that are not exposed to stormwater or that are not located at the municipal maintenance yard or related to its operations do not need to be included.

2. Fueling

a. No topping off vehicles, mobile fuel tanks, and storage tanks. Drip pans must be used under all hose and pipe connections and other leak-prone areas during bulk transfer of fuels.

b. Block storm sewer inlets, or contain tank trucks used for bulk transfer, with temporary berms or temporary absorbent booms during the transfer process. If temporary berms are being used instead of blocking the storm sewer inlets, all hose connection points associated with the transfer of fuel must be within the temporary berms during the loading/unloading of bulk fuels. A trained employee must always be present to supervise during bulk fuel transfer.

c. Clearly post, in a prominent area of the facility, instructions for safe operation of fueling equipment, and appropriate contact information for the person(s) responsible for spill response.

d. Any equipment, tanks, pumps, piping and fuel dispensing equipment found to be leaking or in disrepair must immediately be repaired or replaced.

3. Vehicle Maintenance

a. Perform all vehicle and equipment maintenance at an indoor location with a paved floor whenever possible. For projects that must be performed outdoors that last more than one day, portable tents or covers must be placed over the equipment being serviced when not being worked on, and drip pans must be used.

4. General Good Housekeeping

a. Properly mark or label all containers. Labels must be kept clean and visible. All containers must be kept in good condition and tightly closed when not in use. When practical, containers must be stored indoors. If indoor storage is not practical, containers may be stored outside as long as they are covered and placed on spill platforms. An area that is graded and/or bermed that prevents run-through of stormwater may be used in place of spill platforms. Outdoor storage locations must be regularly maintained.

b. Conduct cleanups of any spills or liquids or dry materials immediately after discovery. Clean all maintenance areas with dry cleaning methods only. Spills shall be cleaned up with a dry, absorbent material (i.e., kitty litter, sawdust, etc.) and the rest of the area is to be swept. Collected waste is to be disposed of properly. Clean-up materials, spill kits and drip pans must be kept near any liquid transfer areas, protected from rainfall.

5. Good Housekeeping Practices for Salt and De-icing Material Handling

a. The SPPP for De-icing Material Storage shall include the following required practices to ensure that Municipal Maintenance Yard Operations prevent or minimize the exposure of salt and de-icing materials to stormwater runoff from storage, loading and unloading areas and activities:

i. Prevent and/or minimize the spillage of salt and de-icing materials during loading and unloading activities.

ii. At the completion of loading and unloading activities, spilled salt and de-icing materials shall be removed using dry cleaning methods and either reused or properly discarded.

iii. Sweeping by hand or mechanical means of storage and loading/unloading areas shall be done on a regular basis. More frequent sweeping is required following loading/unloading activities. Sweeping shall also be conducted immediately following, as practicable, loading/unloading activities.

iv. Tracking of materials from storage and loading/unloading areas shall be minimized.

v. Minimize the distance salt and de-icing materials are transported during loading/unloading activities.

b. Interim Seasonal Tarping - All Tier A Municipalities must tarp all de-icing materials until a permanent structure is built. Interim storage measures must include, but are not limited to the following:

i. Tarping materials that are not actively being used.

ii. The storage of de-icing materials (salt and de-icing products) outside is limited to October 15th through April 30th. All salt and de-icing materials must be removed from the site prior to May 1st and may not be stored outside again until October 15th.

iii. The implementing of a regular inspection, sweeping and housekeeping program to ensure that the material is maintained and stored in a proper manner.

6. Inspections

a. Inspections of all Municipal Maintenance Yard Operations shall be conducted regularly.

b. Discharge of Stormwater from Secondary Containment

i. The discharge pipe/outfall from a secondary containment area must have a valve and the valve must remain closed at all times except as described below. A municipality may discharge stormwater that accumulated in the secondary containment area if a visual inspection is performed to ensure that the contents of aboveground storage tank have not come in contact with the stormwater to be discharged. Visual inspections are only effective when dealing with materials that can be observed, like petroleum. If the contents of the tank are not visible in stormwater, the municipality must rely on previous tank inspections to determine with some degree of certainty that the tank has not leaked. If the municipality cannot make a determination with reasonable certainty that the stormwater in the secondary containment area is uncontaminated by the contents of the tank, then the stormwater shall be hauled for proper disposal.

Appendix II
Annual Report and Certification

Annual Report and Certification Tier A Municipal Stormwater General Permit

Municipality
Information

Municipality: Lakehurst Borough

County: Ocean County

NJPDES # : NJG0147761

PI ID #: 203008

Team Member: _____

Date: _____

Effective Date of Permit Authorization (EDPA): April 1, 2004

Stormwater Pollution Prevention Plan

Have you prepared a Stormwater Pollution Prevention Plan that describes your Stormwater Program?
Y () N ()

Does the SPPP include all of the information and items required by the permit (including Attachment A)?
Y () N ()

Is the SPPP signed and dated? Y () N () Date SPPP signed: _____

Is the SPPP retained by your Municipal Stormwater Program Coordinator? Y () N ()

Was the SPPP amended since the last annual report? Y () N ()

If so, in general terms, what was amended?

Public Notice

Are you complying with applicable State and local public notice requirements when providing for public participation in the development and implementation of your stormwater program?
Y () N ()

Annual Report and Certification

Tier A Municipal Stormwater General Permit

Municipality
Information

Municipality: Lakehurst Borough

County: Ocean County

NJPDES # : NJG0147761

PI ID #: 203008

Team Member: _____

Date: _____

Effective Date of Permit Authorization (EDPA): April 1, 2004

Post-Construction Stormwater Management in New Development and Redevelopment

Are you ensuring that any residential development and redevelopment projects that are subject to the Residential Site Improvement Standards for stormwater management comply with those standards? Y () N ()

Are you ensuring adequate long-term operation and maintenance of BMPs on property that you own or operate? Y () N ()

For storm drain inlets that you install, are you complying with the standards set forth in Attachment C of the permit to control passage of solid and floatable materials? Y () N ()

Have you forwarded a copy of the proposed municipal stormwater management plan required by the permit to the county planning board at least 20 days prior to the date of your public hearing on that plan? Y () N ()

Date forwarded: _____

[for purposes of this annual report, "municipal stormwater management plan" means a new municipal stormwater management plan, as well as amendments to an existing municipal stormwater management plan]

Have you adopted a municipal stormwater management plan in accordance with N.J.A.C. 7:8-4? Y () N ()

Date adopted: _____

Status of this plan (if not adopted):

Have you transmitted, within 30 days after adoption, a copy of your adopted municipal stormwater management plan to the county planning board for its information and files? Y () N ()

Date transmitted: _____

Have you forwarded a copy of the proposed municipal stormwater control ordinance(s) required by the permit to the county planning board at least 10 days prior to the date of your public hearing on the ordinance(s)? Y () N ()

Date forwarded: _____

Have you adopted a municipal stormwater control ordinance(s) in accordance with N.J.A.C. 7:8-4?
Y () N ()

Date adopted: _____

Status of this ordinance(s) (if not adopted):

Have you submitted your adopted municipal stormwater management plan and stormwater control ordinance(s) to the appropriate county review agency for approval? Y () N ()

Date submitted: _____

Are your adopted municipal stormwater management plan and stormwater control ordinance(s) approved and in effect? Y () N ()

Effective date: _____

Ordinance number(s): _____

Status of adopted plan and ordinance(s) (if not in effect):

Have you:

Placed your approved municipal stormwater management plan and stormwater control ordinance(s) on your website, and notified the Department, the Soil Conservation District and State Soil Conservation Committee? Y () N () N/A ()

Date you notified the Department: _____

OR

Submitted your approved municipal stormwater management plan and stormwater control ordinance(s) to the Department, and provided notice to the Soil Conservation District and State Soil Conservation Committee? Y () N () N/A ()

Date submitted to the Department: _____

Are you enforcing your approved municipal stormwater control ordinance(s)? Y () N ()

Have you granted any variances or exemptions from the design and performance standards for stormwater management measures set forth in your approved municipal stormwater management plan and stormwater control ordinance(s)? Y () N ()

If yes, does your approved municipal stormwater management plan include a mitigation plan in accordance with N.J.A.C. 7:8-4.2(c)11? Y () N ()

Did you submit a written report to the county review agency and the Department describing the variance or exemption and the required mitigation? Y () N ()

Date(s) report(s) submitted to the Department: _____

For storm drain inlets not installed by you, are you enforcing compliance with the standards set forth in Attachment C of the permit to control passage of solid and floatable materials? Y () N ()

If yes, specify whether such compliance is enforced through your stormwater control ordinance(s) or through a separate ordinance (and provide the separate ordinance number):

Are you ensuring adequate long-term operation and maintenance of BMPs on property that you do not own or operate? Y () N ()

If yes, briefly indicate how this being accomplished (e.g., ordinance requiring operation and maintenance by private entity; operation and maintenance by you or other governmental entity):

Have you reexamined your approved municipal stormwater management plan at each reexamination of your master plan in accordance with N.J.A.C. 7:8-4? Y () N ()

Date reexamination report adopted: _____

Annual Report and Certification

Tier A Municipal Stormwater General Permit

Municipality
Information

Municipality: Lakehurst Borough

County: Ocean County

NJPDES # : NJG0147761

PI ID #: 203008

Team Member: _____

Date: _____

Effective Date of Permit Authorization (EDPA): April 1, 2004

Local Public Education

Local Public Education Program

Have you developed a Local Public Education Program? Y () N ()

Date development of program completed: _____

Date of Annual Distribution of Educational Brochure: _____

Method of Distribution:

Date of Annual Event: _____

Description of Event:

Storm Drain Inlet Labeling

Have you established a storm drain inlet labeling program? Y () N ()

Have you divided your municipality into two sectors for the purpose of storm drain inlet labeling?
Y () N ()

If "yes," indicate the number of sectors labeled to date: 0 1 2

If "no," please check approximate percentage of storm drain inlets labeled to date:

25% 50% 75% 100% other (specify) _____%

Have you developed a long term maintenance plan for the storm drain inlet labels? Y () N ()

Are you implementing your long-term maintenance plan? Y () N ()

Annual Report and Certification

Tier A Municipal Stormwater General Permit

Municipality
Information

Municipality: Lakehurst Borough

County: Ocean County

NJPDES # : NJG0147761

PI ID #: 203008

Team Member: _____

Date: _____

Effective Date of Permit Authorization (EDPA): April 1, 2004

Improper Disposal of Waste

Have you adopted and are you enforcing a:

Pet Waste Ordinance Y () N ()

Date adopted: _____

Litter Ordinance Y () N () N/A ()

Date adopted: _____

State Litter Statute Y () N () N/A ()

Improper Disposal of Waste Ordinance Y () N ()

Date adopted: _____

Wildlife Feeding Ordinance Y () N ()

Date adopted: _____

Containerized Yard Waste Ordinance Y () N () N/A ()

Date adopted: _____

Yard Waste Collection Program Ordinance Y () N () N/A ()

Date adopted: _____

Illicit Connection Ordinance Y () N ()

Date adopted: _____

Status of these ordinances (if not adopted):

Method(s) of enforcement (e.g., summons, warnings, additional signs, etc.):

Are you distributing the Pet Waste Information Sheets with pet licenses? Y () N ()

Yard Waste Collection Program

Have you developed a yard waste collection program? Y () N () N/A ()

Collection Dates:

October _____ November _____ December _____ Spring Cleanup _____

Annual Report and Certification

Tier A Municipal Stormwater General Permit

Municipality Information

Municipality: Lakehurst Borough

County: Ocean County

NJPDES # : NJG0147761

PI ID #: 203008

Team Member: _____

Date: _____

Effective Date of Permit Authorization (EDPA): April 1, 2004

Illicit Connection Elimination and MS4 Outfall Pipe Mapping

Outfall Pipe Mapping

Number of sectors with MS4 outfall pipes mapped to date (please check): 0 1 2

Date first sector completed: _____ Date second sector completed: _____

Illicit Connection Elimination Program

Have you developed an Illicit Connection Elimination program? Y () N ()

Date development of program completed: _____

Have you begun the initial physical inspection of all outfall pipes using the Department's Illicit Connection Inspection Report form? Y () N ()

Number of outfalls physically inspected since May 2nd of previous year: _____

Number of outfalls found to have dry weather flows during that period: _____

Number of outfalls found to have an illicit connection during that period: _____

Number of illicit connections found during that period: _____

Number of illicit connections eliminated during that period: _____

(For any outfalls found to have dry weather flows, a copy of the inspection report shall be submitted with this Annual Report and Certification.)

Provide the following information for each outfall found to have an illicit connection since May 2nd of previous year.

Outfall Identifier	Source of Illicit Connection	Date Eliminated

Annual Report and Certification

Tier A Municipal Stormwater General Permit

Municipality
Information

Municipality: Lakehurst Borough

County: Ocean County

NJPDES # : NJG0147761

PI ID #: 203008

Team Member: _____

Date: _____

Effective Date of Permit Authorization (EDPA): April 1, 2004

Street Sweeping Program

Have you developed a Street Sweeping Program? Y () N ()

Were all required streets swept? Y () N ()

Did you sweep more than the required streets? Y () N ()

What was the total number of miles swept? _____ miles.

Please list the total amount of materials collected for each month since May 2nd of previous year:

May _____

June _____

July _____

August _____

September _____

October _____

November _____

December _____

January _____

February _____

March _____

April _____

If street sweeping was not completed for any of these months, please explain:

Annual Report and Certification

Tier A Municipal Stormwater General Permit

Municipality Information	Municipality: <u>Lakehurst Borough</u>	County: <u>Ocean County</u>
	NJPDES # : <u>NJG0147761</u>	PI ID #: <u>203008</u>
	Team Member: _____	
	Date: _____	Effective Date of Permit Authorization (EDPA): <u>April 1, 2004</u>

Storm Drain Inlet Retrofitting

Were all storm drain inlets in direct contact with repaving, repairing, reconstruction or alterations retrofitted or replaced to meet the standard? Y () N ()

Attach a sheet indicating areas where there were repaving, repairing, reconstruction, or alteration projects.

Attach a list of storm drain inlets that were exempted as a part of these projects.

Outfall Pipe Stream Scouring Remediation

Have you developed an Outfall Pipe Stream Scouring Remediation Program? Y () N ()

Date development of program completed: _____

Program Status

Location of Outfall Pipe (including alphanumeric identifier)	Repair Start Date	Repair Complete Date

Annual Report and Certification

Tier A Municipal Stormwater General Permit

Municipality
Information

Municipality: Lakehurst Borough

County: Ocean County

NJPDES # : NJG0147761

PI ID #: 203008

Team Member: _____

Date: _____

Effective Date of Permit Authorization (EDPA): April 1, 2004

Stormwater Facility Maintenance

Have you developed a Stormwater Facility Maintenance Program? Y () N ()

Date development of program completed: _____

Catch Basins:

Total number of catch basins that you operate: _____

Were all catch basins inspected and/or cleaned? Y () N ()

Total number of catch basins cleaned: _____

Amount of materials removed from catch basins, if available: _____ SELECT UNIT

Other Stormwater Facilities:

Were all stormwater facilities (e.g., detention basins, filter strips, riparian buffers, infiltration trenches, sand filters, constructed wetlands, wet basins, bioretention systems, low flow bypasses, and stormwater conveyances) that you operate inspected? Y () N ()

Were any found to be in need of cleaning or repair in order to function properly? Y () N ()

Was the cleaning performed? Y () N () Were repairs made? Y () N ()

Describe repair(s) or schedule for repair(s). Attach additional pages as necessary.

Road Erosion Control Maintenance

Have you developed a Roadside Erosion Control Program? Y () N ()

Date development of program completed: _____

Were any areas of road erosion identified? Y () N ()

Attach a sheet identifying the locations of road erosion and whether repairs have been made.

Annual Report and Certification

Tier A Municipal Stormwater General Permit

Municipality
Information

Municipality: Lakehurst Borough

County: Ocean County

NJPDES # : NJG0147761

PI ID #: 203008

Team Member: _____

Date: _____

Effective Date of Permit Authorization (EDPA): April 1, 2004

De-icing Material and Sand Storage

Are you currently using an existing permanent structure for de-icing material storage?

Y () N () N/A ()

If a permanent structure is not yet built, is seasonal tarping being used? Y () N () N/A ()

If you answered N/A to the above questions, please explain:

If sand is being stored outside, is it set back 50 feet from storm sewer inlets, ditches or other stormwater conveyance channels, and surface water bodies? Y () N () N/A ()

Fueling Operations

Are you implementing Standard Operating Procedures for vehicle fueling and receiving of bulk fuel deliveries at maintenance yard operations? Y () N () Date SOP in effect: _____

Vehicle Maintenance

Are you implementing Standard Operating Procedures for vehicle maintenance and repair activities at maintenance yard operations? Y () N () Date SOP in effect: _____

Good Housekeeping Practices

Are you implementing Good Housekeeping Practices for all materials or machinery listed in the Inventory Requirements for Municipal Maintenance Yard Operations (including maintenance activities and ancillary operations)? Y () N () Date practices are in effect: _____

Annual Report and Certification

Tier A Municipal Stormwater General Permit

Municipality Information	Municipality: <u>Lakehurst Borough</u>	County: <u>Ocean County</u>
	NJPDES # : <u>NJG0147761</u>	PI ID #: <u>203008</u>
	Team Member: _____	
	Date: _____	Effective Date of Permit Authorization (EDPA): <u>April 1, 2004</u>

Sharing of Responsibilities

For each of the following, indicate if you are relying on another entity to satisfy all or part of any permit requirements. For those you checked "yes," please give additional information on or with the appropriate Annual Report and Certification form (attach sheet if needed).

Statewide Basic Requirement	Relying on another entity?	
	"yes"	"no"
Public Notice	<input type="checkbox"/>	<input type="checkbox"/>
Ensure compliance with RSIS for stormwater management	<input type="checkbox"/>	<input type="checkbox"/>
Municipal stormwater management plan	<input type="checkbox"/>	<input type="checkbox"/>
Municipal stormwater control ordinance	<input type="checkbox"/>	<input type="checkbox"/>
Long term operation and maintenance of BMPs (post-construction)	<input type="checkbox"/>	<input type="checkbox"/>
Storm drain inlet design standard (post-construction)	<input type="checkbox"/>	<input type="checkbox"/>
Local Public Education Program	<input type="checkbox"/>	<input type="checkbox"/>
Storm Drain Inlet Labeling Program	<input type="checkbox"/>	<input type="checkbox"/>
Pet waste ordinance	<input type="checkbox"/>	<input type="checkbox"/>
Litter ordinance	<input type="checkbox"/>	<input type="checkbox"/>
Improper disposal of waste ordinance	<input type="checkbox"/>	<input type="checkbox"/>
Wildlife feeding ordinance	<input type="checkbox"/>	<input type="checkbox"/>
Yard waste collection program (including ordinance)	<input type="checkbox"/>	<input type="checkbox"/>
Outfall pipe mapping	<input type="checkbox"/>	<input type="checkbox"/>
Illicit connection ordinance	<input type="checkbox"/>	<input type="checkbox"/>
Illicit connection elimination program	<input type="checkbox"/>	<input type="checkbox"/>
Street sweeping	<input type="checkbox"/>	<input type="checkbox"/>
Storm drain inlet retrofitting	<input type="checkbox"/>	<input type="checkbox"/>
Maintenance of municipally operated stormwater facilities	<input type="checkbox"/>	<input type="checkbox"/>
Road erosion control	<input type="checkbox"/>	<input type="checkbox"/>
Outfall pipe stream scouring	<input type="checkbox"/>	<input type="checkbox"/>
De-icing and sand storage	<input type="checkbox"/>	<input type="checkbox"/>
Fueling operations	<input type="checkbox"/>	<input type="checkbox"/>
Vehicle maintenance	<input type="checkbox"/>	<input type="checkbox"/>
Good housekeeping	<input type="checkbox"/>	<input type="checkbox"/>
Employee Training	<input type="checkbox"/>	<input type="checkbox"/>

Annual Report and Certification

Tier A Municipal Stormwater General Permit

Municipality
Information

Municipality: Lakehurst Borough

County: Ocean County

NJPDES # : NJG0147761

PI ID #: 203008

Team Member: _____

Date: _____

Effective Date of Permit Authorization (EDPA): April 1, 2004

Incidents of Noncompliance

For any incidents of noncompliance, identify the steps being taken to remedy the noncompliance and to prevent such incidents from recurring.

Annual Report and Certification

Tier A Municipal Stormwater General Permit

Municipality
Information

Municipality: Lakehurst Borough

County: Ocean County

NJPDES # :NJG0147761

PI ID #: 203008

Team Member: _____

Date: _____

Effective Date of Permit Authorization (EDPA):April 1, 2004

Annual Certification

"I certify under penalty of law that this Annual Report and Certification and all attached documents were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate this information. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering this information, the information in this Annual Report and Certification and all attached documents is, to the best of my knowledge and belief, true, accurate and complete.

"I certify that the municipality is in compliance with its stormwater program, Stormwater Pollution Prevention Plan (SPPP) and the NJPDES Tier A Municipal Stormwater General Permit No. NJ0141852 except for any incidents of noncompliance which are identified herein. For any incidents of noncompliance, the Annual Report identifies the steps being taken to remedy the noncompliance and to prevent such incidents from recurring.

"I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for purposely, knowingly, recklessly, or negligently submitting false information."

Signature _____ Date _____

Print or Type Name _____

Print or Type Title _____

WHO MUST SIGN?

Either a principal executive officer or a ranking elected official; or duly authorized representative.

A principal executive officer or ranking elected official of the municipality may assign his or her signatory authority for this Certification to a duly authorized representative, which is a named individual or a title of a position having overall responsibility for the operation of municipal stormwater facilities or municipal environmental matters, by submitting a letter to the Bureau of Permit Management stating said authority and naming the individual or position. The duly authorized representative is the Municipal Stormwater Program Coordinator only if the Coordinator has overall responsibility for the operation of municipal stormwater facilities or municipal environmental matters.

Appendix III
Annual Report Supplemental Questionnaire

Instructions for Saving and Submitting the

2017 MS4 Tier A Permit Annual Report - Supplemental Questionnaire

1. Once opened, please save the Questionnaire to your computer, using the "Save As" function. This can be done by going to FILE > then Save As... or Shift + Ctrl + S.
2. Complete the Questionnaire.
3. Once you have completed the Questionnaire, use the "Save" function to save your answers to the Questionnaire to your computer. This can be done by going to FILE > then Save or Ctrl + S.
4. The completed and saved Questionnaire must then be uploaded as an attachment, in Part 7, to your Annual Report before the Annual Report is submitted to the Department.
5. To access the Annual Report, open the link to "NJDEP Online Portal" at http://www.nj.gov/dep/dwq/tier_a.htm. In Part 7, you will be asked to complete information regarding the file(s) to be uploaded. Navigate to your saved Questionnaire and then hit the "Upload" button in the lower right section of Part 7. The Annual Report will indicate if the Questionnaire was successfully uploaded. Then click on the "Continue" button and proceed with finalizing your Annual Report.

Your Annual Report will be considered incomplete if the Supplemental Questionnaire is not attached. If you experience any difficulty in this process, please contact your municipal case manager at 609-633-7021.

Please note that use of Adobe Reader XI is recommended. This free software is available for download at <http://get.adobe.com/reader/>. If you have an earlier version of Adobe Reader, please go to the Adobe website at <http://tv.adobe.com/watch/acrobat-x-tips-tricks/quick-tip-how-to-save-form-data-in-adobe-reader/> for detailed instructions on how to save your completed Questionnaire.

2017 MS4 Tier A Permit Annual Report - Supplemental Questionnaire

General Information

A. Municipal Information

Municipality:

County:

1. Has the municipality identified the stormwater team in the SPPP? Yes No

2. Municipal Population:

3. Municipal Area (acres/sqm.):

B. Sharing of Responsibilities – Permit Section D1

1. If the municipality shares services, what requirement do the shared services satisfy?

- Public Notice
- Post-Construction Stormwater Management in New Development and Redevelopment
- Local Public Education
- Improper Disposal of Waste
- Illicit Connection Elimination and MS4 Outfall Pipe Mapping
- Solids and Floatable Controls
- Maintenance Yard Operations
- Employee Training
- N/A, there are no shared services

Permit Implementation - Ordinances

A. Ordinances - Permit Sections F5 and F6

1. *Pet Waste Ordinance*

Entity responsible for enforcement:

2. *Litter Ordinance/State Litter Statute*

Entity responsible for enforcement:

3. *Improper Disposal of Waste Ordinance*

Entity responsible for enforcement:

4. *Wildlife Feeding Ordinance*

Entity responsible for enforcement:

5. *Containerized Yard Waste Ordinance/Collection Program*

Entity responsible for enforcement:

6. *Illicit Connection Ordinance*

Entity responsible for enforcement:

7. *Refuse Container/Dumpster Ordinance*

Entity responsible for enforcement:

8. *Private Storm Drain Inlet Retrofitting Ordinance:*

Entity responsible for enforcement:

9a. How many violations of these ordinances were enforced?

9b. Which of the above ordinances had the most violations?

B. Illicit Connection Elimination Program – Permit Section F6

1. During the past calendar year, has the municipality identified any pipes or discharges with unknown owners entering the MS4? Yes No
2. If yes, how many?

C. Storm Drain Inlet Retrofitting – Permit Section F7b

Existing storm drain inlets are required to be retrofitted to meet the design standard (contained in Attachment C of the permit) when such inlets are owned or operated by the Tier A Municipality and are in direct contact with repaving, repairing (excluding repair of individual potholes), reconstruction, resurfacing (including top coating or chip sealing with asphalt emulsion or a thin base of hot bitumen), or alterations of facilities owned or operated by the Tier A Municipality. For exemptions to this standard, refer to "Exemptions" in Attachment C.

1. At the completion of the above projects, did all of the storm drain inlets meet this standard? Yes No

Permit Implementation - Inventory

A. MS4 Outfall Pipe Mapping – Permit Section F6

1. Which map format is used:
 Tax Map SIIA Electronic (e.g. AutoCAD, Micro Station, GIS) USGS Quadrangle Other

1a. If other, what is the format that the municipality uses?

2. Date of last revision: _____ 3. Is the map updated annually? Yes No

4. Has the municipality investigated its MS4 for previously unmapped outfalls? Yes No

4a. How many outfalls were found?

5. What percentage of mapped outfalls in the municipality have been visually inspected during the last calendar year?

6. Are the municipality's outfall pipes labelled in the field? Yes No

6a. If yes, do the labels match the alphanumeric code in the municipality's map? Yes No

7. Does the municipality's map identify outfalls that do not discharge to surface waters? Yes No

8. Does the municipality's map identify surface water body names? Yes No

9. Does the municipality's map identify streets? Yes No

10. Does the municipality's map identify blocks and lots? Yes No

11. Does the municipality's map identify MS4 conveyance systems (pipes, swales, ditches)? Yes No

12. Does the municipality's map identify other stormwater facilities? Yes No

12a. Please identify other stormwater facilities noted on the map (select as many as apply):

- | | |
|--|--|
| <input type="checkbox"/> Bioretention Systems | <input type="checkbox"/> Constructed Stormwater Wetlands |
| <input type="checkbox"/> Dry Wells | <input type="checkbox"/> Extended Detention Basins |
| <input type="checkbox"/> Grass Swales | <input type="checkbox"/> Infiltration Basins |
| <input type="checkbox"/> Manufactured Treatment Devices (MTDs) | <input type="checkbox"/> Pervious Paving Systems |
| <input type="checkbox"/> Rooftop Vegetated Cover | <input type="checkbox"/> Sand Filters |
| <input type="checkbox"/> Vegetative Filters | <input type="checkbox"/> Wet Ponds |
| <input type="checkbox"/> Retrofitted Storm Drain Inlets | |

13. Does the municipality's map identify areas with scour, erosion, and/or flooding and drainage control issues?
 Yes No

B. Storm Drain Inlet Labeling – Permit Section F4b

1. How many labels have been replaced or repainted during the past calendar year to ensure legibility?

Permit Implementation - Inventory

A. Stormwater Facility Inspection and Maintenance – Permit Section F7c

Stormwater facilities include, but are not limited to, catch basins, extended detention basins, low flow bypasses, underground detention, dry wells, manufactured treatment devices, pervious paving, riparian buffers, infiltration basins/ trenches, sand filters, constructed wetlands, wet ponds, bioretention, rooftop vegetated cover, vegetative filters, and stormwater conveyance systems. Stormwater facility inventories that indicate the type, function, and location of the facility must be kept onsite and available for inspection or upon request in a format provided by the Department. The format is available as SPPP Form 13 at: http://www.nj.gov/dep/dwq/pdf/Tier_A/A%20-%20pdf%206.pdf

1. Does the municipality's stormwater maintenance program include the following:

1a. An inventory of facilities? Yes No

1b. An inspection schedule? Yes No

1c. A maintenance schedule? Yes No

1d. An inspection log noting when inspections were conducted? Yes No

1e. A maintenance log noting any maintenance performed on individual facilities? Yes No

2. Does the municipality inspect stormwater facilities that are not owned by the municipality? Yes No

2a. Does the municipality review maintenance logs for stormwater facilities that are not owned by the municipality?
 Yes No

3. During the past calendar year, how many stormwater facilities (excluding catch basins) were repaired?

4. During the past calendar year, how many stormwater facilities (excluding catch basins) were cleaned?

B. Stormwater Facility Inspection and Maintenance – Permit Section F7c

1. Does the municipality have a stormwater outfall pipe scouring detection, remediation, and maintenance program?
 Yes No

2. How many instances of scour has the municipality found during the past calendar year?

Permit Implementation - Inventory

A. De-icing Material and Sand Storage – Permit Section F8a

1. What type of de-icing material does the municipality use (select as many as appropriate)?

Sodium Chloride

Calcium Chloride

Potassium Acetate

Brine Solution

Unknown

Other (if other, please specify):

B. Equipment and Vehicle Washing – Permit Section F8b

1. Does the municipality utilize an underground storage tank for managing vehicle wash wastewater? Yes No

2. Which of the following options does the municipality use to manage vehicle wash wastewater? (select all that apply)

- Vehicle wash reclaim system
- Capture and haul system
- Discharge to sanitary sewer
- Discharge to groundwater
- Washed off site
- Do not wash vehicles

Permit Implementation – Stormwater Management – Permit Section F3

Note: This portion of the annual report should be completed by a person knowledgeable in post-construction stormwater management project review and approvals.

1. Name of person completing this section:
2. Title of person completing this section:

A. Municipal Stormwater Management Plan (Plan)

1. Most recent date of re-examination of municipal master plan:
2. Does the plan identify and address water bodies of concern (listed on Impaired Water Bodies List, TMDL, high quality water, existing erosion)? Yes No
3. Does the plan identify and address areas of inadequate drainage? Yes No
4. Does the plan include programs or BMPs and associated timeframes specifically addressing these impairments or pollutants? Yes No
5. Does the plan identify how to incorporate future development pressures on the existing stormwater management infrastructure? Yes No
6. Are mitigation projects listed in the municipality's mitigation plan? Yes No No mitigation plan

B. Stormwater Control Ordinance

1. What is the ordinance's definition of major development?

2. Has the municipality adopted a new stormwater control ordinance during the past year? Yes No
3. If yes, did the municipality send the adopted municipal stormwater control ordinance to the appropriate county review agency for approval? Yes No

C. Review of Major Development for Stormwater Management

1. Did the municipality have any agricultural development projects that were granted exemptions under the Right to Farm Act? Yes No
2. Do any municipal ordinances promote the use of nonstructural strategies? Yes No Unknown
3. Does the municipality hold pre-application meetings to discuss incorporation of nonstructural strategies for individual projects? Yes No
4. Does the municipality allow infiltration BMPs to infiltrate during the 2, 10, or 100 year storm events for quantity control? Yes No
5. Does the municipality conduct municipal inspections of sites both during and after the construction is completed to ensure that BMPs function as designed? Yes No

D. Inventory and Maintenance

Stormwater facility inventories that indicate the type, function, and location of the facility must be kept onsite and available for inspection or upon request in a format provided by the Department. The format is available as SPPP Form 13 at: http://www.nj.gov/dep/dwq/pdf/Tier_A/A%20-%20pdf%206.pdf.

1. Did the municipality update its map and inventory to include newly approved projects constructed within the last calendar year? Yes No

2. How many infiltration BMPs were approved during the past calendar year?

3. How many subsurface infiltration basins have been constructed during the past calendar year?

3a. How many of these subsurface infiltration basins were inspected during construction in the past calendar year?

3b. Did the final inspection include the following? Mark all that apply:

- Permeability test
- Visual inspection
- Check for drain down time
- Unknown

4. Select the methods the municipality uses to ensure that stormwater facilities that are **not owned** by the municipality will be properly maintained:

- Maintained by municipality
- Inspections
- Homeowners associations
- Shared services
- Fees
- Surety bonds
- Other

4a. If other, what are the methods for ensuring stormwater facilities are maintained?

5. In the past calendar year, has the municipality reviewed and approved any major residential developments that place an individual property owner as the responsible entity for the maintenance of any stormwater management facility(ies) that receive drainage from multiple parcels? Yes No

E. Stormwater Management Training

1. Have any of the current members of the planning or zoning board taken any NJDEP provided training for board members on the Stormwater Management rules? Yes No Unknown

2. Have the municipality's inspector(s) for stormwater management taken any of the following classes:

2a. Stormwater Management and BMPs for Engineers through Rutgers University or NJDEP : Yes No Unknown

2b. Municipal Engineering Construction Inspection Program, Part 1 through Rutgers University: Yes No Unknown

2c. Municipal Engineering Construction Inspection Program, Part 2 through Rutgers University: Yes No Unknown

2d. Soils & Site Evaluation for Septic Disposal Systems & Stormwater BMPs through Rutgers University:

Yes No Unknown

2e. Other stormwater training classes:

3. How many construction inspectors for stormwater management does the municipality have?

- | |
|---|
| 4. How many operation and maintenance inspectors for stormwater management does the municipality have? |
| 5. How many plan reviewers for stormwater management does the municipality have? |
| 6. How many municipal engineers/stormwater plan reviewers have taken the NJDEP Stormwater Management and BMP Manual course offered through Rutgers University or NJDEP? |

Education

A. Annual Employee Training – Permit Section F9

1. Is the municipality maintaining a record of the dates on which employees have received training? Yes No
2. Type of training media on those dates: Video Mentoring Vendor Training

This Supplemental Questionnaire must be attached to your Annual Report to be considered complete. If you experience any difficulty in this process, please contact your municipal case manager at 609-633-7021.

1. Once you have completed the Questionnaire, use the "Save" function to save your answers to the Questionnaire to your computer. This can be done by going to FILE > then Save or Ctrl + S.
2. The completed and saved Questionnaire must then be uploaded as an attachment, in Part 7, to your Annual Report before the Annual Report is submitted to the Department.
3. To access the Annual Report, open the link to "NJDEP Online Portal" at http://www.nj.gov/dep/dwg/tier_a.htm. In Part 7, you will be asked to complete information regarding the file(s) to be uploaded. Navigate to your saved Questionnaire and then hit the "Upload" button in the lower right section of Part 7. The Annual Report will indicate if the Questionnaire was successfully uploaded. Then click on the "Continue" button and proceed with finalizing your Annual Report.

Appendix IV

“Solutions to Stormwater Pollution” Brochure

Solutions to Stormwater Pollution

Easy Things You Can Do Every Day To Protect Our Water

A Guide to Healthy Habits for Cleaner Water

Pollution on streets, parking lots and lawns is washed by rain into storm drains, then directly to our drinking water supplies and the ocean and lakes our children play in. Fertilizer, oil, pesticides, detergents, pet waste, grass clippings: You name it and it ends up in our water.

Stormwater pollution is one of New Jersey's greatest threats to clean and plentiful water, and that's why we're all doing something about it.

By sharing the responsibility and making small, easy changes in our daily lives, we can keep common pollutants out of stormwater. It all adds up to cleaner water, and it saves the high cost of cleaning up once it's dirty.

As part of New Jersey's initiative to keep our water clean and plentiful and to meet federal requirements, many municipalities and other public agencies including colleges and military bases must adopt ordinances or other rules prohibiting various activities that contribute to stormwater pollution. Breaking these rules can result in fines or other penalties.



As a resident, business, or other member of the New Jersey community, it is important to know these easy things you can do every day to protect our water.

Limit your use of fertilizers and pesticides

- Do a soil test to see if you need a fertilizer.
- Do not apply fertilizers if heavy rain is predicted.
- Look into alternatives for pesticides.
- Maintain a small lawn and keep the rest of your property or yard in a natural state with trees and other native vegetation that requires little or no fertilizer.
- If you use fertilizers and pesticides, follow the instructions on the label on how to correctly apply it.



Make sure you properly store or discard any unused portions.

Properly use and dispose of hazardous products

- Hazardous products include some household or commercial cleaning products, lawn and garden care products, motor oil, antifreeze, and paints.
- Do not pour any hazardous products down a storm drain because storm drains are usually connected to local waterbodies and the water is not treated.

- If you have hazardous products in your home or workplace, make sure you store or dispose of them properly. Read the label for guidance.
- Use natural or less toxic alternatives when possible.
- Recycle used motor oil.
- Contact your municipality, county or facility management office for the locations of hazardous-waste disposal facilities.



Keep pollution out of storm drains

- Municipalities and many other public agencies are required to mark certain storm drain inlets with messages reminding people that storm drains are connected to local waterbodies.
- Do not let sewage or other wastes flow into a stormwater system.

Clean up after your pet

- Many municipalities and public agencies must enact and enforce local pet-waste rules.
- An example is requiring pet owners or their keepers to pick up and properly dispose of pet waste dropped on public or other people's property.
- Make sure you know your town's or agency's requirements and comply with them. It's the law. And remember to:

- Use newspaper, bags or pooper-scoopers to pick up wastes.
- Dispose of the wrapped pet waste in the trash or unwrapped in a toilet.
- Never discard pet waste in a storm drain.

Don't feed wildlife

- Do not feed wildlife, such as ducks and geese, in public areas.
- Many municipalities and other public agencies must enact and enforce a rule that prohibits wildlife feeding in these areas.



Dispose of yard waste properly

- Keep leaves and grass out of storm drains.
- If your municipality or agency has yard waste collection rules, follow them.
- Use leaves and grass clippings as a resource for compost.
- Use a mulching mower that recycles grass clippings into the lawn.

Don't litter

- Place litter in trash receptacles.
- Recycle. Recycle. Recycle.
- Participate in community cleanups.



Contact information

For more information on stormwater related topics, visit www.njstormwater.org or www.nonpointsource.org

Additional information is also available at U. S. Environmental Protection Agency Web sites www.epa.gov/npdes/stormwater or www.epa.gov/nps

New Jersey Department of Environmental Protection
 Division of Water Quality
 Bureau of Nonpoint Pollution Control
 Municipal Stormwater Regulation Program
 (609) 633-7021



April 2004

Appendix V
Optional Educational Information



Fact sheet

Backyard Leaf Composting

Franklin Flower, Extension Specialist Emeritus in Environmental Science
Peter Strom, Assistant Professor in Environmental Science

Many New Jersey homeowners have an excessive quantity of leaves in the fall. One alternative for dealing with leaves is backyard composting. This process involves primarily the microbial decomposition of organic matter. Compost - the end result - is a dark, friable, partially decomposed substance similar to natural organic matter found in the soil.

The Composting Process

Composting speeds natural decomposition under semi-controlled conditions. Raw organic materials can be converted into compost by microorganisms. As microorganisms decompose organic matter, temperatures within the pile increase, sometimes approaching 150 degrees F. at the center. These inside-pile temperatures speed the process, and kill many weed and disease organisms.

Leaves may be composted by piling them in a heap. Locate the pile where drainage is adequate and there is no standing water. The composting pile should be damp enough that when a sample taken from the interior is squeezed by hand a few drops of water will appear. A shaded area will reduce moisture evaporation from the surface, but tree roots may grow into the pile. If the surface of the pile becomes excessively dry, it will not compost, and those leaves may blow away.

The leaf pile should be at least 4 feet in diameter and 3 feet in height. If it is too small, it is difficult to maintain adequate temperatures for rapid decomposition. The maximum size should be about 5 feet in height and 10 feet in diameter. If the pile is too large, the interior will not obtain the oxygen needed for adequate, odor-free decomposition. If more material is available, lengthen the pile into a rectangular shape while keeping it 10 feet wide and 5 feet high. If there is sufficient space and material, two or three piles will provide greater flexibility. One pile can contain compost for immediate use; the second is actively composting; and the

third receives newly fallen leaves. If there is space for only one pile, new material may be added gradually to the top while removing the decomposed product from the bottom.

Containing the Pile

Composting may be done in a loose pile. However, for the most efficient use of space, it can be contained in a bin or other enclosure. The sides of this bin should be loose enough to permit air movement. One side should be open, or easily opened, for turning the pile and for removing the finished compost.

Woven wire or wooden slat fencing, or cement blocks on their sides have been used successfully. Wood gradually decomposes, and wire fencing may rust, so these materials will need periodic replacement. Wooden stakes driven into the ground may attract termites, so lumber treated with wood preservative or metal snow-fence posts may be better.

Constructing the Pile

Many instruction sheets advocate constructing the pile in layers that may include grass clippings, fertilizer, limestone, manure, soil, and leaves. However, we have found this practice to be unnecessary. The pile can be constructed of leaves only. A small amount of grass clippings may be added to the leaves as the pile is being constructed. However, because of its high demand for oxygen, too much grass tends to cause an anaerobic (without oxygen) condition. This greatly reduces the composting rate, and can produce unpleasant odors. Fresh vegetable peelings may be included, but do not add meat or grease because they may cause odors or attract pests.

Unless leaves are collected in a very wet condition, add water while placing them in the pile. Without moisture, the microorganisms will not function. Moist-en to the point



where it is possible to squeeze droplets of water from a hand-held mass of leaves.

