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THE COUNTY OF OCEAN

HIGHWAY AGENCY PERMIT

OCEAN COUNTY
NEW JERSEY



NJPDES 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
NJPDES GENERAL PERMIT # **NJG0152382**

PROGRAM INTEREST ID # 222780

Effective Date of Permit Authorization: April 1, 2004

PREPARED FOR:



Prepared by:



Revised: March 7, 2024

NJPDES MUNICIPAL STORMWATER REGULATION PROGRAM
STORMWATER POLLUTION PREVENTION PLAN

Highway Agency Permit

Stormwater Coordinator Endorsement

Reporting Year	Signature	Date
2026		
2027		
2028		
2029		

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1.0 INTRODUCTION

As a result of the United States Environmental Protection Agency's Phase II Stormwater Rules, which were adopted on December 8, 1999, the NJDEP proposed amendments to the NJPDES Regulations (N.J.A.C. 7:14A) which were presented in the January 6, 2004 New Jersey Register. These changes address non-point sources of contamination that enter our waterways through stormwater runoff, which is estimated to attribute to 60% of the existing water pollution problems within our State. The NJDEP has implemented these changes through the NJPDES Municipal Stormwater Regulation Program, whose focus is to address pollutants entering waters through municipal separate storm sewer systems (MS4s) owned or operated by local, county, state and federal government agencies. As a result, applicable public agencies were required to prepare and submit a NJPDES General Stormwater Permit Request for Authorization 30 days from the effective date of the rule authorization, or March 3, 2004.

These regulations affect all 566 New Jersey municipalities, all 21 counties, the New Jersey Department of Transportation and state highway authorities, numerous public complexes which include colleges and universities, prisons and hospitals operated by counties; and other public agencies. The County's Request for Authorization (RFA) application has been submitted for a General Highway Agency Permit.

The effective date of permit authorization (EDPA) for the County's Highway Agency 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 Highway Agency General Stormwater Permit. This permit is presented in Attachment I.

2.0 BACKGROUND

Ocean County, the second largest county in New Jersey by square miles, is located in the Atlantic Coastal Plain. The County encompasses five (5) Watershed Management Areas (WMA), which include the Assiscunk, Crosswicks, and Doctors WMA, Rancocas WMA, Mullica WMA, Monmouth WMA, and Barnegat Bay WMA, and borders the Atlantic Ocean.

The Barnegat Bay estuary encompasses 42 miles of shoreline from the Point Pleasant Canal to Little Egg Harbor Inlet and is protected from the open ocean by a system of barrier beaches and dunes. The Barnegat Bay Estuary Program is funded by the US Environmental Protection Agency, and is one of the United States estuaries of "national significance."

A majority of the area west of the Garden State Parkway contains large tracts of State Parks, Forests, County Parks and Wildlife Management Areas. There are a total of 16 county parks in Ocean County. In addition, approximately 20,000 acres east of the Garden State Parkway are protected under the Edwin B. Forsythe National Wildlife Refuge. The Barnegat Bay and Little Egg Harbor, which encompasses nearly the entire north-south length of the County, were recently added to the US National Estuary Program.

In the northwest portion of the County, active farmland is being preserved through the County Farmland Preservation Program. Over 1,580 acres of productive farmland have been preserved just outside of New Egypt, in Plumsted Township.

One of the county's largest environmentally sensitive areas includes a portion of the State's Pinelands National Reserve. This reserve encompasses about 1.1 million acres and is approximately 22% of all New Jersey land area. The Pinelands National Reserve is the largest body of open space on the Mid-Atlantic seaboard between Boston and Richmond.



US Census 2000 Data Ocean County

Population	510,916
Households	200,402
Families	137,876
Population density	310/km² (803/mi²)

Development in Ocean County has traditionally occurred along the coastal beaches and in the corridor formed by the Garden State Parkway and US Route 9. Major interchanges along the Garden State Parkway have encouraged development along east-west corridors, such as County Routes 526 and 528; State Highway 37 and State Highway 72. Interstate 195 is a relatively new highway which is playing an increasing role in the development of the northern portion of the County. The shore-area is the County's most popular tourist attraction. The population doubles during the summer months due to the popularity of the shore towns. The waters in and around the County are utilized heavily during the summer months for activities such as swimming, surfing, boating, fishing, as well as other recreational and commercial uses.

2.1 OCEAN COUNTY DEPARTMENTS AND FACILITIES

The activities of many departments will be affected by the County's stormwater pollution prevention program, which is headed by the County Engineer. Standard operating procedures must be implemented by all departments at County maintenance yards, including the County Road, Vehicle Services, Traffic and Buildings and Grounds Departments.

The following facilities are addressed under the County's Highway Agency Permit:

- Plumstead Garage – Highway 528, Plumstead
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- Manahawkin – 301 Hay Road, Stafford
- Ship Bottom Garage – Barnegat Ave., Ship Bottom
- Transportation and Vehicle Services Facility – Route 9, Toms River

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 affected parties. The deadline to apply was March 3, 2004. The permit is a five (5) year permit which is automatically renewed. NJDEP will also charge an annual permit fee 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 County's general stormwater permit is April 1, 2004. Implementation schedules will correspond with the EDPA for each of the SBRs addressed in the Highway Agency General Stormwater Permit. This permit is presented in Attachment I.

2.3 STORMWATER POLLUTION PREVENTION PLAN

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. This plan will include an implementation schedule consistent with SBRs, including interim milestones, as well as maintenance and inspection schedules where applicable. Maps and diagrams referenced in the SPPP will be included where appropriate.

2.4 STATEWIDE BASIC REQUIREMENTS AND IMPLEMENTATION SCHEDULE FOR HIGHWAY AGENCIES

The following information describes in summary the SBRs detailed under the Highway Agency Stormwater Permit as well as the corresponding schedule for the implementation of those requirements.

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 major development on Highway Agency's properties, and requires compliance with the new design standards for storm drain inlets. These items must be addressed 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.

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 users and employees of rest areas and services areas owned by the County starting 12 months from the EDPA. A copy of this brochure is presented in Appendix D. Additional education requirements in the form of the labeling of storm drain inlets in pedestrian areas (i.e. rest/service areas, maintenance facilities, streets with sidewalks) is required to be completed within 60 months of the EDPA, with 50% completed within 36 months of the EDPA.

2.4.3 Improper Waste Disposal

The Improper Waste Disposal SBR requires permittees to adopt and enforce a regulatory mechanism controlling the improper disposal of waste material (i.e. waste automotive fluids, household chemicals, etc.), pet waste, and prohibiting of wildlife feeding 18 months from the EDPA. Within the same 18 month timeframe, permittees must also develop and enforce an illicit connection identification program, which includes the enforcement of a regulatory mechanism prohibiting unauthorized connections to the municipal separate storm sewer system (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.

This SBR also requires the permittee to develop a litter collection and removal program at all rest areas and service areas 12 months from the EDPA. Documentation of collection dates and estimated waste volumes must be maintained by the County.

The last of the requirements under this SBR includes the mapping of all MS4 outfalls owned or operated by the County on a tax map or equivalent drawing. This also includes the application of an alphanumeric identifier for each permitted outfall and the identification of the receiving water body. The regulations require the County 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.

2.4.4 Solids and Floatable Control

Under the solids and floatable control SBR, County agencies are required to sweep all rest areas, service areas, maintenance yards, and County 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. Remaining roadways must be swept a minimum of once every two years. Exclusions from this requirement only occur if weather does not permit the completion of sweeping activities. These activities must commence 12 months from the EDPA.

Permittees must also 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 all projects that were designed or awarded subsequent to March 3, 2004. Certain flood prone areas can be exempted from this requirement with a Professional Engineer's Certification. In addition to the above, the County must also develop a maintenance program for all stormwater facilities operated by the County which 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 County 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.

The County must develop a Roadside Erosion Control Maintenance Program to identify and repair erosion along County owned roadways. The dates of all inspection and repairs must be documented in the plan. This must start 18 months from the EDPA.

An Outfall Pipe Stream Scouring Remediation Program must be developed by the County to detect, remediate, and maintain repairs of stream bank scouring in the vicinity of outfalls. The County must document all inspections, repairs, and must implement this within 18 months of the EDPA.

The County must develop a Roadside Vegetation Management Program that reduces the application of both herbicides and mulch. Herbicides may only be applied in a two foot radius around structures where mowing is not practical. In addition, the application of mulch must comply with the Soil Erosion Sediment Control Standards to prevent its transport into the stormwater collection system. The implementation of the program must begin 12 months from the EDPA.

2.4.5 Maintenance Yard Operations

The permittee must perform an inventory of all materials and machinery stored at the facilities, and 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.

Permittees are required to permanently cover all deicing materials using a permanent building or other enclosure which contains an impervious floor. Regular maintenance of the structure and inspections must also be completed. Seasonal tarping (October 15 through April 30) can be used as an interim compliance method, but must be ceased 36 months from the EDPA. Clean sand may be stored outside and uncovered if a 50-foot set back from a water body or stormwater collection system is maintained.

Highway Agencies must develop and implement a SOP for vehicle fueling and bulk deliveries associated with fuel dispensing systems owned by the County. This includes requirements to prevent spills during fueling and bulk deliveries, and includes the protection of storm drain inlets to prevent an impact to surface water in the event a spill should occur. These requirements must be implemented 12 months from the EDPA.

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 maintenance areas and vehicles.

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.

2.4.6 Employee Training

Permittees are required to 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 – ANNUAL CERTIFICATION REPORT

All permittees under the Highway Agency Permit are required to complete an Annual Certification Report. An example of this report is presented as Attachment II. These reports summarize the permittee's status of compliance with the permits and the milestones of each SBR and must be certified by the County for submittal to the NJDEP. Copies of the reports shall remain on-site for a period of 5 years. The Annual Report is due on or before July 1, 2005, and every year thereafter.

In the event there are areas of non-compliance, the County must explain the necessary steps being taken to correct the deficiencies and to prevent a reoccurrence.

TABLE 1.0 – MSRP IMPLEMENTATION SCHEDULE

DATE OF COMPLETION	TASK TO BE COMPLETED
April 1, 2005	• Implement Stormwater Pollution Prevention Plan • Implement Stormwater Management Program • Implement Litter Pickup Program • Begin monthly street sweeping, where appropriate • Begin Stormwater Facility Maintenance Program • Begin Roadside Vegetative Management Program • Implement Fueling Operation SOP • Implement Vehicle Maintenance SOP • Implement Good Housekeeping SOP
October 1, 2005	• Adopt Pet Waste Control • Adopt Improper Waste Disposal Control • Adopt Wildlife Feeding Control • Adopt Illicit Connection Control • Begin Illicit Connection Elimination Program • Begin Road Erosion Control Maintenance Program • Begin Outfall Pipe Stream Scouring Remediation Program
July 1, 2005	• Complete and Submit Annual Report and Certification for year one
April 1, 2006	• Educational Brochure Distributed and Documented • Employees Trained and Documented • Annual Catch Basin Cleaning Complete
July 1, 2006	• Complete and Submit Annual Report and Certification for year two
April 1, 2007	• 1st Sector Completed for Outfall Mapping • 1st Sector Completed for Catch Basin Labeling • Permanent Storage Structure for De-icing Material
July 1, 2007	• Complete and Submit Annual Report and Certification for year three
July 1, 2008	• Complete and Submit Annual Report and Certification for year four
April 1, 2009	• Outfall Mapping Complete • Inlet Labeling Complete
July 1, 2009	• Complete and Submit Annual Report and Certification for year five

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2.4.4 Solids and Floatable Control

Under the solids and floatable control SBR, County agencies are required to sweep all rest areas, service areas, maintenance yards, and County 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. Remaining roadways must be swept a minimum of once every two years. Exclusions from this requirement only occur if weather does not permit the completion of sweeping activities. These activities must commence 12 months from the EDPA.

Permittees must also 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 all projects that were designed or awarded subsequent to March 3, 2004. Certain flood prone areas can be exempted from this requirement with a Professional Engineer's Certification. In addition to the above, the County must also develop a maintenance program for all stormwater facilities operated by the County which 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 County 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.

The County must develop a Roadside Erosion Control Maintenance Program to identify and repair erosion along County owned roadways. The dates of all inspection and repairs must be documented in the plan. This must start 18 months from the EDPA.

An Outfall Pipe Stream Scouring Remediation Program must be developed by the County to detect, remediate, and maintain repairs of stream bank scouring in the vicinity of outfalls. The County must document all inspections, repairs, and must implement this within 18 months of the EDPA.

The County must develop a Roadside Vegetation Management Program that reduces the application of both herbicides and mulch. Herbicides may only be applied in a two foot radius around structures where mowing is not practical. In addition, the application of mulch must comply with the Soil Erosion Sediment Control Standards to prevent its transport into the stormwater collection system. The implementation of the program must begin 12 months from the EDPA.

2.4.5 Maintenance Yard Operations

The permittee must perform an inventory of all materials and machinery stored at the facilities, and 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.

Permittees are required to permanently cover all deicing materials using a permanent building or other enclosure which contains an impervious floor. Regular maintenance of the structure and inspections must also be completed. Seasonal tarping (October 15 through April 30) can be used as an interim compliance method, but must be ceased 36 months from the EDPA. Clean sand may be stored outside and uncovered if a 50-foot set back from a water body or stormwater collection system is maintained.

Highway Agencies must develop and implement a SOP for vehicle fueling and bulk deliveries associated with fuel dispensing systems owned by the County. This includes requirements to prevent spills during fueling and bulk deliveries, and includes the protection of storm drain inlets to prevent an impact to surface water in the event a spill should occur. These requirements must be implemented 12 months from the EDPA.

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 maintenance areas and vehicles.

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.

2.4.6 Employee Training

Permittees are required to 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 – ANNUAL CERTIFICATION REPORT

All permittees under the Highway Agency Permit are required to complete an Annual Certification Report. An example of this report is presented as Attachment II. These reports summarize the permittee's status of compliance with the permits and the milestones of each SBR and must be certified by the County for submittal to the NJDEP. Copies of the reports shall remain on-site for a period of 5 years. The Annual Report is due on or before July 1, 2005, and every year thereafter.

In the event there are areas of non-compliance, the County must explain the necessary steps being taken to correct the deficiencies and to prevent a reoccurrence.

TABLE 1.0 – MSRP IMPLEMENTATION SCHEDULE

DATE OF COMPLETION	TASK TO BE COMPLETED
April 1, 2005	• Implement Stormwater Pollution Prevention Plan • Implement Stormwater Management Program • Implement Litter Pickup Program • Begin monthly street sweeping, where appropriate • Begin Stormwater Facility Maintenance Program • Begin Roadside Vegetative Management Program • Implement Fueling Operation SOP • Implement Vehicle Maintenance SOP • Implement Good Housekeeping SOP
October 1, 2005	• Adopt Pet Waste Control • Adopt Improper Waste Disposal Control • Adopt Wildlife Feeding Control • Adopt Illicit Connection Control • Begin Illicit Connection Elimination Program • Begin Road Erosion Control Maintenance Program • Begin Outfall Pipe Stream Scouring Remediation Program
July 1, 2005	• Complete and Submit Annual Report and Certification for year one
April 1, 2006	• Educational Brochure Distributed and Documented • Employees Trained and Documented • Annual Catch Basin Cleaning Complete
July 1, 2006	• Complete and Submit Annual Report and Certification for year two
April 1, 2007	• 1st Sector Completed for Outfall Mapping • 1st Sector Completed for Catch Basin Labeling • Permanent Storage Structure for De-icing Material
July 1, 2007	• Complete and Submit Annual Report and Certification for year three
July 1, 2008	• Complete and Submit Annual Report and Certification for year four
April 1, 2009	• Outfall Mapping Complete • Inlet Labeling Complete
July 1, 2009	• Complete and Submit Annual Report and Certification for year five

Ocean County Highway Agency Stormwater Pollution Prevention Team Members

Completed by: Mark F. Jehnke

Title: County Engineer

Highway Agency Name: Ocean County

NJPDES #: NJG0152382

PIID #: 222780

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

Date form complete: April 1, 2005

Date of most recent update: May 30, 2025

Stormwater Program Coordinator: Mark F. Jehnke

Title: County Engineer

Office Phone #: 732-929-2130

Emergency Phone #: _____

Public Notice Coordinator: Michelle I. Gunther

Title: Clerk of the Board

Office Phone #: 732-929-2005

Emergency Phone #: _____

Post-Construction Stormwater Management Coordinator: Mark F. Jehnke

Title: County Engineer

Office Phone #: 732-929-2130

Emergency Phone #: _____

Local Public Education Coordinator: Donna Flynn

Title: Director, Public Information Division

Office Phone #: 732-929-2089

Emergency Phone #: _____

Regulatory Mechanism Coordinator: Anthony M. Agliata

Title: Planning Director

Office Phone #: 732-929-2054

Emergency Phone #: _____

Physical Operations Coordinator: Arthur Reece; Joseph Meyers Jr., Brian McCarthy; Anthony M. Agliata; Mark F. Jehnke Title: County Road Supervisor; Buildings & Grounds; Vehicle Services; Hazardous Waste; Traffic Dept.

Office Phone #: 732-929-2133; 732-929-2039; 732-288-7283; 732-506-5047; 732-929-2130

Emergency Phone #: _____

Employee Training Coordinator: Robert A. Greitz

Title: Director of Department of Employee Relations

Office Phone #: 732-929-2128

Emergency Phone #: _____

Other: Erica Struyk

Title: Senior Environmental Engineer, Engineering Department

Office Phone #: 732-929-2130

Emergency Phone #: _____

Other: Sean Areia

Title: Assistant County Engineer, Engineering Department

Office Phone #: 732-929-2130

Emergency Phone #: _____

SPPP Form 2 – Revision History

Highway Agency
Information

Date of most recent update: June 27, 2025

[illegible]

SPPP Form 3 - Public Notice

Highway Agency
Information

Highway Agency Name: Ocean County Highway Agency

NJPDES # :NJG0152382

PI ID #: 222780

Team Member/Title: Michelle I. Gunther, Clerk of Board

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

Date of Completion: April 1, 2005

Date of most recent update: June 27, 2025

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

In regard to the county budget, Ocean County provides public notice in a manner that complies with the requirements of the Local Budget Law, N.J.S.A. 40A:4-1 et seq.

For resolutions of the Ocean County Board of Commissioners that provide a penalty for violation thereof, Ocean County provides public notice in a manner that complies with the requirements of N.J.S.A. 40:24-3.

All public notices appear in the following periodicals:

- Ocean County Observer
- Asbury Park Press

SPPP Form 4 - Local Public Education Program

Highway Agency
Information

Highway Agency Name: Ocean County Highway Agency

NJPDES # :NJG0152382

PI ID #: 222780

Team Member/Title: Donna Flynn, Director of Public Information Division

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

Date of Completion: April 1, 2005

Date of most recent update: June 27,2025

Local Public Education Program

Describe your Local Public Education Program. Be specific on how you will distribute your educational information.

Local Public Education Program:

Ocean County does not currently own or operate any service or rest areas along the County highway system; therefore distribution of the annual brochure to users of the system is not required. However, Ocean County will post the annual brochure in common areas of appropriate Highway Agency structures and will also implement the posting of signs along select areas of the system, including all maintenance yards, reminding employees and users not to litter. In addition, Ocean County will incorporate the brochure into the "County Connection" public outreach mechanisms which include a location at the Ocean County Mall in Dover Township, and their mobile information trailer used at a number of County functions.

Educational information will be made available to employees during the employee training program.

Please refer to Form 13 - Employee Training for a description of Ocean County's Program



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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**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.



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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.





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).

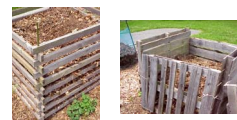
Types of Compost Bins

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
Pests (rats, raccoons, insects)	Cold weather	Insulate pile with layer of straw or cover with tarp
	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 ¼ 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

Vermicomposting (Worm Composting)

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

Kitchen wastes, such as fruits, vegetables, coffee grounds, tea bags, and eggshells, are a part of the solid waste stream. Most of this material is disposed of as garbage at transfer stations, landfills, and incinerators at a high economic and environmental cost to citizens. A positive alternative is to compost kitchen scraps using red worms to make a valuable compost for use as a soil amendment or as a starter mix for house plants or seedlings. **Note:** Avoid meats, oils, and grease in the compost system.

Worm composting is enjoyable, and it demonstrates the natural process of decomposition and the life cycle of the organisms involved.

Materials

- A worm bin can be made from an old dresser drawer, a 5-gallon plastic bucket, or from wood. A wooden box should be approximately 2 ft. X 2 ft. X 8 in. high. Do not use cedar, as it is toxic to the worms.
- Bedding material: shredded, moist newspaper, cardboard, and/or leaf compost.
- Watering can or container to provide water for the system.

- Red worms (*Eisenia foetida*) 1 pound. They can be ordered from:

Flowerfield Enterprises
10332 Shaver Road
Kalamazoo, MI 49002

Lower East Side Ecological Center
P. O. Box 20488
New York, NY 10009

Procedure

1. Shred newspapers or cardboard or use leaf compost. Moisten this material and place it in the bin loosely to provide for air circulation.
2. Add 1 lb. of red worms to the bin. They will crawl to the bottom of the bedding material to avoid the light.
3. Place food scraps except animal products (meats, greases, etc.) under the bedding. The worms can consume 3 to 3 1/2 lbs. of kitchen waste per week while making vermicompost.
4. Keep the bin covered loosely with plastic or newspaper to retain moisture. The box should be checked every day or two

for moisture. When the surface or edges of the bedding begin to dry, add water.