Dead leaves lack adequate nitrogen for rapid decomposition. Therefore, a high-nitrogen fertilizer added to the pile may speed up decomposition. However, since leaves fall only for about 2 months a year, there are 10 months for decomposition before space is needed for the next batch. So, while it is generally unnecessary to add fertilizer, for more rapid decomposition and a product with a higher nutritive content, 5 ounces (about 1/2 cup) of 10% nitrogen fertilizer per 20-gallon can of hand-compacted leaves could be added. Fresh manure could be substituted, but it may cause odor problems.

Ordinarily it is unnecessary to add ground limestone because the pile seldom becomes too acidic. If fertilizer has been added, an equivalent quantity of limestone will counteract any acidity. Little or no limestone should be added if the compost is to be used on acid-loving plants.

Some guides on leaf composting recommend adding layers of soil periodically to the piles to supply the microorganisms needed for decomposition. We have not found this practice to be necessary, because leaves, themselves, contain a multitude of microorganisms. Available commercial activators or starters definitely are not needed.

Avoid packing the materials too tightly. Too much compaction will limit movement of air through the pile. Shredding the leaves generally speeds up composting.

To reduce weed germination, weeds in flower or with seeds should not be composted. Also, it is best to avoid composting diseased plants, or herbicide-treated lawn clippings until after at least three mowings.

Care of the Pile

The composting pile must be kept moist, but not soggy, for proper decomposition. Inadequate moisture reduces microbial activity, while excessive water may cause anaerobic conditions. A thin outer layer of dry leaves is unavoidable.

The pile should be periodically turned or mixed. The main objectives of turning are to shift materials from the outer parts of the pile closer to the center for better decomposition, and to incorporate oxygen. During warm weather, turn the pile once a month. In cool weather frequent turning is not recommended because it allows too much heat to escape. Piles should be turned immediately if ammonia or other offensive odors are detected. If space is available, turning may be accomplished by shifting the entire pile to an adjacent area or bin.

Within a few weeks after starting, the pile should be hot in the center. Heating generally indicates that the pile is decomposing properly. Failure to heat may be caused by too little or too much water, improper aeration, packing too tightly, or a pile that is too small. As leaves decompose, they should shrink to less than one-half of their original volume. During dry weather it may be necessary to add more water. The moisture content of the interior of the pile should be observed while turning.

Using Leaf Compost

Finished compost should be dark and crumbly with much of the original appearance no longer visible. It should have an earthy odor. Normally, compost will be ready in 4-9 months.

The major horticultural use for leaf compost is to improve the organic content of soil. Most New Jersey soils need an increase of 1/2 to 1% in organic content, particularly to improve moisture-holding capacity and tilth. Leaf compost is not normally a fertilizer, because it is too low in nutrients. Compost serves primarily as an organic amendment and as a soil conditioner. Soil mulch is another valuable use for leaf compost.

Based in part on Experiment Station Research Project No. 07526.

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Revised: December 1991

**RUTGERS COOPERATIVE EXTENSION
N.J. AGRICULTURAL EXPERIMENT STATION
RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY
NEW BRUNSWICK**

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COLORING BOOK

HEY KIDS,

ARE YOU INTERESTED IN KEEPING NEW JERSEY'S WATER

CLEAN? WELL, WE NEED YOUR HELP! NOT LONG

AGO, MY FRIENDS AND I FOUND THAT ONE OF NEW

JERSEY'S BIGGEST WATER POLLUTION PROBLEMS

COMES FROM PEOPLE -- FROM HOW WE LIVE OUR

DAILY LIVES. THAT MEANS THINGS LIKE LITTERING,

NOT CLEANING UP AFTER PETS, USING TOO MANY

PESTICIDES, AND DUMPING MOTOR OIL DOWN STORM

DRAINS. WITH CLOSE TO EIGHT MILLION PEOPLE

LIVING IN THE STATE, WHAT EVERYBODY DOES CAN

REALLY ADD UP.

THIS COLORING BOOK TELLS THE STORY OF

HOW WE FOUND THE SOURCE OF THE PROBLEM,

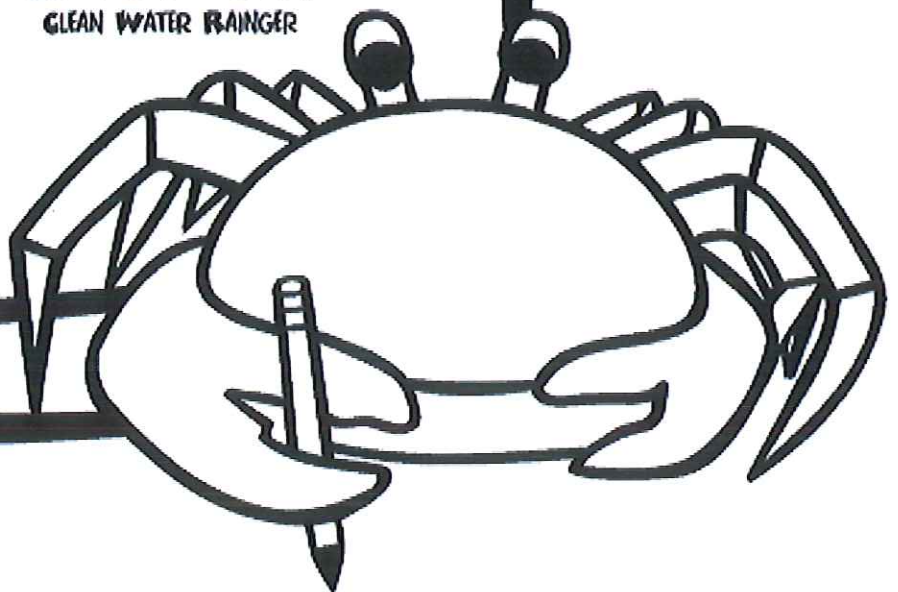
AND IT TELLS WHY WE STARTED THE CLEAN WATER

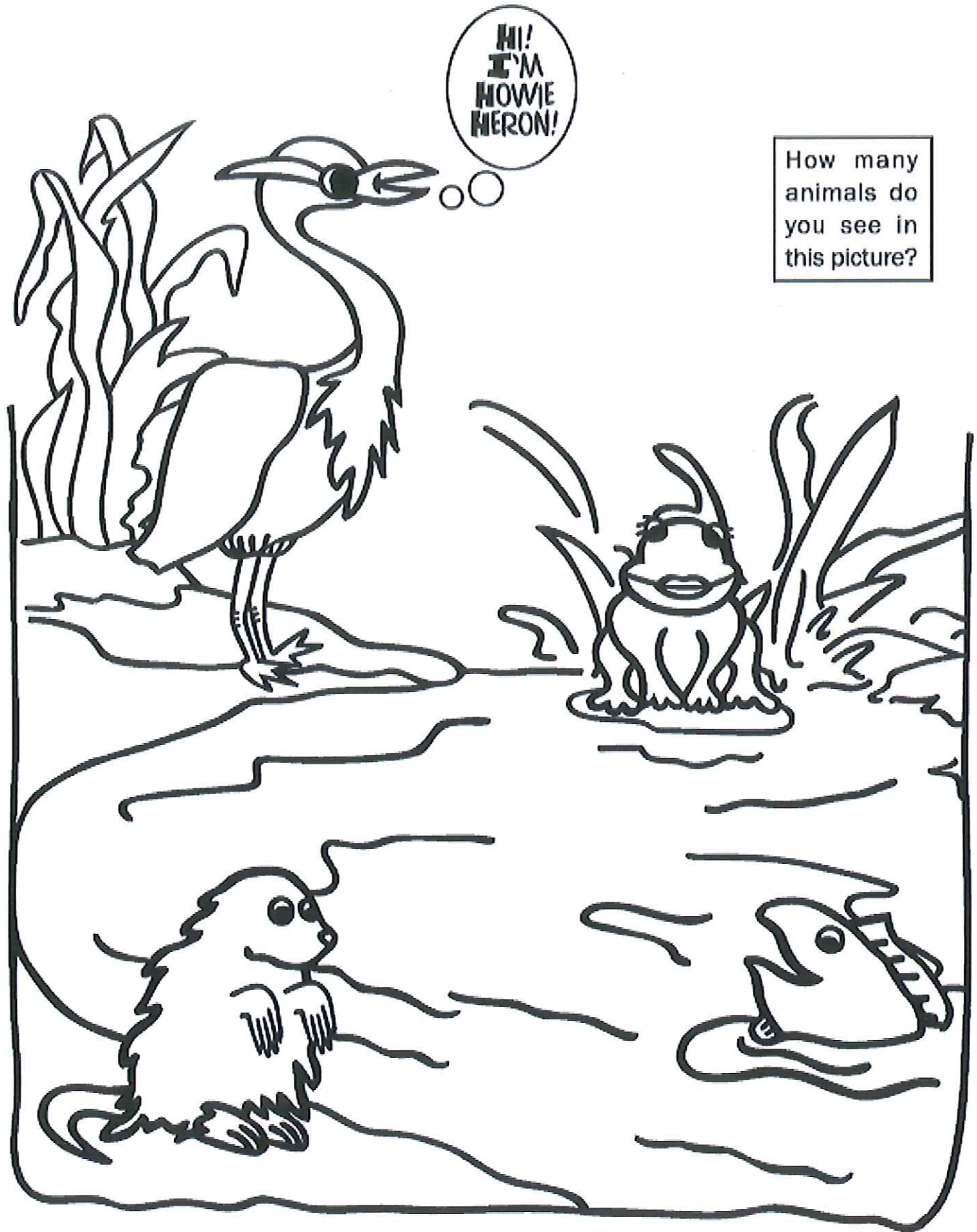
BAINGER TEAM.

YOUR FRIEND,

Claudius Crab


CLEAN WATER BAINGER





3

HOWIE THE GREAT BLUE HERON LIVES NEAR NEW JERSEY'S RIVERS, STREAMS, LAKES AND BAYS. HIS FRIENDS MARSHALL MUSKRAT, BURT BASS AND FRANCINE FROG, LIVE THERE TOO.

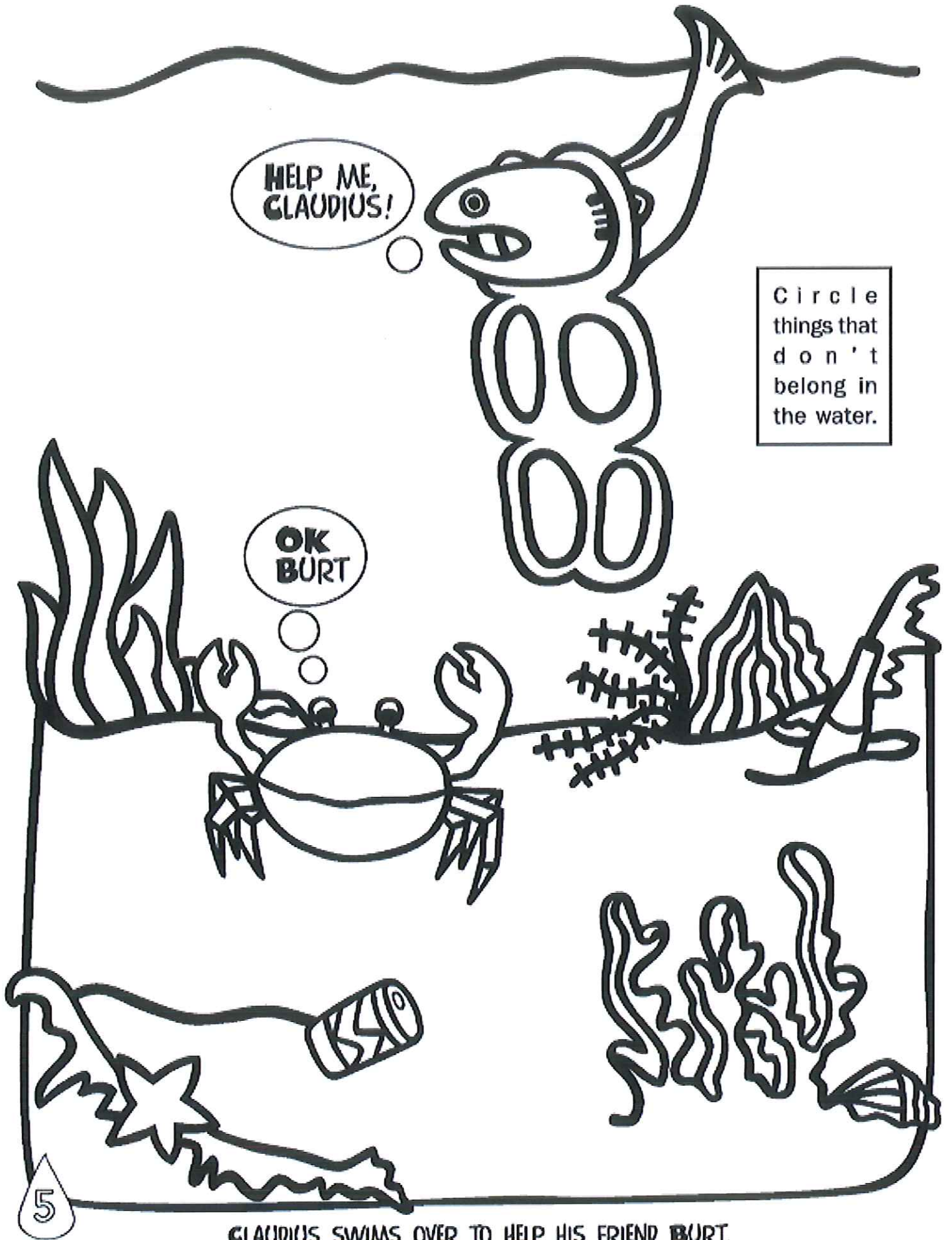


MY NAME IS DIESHA.



HI! I'M GLAUDIUS.

DIESHA DIAMONDBACK AND GLAUDIUS
GRAB ENJOY A SUNNY DAY ON THE BAY.



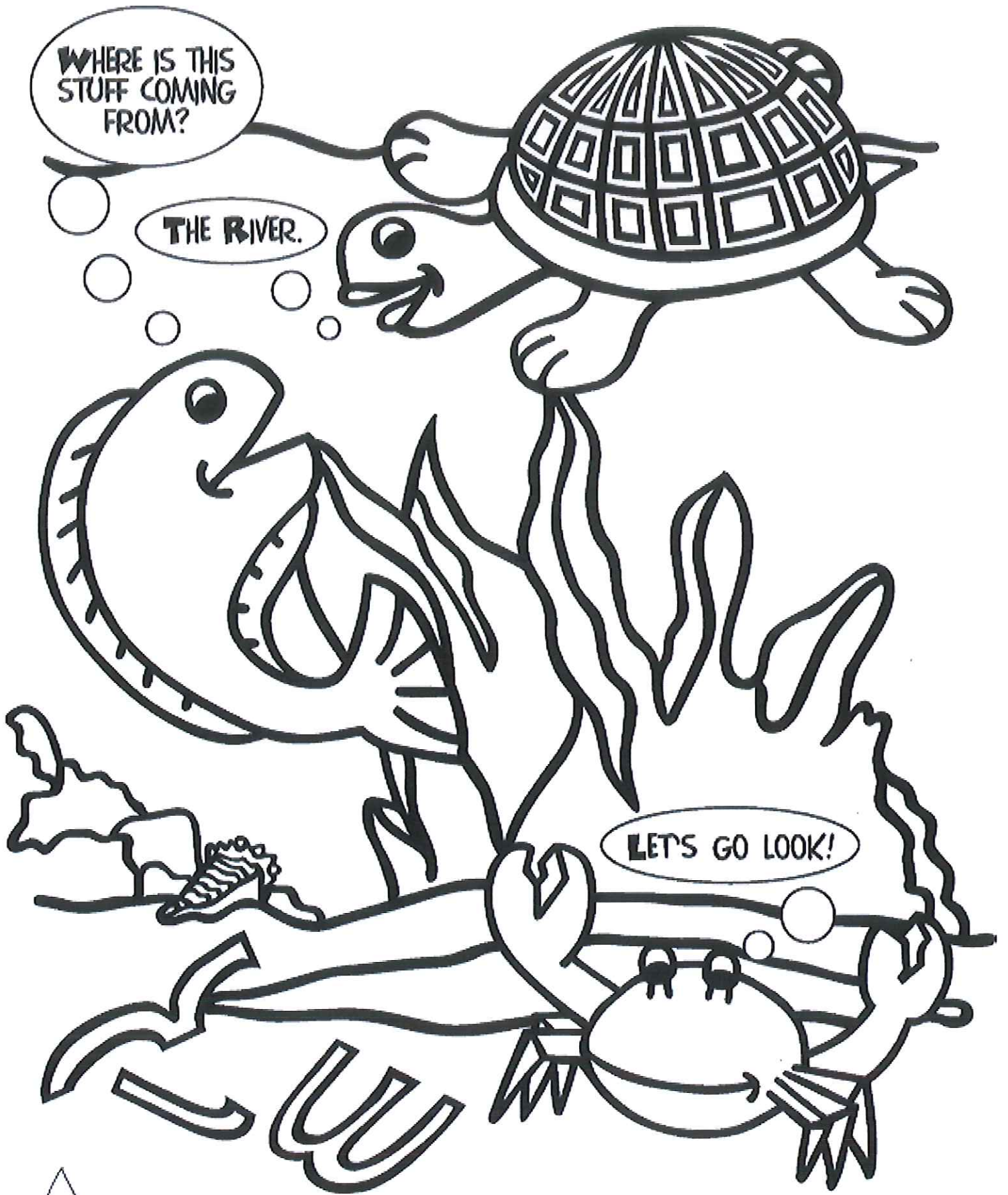
HELP ME,
CLAUDIUS!

Circle
things that
don't
belong in
the water.

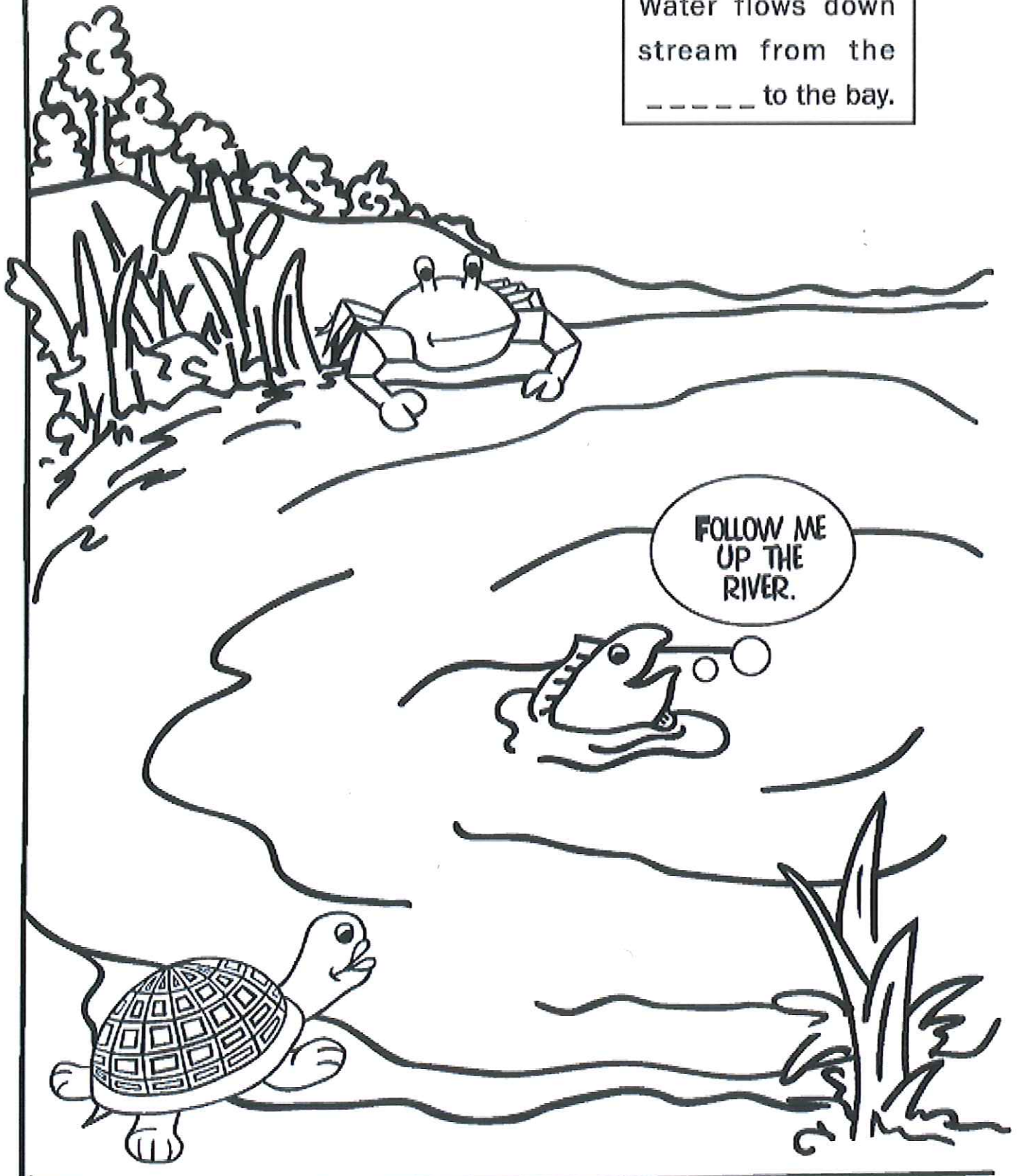
OK
BURT

5

CLAUDIUS SWIMS OVER TO HELP HIS FRIEND BURT.



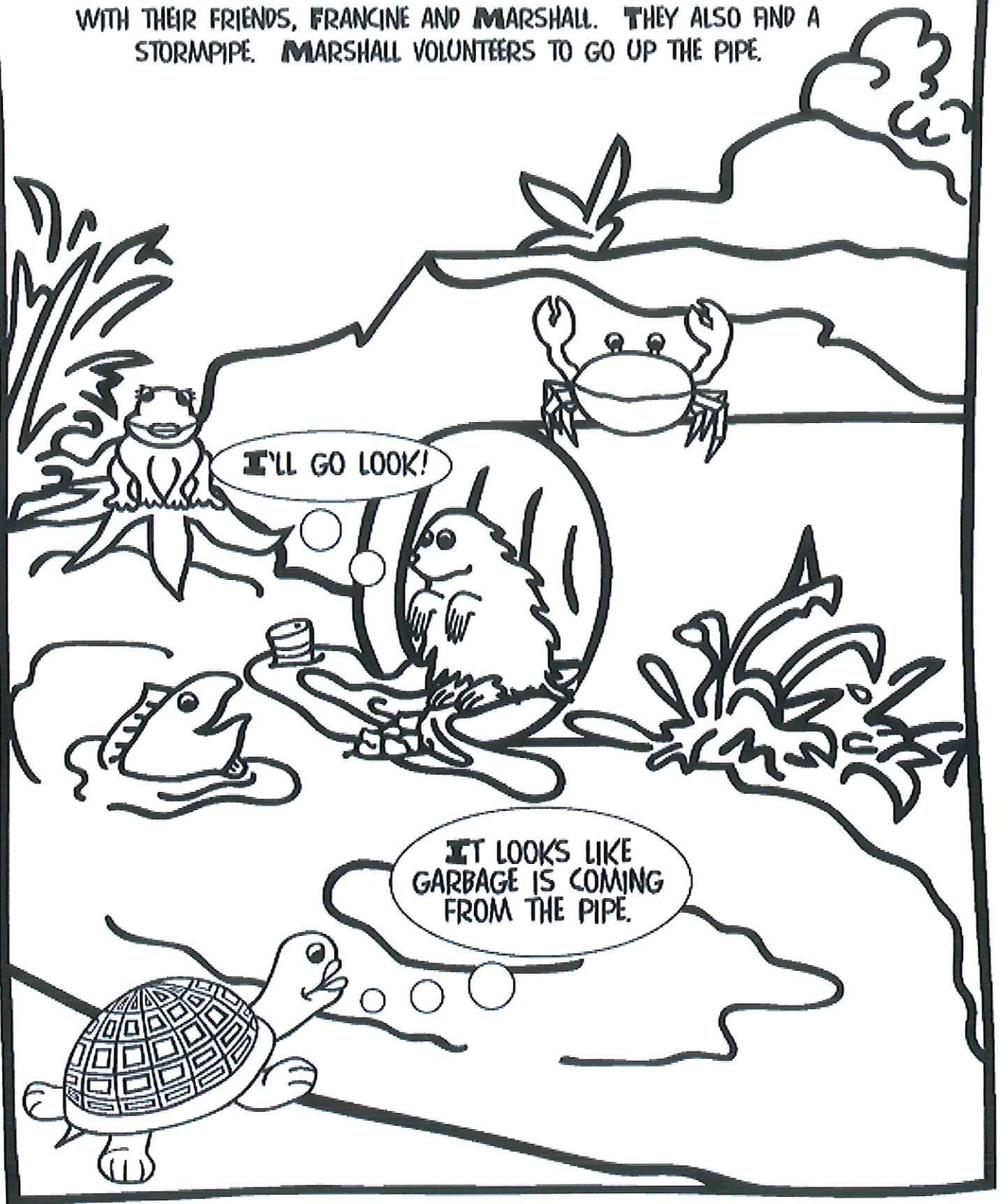
Water flows down
stream from the
_____ to the bay.

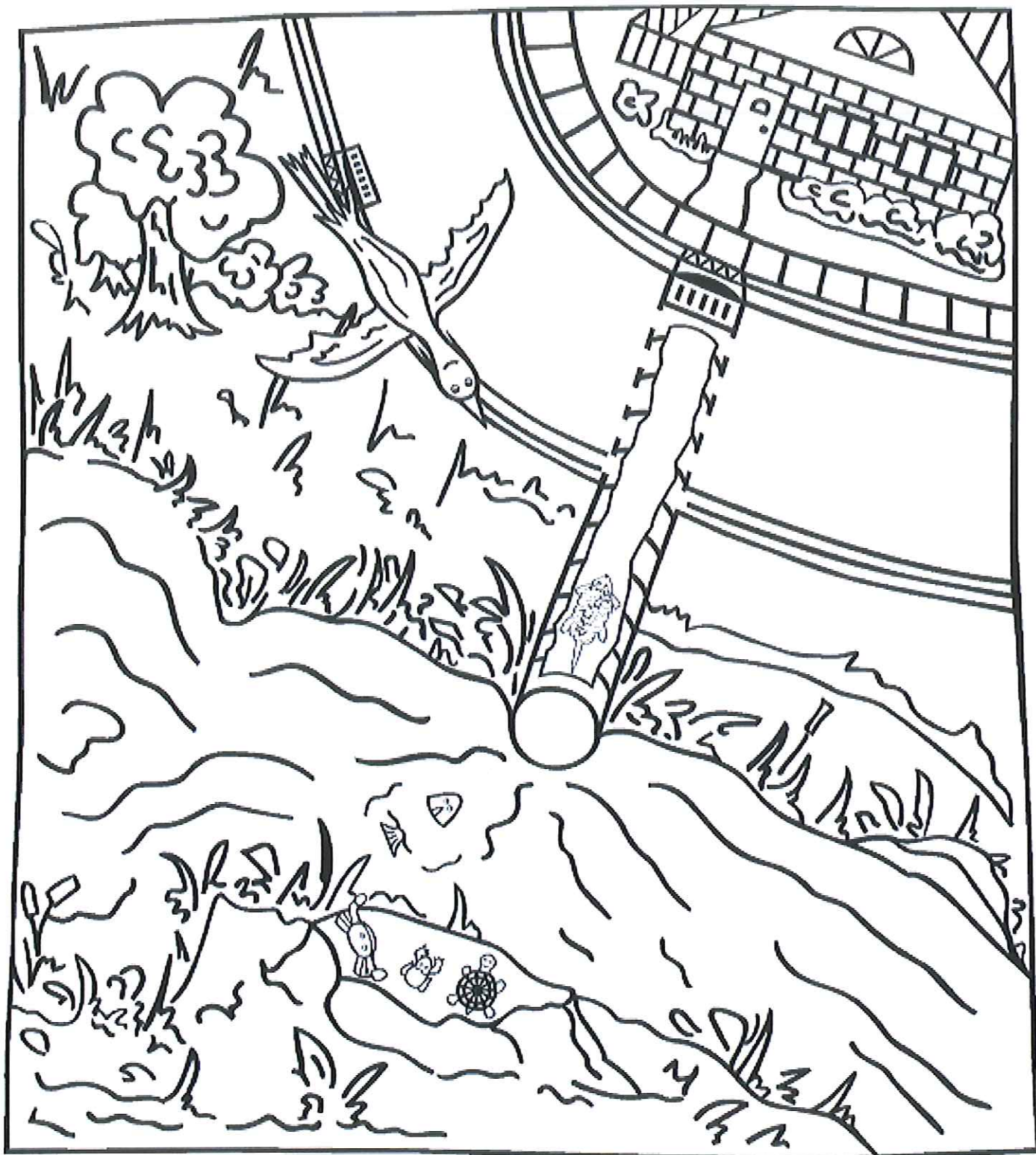


7

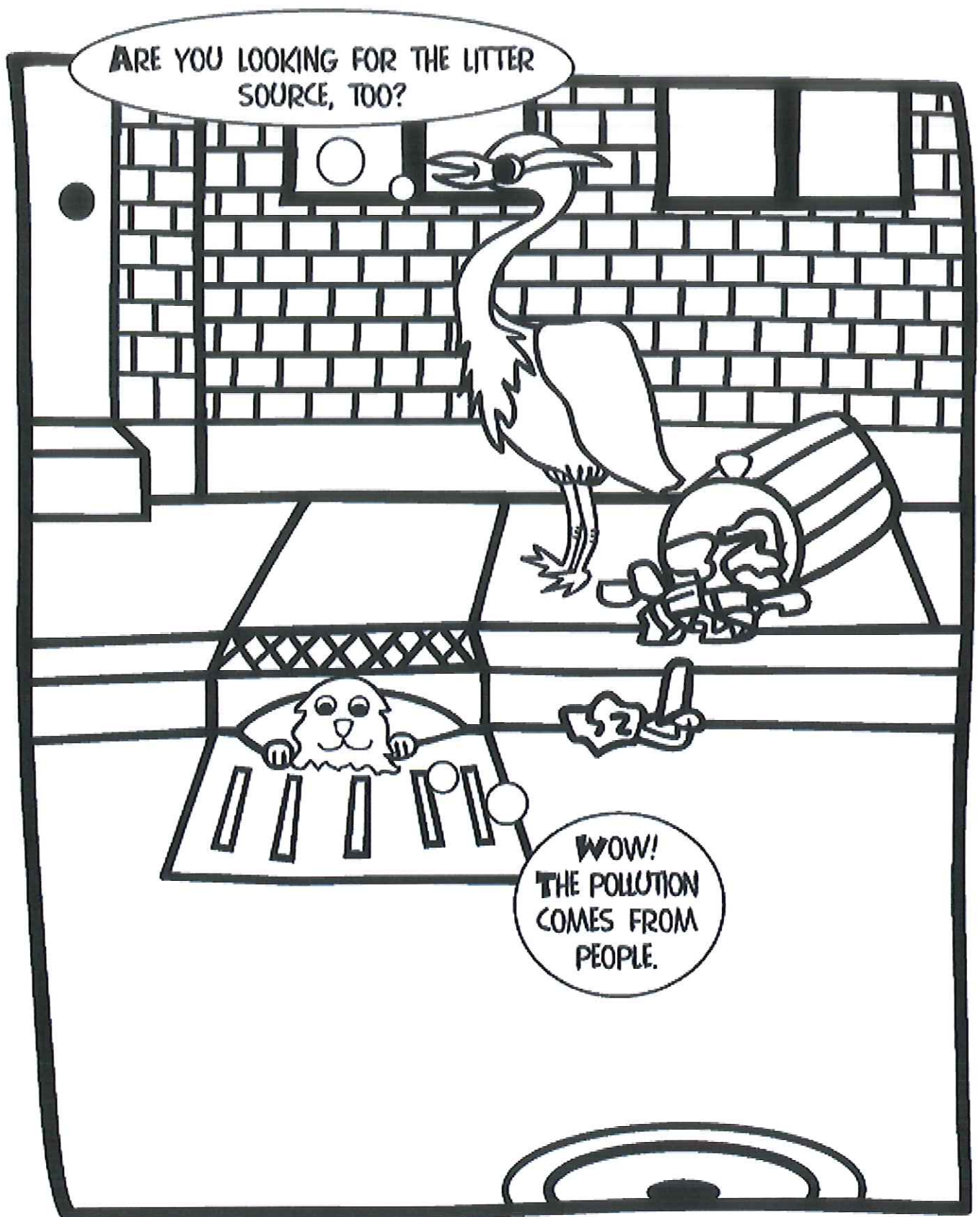
CLAUDIUS, BURT AND DIESHA GO UP STREAM IN SEARCH OF THE POLLUTION SOURCE.

AS DIESHA, BURT AND CLAUDIUS SWIM UP STREAM, THEY MEET UP WITH THEIR FRIENDS, FRANCINE AND MARSHALL. THEY ALSO FIND A STORMPIPE. MARSHALL VOLUNTEERS TO GO UP THE PIPE.

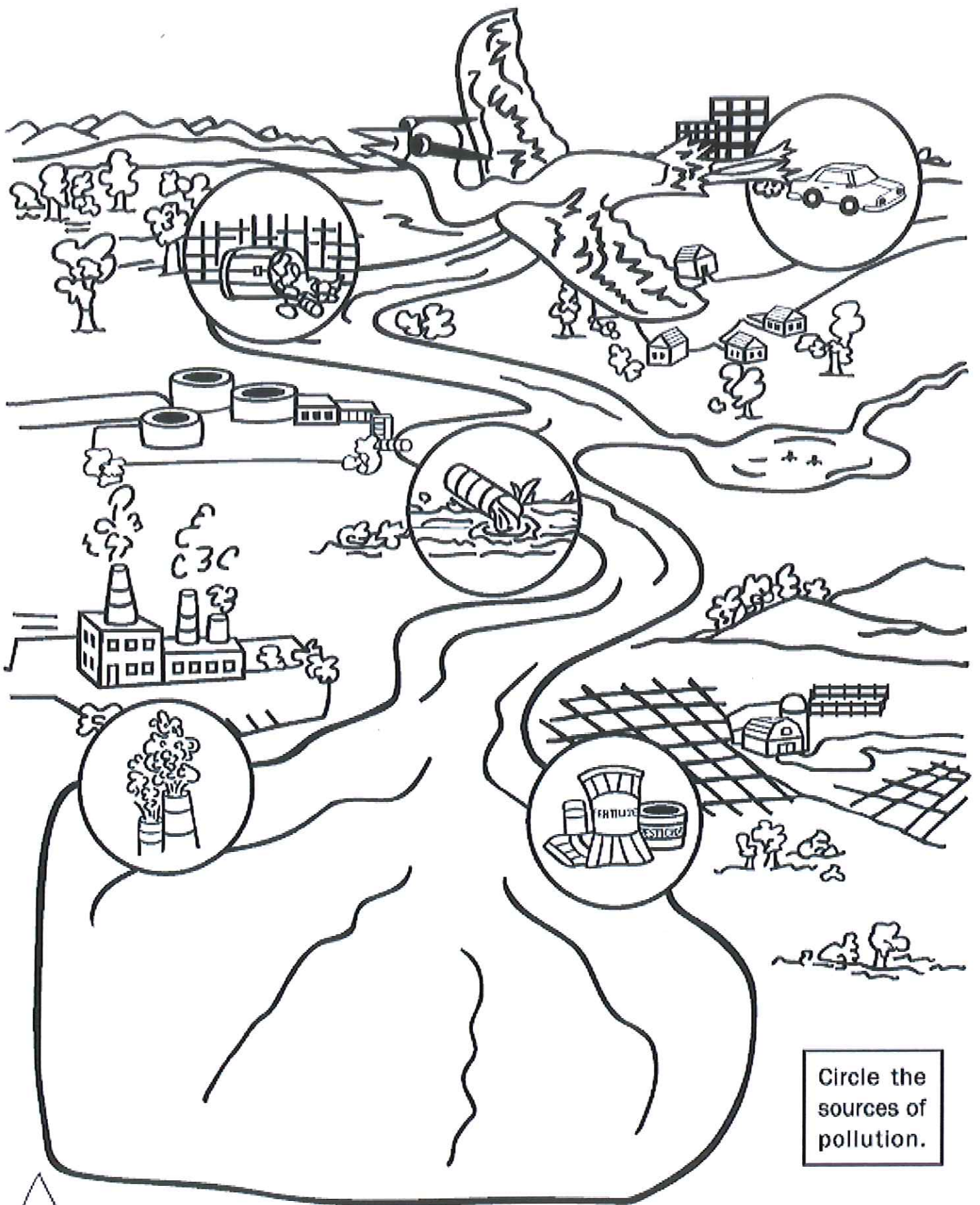




AS HOWIE FLIES ABOVE, MARSHALL GOES THROUGH THE STORMPIPE IN SEARCH OF THE POLLUTION SOURCE.



AS MARSHALL PEEKS OUT THE STORM DRAIN, HE SEES HIS FRIEND MOVIE. HE ALSO SEES WHERE THE LITTER IS COMING FROM.



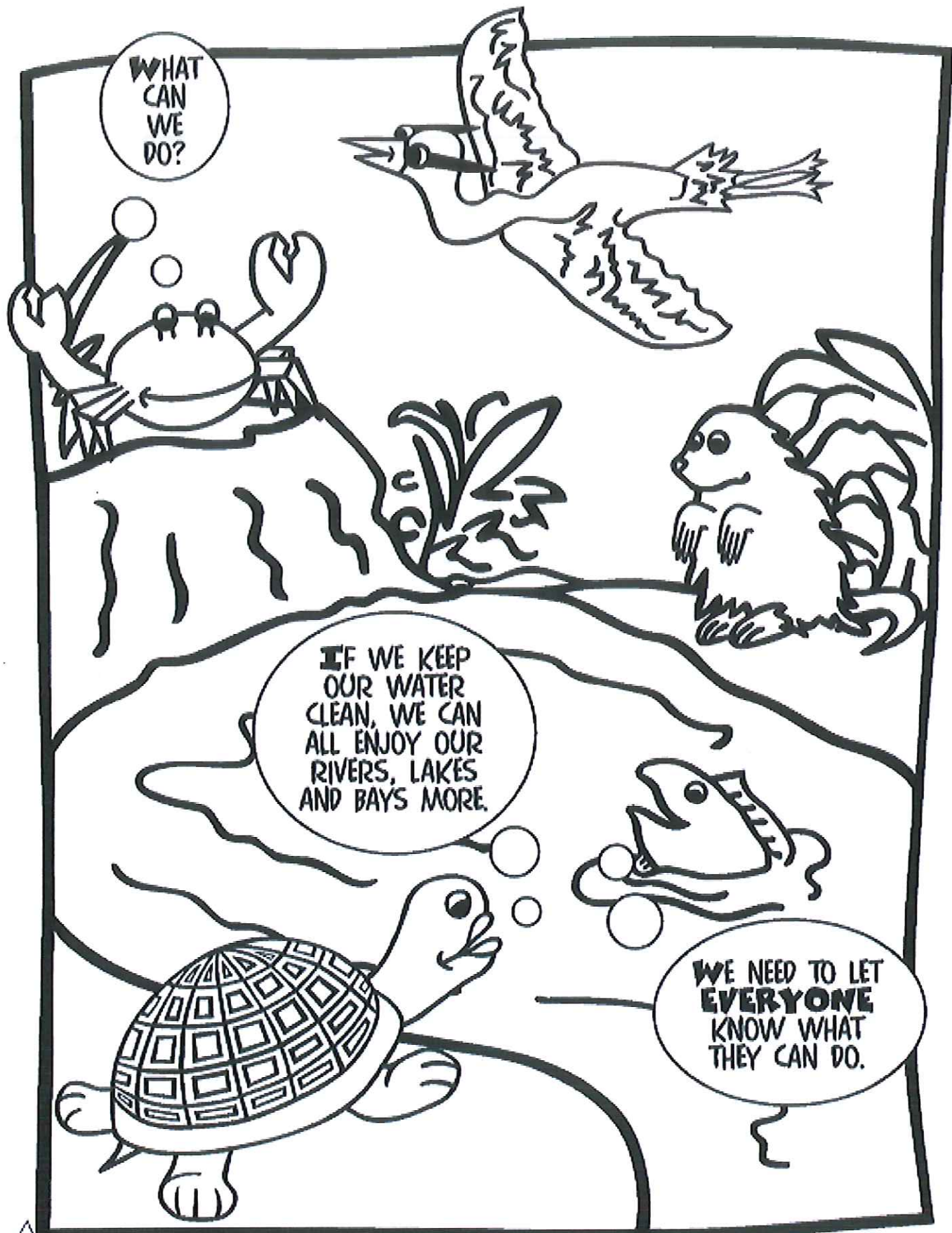
Circle the sources of pollution.

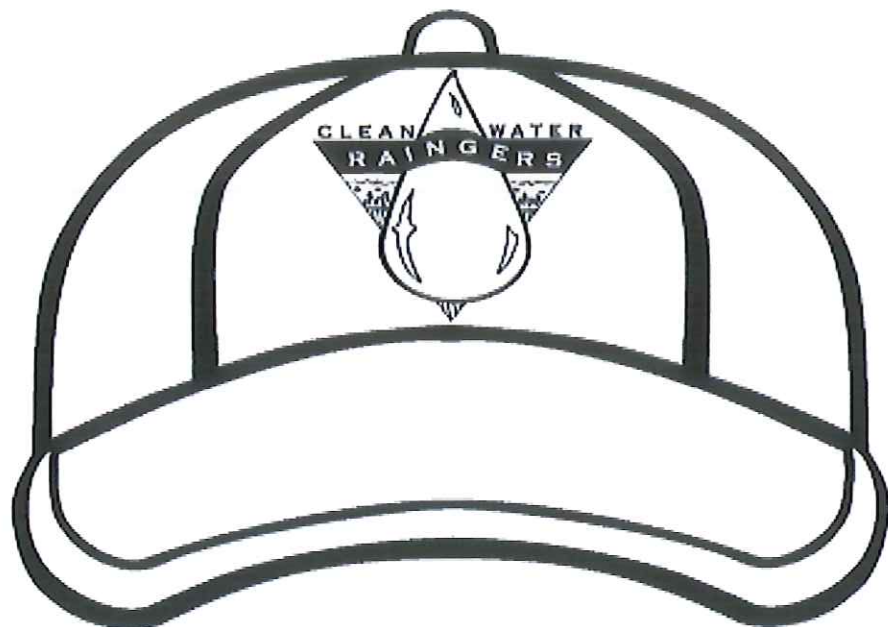


AS MOVIE FLIES BACK TO HIS FRIENDS, HE SEES OTHERS SOURCES OF POLLUTION.

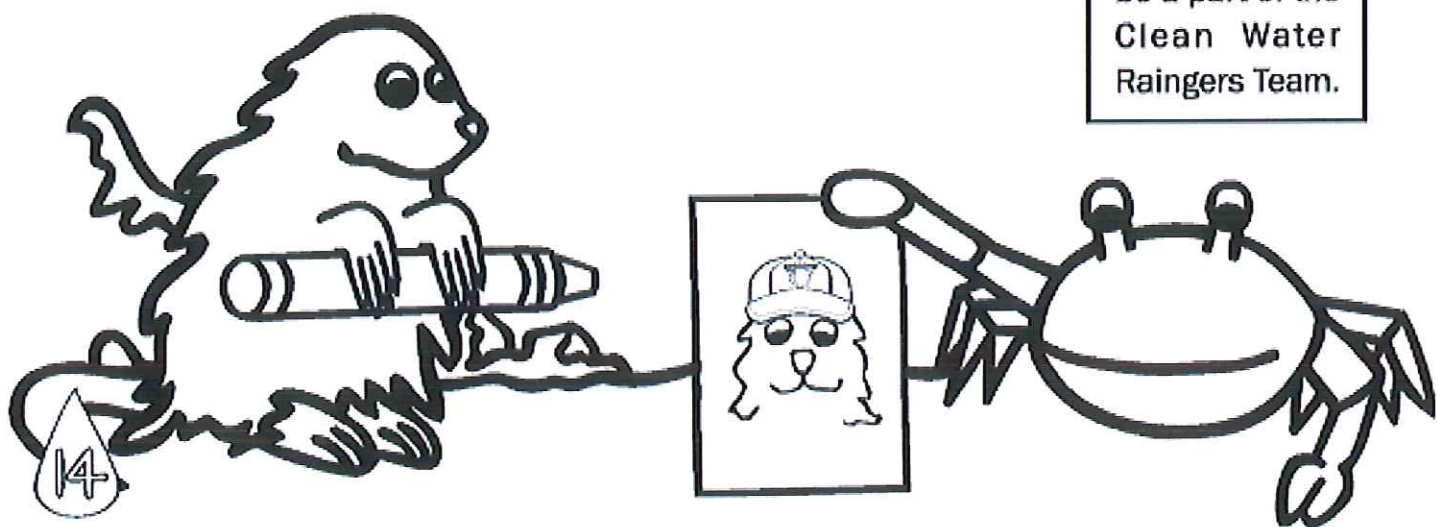


WHEN IT RAINS
THE POLLUTION
GETS WASHED
FROM THE LAND
INTO THE RIVER.





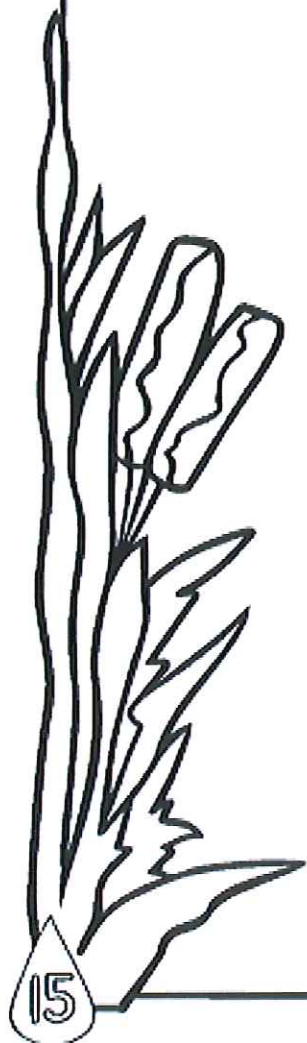
Draw yourself here, so you can be a part of the Clean Water Rainers Team.



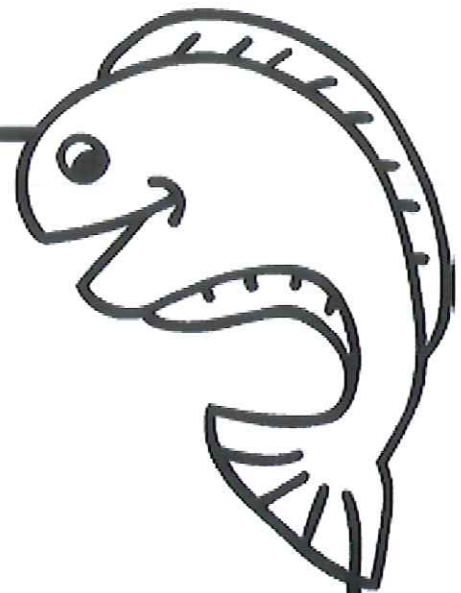
TOP TEN THINGS YOU CAN DO TO HELP KEEP WATER CLEAN AS PART OF THE CWR TEAM

1. NEVER THROW ANYTHING DOWN STORM DRAINS. THEY ARE FOR RAINWATER ONLY.
2. DON'T LITTER. ALWAYS PUT TRASH WHERE IT BELONGS.
3. ALWAYS CLEAN UP AFTER YOUR PETS. OBEY YOUR TOWN'S "POOPER SCOOPER" LAWS.
4. TELL OTHERS HOW IMPORTANT IT IS TO KEEP OUR LAND AND WATER CLEAN.
5. PLANT A TREE. THEY TAKE POLLUTANTS OUT OF GROUND WATER, PROVIDE SHADE, AND CLEAN THE AIR.
6. FIND OUT WHAT WATERWAY YOU LIVE NEAR. WHERE DOES YOUR WATER COME FROM?
7. PRECYCLE! BUY PRODUCTS THAT USE THE LEAST AMOUNT OF PACKAGING.
8. RECYCLE. FIND OUT WHAT IS RECYCLABLE IN YOUR COMMUNITY. BUY PRODUCTS IN RECYCLED OR RECYCLABLE CONTAINERS.
9. CONSERVE WATER WHENEVER POSSIBLE. FOR EXAMPLE, TURN OFF THE WATER WHILE BRUSHING YOUR TEETH AND DON'T LINGER IN THE SHOWER.
10. LEARN ABOUT ENVIRONMENTAL ISSUES. GET INVOLVED IN LOCAL ORGANIZATIONS.

JOIN THE TEAM!



**THIS BOOK
BELONGS TO...**



CREDITS

THE CLEAN WATER RANGERS CONCEPT WAS
DEVELOPED BY THE NEW JERSEY DEPARTMENT OF
ENVIRONMENTAL PROTECTION.

FOR ADDITIONAL INFORMATION, PLEASE CONTACT:

**CLEAN WATER RANGERS
NJDEP
DIVISION OF WATERSHED MANAGEMENT
PO BOX 418
TRENTON, NJ 08625-0418**

609-292-2113

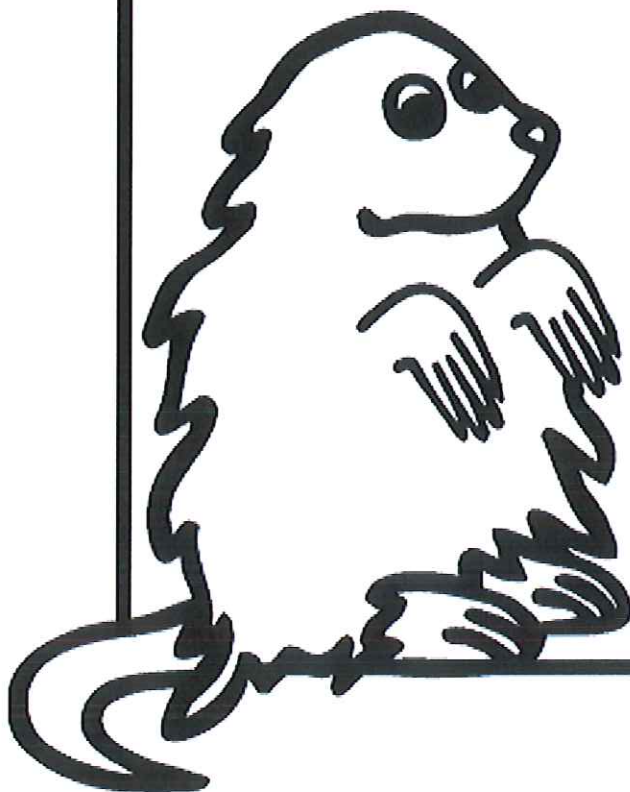
**DONALD T. DIFRANCESCO, ACTING GOVERNOR
STATE OF NEW JERSEY
ROBERT C. SHINN, JR., COMMISSIONER
DEPARTMENT OF ENVIRONMENTAL PROTECTION**

**KYRA HOFFMANN,
COORDINATOR**

**ERIN BROOK,
GRAPHIC DESIGN & ILLUSTRATION**



**WATERSHEDS...
WHERE YOUR QUALITY OF LIFE BEGINS.
THE LINK BETWEEN OUR LAND, OUR WATER
AND OUR COMMUNITY.**





Fact sheet

Home Composting

*William T. Hlubik, Middlesex County Agricultural Agent; Jonathan Forsell, Former Essex County Agricultural Agent (deceased);
Richard Weidman, Middlesex County Program Associate; and Mark Winokur, Former Program Assistant*

What is Composting?

Composting is a natural process where organic materials decompose and are recycled into a dark, crumbly, earthy smelling soil conditioner known as “compost”. Compost improves soil structure and moisture retention, and contributes to healthy plant growth by providing plant nutrients.

Why Should I Compost?

- Composting can save money!
- Reduces fertilizer and water use
- Avoids garbage collection and landfill fees
- Reduces the need for soil and plant amendments
- Composting helps the environment
- Reduces the volume of garbage going to landfills, transfer stations and incinerators
- Composting benefits your soil and plants
- Improves soil structure and texture
- Increases aeration and water holding
- Promotes soil fertility

- Stimulates healthy root development
- Aids in erosion control
- Reduces chemical inputs
- Composting is easy
- Save time bagging grass and leaves
- Quick and fun way to do part for the environment

Compost Ingredients

Do Compost:

- ✓ Vegetable food scraps
- ✓ Grass clippings
- ✓ Leaves
- ✓ Flowers
- ✓ Weeds
- ✓ Sawdust and wood ash
- ✓ Chopped twigs and branches
- ✓ Coffee grounds w/filters



Don't compost:

- × Meat scraps
- × Diseased or insect infested plants
- × Weeds with seeds
- × Dog and Cat feces
- × Food with grease or soap residues

Composting Methods

Slow Harvest: Ready in 12-18 Months

Made by adding layers of available yard waste over several months.

1. Set compost bin where it will get rain.
2. Put yard waste in bin as it is generated in your yard. The material at the bottom and in the center will compost first.

Fast Harvest: Ready in 5-15 Weeks

Made by mixing equal weights of green and brown materials at once.

1. Add green materials such as grass clippings or vegetable scraps mixed with brown materials such as leaves (no woody-type materials should be included).
2. Add water to pile until it's as wet as a wrung out sponge.
3. Turn pile with a pitch fork or compost aerator tool twice a week for faster compost production (less often in wintertime).

Types of Compost Bins

Compost can be made in open piles. However, to help keep a pile neat and maintain conditions needed for rapid decomposition, consider simple homemade or

store bought bins. See back page for demonstration sites in New Jersey.

Homemade Bins:

- Made from wood pallets
- Made from snow fences



Store Bought:

- Compost Tumbler
- Durable Plastic Bin



Troubleshooting

Here is how to solve problems should they occur:

Symptom	Problem	Solution
Pile has a rotten odor	Not enough air	Turn pile
Pile has ammonia odor	Too many greens	Add brown material like leaves/straw
Pile is dry	Not enough water; too much woody material	Turn and moisten; add fresh greens
Low pile temperature (pile is not composting)	Pile is too small	Add new materials
	Insufficient moisture	Add water
	Poor aeration	Turn pile
	Lack of nitrogen	Mix in greens like grass or food scraps
	Cold weather	Insulate pile with layer of straw or cover with tarp
Pests (rats, raccoons, insects)	Presence of meat or fatty food scraps	Remove from pile

Keys to Good Compost

Water: The microorganisms in the compost pile need water to live. Water pile only as needed, to maintain compost as moist as a wrung out sponge. Don't let your pile dry out completely.

Nutrients: The microorganisms in the pile need carbon for energy and nitrogen for protein in order to survive. A good balance can be achieved by mixing two parts of nitrogen rich green materials such as grass clippings, with one part of carbon rich brown materials such as leaves. However, carbon-rich leaves by themselves will compost.

Aeration: To speed up decomposition, turn the pile frequently using a pitch fork. This provides the microorganisms with enough oxygen to thrive so they can heat up the compost. Placing large branches at the bottom of the pile will also help add air to the pile. Minimal turning would be once per month and less frequently during the year.

Surface area: The more surface area the microorganisms have to work on, the faster materials will decompose. Consider chopping materials, particularly brush or branches which have a diameter of 1/4 inch or more. Pile size is also important. For quicker decomposition, pile should be at least 3 feet x 3 feet to hold the heat of microbial activity, but not so large (larger than 5 feet x 5 feet) that air can't reach microbes at the center of the pile.

Use for Compost

Mulch: Spread compost around flower and vegetable plantings, trees, shrubs, and on exposed slopes. This will smother weeds, keep plant roots moist, and prevent soil erosion.

Soil Conditioner: Mix 1-3 inches of compost into vegetable and flower beds before planting. This returns organic matter to the soil in a usable form.

Potting Mix: Make your own mix by using equal parts of compost and sand or soil. Make sure compost is fully decomposed and screened.

Resources

Some books to help you along...

Backyard Composting, Harmonious Technologies,
P.O. Box 1865-100 Ojai, CA 93024

How to Grow More Vegetables, John Jeavons,
Ecology Action, 5798 Ridgewood Rd. Willits, CA
09590

Let it Rot, Stu Campbell, Storey Communications,
Inc., Schoolhouse Rd., RD#1, Box 105, Pownal,
VT 05261

The Rodale Guide to Composting, R.A. Simpson,
Rodale Press, 33 E. Miner St., Emmaus, PA
18098

Worms Eat My Garbage, Mary Appelhof, Flower
Press, 10322 Shaver Rd., Kalamazoo, MI 49002

For additional information on composting or where to get compost materials, call your Rutgers Cooperative Extension county office, found in the telephone directory blue pages, under "County Government" or your county recycling office.

Compost Deconstruction Areas

These areas in New Jersey have various types of compost bins on display. Call ahead for hours and when tours or workshops are given.

Atlantic County

Atlantic County Utilities Authority Geo Garden
6700 Delilah Rd.,
Egg Harbor Township, NJ
Contact: (609) 646-6600

Burlington County

Burlington County Resource Recovery Geo Garden
Complex, Rt 543,
Border of Florence and Mansfield Township
Contact: (609) 499-5210

Mazza & Sons, Inc. Recycling Facility
3230 Shafto Rd.,
Tinton Falls, NJ
Contact: (732) 922-9292

Middlesex County
Davidson's Mill Pond Park, Riva Avenue, South
Brunswick, NJ
Contact: (732) 745-3443

Monmouth County
Deep Cut Park, Red Hill Rd.,
Middletown, NJ
Contact: (732) 842-4000

Morris County
Frelinghuysen Arboretum, 53 E. Hanover Ave.,
Morris Township, NJ
Contact: (973) 326-7600

Passaic County
Passaic County Office of Recycling
1310 Rt. 23 N,
Wayne, NJ
Contact: (973) 305-5734

Photos Courtesy of Lindsay Halladay.

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**RUTGERS COOPERATIVE EXTENSION
N.J. AGRICULTURAL EXPERIMENT STATION
RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY
NEW BRUNSWICK**

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Fact sheet

Minimizing Waste Disposal: Grass Clippings

Peter F. Strom, Ph.D., Associate Professor of Environmental Science; James A. Murphy, Ph.D., Specialist in Turfgrass Management; and Henry W. Indyk, Ph.D., Specialist Emeritus in Turfgrass Management

Since refuse disposal costs have dramatically increased, and some landfills no longer accept grass clippings, many individuals and governmental agencies are seeking alternatives for disposal of clippings. During the maximum grass growing period, the municipal refuse load in some New Jersey suburban communities may contain nearly one-third grass clippings. Collected clippings become anaerobic very quickly because of their high demand for oxygen. After becoming anaerobic they emit strongly unpleasant odors. Therefore, grass clippings (in quantity) are difficult to handle and to process.

From our own experience with the handling and disposal of grass clippings, and discussions with others such as lawn care professionals, we suggest considering the following methods to reduce landfilling:

1. **RETURN TO LAWN** — It is most desirable to leave grass clippings uncollected on the lawn so that they are recycled, contributing to soil organic matter and supplying part of the fertilizer needs of the lawn. Adopt a mowing schedule to keep clippings short enough to filter through growing grass and not remain as a mat on top of the lawn. Research and experience indicate that only 1/3 of the grass length should be removed during mowing. Never allow the lawn grass to double its height between mowings. This approach not only eliminates clipping collection and disposal problems, but also can contribute to improvement of the lawn.

Clippings are not a cause of thatch in lawns. Rather, thatch is formed primarily from a dense accumulation of grass roots and stemmy material. Returning clippings along with proper mowing frequency will not increase disease problems.

Use caution when removing collection bags from mowers. Some machines are not designed to operate safely without a bag or other attachment in place. If you are unsure, check with your equipment supplier.

2. **GARDEN MULCH** — Grass clippings can be used as a garden mulch. To minimize any tendency to protect slugs, clippings can be dried in the sun for a day prior to being used in this way. Clippings can be spread on garden soil to check weed growth, reduce soil spattering and crusting, moderate soil temperatures, etc. As a precaution, do not use grass clippings from herbicide-treated lawns until after two grass cuttings have been made.

3. **SOIL INCORPORATION** — Clippings can serve as a source of organic matter for soil improvement when incorporated into the garden.

4. **BACKYARD COMPOSTING** — Grass clippings can be composted, particularly when incorporated into a backyard leaf composting pile. However, grass has a high nitrogen content, a much higher demand for oxygen than leaves, and a tendency to mat, thereby greatly reducing the passage of oxygen. Composting piles containing

grass clippings thus readily become anaerobic. This, in turn, can produce strong, unpleasant odors. These odors are particularly noticeable when the pile is disturbed.

Because of these problems, grass clippings should not be composted alone, but rather mixed with composting leaves. The partially decayed leaves which now (6-9 months after leaf fall) have a low demand for oxygen, will serve as a bulking agent permitting more oxygen to reach the grass. Grass, which is high in nitrogen, will provide a more rapid decomposition of the remaining leaves as long as it remains under aerobic conditions. Grass clippings will also contribute to a better end product (higher nitrogen content) than that obtained from composting leaves alone. One must be aware, however, that an excess of damp grass in the pile will soon become anaerobic, produce very unpleasant odors, and reduce the rate of decomposition. The objective is to keep the material **aerobic**. Also, to ensure that excess nitrogen is not given off as ammonia, do not add more than 1 part fresh grass clippings to 3 parts partially composted leaves.

The resulting compost can be used as a soil amendment, as a mulch for gardens, flower or shrub beds, or as a potting medium.

5. MUNICIPAL COMPOSTING — Some grass clippings can be incorporated into a municipal leaf composting operation. However, problems that may be experienced with backyard grass composting could be greatly magnified at a municipal facility. Even grass stored for one day or less in plastic bags or the back of a lawn maintenance pick-up truck may emit very unpleasant odors when being unloaded at the site. For this

reason, grass clippings are banned at many leaf composting facilities, unless they are very isolated. Research is continuing in this area, but other problems include the high cost of collection and an inadequate supply of leaves for the amount of clippings.

Partially composted leaves should be mixed with the grass in a 3:1 ratio, or more. Because the leaves have already decomposed by the time the grass comes to the site, however, this means the ratio actually collected must be at least 6:1. For most towns this would be possible only if most of the grass clippings are handled directly by residents on their own property.

6. CLIPPING REDUCTION — Fertilizing and watering above the requirements of the grasses may be more detrimental than beneficial to the lawn. One of the effects is increased production of clippings. (Another is potential ground or surface water pollution.) Judicious and proper use of fertilizer and water can provide an attractive lawn with a reduction in the costs, effort, susceptibility to disease, and amount of clippings produced. A fertilization program should emphasize fertilizing the lawn in the fall season rather than in the spring. This can be effective not only in reducing the amount of clippings produced, but also in contributing to a better lawn.

Two related fact sheets: "Backyard Leaf Composting" (FS074) and "Using Leaf Compost" (FS117), and assistance with procedures covered above, may be obtained from the Rutgers Cooperative Extension office in your county. The telephone number appears under County Government in your local phone directory.

Pet Waste Pollutes Our Waters

What You Can Do To Help Protect Our Water

Clean and plentiful water is important to our families, our environment, our economy and our quality of life.

Did you know that animal waste from pets can pollute our waters? When left on the ground, pet waste is washed by rain and melting snow and ice into storm drains that carry it to our rivers, lakes, the ocean and drinking water.

Animal waste contains a high concentration of nutrients as well as bacteria and disease-causing microorganisms that can cause problems.

What you can do

Pet owners or anyone who takes your pet for walks must properly dispose of the waste by picking it up, wrapping it and either placing it in the trash or flushing it unwrapped down the toilet.

Your municipality is required to adopt and enforce local pet-waste laws. At a minimum, your community must require that pet owners or their keepers **immediately** and **properly** dispose of their pet's solid waste deposited on **any public or private property not owned or possessed by that person**. People with assistance animals such as Seeing Eye dogs are exempt.

Make sure you know what your municipality requires – and follow it.

Thank you for doing your part to keep New Jersey's waters clean.

For more information, please contact the following:

New Jersey Department of Environmental Protection
Division of Water Quality
Bureau of Nonpoint Pollution Control
Municipal Stormwater Regulation Program
(609) 633-7021



Visit www.njstormwater.org or www.nonpointsource.org

Additional information is also available at U. S.
Environmental Protection Agency Web sites
www.epa.gov/npdes/stormwater or www.epa.gov/nps





Fact sheet

Using Leaf Compost

*Roy L. Flannery, Specialist in Soils, Emeritus and
Franklin Flower, Specialist in Environmental Science, Emeritus*

Composting involves primarily the microbial decomposition of organic matter. Compost - the end product - is a dark, friable, partially decomposed substance similar to natural organic matter found in the soil. The organic matter content of soils is very important. It influences the physical condition, water-holding capacity, and temperature of the soil, and especially the soil bacterial processes which affect the availability of mineral salts to plants.

Why Compost Leaves

If newly fallen leaves are added directly to the soil without first being composted, the microbes that decompose the leaves compete with growing plants for soil nitrogen. The temporary nitrogen shortage caused by the microbes can reduce plant growth. To reduce or eliminate this competition for nitrogen, composting of the leaves is recommended prior to incorporating them into soils.

Need for Organic Matter

Most New Jersey soils need an increase of 1/2 to 1% in organic matter. Sandy soils, such as loamy sands and sands, and soils with very high clay content are improved the most by an increase in organic matter content.

Benefits of Adding Leaf Compost to Soil

- Among the benefits derived from adding leaf compost to New Jersey soils are:
- Drought damage to plants is reduced because of an increased water-holding capacity of the soils.
- Soil tilth is improved making the soils easier to cultivate.

- Very small amounts of the 16 essential elements needed for plant growth are supplied.
- Adverse effects of excessive alkalinity, acidity, or over-fertilization are reduced by the added buffering of the soil.
- The cation exchange capacity of soils is increased, enabling the soils to hold more plant nutrients for longer periods.
- Decomposition of the organic matter produces organic acids which combine with iron and aluminum ions, thereby reducing their potential toxicity to plants. This also makes more phosphorus available for plants because free iron and aluminum can tie up the phosphates.
- The added organic matter provides a food source for desirable soil micro-organisms.
- When incorporated into the soil, or used in a thin mulch 1/16- to 1/8-inch thick, compost helps seeds to germinate.

Overall, compost improves the physical, chemical, and biological properties of soils. Leaf compost, however, is not normally considered a fertilizer as it is too low in nutrient content. It serves primarily as an organic amendment and a soil conditioner. The nitrogen content of composted leaves on a dry basis is about 1/2 to 1% by weight. For other materials commonly added to backyard leaf compost piles, the nitrogen content is: blood meal 10-14%; grass clippings 2-4%; coffee grounds 1 1/2-2%; eggshells 1-2%; horse manure 1-5%; cow manure 1-1 1/2%; poultry manure 3-5%; ammonium sulfate 20 1/2%; urea 45%; bone meal 1 1/2-4%; and cotton seed meal 6-7%.

When Compost is Ready to Use

When compost is ready to use (6 to 18 months after starting) its temperature will generally have decreased to slightly above air temperature. Finished compost will usually be drier than leaves during composting. The material also will be crumbly in texture. Before using compost, "screening" may be necessary to remove the larger partially decomposed materials. These materials will sometimes be present in composting piles because not all items decompose at the same rate. The undecomposed organic matter clumps may be broken up and added to another active compost pile for additional decomposition.

Adding Leaf Compost to the Soil

A good rate of organic matter to work into the top 6 1/2 to 7 inches of most New Jersey cultivated soils is 0.5 to 1.0% organic matter by weight. This is equivalent to adding 900 to 1,800 wet pounds (25 to 50 bushels) of leaf compost per 1,000 square feet of area. To accomplish this, spread a 3/8- to 3/4-inch depth of leaf compost uniformly over the soil surface and mix into the top 6 to 8 inches of soil.

Little or no nitrogen will be released from compost for plant use during the season immediately following incorporation into the soil. It is generally necessary to add nitrogen to soils containing compost to prevent the compost from "robbing" the soil of nitrogen and creating deficiency problems in plants grown in the soil. Adding 1 to 1 1/2 lbs. of 10% nitrogen fertilizer to each 100 lbs. (about 3 bushels) of leaf compost is recommended.

The preceding recommendations supply only the needs of the leaf compost. Most plants require an additional 1 to 3 lbs. of actual nitrogen per 1,000 square feet for normal feeding. This nitrogen should be applied to the soil in addition to that applied in the leaf compost.

Using Leaf Compost as a Mulch

Leaf compost can also be used as an organic mulch on the surface of soil in place of peatmoss, straw, etc. Organic mulches are valuable because they:

- Reduce rainfall runoff, thereby making more water available for plant growth.

- Decrease water evaporation losses from the soil.
- Keep the soils cooler in hot weather and warmer in cold weather.
- Reduce alternate freezing and thawing of soils which can injure the fibrous roots of plants.
- Help to prevent soil erosion by wind or water.
- Keep soils friable, therefore easier to cultivate.
- Increase biological activity of earthworms and other soil organisms.
- Prevent soil spattering on leaves, flowers, or fruits such as strawberries.
- Reduce soil compaction from rain and irrigation water.
- Help to control weeds.
- Present a pleasing appearance.

Recommended thicknesses of mulch layers: 2-3 inches for deciduous shrubs and trees, vegetables, and rosebeds; 3 inches for flower beds; and 3-4 inches for shallow-rooted, acid-loving plants.

Other Uses for Leaf Compost

Leaf compost may also be used in potting soil. However, no more than 25 to 30% of the potting soil should be leaf compost. Frequently leaf compost will continue to decompose. If more than 25 to 30% of the potting soil is leaf compost, there will be a significant volume reduction of the potting soil after 1 year.

Composting generally destroys most weed seeds contained in the compost material; however, not all of them will be destroyed. Some are heat resistant, and others will not be fully exposed to the high temperatures. If a completely pasteurized leaf compost is desired for potting soil, it will be necessary to heat it in an oven until the temperature of the center of the mass reaches 180°F and is maintained for 30 minutes.



Fact sheet

Yard Trimmings Management Strategies in New Jersey

Jonathan H. Forsell, Agricultural and Resource Management Agent, Essex County

Introduction

Most yard debris consists of leaves, grass clippings, prunings, branches, trunks of trees, and their root systems. There are various options for managing these materials. The following are some guidelines to assist decision makers and others in determining best management strategies.

Materials Management Guidelines

Leaves: In New Jersey, leaves were banned from landfills, transfer stations, and incinerators in 1988. Collected leaves are generally composted at municipal, regional, commercial, or farm sites in large windrows (elongated piles) using the Leaf Composting Manual for New Jersey Municipalities as a guide. Municipal, regional, and private facilities can use a Type 1.11 simplified New Jersey Department of Environmental Protection (NJDEP) permit, if fewer than 20,000 cubic yards of leaves are composted annually, or a more detailed Type 2.1 permit, if the volume is greater.

Farmers can accept leaves for composting with the simplified permit if the volume is less

than 20,000 cubic yards or can receive leaves to be mulched into the soil at no greater than a six-inch depth on the soil and within seven days from delivery without need of a permit. This requires that the leaves be incorporated into the soil no later than the next tillage season.

Backyard composting (household scale) is the most cost-effective method of leaf composting because of avoided collection costs, tipping fees, permits, equipment, and management costs. Refer to fact sheets FS074 and FS117. Further detailed information about composting and trimmings management can be obtained through Rutgers Cooperative Extension and the NJDEP, Bureau of Resource Recovery.

Grass Clippings: Ideally, lawns should be mowed frequently (about five-day intervals) removing only one-third of the grass blade. The clippings will biodegrade at the soil surface providing nitrogen and organic matter. Although any type mower may be used, mulching mowers or mulching attachments on traditional rotary machines can improve the results by chopping more finely. If clippings are long and clump on the lawn, the excess can be raked up and used as a nitrogen source in the backyard composting pile. Permits can be issued by the

NJDEP to include a limited volume of grass clippings in large-scale leaf composting facilities, but the rules are quite stringent to prevent odor problems, which are common, when grass is composting in an anaerobic (oxygen-deficient) environment. A one-year farm grass clippings demonstration permit is available to farmers from NJDEP to apply grass around seasonal crops under a nutrient management plan.

Prunings: Trimmings from trees, shrubs, hedges, and perennials are composted at some permitted facilities, but can also be composted in the backyard pile. A shredder-grinder is helpful to break down larger woody material to a more compostable size.

Tree Limbs: Limbs can be cut for firewood or chipped to make a mulch for landscape use. If finely ground, the product can be composted, but at a slower rate than leaves or grass clippings. Woodchips can be used as a carbon source, when composting sewage sludge.

Tree Trunks: Trunks are usually cut, split, and dried for use as firewood. Some desirable species are used to make furniture and cabinetry, and others are ground for mulch or pulp.

Tree Root Systems: Excavated tree roots are generally ground into mulch material. Massive root systems and trunks that are not made into firewood or mulch cannot be stockpiled at a

site and are classified as Type 13 Bulky Waste, which must be hauled away for grinding or other processing.

Summary

Because yard trimmings are recyclable through composting or other means, it is prudent for government, businesses, farmers, and other people to avoid non-recycling avenues for managing this important fraction of the solid waste stream.

References

1. **Backyard Leaf Composting**, FS074, Franklin Flower and Peter F. Strom, Dept. of Environmental Science, Cook College.
2. **Grass—Cut It and Leave It**, NJDEP Division of Solid Waste Management, Office of Recycling, in cooperation with Rutgers Cooperative Extension. 1991.
3. **Leaf Composting Manual for New Jersey Municipalities**, Peter F. Strom and Melvin Finstein, Dept. of Environmental Science, Cook College and NJDEP. 1989.
4. **Using Leaf Compost**, FS117, Roy Flannery and Franklin Flower.

Appendix VI
Storm Drain Labeling Guidelines

Storm Drain Labeling Guidelines for New Jersey

Prepared by
New Jersey Department of Environmental Protection
Division of Watershed Management
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609-984-0058

March 2004

Storm Drain Labeling Guidelines for New Jersey

Table of Contents

Why Label Storm Drains	1
Types of Labeling	2
How to Label Storm Drains	2
Preparation before the event	
Week before the event	
Day of the event	
Follow-up after the event	
Labeling Tips	5
Storm Drain Stenciling Tips	
Storm Drain Marking Tips	
NonPoint Source Pollution Tips	8
Resources Available at NJDEP	10
Additional Resources	12
Clean Communities Program	17
Useful Websites	18

Acknowledgements

This guide is compilation of several guides and other materials that are already in existence. Many thanks to the following organizations:

*Partnership for the Delaware Estuary
Whippany River Watershed Partnership
United States Environmental Protection Agency*

Storm Drain Labeling Guidelines for New Jersey

Why Label Storm Drains?

Storm drain labeling is a great way to make people in your community more aware of nonpoint source pollution and polluted runoff. Nonpoint Source Pollution, or people pollution, is a contamination of our ground water, waterways, and ocean that results from everyday activities such as fertilizing the lawn, walking pets, changing motor oil and littering. With each rainfall, pollutants generated by these activities are washed into storm drains that flow into our waterways and ocean. Polluted runoff is stormwater contaminated by nonpoint source pollution. It harms local waterways, which we rely on for recreation and drinking water.

Residents may not be aware that most storm drains empty directly into local waterways, without treatment. Some individuals may view storm drains as trash receptacles for trash, used motor oil, leftover paint, pet waste or other pollutants. Storm drain labeling serves as an educational tool to remind people about the connection between storm drains and local waterbodies.

By labeling storm drains we can make everyone more aware of the nonpoint source pollution and polluted runoff. This is one step in educating people so that they can change their attitudes and behaviors that contribute to the problem.

Storm drain inlet labeling is also a requirement of New Jersey's new municipal stormwater permitting program. All Tier A municipalities are required to establish a storm drain inlet labeling program and label all storm drain inlets that are along municipal streets with sidewalks, and all storm drains within plazas, parking areas, or maintenance yards operated by the municipality. This program establishes a schedule for labeling, develops a long term maintenance plan and when possible coordinates the efforts with watershed groups and volunteer organizations. On an annual basis, these Tier A municipalities must identify the number of storm drains labeled. For more information on this program, visit www.njstormwater.org or call 609-633-7021.

A key factor in the success of a storm drain labeling program is visibility. Publicity in the local media about the event and volunteer participation in the event greatly increases the value of the labeling program as an educational tool. Municipalities are not required to use volunteers or seek media attention, but these activities do greatly improve the overall value of the program. Municipalities may opt to label the storm drains themselves or organize the storm drain labeling activities of local volunteers.

Types of Labeling

There are two types of storm drain labeling that can be done, stenciling with paint or gluing storm drain markers. Stenciling involves using a stencil and paint to label the drain. This type of marking has been used since early 1990s. The paint generally lasts up to 2 years, depending on weather and traffic conditions. Marking involves gluing a purchased marker to the storm drain. This method may last up to 10 years.

In determining which type of labeling to use, consider the cost of materials and how long they will last. Stenciling costs less initially and lasts a shorter time than markers which costs more initially but last longer. Another consideration is the educational value of the actual labeling process for the participants and residents. Since stenciling is done more frequently, it provides a more frequent reminder about polluted runoff.

How to Label Storm Drains

Below we have outlined the various tasks necessary to conduct a successful labeling event. At each event there are unique circumstances that come up and must be addressed by the organizers. A coordinator should be designated to oversee the event.

Preparation before the Event

1. Form an organizing committee and designate tasks.
2. Determine whether or not you will use stencils or markers. Determine what your stencils or markers will say and whether or not you want to include a graphic such as a fish, turtle, heron or crab. Some suggested messages are: "NO DUMPING – DRAINS TO RIVER," "ONLY RAIN DOWN THE STORM DRAIN," and "DUMP NO WASTE – DRAINS LOCAL WATERWAY." These messages can be customized to include the names of local waterbodies. In addition, you may wish to print the message in other languages depending on the community. Spanish is included as a standard on some markers.
3. Determine whether you will be purchasing materials or looking for donations. Include time to manufacture the markers or stencils in your timeline.
4. Identify your targeted area for labeling. Survey the area to locate the storm drains and determine how many there are. This information will determine how many labels you will need to buy and how many people will be involved in the event.
5. Select a date and a rain date for the event. Select the time and meeting location for the event.
 - a. Find out if there are any other events planned for that time period that might conflict or compliment your labeling event. A litter clean-up by the local environmental commission or flower planting by the garden club would compliment your labeling.

- b. The pavement or storm drain structure must be over 50 degrees for marking so that the adhesives will work properly. The surface must be dry for either stencils or markers.
6. Obtain written permission from your county or municipality to conduct the labeling. Call your county or municipality to find out the appropriate person or department to obtain permission from, usually the public works, highway or sewage authority. Ask them for a map of storm drains that you have permission to label.
7. In order to involve more volunteers, call various groups in your school and neighborhood to find out if they would be interested in participating. Consider involving your local AmeriCorps New Jersey Watershed Ambassador (See Resources Available at NJDEP section).
8. Prepare a promotional flyer to distribute to potential volunteers. You may want to invite friends, family, school clubs, youth groups, community organizations and neighbors. It may be beneficial to call these groups and/or make a presentation at one of their meetings.
9. Request support from local businesses to provide refreshments either before or after the event. Local businesses may also wish to contribute stenciling supplies (garbage bags, paint, brushes, gloves, etc.).
10. Invite community leaders including elected officials to participate in the event.
11. Acquire or prepare an informational flier to hand out during the event. Many materials are available for no or low cost from government agencies such as the NJ Department of Environmental Protection, local environmental groups or watershed associations (See Resource Section at the back of this booklet).
12. Prepare a press alert at least two weeks prior to the event and send it to the local media. Follow-up by calling the reporters and editors before the event.
13. Survey the area before the event to familiarize yourself with it. Note any safety concerns.

Week before the event

14. Make sure all materials are on hand. Prepare packets of supplies and information for each of your teams. Include a map of their area to label. Prepare sign-in sheets, name tags, and copies.
15. Make follow-up phone calls to confirm volunteers. Advise them of who to call in case of inclement weather. Make sure they know the time and location for the event.

16. Confirm refreshments if you are providing them.
17. Make follow up phone calls to the news media and local officials.

Day of the Event

1. Plan to arrive early to allow time to set-up before volunteers arrive.
2. Register volunteers. Allow about 30 minutes for registration and refreshments.
3. Give an overview of the day and why their work is important.
4. Divide volunteers into teams. Assign a team leader. Teams should be composed of 4 to 6 people. Make sure they have enough supplies for the area they will cover. Go over safety considerations.
5. Give volunteers a lesson on how to label the storm drain.
6. Send teams out to different areas, making sure that each team is clear on what area they are to stencil. Give them a specific time to return.
7. Take photographs of the event in order to document it and/or use them in a post-event press release.
8. When they return, collect leftover supplies. Dispose of any collected trash and recyclables properly.
9. Ask volunteers for feedback on the event. Provide refreshments if appropriate.

Follow-up after the Event

1. Send thank you letters to volunteers, businesses, supporters and any others that assisted you in the project.
2. Send a post-event press release to the local media. Include photographs of the actual event. Be sure to mention volunteer groups, sponsors and community leaders that were involved in the event.
3. Put together a summary of the event and provide it to your municipality.

Labeling Tips

All surfaces must be dry for either stenciling or marking.

Remember while working in or near the street, there is inherent risk. Be very cautious of passing cars, especially if you are working with children. Consider wearing brightly-colored safety vests, using traffic cones to protect your team and assigning a team member to serve as look-out for traffic.

Storm Drain Stenciling Tips

Supplies you will need:

- Stencils
- Latex paint
- Foam brushes
- Safety Vests
- Educational flyers
- Gloves*
- Paint stirrer
- Wire brushes or brooms
- Dustpans
- Newspapers or rags
- Trash bags

Remember:

- A little paint goes a long way!! Using too much blurs the stencil image.
- Try to stencil in area where cars will not be driving directly on the paint. This greatly shortens the life of the paint.

How to stencil:

- Use a wire brush or broom to clear away any loose debris from the spot where the stencil will be placed. Pull weeds if necessary. Put debris in garbage bags and dispose of it properly. Keep recyclables separate and recycle any items that can be recycled.
- Designate one team member as the safety person to look out for vehicles.
- Have two team members hold down the stencil firmly on the street in front of or behind the storm drain. A third team member can gently sponge or brush paint onto the stencil. You do not need to soak the brush. The less paint you use the more control you will have in painting a clearly legible message. When using the foam brush, press straight up and down on the street to apply the paint. Wiping side to side will cause the paint to get trapped under the stencil blurring the message. All three of these team members should wear gloves.
- Once painting is completed, lift the stencil straight up to prevent smearing.
- While some team members are stenciling, others may hand out educational flyers to people passing by or to nearby businesses in the vicinity of the stenciled areas.

****Please note that many people have allergic reactions to latex gloves. Check with your team members before distributing them if you use latex gloves.***

Storm Drain Marking Tips

Supplies you will need:

- Markers
- Adhesive
- Safety Vests
- Educational flyers
- Gloves*
- Wire brushes or brooms
- Dustpans
- Newspapers or rags
- Trash bags

Remember:

- Try to place the marker in area where cars will not be driving directly on it. This can greatly shorten the life of the marker.
- Surface temperatures must be over 50 degrees for most of the adhesives used to seal properly.