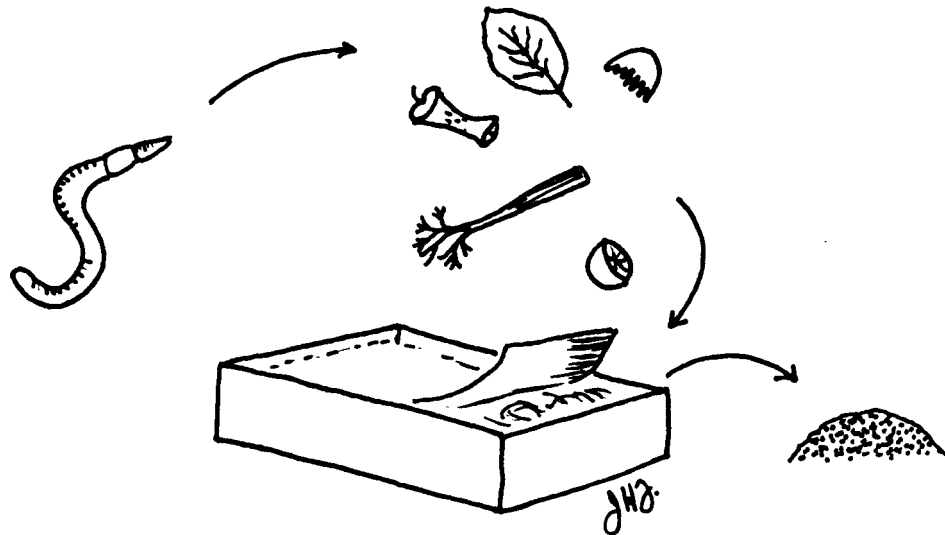
Summary

The process takes about 3 to 4 months to produce a finished vermicompost product, which looks like brown coffee grounds. The compost consists of worm castings, partially decomposed kitchen waste, and some undecomposed bedding. The worms eat not only the food, but also the newspaper or other bedding. Vermicompost can be mixed into garden soil to improve structure and to provide nutrients, can be used as mulch, or as a potting soil mix.

To separate the compost, place it on a table under lights. The worms will go to the bottom of the pile away from the light. Remove the finished compost and start the process over again. Because the worms have reproduced, you can separate out the surplus and start a new box. Always keep the bin at a temperature above freezing and below 95° F. The bin should be kept indoors in winter, but can be placed in the shade in summer. Stop feeding for several days or weeks before ready to use.

References

Appelhof, Mary. 1982. *Worms Eat My Garbage*. Flower Press, Kalamazoo, MI.





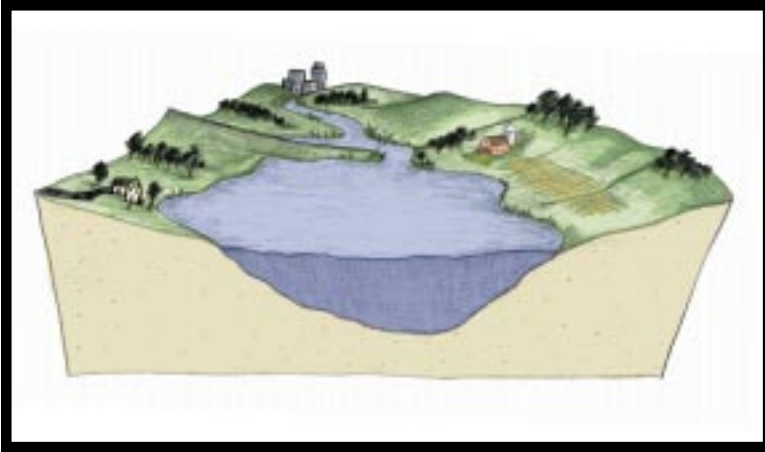
What's a watershed?

No matter where you are in New Jersey, you are in a watershed. Watersheds are everywhere ... from your front doorstep to the local park to the shopping mall to the creek down the road. Watersheds are the link between our land, our water and our communities because the quality of our water is linked to how we use the watershed surrounding it.

So what is a watershed?



What's a watershed?



A watershed is the area of land that drains into a body of water such as a river, lake, stream or bay. It is separated from other watersheds by high points in the area such as hills or slopes. It includes not only the waterway itself but also the entire land area that drains to it. For example, the watershed of a lake would include not only the streams entering that lake but also the land area that drains into those streams and eventually the lake. Drainage basins generally refer to large watersheds that encompass the watersheds of many smaller rivers and streams.

What's the water cycle?

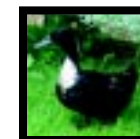
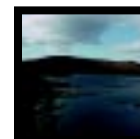
For millions of years, water has been used. It is constantly being recycled and reused. It is important to understand how water moves through the Earth's water cycle, which is defined as the movement of water from the Earth's surface into the atmosphere and back to the Earth's surface again.

When it rains, the rainwater flows over land into waterways or is absorbed by the ground or plants. Water evaporates from land and water bodies becoming water vapor in the atmosphere. Water is also released from trees and other plants through "transpiration." The water vapor from evaporation and transpiration forms clouds in the atmosphere which in turn provide precipitation (rain, hail, snow, sleet) to start the cycle over again. This process of water recycling, known as the water cycle, repeats itself continuously.

What's your watershed address?

Where does the water that rains on your home go? After it leaves your lawn, street or sidewalk where is it headed? Does it flow downhill straight to a nearby stream or lake? Does it wander into a wetlands? Does it puddle in your backyard? Does it zip down a storm drain to a local creek?

That destination, whether it's a puddle, a pond, a bay or a lake, is your watershed address. It could be Duck Pond, Spring Lake, Millstone River, Barnegat Bay or Beaver Brook. Just like there are towns within counties within states, there are subwatersheds within watersheds within drainage basins. For example, the rain that falls on your driveway might flow into Lake Hopatcong, which flows into the Musconetcong River, which flows into the Delaware River. So your watershed address would be Lake Hopatcong, Musconetcong River, Delaware River even though your mail finds you through Jefferson Township, Morris County, New Jersey.



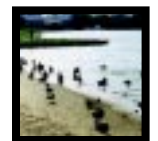
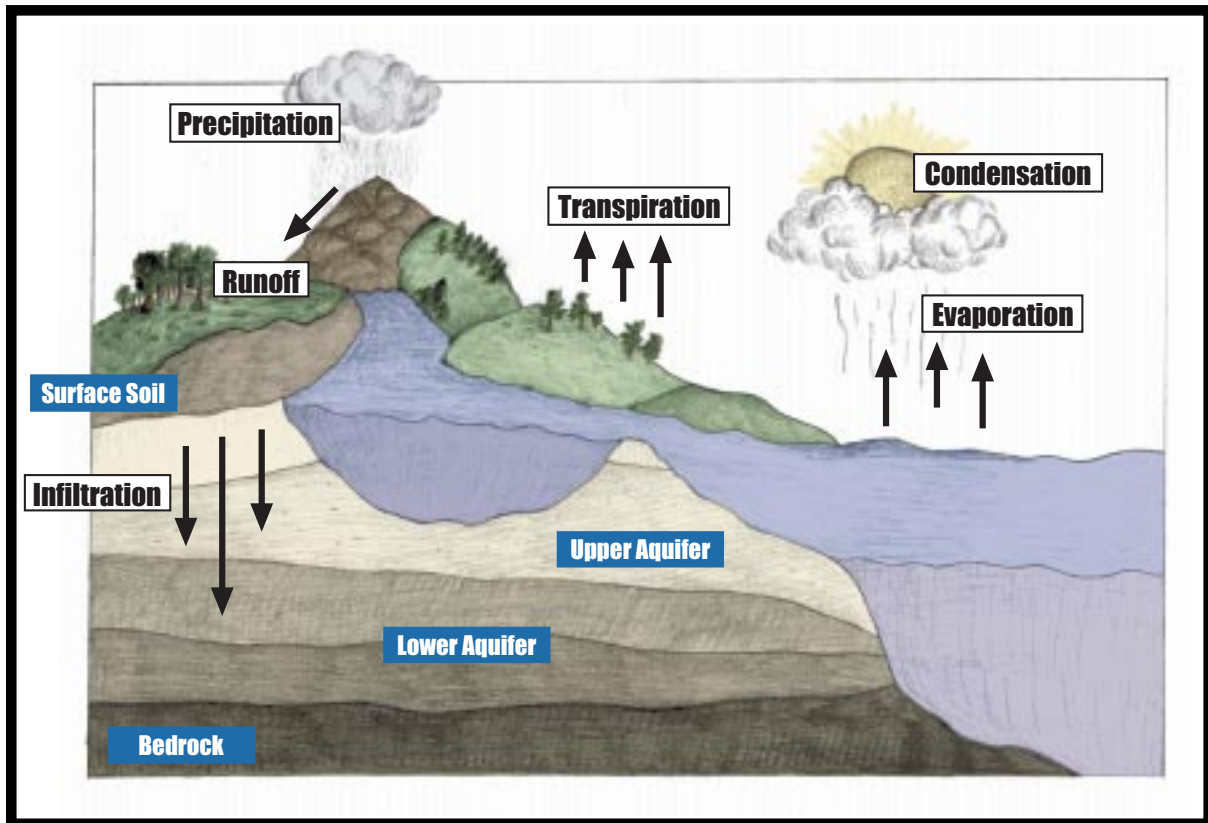
What's ground water?

A sizable amount of rainwater runoff seeps into the ground to become ground water. Ground water moves into water-filled layers of porous geological formations called aquifers. If the aquifer is close to the surface, its ground water can flow into nearby waterways or wetlands, providing a base flow. Depending on your location, aquifers containing ground water can range from a few feet below the surface to several hundred feet underground. Aquifer recharge areas are locations where rainwater and other precipitation seeps into the Earth's surface to enter an aquifer. Contrary to popular belief, aquifers are not flowing underground streams or lakes.

Ground water moves at an irregular pace, seeping from more porous soils, from shallow to deeper areas and from places where it enters the Earth's surface to where it is discharged or withdrawn. A system of more than 100 aquifers is scattered throughout New Jersey, covering 7,500 square miles.

Why is ground water important?

Ground water is the primary drinking water source for half of the state's population. Most of this water is obtained from individual domestic wells or public water supplies which tap into aquifers. New Jersey agriculture also depends on a steady supply of clean ground water for irrigation.