How to apply a marker:

- Use a wire brush or broom to clear away any loose debris from the spot where the stencil will be placed. Pull weeds if necessary. Put debris in garbage bags and dispose of it properly. Keep recyclables separate and recycle any items that can be recycled.
- Designate one team member as the safety person to look out for vehicles.
- Have two team members apply the adhesive in a spiral pattern on the back of the marker. Be sure to wear gloves.
- Apply the marker to the cleaned area. Press down hard to insure a proper seal with the adhesive under the entire surface of the marker.
- While some team members are applying markers, others may hand out educational flyers to people passing by or to nearby businesses in the vicinity of the stenciled areas.

**Please note that many people have allergic reactions to latex gloves. Check with your team members before distributing them if you use latex gloves*

Storm drain markers are available from two sources:

This information does not constitute an endorsement by the NJDEP of either of these manufacturers.

ACP International
1010 Oakmead
Arlington, Texas 76011
817-640-0992
www.acpinternational.com

das Manufacturing
3610 Cinnamon Trace Drive
Valrico, Florida 33594
800-549-6024
www.dasmanufacturing.com

For storm drain stencils, you may purchase stencil materials locally and create your own OR purchase pre-cut or custom stencils from:

Earthwater Stencils
Rochester, Washington
(360) 956-3774
www.earthwater-stencils.com

In addition, check with watershed association and environmental groups listed in the Additional Resources Section. They may have customized labels or markers for your watershed.

NonPoint Source Pollution Tips

Information in this section can be used in preparation of an educational flyer to distribute while labeling. Check with your local watershed association or environmental group listed in the Additional Resources Section for local educational materials.

Nonpoint Source Pollution is the contamination of our ground water, waterways, and ocean that results from everyday activities such as fertilizing the lawn, walking pets, changing motor oil and littering. With each rainfall, pollutants generated by these activities are washed into storm drains that flow into our waterways and ocean. They also can soak into the ground contaminating the ground water below.

Each one of us, whether we know it or not, contributes to nonpoint source pollution through our daily activities. As a result, nonpoint source pollution is the BIGGEST threat to many of our ponds, creeks, lakes, wells, streams, rivers and bays, our ground water and the ocean.

The collective impact of nonpoint source pollution threatens aquatic and marine life, recreational water activities, the fishing industry, tourism and our precious drinking water resources. Ultimately, the cost becomes the burden of every New Jersey resident.

But there's good news - in our everyday activities we can stop nonpoint source pollution and keep our environment clean. Simple changes in YOUR daily lifestyle can make a tremendous difference in the quality of New Jersey's water resources. Here are just a few ways you can reduce nonpoint source pollution.

LITTER: Place litter, including cigarette butts and fast food containers, in trash receptacles. Never throw litter in streets or down storm drains. Recycle as much as possible.

FERTILIZERS: Fertilizers contain nitrates and phosphates that, in abundance, cause blooms of algae that can lead to fish kills. Avoid the overuse of fertilizers and do not apply them before a heavy rainfall.

PESTICIDES: Many household products made to exterminate pests also are toxic to humans, animals, aquatic organisms and plants. Use alternatives whenever possible. If you do use a pesticide, follow the label directions carefully.

HOUSEHOLD HAZARDOUS PRODUCTS: Many common household products (paint thinners, moth balls, drain and oven cleaners, to name a few) contain toxic ingredients. When improperly used or discarded, these products are a threat to public health and the environment. Do not discard with the regular household trash. Use natural and less toxic alternatives whenever possible. Contact your County Solid Waste Management Office for information regarding household hazardous waste collection in your area.

MOTOR OIL: Used motor oil contains toxic chemicals that are harmful to animals, humans and fish. Do not dump used motor oil down storm drains or on the ground. Recycle all used motor oil by taking it to a local public or private recycling center.

CAR WASHING: Wash your car only when necessary. Consider using a commercial car wash that recycles its wash water. Like fertilizers, many car detergents contain phosphate. If you wash your car at home, use a non-phosphate detergent.

PET WASTE: Animal wastes contain bacteria and viruses that can contaminate shellfish and cause the closing of bathing beaches. Pet owners should use newspaper, bags or scoopers to pick up after pets and dispose of wastes in the garbage or toilet.

SEPTIC SYSTEMS: An improperly working septic system can contaminate ground water and create public health problems. Avoid adding unnecessary grease, household hazardous products and solids to your septic system. Inspect your tank annually and pump it out every three to five years depending on its use.

BOAT DISCHARGES: Dumping boat sewage overboard introduces bacteria and viruses into the water. Boat owners should always use marine sanitation devices and pump-out facilities at marinas.

As you can see, these suggestions are simple and easy to apply to your daily lifestyle. Making your commitment to change at least one habit can result in benefits that will be shared by all of us and add to the health and beauty of New Jersey's water resources.

Resources Available at NJDEP

These resources are available through the NJDEP Division of Watershed Management and are provided for low or no cost. Please call 609-292-2113 or visit www.nj.gov/dep/watershedmgt

The New Jersey Watershed Ambassadors Program

The New Jersey Watershed Ambassadors Program is a community-oriented AmeriCorps environmental program designed to raise awareness about water issues in New Jersey. Through this program, AmeriCorps members are placed across the state to serve their local communities. Watershed Ambassadors monitor the rivers of New Jersey through River Assessment and Biological Assessment volunteer monitoring protocols. Watershed Ambassadors also make interactive presentations to community organizations and schools. They also organize and participate in stewardship projects such as storm drain stenciling, litter clean-ups and restoration projects.

Project WET (Water Education for Teachers)

Project WET is a nationally renowned program that offers teachers a better understanding about the world's water resources through hands-on, multi-disciplinary lessons. Project WET is the only program that teaches about the importance and value of water in our every day life with formal and non-formal educators while offering specialized programs about New Jersey's water resources and watersheds. NJ Project WET is a well-rounded program that focuses on water supply, water quality, water conservation, watershed management, land use planning and wetlands. Project WET provides educators with accurate insight into critical water issues while offering a large selection of creative teaching strategies.

In addition to workshops, NJ Project WET reaches another 5,000 students annually and an estimated 12,000 parents, volunteers, educators and administrators through its Water Festival Grant Program. A Water Festival is a one-day celebration of water with a focus on a school's watershed. Students participate in a series of learning stations that examine water use over time, water's role in shaping our country, what a watershed is, how water is cleaned and used again, how a molecule travels through the water cycle and much more. The festivals involve the community and attract positive media attention that reaches thousands of people across the state.

NJ Project WET offers a unique learning opportunity for high school students and teachers through its Watershed Stewards Program. This program focuses on a weekend leadership workshop for a high school team of four or five students. They are provided instruction and training in watershed topics and team-building experiences that prepare them to focus on a watershed service project that will address an environmental concern. Each Watershed Steward Team must work with three community organizations and solicit another 20 volunteers to assist with the project. Participants receive a small grant to conduct a Watershed Steward Project.

Harbor Watershed / Urban Fishing Program

The goal of the Urban Fishing Program is to educate young students living in the Newark

Bay Complex about the hazards of eating contaminated fish and help them to discover the beauty of the great natural resource. Students who participate in the program sample recreational opportunities that the bay has to offer while learning how to be responsible citizens within the estuary. The students experience four days of intense yet enjoyable instruction related to the Newark Bay Complex. Throughout the four days students are given hands-on experiences such as fishing, water monitoring, eco-cruising and community clean-ups which will endure with them over a lifetime. The program also includes a storm drain marking program that can help municipalities fulfill their stormwater permitting requirements.

Clean Water Raingers Program

This program offers educators a number of teaching materials for their students as well as background information on watersheds and nonpoint source pollution. Educators who participate in the Clean Waters Raingers Program are provided with free booklets and associated materials for their elementary school age students. The *Clean Water Raingers Coloring Book*, *How to be a Clean Water Rainger Booklet* and the *Clean Water Raingers stickers* are also popular giveaways at family oriented events and festivals. These publications are also available online on the Department's environmental education web page.

Volunteer Monitoring Program - Watershed Watch

The Division has begun to implement a Volunteer Monitoring Program over the last several years. Volunteers are being encouraged to assess their local waterways using visual surveys or benthic macroinvertebrate studies. The Watershed Watch Network, comprised of volunteer monitors from across the state, works with the Department to better coordinate and improve the data collected by volunteers.

Publications

The DWM produces a number of stormwater related publications that are available for free distribution to municipalities, watershed associations, environmental groups or other organizations. These include *What's A Watershed?* Brochure, *New Jersey's Watersheds* Poster, and *Watershed Focus* Newsletter.

Additional Resources

There are many government agencies, environmental groups, and watershed association that have resources to help you. They can help you organize an event, provide volunteers, or provide educational resources. Please contact organizations in your area.

New Jersey Department of Environmental Protection Division of Watershed Management

PO Box 418
Trenton, NJ 08625-0418
609-292-2113
www.nj.gov/dep/watershedmgt

Alliance for a Living Ocean

2007 Long Beach Boulevard
North Beach Haven, NJ 08008
609-492-0222
livingoceanalo@comcast.net
<http://www.livingocean.org/index.html>

Clean Ocean Action

18 Hartshorn Drive
PO Box 505
Highlands, NJ 07732
732-872-0111
sandyhook@cleanoceanaction.org
<http://www.cleanoceanaction.org/>

Great Swamp Watershed Association

PO Box 300
New Vernon, NJ 07976
973-966-1900
everything@greatswamp.org
<http://www.greatswamp.org>

Jacques Cousteau National Estuarine Research Reserve

Jacques Cousteau Coastal Education Center
130 Great Bay Boulevard
Tuckerton, NJ 08087
609-812-0649
weiss@imcs.rutgers.edu
<http://www.jcnerr.org/>
Lisa Weiss

Monmouth Coastal Watersheds Partnership

c/o Monmouth County Planning Board

One East Main Street

Freehold, NJ 07728

732-431-7460

Turner Shell

<http://www.visitmonmouth.com/area12/>

North Jersey Resource Conservation and Development Council

54 Old Highway 22

Clinton, NJ

908-735-0733

chall@northjerseyrcd.org

<http://www.northjerseyrcd.org/>

Christine Hall

Partnership for the Delaware Estuary

1009 Philadelphia Pike

Wilmington, DE 19809

1-800-445-4935

partners@udel.edu

www.delawareestuary.org

Passaic River Coalition

246 Madisonville Road

Basking Ridge, N.J. 07920

908-766-7550

prcwater@aol.com

<http://www.passaicriver.org/>

Ella Filippone

Pequannock River Coalition

PO Box 392

Newfoundland, NJ 07435

973-492-3212

pequannockguy@aol.com

Ross Kushner

Pohatcong Creek Watershed Association

256 Creek Road

Phillipsburg, NJ 08865

(908) 213-1550

www.pcwa.org

Dawn Areia

Pompeston Creek Watershed Association

551 New Albany Road
Moorestown, NJ 08057
(856) 235-9204
dlord@aol.com
Debbie Lord

Rockaway River Watershed Cabinet
c/o Morris 2000
2 Ridgedale Avenue
Cedar Knolls, NJ 07927
973-984-2000

South Branch Watershed Association
Lechner House, Echo Hill
Environmental Area, 51 Lilac Drive
Flemington, NJ 08822
908-782-0422
sbwa@eclipse.net
<http://www.sbwa.org>

Stony Brook Millstone Watershed Association
31 Titus Mill Road
Pennington, NJ 08534
609-737-3735
creed@thewatershed.org
www.thewatershed.org

Sussex County Municipal Utilities Authorities
34 Route 94 South
Lafayette, NJ 07848
973-579-6998
scmua@nac.net
<http://www.walkkillriver.org/>
Nathaniel Sajdak

Ten Towns Great Swamp Watershed Management Committee
c/o Morris 2000
2 Ridgedale Avenue
Cedar Knolls, NJ 07927
973-984-2000
<http://www.tentowns.org>

Watershed Management Area 3 Public Advisory Committee
holzapfeg@waynetownship.com
George Hozapfel

Watershed Management Area 4 Public Advisory Committee

Ellen Gruber

mandegruber@hotmail.com

Watershed Management Area 5 Public Advisory Committee

Bergen County Department of Health Services

327 East Ridgewood Avenue

Paramus, NJ 07652

201-634-2600

avernick@aol.com or tdecandia@co.bergen.nj.us

Anthony Vernick or Anthony DeCandia

Watershed Management Area 19 Public Advisory Committee

Burlington County Office of Land Use Planning

P. O. Box 600

Mt. Holly, NJ 08060

Gina Berg

Wreck Pond Watershed Association

809 Central Avenue

Spring Lake Heights, NJ 07762

732-449-8764

wreckpond@hotmail.com

Clean Communities Program

Sandy Huber, Executive Director

Clean Communities Council

479 West State Street

Trenton, NJ 08618

609-989-5900

info@njclean.org

<http://www.njclean.org/>

The Clean Communities Council works with the state departments of Environmental Protection and Treasury to oversee the implementation of litter abatement programs in 556 municipalities and 21 counties. The Council provides a clearinghouse for information about litter abatement, forums for the free exchange of ideas, and a voice for its constituents.

The Council also will ask towns and counties to report how Clean Communities grant money is spent—the number of cleanups held, number of volunteers who participated, the amount and type of litter and recyclables picked up, and the number and type of educational programs offered to schools and community groups. This information will be compiled in the Annual Report to the Governor and Legislature

Storm drain labeling is one of the allowable costs under this entitlement program. If you are planning a storm drain labelling event, please contact your local Clean Communities Coordinator to see if funding is available.

Useful websites

In addition, there are many valuable websites that can give you background information on nonpoint source pollution, polluted runoff, watershed and storm drain marking. They are listed below.

NJ Department of Environmental Protection

www.nj.gov/dep

features information on the Department's clean water initiatives, educational materials and regulatory programs

United States Environmental Protection Agency

www.epa.gov/owow/nps/

features basic information at the national level on nonpoint source pollution

The Watershed Institute

www.thewatershedinstitute.org

features information about watershed associations from across the state

Watershed Partnership for New Jersey

www.wpnj.org

features information on watershed educational resource in New Jersey

Appendix VII
Electronic Report and Forms

Lakehurst Borough: 2005 Monthly Vehicle & Equipment Fueling SOP Compliance Inspection

MONTH	INCLUDE DATES OF INSPECTION, PROBLEMS OBSERVED AND CORRECTIONS	SIGNATURE
January	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
February	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
March	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
April	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
May	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
June	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
July	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
August	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
September	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
October	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
November	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
December	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	

Lakehurst Borough: 2005 Monthly Good Housekeeping SOP Compliance Inspection

MONTH	INCLUDE DATES OF INSPECTION, PROBLEMS OBSERVED AND CORRECTIONS	SIGNATURE
January	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
February	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
March	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
April	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
May	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
June	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
July	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
August	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
September	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
October	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
November	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
December	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	

Lakehurst Borough: 2005 Monthly Vehicle Maintenance SOP Compliance Inspection

MONTH	INCLUDE DATES OF INSPECTION, PROBLEMS OBSERVED AND CORRECTIONS	SIGNATURE
January	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
February	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
March	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
April	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
May	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
June	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
July	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
August	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
September	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
October	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
November	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	
December	<ul style="list-style-type: none"> ▪ Date: ▪ Problems: ▪ Corrections: 	

Borough of Lakehurst
Tier A Stormwater Permit
NJG 0147761
Local Public Education Program

Annual Mailing

Date Distributed:	Brochure Distributed With:

Annual Event

Date:	Description/Location:

Materials Distributed:

VOLUNTEERS	
Name	Phone #

Additional Notes/Comments:

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The date of mailing and method of distribution, and date and description of annual event, must be submitted with the municipality's Annual Report and Certification.

Storm Drain Inlet Labeling Program

DATE	LOCATION OF LABELING	NUMBER OF INLETS LABELED	TYPE OF LABEL APPLIED
			<input type="checkbox"/> Plastic Marker <input type="checkbox"/> Stencil <input type="checkbox"/> Other: _____
			<input type="checkbox"/> Plastic Marker <input type="checkbox"/> Stencil <input type="checkbox"/> Other: _____
			<input type="checkbox"/> Plastic Marker <input type="checkbox"/> Stencil <input type="checkbox"/> Other: _____
			<input type="checkbox"/> Plastic Marker <input type="checkbox"/> Stencil <input type="checkbox"/> Other: _____
			<input type="checkbox"/> Plastic Marker <input type="checkbox"/> Stencil <input type="checkbox"/> Other: _____
			<input type="checkbox"/> Plastic Marker <input type="checkbox"/> Stencil <input type="checkbox"/> Other: _____
			<input type="checkbox"/> Plastic Marker <input type="checkbox"/> Stencil <input type="checkbox"/> Other: _____
			<input type="checkbox"/> Plastic Marker <input type="checkbox"/> Stencil <input type="checkbox"/> Other: _____
			<input type="checkbox"/> Plastic Marker <input type="checkbox"/> Stencil <input type="checkbox"/> Other: _____
			<input type="checkbox"/> Plastic Marker <input type="checkbox"/> Stencil <input type="checkbox"/> Other: _____
			<input type="checkbox"/> Plastic Marker <input type="checkbox"/> Stencil <input type="checkbox"/> Other: _____
			<input type="checkbox"/> Plastic Marker <input type="checkbox"/> Stencil <input type="checkbox"/> Other: _____
			<input type="checkbox"/> Plastic Marker <input type="checkbox"/> Stencil <input type="checkbox"/> Other: _____
			<input type="checkbox"/> Plastic Marker <input type="checkbox"/> Stencil <input type="checkbox"/> Other: _____
			<input type="checkbox"/> Plastic Marker <input type="checkbox"/> Stencil <input type="checkbox"/> Other: _____

Additional Notes/Comments:

Borough of Lakehurst
Tier A Stormwater Permit
NJG 0147761
Outfall Inspection Checklist

Outfall I No.	Location	Receiving Waterbody	Illicit Connection Inspection Report Form		Scouring Present		Comments/Notes
			Date of Inspection *	Dry-weather Flow**	YES	NO	
			<input type="checkbox"/> Intermittent	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO		
			<input type="checkbox"/> Intermittent	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO		
			<input type="checkbox"/> Intermittent	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO		
			<input type="checkbox"/> Intermittent	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO		
			<input type="checkbox"/> Intermittent	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO		
			<input type="checkbox"/> Intermittent	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO		
			<input type="checkbox"/> Intermittent	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO		
			<input type="checkbox"/> Intermittent	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO		
			<input type="checkbox"/> Intermittent	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO		
			<input type="checkbox"/> Intermittent	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO		

*Submit all forms and Outfall Inspection Checklist to be included in municipality's SPPP.
 **Complete appropriate follow-up investigations for outfalls found to have intermittent flow.

Borough of Lakehurst
Tier A Stormwater Permit
NJG 0147761
Outfall Inspection Checklist

Outfall I No.	Location	Receiving Waterbody	Illicit Connection Inspection Report Form		Scouring Present		Comments/Notes
			Date of Inspection *	Dry-weather Flow**	YES	NO	
				<input type="checkbox"/> Intermittent <input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO		
				<input type="checkbox"/> Intermittent <input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO		
				<input type="checkbox"/> Intermittent <input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO		
				<input type="checkbox"/> Intermittent <input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO		
				<input type="checkbox"/> Intermittent <input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO		
				<input type="checkbox"/> Intermittent <input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO		
				<input type="checkbox"/> Intermittent <input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO		

*Submit all forms and Outfall Inspection Checklist to be included in municipality's SPPP.
 **Complete appropriate follow-up investigations for outfalls found to have intermittent flow.

Borough of Lakehurst
Tier A Stormwater Permit
 NJG 0147761

Annual Catch Basin Cleaning

Location	ID	Initials	Cleaned	Repaired	Inspected	Labeled	Other	Comments
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
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Borough of Lakehurst
Tier A Stormwater Permit
 NJG 0147761

Annual Catch Basin Cleaning

Location	ID	Initials	Cleaned	Repaired	Inspected	Labeled	Other	Comments
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			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	

Borough of Lakehurst
Tier A Stormwater Permit
NJG 0147761

Annual Catch Basin Cleaning

Location	ID	Initials	Cleaned	Repaired	Inspected	Labeled	Other	Comments
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	

The total number of municipally owned catch basins and total number of basin cleaned must be submitted with the Annual Report and Certification.

Borough of Lakehurst
Tier A Stormwater Permit
 NJG 0147761

Annual Catch Basin Cleaning

Location	ID	Initials	Cleaned	Repaired	Inspected	Labeled	Other	Comments
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>	

The total number of municipally owned catch basins and total number of basin cleaned must be submitted with the Annual Report and Certification.

Borough of Lakehurst
Tier A Stormwater Permit
NJG 0147761
Employee Training Program

Course Topics	Date of Training	Employees Trained
Waste Disposal Education		Public Works Employees
Municipal Ordinances		Public Works Employees, Code Enforcement, Local Police, Municipal Clerk/Administrator
Yard Waste Collection Program		Public Works Employees
Illicit Connection Elimination and Outfall Pipe Mapping		Public Works Employees
Street Sweeping		Public Works Employees
Stormwater Facility Maintenance		Public Works Employees
Road Erosion Control and Outfall Pipe Stream Scouring Remediation		Public Works Employees
Maintenance Yard Operations		Public Works Employees
Construction Activity/Post-Construction Storm- water Management in (Re-)Deveelopment		Public Works Employees

Additional Notes/Comments

Annual Report and Certification Tier A Municipal Stormwater General Permit

Municipality Information	Municipality: <u>Lakehurst Borough</u>	County: <u>Ocean County</u>
	NJPDES # : <u>NJG0147761</u>	PI ID #: <u>203008</u>
	Team Member: _____	
	Date: _____	Effective Date of Permit Authorization (EDPA): <u>April 1, 2004</u>

Stormwater Pollution Prevention Plan

Have you prepared a Stormwater Pollution Prevention Plan that describes your Stormwater Program?
Y () N ()

Does the SPPP include all of the information and items required by the permit (including Attachment A)?
Y () N ()

Is the SPPP signed and dated? Y () N () Date SPPP signed: _____

Is the SPPP retained by your Municipal Stormwater Program Coordinator? Y () N ()

Was the SPPP amended since the last annual report? Y () N ()

If so, in general terms, what was amended?

Public Notice

Are you complying with applicable State and local public notice requirements when providing for public participation in the development and implementation of your stormwater program?
Y () N ()

Annual Report and Certification

Tier A Municipal Stormwater General Permit

Municipality
Information

Municipality: Lakehurst Borough

County: Ocean County

NJPDES # : NJG0147761

PI ID #: 203008

Team Member: _____

Date: _____

Effective Date of Permit Authorization (EDPA): April 1, 2004

Post-Construction Stormwater Management in New Development and Redevelopment

Are you ensuring that any residential development and redevelopment projects that are subject to the Residential Site Improvement Standards for stormwater management comply with those standards? Y () N ()

Are you ensuring adequate long-term operation and maintenance of BMPs on property that you own or operate? Y () N ()

For storm drain inlets that you install, are you complying with the standards set forth in Attachment C of the permit to control passage of solid and floatable materials? Y () N ()

Have you forwarded a copy of the proposed municipal stormwater management plan required by the permit to the county planning board at least 20 days prior to the date of your public hearing on that plan? Y () N ()

Date forwarded: _____

[for purposes of this annual report, "municipal stormwater management plan" means a new municipal stormwater management plan, as well as amendments to an existing municipal stormwater management plan]

Have you adopted a municipal stormwater management plan in accordance with N.J.A.C. 7:8-4? Y () N ()

Date adopted: _____

Status of this plan (if not adopted):

Have you transmitted, within 30 days after adoption, a copy of your adopted municipal stormwater management plan to the county planning board for its information and files? Y () N ()

Date transmitted: _____

Have you forwarded a copy of the proposed municipal stormwater control ordinance(s) required by the permit to the county planning board at least 10 days prior to the date of your public hearing on the ordinance(s)? Y () N ()

Date forwarded: _____

Have you adopted a municipal stormwater control ordinance(s) in accordance with N.J.A.C. 7:8-4?
Y () N ()

Date adopted: _____

Status of this ordinance(s) (if not adopted):

Have you submitted your adopted municipal stormwater management plan and stormwater control ordinance(s) to the appropriate county review agency for approval? Y () N ()

Date submitted: _____

Are your adopted municipal stormwater management plan and stormwater control ordinance(s) approved and in effect? Y () N ()

Effective date: _____

Ordinance number(s): _____

Status of adopted plan and ordinance(s) (if not in effect):

Have you:

Placed your approved municipal stormwater management plan and stormwater control ordinance(s) on your website, and notified the Department, the Soil Conservation District and State Soil Conservation Committee? Y () N () N/A ()

Date you notified the Department: _____

OR

Submitted your approved municipal stormwater management plan and stormwater control ordinance(s) to the Department, and provided notice to the Soil Conservation District and State Soil Conservation Committee? Y () N () N/A ()

Date submitted to the Department: _____

Are you enforcing your approved municipal stormwater control ordinance(s)? Y () N ()

Have you granted any variances or exemptions from the design and performance standards for stormwater management measures set forth in your approved municipal stormwater management plan and stormwater control ordinance(s)? Y () N ()

If yes, does your approved municipal stormwater management plan include a mitigation plan in accordance with N.J.A.C. 7:8-4.2(c)11? Y () N ()

Did you submit a written report to the county review agency and the Department describing the variance or exemption and the required mitigation? Y () N ()

Date(s) report(s) submitted to the Department: _____

For storm drain inlets not installed by you, are you enforcing compliance with the standards set forth in Attachment C of the permit to control passage of solid and floatable materials? Y () N ()

If yes, specify whether such compliance is enforced through your stormwater control ordinance(s) or through a separate ordinance (and provide the separate ordinance number):

Are you ensuring adequate long-term operation and maintenance of BMPs on property that you do not own or operate? Y () N ()

If yes, briefly indicate how this being accomplished (e.g., ordinance requiring operation and maintenance by private entity; operation and maintenance by you or other governmental entity):

Have you reexamined your approved municipal stormwater management plan at each reexamination of your master plan in accordance with N.J.A.C. 7:8-4? Y () N ()

Date reexamination report adopted: _____

Annual Report and Certification

Tier A Municipal Stormwater General Permit

Municipality
Information

Municipality: Lakehurst Borough

County: Ocean County

NJPDES # : NJG0147761

PI ID #: 203008

Team Member: _____

Date: _____

Effective Date of Permit Authorization (EDPA): April 1, 2004

Local Public Education

Local Public Education Program

Have you developed a Local Public Education Program? Y () N ()

Date development of program completed: _____

Date of Annual Distribution of Educational Brochure: _____

Method of Distribution:

Date of Annual Event: _____

Description of Event:

Storm Drain Inlet Labeling

Have you established a storm drain inlet labeling program? Y () N ()

Have you divided your municipality into two sectors for the purpose of storm drain inlet labeling?
Y () N ()

If "yes," indicate the number of sectors labeled to date: 0 1 2

If "no," please check approximate percentage of storm drain inlets labeled to date:

25% 50% 75% 100% other (specify) _____%

Have you developed a long term maintenance plan for the storm drain inlet labels? Y () N ()

Are you implementing your long-term maintenance plan? Y () N ()

Annual Report and Certification

Tier A Municipal Stormwater General Permit

Municipality
Information

Municipality: Lakehurst Borough

County: Ocean County

NJPDES # : NJG0147761

PI ID #: 203008

Team Member: _____

Date: _____

Effective Date of Permit Authorization (EDPA): April 1, 2004

Improper Disposal of Waste

Have you adopted and are you enforcing a:

Pet Waste Ordinance Y () N ()

Date adopted: _____

Litter Ordinance Y () N () N/A ()

Date adopted: _____

State Litter Statute Y () N () N/A ()

Improper Disposal of Waste Ordinance Y () N ()

Date adopted: _____

Wildlife Feeding Ordinance Y () N ()

Date adopted: _____

Containerized Yard Waste Ordinance Y () N () N/A () Date adopted: _____

Yard Waste Collection Program Ordinance Y () N () N/A ()

Date adopted: _____

Illicit Connection Ordinance Y () N ()

Date adopted: _____

Status of these ordinances (if not adopted):

Method(s) of enforcement (e.g., summons, warnings, additional signs, etc.):

Are you distributing the Pet Waste Information Sheets with pet licenses? Y () N ()

Yard Waste Collection Program

Have you developed a yard waste collection program? Y () N () N/A ()

Collection Dates:

October _____ November _____ December _____ Spring Cleanup _____

Annual Report and Certification

Tier A Municipal Stormwater General Permit

Municipality Information

Municipality: Lakehurst Borough

County: Ocean County

NJPDES # :NJG0147761

PI ID #: 203008

Team Member: _____

Date: _____

Effective Date of Permit Authorization (EDPA):April 1, 2004

Illicit Connection Elimination and MS4 Outfall Pipe Mapping

Outfall Pipe Mapping

Number of sectors with MS4 outfall pipes mapped to date (please check): 0 1 2

Date first sector completed: _____ Date second sector completed: _____

Illicit Connection Elimination Program

Have you developed an Illicit Connection Elimination program? Y () N ()

Date development of program completed: _____

Have you begun the initial physical inspection of all outfall pipes using the Department's Illicit Connection Inspection Report form? Y () N ()

Number of outfalls physically inspected since May 2nd of previous year: _____

Number of outfalls found to have dry weather flows during that period: _____

Number of outfalls found to have an illicit connection during that period: _____

Number of illicit connections found during that period: _____

Number of illicit connections eliminated during that period: _____

(For any outfalls found to have dry weather flows, a copy of the inspection report shall be submitted with this Annual Report and Certification.)

Provide the following information for each outfall found to have an illicit connection since May 2nd of previous year.

Outfall Identifier	Source of Illicit Connection	Date Eliminated

Annual Report and Certification

Tier A Municipal Stormwater General Permit

Municipality
Information

Municipality: Lakehurst Borough

County: Ocean County

NJPDES # : NJG0147761

PI ID #: 203008

Team Member: _____

Date: _____

Effective Date of Permit Authorization (EDPA): April 1, 2004

Street Sweeping Program

Have you developed a Street Sweeping Program? Y () N ()

Were all required streets swept? Y () N ()

Did you sweep more than the required streets? Y () N ()

What was the total number of miles swept? _____ miles.

Please list the total amount of materials collected for each month since May 2nd of previous year:

May _____

June _____

July _____

August _____

September _____

October _____

November _____

December _____

January _____

February _____

March _____

April _____

If street sweeping was not completed for any of these months, please explain:

Annual Report and Certification

Tier A Municipal Stormwater General Permit

Municipality
Information

Municipality: Lakehurst Borough

County: Ocean County

NJPDES # : NJG0147761

PI ID #: 203008

Team Member: _____

Date: _____

Effective Date of Permit Authorization (EDPA): April 1, 2004

Stormwater Facility Maintenance

Have you developed a Stormwater Facility Maintenance Program? Y () N ()

Date development of program completed: _____

Catch Basins:

Total number of catch basins that you operate: _____

Were all catch basins inspected and/or cleaned? Y () N ()

Total number of catch basins cleaned: _____

Amount of materials removed from catch basins, if available: _____ SELECT UNIT

Other Stormwater Facilities:

Were all stormwater facilities (e.g., detention basins, filter strips, riparian buffers, infiltration trenches, sand filters, constructed wetlands, wet basins, bioretention systems, low flow bypasses, and stormwater conveyances) that you operate inspected? Y () N ()

Were any found to be in need of cleaning or repair in order to function properly? Y () N ()

Was the cleaning performed? Y () N () Were repairs made? Y () N ()

Describe repair(s) or schedule for repair(s). Attach additional pages as necessary.

Road Erosion Control Maintenance

Have you developed a Roadside Erosion Control Program? Y () N ()

Date development of program completed: _____

Were any areas of road erosion identified? Y () N ()

Attach a sheet identifying the locations of road erosion and whether repairs have been made.

Annual Report and Certification

Tier A Municipal Stormwater General Permit

Municipality
Information

Municipality: Lakehurst Borough

County: Ocean County

NJPDES # : NJG0147761

PI ID #: 203008

Team Member: _____

Date: _____

Effective Date of Permit Authorization (EDPA): April 1, 2004

De-icing Material and Sand Storage

Are you currently using an existing permanent structure for de-icing material storage?

Y () N () N/A ()

If a permanent structure is not yet built, is seasonal tarping being used? Y () N () N/A ()

If you answered N/A to the above questions, please explain:

If sand is being stored outside, is it set back 50 feet from storm sewer inlets, ditches or other stormwater conveyance channels, and surface water bodies? Y () N () N/A ()

Fueling Operations

Are you implementing Standard Operating Procedures for vehicle fueling and receiving of bulk fuel deliveries at maintenance yard operations? Y () N () Date SOP in effect: _____

Vehicle Maintenance

Are you implementing Standard Operating Procedures for vehicle maintenance and repair activities at maintenance yard operations? Y () N () Date SOP in effect: _____

Good Housekeeping Practices

Are you implementing Good Housekeeping Practices for all materials or machinery listed in the Inventory Requirements for Municipal Maintenance Yard Operations (including maintenance activities and ancillary operations)? Y () N () Date practices are in effect: _____

Annual Report and Certification

Tier A Municipal Stormwater General Permit

Municipality Information	Municipality: <u>Lakehurst Borough</u>	County: <u>Ocean County</u>
	NJPDES # : <u>NJG0147761</u>	PI ID #: <u>203008</u>
	Team Member: _____	
	Date: _____	Effective Date of Permit Authorization (EDPA): <u>April 1, 2004</u>

Sharing of Responsibilities

For each of the following, indicate if you are relying on another entity to satisfy all or part of any permit requirements. For those you checked "yes," please give additional information on or with the appropriate Annual Report and Certification form (attach sheet if needed).

Statewide Basic Requirement	Relying on another entity?	
	"yes"	"no"
Public Notice	<input type="checkbox"/>	<input type="checkbox"/>
Ensure compliance with RSIS for stormwater management	<input type="checkbox"/>	<input type="checkbox"/>
Municipal stormwater management plan	<input type="checkbox"/>	<input type="checkbox"/>
Municipal stormwater control ordinance	<input type="checkbox"/>	<input type="checkbox"/>
Long term operation and maintenance of BMPs (post-construction)	<input type="checkbox"/>	<input type="checkbox"/>
Storm drain inlet design standard (post-construction)	<input type="checkbox"/>	<input type="checkbox"/>
Local Public Education Program	<input type="checkbox"/>	<input type="checkbox"/>
Storm Drain Inlet Labeling Program	<input type="checkbox"/>	<input type="checkbox"/>
Pet waste ordinance	<input type="checkbox"/>	<input type="checkbox"/>
Litter ordinance	<input type="checkbox"/>	<input type="checkbox"/>
Improper disposal of waste ordinance	<input type="checkbox"/>	<input type="checkbox"/>
Wildlife feeding ordinance	<input type="checkbox"/>	<input type="checkbox"/>
Yard waste collection program (including ordinance)	<input type="checkbox"/>	<input type="checkbox"/>
Outfall pipe mapping	<input type="checkbox"/>	<input type="checkbox"/>
Illicit connection ordinance	<input type="checkbox"/>	<input type="checkbox"/>
Illicit connection elimination program	<input type="checkbox"/>	<input type="checkbox"/>
Street sweeping	<input type="checkbox"/>	<input type="checkbox"/>
Storm drain inlet retrofitting	<input type="checkbox"/>	<input type="checkbox"/>
Maintenance of municipally operated stormwater facilities	<input type="checkbox"/>	<input type="checkbox"/>
Road erosion control	<input type="checkbox"/>	<input type="checkbox"/>
Outfall pipe stream scouring	<input type="checkbox"/>	<input type="checkbox"/>
De-icing and sand storage	<input type="checkbox"/>	<input type="checkbox"/>
Fueling operations	<input type="checkbox"/>	<input type="checkbox"/>
Vehicle maintenance	<input type="checkbox"/>	<input type="checkbox"/>
Good housekeeping	<input type="checkbox"/>	<input type="checkbox"/>
Employee Training	<input type="checkbox"/>	<input type="checkbox"/>

Annual Report and Certification

Tier A Municipal Stormwater General Permit

Municipality
Information

Municipality: Lakehurst Borough

County: Ocean County

NJPDES # : NJG0147761

PI ID #: 203008

Team Member: _____

Date: _____

Effective Date of Permit Authorization (EDPA): April 1, 2004

Incidents of Noncompliance

For any incidents of noncompliance, identify the steps being taken to remedy the noncompliance and to prevent such incidents from recurring.

Annual Report and Certification

Tier A Municipal Stormwater General Permit

Municipality
Information

Municipality: Lakehurst Borough

County: Ocean County

NJPDES # : NJG0147761

PI ID #: 203008

Team Member: _____

Date: _____

Effective Date of Permit Authorization (EDPA): April 1, 2004

Annual Certification

"I certify under penalty of law that this Annual Report and Certification and all attached documents were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate this information. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering this information, the information in this Annual Report and Certification and all attached documents is, to the best of my knowledge and belief, true, accurate and complete.

"I certify that the municipality is in compliance with its stormwater program, Stormwater Pollution Prevention Plan (SPPP) and the NJPDES Tier A Municipal Stormwater General Permit No. NJ0141852 except for any incidents of noncompliance which are identified herein. For any incidents of noncompliance, the Annual Report identifies the steps being taken to remedy the noncompliance and to prevent such incidents from recurring.

"I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for purposely, knowingly, recklessly, or negligently submitting false information."

Signature _____ Date _____

Print or Type Name _____

Print or Type Title _____

WHO MUST SIGN?

Either a principal executive officer or a ranking elected official; or duly authorized representative.

A principal executive officer or ranking elected official of the municipality may assign his or her signatory authority for this Certification to a duly authorized representative, which is a named individual or a title of a position having overall responsibility for the operation of municipal stormwater facilities or municipal environmental matters, by submitting a letter to the Bureau of Permit Management stating said authority and naming the individual or position. The duly authorized representative is the Municipal Stormwater Program Coordinator only if the Coordinator has overall responsibility for the operation of municipal stormwater facilities or municipal environmental matters.

Illicit Connection Inspection Report Form

Municipality
Information

Municipality: Lakehurst Borough

County: Ocean County

NJPDES # :NJG0147761

PI ID #: 203008

Team Member: _____

Date: _____

Effective Date of Permit Authorization (EDPA):April 1, 2004

Outfall #: _____

Location: _____

Receiving Waterbody: _____

1. Is there a dry weather flow? Y () N ()

2. If "YES", what is the outfall flow estimate? _____ gpm

(flow sample should be kept for further testing, and this form will need to be submitted with the Annual Report and Certification)

3. Are there any indications of an intermittent flow? Y () N ()

4. If you answered "NO" to BOTH questions #1 and #3, there is probably not an illicit connection and you can skip to question #7.

(NOTE: This form **does not** need to be submitted to the Department, but should be kept with your SPPP.)

If you answered "YES" to either question, please continue on to question #5.

(NOTE: This form will need to be submitted to the Department with the Annual Report and Certification.)

5. PHYSICAL OBSERVATIONS:

(a) ODOR: none _____

(b) COLOR: none _____

(c) TURBIDITY: none _____

(d) FLOATABLES: none _____

(e) DEPOSITS/STAINS: none _____

(f) VEGETATION CONDITIONS: normal _____

(g) DAMAGE TO OUTFALL STRUCTURES:

IDENTIFY STRUCTURE: _____

DAMAGE: none _____

6. ANALYSES OF OUTFALL FLOW SAMPLE:

* field calibrate instruments in accordance with manufacturer's instructions prior to testing.

(a) DETERGENTS: _____ mg/L

(if sample is greater than 0.06 mg/L, the sample is contaminated with detergents [which may be from sanitary wastewater or other sources]. Further testing is required and this outfall should be given the highest priority.)

(if the sample is not greater than 0.06 mg/L and it does not show physical characteristics of sanitary wastewater [e.g., odor, floatables, and/or color] it is unlikely that it is from sanitary wastewater sources, yet there may still be an illicit connection of industrial wastewater, rinse water, backwash or cooling water. Skip to question #6c.)

(b) **AMMONIA (as N) TO POTASSIUM RATIO:** _____

(if the Ammonia to Potassium Ratio is greater than 0.6:1, then it is likely that the pollutant is sanitary sewage)

(if the Ammonia to Potassium Ratio is less than or equal to 0.6:1, then the pollutant is from another washwater source.)

(c) **FLUORIDE:** _____ mg/L

(if the fluoride levels are between 1.0 and 2.5 mg/L, then the flow is most likely from fluoride treated potable water.)

(if the sample tests below a detection limit of 0.1 mg/L for fluoride, it is likely to be from groundwater infiltration, springs or streams. In some cases, however, it is possible that the discharge could originate from an onsite well used for industrial cooling water, which will test non-detect for both detergents and fluoride. To differentiate between these cooling water discharges and groundwater infiltration, you will have to rely on temperature.)

(d) **TEMPERATURE:** _____ °F

(if the temperature of the sample is over 70°F, it is most likely cooling water)

(if the temperature of the sample is under 70°F, it is most likely from ground water infiltration)

7. Is there a suspected illicit connection? Y () N ()

If "YES", what is the suspected source? _____

If "NO", skip to signature block on the bottom of this form.

8. Has the investigation of the suspected illicit connection been completed?

Y () N ()

If "YES", proceed to question #9.

If "NO", skip to signature block on the bottom of this form.

9. Was the source of the illicit connection found? Y () N ()

If "YES", identify the source. _____

What plan of action will follow to eliminate the illicit connection?

Resolution:

If "NO", complete the Closeout Investigation Form and attach it to this Illicit Connection Inspection Report Form.

Inspector's Name: _____

Title: _____

Signature: _____

Date: _____

If there is a dry weather flow or evidence of an intermittent flow, be sure to include this form with your Annual Report and Certification.

If there is not a dry weather flow or evidence of an intermittent flow, this form should be retained with your SPPP.

Closeout Investigation Form

Municipality
Information

Municipality: Lakehurst Borough

County: Ocean County

NJPDES # :NJG0147761

PI ID #: 203008

Team Member: _____

Date: _____

Effective Date of Permit Authorization (EDPA):April 1, 2004

Outfall #: _____ Location: _____

Receiving Waterbody: _____

Basis for Submittal:

- () A non-stormwater discharge was found, but no source was located within six months.
() An intermittent non-stormwater discharge was observed, and three unsuccessful investigations were conducted to investigate the discharge while it was flowing.

Describe each phase of your investigation, including dates. Attach additional pages as necessary:

Inspector's Name: _____

Title: _____

Signature: _____

Date: _____

Complete and attach this form to the appropriate Illicit Connection Inspection Report Form and submit with the Annual Report and Certification.

Appendix VIII
Household Hazardous Waste Disposal Program



**2018 OCEAN COUNTY
HOUSEHOLD HAZARDOUS
WASTE DISPOSAL PROGRAM**



Rid your home of potential hazards and protect the environment by participating in the Household Hazardous Waste Disposal Program

sponsored by

THE OCEAN COUNTY BOARD OF CHOSEN FREEHOLDERS

and

THE OCEAN COUNTY DEPARTMENT OF SOLID WASTE MANAGEMENT

Many common household products pose a potential threat to your family, and to Ocean County's clean air and water. You can dispose of these materials at the sites listed below, free of charge by calling the County to pre-register.

Call: 732-367-0802 to pre-register for Manchester

Call: 732-506-5047 to pre-register for Toms River

Call: 609-978-0913 to pre-register for Stafford

TOMS RIVER TWP.

Public Works Garage

1672 Church Road

Toms River, NJ 08753

Saturday, April 7

9:00AM – 3:00PM

MANCHESTER TWP.

Public Works Garage

1360 Route 70

Whiting, NJ 08759

Saturday, May 12

9:00AM – 3:00PM

STAFFORD TWP.

Public Works Garage

320 Haywood Road

Stafford Twp., NJ 08050

Saturday, June 2

9:00AM – 3:00PM

Pre-registration is required.
Registration is on a first-come first-served basis.
Future dates TBA in June.

Hazardous waste will not be accepted from businesses, school boards or government agencies. Only Ocean County residential households and farmers are eligible for this free program. A driver's license or tax bill will be adequate proof of residence. Our staff can advise you about any materials you are unsure of.

Acceptable Materials: paints/thinners/boat paint, solvents, pool chemicals, pesticides and herbicides, aerosol cans, auto products, toilet and drain cleaners, silver polishes, oven cleaners, photographic chemicals, rug and upholstery cleaners, polishes and bleaches, waste oil and used gasoline, propane tanks and fire extinguishers.

**ALL THE ABOVE MATERIALS, EXCEPT OIL AND GASOLINE,
MUST BE IN ORIGINAL CONTAINERS**

Maximum volume per household is limited to 200 pounds of dry materials and 20 gallons of liquid. Please, no containers larger than 5 gallons.

Unacceptable Materials: radioactive materials, dioxins, infectious waste ("Red Bag" wastes), explosives, unknown or unidentified materials.

NO CONSTRUCTION WASTE OR ASBESTOS.

THE OCEAN COUNTY BOARD OF CHOSEN FREEHOLDERS
Gerry P. Little, Director • John C. Bartlett, Jr., Deputy Director
Virginia E. Haines • John P. Kelly • Joseph H. Vicari

Appendix IX
Ordinance 05-05 Pet Waste

ORDINANCE

"AN ORDINANCE OF THE BOROUGH OF LAKEHURST AMENDING CHAPTER V OF THE REVISED GENERAL ORDINANCES OF THE BOROUGH OF LAKEHURST, COUNTY OF OCEAN, STATE OF NEW JERSEY, ENTITLED ANIMAL CONTROL"

05-05

5-5 PET WASTE 5-5.1

Purpose.

An ordinance to establish requirements for the proper disposal of pet solid waste in the Borough of Lakehurst, so as to protect public health, safety and welfare, and to prescribe penalties for failure to comply.

5-5.2 Definitions.

For the purpose of this ordinance, the following terms, phrases, words and their derivations shall have the meanings stated herein unless their use in the text of this Chapter clearly demonstrates a different meaning. When not inconsistent with the context, words used in the present tense include the future, words used in the plural number include the singular number, and words used in the singular number include the plural number.

The word "shall" is always mandatory and not merely directory.

Immediate — shall mean that the pet solid waste is removed at once, without delay.

Owner/Keeper — any person who shall possess, maintain, house or harbor any pet or otherwise have custody of any pet, whether or not the owner of such pet.

Person — any individual, corporation, company, partnership, firm, association, or political subdivision of this State subject to municipal jurisdiction.

Pet - a domesticated animal (other than a disability assistance animal) kept for amusement or companionship.

Pet solid waste — waste matter expelled from the bowels of the pet; excrement

Proper disposal — placement in a designated waste receptacle, or other suitable container, and discarded in a refuse container which is regularly emptied by the municipality or some other refuse collector; or disposal into a system designed to convey domestic sewage for proper treatment and disposal.

5-5.3 Requirement for Disposal.

All pet owners and keepers are required to immediately and properly dispose of their pet's solid waste deposited on any property, public or private, not owned or possessed by that person.

5-5.4 Exemptions.

Any owner or keeper who requires the use of a disability assistance animal shall be exempt from the provisions of this section while such animal is being used for that purpose,

5-5.5 Enforcement.

The provisions of this Article shall be enforced by the police department and the code enforcement officer of the Borough of Lakehurst.

5-5.6 Violations and Penalty.

Any person(s) who is found to be in violation of the provisions of this ordinance shall be subject to a fine as provided in the general penalties, not to exceed \$1,250.00

Severability.

Each section, subsection, sentence, clause and phrase of this Ordinance is declared to be an independent section, subsection, sentence, clause and phrase, and the finding or holding of any such portion of this Ordinance to be unconstitutional, void, or ineffective for any cause, or reason, shall not affect any other portion of this Ordinance.

Effective date.

This ordinance shall take effect immediately upon final passage and publication as required by law.

Hon. Stephen F. Childers
Mayor

LEGAL NOTICE

NOTICE IS HEREBY GIVEN that an Ordinance #05-05 entitled: "AN ORDINANCE OF THE BOROUGH OF LAKEHURST AMENDING CHAPTER XVI OF THE REVISED GENERAL ORDINANCES OF THE BOROUGH OF LAKEHURST, COUNTY OF OCEAN, STATE OF NEW JERSEY, ENTITLED "WATER AND SEWER" was finally adopted after a public hearing and Council approval at a meeting of the governing body held on the seventeenth day of March, 2005,

Bernadette Dugan, RMC
Municipal Clerk

Appendix X

Ordinance 05-06 Wildlife Feeding Prohibition

ORDINANCE

**"AN ORDINANCE OF THE BOROUGH OF LAKEHURST AMENDING CHAPTER V OF
THE REVISED GENERAL ORDINANCES OF THE BOROUGH OF LAKEHURST,
COUNTY OF OCEAN, STATE OF NEW
JERSEY, ENTITLED ANIMAL CONTROL"**

05-06

DELETE SECTION 5-10.5 IN ITS ENTIRETY

5-11 WILDLIFE FEEDING PROHIBITION

5-11.1 Purpose.

An ordinance to prohibit the feeding of unconfined wildlife in any public park or on any other property owned or operated by Borough of Lakehurst, so as to protect public health, safety and welfare, and to prescribe penalties for failure to comply.

5-11.2 Definitions.

For the purpose of this ordinance, the following terms, phrases, words and their derivations shall have the meanings stated herein unless their use in the text of this Chapter clearly demonstrates a different meaning. When not inconsistent with the context, words used in the present tense include the future, words used in the plural number include the singular number, and words used in the singular number include the plural number.

The word "shall" is always mandatory and not merely directory.

Feed – to give, place, expose, deposit, distribute or scatter any edible material with the intention of feeding, attracting or enticing wildlife. Feeding does not include baiting in the legal taking of fish and/or game.

Person – any individual, corporation, company, partnership, firm, association, or political subdivision of this State subject to municipal jurisdiction.

Wildlife – all animals that are neither human nor domesticated.

5-11.3 Prohibited Conduct.

No person shall feed, in any public park or on any other property owned or operated by the Borough of Lakehurst, any wildlife, excluding confined wildlife (for example, wildlife confined in zoos, parks or rehabilitation centers, or unconfined wildlife at environmental education centers).

5-11.4 Enforcement.

This ordinance shall be enforced by the police department and code enforcement officer. Any person found to be in violation of this ordinance shall be ordered to cease the feeding immediately.

5-11.5 Violations and Penalties.

Any person(s) who is found to be in violation of the provisions of this ordinance shall be subject to a fine as scheduled in the general penalties not to exceed \$ 1,250.00.

Severability.

Each section, subsection, sentence, clause and phrase of this Ordinance is declared to be an independent section, subsection, sentence, clause and phrase, and the finding or holding of any such portion of this Ordinance to be unconstitutional, void, or ineffective for any cause, or reason, shall not affect any other portion of this Ordinance.

Effective date.

This ordinance shall take effect immediately upon final passage and publication as required by law.

"Hon. Stephen F. Childers
Mayor

LEGAL NOTICE

NOTICE IS HEREBY GIVEN that an Ordinance #05-06 entitled: "AN ORDINANCE OF THE BOROUGH OF LAKEHURST AMENDING CHAPTER V OF THE REVISED GENERAL ORDINANCES OF THE BOROUGH OF LAKEHURST, COUNTY OF OCEAN, STATE OF NEW JERSEY, ENTITLED "ANIMAL CONTROL" was finally adopted after a public hearing and Council approval at a meeting of the governing body held on the seventeenth day of March, 2005.

Bernadette Dugan, RMC
Municipal Clerk

Appendix XI

Ordinance 05-07 Municipal Storm Water MS-4

**"AN ORDINANCE OF THE BOROUGH OF LAKEHURST AMENDING
CHAPTER XVI OF THE REVISED GENERAL ORDINANCES OF THE
BOROUGH OF LAKEHURST, COUNTY OF OCEAN, STATE OF NEW
JERSEY, ENTITLED SEWER AND WATER"**

05-07

16-3 MUNICIPAL STORM WATER SYSTEM MS-4

16-3.1 Purpose.

An ordinance to prohibit:

- a. the spilling, dumping, or disposal of materials other than stormwater to the municipal separate storm sewer system(s) MS4 operated by the Borough of Lakehurst or other public entity within the Borough of Lakehurst.
- b. illicit connections to the municipal separate storm sewer system(s) MS-4, operated by the Borough of Lakehurst, or other public entity, so as to protect public health, safety and welfare, and to prescribe penalties for the failure to comply.

16-3.2 Definitions.

For the purpose of this ordinance, the following terms, phrases, words, and their derivations shall have the meanings stated herein unless their use in the text of this Chapter clearly demonstrates a different meaning. When not inconsistent with the context, words used in the present tense include the future, words used in the plural number include the singular number, and words used in the singular number include the plural number.

The word "shall" is always mandatory and not merely directory.

The definitions below are the same as or based on corresponding definitions in the New Jersey Pollutant Discharge Elimination System (NJPDES) rules at N.J.A.C. 7:14A-1.2.

Domestic sewage - waste and wastewater from humans or household operations.

Illicit connection — any physical or non-physical connection that discharges domestic sewage, non-contact cooling water, process wastewater, or other industrial waste (other than stormwater) to the municipal separate storm sewer system operated by the Borough of Lakehurst, unless that discharge is authorized under a NJPDES permit other than the Tier A Municipal Stormwater General Permit (NJPDES Permit Number NJ0141852). Non-physical connections may include, but are not limited to, leaks, flows, or overflows into the municipal separate storm sewer system.

Industrial waste - non-domestic waste, including, but not limited to, those pollutants regulated under Section 307(a), (b), or (c) of the Federal Clean Water Act (33 U.S.C. §1317(a), (b), or (c)).

Municipal separate storm sewer system (MS4)— a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains) that is owned

or operated by the Borough of Lakehurst or other public body, and is designed and used for collecting and conveying stormwater. MS4s do not include combined sewer systems, which are sewer systems that are designed to carry sanitary sewage at all times and to collect and transport stormwater from streets and other sources."

NJPDES permit – a permit issued by the New Jersey Department of Environmental Protection to implement the New Jersey Pollutant Discharge Elimination System (NJPDES) rules at N.J.A.C. 7:14A

Non-contact cooling water - water used to reduce temperature for the purpose of cooling. Such waters do not come into direct contact with any raw material, intermediate product (other than heat) or finished product. Non-contact cooling water may however contain algaecides, or biocides to control fouling of equipment such as heat exchangers, and/or corrosion inhibitors.

Person — any individual, corporation, company, partnership, firm, association, or political subdivision of this State subject to municipal jurisdiction.

Process wastewater - any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product. Process wastewater includes, but is not limited to, leachate and cooling water other than non-contact cooling water.

Stormwater — water resulting from precipitation (including rain and snow) that runs off the land's surface, is transmitted to the subsurface, is captured by separate storm sewers or other sewerage or drainage facilities, or is conveyed by snow removal equipment.

16-3.3 Prohibited Conduct

- a. The spilling, dumping, or disposal of materials other than stormwater to the municipal separate storm sewer system operated by the Borough of Lakehurst or other public entity is prohibited. The spilling, dumping, or disposal of materials other than stormwater in such a manner as to cause the discharge of pollutants to the municipal separate storm sewer system is also prohibited.

- b. No person shall discharge or cause to be discharged through an illicit connection to the municipal separate storm sewer system operated by the Borough of Lakehurst any domestic sewage, non-contact cooling water, process wastewater, or other industrial waste (other than stormwater).

16-3.4 Exceptions to Prohibition 16-3.3a.

Water line flushing and discharges from potable water sources
uncontaminated ground water (e.g., infiltration, crawl space or basement sump pumps, foundation or footing drains, rising ground waters)
Air conditioning condensate (excluding contact and non-contact cooling water)
Irrigation water (including landscape and lawn watering runoff)

Flows from springs, riparian habitats and wetlands, water reservoir discharges and diverted stream flows

Residential car washing water and residential swimming pool discharges

Sidewalk, driveway and street wash water

Flows from fire fighting activities

Flows from rinsing of the following equipment with clean water:

Beach maintenance equipment immediately following their use for their intended purposes

Equipment used in the application of salt and de-icing materials immediately following salt and de-icing material applications. Prior to rinsing with clean water, all residual salt and de-icing materials must be removed from equipment and vehicles to the maximum extent practicable using dry cleaning methods (e.g., shoveling and sweeping). Recovered materials are to be returned to storage for reuse or properly discarded.

Rinsing of equipment, as noted in the above situation is limited to exterior, undercarriage, and exposed parts and does not apply to engines or other enclosed machinery.

16-3.4 Enforcement.

This ordinance shall be enforced by the police department and other municipal officials of Borough of Lakehurst.

16-3.5 Penalties.

Any person(s) who is found to be in violation of the provisions of this ordinance shall be subject to a fine not less than \$ 500.00 and not to exceed \$ 1,250.00.

Severability.

Each section, subsection, sentence, clause and phrase of this Ordinance is declared to be an independent section, subsection, sentence, clause and phrase, and the finding or holding of any such portion of this Ordinance to be unconstitutional, void, or ineffective for any cause, or reason, shall not affect any other portion of this Ordinance.

Effective date.

This ordinance shall take effect immediately upon final passage and publication as required by law.

Hon. Stephen F. Childers
Mayor

LEGAL NOTICE

NOTICE IS HEREBY GIVEN that an Ordinance #05-07 entitled: "AN ORDINANCE OF THE BOROUGH OF LAKEHURST AMENDING CHAPTER XVI OF THE REVISED GENERAL ORDINANCES OF THE BOROUGH OF LAKEHURST, COUNTY OF OCEAN, STATE OF NEW JERSEY, ENTITLED WATER AND SEWER" was finally adopted after a public hearing and Council approval at a meeting of the governing body held on the seventeenth day of March, 2005,

Bernadette Dugan, RMC
Municipal Clerk

Appendix XII
Ordinance 05-08 Litter Control

**"AN ORDINANCE OF THE BOROUGH OF LAKEHURST AMENDING
CHAPTER XVII, CREATING SECTIONS 17-3 AND 17-4 OF THE REVISED
GENERAL ORDINANCES OF THE BOROUGH OF LAKEHURST, COUNTY
OF OCEAN, STATE OF NEW JERSEY, ENTITLED SOLID WASTE
MANAGEMENT"**

05-08

17-3 LITTER CONTROL

17-3.1 Purpose.

An ordinance to establish requirements to control littering in the Borough of Lakehurst so as to protect public health, safety and welfare, and to prescribe penalties for the failure to comply.

17-3.2 Definitions.

For the purpose of this ordinance, the following terms, phrases, words and their derivations shall have the meanings stated herein unless their use in the text of this Chapter clearly demonstrates a different meaning. When not inconsistent with the context, words used in the present tense include the future, words used in the plural number include the singular number, and words used in the singular number include the plural number.

The word "shall" is always mandatory and not merely directory.

Litter - any used or unconsumed substance or waste material which has been discarded, whether made of aluminum, glass, plastic, rubber, paper, or other natural or synthetic material, or any combination thereof, including, but not limited to, any bottle, jar or can, or any top, cap or detachable tab of any bottle, jar or can, any unlighted cigarette, cigar, match or any flaming or glowing material or any garbage, trash, refuse, debris, rubbish, grass clippings or other lawn or garden waste, newspapers, magazines, glass, metal, plastic or paper containers or other packaging or construction material, but does not include the waste of the primary processes of mining or other extraction processes, logging, sawmilling, farming or manufacturing.

Litter Receptacle — a container suitable for the depositing of litter.

Person — any individual, corporation, company, partnership, firm, association, or political subdivision of this State subject to municipal jurisdiction.

Hazardous substances — shall mean for the purposes of this section the "environmental hazardous substances" on the environmental hazardous substance list adopted by the New Jersey Department of Environmental Protection pursuant to section 4 of P.L.1983, c. 315 (C.34:5A-4); such elements and compounds, including petroleum products, which are defined as such by the department, after public hearing, and which shall be consistent to the maximum extent possible with, and which shall include, the list of hazardous substances adopted by the federal Environmental Protection Agency pursuant to section 311 of the federal

Water Pollution Control Act Amendments of 1972, Pub.L.92-500, as amended by the Clean Water Act of 1977, Pub.L.95-217 (33 U.S.C.s.1251 et seq.); the list of toxic pollutants designated by Congress or the EPA pursuant to section 307 of that act; and the list of hazardous substances adopted by the federal Environmental Protection Agency pursuant to section 101 of the "Comprehensive Environmental Response, Compensation and Liability Act of 1980," Pub.L.96-510 (42 U.S.C.s.9601 et seq.). Hazardous substances shall also mean during winter months snow, ice, and such residual debris resulting from the plowing, shoveling or snow-blowing operations from a private or quasi-public property of the Borough

17-3.3 Prohibited Acts and Regulated Activities.

17-3.3a. It shall be unlawful for any person to throw, drop, discard or otherwise place any litter of any nature upon public or private property other than in a litter receptacle, or having done so, to allow such litter to remain.

17-3.3b. Whenever any litter is thrown or discarded or allowed to fall from a vehicle or boat in violation of this ordinance, the operator or owner, or both, of the motor vehicle or boat shall also be deemed to have violated this ordinance.

17-3.3c. It shall be unlawful for any person to place or allow to be placed any hazardous material upon any public road, street or alley within the Borough of Lakehurst.

17-3.4 Enforcement.

This ordinance shall be enforced by the police department and code enforcement officer of the Borough of Lakehurst.

17-3.5 Penalties.

Any person(s) who is found to be in violation of the provisions of 17-3 .3a or 17-3.3c shall be subject to a fine of not less than \$ 100.00; for a violation of 17-3.3b the person(s) shall be subject to a fine of not less than \$ 200.00.

17-4 YARD WASTE

17-4.1 Purpose.

An ordinance to establish requirements for the proper handling of yard waste and disposal in the Borough of Lakehurst, so as to protect public health, safety and welfare, and to prescribe penalties for the failure to comply.

17-4.2 Definitions.

For the purpose of this ordinance, the following terms, phrases, words and their derivations shall have the meanings stated herein unless their use in the text of this Chapter clearly demonstrates a different meaning. When not inconsistent with the context, words used in the present tense include the future, words used in the plural number include the singular number, and words used in the singular number include the plural number.

The word "shall" is always mandatory and not merely directory.

Bundle – means yard waste cut to a length not to exceed four (4) feet and securely tied in a bundle not more than two (2) feet thick.

Containerized – means the placement of yard waste in a trash can, bucket, bag or other vessel, such as to prevent the yard waste from spilling or blowing out into the street and coming into contact with stormwater.

Person – any individual, corporation, company, partnership, firm, association, or political subdivision of this State subject to municipal jurisdiction.

Street - means any street, avenue, boulevard, road, parkway, viaduct, drive, or other way, which is an existing State, county, or municipal roadway, and includes the land between the street lines, whether improved or unimproved, and may comprise pavement, shoulders, gutters, curbs, sidewalks, parking areas, and other areas within the street lines.

Yard Waste – means leaves, tree trimmings, hedge clippings and similar material.

17-4.3 Prohibited Conduct.

The owner or occupant of any property, or any employee or contractor of such owner or occupant engaged to provide lawn care or landscaping services, shall not sweep, rake, blow or otherwise place yard waste in the street. Yard waste that is containerized or bundled as appropriate, may be placed inside the curb line for collection on scheduled days as established by the municipality. If yard waste that is not containerized is placed for collection, the party responsible for placement of yard waste must remove the yard waste or said party shall be deemed in violation of this ordinance.

At no time may grass clippings be placed on the street or left for municipal collection.

17-4.4 Enforcement.

The provisions of this ordinance shall be enforced by the police department and the code enforcement officer.

17-4.5 Violations and Penalties.

Any person(s) who is found to be in violation of the provisions of this ordinance shall be subject to a fine not to exceed \$ 1,250.00,

Severability.

Each section, subsection, sentence, clause and phrase of this Ordinance is declared to be an independent section, subsection, sentence, clause and phrase, and the finding or holding of any such portion of this Ordinance to be unconstitutional, void, or ineffective for any cause, or reason, shall not affect any other portion of this Ordinance.

Effective date.

This ordinance shall take effect immediately upon final passage and publication as required by law.

Hon. Stephen F. Childers
Mayor

LEGAL NOTICE

NOTICE IS HEREBY GIVEN that an Ordinance #05-0.8 entitled: "AN ORDINANCE OF THE BOROUGH OF LAKEHURST AMENDING CHAPTER XVII CREATING SECTION 17-3 AND 17-4 OF THE REVISED GENERAL ORDINANCES OF THE BOROUGH OF LAKEHURST, COUNTY OF OCEAN, STATE OF NEW JERSEY, ENTITLED SOLD WASTE MANAGEMENT" was finally adopted after a public hearing and Council approval at a meeting of the governing body held on the seventeenth day of March, 2005.

Bernadette Dugan, RMC
Municipal Clerk

Appendix XIII

Ordinance 06-07 Stormwater Control

ORDINANCE

“AN ORDINANCE OF THE BOROUGH OF LAKEHURST AMENDING CHAPTER XXV OF THE REVISED GENERAL ORDINANCES OF THE BOROUGH OF LAKEHURST, COUNTY OF OCEAN, STATE OF NEW JERSEY, ENTITLED LAND DEVELOPMENT”

06-07

1. Section 25-15 is hereby repealed in its entirety and creates 25-16.

25-16 STORMWATER CONTROL

25-16.1 Scope and Purpose.

A. Purpose.

(1) It is hereby determined that:

- a) Land development projects and associated disturbance of vegetation and soil and changes in land cover, including increases in impervious cover, alter the hydrologic response of local watersheds and increase stormwater runoff rates and volumes. If inadequately or improperly managed, this stormwater runoff can deplete groundwater resources and increase flooding, stream channel erosion, and sediment transport and deposition.
- b) This stormwater runoff contributes to increased quantities of waterborne pollutants.
- c) Increases of stormwater runoff, soil erosion and non-point source pollutants have occurred in the past as a result of land development, and contribute to the degradation of the water resources of the Borough of Lakehurst (Borough).
- d) Certain lands of the Borough lie within the Pinelands Area, and therefore, development in this portion of the Borough is subject to the requirements of the Pinelands Protection Act (N.J.S.A. 13:18A-1 et seq.) and the implementing regulations and minimum standards contained in the Pinelands Comprehensive Management Plan (N.J.A.C. 7:50-1.1 et seq.) (CMP). The purpose and intent of these regulations and standards is to promote orderly development of the Pinelands so as to preserve and protect the significant and unique natural, ecological, agricultural, archaeological, historical, scenic, cultural and recreational resources of the Pinelands.
- e) Pinelands Area resources are to be protected in accordance with Pinelands Comprehensive Management Plan at N.J.A.C. 7:50 et seq., New Jersey's Stormwater Management Rules at N.J.A.C. 7:8-1.1 et seq. and New Jersey's surface water quality anti-degradation policies contained in the New Jersey Surface Water Quality Standards at N.J.A.C. 7:9B-1.1 et seq. Permitted uses shall maintain the ecological character and quality of the Pinelands, including good water quality and natural rates and volumes of flow.

- f) Increased stormwater rates and volumes and the sediments and pollutants associated with stormwater runoff from future development projects within the Pinelands Area have the potential to adversely affect the Borough's streams and water resources and the streams and water resources of downstream municipalities.
- g) Stormwater runoff, soil erosion and non-point source pollution can be controlled and minimized through the regulation of stormwater runoff from development sites.
- h) It is in the public interest to regulate the discharge of stormwater runoff from "major development" projects, as defined in Section VII of this ordinance, conducted within the Pinelands Area, as provided in this ordinance, in order to control and minimize increases in stormwater runoff rates and volumes, to maintain groundwater recharge, and to control and minimize soil erosion, stream channel erosion and non-point source pollution associated with stormwater runoff.

(2) Therefore, it is the purpose of this ordinance to establish minimum stormwater management requirements and controls for major development, consistent with the statewide stormwater requirements at N.J.A.C. 7:8, the regulations and standards contained in the Pinelands CMP, and the provisions of the adopted master plan and land use ordinances of the Borough.

B. Goals and Techniques.

(1) Through this ordinance, the Borough has established the following goals for stormwater control:

- a) To reduce flood damage, including damage to life and property;
- b) To minimize any increase in stormwater runoff from new development;
- c) To reduce soil erosion from any development or construction project;
- d) To assure the adequacy of existing and proposed culverts and bridges, and other in-stream structures;
- e) To maintain groundwater recharge;
- f) To minimize any increase in non-point pollution;
- g) To maintain the integrity of stream channels for their biological functions, as well as for drainage;
- h) To restore, protect, maintain and enhance the quality of the streams and water resources of the Borough and the ecological character and quality of the Pinelands Area;
- i) To minimize pollutants in stormwater runoff from new and existing development in order to restore, protect, enhance and maintain the chemical, physical and biological integrity of the surface and groundwaters of the Borough, to protect public health and to enhance the domestic, municipal, recreational, industrial and other uses of water; and
- j) To protect public safety through the proper design and operation of stormwater management basins.

(2) In order to achieve the goals for stormwater control set forth in this ordinance, the Borough has identified the following management techniques:

- a) Implementation of multiple stormwater management Best Management Practices (BMPs) may be necessary to achieve the performance standards for stormwater runoff quantity and rate, groundwater recharge, erosion control, and stormwater runoff quality established through this ordinance.
- b) Compliance with the stormwater runoff quantity and rate, groundwater recharge, erosion control, and stormwater runoff quality standards established through N.J.A.C. 7:8-1.1 et seq., and this ordinance, shall be accomplished to the maximum extent practicable through the use of nonstructural BMPs, before relying on structural BMPs. Nonstructural BMPs are also known as Low Impact Development (LID) techniques.
- c) Nonstructural BMPs shall include both environmentally sensitive site design and source controls that prevent pollutants from being placed on the site or from being exposed to stormwater.
- d) Source control plans shall be developed based upon physical site conditions and the origin, nature and the anticipated quantity or amount of potential pollutants.
- e) Structural BMPs, where necessary shall be integrated with nonstructural stormwater management strategies and proper maintenance plans.
- f) When using structural BMPs, multiple stormwater management measures, smaller in size and distributed spatially throughout the land development site, shall be used wherever possible to achieve the performance standards for water quality, quantity and groundwater recharge established through this ordinance before relying on a single, larger stormwater management measure to achieve these performance standards.

C. Applicability.

This ordinance shall apply to:

- a) All site plans and subdivisions for major developments occurring within the Pinelands Area that require preliminary or final site plan or subdivision review; and
- b) All major development projects undertaken by the Borough shall comply with this ordinance.

D. Procedures. In addition to other development review procedures set forth in the Code of Borough, major developments located within the Pinelands Area shall comply with the stormwater management requirements and specifications set forth in this ordinance. New agricultural development that meets the definition of major development in Section VII of this ordinance shall be submitted to the appropriate Soil Conservation District for review and approval in accordance with the requirements of N.J.A.C. 5.4(b) 7:8.

E. Compatibility with Other Permit and Ordinance Requirements.

(1) Development approvals issued for subdivisions and site plans pursuant to this ordinance are to be considered an integral part of development approvals under the subdivision and site plan review process and do not relieve the applicant of the responsibility to secure required

permits or approvals for activities regulated by any other applicable ordinance, code, rule, regulation, statute, act or other provision of law.

(2) In their interpretation and application, the provisions of this ordinance shall be held to be the minimum requirements for the promotion of the public health, safety, and general welfare. This ordinance is not intended to interfere with, abrogate, or annul any other ordinances, rule or regulation, statute, or other provision of law except that, where any provision of this ordinance imposes restrictions different from those imposed by any other ordinance, rule or regulation, or other provision of law, the more restrictive or stringent provisions or higher standards shall control.

(3) In the event that a regional stormwater management plan(s) is prepared and formally adopted pursuant to N.J.A.C. 7:8-1.1 et seq. for any drainage area(s) or watershed(s) of which the Borough is a part, the stormwater provisions of such a plan(s) shall be adopted by the Borough within one year of the adoption of a Regional Stormwater Management Plan (RSWMP) as an amendment to an Areawide Water Quality Management Plan. Local ordinances proposed to implement the RSWMP shall be submitted to the Commission for certification within six months of the adoption of the RSWMP per N.J.A.C. 7:8 and the Pinelands CMP (N.J.A.C. 7:50.)

25-16.2 Requirements for a Site Development Stormwater Plan.

A. Submission of Site Development Stormwater Plan.

(1) Whenever an applicant seeks municipal approval of a site development that is subject to this ordinance, the applicant shall submit all of the required components of the Checklist for the Site Development Stormwater Plan at Section II.C below as part of the applicant's application for subdivision or site plan approval. These required components are in addition to any other information required under any provisions of the Borough's land use ordinance or by the Pinelands Commission pursuant to N.J.A.C. 7:50-1.1 et seq.

(2) The applicant shall demonstrate that the site development project meets the standards set forth in this ordinance.

(3) The applicant shall submit three (3) copies of the materials listed in the checklist for site development stormwater plans in accordance with Section III.C of this ordinance.

B. Site Development Stormwater Plan Approval.

(1) The applicant's site development stormwater plan shall be reviewed as a part of the subdivision or site plan review process by the municipal board or official from which municipal approval is sought. That municipal board or official shall consult the engineer retained by the Land Use Board to determine if all of the checklist requirements have been satisfied and to determine if the project meets the standards set forth in this ordinance.

C. Checklist Requirements. Any application for approval of a major development shall include at least the following information. All required engineering plans shall be submitted to the Borough and the Pinelands Commission in CAD Format 15 or higher, registered and rectified to NJ State Plane Feet NAD 83 or Shape Format NJ State Plane Feet NAD 83, and all other documents shall be submitted in both paper and commonly used electronic file formats

such as pdf., word processing, database or spreadsheet files. Three (3) copies of each item shall be submitted.

(1) Topographic Base Map. The applicant shall submit a topographic base map of the site which extends a minimum of three hundred (300) feet beyond the limits of the proposed development, at a scale of one (1) inch = two hundred (200) feet or greater, showing one (1) foot contour intervals. The map shall indicate the following: existing surface water drainage, shorelines, steep slopes, soils, highly erodible soils, perennial or intermittent streams that drain into or upstream of any Category One or Pinelands Waters, wetlands and floodplains along with their appropriate buffer strips, marshlands and other wetlands, pervious or vegetative surfaces, existing surface and subsurface human-made structures, roads, bearing and distances of property lines, and significant natural and manmade features not otherwise shown. The Borough or the Pinelands Commission may require upstream tributary drainage system information as necessary.

(2) Environmental Site Analysis. The applicant shall submit a written description along with the drawings of the natural and human-made features of the site and its environs. This description should include:

- a) A discussion of environmentally critical areas, soil conditions, slopes, wetlands, waterways and vegetation on the site. Particular attention should be given to unique, unusual or environmentally sensitive features and to those that provide particular opportunities for or constraints on development; and
- b) Detailed soil and other environmental conditions on the portion of the site proposed for installation of any stormwater BMPs, including, at a minimum: soils report based on onsite soil tests; locations and spot elevations in plan view of test pits and permeability tests; permeability test data and calculations; and any other required soil data (e.g., mounding analyses results) correlated with location and elevation of each test site; cross-section of proposed stormwater BMP with side-by-side depiction of soil profile drawn to scale and seasonal high water table elevation identified; and any other information necessary to demonstrate the suitability of the specific proposed structural and nonstructural stormwater management measures relative to the environmental conditions on the portion(s) of the site proposed for implementation of those measures.

(3) Project description and site plan(s). The applicant shall submit a map (or maps) at the scale of the topographical base map indicating the location of existing and proposed buildings, roads, parking areas, utilities, structural facilities for stormwater management and sediment control, and other permanent structures. The map(s) shall also clearly show areas where alterations will occur in the natural terrain and cover, including lawns and other landscaping, and seasonal high groundwater elevations. A written description of the site plan and justification for proposed changes in natural conditions shall also be provided.

(4) Land Use Planning and Source Control Plan.

- a) The applicant shall submit a detailed Land Use Planning and Source Control Plan which provides a description of how the site will be developed to meet the erosion control, groundwater recharge and stormwater runoff quantity and quality standards at Section IV through use of nonstructural or low impact development techniques and

source controls to the maximum extent practicable before relying on structural BMPs. The Land Use Planning and Source Control Plan shall include a detailed narrative and associated illustrative maps and/or plans that specifically address how each of the following nine (9) nonstructural strategies identified in Subchapter 5 of the NJDEP Stormwater Management Rules (N.J.A.C. 7:8-5) and set forth below (4.a. i. through ix.) will be implemented to the maximum extent practicable to meet the standards at Section IV of this ordinance on the site. If one or more of the nine (9) nonstructural strategies will not be implemented on the site, the applicant shall provide a detailed rationale establishing a basis for the contention that use of the strategy is not practicable on the site.

- i. Protect areas that provide water quality benefits or areas particularly susceptible to erosion and sediment loss;
- ii. Minimize impervious surfaces and break up or disconnect the flow of runoff over impervious surfaces;
- iii. Maximize the protection of natural drainage features and vegetation;
- iv. Minimize the decrease in the pre-development “time of concentration”;
- v. Minimize land disturbance including clearing and grading;
- vi. Minimize soil compaction and all other soil disturbance;
- vii. Provide low-maintenance landscaping that provides for the retention and planting of native plants and minimizes the use of lawns, fertilizers and pesticides, in accordance with N.J.A.C. 7:50-6.24 ;
- viii. Provide vegetated open-channel conveyance systems discharging into and through stable vegetated areas; and
- ix. Provide other source controls to prevent or minimize the use or exposure of pollutants at the site in order to prevent or minimize the release of those pollutants into stormwater runoff. These source controls shall include, but are not limited to:
 - (1) Site design features that help to prevent accumulation of trash and debris in drainage systems;
 - (2) Site design features that help to prevent discharge of trash and debris from drainage systems;
 - (3) Site design features that help to prevent and/or contain spills or other harmful accumulations of pollutants at industrial or commercial developments; and
 - (4) Applying fertilizer in accordance with the requirements established under the Soil Erosion and Sediment Control Act, N.J.S.A. 4:24-39 et seq., and implementing rules, when establishing vegetation after land disturbance.

b) For sites where stormwater will be generated from “high pollutant loading areas” or where stormwater will be exposed to “source material,” as defined in Section VII of this

ordinance, the applicant shall also demonstrate in the Land Use Planning and Source Control Plan that the requirements of Section IV have been met.

c) The use of nonstructural strategies to meet the performance standards in Section IV of this ordinance is not required for development sites creating less than one (1) acre of disturbance. However, each application for major development and any other application where the Borough otherwise requires a landscaping plan shall contain a landscaping or re-vegetation plan in accordance with the CMP standards at N.J.A.C. 7:50-6.24(c). In addition, the applicant shall demonstrate that, at a minimum, existing trees and vegetation on the development site will be preserved and protected according to the minimum standards established by provisions of the Borough's Land Use Ordinance, Zoning Ordinance or by conditions of zoning or variance approval.

(5) Stormwater Management Facilities Map. The applicant shall submit a map, at the same scale as the topographic base map, depicting the following information:

a) The total area to be disturbed, paved and/or built upon, proposed surface contours, land area to be occupied by the stormwater management facilities and the type of vegetation thereon, and details of the proposed plan to manage and dispose of stormwater; and

b) Details of all stormwater management facility designs, during and after construction, including discharge provisions, discharge capacity for each outlet at different levels of detention (if applicable) and emergency spillway provisions with maximum discharge capacity of each spillway.

(6) Calculations (groundwater recharge and stormwater runoff rate, volume and quality). The applicant shall submit comprehensive hydrologic and hydraulic design calculations for the pre-development and post-development conditions for the design storms specified in Section III. The standards for groundwater recharge and stormwater runoff rate, volume and quality required by Section IV shall be met using the methods, calculations and assumptions provided in Section III.

(7) Inspection, Maintenance and Repair Plan. The applicant shall submit a detailed plan describing how the proposed stormwater management measure(s) shall meet the maintenance and repair requirements of Section VI of this ordinance. Said plan shall include, at a minimum, the following elements:

a) The frequency with which inspections will be made;

b) The specific maintenance tasks and requirements for each proposed structural and nonstructural BMP;

c) The name, address and telephone number for the entity responsible for implementation of the maintenance plan;

d) The reporting requirements; and

e) Copies of the inspection and maintenance reporting sheets.

(8) Exception from submission requirements. An exception may be granted from submission of any of these required components (except 7. above, Inspection, Maintenance, and Repair Plan) if its absence will not materially affect the review process. However, items required pursuant to the application requirements in the Pinelands CMP (N.J.A.C. 7:50-4.2(b)) and municipal code 25-27 et seq shall be submitted to the NJ Pinelands Commission unless the Executive Director waives or modifies the application requirements.

25-16.3 Methodologies for the Calculation of Stormwater Runoff Rate and Volume, Stormwater Runoff Quality, and Groundwater Recharge.

A. Method of Calculating Stormwater Runoff Rate and Volume.

(1) In complying with the Stormwater Runoff Quantity and Rate Standards in Section IV.B, the design engineer shall calculate the stormwater runoff rate and volume using the USDA Natural Resources Conservation Service (NRCS) Runoff Equation, Runoff Curve Numbers, and Dimensionless Unit Hydrograph, as described in the NRCS National Engineering Handbook Part 630 – Hydrology and Technical Release 55 – Urban Hydrology for Small Watersheds as amended and supplemented. Alternative methods of calculation may be utilized, provided such alternative methods are at least as protective as the NRCS methodology when considered on a regional stormwater management basis.

(2) In calculating stormwater runoff using the NRCS methodology, the design engineer shall separately calculate and then combine the runoff volumes from pervious and directly connected impervious surfaces within each drainage area within the parcel.

(3) Calculation of stormwater runoff from unconnected impervious surfaces shall be based, as applicable, upon the Two-Step method described in the current New Jersey Stormwater Best Management Practices Manual or the NRCS methodology.

(4) In calculating stormwater runoff using the NRCS methodology, the design engineer shall use appropriate 24-hour rainfall depths as developed for the project site by the National Oceanic and Atmospheric Administration, available online at <http://hdsc.nws.noaa.gov/hdsc/pfds/index.html>.

(5) When calculating stormwater runoff for pre-developed site conditions, the design engineer shall use the following criteria:

a) When selecting or calculating Runoff Curve Numbers (CNs) for pre-developed project site conditions, the project site's land cover shall be assumed to be woods in good condition. However, another land cover may be used to calculate runoff coefficients if:

- i. Such land cover has existed at the site or portion thereof without interruption for at least five (5) years immediately prior to the time of application; and
- ii. The design engineer can document the character and extent of such land cover through the use of photographs, affidavits, and/or other acceptable land use records.

b) If more than one land cover has existed on the site during the five (5) years immediately prior to the time of application, the land cover with the lowest runoff potential shall be used for the computations.

- c) All pre-developed land covers shall be assumed to be in good hydrologic condition and, if cultivated, shall be assumed to have conservation treatment.
- d) In calculating pre-developed site stormwater runoff, the design engineer shall include the effects of all land features and structures, such as ponds, wetlands, depressions, hedgerows, and culverts, that affect pre-developed site stormwater runoff rates and/or volumes.
- e) Where tailwater will affect the hydraulic performance of a stormwater management measure, the design engineer shall include such effects in the measure's design.

B. Method of Calculating Stormwater Runoff Quality.

(1) In complying with the Stormwater Runoff Quality Standards in Section IV.F.1, the design engineer shall calculate the stormwater runoff rate and volume using the USDA Natural Resources Conservation Service (NRCS) Runoff Equation, Runoff Curve Numbers, and Dimensionless Unit Hydrograph, as described in the NRCS National Engineering Handbook Part 630 – Hydrology and Technical Release 55 – Urban Hydrology for Small Watersheds, as amended and supplemented.