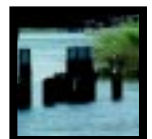
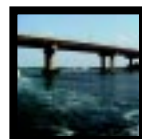
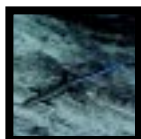
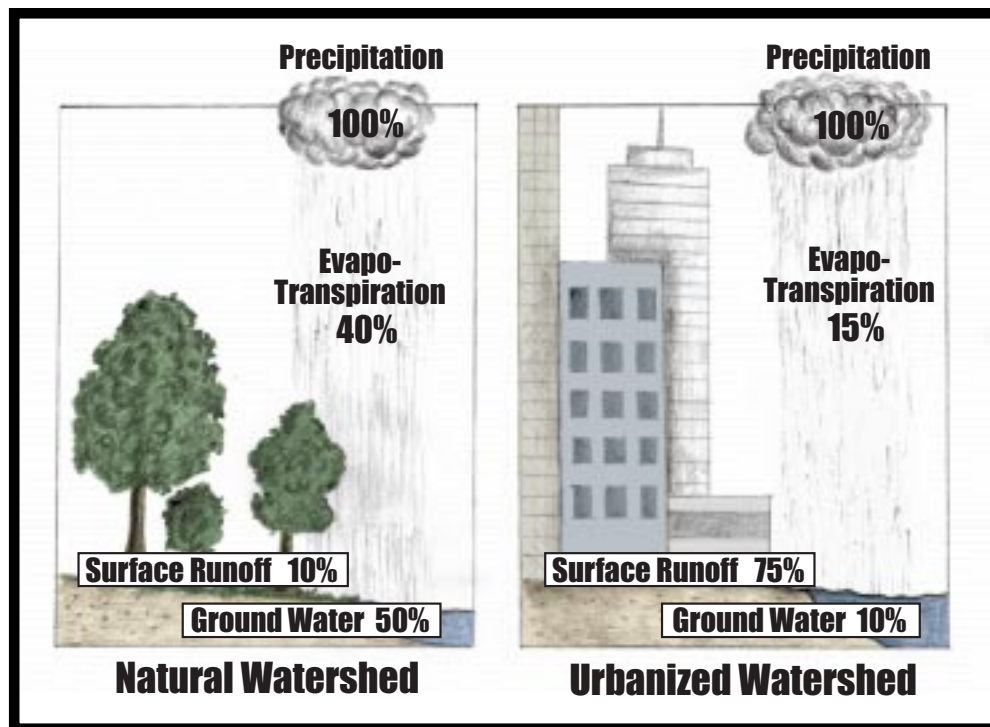
How does urbanization change a watershed?

Urbanization (or development) has a great effect on local water resources. It changes how water flows in the watershed and what flows in the water. Both surface and ground water flow are changed.

As a watershed becomes developed, trees, shrubs and other plants are replaced with impervious surfaces (roads, rooftops, parking lots and other hard surfaces that do not allow stormwater to soak into the ground). Without the plants to store and slow the flow of stormwater, the rate of stormwater runoff is increased. Less stormwater soaks into the ground because the sidewalks, roads, parking lots and rooftops block this infiltration. This means a greater volume of water reaches the waterway faster and less water infiltrates to ground water. This in turn leads to more flooding after storms and reduced flow in streams and rivers during dry periods. The reduced amount of infiltrating water can lower ground water levels, which in turn can stress local waterways that depend on steadier flows of water.

In the stream, more erosion of stream banks and scouring of channels will occur due to volume increase. This in turn degrades habitat for plant and animal life that depend on clean water. Sediment from eroded stream banks clogs the gills of fish and blocks light needed for plants. The sediment settles to fill in stream channels, lakes and reservoirs. This also increases flooding and the need for dredging to clear streams or lakes for boating.

In addition to the high flows caused by urbanization, the increased runoff also contains increased contaminants. These include litter, cigarette butts and other debris from sidewalks and streets, motor oil poured into storm sewers, heavy metals from brake linings, settled air pollutants from car exhaust and pesticides and fertilizers from lawn care. These contaminants reach local waterways quickly after a storm.



What's watershed management?

The watershed management approach seeks to effectively protect our water resources by taking into account the entire watershed. Successful watershed management requires the participation and involvement of the entire community within the watershed boundaries, including industry, government, business and citizens. Since everyone may contribute to watershed problems, all should be involved in identifying both the problems and the solutions.

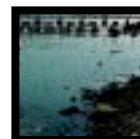
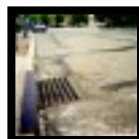
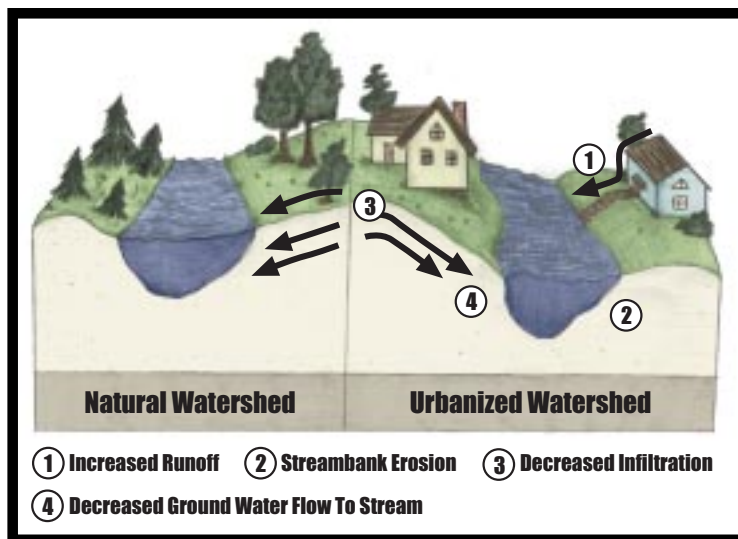
One of the first steps in watershed management is problem identification. Does the local lake choke with weeds in the summer? Are failing septic systems closing shellfish beds? Is increased runoff causing stream banks to erode?

Once the problems and their causes have been identified, practical solutions must be chosen. The watershed community must identify traditional or innovative solutions that will work in their area. These solutions can range from changes to municipal stormwater ordinances to homeowner education about lawn care to stream bank restoration projects.

Identifying which solutions are right for a particular watershed is a crucial component of the watershed management process. Different solutions work in different communities. Developed with the watershed community of industry, government, business and citizens, watershed management planning reflects the concerns and priorities of that community.

Once solutions have been identified, they must be implemented to be successful. This can be the most difficult part of the process. How can implementation be ensured? Who will carry out the plan? Is the community committed to implementing the plan? Are there resources available to do it?

The advantage of watershed management planning is that it addresses all sources of pollution within the watershed and is developed by the community most affected by it. Nonpoint source pollution is particularly suited to this approach because it is frequently beyond the scope of traditional regulatory programs. The plan can incorporate solutions ranging from change in local land use to integrated pest management. Each plan will uniquely fit the problems and solutions of its watershed.



New Jersey's five watershed bureaus and 20 watershed management areas

Northwest Bureau (609) 633-3812

- 1. Upper Delaware River**
- 2. Walkill, Pochuck, Papakating**
- 11. Central Delaware Tributaries**

Northeast Bureau (609) 633-1179

- 3. Pompton, Pequannock, Wanaque, Ramapo**
- 4. Lower Passaic, Saddle**
- 5. Hackensack, Pascack, Hudson**
- 6. Upper and Mid-Passaic, Whippany, Rockaway**

Raritan Bureau (609) 633-7020

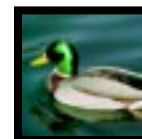
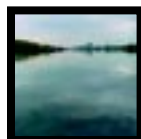
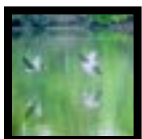
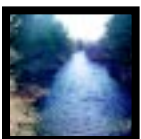
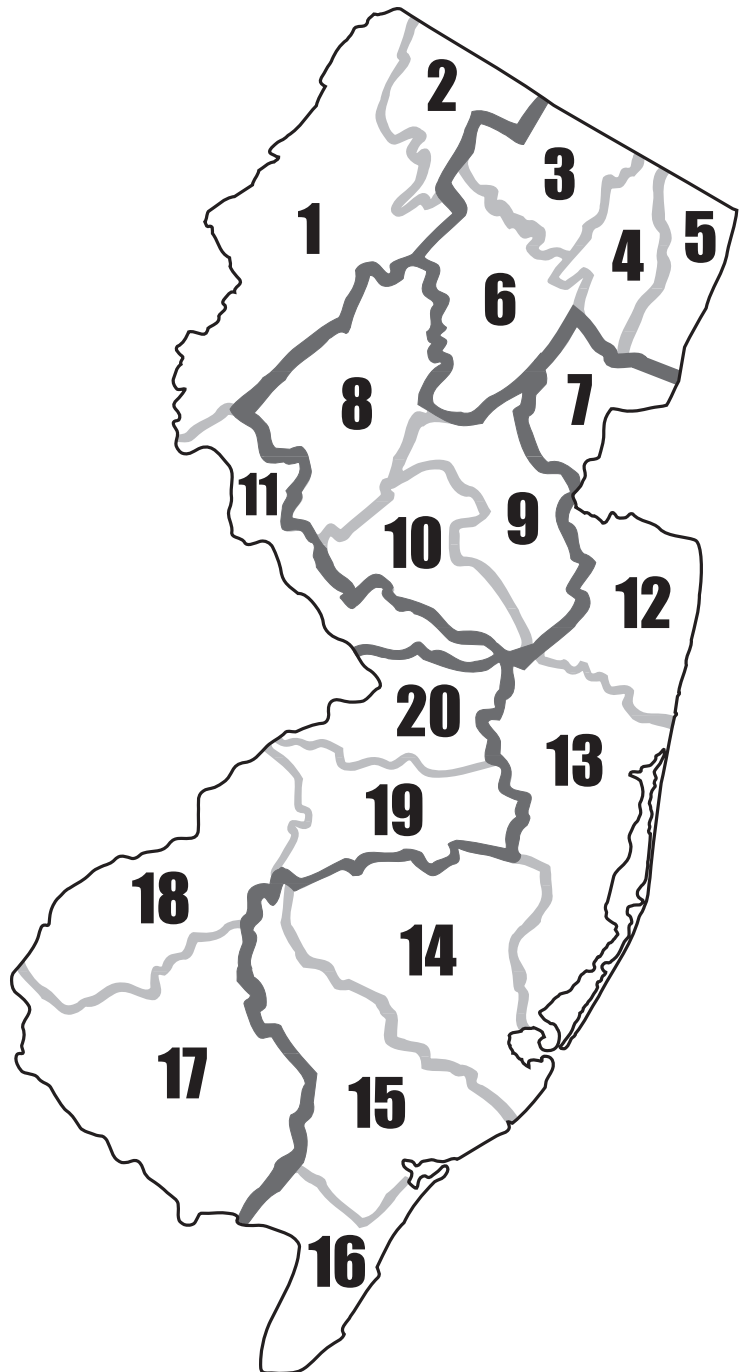
- 7. Elizabeth, Rahway, Woodbridge**
- 8. North and South Branch Raritan**
- 9. Lower Raritan, South River, Lawrence Brook**
- 10. Millstone River**

Atlantic Coastal Bureau (609) 984-6888

- 12. Monmouth Watersheds**
- 13. Barnegat Bay Watersheds**
- 14. Mullica, Wading River**
- 15. Great Egg Harbor, Tuckahoe**
- 16. Cape May Watersheds**