(2) The design engineer shall also use the NJDEP Water Quality Design Storm, which is one and one-quarter (1.25) inches of rainfall falling in a nonlinear pattern in two (2) hours. Details of the Water Quality Design Storm are shown in Table 1.

(3) Calculation of runoff volumes, peak rates, and hydrographs for the Water Quality Design Storm may take into account the implementation of nonstructural and structural stormwater management measures.

Table 1: Water Quality Design Storm Distribution¹			
Time (minutes)	Cumulative Rainfall (inches)	Time (minutes)	Cumulative Rainfall (inches)
0	0.0000	65	0.8917
5	0.0083	70	0.9917
10	0.0166	75	1.0500
15	0.0250	80	1.0840
20	0.0500	85	1.1170
25	0.0750	90	1.1500
30	0.1000	95	1.1750
35	0.1330	100	1.2000
40	0.1660	105	1.2250
45	0.2000	110	1.2334
50	0.2583	115	1.2417

¹ Source: N.J.A.C. 7:8-5.5(a).

Table 1: Water Quality Design Storm Distribution¹			
55	0.3583	120	1.2500
60	0.6250		

(4) Total Suspended Solids (TSS) reduction calculations.

a) If more than one stormwater BMP in series is necessary to achieve the required eighty percent (80%) TSS reduction for a site, the applicant shall utilize the following formula to calculate TSS reduction:

$$R = A + B - (A \times B) / 100, \text{ where:}$$

R = total TSS percent load removal from application of both BMPs;
A = the TSS percent removal rate applicable to the first BMP; and
B = the TSS percent removal rate applicable to the second BMP.

b) If there is more than one onsite drainage area, the eighty percent (80%) TSS removal rate shall apply to each drainage area, unless the runoff from the subareas converge on site, in which case the removal rate can be demonstrated through a calculation using a weighted average.

(5) TSS removal rates for stormwater BMPs.

a) For purposes of TSS reduction calculations, Table 2 presents the presumed removal rates for certain BMPs designed in accordance with the New Jersey BMP Manual. The BMP Manual may be obtained from the address identified in Section XII.A or found on the NJDEP's website at www.njstormwater.org. TSS reduction shall be calculated based on the removal rates for the BMPs in Table 2

b) Alternative stormwater management measures, removal rates and methods of calculating removal rates may be used if the design engineer provides documentation demonstrating the capability of these alternative rates and methods to the Borough. Any alternative stormwater management measure, removal rate or method of calculating the removal rate shall be subject to approval by the Borough and a copy shall be provided to the following:

i. The Division of Watershed Management, New Jersey Department of Environmental Protection, PO Box 418 Trenton, NJ, 08625-0418; and

ii. The New Jersey Pinelands Commission, PO Box 7, New Lisbon, NJ, 08064.

Table 2: Pollutant Removal Rates for BMPs²			
Best Management Practice	TSS Percent Removal Rate	Total Phosphorus Percent Removal Rate	Total Nitrogen Percent Removal Rate
Bioretention Systems	90	60	30

² Source: 7:8-5.5(c) and New Jersey BMP Manual Chapter 4.

Constructed Stormwater Wetland	90	50	30
Extended Detention Basin	40-60 (final rate based upon detention time; see New Jersey BMP Manual, Chap. 9)	20	20
Infiltration basin	80	60	50
Manufactured Treatment Device	Pollutant removal rates as certified by NJDEP; see Section III.	Pollutant removal rates as certified by NJDEP; see Section III.	Pollutant removal rates as certified by NJDEP; see Section III.
Pervious Paving Systems	80 (porous paving)	60	50
	80 (permeable pavers with storage bed)		
	0 - volume reduction only (permeable pavers without storage bed)	0 - volume reduction only (permeable pavers without storage bed)	0 - volume reduction only (permeable pavers without storage bed)
Sand Filter	80	50	35
Vegetative Filter Strip (For filter strips with multiple vegetated covers, the final TSS removal rate should be based upon a weighted average of the adopted rates shown in Table 2, based upon the relative flow lengths through each cover type.)	60 (turf grass)	30	30
	70 (native grasses, meadow and planted woods)		
	80 (indigenous woods)		
Wet Pond / Retention Basin	50-90 (final rate based upon pool volume and detention time; see NJ BMP Manual)	50	30

(6) Nutrient removal rates for stormwater BMPs. For purposes of post-development nutrient load reduction calculations, Table 2 presents the presumed removal rates for certain BMPs designed in accordance with the New Jersey BMP Manual. If alternative stormwater BMPs are proposed, the applicant shall demonstrate that the selected BMPs will achieve the nutrient removal standard required in Section IV.F.

C. Methods of Calculating Groundwater Recharge.

(1) In complying with the groundwater recharge requirements in Section IV.C.1.a, the design engineer may calculate groundwater recharge in accordance with the New Jersey Groundwater Recharge Spreadsheet (NJGRS) computer program incorporated herein by

reference as amended and supplemented. Information regarding the methodology is available in Section XI.A or from the New Jersey BMP Manual.

(2) Alternative groundwater recharge calculation methods to meet these requirements may be used upon approval by the municipal engineer.

(3) In complying with the groundwater recharge requirements in Section IV.C.1.b, the design engineer shall:

- a) Calculate stormwater runoff volumes in accordance with the USDA Natural Resources Conservation Service (NRCS) methodology, including the NRCS Runoff Equation and Runoff Curve Numbers, as described in the NRCS National Engineering Handbook Part 630 – Hydrology and Technical Release 55 – Urban Hydrology for Small Watersheds as amended and supplemented; and
- b) Use appropriate 2-year, 24-hour rainfall depths as developed for the project site by the National Oceanic and Atmospheric Administration, available online at <http://hdsc.nws.noaa.gov/hdsc/pfds/index.html>.

(4) When calculating groundwater recharge or stormwater runoff for pre-developed site conditions, the design engineer shall use the following criteria:

- a) When selecting land covers or calculating Runoff Curve Numbers (CNS) for pre-developed project site conditions, the project site's land cover shall be assumed to be woods. However, another land cover may be used to calculate runoff coefficients if:
 - i. Such land cover has existed at the site or portion thereof without interruption for at least five (5) years immediately prior to the time of application; and
 - ii. The design engineer can document the character and extent of such land cover through the use of photographs, affidavits, and/or other acceptable land use records.
- b) If more than one land cover, other than woods, has existed on the site during the five (5) years immediately prior to the time of application, the land cover with the lowest runoff potential (including woods) shall be used for the computations.
- c) All pre-developed land covers shall be assumed to be in good hydrologic condition and, if cultivated, shall be assumed to have conservation treatment.

25-16.4 Stormwater Management Performance Standards for Major Development.

A. Nonstructural Stormwater Management Strategies.

(1) To the maximum extent practicable, the performance standards in Section IV for major development shall be met by incorporating the nine (9) nonstructural strategies identified in Subchapter 5 of the NJ Stormwater Management Rules (N.J.A.C. 7:8-5), and set forth in Section II.C.4.a, into the design. The applicant shall identify within the Land Use Planning and Source Control Plan required by Section II.C.4 of this ordinance how each of the nine (9) nonstructural measures will be incorporated into the design of the project to the maximum extent practicable.

(2) If the applicant contends that it is not practical for engineering, environmental or safety reasons to incorporate any of the nine (9) nonstructural strategies into the design of a

particular project, the applicant shall provide a detailed rationale establishing a basis for the contention that use of the strategy is not practical on the site. This rationale shall be submitted in accordance with the Checklist Requirements established by Section II to the Borough. A determination by the Borough that this rationale is inadequate or without merit shall result in a denial of the application unless one of the following conditions are met:

- a) The Land Use Planning and Source Control Plan is amended to include a description of how all nine (9) nonstructural measures will be implemented on the development site, and the amended Plan is approved by the Borough;
- b) The Land Use Planning and Source Control Plan is amended to provide an alternative nonstructural strategy or measure that is not included in the list of nine (9) nonstructural measures, but still meets the performance standards in Section IV, and the amended Plan is approved by the Borough; or
- c) The Land Use Planning and Source Control Plan is amended to provide an adequate rationale for the contention that use of the particular strategy is not practical on the site, and the amended Plan is approved by the Borough.

(3) In addition to all other requirements of this section, each applicant shall demonstrate that, at a minimum, existing trees and vegetation on the development site will be preserved, protected and maintained according to the minimum standards established by provisions of the Borough's Land Use Ordinance, Zoning Ordinance or by conditions of zoning or variance approval. Existing trees and vegetation shall be protected during construction activities in accordance with the "Standard for Tree Protection During Construction" provided in the NJ State Soil Conservation Committee Standards for Soil Erosion and Sediment Control in New Jersey, which is incorporated herein by reference as amended and supplemented.

(4) In addition to all other requirements of this section, each application for major development, and any other application where the Borough otherwise requires a landscaping plan, shall contain a landscaping or re-vegetation plan in accordance with the Pinelands CMP standards at N.J.A.C. 7:50-6.24(c).

(5) Any land area used as a nonstructural stormwater management measure to meet the performance standards in Section IV shall be dedicated to a government entity; shall be subjected to a conservation easement filed with the appropriate County Clerk's office; or shall be subjected to an equivalent form of restriction approved by the Borough that ensures that that measure, or equivalent stormwater management measure is maintained in perpetuity, as detailed in Section VI of this ordinance.

(6) Guidance for nonstructural stormwater management strategies is available in the New Jersey BMP Manual, which may be obtained from the address identified in Section XII.A or found on the NJDEP's website at www.njstormwater.org.

(7) Exception for major development sites creating less than one (1) acre of disturbance. The use of nonstructural strategies to meet the performance standards in Section IV of this ordinance is not required for major development creating less than one (1) acre of disturbance. However, the following requirements shall be met:

- a) Each application for major development and any other application where the Borough otherwise requires a landscaping plan shall contain a landscaping or re-vegetation plan prepared in accordance with the Pinelands CMP standards (N.J.A.C. 7:50-6.24(c));
- b) Each applicant shall demonstrate that, at a minimum, existing trees and vegetation on the development site will be preserved and protected according to the minimum standards established by provisions of the Borough's Land Use Ordinance, Zoning Ordinance or by conditions of zoning or variance approval; and
- c) Existing trees and vegetation shall be protected during construction activities in accordance with the "Standard for Tree Protection During Construction" provided in the NJ State Soil Conservation Committee Standards for Soil Erosion and Sediment Control in New Jersey, which is incorporated herein by reference as amended and supplemented.

B. Stormwater Runoff Quantity and Rate Standards.

(1) There shall be no direct discharge of stormwater runoff from any point or non-point source to any wetland, wetlands transition area or surface waterbody. In addition, stormwater runoff shall not be directed in such a way as to increase the volume and/or rate of discharge into any surface water body from that which existed prior to development of the site.

(2) To the maximum extent practical, there shall be no direct discharge of stormwater runoff onto farm fields so as to protect farm crops from damage due to flooding, erosion and long-term saturation of cultivated crops and cropland.

(3) For all major developments, the total runoff volume generated from the net increase in impervious surfaces by a ten (10) year, twenty-four (24) hour storm shall be retained and infiltrated onsite.

(4) In addition, the design engineer, using the assumptions and factors for stormwater runoff and groundwater recharge calculations contained in Section III, shall either:

- a) Demonstrate through hydrologic and hydraulic analysis that the post-developed stormwater runoff hydrographs from the project site for the 2, 10, and 100-Year storms do not exceed, at any point in time, the site's pre-developed runoff hydrographs for the same storms;
- b) Demonstrate through hydrologic and hydraulic analysis that under post-developed site conditions:
 - i. There is no increase in pre-developed stormwater runoff rates from the project site for the two (2), ten (10), and one hundred (100)-year storms; and
 - ii. Any increased stormwater runoff volume or change in stormwater runoff timing for the two (2), ten (10), and one hundred (100)-year storms will *not increase flood damage at or downstream of the project site. When performing this analysis for pre-developed site conditions, all off-site development levels shall reflect existing conditions. When performing this analysis for post-developed site conditions, all off-site development levels shall reflect full development in accordance with current zoning and land use ordinances; or

c) Demonstrate that the peak post-developed stormwater runoff rates from the project site for the two (2), ten (10) and one hundred (100) year storms are fifty, seventy-five and eighty percent (50%, 75% and 80%), respectively, of the site's peak pre-developed stormwater runoff rates for the same storms. Peak outflow rates from onsite stormwater measures for these storms shall be adjusted where necessary to account for the discharge of increased stormwater runoff rates and/or volumes from project site areas not controlled by the onsite measures. These percentages do not have to be applied to those portions of the project site that are not proposed for development at the time of application, provided that such areas are:

- i. Protected from future development by imposition of a conservation easement, deed restriction, or other acceptable legal measures; or
- ii. Would be subject to review under these standards if they are proposed for any degree of development in the future.

(5) In tidal flood hazard areas, a stormwater runoff quantity analysis in accordance with a, b, and c above shall only be applied if the increased volume of stormwater runoff could increase flood damages below the point of discharge.

(6) The standards for stormwater runoff quantity and rate required by this section shall be met using the methods, calculations and assumptions provided in Section III.

C. Groundwater Recharge Standards.

(1) For all major developments, with the exception of those described in Section IV.C.4, below, the design engineer, using the assumptions and factors for stormwater runoff and groundwater recharge calculations contained in Section III, shall either:

- a) Demonstrate through hydrologic and hydraulic analysis that the post-developed project site maintains 100 percent of the site's pre-developed average annual groundwater recharge volume; or
- b) Demonstrate through hydrologic and hydraulic analysis that any increase in the project site's stormwater runoff volume for the two (2) year, twenty four (24) hour storm from pre-developed to post-developed conditions is infiltrated on-site.

(2) The design engineer shall assess the hydraulic impact on the groundwater table and design the project site and all site groundwater recharge measures so as to avoid adverse hydraulic impacts. Adverse hydraulic impacts include, but are not limited to: raising the groundwater table so as to cause surface ponding; flooding of basements and other subsurface structures and areas; preventing a stormwater infiltration basin from completely draining via infiltration within seventy-two (72) hours of a design storm event; and interference with the proper operation of subsurface sewage disposal systems and other surface and subsurface facilities in the vicinity of the groundwater recharge measure.

(3) The standards for groundwater recharge required by this section shall be met using the methods, calculations and assumptions provided in Section III.

D. Erosion Control Standards. The minimum design and performance standards for erosion control are those established under the Soil Erosion and Sediment Control Act, N.J.S.A. 4:24-39 et seq., and its implementing regulations, N.J.A.C 2:90-1.1 through 1.4.

E. Stormwater Runoff Quality Standards.

(1) There shall be no direct discharge of stormwater runoff from any point or non-point source to any wetland, wetlands transition area or surface waterbody.

(2) Stormwater management measures shall be designed to reduce the total suspended solids (TSS) load in the stormwater runoff from the post-developed site by eighty percent (80%) expressed as an annual average.

(3) Stormwater management measures shall also be designed to reduce the nutrient load in the stormwater runoff from the post-developed site by the maximum extent practicable. In achieving this reduction, the design of the development site shall include nonstructural and structural stormwater management measures that optimize nutrient removal while still achieving the groundwater recharge, runoff quantity and rate, and TSS removal standards in this section.

(4) The standards for stormwater runoff quality required by this section shall be met using the methods, calculations, assumptions and pollutant removal rates provided in Section III.

(5) Exceptions.

a) The preceding stormwater runoff quality standards shall not apply to the following major development sites:

i. Major development sites where less than one quarter (0.25) acre of additional impervious surface is proposed; or

ii. Major residential development sites that create less than one (1) acre of disturbance.

b) The TSS reduction requirement in Section IV.F.2 shall not apply to any stormwater runoff in a discharge regulated under a numeric effluent limitation for TSS imposed under the NJPDES rules (N.J.A.C. 7:14A) or in a discharge specifically exempt under a NJPDES permit from this requirement.

c) The stormwater runoff quantity and rate standards in Section IV.B shall still be met for all major development sites.

F. Additional stormwater quality standards for high pollutant loading areas and areas where stormwater runoff is exposed to source material.

(1) This subsection applies to the following areas of a major development as defined in Section VII of this ordinance:

a) High pollutant loading areas (HPLAs); and

b) Areas where stormwater is exposed to "source material."

(2) For a major development in areas described in 1.a or 1.b above, in addition to the infiltration requirements specified in Section IV.B.2 and the groundwater recharge requirements specified in Section IV.C, the applicant shall demonstrate in the Land Use Planning and Source Control Plan required in Section II.C.4 that the following requirements have been met:

- a) The extent of the areas described in 1.a. and 1.b. above have been minimized on the development site to the maximum extent practicable;
- b) The stormwater runoff from the areas described in 1.a and 1.b above is segregated to the maximum extent practicable from the stormwater runoff generated from the remainder of the site such that co-mingling of the stormwater runoff from the areas described in 1.a and 1.b above and the remainder of the site will be minimized;
- c) The amount of precipitation falling directly on the areas described in 1.a and 1.b above is minimized to the maximum extent practicable by means of a canopy, roof or other similar structure that reduces the generation of stormwater runoff; and
- d) The stormwater runoff from or co-mingled with the areas described in 1.a and 1.b above for the Water Quality Design Storm, defined in Section III.B.Table 1 shall be subject to pretreatment by one or more of the following stormwater BMPs, designed in accordance with the New Jersey BMP Manual to provide 90 % TSS removal:
 - i. Bioretention system;
 - ii. Sand filter;
 - iii. Wet pond which shall be hydraulically disconnected by a minimum of 2 feet of vertical separation from the seasonal high water table and shall be designed to achieve a minimum 80% TSS removal rate;
 - iv. Constructed stormwater wetlands; and/or
 - v. Media filtration system manufactured treatment device with a minimum 80% TSS removal as verified by the New Jersey Corporation for Advanced Technology and as certified by NJDEP.
- e) If the potential for contamination of stormwater runoff by petroleum products exists onsite, prior to being conveyed to the pretreatment BMP required in Section IV.D.2.d above, the stormwater runoff from the areas described in 1.a and 1.b above shall be conveyed through an oil/grease separator or other equivalent manufactured filtering device to remove the petroleum hydrocarbons. The applicant shall provide the reviewing agency with sufficient data to demonstrate acceptable performance of the device.

G. Threatened and Endangered Species and Associated Habitat Standards. Stormwater management measures shall address the impacts of the development on habitat for threatened and endangered species, in accordance with N.J.A.C. 7:8-5.2(c), N.J.A.C. 7:50-6.27, and 7:50-6.33 and 34.

H. Exceptions and Mitigation Requirements.

(1) Exceptions from strict compliance from the groundwater recharge, stormwater runoff quantity, and stormwater runoff quality requirements established by this ordinance may be granted, at the discretion of the Borough, and subject to approval by the Pinelands Commission, provided that all of the following conditions are met:

- a) The exception is consistent with that allowed by the Borough;
- b) The Borough has an adopted and effective municipal stormwater management plan in accordance with N.J.A.C. 7:8-4.4, which includes a mitigation plan in accordance

with N.J.A.C. 7:8-4.2(c)11, and is also certified by the Pinelands Commission. The mitigation plan shall identify what measures are necessary to offset the deficit created by granting the exception and the municipality shall submit a written report to the county review agency and the NJDEP describing the exception and the required mitigation. Guidance for developing municipal stormwater management plans, including mitigation plans, is available from the NJDEP, Division of Watershed Management and the New Jersey BMP Manual.

- c) The applicant demonstrates that mitigation, in addition to the requirements of mitigation plan discussed in b) above, will be provided consistent with one of the following options:
 - i. Mitigation may be provided off-site, but within the Pinelands Area and within the same drainage area as the development site, and shall meet or exceed the equivalent recharge, quality or quantity performance standard which is lacking on the development site due to the exception; or
 - ii. In lieu of the required mitigation, a monetary "in lieu contribution" may be provided by the applicant to the Borough in accordance with the following:
 - (a) The amount of the in lieu contribution shall be determined by the Borough, but the maximum in lieu contribution required shall be equivalent to the cost of implementing and maintaining the stormwater management measure(s) for which the exception is granted;
 - (b) The in lieu contribution shall be used to fund an off-site stormwater control mitigation project(s) located within the Pinelands Area, within the same drainage area as the development site, and shall meet or exceed the equivalent recharge, quality or quantity performance standards which is lacking on the development site. Such mitigation project shall be identified by the Borough in the Borough's adopted municipal stormwater management plan. The stormwater control project to which the monetary contribution will be applied shall be identified by the Borough at the time the exception is granted. The applicant shall amend the project description and site plan required in Section II.C.3 to incorporate a description of both the standards for which an on-site exception is being granted and of the selected off-site mitigation project.
 - (c) The Borough shall expend the in lieu contribution to implement the selected off-site mitigation project within five (5) years from the date that payment is received. Should the Borough fail to expend the in lieu contribution within the required timeframe, the mitigation option provided in Section IV.H.1.c.iii of this ordinance shall be void and the Borough shall be prohibited from collecting in lieu contributions.
- (2) An exception from strict compliance granted in accordance with H.1. above shall not constitute a waiver of strict compliance from the requirements of the Pinelands Comprehensive Management Plan at N.J.A.C. 7:50. An applicant should contact the Pinelands Commission to determine whether a waiver of strict compliance is also required in accordance with N.J.A.C. 7:50, Subchapter 4, Part V.

25-16.5 Design, Construction, and Safety Standards for Structural Stormwater Management Measures

A. General Design and Construction Standards

(1) Structural stormwater management measures shall be designed to meet the standards established in this section. These standards have been developed to protect public safety, conserve natural features, create an aesthetically pleasing site and promote proper onsite stormwater management.

(2) The following structural stormwater management measures may be utilized as part of a stormwater management system at a major land development in the Pinelands, provided that the applicant demonstrates that they are designed, constructed and maintained so as to meet the standards and requirements established by this ordinance. If alternative stormwater management measures are proposed, the applicant shall demonstrate that the selected measures will achieve the standards established by this ordinance.

- a) Bioretention systems;
- b) Constructed stormwater wetlands;
- c) Extended detention basins;
- d) Infiltration basins;
- e) Vegetated filter strips;
- f) Infiltration basins and trenches;
- g) Wet ponds with suitable liners;
- h) Pervious paving systems; and
- i) Manufactured treatment devices, provided their pollutant removal rates are verified by the New Jersey Corporation for Advanced Technology and certified by the NJDEP.

(3) Structural stormwater management measures shall be designed to take into account the existing site conditions, including environmentally critical areas, wetlands, flood-prone areas, slopes, depth to seasonal high water table, soil type, permeability and texture, and drainage area and drainage patterns.

(4) Structural stormwater management measures shall be designed and constructed to be strong, durable, and corrosion resistant (measures that are consistent with the relevant portions of the Residential Site Improvement Standards at N.J.A.C. 5:21-7.3, 7.4, and 7.8 shall be deemed to meet this requirement); to minimize and facilitate maintenance and repairs; and to ensure proper functioning.

(5) For all stormwater management measures at a development site, each applicant shall submit a detailed Inspection, Maintenance and Repair Plan consistent with the requirements of Section V of this ordinance.

(6) To the maximum extent practicable, the design engineer shall design structural stormwater management measures on the development site in a manner that:

- a) Limits site disturbance, maximizes stormwater management efficiencies, and maintains or improves aesthetic conditions;
- b) Utilizes multiple stormwater management measures, smaller in size and distributed spatially throughout the land development site, instead of a single larger structural stormwater management measure;
- c) Incorporates pretreatment measures. Pretreatment can extend the functional life and increase the pollutant removal capability of a structural stormwater management measure. Pretreatment measures may be designed in accordance with the New Jersey BMP Manual or other sources approved by the municipal engineer.

(7) Stormwater management basins shall be designed in a manner that complements and mimics the existing natural landscape, including but not limited to the following design strategies:

- a) Use of natural, non-wetland wooded depressions for stormwater runoff storage; and
- b) Establishment of attractive landscaping in and around the basin that mimics the existing vegetation and incorporates native Pinelands plants, including, but not limited to, the species listed in N.J.A.C. 7:50-6.25 and 6.26.

(8) Stormwater management basins shall be designed with gently sloping sides. The maximum allowable basin side slope shall be three (3) horizontal to one (1) vertical (3:1).

(9) Guidance on the design and construction of structural stormwater management measures may be found in the New Jersey BMP Manual. Other guidance sources may also be used upon approval by the municipal engineer.

(10) After all construction activities and required field testing have been completed on the development site, as-built plans depicting design and as-built elevations of all stormwater management measures shall be prepared by a Licensed Land Surveyor and submitted to the municipal engineer. Based upon the municipal engineer's review of the as-built plans, all corrections or remedial actions deemed by the municipal engineer to be necessary due to the failure to comply with the standards established by this ordinance and/or any reasons of public health or safety, shall be completed by the applicant. In lieu of review by the municipal engineer, the Borough reserves the right to engage a Professional Engineer to review the as-built plans. The applicant shall pay all costs associated with such review.

B. Design and Construction Standards for Stormwater Infiltration BMP's.

(1) Stormwater infiltration BMP's, such as bioretention systems with infiltration, dry wells, infiltration basins, pervious paving systems with storage beds, and sand filters with infiltration, shall be designed, constructed and maintained to completely drain the total runoff volume generated by the basin's maximum design storm within seventy-two (72) hours after a storm event. Runoff storage for greater times can render the BMP ineffective and may result in anaerobic conditions, odor and both water quality and mosquito breeding problems.

(2) Stormwater infiltration BMPs shall be designed, constructed and maintained to provide a minimum separation of at least two (2) feet between the elevation of the lowest point of the bottom of the infiltration BMP and the seasonal high water table.

(3) A stormwater infiltration BMP shall be sited in suitable soils verified by field testing to have permeability rates between one (1) and twenty (20) inches per hour. If such site soils do not exist or if the design engineer demonstrates that it is not practical for engineering, environmental or safety reasons to site the stormwater infiltration BMP(s) in such soils, then the stormwater infiltration BMP(s) may be sited in soils verified by field testing to have permeability rates in excess of twenty (20) inches per hour, provided that a bioretention system, designed, installed and maintained in accordance with the New Jersey BMP Manual, is installed to meet one of the following conditions:

- a) The bioretention system is constructed as a separate measure designed to provide pretreatment of stormwater and to convey the pretreated stormwater into the infiltration BMP; or
- b) The bioretention system is integrated into and made part of the infiltration BMP and, as such, does not require an underdrain system. If this option is selected, the infiltration BMP shall be designed and constructed so that the maximum water depth in the bioretention system portion of the BMP during treatment of the stormwater quality design storm is twelve (12) inches in accordance with the New Jersey BMP Manual.

(4) The minimum design permeability rate for the soil within a BMP that relies on infiltration shall be one-half (0.5) inch per hour. A factor of safety of two (2) shall be applied to the soil's field-tested permeability rate to determine the soil's design permeability rate. For example, if the field-tested permeability rate of the soil is four (4) inches per hour, its design permeability rate would be two (2) inches per hour. The minimum design permeability rate for the soil within a stormwater infiltration basin shall also be sufficient to achieve the minimum seventy-two (72) hour drain time described in 1. above. The maximum design permeability shall be ten (10) inches per hour.

(5) A soil's field-tested permeability rate shall be determined in accordance with the following:

- a) The pre-development field test permeability rate shall be determined according to the methodologies provided in Section XI.C.3 of this ordinance;
- b) The results of the required field permeability tests shall demonstrate a minimum tested infiltration rate of one (1) inch per hour;
- c) After all construction activities have been completed on the site and the finished grade has been established in the infiltration BMP, post-development field permeability tests shall also be conducted according to the methodologies provided in Section XI.C.3 of this ordinance;
- d) If the results of the post-development field permeability tests fail to achieve the minimum required design permeability rates in 5 above utilizing a factor of safety of two (2), the stormwater infiltration BMP shall be renovated and re-tested until such minimum required design permeability rates are achieved; and
- e) The results of all field permeability tests shall be certified by a Professional Engineer and transmitted to the municipal engineer.

(6) To help ensure maintenance of the design permeability rate over time, a six (6) inch layer of K5 soil shall be placed on the bottom of a stormwater infiltration BMP. This soil layer

shall meet the textural and permeability specifications of a K5 soil as provided at N.J.A.C. 7:9A, Appendix A, Figure 6, and be certified to meet these specifications by a Professional Engineer licensed in the State of New Jersey. The depth to the seasonal high water table shall be measured from the bottom of the K5 sand layer.

(7) The design engineer shall assess the hydraulic impact on the groundwater table and design the project site and all stormwater infiltration basins so as to avoid adverse hydraulic impacts. Adverse hydraulic impacts include, but are not limited to: raising the groundwater table so as to cause surface ponding; flooding of basements and other subsurface structures and areas; preventing a stormwater infiltration basin from completely draining via infiltration within seventy-two (72) hours of a design storm event; and interference with the proper operation of subsurface sewage disposal systems and other surface and subsurface structures in the vicinity of the stormwater infiltration basin.

(8) The design engineer shall conduct a mounding analysis, as defined in Section VII, of all stormwater infiltration BMPs. The mounding analysis shall be conducted in accordance with the requirements in Section XI.C.3.1. Where the mounding analysis identifies adverse impacts, the stormwater infiltration BMP shall be redesigned or relocated, as appropriate.

(9) Stormwater infiltration BMPs shall be constructed in accordance with the following:

- a) To avoid sedimentation that may result in clogging and reduce the basin's permeability rate, stormwater infiltration basins shall be constructed according to the following:
 - i. Unless the conditions in (ii) below are met, a stormwater infiltration basin shall not be placed into operation until its drainage area is completely stabilized. Instead, upstream runoff shall be diverted around the basin and into separate, temporary stormwater management facilities and sediment basins. Such temporary facilities and basins shall be installed and utilized for stormwater management and sediment control until stabilization is achieved in accordance with the Standards for Soil Erosion and Sediment Control in New Jersey, which is incorporated herein by reference as amended and supplemented.
 - ii. If the design engineer determines that, for engineering, environmental or safety reasons, temporary stormwater management facilities and sediment basins cannot be constructed on the site, the stormwater infiltration basin may be placed into operation prior to the complete stabilization of its drainage area provided that the basin's bottom during this period is constructed at a depth at least two (2) feet higher than its final design elevation. All other infiltration BMP construction requirements in this section shall be followed. When the drainage area is completely stabilized, all accumulated sediment shall be removed from the infiltration BMP, which shall then be excavated to its final design elevation in accordance with the construction requirements of this section and the performance standards in Section IV.
- b) To avoid compaction of sub-grade soils of BMP's that rely on infiltration, no heavy equipment such as backhoes, dump trucks or bulldozers shall be permitted to operate within the footprint of the BMP. All excavation required to construct a stormwater infiltration BMP shall be performed by equipment placed outside the BMP. If this is

not possible, the soils within the excavated area shall be renovated and tilled after construction is completed to reverse the effects of compaction. In addition, post-development soil permeability testing shall be performed in accordance with B.5 of this section.

- c) Earthwork associated with stormwater infiltration BMP construction, including excavation, grading, cutting or filling, shall not be performed when soil moisture content is above the lower plastic limit.

C. Safety Standards for Structural Stormwater Management Measures

(1) If a structural stormwater management measure has an outlet structure, escape provisions shall be incorporated in or on the structure. Escape provisions means the permanent installation of ladders, steps, rungs, or other features that provide readily accessible means of ingress and egress from the outlet structure.

(2) A trash rack is a device intended to intercept runoff-borne trash and debris that might otherwise block the hydraulic openings in an outlet structure of a structural stormwater management measure. Trash racks shall be installed upstream of such outlet structure openings as necessary to ensure proper functioning of the structural stormwater management measure in accordance with the following:

- a) The trash rack should be constructed primarily of bars aligned in the direction of flow with one (1) inch spacing between the bars to the elevation of the water quality design storm. For elevations higher than the water quality design storm, the bars shall be spaced no greater than one-third (1/3) the width of the hydraulic opening it is protecting or six inches, whichever is less. Transverse bars aligned perpendicular to flow should be sized and spaced as necessary for rack stability and strength.
- b) The trash rack shall not adversely affect the hydraulic performance of either the outlet structure opening it is protecting or the overall outlet structure.
- c) The trash rack shall have sufficient net open area under clean conditions to limit the peak design storm velocity through it to a maximum of 2.5 feet per second.
- d) The trash rack shall be constructed and installed to be rigid, durable, and corrosion resistant, and shall be designed to withstand a perpendicular live loading of 300 pounds per square foot.

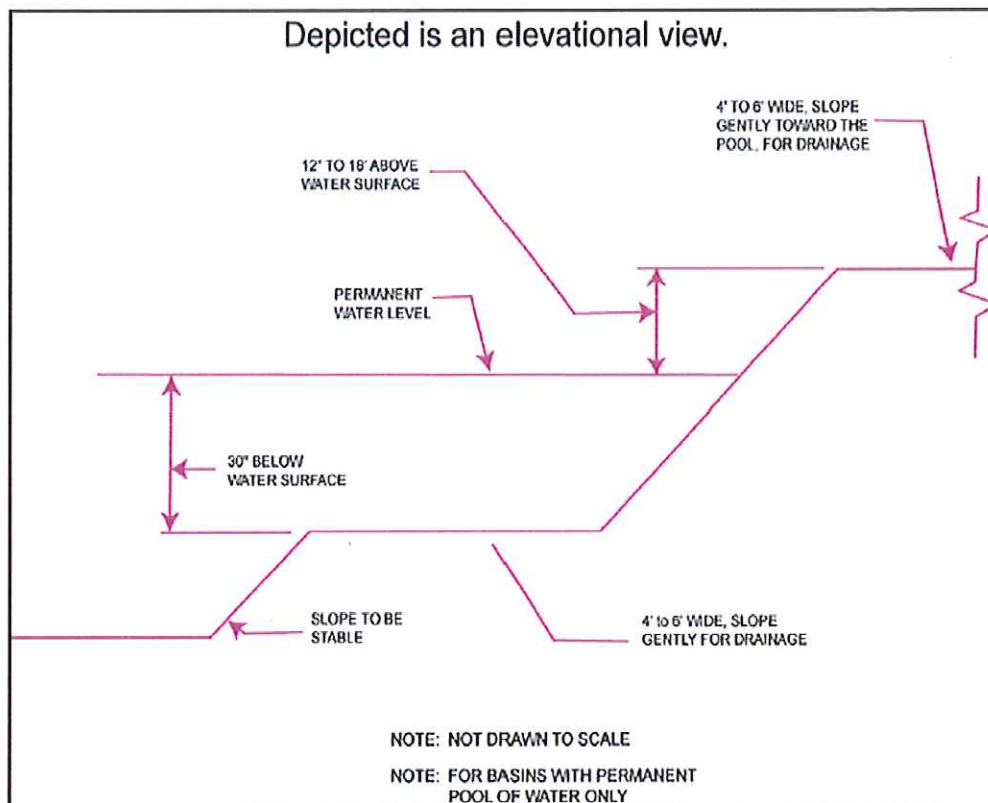
(3) An overflow grate is a device intended to protect the opening in the top of a stormwater management measure outlet structure. If an outlet structure has an overflow grate, such grate shall meet the following requirements:

- a) The overflow grate shall be secured to the outlet structure but removable for emergencies and maintenance;
- b) The overflow grate spacing shall be no more than two (2) inches across the smallest dimension; and
- c) The overflow grate shall be constructed and installed to be rigid, durable, and corrosion resistant, and shall be designed to withstand a perpendicular live loading of three hundred (300) pounds per square foot.

(4) The maximum side slope for an earthen dam, embankment, or berm shall not be steeper than three (3) horizontal to one (1) vertical (3:1).

(5) Safety ledges shall be constructed on the slopes of all new structural stormwater management measures having a permanent pool of water deeper than two and one-half feet. Such safety ledges shall be comprised of two steps. Each step shall be four (4) to six (6) feet in width. One step shall be located approximately two and one-half (2½) feet below the permanent water surface, and the second step shall be located one (1) to one and one-half (1½) feet above the permanent water surface. See a) below, for an illustration of safety ledges in a stormwater management basin.

a) Illustration of safety ledges.



Source: N.J.A.C. 7:8-6 Appendix A.

25-16.6 Inspection, Maintenance and Repair of Stormwater Management Measures

A. Applicability. Projects subject to review pursuant to Section I.C of this ordinance shall comply with the requirements of Sections VI.B and VI.C below.

B. General Inspection, Maintenance and Repair Plan.

(1) The design engineer shall prepare an Inspection, Maintenance and Repair Plan for the stormwater management measures, including both structural and nonstructural measures incorporated into the design of a major development. This plan shall be submitted as part of the Checklist Requirements established in Section II.C.

Inspection and maintenance guidelines for stormwater management measures are available in the New Jersey BMP Manual.

(2) The Inspection, Maintenance and Repair Plan shall contain the following:

- a) Accurate and comprehensive drawings of the site's stormwater management measures;
- b) Specific locations of each stormwater management measure identified by means of longitude and latitude as well as block and lot number;
- c) Specific preventative and corrective maintenance tasks and schedules for such tasks for each stormwater BMP;
- d) Cost estimates, including estimated cost of sediment, debris or trash removal; and
- e) The name, address and telephone number of the person or persons responsible for regular inspections and preventative and corrective maintenance (including repair and replacement). If the responsible person or persons is a corporation, company, partnership, firm, association, municipality or political subdivision of this State, the name and telephone number of an appropriate contact person shall also be included.

(3) The person responsible for inspection, maintenance and repair identified under Section VI.B.2 above shall maintain a detailed log of all preventative and corrective maintenance performed for the site's stormwater management measures, including a record of all inspections and copies of all maintenance-related work orders in the Inspection, Maintenance and Repair Plan. Said records and inspection reports shall be retained for a minimum of five (5) years.

(4) If the Inspection, Maintenance and Repair Plan identifies a person other than the developer (for example, a public agency or homeowners' association) as having the responsibility for inspection and maintenance, the plan shall include documentation of such person's agreement to assume this responsibility, or of the developer's obligation to dedicate a stormwater management measure to such person under an applicable ordinance or regulation.

(5) If the person responsible for inspection, maintenance and repair identified under Section VI.B.3 above is not a public agency, the maintenance plan and any future revisions based on Section VI.B.6 below shall be recorded upon the deed of

record for each property on which the maintenance described in the maintenance plan shall be undertaken.

- (6) The person responsible for inspection, maintenance and repair identified under Section VI.B.2 above shall evaluate the effectiveness of the Inspection, Maintenance and Repair Plan at least once per year and update the plan and the deed as needed.
- (7) The person responsible for inspection, maintenance and repair identified under Section VI.B.2 above shall submit the updated Inspection, Maintenance and Repair Plan and the documentation required by Sections VI.B.2 and VI.B.3 above to the Borough once per year.
- (8) The person responsible for inspection, maintenance and repair identified under Section VI.B.2 above shall retain and make available, upon request by any public entity with administrative, health, environmental or safety authority over the site the Inspection, Maintenance and Repair Plan and the documentation required by Sections VI.B.2 and VI.B.3 above.

C. Responsibility for inspection, repair and maintenance shall not be assigned or transferred to the owner or tenant of an individual property in a residential development or project, unless such owner or tenant owns or leases the entire residential development or project.

D. Preventative and corrective maintenance shall be performed to maintain the function of the stormwater management measure, including, but not limited to: repairs or replacement to any associated appurtenance of the measure; removal of sediment, debris, or trash; restoration of eroded areas; snow and ice removal; fence repair or replacement; restoration of vegetation; repair or replacement of linings; and restoration of infiltration function.

E. Stormwater management measure easements shall be provided by the property owner as necessary for facility inspections and maintenance and preservation of stormwater runoff conveyance, infiltration, and detention areas and facilities. The purpose of the easement shall be specified in the maintenance agreement.

F. In the event that the stormwater management measure becomes a public health nuisance or danger to public safety or public health, or if it is in need of maintenance or repair, the Borough shall so notify the responsible person in writing. Upon receipt of that notice, the responsible person shall have fourteen (14) days to effect maintenance and repair of the facility in a manner that is approved by the municipal engineer or the municipal engineer's designee. The Borough, at its discretion, may extend the time allowed for effecting maintenance and repair for good cause. If the responsible person fails or refuses to perform such maintenance and repair within the allowable time, the Borough may immediately proceed to do so with its own forces and equipment and/or through contractors. The costs and expenses of such maintenance and repair by the Borough shall be entered on the tax roll as a special charge against the property and collected with any other taxes levied thereon for the year in which the maintenance and repair was performed.

G. Requirements for Inspection, Maintenance and Repair of Stormwater BMP's that rely on infiltration. If a stormwater infiltration BMP is incorporated into the design of a major development, the applicant shall include the following requirements in its Inspection, Maintenance and Repair Plan:

- (1) Once per month (if needed): Mow side slopes, remove litter and debris, stabilize eroded banks, repair erosion at inflow structure(s);
- (2) After every storm exceeding one (1) inch of rainfall: Ensure that infiltration BMPs drain completely within seventy-two (72) hours after the storm event. If stored water fails to infiltrate seventy-two (72) hours after the end of the storm, corrective measures shall be taken. Raking or tilling by light equipment can assist in maintaining infiltration capacity and break up clogged surfaces;
- (3) Four times per year (quarterly): Inspect stormwater infiltration BMPs for clogging and excessive debris and sediment accumulation within the BMP, remove sediment (if needed) when completely dry;
- (4) Two times per year: Inspect for signs of damage to structures, repair eroded areas, check for signs of petroleum contamination and remediate;
- (5) Once per year: Inspect BMPs for unwanted tree growth and remove if necessary, disc or otherwise aerate bottom of infiltration basin to a minimum depth of six (6) inches; and
- (6) After every storm exceeding one (1) inch of rainfall, inspect and, if necessary, remove and replace K5 sand layer and accumulated sediment, to restore original infiltration rate.
- (7) Additional guidance for the inspection, maintenance and repair of stormwater infiltration BMPs can be found in the New Jersey BMP Manual.