Lower Delaware Bureau (609) 633-1441

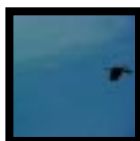
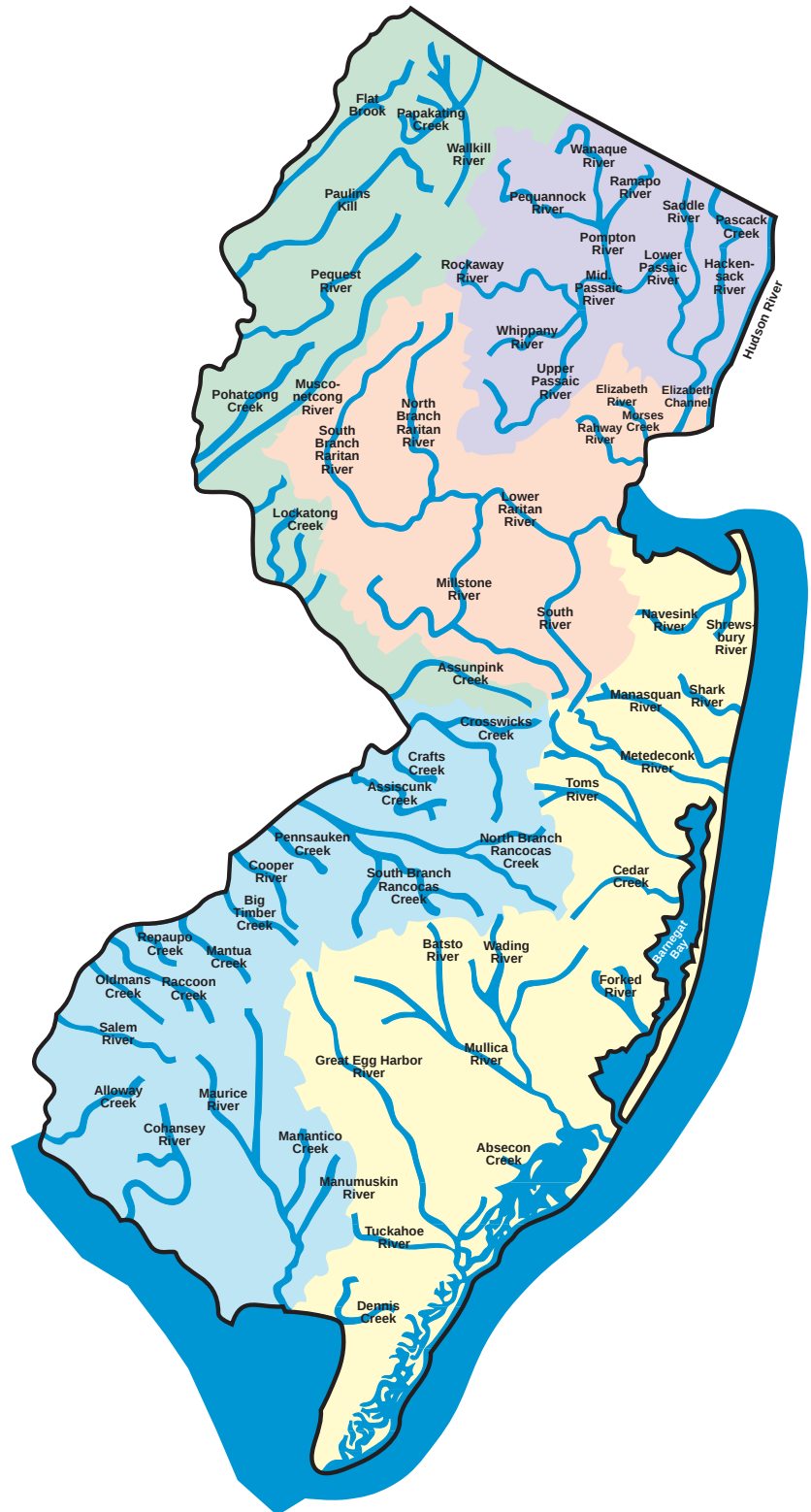
- 17. Maurice, Salem, Cohansey**
- 18. Lower Delaware Tributaries**
- 19. Rancocas Creek**
- 20. Crosswicks Creek**



New Jersey's five watershed regions and major waterways

watershed regions

-  Atlantic Coastal
-  Lower Delaware
-  Northeast
-  Northwest
-  Raritan



Watershed protection and nonpoint source pollution

what you can do today!

One way you can protect your watershed is to reduce nonpoint source pollution. Nonpoint source pollution or “people pollution” is contamination of our watersheds, 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 from the entire watershed into local waterways. They can also soak into the ground contaminating the ground water below.

But there is 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 a few ways that you can reduce nonpoint source pollution:

Place litter in trash receptacles. Never throw litter, including cigarette butts and fast food containers, in streets or down storm drains. Recycle as much as possible.

Avoid the overuse of fertilizers. Do not apply them before a heavy rainfall. Do a soil test to see if fertilizers are necessary. Fertilizers contain nitrates and phosphates that, in abundance, cause blooms of algae that can lead to fish kills.

Use alternative to pesticides whenever possible. If you do use a pesticide, follow the label directions carefully. Many household products made to exterminate pests are also toxic to humans, animals, aquatic organisms and plants.

Pick up after your pet. Pet owners should use newspaper, bags or scoopers to pick up after their pets and dispose of wastes in the garbage or toilet, not the storm drain. Animal wastes contain bacteria and viruses that can contaminate shellfish and cause the closing of bathing beaches. Animal waste also contains nutrients that can cause algae blooms that are unsightly and can lead to fish kills.

Do not feed ducks and geese. Feeding ducks, geese and other waterfowl causes them to concentrate in small areas resulting in concentrated animal waste, causing the same problems as pet waste.

Dispose of household hazardous waste properly. Do not pour household hazardous products down any drain or toilet. 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. Many common household products (paint thinners, mothballs, 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.

Recycle all used motor oil. Do not dump used motor oil down storm drains or on the ground. Take it to a local public or private recycling center. Used motor oil contains toxic chemicals that are harmful to animals, humans and fish.

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.

Treat your septic system with respect. Avoid adding unnecessary grease, household hazardous products and solids to your septic system. Conserve water. Inspect your tank annually and pump it out every three to five years depending on its use. An improperly working septic system can contaminate ground water and create public health problems.

Use marine sanitation devices and pump-out facilities at marinas when boating. Observe the state’s no discharge zones. Dumping boat sewage overboard introduces bacteria and viruses into the water.



For additional information please contact:
New Jersey Department of Environmental Protection · Watershed Management
P.O. Box 418 · 401 East State Street · Trenton · New Jersey · 08625-0418
609-292-2113 · www.state.nj.us/dep/watershedmgt



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.



Don't litter

- Place litter in trash receptacles.

- Recycle. Recycle. Recycle.

- Participate in community cleanups.

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.



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

What is Nonpoint Source Pollution?

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. 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.

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





**COLORING
BOOK**

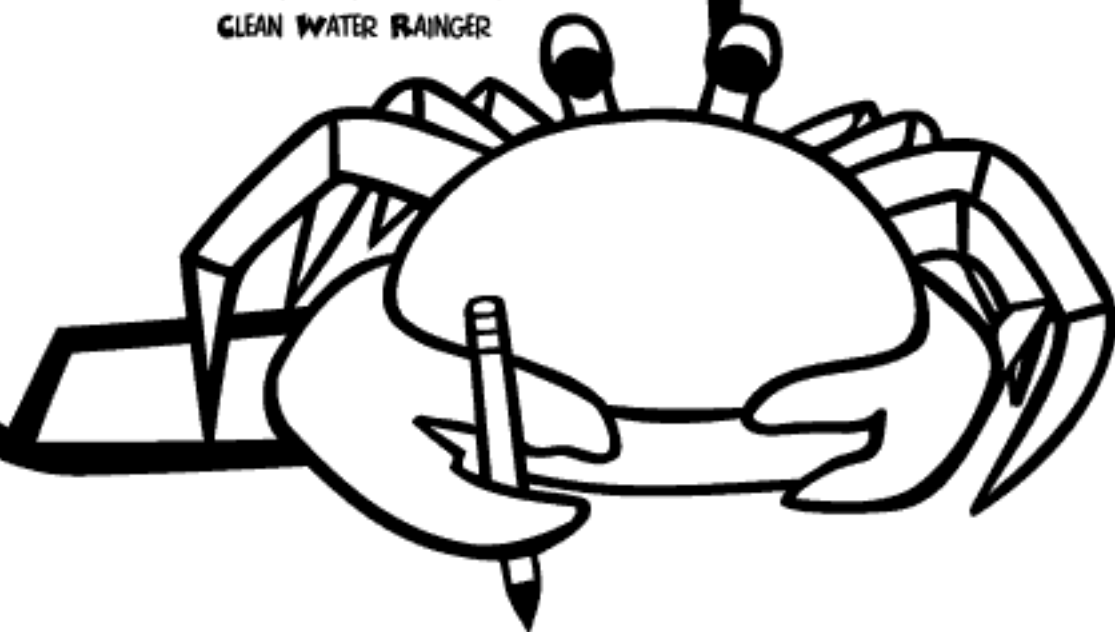
HEY KIDS,

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
RAINGER TEAM.