H. Financing of Inspection, Maintenance and Repair of Stormwater BMPs. An adequate means of ensuring permanent financing of the inspection, maintenance and repair of stormwater BMPs shall be implemented and detailed in the Inspection, Maintenance and Repair Plan. Permanent financing of the inspection, maintenance and repair of stormwater BMPs shall be accomplished by:

- a) The assumption of the inspection and maintenance program by a municipality, county, public utility or homeowner's association.
- b) Other suitable method approved by the municipality.

25-16.7 Definitions.

Unless specifically defined below, words or phrases used in this ordinance shall be interpreted so as to give them the meaning they have in common usage and to give this ordinance its most reasonable application. When used in this ordinance, the following terms shall have the meanings herein ascribed to them.

“The Borough” means the Land Use Board or other board, agency or official of the Borough of Lakehurst with authority to approve or disapprove subdivisions,

site plans, construction permits, building permits or other applications for development approval. For the purposes of reviewing development applications and ensuring compliance with the requirements of this ordinance, the Borough of Lakehurst may designate the municipal engineer or other qualified designee to act on behalf of the Borough of Lakehurst.

“Aquaculture” means the propagation, rearing and subsequent harvesting of aquatic organisms in controlled or selected environments, and their subsequent processing, packaging and marketing, including but not limited to, activities to intervene in the rearing process to increase production such as stocking, feeding, transplanting and providing for protection from predators.

“Certification” means either a written statement signed and sealed by a licensed New Jersey Professional Engineer attesting that a BMP design or stormwater management system conforms to or meets a particular set of standards or to action taken by the Commission pursuant to N.J.A.C. 7:50-3, Part II or Part IV. Depending upon the context in which the term is use, the terms "certify" and "certified" shall be construed accordingly.

“Compaction” means the increase in soil bulk density caused by subjecting soil to greater-than-normal loading. Compaction can also decrease soil infiltration and permeability rates.

"Construction" means the construction, erection, reconstruction, alteration, conversion, demolition, removal or equipping of buildings, structures or components of a stormwater management system including but not limited to collection inlets, stormwater piping, swales and all other conveyance systems, and stormwater BMPs.

“County review agency” means an agency designated by the County Board of Chosen Freeholders to review municipal stormwater management plans and implementing ordinance(s). The county review agency may either be:

A county planning agency; or

A county water resource association created under N.J.S.A. 58:16A-55.5, if the ordinance or resolution delegates authority to approve, conditionally approve, or disapprove municipal stormwater management plans and implementing ordinances.

“Design engineer” means a person professionally qualified and duly licensed in New Jersey to perform engineering services that may include, but not necessarily be limited to, development of project requirements, creation and development of project design and preparation of drawings and specifications.

“Design permeability” means the tested permeability rate with a factor of safety of two (2) applied to it (e.g., if the tested permeability rate of the soils is four (4) inches per hour, the design rate would be two (2) inches per hour).

“Development” means the change of or enlargement of any use or disturbance of any land, the performance of any building or mining operation, the division of

land into two or more parcels, and the creation or termination of rights of access or riparian rights including, but not limited to:

1. A change in type of use of a structure or land;
2. A reconstruction, alteration of the size, or material change in the external appearance of a structure or land;
3. A material increase in the intensity of use of land, such as an increase in the number of businesses, manufacturing establishments, offices or dwelling units in a structure or on land;
4. Commencement of resource extraction or drilling or excavation on a parcel of land;
5. Demolition of a structure or removal of trees;
6. Commencement of forestry activities;
7. Deposit of refuse, solid or liquid waste or fill on a parcel of land;
8. In connection with the use of land, the making of any material change in noise levels, thermal conditions, or emissions of waste material; and
9. Alteration, either physically or chemically, of a shore, bank, or flood plain, seacoast, river, stream, lake, pond, wetlands or artificial body of water.

In the case of development on agricultural land, i.e. lands used for an agricultural use or purpose as defined at N.J.A.C. 7:50-2.11, development means: any activity that requires a State permit; any activity reviewed by the County Agricultural Boards (CAB) and the State Agricultural Development Committee (SADC), and municipal review of any activity not exempted by the Right to Farm Act, N.J.S.A. 4:1C-1 et seq.

“Development, major” means any division of land into five or more lots; any construction or expansion of any housing development of five or more dwelling units; any construction or expansion of any commercial or industrial use or structure on a site of more than three acres; or any “development,” grading, clearing or disturbance of an area in excess of five thousand square feet (5,000 ft²). Disturbance for the purpose of this ordinance is the placement of impervious surface or exposure and/or movement of soil or bedrock or clearing, cutting or removing of vegetation.

“Development, minor” means all development other than major development.

“Drainage area” means a geographic area within which stormwater, sediments, or dissolved materials drain to a BMP, a stormwater management system, a particular receiving waterbody or a particular point along a receiving waterbody.

“Environmentally critical area” means an area or feature which is of significant environmental value, including but not limited to: stream corridors; natural heritage priority sites; habitat of endangered or threatened animal species; threatened or endangered plants of the Pinelands pursuant to N.J.A.C. 7:5-6.27(a);

large areas of contiguous open space or upland forest; steep slopes; and well head protection and groundwater recharge areas. T & E habitat constitutes habitat that is critical for the survival of a local population of threatened and endangered species or habitat that is identified using the Department's Landscape Project as approved by the Department's Endangered and Non-game Species Program, whichever is more inclusive. Threatened and endangered wildlife shall be protected in conformance with N.J.A.C. 7:50-6.33.

"Exception" means the approval by the approving authority of a variance or other material departure from strict compliance with any section, part, phrase or provision of this ordinance. An exception may be granted only under certain specific, narrowly defined conditions described herein and does not constitute a waiver of strict compliance with any section, part, phrase or provision of the Pinelands Comprehensive Management Plan (N.J.A.C. 7:50-1.1 et seq.).

"Extended detention basin" means a facility constructed through filling and/or excavation that provides temporary storage of stormwater runoff. It has an outlet structure that detains and attenuates runoff inflows and promotes the settlement of pollutants. An extended detention basin is normally designed as a multi-stage facility that provides runoff storage and attenuation for both stormwater quality and quantity management. The term "stormwater detention basin" shall have the same meaning as "extended detention basin."

"Finished grade" means the elevation of the surface of the ground after completion of final grading, either via cutting, filling or a combination thereof.

"Grading" means modification of a land slope by cutting and filling with the native soil or re-distribution of the native soil which is present at the site.

"Groundwater" means water below the land surface in a zone of saturation.

"Groundwater mounding analysis" means a test performed to demonstrate that the groundwater below a stormwater infiltration basin will not "mound up," encroach on the unsaturated zone, break the surface of the ground at the infiltration area or downslope, and create an overland flow situation.

"Heavy Equipment" means equipment, machinery, or vehicles that exert ground pressure in excess of eight (8) pounds per square inch.

"High Pollutant Loading Area" means an area in an industrial or commercial development site: where solvents and/or petroleum products are loaded/unloaded, stored, or applied; where pesticides are loaded/unloaded or stored; where hazardous materials are expected to be present in greater than "reportable quantities" as defined by the United States Environmental Protection Agency (EPA) at 40 CFR 302.4; where recharge would be inconsistent with NJDEP-approved remedial action work plan or landfill closure plan; and/or where a high risk exists for spills of toxic materials, such as gas stations and vehicle maintenance facilities. The term "HPLA" shall have the same meaning as "High Pollutant Loading Area."

"Impervious surface" means a surface that has been covered with a layer of material so that it is highly resistant to infiltration by water.

“Infiltration” is the process by which precipitation enters the soil through its surface.

"In lieu contribution" means a monetary fee collected by the Borough in lieu of requiring strict on-site compliance with the groundwater recharge, stormwater runoff quantity and/or stormwater runoff quality standards established in this ordinance.

"Install" means to assemble, construct, put in place or connect components of a stormwater management system.

“Mitigation” means acts necessary to prevent, limit, remedy or compensate for conditions that may result from those cases where an applicant has demonstrated the inability or impracticality of strict compliance with the stormwater management requirements set forth in N.J.A.C. 7:8, in an adopted regional stormwater management plan, or in a local ordinance which is as protective as N.J.A.C. 7:8, and an exception from strict compliance is granted by the Borough and the Pinelands Commission.

“New Jersey Stormwater Best Management Practices Manual” means guidance developed by the New Jersey Department of Environmental Protection, in coordination with the New Jersey Department of Agriculture, the New Jersey Department of Community Affairs, the New Jersey Department of Transportation, municipal engineers, county engineers, consulting firms, contractors, and environmental organizations to address the standards in the New Jersey Stormwater Management Rules, N.J.A.C. 7:8. The BMP manual provides examples of ways to meet the standards contained in the rule. An applicant may demonstrate that other proposed management practices will also achieve the standards established in the rules. The manual, and notices regarding future versions of the manual, are available from the Division of Watershed Management, NJDEP, PO Box 418, Trenton, New Jersey 08625; and on the NJDEP’s website, www.njstormwater.org. The term “New Jersey BMP Manual” shall have the same meaning as “New Jersey Stormwater Best Management Practices Manual.”

“NJDEP” means the New Jersey Department of Environmental Protection.

"NJPDES" means the New Jersey Pollutant Discharge Elimination System as set forth in N.J.S.A. 58:10A-1 et seq. and in N.J.A.C. 7:14A.

"NJPDES permit" means a permit issued by the NJDEP pursuant to the authority of the Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq., and N.J.A.C. 7:14A for a discharge of pollutants.

"Non-point source" means:

1. Any human-made or human-induced activity, factor, or condition, other than a point source, from which pollutants are or may be discharged;
2. Any human-made or human-induced activity, factor, or condition, other than a point source, that may temporarily or permanently change any chemical, physical,

biological, or radiological characteristic of waters of the State from what was or is the natural, pristine condition of such waters, or that may increase the degree of such change; or

3. Any activity, factor, or condition, other than a point source, that contributes or may contribute to water pollution.

The term "NPS" shall have the same meaning as "non-point source."

"Nonstructural BMP" means a stormwater management measure, strategy or combination of strategies that reduces adverse stormwater runoff impacts through sound site planning and design. Nonstructural BMPs include such practices as minimizing site disturbance, preserving important site features, reducing and disconnecting impervious cover, flattening slopes, utilizing native vegetation, minimizing turf grass lawns, maintaining natural drainage features and characteristics and controlling stormwater runoff and pollutants closer to the source. The term "Low Impact Development technique" shall have the same meaning as "nonstructural BMP."

"Nutrient" means a chemical element or compound, such as nitrogen or phosphorus, which is essential to and promotes the development of organisms.

"Permeability" means the rate at which water moves through a saturated unit area of soil or rock material at hydraulic gradient of one, determined as prescribed in N.J.A.C. 7:9A-6.2 (Tube Permeameter Test), N.J.A.C. 6.5 (Pit Bailing Test) or N.J.A.C. 6.6 (Piezometer Test). Alternative permeability test procedures may be accepted by the approving authority provided the test procedure attains saturation of surrounding soils, accounts for hydraulic head effects on infiltration rates, provides a permeability rate with units expressed in inches per hour and is accompanied by a published source reference. Examples of suitable sources include hydrogeology, geotechnical, or engineering text and design manuals, proceedings of American Society for Testing and Materials (ASTM) symposia, or peer-review journals. Neither a Soil Permeability Class Rating Test, as described in N.J.A.C. 7:9A-6.3, nor a Percolation Test, as described in N.J.A.C. 7:9A-6.4, are acceptable tests for establishing permeability values for the purpose of complying with this ordinance.

"Permeable" means having a permeability of one (1) inch per hour or faster. The terms "permeable soil," "permeable rock" and "permeable fill" shall be construed accordingly.

"Person" means any individual, corporation, company, partnership, firm, association, municipality or political subdivision of this State subject to municipal jurisdiction pursuant to the Municipal Land Use Law, N.J.S.A. 40:55D-1 et seq.

"Pinelands Commission" or "Commission" means the Commission created pursuant Section 5 of the Pinelands Protection Act, N.J.S.A. 13:18A-5.

"Pinelands CMP" means the New Jersey Pinelands Comprehensive Management Plan (N.J.A.C. 7:50 1.1 et seq).

"Point source" means any discernible, confined, and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel, or other floating craft, from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture.

"Pollutant" means any dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, refuse, oil, grease, sewage sludge, munitions, chemical wastes, biological materials, medical wastes, radioactive substances (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.), thermal waste, wrecked or discarded equipment, rock, sand, suspended solids, cellar dirt, industrial, municipal, agricultural, and construction waste or runoff, or other residue discharged directly or indirectly to the land, groundwaters or surface waters of the State, or to a domestic treatment works. "Pollutant" includes both hazardous and nonhazardous pollutants.

"Professional Engineer" means a person licensed to practice Professional Engineering in the State of New Jersey pursuant to N.J.S.A. 48:8-27 et seq.

"Recharge" means the amount of water from precipitation that infiltrates into the ground and is not evapotranspired.

"Replicate" means one of two or more soil samples or tests taken at the same location (within five feet of each other) and depth, within the same soil horizon or substratum. In the case of fill material, replicate tests are tests performed on sub-samples of the same bulk sample packed to the same bulk density.

"Sand" means a particle size category consisting of mineral particles which are between 0.05 and 2.0 millimeters in equivalent spherical diameter. Also, a soil textural class having 85 percent or more of sand and a content of silt and clay such that the percentage of silt plus 1.5 times the percentage of clay does not exceed 15, as shown in Section XI.C.1 (USDA Soil Textural Triangle).

"Seasonally high water table" means the upper limit of the shallowest zone of saturation which occurs in the soil, identified as prescribed in N.J.A.C. 7:9A-5.8.

"Sediment" means solid material, mineral or organic, that is in suspension, is being transported, or has been moved from its site of origin by air, water or gravity as a product of erosion.

"Site" means the lot or lots upon which a major development is to occur or has occurred.

"Soil" means all unconsolidated mineral and organic material of any origin, which is not a rock substratum, including sediments below the biologically active and/or weathered zones.

"Source material" means any material(s) or machinery, located at an industrial facility that is directly or indirectly related to process, manufacturing or other industrial activities, which could be a source of pollutants in any industrial

stormwater discharge to groundwater. Source materials include, but are not limited to, raw materials; intermediate products; final products; waste materials; by-products; industrial machinery and fuels, and lubricants, solvents, and detergents that are related to process, manufacturing, or other industrial activities that are exposed to stormwater.

“Stormwater” means water resulting from precipitation (including rain and snow) that runs off the land’s surface, is transmitted to the subsurface, or is captured by separate storm sewers or other sewage or drainage facilities, or conveyed by snow removal equipment.

“Stormwater infiltration BMP” means a basin or other facility constructed within permeable soils that provides temporary storage of stormwater runoff. An infiltration BMP does not normally have a structural outlet to discharge runoff from the stormwater quality design storm. Instead, outflow from an infiltration BMP is through the surrounding soil. The terms “infiltration measure” and “infiltration practice” shall have the same meaning as “stormwater infiltration basin.”

“Stormwater management measure” means any structural or nonstructural strategy, practice, technology, process, program, or other method intended to control or reduce stormwater runoff and associated pollutants, or to induce or control the infiltration or groundwater recharge of stormwater or to eliminate illicit or illegal non-stormwater discharges into stormwater conveyances. This includes, but is not limited to, structural and nonstructural stormwater Best Management Practices described in the New Jersey BMP Manual and designed to meet the standards for stormwater control contained within this ordinance. The terms “stormwater Best Management Practice” and “stormwater BMP” shall have the same meaning as “stormwater management measure.”

“Stormwater runoff” means water flow on the surface of the ground or in storm sewers, resulting from precipitation.

"Suitable soil" means unsaturated soil, above the seasonally high water table, which contains less than fifty percent (50%) by volume of coarse fragments and which has a tested permeability rate of between one (1) and twenty (20) inches per hour.

"Surface water" means any waters of the State which are not groundwater.

“Time of concentration” means the time it takes for runoff to travel from the hydraulically most distant point of the drainage area to the point of interest within a watershed.

“Total Suspended Solids” means the insoluble solid matter suspended in water and stormwater that is separable by laboratory filtration in accordance with the procedure contained in the "Standard Methods for the Examination of Water and Wastewater" prepared and published jointly by the American Public Health Association, American Water Works Association and the Water Pollution Control Federation. The term “TSS” shall have the same meaning as “Total Suspended Solids.”

“Tidal Flood Hazard Area” means a flood hazard area, which may be influenced by stormwater runoff from inland areas, but which is primarily caused by the Atlantic Ocean.

"Waters of the State" means the ocean and its estuaries, all springs, streams and bodies of surface and groundwater, whether natural or artificial, within the boundaries of New Jersey or subject to its jurisdiction.

"Water table" means the upper surface of a zone of saturation.

"Well" means a bored, drilled or driven shaft, or a dug hole, which extends below the seasonally high water table and which has a depth which is greater than its largest surface dimension.

“Wetlands” mean those lands, which are inundated or saturated by water at a magnitude, duration and frequency sufficient to support the growth of hydrophytes. Wetlands include lands with poorly drained or very poorly drained soils as designated by the National Cooperative Soils Survey of the Soil Conservation Service of the United States Department of Agriculture. Wetlands include coastal wetlands and inland wetlands, including submerged lands. The "New Jersey Pinelands Commission Manual for Identifying and Delineating Pinelands Area Wetlands: A Pinelands Supplement to the Federal Manual for Identifying and Delineating Jurisdictional Wetlands," dated January, 1991, as amended, may be utilized in delineating the extent of wetlands based on the definitions of wetlands and wetlands soils contained in this section, N.J.A.C. 7:50 2.11, 6.4 and 6.5. The term “wetland” shall have the same meaning as “wetlands.”

“Wet pond” means a stormwater facility constructed through filling and/or excavation that provides both permanent and temporary storage of stormwater runoff. It has an outlet structure that creates a permanent pool and detains and attenuates runoff inflows and promotes the settling of pollutants. A stormwater retention basin can also be designed as a multi-stage facility that also provides extended detention for enhanced stormwater quality design storm treatment and runoff storage and attenuation for stormwater quantity management. The term “stormwater retention basin” shall have the same meaning as “wet pond.”

25-16.8 Penalties. Any person who erects, constructs, alters, repairs, converts, maintains, or uses any building, structure or land in violation of this ordinance shall be subject to the following penalties:

1. A fine not less than \$ 500.00 and not to exceed \$ 2,000.00;
2. Imprisonment up to 90 days in the county jail;
3. Or both

For purposes of this ordinance each 24-hour period shall be a separate and distinct offense.

25-16.9 Effective Date.

This ordinance shall take effect immediately upon the following:

A) Certification by the Pinelands Commission in accordance with N.J.A.C. 7:50 Subchapter 3; and

B) Approval by the county review agency.

25-16.10 Severability.

If the provisions of any section, subsection, paragraph, subdivision, or clause of this ordinance shall be judged invalid by a court of competent jurisdiction, such order of judgment shall not affect or invalidate the remainder of any section, subsection, paragraph, subdivision or clause of this ordinance.

25-16.11 Appendices.

A. Methods for Calculating Groundwater Recharge.

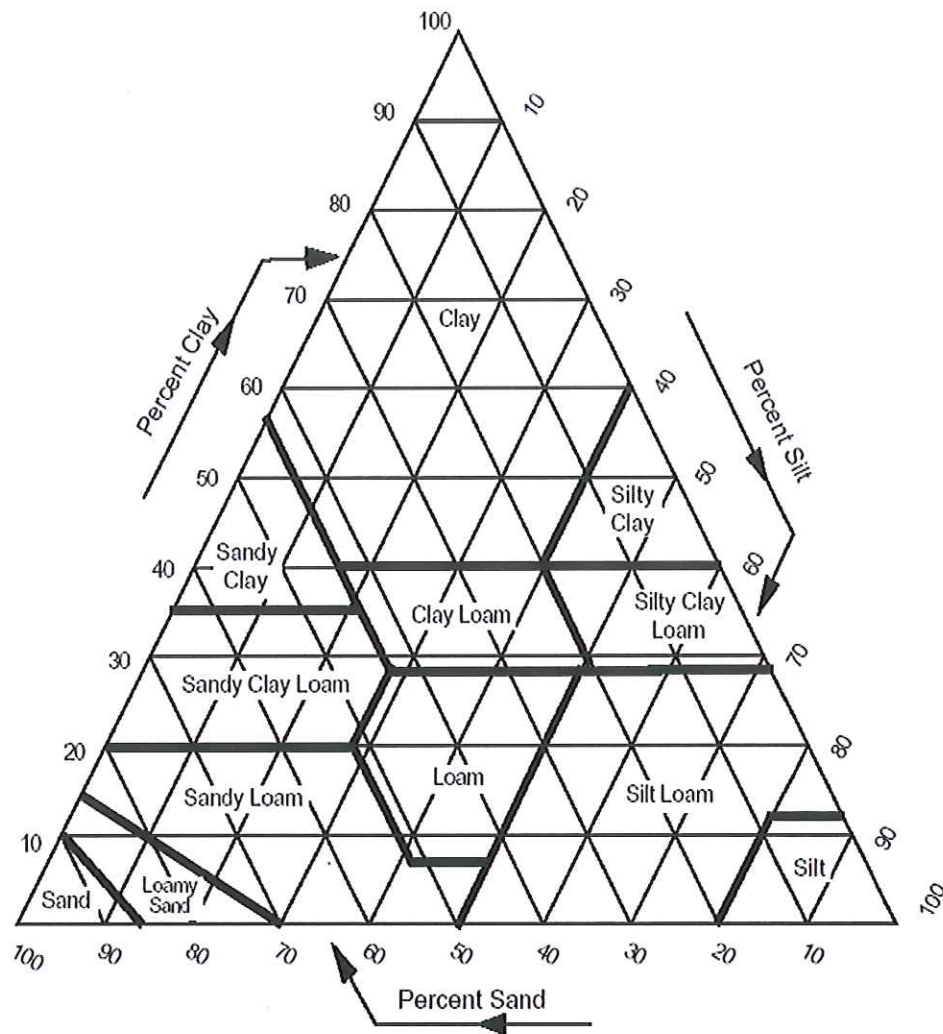
(1) The New Jersey Geological Survey Report GSR-32: A Method for Evaluating Ground-Water Recharge Areas in New Jersey. Available at <http://www.njgeology.org/geodata/dgs99-2.htm>.

(2) The New Jersey Groundwater Recharge Spreadsheet (NJGRS). Available in the New Jersey BMP Manual, Chapter 6, at http://www.njstormwater.org/bmp_manual2.htm.

B. NJDEP Nonstructural Strategies Point System. The New Jersey Stormwater Management Rules at N.J.A.C. 7:8-5.2(a), and Section IV. A. of this Ordinance, require nonstructural stormwater management strategies to be incorporated into the site design of a major development. A total of nine strategies are to be used to the maximum extent practical to meet the groundwater recharge, stormwater quality and stormwater quantity requirements of the Rules prior to utilizing structural stormwater management measures. The New Jersey Nonstructural Stormwater Management Strategies Point System (NSPS) provides a tool to assist planners, designers and regulators in determining that the strategies have been used to the “maximum extent practical” at a major development as required by the Rules. Refer online to <http://www.njstormwater.org> for information on the NSPS.

C. Soils.

(1) USDA Soil Textural Triangle.



Source: US Department of Agriculture.

(2) Definitions. For the purposes of this appendix, the following terms shall have the meanings herein ascribed to them.

"A-horizon" means the uppermost mineral horizon in a normal soil profile. The upper part of the A-horizon is characterized by maximum accumulation of finely divided, dark colored organic residues, known as humus, which are intimately mixed with the mineral particles of the soil.

"Artesian zone of saturation" means a zone of saturation which exists immediately below a hydraulically restrictive horizon, and which has an upper surface which is at a pressure greater than atmospheric, either seasonally or throughout the year.

"Chroma" means the relative purity or strength of a color, a quantity which decreases with increasing grayness. Chroma is one of the three variables of soil color as defined in the Munsell system of classification.

"Clay" means a particle size category consisting of mineral particles which are smaller than 0.002 millimeters in equivalent spherical diameter. Also, a soil textural class having more than 40 percent clay, less than 45 percent sand, and less than 40 percent silt, as shown in Section XI.C.1 (USDA Soil Textural Triangle).

"Clay loam" means a soil textural class having 27 to 40 percent clay and 20 to 45 percent sand, as shown in Section XI.C.1 (USDA Soil Textural Triangle).

"Coarse fragment" means a rock fragment contained within the soil which is greater than two millimeters in equivalent spherical diameter or which is retained on a two millimeter sieve.

"County soil survey report" means a report prepared by the US Department of Agriculture, Natural Resources Conservation Service which includes maps showing the distribution of soil mapping units throughout a particular county together with narrative descriptions of the soil series shown and other information relating to the uses and properties of the various soil series.

"Direct supervision" means control over and direction of work carried out by others with full knowledge of and responsibility for such work.

"Equivalent spherical diameter" of a particle means the diameter of a sphere which has a volume equal to the volume of the particle.

"Excessively coarse horizon" means a horizon of limited thickness within the soil profile which provides inadequate removal of pollutants from stormwater due to a high coarse fragment content, excessively coarse texture and/or excessively rapid permeability.

"Excessively coarse substratum" means a substratum below the soil profile which extends beyond the depth of soil profile pits and borings and which provides inadequate removal of pollutants from stormwater due to a high coarse fragment content, excessively coarse texture and/or excessively rapid permeability.

"Extremely firm consistence" means a type of soil material whose moist aggregated mass crushes only under very strong pressure; cannot be crushed between the thumb and forefinger and shall be broken apart bit by bit.

"Firm consistence" means a type of soil material whose moist aggregated mass crushes under moderate pressure between the thumb and forefinger but resistance is distinctly noticeable.

"Hard consistence" means a type of soil material whose dry aggregated mass is moderately resistant to pressure; can be broken in the hands without difficulty but is barely breakable between the thumb and forefinger.

"Hue" means the dominant spectral color, one of the three variables of soil color defined within the Munsell system of classification.

"Hydraulically restrictive horizon" means a horizon within the soil profile which slows or prevents the downward or lateral movement of water and which is underlain by permeable soil horizons or substrata. Any soil horizon which has a saturated permeability less than one (1.0) inch per hour is hydraulically restrictive.

"Hydraulically restrictive substratum" means a substratum below the soil profile which slows or prevents the downward or lateral movement of water and which extends beyond the depth of profile pits or borings or to a massive substratum. A substratum which has a saturated permeability less than one (1.0) inch per hour is hydraulically restrictive.

"Loamy sand" means a soil textural class, as shown in Section XI.C.1 (USDA Soil Textural Triangle), that has a maximum of 85 to 90 percent (85-90%) sand with a percentage of silt plus one and a half (1.5) times the percentage of clay not in excess of fifteen (15); or a minimum of 70 to 85 percent (70-85%) sand with a percentage of silt plus one and a half (1.5) times the percentage of clay not in excess of thirty (30).

"Lower plastic limit" means the moisture content corresponding to the transition between the plastic and semi-solid states of soil consistency. This corresponds to the lowest soil moisture content at which the soil can be molded in the fingers to form a rod or wire, one-eighth (1/8) inches in thickness, without crumbling.

"Mottling" means a color pattern observed in soil consisting of blotches or spots of contrasting color. The term "mottle" refers to an individual blotch or spot. The terms "color variegation," "iron depletion" and "iron concentration" are equivalent to the term "mottling." Mottling due to redoximorphic reactions is an indication of seasonal or periodic and recurrent saturation.

"Munsell system" means a system of classifying soil color consisting of an alpha-numeric designation for hue, value and chroma, such as "7.5 YR 6/2," together with a descriptive color name, such as "strong brown."

"O-horizon" means a surface horizon, occurring above the A-horizon in some soils, which is composed primarily of un-decomposed or partially decomposed plant remains which have not been incorporated into the mineral soil.

"Perched zone of saturation" means a zone of saturation which occurs immediately above a hydraulically restrictive horizon and which is underlain by permeable horizons or substrata which are not permanently or seasonally saturated.

"Piezometer" means a device consisting of a length of metal or plastic pipe, open at the bottom or perforated within a specified interval, and used for the determination of depth to water, permeability or hydraulic head within a specific soil horizon or substratum.

"Platy structure" is characterized by a soil aggregate, which has one axis distinctly shorter than the other two and are oriented with the short axis vertical.

"Regional zone of saturation" means a zone of saturation, which extends vertically without interruption below the depth of soil borings and profile pits.

"Sandy clay" means a soil textural class having 35 percent (35%) or more of clay and 45 percent (45%) or more of sand, as shown in Section XI.C.1 (USDA Soil Textural Triangle).

"Sandy loam" means a soil textural class, as shown in Section XI.C.1 (USDA Soil Textural Triangle), that has a maximum of 20 percent clay, and the percentage of silt plus twice the percentage of clay exceeds 30, and contains 52 percent or more sand; or less than 7 percent clay, less than 50 percent silt, and between 43 and 52 percent sand.

"Silt" means a particle size category consisting of mineral particles, which are between 0.002 and 0.05 millimeters in equivalent spherical diameter. It also means a soil textural class having 80 percent or more of silt and 12 percent or less of clay, as shown in Section XI.C.1 (USDA Soil Textural Triangle).

"Silt loam" means a soil textural class having 50 percent or more of silt and 12 to 27 percent of clay; or 50 to 80 percent of silt and less than 12 percent of clay, as shown in Section XI.C.1 (USDA Soil Textural Triangle).

"Silty clay" means a soil textural class having 40 percent or more of clay and 40 percent or more of silt, as shown in Section XI.C.1 (USDA Soil Textural Triangle).

"Silty clay loam" means a soil textural class having 27 to 40 percent of clay and less than 20 percent of sand, as shown in Section XI.C.1 (USDA Soil Textural Triangle).

"Soil aggregate" means a naturally occurring unit of soil structure consisting of particles of sand, silt, clay, organic matter, and coarse fragments held together by the natural cohesion of the soil.

"Soil color" means the soil color name and Munsell color designation determined by comparison of the moist soil with color chips contained in a Munsell soil color book.

"Soil consistence" means the resistance of a soil aggregate or clod to being crushed between the fingers or broken by the hands. Terms for describing soil consistence described are in N.J.A.C. 7:9A-5.3(h).

"Soil horizon" means a layer within a soil profile differing from layers of soil above and below it in one or more of the soil morphological characteristics including color, texture, coarse fragment content, structure, consistence and mottling.

"Soil log" means a description of the soil profile which includes the depth, thickness, color, texture, coarse fragment content, mottling, structure and consistence of each soil horizon or substratum.

"Soil mapping unit" means an area outlined on a map in a County Soil Survey Report and marked with a letter symbol designating a soil phase, a complex of two or more soil phases, or some other descriptive term where no soil type has been identified.

"Soil phase" means a specific type of soil which is mapped by the Natural Resources Conservation Service and which belongs to a soil series described within the County Soil Survey Report.

"Soil profile" means a vertical cross-section of undisturbed soil showing the characteristic horizontal layers or horizons of the soil which have formed as a result of the combined effects of parent material, topography, climate, biological activity and time.

"Soil series" means a grouping of soil types possessing a specific range of soil profile characteristics, which are described within the County Soil Survey Report. Each soil series may consist of several "soil phases" which may differ in slope, texture of the surface horizon or stoniness.

"Soil structural class" means one of the shape classes of soil structure described in N.J.A.C. 7:9A-5.3(g).

"Soil structure" means the naturally occurring arrangement, within a soil horizon, of sand, silt and clay particles, coarse fragments and organic matter, which are held together in clusters or aggregates of similar shape and size.

"Soil test pit" means an excavation made for the purpose of exposing a soil profile which is to be described.

"Soil textural class" means one of the classes of soil texture defined within the USDA system of classification. (Soil Survey Manual, Agricultural Handbook No. 18, USDA Soil Conservation Service 1962.)

"Soil texture" means the relative proportions of sand, silt and clay in that portion of the soil which passes through a sieve with two millimeter openings.

"Static water level" means the depth below the ground surface or the elevation with respect to some reference level, of the water level observed within a soil profile pit or boring, or within a piezometer, after this level has stabilized or become relatively constant with the passage of time.

"Substratum" means a layer of soil or rock material present below the soil profile and extending beyond the depth of soil borings or profile pits.

"Unsuitable soil" means all soil other than suitable soil.

"USDA system of classification" means the system of classifying soil texture used by the United States Department of Agriculture, which defines 12 soil textural classes based upon the weight percentages of sand, silt and clay in that portion of the soil, which passes through a sieve with two-millimeter (2 mm) openings. The soil textural classes are shown graphically on the USDA Soil Textural Triangle, as shown in Section XI.C.1.

"Value" means the relative lightness or intensity of a color, one of the three variables of soil color defined within the Munsell system of classification.

"Very firm consistence" is characterized by a moist soil which crushes under strong pressure; barely crushable between thumb and forefinger.

"Very hard consistence" is characterized by a dry soil which is resistant to pressure, can be broken in the hands only with difficulty; not breakable between the thumb and forefinger.

"Zone of saturation" means a layer within or below the soil profile which is saturated with ground water either seasonally or throughout the year. This includes both regional and perched zones.

(3) Methods for Assessing Soil Suitability for Infiltration Stormwater Management BMPs. The results of a subsurface investigation shall serve as the basis for the site selection and design of stormwater infiltration BMPs. The subsurface investigation shall include, but not be limited to, a series of soil test pits and soil permeability tests conducted in accordance with the following:

- a) All soil test pits and soil permeability results shall be performed under the direct supervision of a Professional Engineer. All soil logs and permeability test data shall be accompanied by a certification by a Professional Engineer. The results and location (horizontal and vertical) of all soil test pits and soil permeability tests, both passing and failing, shall be reported to the Borough.
- b) During all subsurface investigations and soil test procedures, adequate safety measures shall be taken to prohibit unauthorized access to the excavations at all times. It is the responsibility of persons performing or witnessing subsurface investigations and soil permeability tests to comply with all applicable Federal, State and local laws and regulations governing occupational safety.
- c) A minimum of two (2) soil test pits shall be excavated within the footprint of any proposed infiltration BMP to determine the suitability and distribution of soil types present at the site. Placement of the test pits shall be within twenty (20) feet of the basin perimeter, located along the longest axis bisecting the BMP. For BMPs larger than ten thousand (10,000) square feet in area, a minimum of one (1) additional soil test pit shall be conducted within each additional area of ten thousand (10,000) square feet. The additional test pit(s) shall be placed approximately equidistant to other test pits, so as to provide adequate characterization of the subsurface material. In all cases, where soil and or groundwater properties vary significantly, additional test pits shall be excavated in order to accurately characterize the subsurface conditions below the proposed infiltration BMP. Soil test pits shall extend to a minimum depth of eight (8) feet below the lowest elevation of the basin bottom or to a depth that is at least two (2) times the maximum potential water depth in the proposed infiltration BMP, whichever is greater.
- d) A soil test pit log shall be prepared for each soil test pit. The test pit log shall, at a minimum, provide the elevation of the existing ground surface, the depth and thickness (in inches) of each soil horizon or substratum, the dominant matrix or

background and mottle colors using the Munsell system of classification for hue, value and chroma, the appropriate textural class as shown on the USDA textural triangle, the volume percentage of coarse fragments (larger than two (2) millimeters in diameter), the abundance, size, and contrast of mottles, the soil structure, soil consistence, and soil moisture condition, using standard USDA classification terminology for each of these soil properties. Soil test pit logs shall identify the presence of any soil horizon, substratum or other feature that exhibits an in-place permeability rate less than one (1) inch per hour.

e) Each soil test pit log shall report the depth to seasonally high water level, either perched or regional, and the static water level based upon the presence of soil mottles or other redoximorphic features, and observed seepage or saturation. Where redoxomorphic features including soil mottles resulting from soil saturation are present, they shall be interpreted to represent the depth to the seasonal high water table unless soil saturation or seepage is observed at a higher level. When the determination of the seasonally high water table shall be made in ground previously disturbed by excavation, direct observation of the static water table during the months of January through April shall be the only method permitted.

f) Any soil horizon or substratum which exists immediately below a perched zone of saturation shall be deemed by rule to exhibit unacceptable permeability (less than one (1) inch per hour). The perched zone of saturation may be observed directly, inferred based upon soil morphology, or confirmed by performance of a hydraulic head test as defined at N.J.A.C. 7:9A-5.9.

g) Stormwater infiltration BMPs shall not be installed in soils that exhibit artesian groundwater conditions. A permeability test shall be conducted in all soils that immediately underlie a perched zone of saturation. Any zone of saturation which is present below a soil horizon which exhibits an in-place permeability of less than 0.2 inches per hour shall be considered an artesian zone of saturation unless a minimum one foot thick zone of unsaturated soil, free of mottling or other redoximorphic features and possessing a chroma of four or higher, exists immediately below the unsuitable soil.

h) A minimum of one (1) permeability test shall be performed at each soil test pit location. The soil permeability rate shall be determined using test methodology as prescribed in N.J.A.C. 7:9A-6.2 (Tube Permeameter Test), 6.5 (Pit Bailing Test) or 6.6 (Piezometer Test). When the tube permeameter test is used, a minimum of two replicate samples shall be taken and tested. Alternative permeability test procedures may be accepted by the approving authority provided the test procedure attains saturation of surrounding soils, accounts for hydraulic head effects on infiltration rates, provides a permeability rate with units expressed in inches per hour and is accompanied by a published source reference. Examples of suitable sources include hydrogeology, geotechnical or engineering text and design manuals, proceedings of American Society for Testing and Materials (ASTM) symposia, or peer-review journals. Neither a Soil Permeability Class Rating Test, as described in N.J.A.C. 7:9A-6.3, nor a Percolation Test, as

described in N.J.A.C. 7:9A-6.4, are acceptable tests for establishing permeability values for the purpose of complying with this ordinance.

- i) Soil permeability tests shall be conducted on the most hydraulically restrictive horizon or substratum to be left in place below the basin as follows. Where no soil replacement is proposed, the permeability tests shall be conducted on the most hydraulically restrictive horizon or substratum within four (4) feet of the lowest elevation of the basin bottom or to a depth equal to two (2) times the maximum potential water depth within the basin, whichever is greater. Where soil replacement is proposed, the permeability tests shall be conducted within the soil immediately below the depth of proposed soil replacement or within the most hydraulically restrictive horizon or substratum to a depth equal to two (2) times the maximum potential water depth within the basin, whichever is greater. Permeability tests may be performed on the most hydraulically restrictive soil horizons or substrata at depths greater than those identified above based upon the discretion of the design or testing engineer. The tested infiltration rate should then be divided by two (2) to establish the soil's design permeability rate. Such division will provide a 100% safety factor to the tested rate.
- j) The minimum acceptable "tested permeability rate" of any soil horizon or substratum shall be one (1) inch per hour. Soil materials that exhibit tested permeability rates slower than one (1) inch per hour shall be considered unsuitable for stormwater infiltration. The maximum reportable "tested permeability rate" of any soil horizon or substratum shall be no greater than twenty (20) inches per hour regardless of the rate attained in the test procedure.
- k) After all construction activities have been completed on the development site and the finished grade has been established in the infiltration BMP, a minimum of one permeability test shall be conducted within the most hydraulically restrictive soil horizon or substratum below the as-built BMP to ensure the performance of the infiltration BMP is as designed. Hand tools and manual permeability test procedures shall be used for the purpose of confirming BMP performance. In addition, the infiltration BMP shall be flooded with water sufficient to demonstrate the performance of the BMP. Test results shall be certified to the municipal engineer.
- l) A groundwater mounding analysis shall be provided for each stormwater infiltration BMP. The groundwater mounding analysis shall calculate the maximum height of the groundwater mound based upon the volume of the maximum design storm. The Professional Engineer conducting the analysis shall provide the municipal engineer with the methodology and supporting documentation for the mounding analysis used and shall certify to the Borough, based upon the analysis, that the groundwater mound will not cause stormwater or groundwater to breakout to the land surface or cause adverse impact to adjacent surface water bodies, wetlands or subsurface structures including but not limited to basements and septic systems. If there is more than one infiltration BMP proposed, the model shall indicate if and how the mounds will interact. The mounding analysis shall be calculated using the most restrictive soil horizon that will remain in place within the explored aquifer thickness unless alternative

analyses is authorized by the municipal engineer. The mounding analysis shall be accompanied by a cross section of the infiltration BMP and surrounding topography and the mound analysis shall extend out to the point(s) at which the mound intersects with the preexisting maximum water table elevation.

m) The applicant shall demonstrate that stormwater infiltration BMPs meet the seventy-two (72) hour drain time requirement established in Section V.B.1 of this ordinance.

D. Pretreatment measures for infiltration BMPs. By reducing incoming velocities and capturing coarser sediments, pretreatment can extend the functional life and increase the pollutant removal capability of infiltration measures. Therefore, the installation of pretreatment measures is recommended for all development sites. Pretreatment measures may include, but are not limited to, the following:

1. Vegetative filter strips;
2. Bioretention systems. Used in conjunction with a bioretention system, the infiltration basin takes the place of the standard underdrain;
3. Sand filters;
4. Grassed swales; and
5. Detention basins.