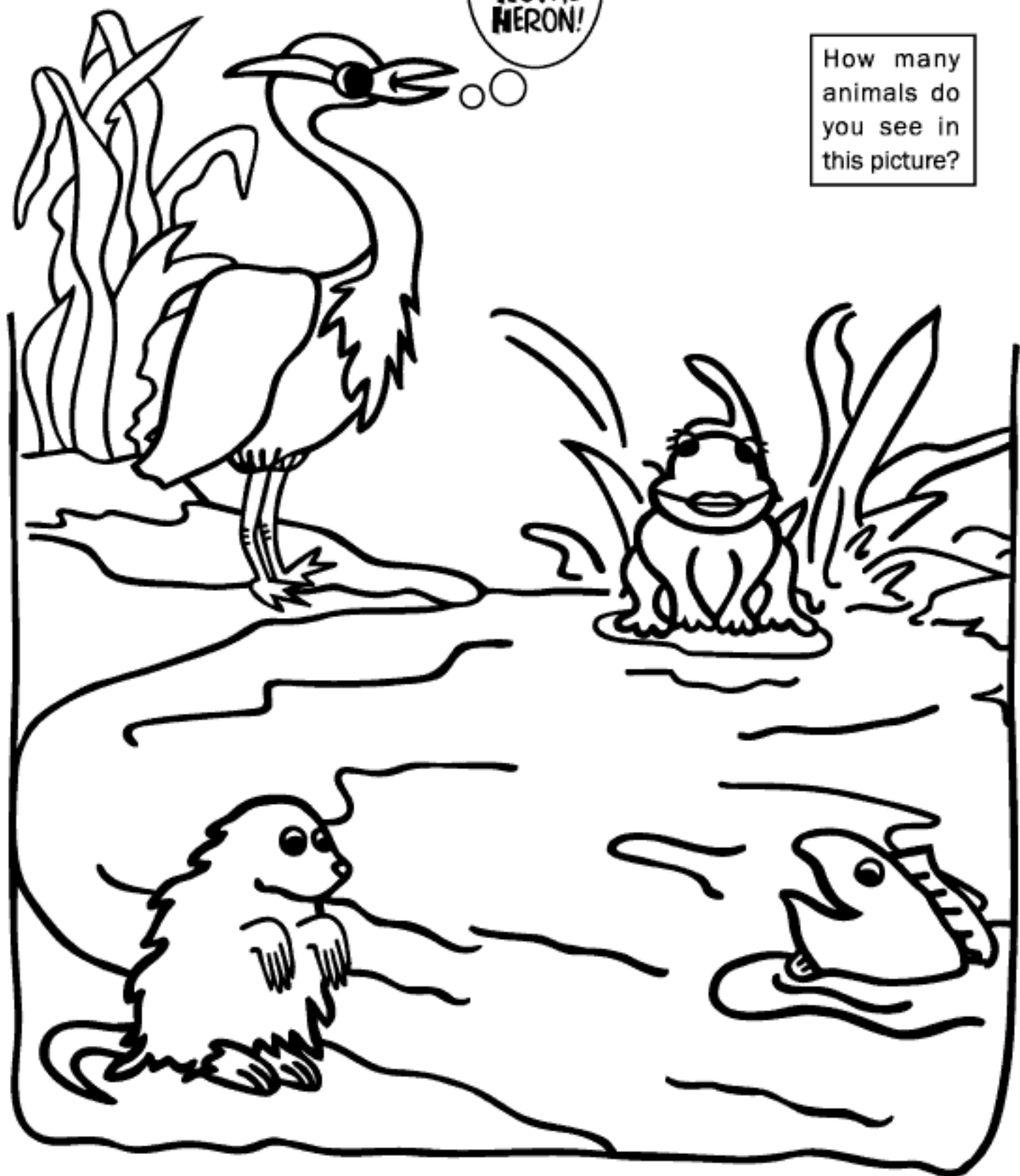
YOUR FRIEND,

Claudius Crab
CLEAN WATER RAINGER



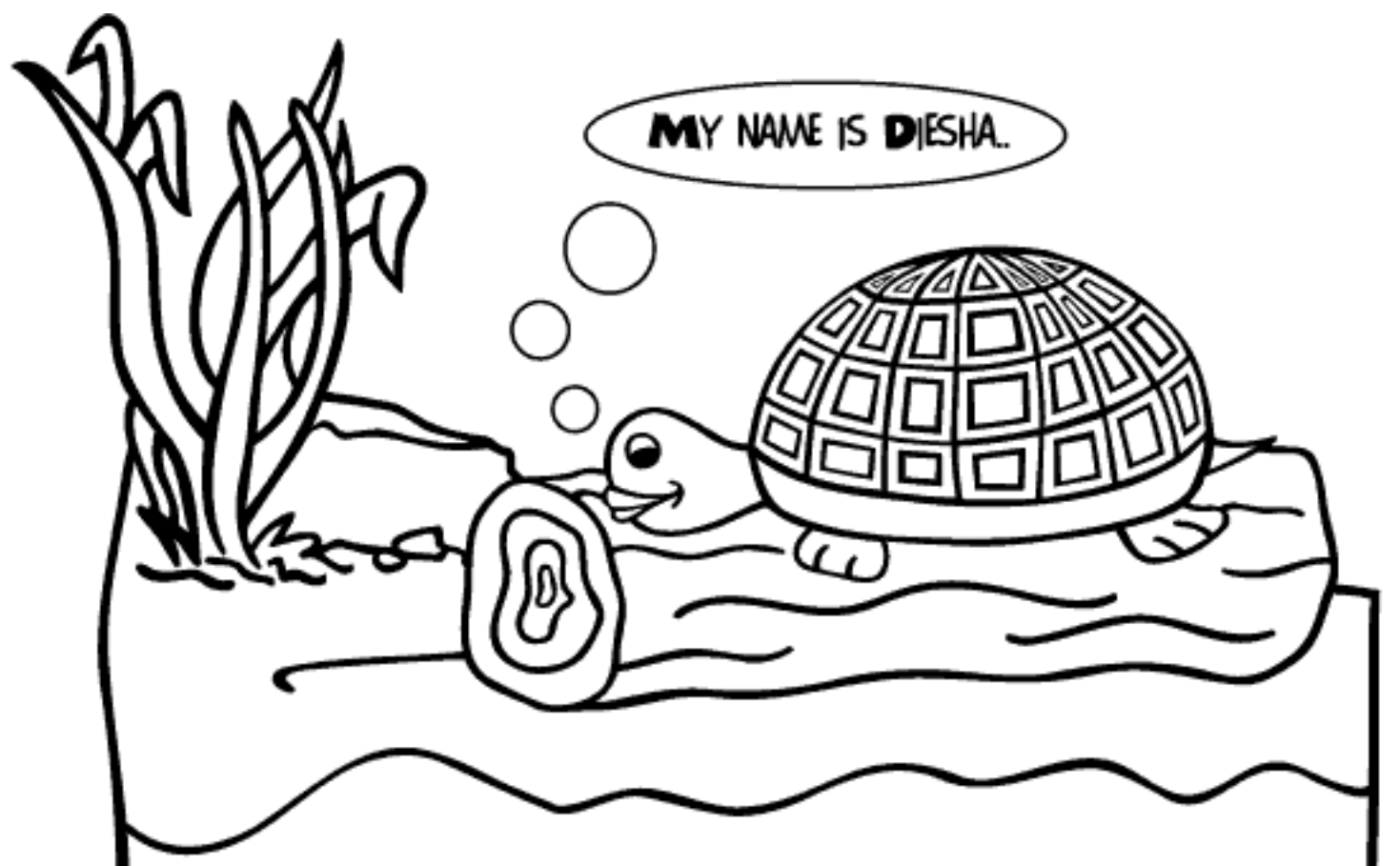
HI!
I'M
HOWIE
HERON!

How many
animals do
you see in
this picture?



3

HOWIE THE **G**R**EAT** **B**L**UE** **H**ERON LIVES NEAR **N**EW **J**ERSEY'S RIVERS, STREAMS, LAKES AND BAYS. HIS FRIENDS **M**ARSHALL **M**USKRAT, **B**URT **B**ASS AND **F**RANCINE **F**ROG, LIVE THERE TOO.

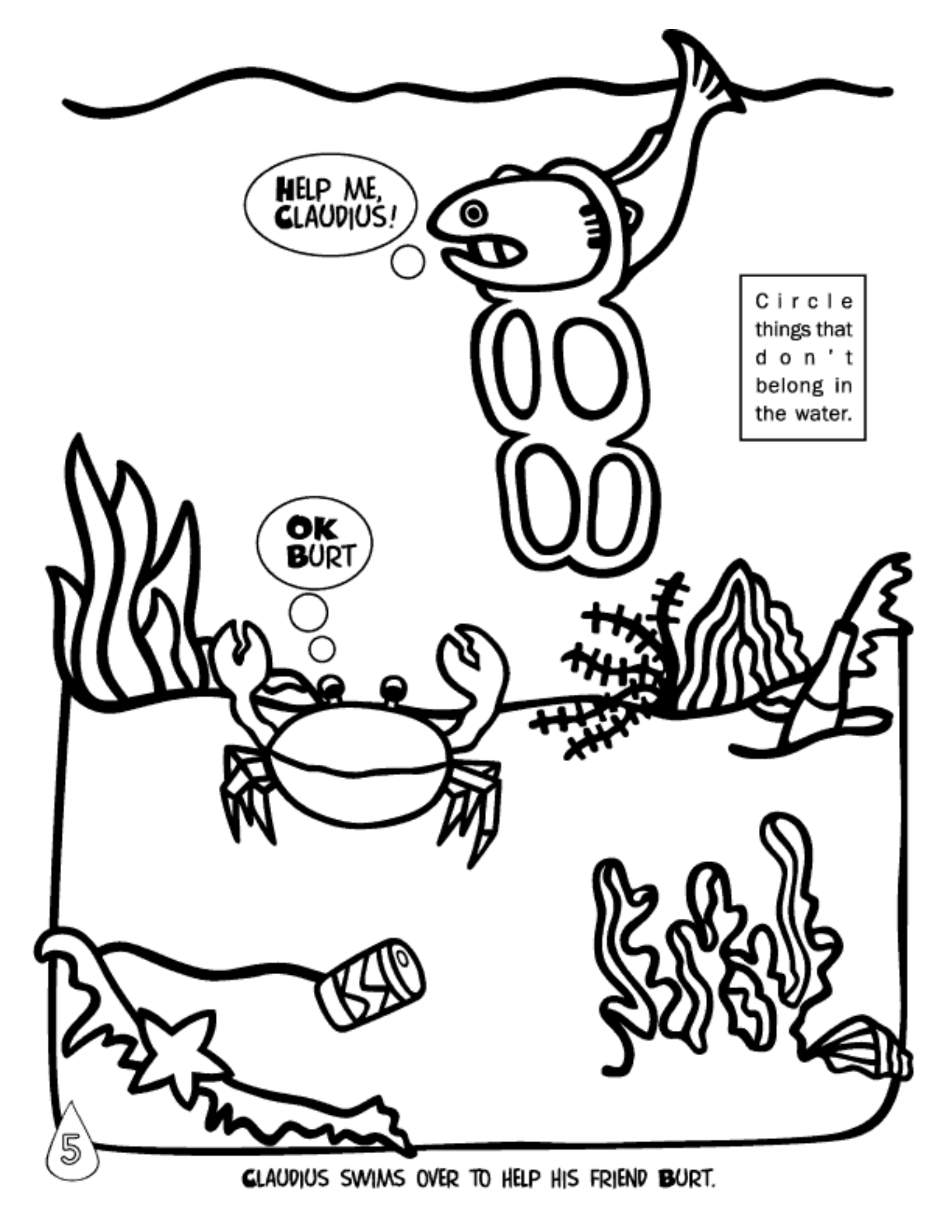


MY NAME IS DIESHA.



HI! I'M CLAUDIUS.

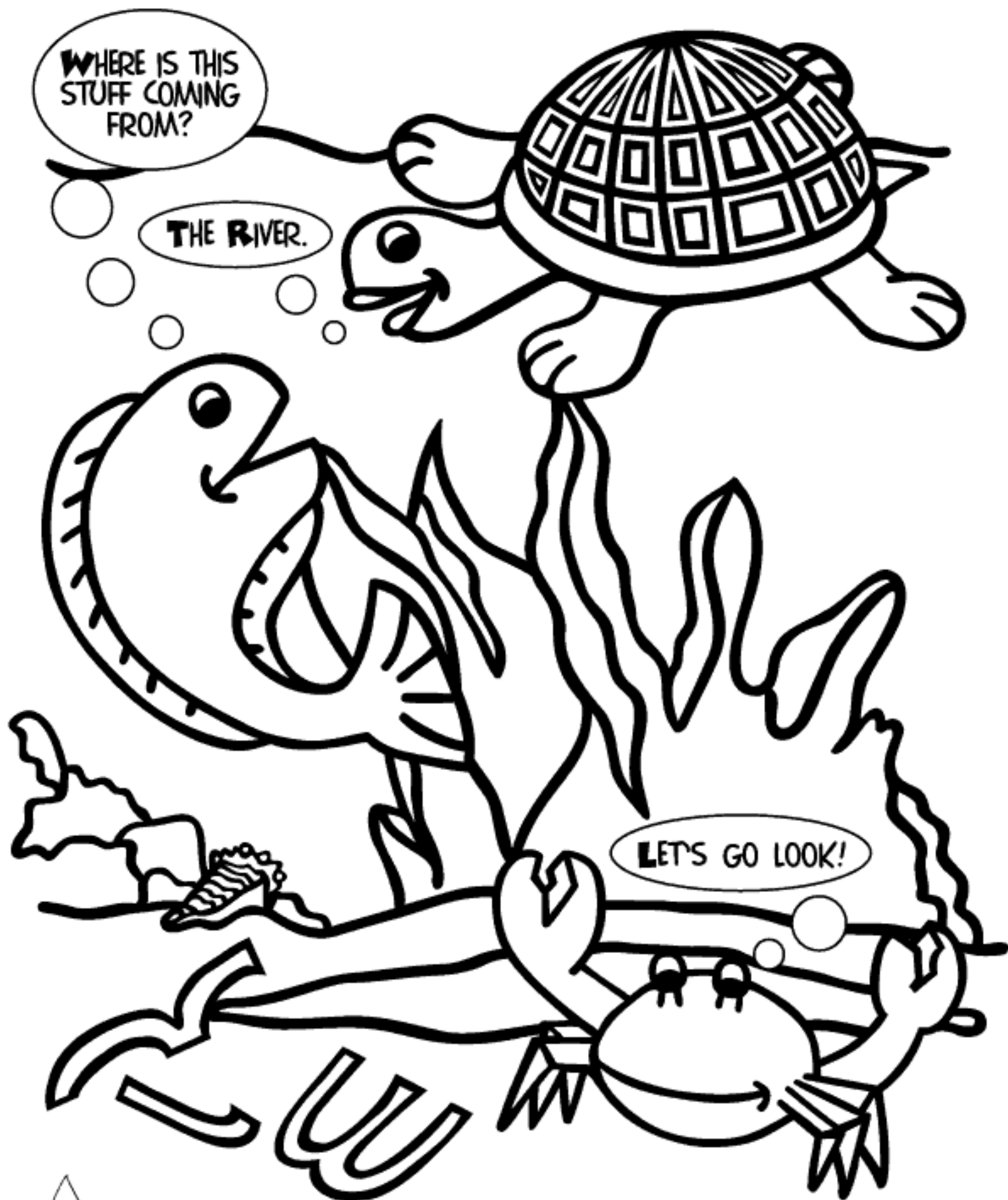
**DIESHA DIAMONDBACK AND CLAUDIUS
CRAB ENJOY A SUNNY DAY ON THE BAY.**



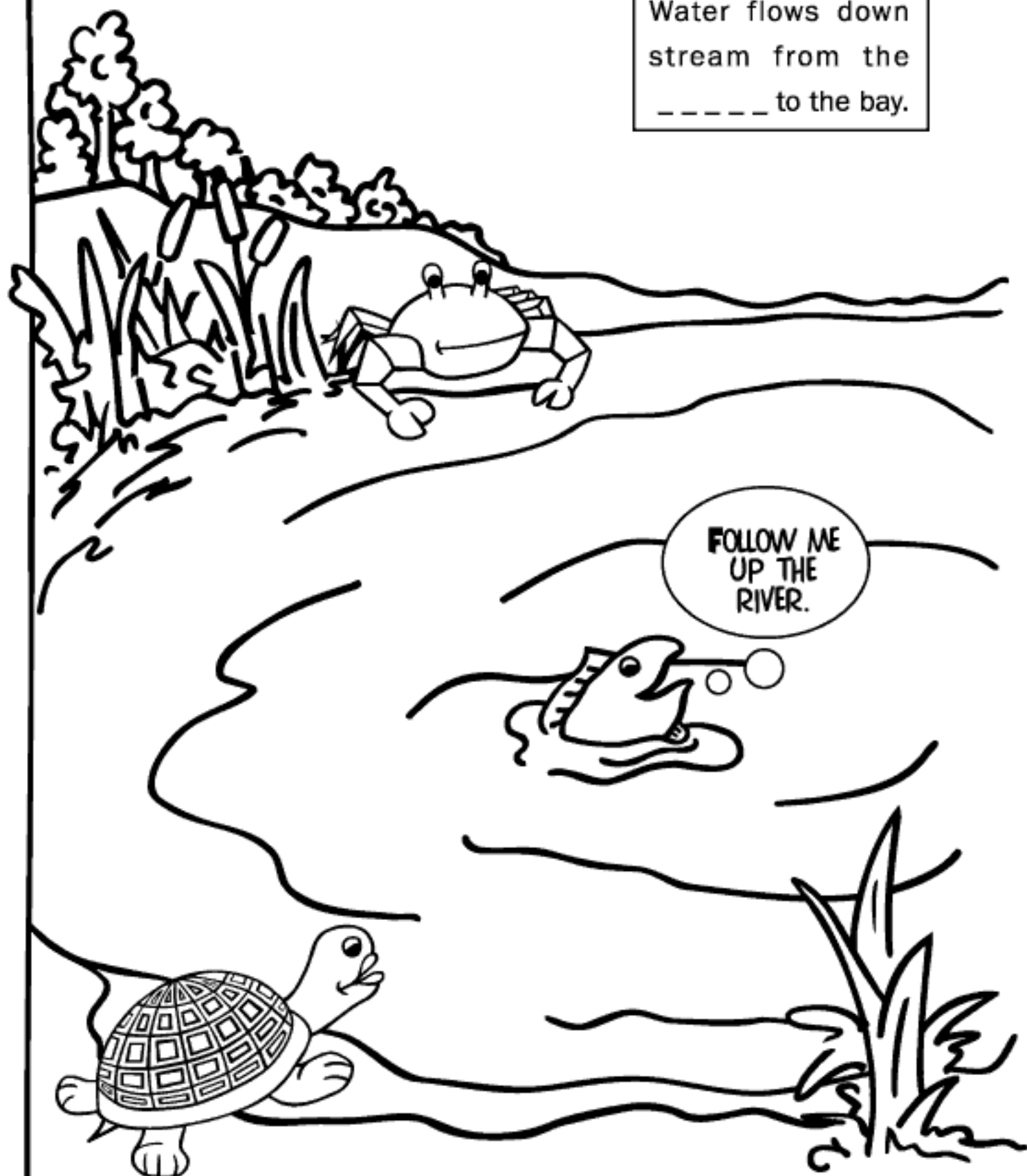
HELP ME,
CLAUDIUS!

Circle
things that
don't
belong in
the water.

OK
BURT

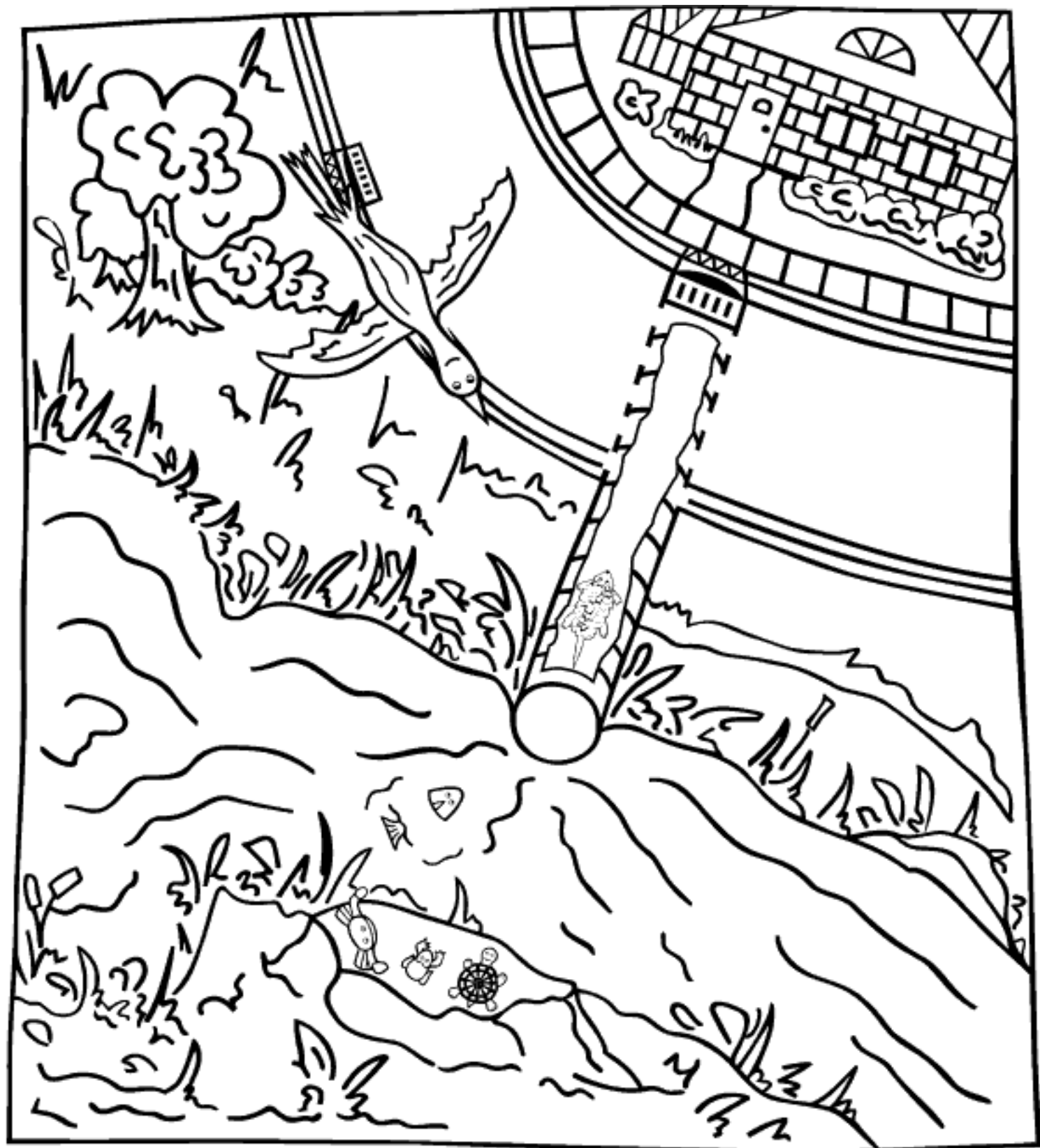


Water flows down
stream from the
_____ to the bay.