E. Collection and Conveyance.

(1) Bicycle-safe inlet grates. Site development plans that incorporate site design features that help to prevent discharge of trash and debris from drainage systems shall comply with the following standard to control passage of solid and floatable materials through storm drain inlets. For purposes of this paragraph, "solid and floatable materials" means sediment, debris, trash, and other floating, suspended, or settleable solids.

a) Design engineers shall use either of the following grates whenever they use a grate in pavement or another ground surface to collect stormwater from that surface into a storm drain or surface water body under that grate:

- i. The New Jersey Department of Transportation (NJDOT) bicycle safe grate, which is described in Chapter 2.4 of the NJDOT Bicycle Compatible Roadways and Bikeways Planning and Design Guidelines (April 1996); or
- ii. A different grate, if each individual clear space in that grate has an area of no more than seven (7) square inches, or is no greater than one half (0.5) inch across the smallest dimension. Examples of grates subject to this standard include grates in grate inlets, the grate portion (non-curb-opening portion) of combination inlets, grates on storm sewer manholes, ditch grates, trench grates, and grates of spacer bars in slotted drains. Examples of ground surfaces include surfaces of roads (including bridges), driveways, parking areas, bikeways, plazas, sidewalks, lawns, fields, open channels, and stormwater basin floors.

b) Whenever design engineers use a curb-opening inlet, the clear space in that curb opening (or each individual clear space, if the curb opening has two or more clear spaces) shall have an area of no more than seven (7) square inches, or be no greater than two (2) inches across the smallest dimension.

c) This standard does not apply:

i. Where the review agency determines that this standard would cause inadequate hydraulic performance that could not practicably be overcome by using additional or larger storm drain inlets that meet these standards;

ii. Where flows from the water quality design storm as specified in Section III are conveyed through any device (e.g., end-of-pipe netting facility, manufactured treatment device, or a catch basin hood) that is designed, at a minimum, to prevent delivery of all solid and floatable materials that could not pass through one of the following:

(a) A rectangular space four and five-eighths (4 and 5/8) inches long and one and one-half (1.5) inches wide (this option does not apply for outfall netting facilities); or

(b) A bar screen having a bar spacing of one-half (0.5) inch.

iii. Where flows are conveyed through a trash rack that has parallel bars with one (1) inch spacing between the bars, to the elevation of the water quality design storm as specified in Section III of this ordinance; or

iv. Where the NJDEP determines, pursuant to the New Jersey Register of Historic Places Rules at N.J.A.C. 7:4-7.2(c), that action to meet this standard is an undertaking that constitutes an encroachment or will damage or destroy the New Jersey Register listed historic property.

(2) Catch basins. Catch basins are storm drain inlets with or without sumps. Catch basins may provide pretreatment for other stormwater BMPs by capturing large sediments. The sediment and pollutant removal efficiency of catch basins depends on the size of the sump and the performance of routine maintenance to retain the available sediment storage space in the sump. Where catch basins with sumps are proposed, the minimum two feet separation between the bottom of the sump and seasonally high water table shall be provided.

(3) Open or perforated conveyance piping. Where adequate separation to the seasonal high water table exists, stormwater from the development site may be conveyed to a stormwater basin via a system of perforated pipes. These pipes may be made of PVC or corrugated metal and are available with perforations of varying size and spacing. Perforated pipe specifications shall be certified by a Professional Engineer. A Professional Engineer shall certify that perforated conveyance piping will not act to intercept the seasonal high water table and convey groundwater to the stormwater basin. All open or perforated stormwater conveyance systems shall be installed with a minimum separation of two (2) feet from the seasonal high water table.

25-16.12 Additional Sources for Technical Guidance.

A. NJDEP Technical Guidance Sources.

(1) New Jersey BMP Manual. Available from the Division of Watershed Management, New Jersey Department of Environmental Protection, PO Box 418, Trenton, New Jersey 08625; or online at <http://www.njstormwater.org>.

(2) NJDEP Stormwater Management Facilities Maintenance Manual. Available from the Division of Watershed Management, New Jersey Department of Environmental Protection, PO Box 418, Trenton, New Jersey 08625; or online at <http://njedl.rutgers.edu/ftp/PDFs/1188.pdf>.

B. Additional Guidance Sources.

(1) New Jersey Pinelands Commission, PO Box 7, 15 Springfield Road, New Lisbon, New Jersey 08064; Phone: 609-894-7300; Website: <http://www.state.nj.us/pinelands>.

(2) State Soil Conservation Committee Standards for Soil Erosion and Sediment Control in New Jersey. Available from all State Soil Conservation Districts[, including Burlington County Soil Conservation District, Tiffany Square, Suite 100, 1289 Route 38, Hainesport, New Jersey 08036; Phone: 609-267-7410; Fax 609-267-3347; Website: <http://bscd.org>]

(3) Ocean County Soil Conservation Districts.

(4) New Jersey Department of Transportation, PO Box 600, Trenton, NJ 08625-0600; Phone: 609-530-3536; Website: <http://www.state.nj.us/transportation>.

Hon. Stephen F. Childers
Mayor

LEGAL NOTICE

NOTICE IS HEREBY GIVEN that Ordinance #06-07 entitled: "AN ORDINANCE OF THE BOROUGH OF LAKEHURST AMENDING CHAPTER XXV OF THE REVISED GENERAL ORDINANCES OF THE BOROUGH OF LAKEHURST, COUNTY OF OCEAN, STATE OF NEW JERSEY, ENTITLED LAND DEVELOPMENT" was finally adopted after a public hearing and Council approval at a meeting of the governing body held on the fifth day of October, 2006.

Bernadette Dugan, RMC
Municipal Clerk

Appendix XIV

Ordinance 09-09 Stormwater Control Addendum

ORDINANCE

“AN ORDINANCE OF THE BOROUGH OF LAKEHURST AMENDING CHAPTER XXV OF THE REVISED GENERAL ORDINANCES OF THE BOROUGH OF LAKEHURST, COUNTY OF OCEAN, STATE OF NEW JERSEY, ENTITLED LAND DEVELOPMENT”

09-09

25-16 STORMWATER CONTROL

25-16.1 Scope and Purpose.

C. Applicability. ADD

This ordinance shall apply to:

- c) The retrofitting of existing storm drain inlets which are in direct contact with repaving, repairing, reconstruction, or resurfacing or alterations of facilities on private property to prevent the discharge of solids and floatables (such as plastic bottles, cans, food wrappers and litter) to MS-4 of the Borough of Lakehurst so as to protect public health, safety and welfare, and to prescribe penalties for the failure to comply.

25-16.5 Design, Construction, and Safety Standards for Structural Stormwater Management Measures. ADD

D. Storm Drain Inlet Standards. Storm drain inlets shall comply with the following standard to control passage of solid and floatable materials through storm drain inlets. For purposes of this section “solid and floatable materials” means sediment, debris, trash, and other floating, suspended or settleable solids.

(1) Design engineers shall use either of the following grates whenever they use a grate in pavement or another ground surface to collect stormwater from that surface into a storm drain or surface water body under that grate.

- a) The New Jersey Department of Transportation (NJDOT) bicycle safe grate, which is described in chapter 2.4 of the NJDOT Bicycle Compatible Roadways and Bikeways Planning and Design Guidelines (April 1996); or
- b) A different grate, if each individually clear space in that grate has an area of no more than seven (7.0) square inches, or is no greater than 0.5 inches across the smallest dimension.

Examples of grates subject to this standard include grates in grate inlets, the grate portion (non-curb-opening portion) of combination inlets, grates on storm sewer

manholes, ditch grates, trench grates, and grates of spacer bars in slotted drains. Examples of ground surfaces include surfaces of roads (including bridges), driveways, parking areas, bikeways, plazas, sidewalks, lawns, fields, open channels, and stormwater basin floors.

(2) Whenever design engineers use a curb-opening inlet, the clear space in that curb opening (or each individual clear space, if the curb opening has two or more clear spaces) shall have an area of no more than seven (7.0) square inches, or be no greater than two (2.0) inches across the smallest dimension.

(3) This standard does not apply:

a. Where the municipal engineer agrees that this standard would cause inadequate hydraulic performance that could not practicably be overcome by using additional or larger storm drain inlets that meet these standards; or

b. Where flows are conveyed through any device (e.g., end of pipe netting facility, manufactured treatment device, or a catch basin hood) that is designed at a minimum to prevent delivery of all solid and floatable materials that could not pass through one of the following:

i. A rectangular space four and five-eighths inches long and one and one-half inches wide (this option does not apply for outfall netting facilities); or

ii. A bar screen having a bar space of 0.5 inches.

c. Where flows are conveyed through a trash rack that has parallel bars with a one-inch (1") spacing between bars; or

d. Where the New Jersey Department of Environmental Protection determines, pursuant to the new Jersey Register of Historic Places Rules at NJAC 7:4-7.2(c), that action to meet this standard is an undertaking that constitutes an encroachment or will damage or destroy the new jersey Register listed historic property.

25-16.7 Definitions. ADD

Unless specifically defined below, words or phrases used in this ordinance shall be interpreted so as to give them the meaning they have in common usage and to give this ordinance its most reasonable application. When used in this ordinance, the following terms shall have the meanings herein ascribed to them.

"Municipal separate storm sewer system (MS-4)" means a conveyance or conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains) that is owned

or operated by the Borough of Lakehurst or other public body, and is designed and used for collecting and conveying stormwater.

“Person” means any individual, corporation, company, partnership, firm, association, municipality or political subdivision of this State subject to municipal jurisdiction.

“Storm drain inlet” means an opening in a storm drain used to collect stormwater runoff and includes, but is not limited to, a grate inlet, curb-opening inlet, slotted inlet, and combination inlet.

25-16.8 Penalties. ADD

A. Any person in control of private property (except a residential lot with one single family house) who shall authorize the repaving, repairing (excluding the repair to individual potholes), resurfacing (including top coating or chip sealing with asphalt emulsion or a thin base of bitumen), reconstructing or altering any surface that is in direct contact with an existing storm drain inlet on that property where the storm drain inlet does not meet the standard of this Chapter, or is not replaced or retrofitted to meet the standard shall be subject to a fine of not less than \$ 500.00 nor more than \$ 2,000.00 for each storm drain inlet that does not meet the standards set in 25-16-5D.

Severability.

Each section, subsection, sentence, clause and phrase of this Ordinance is declared to be an independent section, subsection, sentence, clause and phrase, and the finding or holding of any such portion of this Ordinance to be unconstitutional, void, or ineffective for any cause, or reason, shall not affect any other portion of this Ordinance.

Effective date.

This Ordinance shall take effect immediately upon final passage and publication as required by law.

Hon. Timothy J. Borsetti
Mayor

NOTICE

NOTICE IS HEREBY GIVEN that an ordinance #09-09 entitled “AN ORDINANCE OF THE BOROUGH OF LAKEHURST AMENDING CHAPTER XXV OF THE REVISED GENERAL ORDINANCES OF THE BOROUGH OF LAKEHURST, COUNTY OF OCEAN, STATE OF NEW JERSEY ENTITLED LAND DEVELOPMENT” was finally adopted after a public hearing and Council approval at a meeting of the governing body held on the seventh day of May, 2009.

Bernadette Dugan, RMC
Municipal Clerk

Appendix XV

Ordinance 06-06 Flood Damage Prevention

**“AN ORDINANCE OF THE BOROUGH OF LAKEHURST AMENDING
CHAPTER XXIII OF THE REVISED GENERAL ORDINANCES OF THE
BOROUGH OF LAKEHURST, COUNTY OF OCEAN, STATE OF NEW
JERSEY, ENTITLED FLOOD DAMAGE PREVENTION”**

06-06

BE IT ORDAINED by the Mayor and Borough Council of the Borough of Lakehurst, County of Ocean, State of New Jersey, that Chapter XXIII is amended as follows:

23-1 STATUTORY AUTHORIZATION, FINDINGS OF FACT, PURPOSE AND OBJECTIVES.

23-1.1 Statutory Authorization. The Legislature of the State of New Jersey has in N.J.S.A. 40:48-1, et seq., delegated the responsibility of local governmental units to adopt regulations designed to promote public health, safety, and general welfare of its citizenry. Therefore, the Mayor and Council of the Borough of Lakehurst, County of Ocean, State of New Jersey, does ordain as follows:

23-1.2 Findings of Fact.

- a. The flood hazard areas of the Borough of Lakehurst are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare.
- b. These flood losses are caused by the cumulative effect of obstructions in areas of special flood hazard which increase flood heights and velocities, and when inadequately anchored, damages uses in other areas. Uses that are inadequately flood proofed, elevated or otherwise protected from flood damage also contribute to the flood loss.

23-1.3 Statement of Purpose.

It is the purpose of this ordinance to promote the public health, safety and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed:

- a. To protect human life and health;
- b. To minimize expenditure of public money for costly flood control projects;
- c. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- d. To minimize prolonged business interruptions;

- e. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, bridges located in areas of special flood hazard;
- f. To help maintain a stable tax base by providing for the second use and development of areas of special flood hazard so as to minimize future flood blight areas
- g. To insure that potential buyers are notified that property is in an area of special flood hazard; and
- h. To ensure that those who occupy the area of special flood hazard assume responsibility for their actions.

23-1.4 Methods of Reducing Flood Losses

In order to accomplish its purposes, this ordinance includes methods and provisions for:

- a. Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;
- b. Requiring that uses vulnerable to floods including facilities which serve such uses, be protected against flood damage at the time of initial construction
- c. Controlling the alteration of natural flood plains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;
- d. Controlling filling, grading, dredging, and other development which may increase flood damage; and
- e. Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas.

23-2 DEFINITIONS

Unless specifically defined below, words or phrases used in this ordinance shall be interpreted so as to give them the meaning they have in common usage and to give this ordinance its most reasonable application.

“Appeal” means a request for a review of Zoning Officer’s interpretation of any provision of this chapter or a request for a variance.

“Area of shallow flooding” means a designated AO, AH, or VO zone on a community’s Digital Flood Insurance Rate Map (DFIRM) with a one percent annual or greater chance of flooding to an average depth of one to three feet where a clearly defined channel does not exist, where the path of flooding is

unpredictable and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

“Area of special flood hazard” means the land in the flood plain within a community subject to a one percent or greater chance of flooding in any given year.

“Areas of special flood related erosion hazard” is the land within a community which is most likely to be subject to severe flood related erosion losses. After a detailed evaluation of the special flood related erosion hazard area will be designated a Zone E on the Flood Insurance Rate Map.

“Base flood” means the flood having a one percent chance of being equaled or exceeded in any given year.

“Basement” means any area of the building having its floor subgrade (below ground level) on all sides.

“Breakaway wall” means a wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces without causing damage to the elevated portion of the building or supporting foundation system.

“Coastal high hazard area” means an area of special flood hazard extending from offshore to the inland limit of a primary frontal dune along an open coast and any other area subject to high velocity wave action from storms or seismic sources.

“Development” means any man made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials located within the area of special flood hazard.

“Elevated building” means a non-basement building (i) built in the case of a building in an Area of Special Flood Hazard to have the top of the elevated floor or in the case of a building in a Coastal High Hazard Area to have the bottom of the lowest horizontal structural member of the elevated floor elevated above the ground level by means of piling, columns (posts and piers), or shear walls parallel to the flow of the water, and (ii) adequately anchored so as not to impair the structural integrity of the building during a flood up to the magnitude of the base flood. In an Area of Special Flood Hazard “elevated building” also includes a building elevated by means of fill or solid foundation perimeter walls with openings sufficient to facilitate the unimpeded movement of flood waters. In Areas of Coastal High Hazard “elevated buildings” also includes a building otherwise meeting the definition of “elevated building” even though the lower area is enclosed by means of breakaway walls.

“Erosion” means the process of the gradual wearing away of land masses.

“Flood or flooding” means a general or temporary condition of partial or complete inundation of normally dry land areas from:

- a. The overflow or inland or tidal waters and/or
- b. The unusual and rapid accumulation or runoff of surface waters from any source.

“Digital Flood Insurance Rate Map” (DFIRM) means the official map on which the Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

“Flood Insurance Study” (FIS) means the official report provided in which the Federal Insurance Administration has provided flood profiles, as well as the Flood Insurance Rate Map(s) and the water surface elevation of the base flood.

“Flood-related erosion” means the collapse or subsidence of land along the shore of a lake or other body of water as a result of undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by unusually high water level in a natural body of water, accompanied by a severe storm, or by unanticipated force of nature, such as a flash flood or an abnormal tidal surge, or by similarly unusual and unforeseeable event which results in flooding.

“Flood-related erosion area” or “flood-related erosion prone area” means a land area adjoining the shore of a lake or other body of water, which due to the composition of the shore line or bank and high water levels or wind-driven currents, is likely to suffer flood-related erosion.

“Flood-related erosion area management” means the operation of an overall program of corrective and preventative measures for reducing flood-related erosion damage, including but not limited to emergency preparedness plans, flood-related erosion control works, and flood plain management regulations.

“Flood plain management regulations” means zoning or ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as a flood plain ordinance, grading ordinance and erosion control ordinance) and other applications of police power. The term describes such State or local regulations, in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

“Floodway” means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than 0.2 foot.

“Highest adjacent grade” means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

“Historic Structure” means any structure that is:

- a. Listed individually in the National Register of Historic Places (a listing maintained by the Department of the Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register
- b. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district preliminarily determined by the Secretary to qualify as a registered historic district;
- c. Individually listed on a State inventory of historic places in States with historic preservation programs which have been approved by the Secretary of the Interior; or
- d. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:
 - (1) By an approved State program as determined by the Secretary of the Interior; or
 - (2) Directly by the Secretary of the Interior in States without approved programs.

“Lowest Floor” means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistance enclosure, useable solely for the parking of vehicles, building access or storage in an area other than a basement is not considered a building’s lowest floor provided that such enclosure is not built so to render the structure in violation of other applicable non-elevation design requirements.

“Manufactured home” means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term “manufactured home” does not include a “recreation vehicle.”

“Manufactured home park or manufactured home subdivision” means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

“New construction” means structures for which the start of construction commenced on or after the effective date of a floodplain regulation adopted by a community and includes any subsequent improvements to such structures.

“New manufactured home park or subdivision” means a manufactured home or park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the

installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of the flood plain management regulations adopted by the municipality.

“Primary frontal dune” means a continuous or nearly continuous mound or ridge of sand with relatively steep seaward and landward slopes immediately landward and adjacent to the beach and subject to erosion and overtopping from high tides and waves from coastal storms. The inland limit of the primary frontal dune occurs at the point where there is a distinct change from the relatively steep slope to a relatively mild slope.

“Recreational vehicle” means a vehicle which is (i) built on a single chassis; (ii) 400 square feet or less when measured at the longest horizontal projections; (iii) designed to be self-propelled or permanently towable by light duty truck; and (iv) designed primarily not for use as a permanent dwelling but as a temporary living quarters for recreational, camping, travel, or seasonal use.

“Reference feature” is the receding edge or bluff or eroding frontal dune, or if such a feature is not present, the normal high water line or the seaward line of permanent vegetation if a high water line cannot be identified.

“60-year setback” means a distance equal to 60 times the average annual long term recession rate at a site, measured from the reference feature.

“30-year setback” means a distance equal to 30 times the average annual long term recession rate a site, measured from the reference feature.

“Sand dunes” means naturally occurring accumulations of sand in ridges or mounds landward of the beach.

“Start of Construction” (for other than new construction or substantial improvements under the Coastal Barrier Resources Act (P.L. No. 97-348) includes substantial improvements and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site such as the pouring of a slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation, or the placement of a manufactured home on a foundation.

Permanent construction does not include land preparation, such as clearing, grading, and filling nor does it include the installation of streets and/or walkways, nor does it include excavation for a basement, footings or piers, or foundations or the erection of temporary forms, nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor,

or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

“Structure” means a walled and roofed building, a manufactured home, or a gas or liquid storage tank that is principally above ground.

“Substantial damage” means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

“Substantial Improvement” means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which exceeds 50 percent of the market value of the structure before the “start of construction” of the improvement. This term includes structures which have incurred “substantial damage”, regardless of the actual repair work performed. The term does not, however, include either:

- a. Any project for improvement of a structure to correct existing violations of State or local health, sanitary or safety code specifications which have been identified by the local code enforcement officer and which are the minimum necessary to assure safe living conditions; or
- b. Any alteration of a “historic structure,” provided that the alteration will not preclude the structure’s continued designation as a “historic structure.”

“Variance” means a grant of relief from the requirements of this ordinance that permits construction in a manner that would otherwise be prohibited by this ordinance.

23-3 GENERAL PROVISIONS

23-3.1 Lands to Which This Chapter Applies. This ordinance shall apply to all areas of special flood hazards within the jurisdiction of the Borough of Lakehurst, Ocean County, New Jersey.

23-3.2 Basis for Establishing the Areas of Special Flood Hazard. The areas of special flood hazard for the Borough of Lakehurst, Community No. 340377, are identified and defined on the following documents prepared by the Federal Emergency Management Agency:

- a. A scientific and engineering report “Flood Insurance Study, Ocean County, New Jersey (all jurisdictions)” to be dated September 29, 2006
- b. Flood Insurance Rate Map for Ocean County, New Jersey (all jurisdictions) as shown on index and panel(s) 0164, 0168 whose effective date is to be September 29, 2006.

The above documents are hereby adopted and declared to be a part of this ordinance. The Flood Insurance Study and maps are on file at Borough Hall, 5 Union Avenue, Lakehurst, New Jersey 08733.

23-3.3 Penalties for Non-Compliance. No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this ordinance and other applicable regulations. Violation of the provisions of this ordinance by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions) shall constitute a misdemeanor. Any person who violates this ordinance or fails to comply with any of its requirements shall upon conviction thereof be fined not more than \$2,000 or imprisoned for not more than ninety days, or both, for each violation, and in addition shall pay all costs and expenses involved in the case. Nothing herein contained shall prevent the Borough of Lakehurst from taking such other lawful action as is necessary to prevent or remedy any violation.

23-3.4 Abrogation and Greater Restrictions. This ordinance is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this ordinance and other ordinances, easements, covenants, or deed restrictions conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

23-3.5 Interpretation. In the interpretation and application of this ordinance, all provisions shall be:

- a. Considered as minimum requirements;
- b. Liberally construed in favor of the governing body; and
- c. Deemed neither to limit nor repeal any other powers granted under State statutes.

23-3.6 Warning and Disclaimer of Liability. The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This ordinance does not imply that land outside the area of special flood hazards or uses permitted within such areas will be free from flooding or flood damages.

This ordinance shall not create liability on the part of the Borough of Lakehurst, any officer or employee thereof or the Federal Insurance Administration, for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made thereunder.

23-4 ADMINISTRATION

23-4.1 Establishment of a Development Permit. A development permit shall be obtained before construction or development begins within any area of special flood hazard established in Section 23-3.2. Applications for a Development Permit shall be made on forms furnished by Borough Clerk and may include, but not be limited to; plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, fill storage of materials, drainage facilities; and the location of the foregoing.

Specifically, the following information is required:

- a. Elevation in relation to mean sea level, of the lowest floor (including basement) of all structures;
- b. Elevation in relation to mean sea level to which any structure has been floodproofed.
- c. Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in Section 23-5.2(b); and
- d. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development

23-4.2 Designation of Zoning Officer of the Borough of Lakehurst. The Zoning Officer is hereby appointed to administer and implement this ordinance by granting or denying development permit applications in accordance with its provisions.

23-4.3 Duties and Responsibilities of the Zoning Officer of the Borough of Lakehurst. Duties of the Zoning Officer shall include but not be limited to:

- a. *Permit Review.*
 1. Review all development permits to determine that the permit requirements of this ordinance have been satisfied.
 2. Review all development permits to determine that all necessary permits have been obtained from those Federal, State or local governmental agencies from which prior approval is required.
 3. Review all development permits to determine if the proposed development is located in the floodway, assure that the encroachment provisions of Section 23-5.3(a) are met.

4. Review all development permits in the coastal high hazard area of the area of special flood hazard to determine if the proposed development alters sand dunes so as to increase potential flood damage.
- b. *Use of Other Base Flood and Floodway Data.* When base flood elevation and floodway data has not been provided in accordance with Section 23-3.2, Basis for Establishing the Areas of Special Flood Hazard, the Zoning Officer shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a Federal, State, or other source, in order to administer Sections 23-5.2(a), Specific Standards, Residential Construction, and 23-5.2(b), Specific Standards, Nonresidential Construction.
 - c. *Information to be Obtained and Maintained.*
 1. Obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement.
 2. For all new or substantially improved floodproofed structures:
 - a. verify and record the actual elevation (in relation to mean sea level); and
 - b. maintain the floodproofing certifications required in Section 23-4.1(c)
 3. Maintain for public inspection all records pertaining to the provisions of this ordinance.
 - d. *Alteration of Watercourses.*
 1. Notify adjacent communities and the New Jersey Department of Environmental Protection, Flood Plain Management Section and the Land Use Regulation Program prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration.
 2. Require that maintenance is provided within the altered or relocated portion of said watercourse so the flood carrying capacity is not diminished.
 - e. *Interpretation Firm Boundaries.* Make interpretation where needed, as to the exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location

of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in Section 23-4.4.

23-4.4 Variance Procedure

a. *Appeal Board.*

1. The Land Use Board as established by the Mayor and Council pursuant to N.J.S.A. 40:55D-25 shall hear and decide appeals and requests for variances from the requirements of this chapter.
2. The Land Use Board shall hear and decide appeals when it is alleged there is an error in any requirement, decision, or determination made by the Zoning Officer in the enforcement of this ordinance.
3. Those aggrieved by the decision of the Land Use Board, or any interested party, may appeal such decision to the Superior Court, Law Division as provided in N.J.S.A. 40:55D et seq.
4. In passing upon such applications, the Land Use Board, shall consider all technical evaluations, all relevant factors, standards specified in other sections of this ordinance, and;
 - a. the danger that materials may be swept onto other lands to the injury of others;
 - b. the danger to life and property due to flooding or erosion damage;
 - c. the susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
 - d. the importance of the services provided by the proposed facility to the community;
 - e. the necessity to the facility of a waterfront location, where applicable
 - f. the availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
 - g. the compatibility of the proposed use with existing and anticipated development;
 - h. the relationship of the proposed use to the comprehensive plan and flood plain management program of that area;
 - i. the safety of access to the property in times of flood for ordinary and emergency vehicles;
 - j. the expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site; and
 - k. the costs of providing governmental services during and after flood conditions, including maintenance and repair of

public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges.

5. Upon consideration of the factors of Section 23-4.4a (4) and the purposes of this ordinance, the Land Use Board may attach such conditions to the granting of variances as it deems necessary to further the purposes of this ordinance.
6. The Borough Clerk shall maintain the records of all appeal actions, including technical information, and report any variances to the Federal Insurance Administration upon request.

b. *Conditions for Variances*

1. Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing items (a-k) in Section 23-4.4-a(4) have been fully considered. As the lot size increases beyond the one-half acre, the technical justification required for issuing the variance increases.
2. Variances may be issued for the repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.
3. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
4. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
5. Variances should only be issued upon:
 1. a showing of good and sufficient cause;
 2. a determination that failure to grant the variance would result in exceptional hardship to the applicant; and
 3. a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or
 4. victimization of the public as identified in Section 23-4-4a (4), or conflict with existing local laws or ordinances.

6. Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor elevation below the base flood elevation and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

23-5 PROVISIONS FOR FLOOD HAZARD REDUCTION

23-5.1 General Standards. In all areas of special flood hazards the following standards are required:

a. *Anchoring*

1. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.
2. All manufactured homes shall be anchored to resist flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable State and local anchoring requirements for resisting wind forces.

b. *Construction Materials and Methods.*

1. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
2. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.

c. *Utilities.*

3. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;
4. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters.
5. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding; and
6. Electrical, heating, ventilation, plumbing and air-conditioning equipment and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

d. *Subdivision Proposals.*

1. All subdivision proposals shall be consistent with the need to minimize flood damage;
2. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage;
3. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage; and
4. Base flood elevation data shall be provided for subdivision proposals and other proposed development which contain at least 50 lots or 5 acres (whichever is less).

e. *Enclosure Openings.* All new construction and substantial improvements have fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria: A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, or other covering or devices provided that they permit the automatic entry and exit of floodwaters.

23-5.2 Specific Standards. In all areas of special flood hazards where base flood elevation data have been provided as set forth in Section 23-3.2, Basis for Establishing the Areas of Special Flood Hazard or in Section 23-4.3b, Use of Other Base Flood Data, the following standards are required:

a. *Residential Construction.*

1. In Zones A or AE zones, new construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to or above base flood elevation;
2. require within any AO zone on the municipality's FIRM that all new construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated above the highest adjacent grade at least as high as the depth number specified in feet (at least two feet if no depth number is specified). And, require adequate drainage paths

around structures on slopes to guide floodwaters around and away from proposed structures.

New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to or above base flood elevation.

b. *Nonresidential Construction.*

1. In A or AE, all new construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated to the level of the base flood elevation; or together with the attendant utilities and sanitary facilities, shall:
2. require within any AO zone on the municipality's FIRM that all new construction and substantial improvement of any commercial, industrial, or other nonresidential structure shall either have the lowest floor, including basement, elevated above the highest adjacent grade at least as high as the depth number specified in feet (at least two feet if no depth number is specified). And, require adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures; or

New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated to the level of the base flood elevation; or

3. be floodproofed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water.
4. have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and
5. be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting the applicable provisions of this subsection. Such certification shall be provided to the official as set forth in Section 23-4.3c.

c. *Manufactured Homes.*

1. Manufactured homes shall be anchored in accordance with Section 23-5.1a(2).

2. All manufactured homes to be placed or substantially improved within an area of special flood hazard shall be elevated on a permanent foundation such that the top of the lowest floor is at or above the base flood elevation.

23-5.3 Floodways. Located within areas of special flood hazard established in Section 23-3.2 are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles, and erosion potential, the following provisions apply:

- a. Prohibit encroachments, including fill, new construction, substantial improvements, and other development unless a technical evaluation demonstrates that encroachment shall not result in any increase in flood levels during the occurrence of the base flood discharge.
- b. If Section 23-5.3a is satisfied, all new construction and substantial improvements must comply with Section 23-5 Provisions for Flood Hazard Reduction.
- c. In all areas of special flood hazard in which base flood elevation data has been provided and no floodway has been designated, the cumulative effect of any proposed development, when combined with all other existing and anticipated development, shall not increase the water surface elevation of the base flood more than two-tenths (0.2) of a foot at any point

Severability

All ordinances or parts of ordinances that are in conflict herewith are hereby repealed to the extent of such conflict or inconsistency. If any part of this ordinance shall be held to be invalid, such part shall be deemed to be severable and the invalidity thereof shall not affect the remaining parts of this ordinance.

Effective date

This ordinance shall take effect immediately upon final passage and publication as required by law.

Hon. Stephen F. Childers
Mayor

LEGAL NOTICE

NOTICE IS HEREBY GIVEN that Ordinance #06-06 entitled: "AN ORDINANCE OF THE BOROUGH OF LAKEHURST AMENDING CHAPTER XXIII OF THE REVISED GENERAL ORDINANCES OF THE BOROUGH OF LAKEHURST, COUNTY OF OCEAN, STATE OF NEW JERSEY, ENTITLED FLOOD DAMAGE

PREVENTION” was finally adopted after a public hearing and Council approval at a meeting of the governing body held on the twentieth day of July, 2006.

Bernadette Dugan, RMC
Municipal Clerk

Appendix XVI
Intergovernmental Agreement Schedule C

INTERGOVERNMENTAL AGREEMENT SCHEDULE C

THIS AGREEMENT made this 7th day of February, 2018, between the County of Ocean, a body politic of the State of New Jersey (hereinafter called the "County"), and the Borough of Lakehurst a Local Governmental Unit of the State of New Jersey (hereinafter called "Local Governmental Unit").

WITNESSETH:

WHEREAS, it is the desire of the Ocean County Board of Chosen Freeholders to assist the Local Governmental Unit in the repair and maintenance of its streets and property, road overlay, in addition to providing certain materials and supplies in connection therewith; and

WHEREAS, the Local Governmental Unit desires to enter into an Agreement with the County for such services;

NOW, THEREFORE, in consideration of the mutual terms and conditions and covenant herein contained, the parties agree as follows:

1. If requested by the Local Governmental Unit, the County, at the discretion of the County Road Supervisor, except for items F, G, and H, which shall be at the discretion of the County Engineer, and item I which shall be at the discretion of the Vehicle Services Director will assist the Local Governmental Unit in the following ways:

- A. Mowing of plant growth along local governmental units roads or property;
- B. Plowing snow on local governmental units roads or property;
- C. Purchase of materials or supplies for the maintenance of local governmental unit roads or property;
- D. Sweeping of local governmental units roads or property;
- E. Road overlay (List of Schedule "C" Major Projects Request must be completed);
- F. Curbs and Sidewalks on local governmental unit roads;
- G. Repair of traffic signals;
- H. Traffic signs or pavement marking;
- I. Vehicle Maintenance Services.

2. This Agreement shall take effect upon execution by the parties and shall remain in full force and effect through December 31, 2018. The total amount of the Local Governmental Unit purchases of goods and services under this Agreement shall not exceed the sum of eighty-seven thousand Dollars and no cents (\$ 87,000.00) during the term of this Agreement. The Local Governmental Unit certifies that sufficient funds are available in its current Budget to cover the cost of the Agreement.

3. This Agreement will be administered on behalf of Ocean County by the Ocean County Board of Chosen Freeholder or their Designee and by

Mayor Harry Robbins

(print name and title of responsible person)

on behalf of the Local Governmental Unit.

4. Materials or supplies, if available, will be issued to the Local Governmental Unit from the County yard or warehouse. Except during emergencies, all purchase requests for materials and supplies shall be in writing.

5. Each County Department shall invoice the Local Governmental Unit for materials and supplies delivered and services rendered. Monies due shall be paid by the Local Governmental Unit to the County within thirty (30) days after the Local Governmental Unit's receipt of said invoices.

6. The applicable rates and charges for equipment and labor are set forth in the List of Labor and Equipment Costs, which is attached hereto and made a part hereof.

A. The Local Governmental Unit may request the County to provide for the disposition of sweeping materials from the Local Governmental Unit site. All costs associated with the disposition of these materials, including, but not limited to, all costs incurred in the inspection, testing, classification, screening and ultimate disposition of the sweepings, shall be the responsibility of the Local Governmental Unit and shall be included in the County's next invoice for payment by the Local Governmental Unit.

B. When requested by the Local Governmental Unit to sweep municipal roads or properties, the materials collected will be disposed of at a designated municipal site. If the Local Governmental Unit is unable to provide a site, the County will store the municipal sweepings at the nearest County garage and the Local Governmental Unit will be responsible for all costs incurred as described in paragraph A.

7. The Local Governmental Unit hereby covenants and agrees to save harmless the County, its agents, officials and employees from any and all suits, damages, claims or other causes of action, including reasonable attorneys' fees, which may result from performance of this Agreement by the County.

IN WITNESS WHEREOF, the parties have hereunto set their hands and seals the day and year first written above.

ATTEST:

Betty Vail
Clerk of the Board

COUNTY OF OCEAN

By: Gerry P. Little
Gerry P. Little-Freenholder-Director

ATTEST:

Bernadette Dugan
Signature
Bernadette Dugan
Print Name
Municipal Clerk
Title

GOVERNMENTAL UNIT

Harry Robbins
Signature
Harry Robbins Mayor
Print Name Title

SCHEDULE 'C'

MAJOR PROJECTS REQUEST

This form must be completed whether or not you are requesting any Major Projects and must be returned with your Agreement and Resolution. Failure to do so will delay processing of your Agreement as all Agreements must have this page completed and attached. Please write none if no projects are requested at this time.

Municipality: Borough of Lakehurst Completed By: Bernadette Dugan

Agreement is for the purchase of supplies only-----check here _____

Agreement is for sweeping, screening of sweepings & removal of same----check here X

If requesting road overlay services, major reconstruction or drainage work, list projects below. You will not be committed to doing the projects listed.

LOCATION

PARAMETERS

DESCRIPTION OF WORK

NO MAJOR PROJECTS SCHEDULED

**SCHEDULE "C" LABOR AND EQUIPMENT RATES
EFFECTIVE JANUARY 1, 2018**

<u>ROAD DEPARTMENT</u>	<u>REGULAR</u>	<u>OVERTIME</u>
Laborer	\$20.02	\$30.03
Bridge Repairman	\$21.23	\$31.85
Equipment Operator	\$24.87	\$37.31
Truck Driver, Heavy	\$27.29	\$40.94
Mechanic	\$27.29	\$40.94
Motor Broom Operator	\$30.93	\$46.40
Heavy Equipment Operator	\$30.93	\$46.40
Heavy Equipment Operator/Welder	\$32.75	\$49.13
Supervising Mechanic	\$33.96	\$50.94
Supervisor	\$42.45	\$63.68

<u>TRAFFIC ENGINEERING</u>	<u>REGULAR</u>	<u>OVERTIME</u>
Traffic Analyst	\$20.75	\$31.13
Sign Maker I	\$18.20	\$27.30
Laborer	\$18.20	\$27.30
Signal Systems Worker	\$21.01	\$31.52
Traffic Maintenance Worker	\$17.51	\$26.27
Traffic Investigator	\$20.40	\$30.60
Senior Traffic Maintenance Worker	\$21.11	\$31.67
Traffic Signal Technician I	\$24.81	\$37.22
Traffic Signal Technician II	\$25.91	\$38.87
Assistant Supervisor Maintenance	\$25.73	\$38.60
Senior Traffic Analyst	\$22.00	\$33.00
Principal Traffic Analyst	\$28.49	\$42.74
Supervisor Maintenance	\$29.46	\$44.19
Signal Supervisor I	\$26.02	\$39.03
Signal Supervisor II	\$33.46	\$50.19

<u>EQUIPMENT</u>	<u>HOURLY RATE</u>
Air Compressor	\$ 30.47
Attenuator	\$ 55.00
Arrow Board	\$ 4.43
Asphalt Heater	\$ 15.00
Backhoe	\$ 47.70
Boat #3, Munson	\$ 78.95
Boat, 12' Jon	\$ 1.44
Bucket Truck	\$ 39.50
Cement Mixer	\$ 19.60
Chainsaw	\$ 2.65
Chipper	\$ 35.00
Crack Sealer	\$ 35.70 + \$25.00 per box of materials
Crane	\$ 140.00
Curb Machine	\$ 15.00
Cutting Wheel	\$ 40.00
Dozer	\$ 93.74

**SCHEDULE "C" LABOR AND EQUIPMENT RATES
EFFECTIVE JANUARY 1, 2018**

<u>EQUIPMENT</u>	<u>HOURLY RATE</u>
Excavator, Large	\$153.00
Excavator, Small	\$ 34.20
Excavator, Floating	\$105.00
Extractor	\$ 39.00
Fork Lift	\$ 18.50
Grader	\$ 67.50
Light Tower	\$ 10.68
Loader 3cy	\$ 43.85
Loader 5cy	\$ 64.00
Message Board	\$ 11.61
Mower	\$ 15.00
Pothole Patcher	\$ 65.00
Pump	\$ 10.30
Pump, 3" Gas Mud	\$ 27.10
Pump, 3" Gas Pressure	\$ 27.10
Pump, 4" Gas Pressure	\$ 41.50
Pump, 6" Gas Pressure	\$ 49.90
Pump, 4" Gas Trash	\$ 27.10
Pump, 6" Diesel Trash	\$ 49.90
Pump, 8" Trash	\$ 66.85
Raft 8' x 20'	\$ 15.00
Roll-off Container	\$ 25.00 per day/\$100 weekly (plus Landfill Disposal Fees)
Roller, 1 Ton	\$ 28.25
Roller, 5-10 Ton	\$ 32.50
Roller, over 10 Ton	\$ 39.25
Screenplant	\$ 80.50
Skid Steer Loader w/Profiler	\$ 38.50
Skid Steer Loader	\$ 36.00
Storm Sewer Cleaner	\$ 44.20
Stump Grinder	\$ 45.00
Sweeper	\$ 96.80
Sweepster	\$ 60.00
Tractor Trailer	\$ 60.00
Track Loader	\$101.30
Trailer, Dump	\$ 18.00 with no truck
Truck, Dump, 4 cy	\$ 40.00
Truck, Dump, 6 cy	\$ 48.90
Truck, Pickup	\$ 20.80
Truck, Pole	\$110.00
Truck, Rack	\$ 35.00
Truck, Roll-off	\$ 55.90
Truck, Tandem	\$ 67.70
Truck, Triaxle 23 cy	\$ 75.50
Truck, Utility	\$ 26.75
Truck, Water	\$ 55.00
Truck, Welding	\$ 65.00 does not include Labor or Materials
Van-Video	\$ 35.00
Wrecker, Large	\$ 128.00
Wrecker, Small	\$ 55.00

**SCHEDULE "C" LABOR AND EQUIPMENT RATES
EFFECTIVE JANUARY 1, 2018**

OTHER CONDITIONS

1. Material and supplies will be billed at the County's bid price or State Contract price, whichever applies.
2. A fee of \$8.00 per ton will be billed for each ton of asphalt installed to defray labor and equipment costs. During a Schedule "C" paving project, traffic control services may be provided for a fee of \$3.00 per ton of asphalt installed. Materials (asphalt plus oil adjustment in addition to the profiler machine & fuel adjustment-if needed) to be billed at County costs.
3. A hauling fee of \$3.00 per cubic yard based upon the size of the truck will be billed for each load of material hauled for the Local Governmental Unit, other than asphalt. (For example, the charge per load for a 6 cubic yard truck would be \$18.00, a 12 cubic yard truck \$36.00 and so forth). The Local Governmental Unit is responsible for the disposal costs. *The cost of the operator and truck will be additional, billed hour for hour as per the attached rate schedule in addition to the material cost.*
4. A fee of \$5.00 per cubic yard for each cubic yard of material hauled and installed (other than asphalt) will be billed for each load of material hauled and installed. *The cost of the operator and equipment will be additional, billed hour for hour as per the attached rate schedule in addition to the material cost.*
5. A fee of \$110.00 per cubic yard of material screened will be billed to defray labor and equipment costs. *The cost of disposal at the Landfill and testing of material, if necessary, will be additional.*
6. A line Striping fee of \$.17 per foot of striping will be billed to defray labor and equipment costs. If required, costs for layout will be additional.
7. A fee of \$30.00 per vehicle will be billed for the use of the County's Wash Pad service and a fee of \$35.00 per vehicle will be billed for the use of the County's Truck Wash service.
8. As per the Ocean County Vehicle Services Director, the labor rate is \$59.00 per an hour.