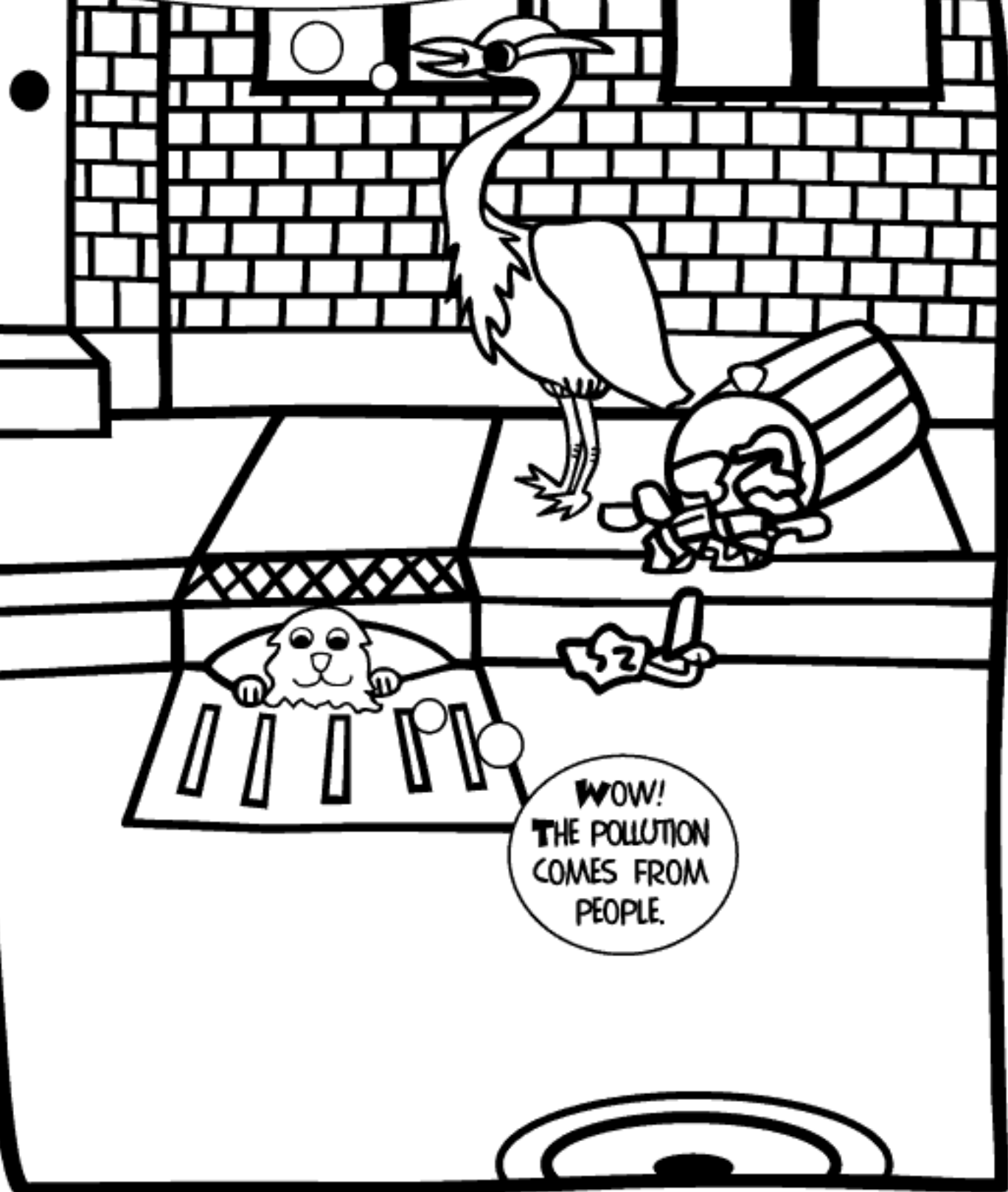
AS **DIESHA**, **BURT** AND **CLAUDIUS** SWIM UP STREAM, THEY MEET UP WITH THEIR FRIENDS, **FRANCINE** AND **MARSHALL**. THEY ALSO FIND A STORMPIPE. **MARSHALL** VOLUNTEERS TO GO UP THE PIPE.



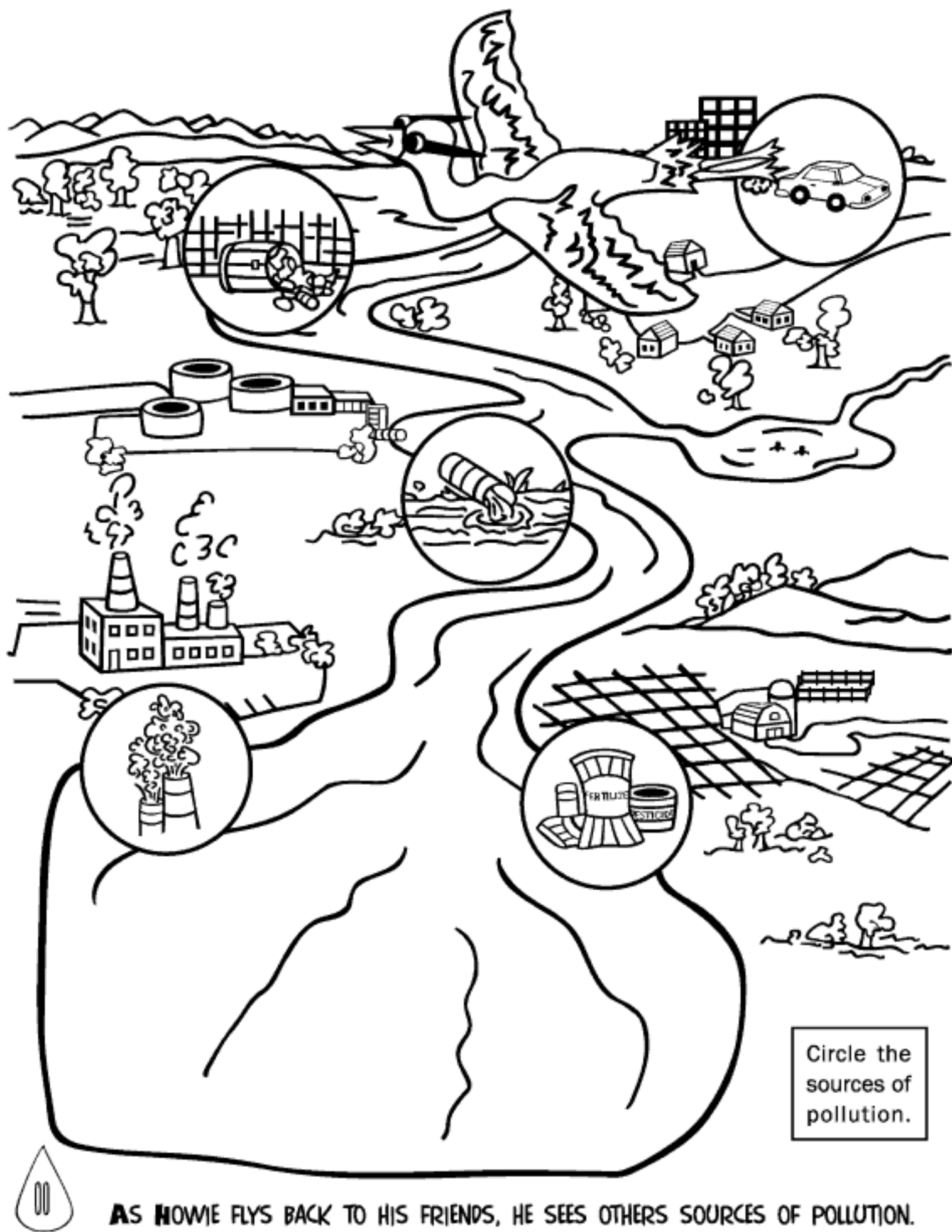


AS HOWIE FLIES ABOVE, MARSHALL GOES THROUGH THE STORMPIPE IN SEARCH OF THE POLLUTION SOURCE.

ARE YOU LOOKING FOR THE LITTER
SOURCE, TOO?



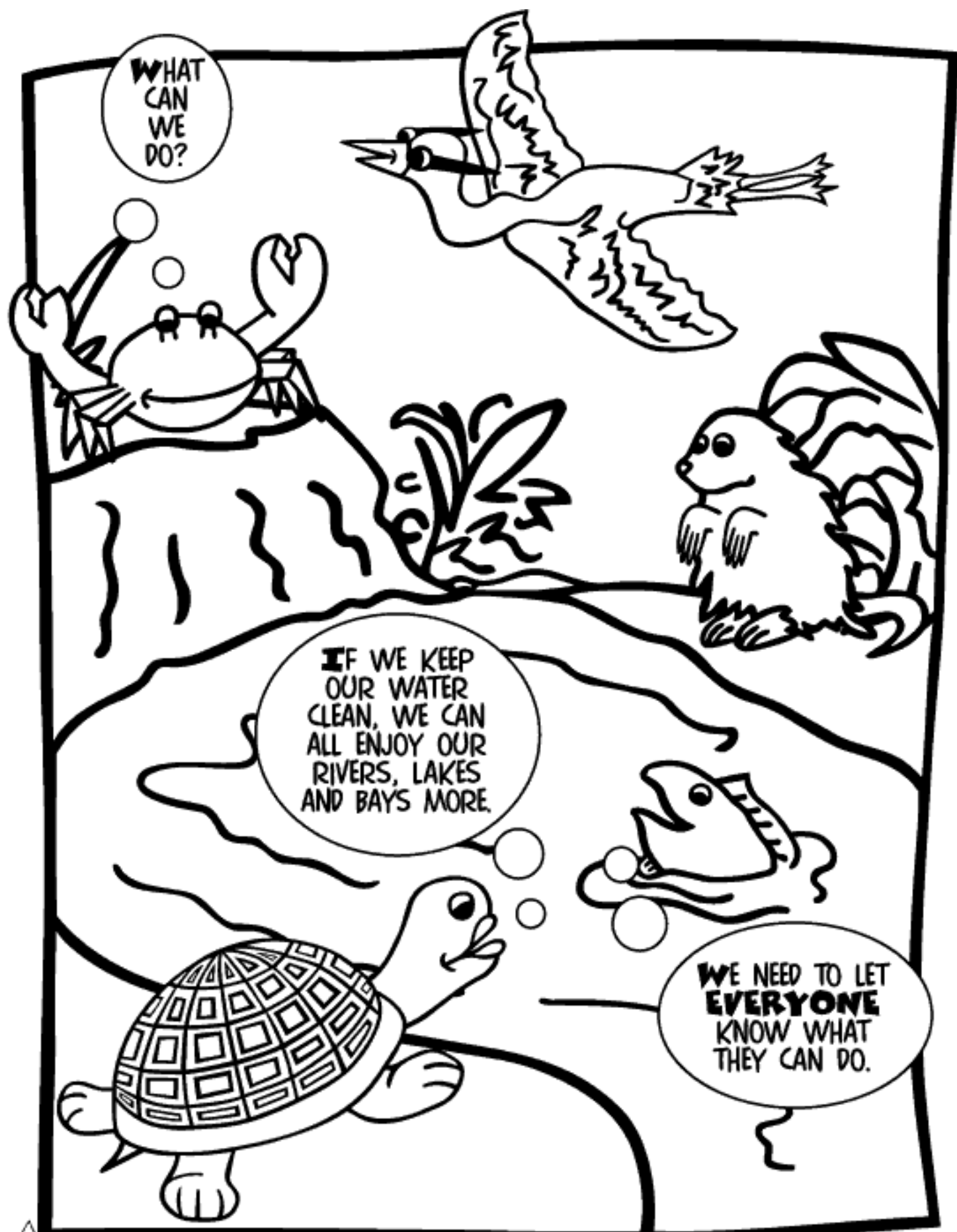
AS MARSHALL PEEKS OUT THE STORM DRAIN, HE SEES HIS FRIEND HOWIE.
HE ALSO SEES WHERE THE LITTER IS COMING FROM.

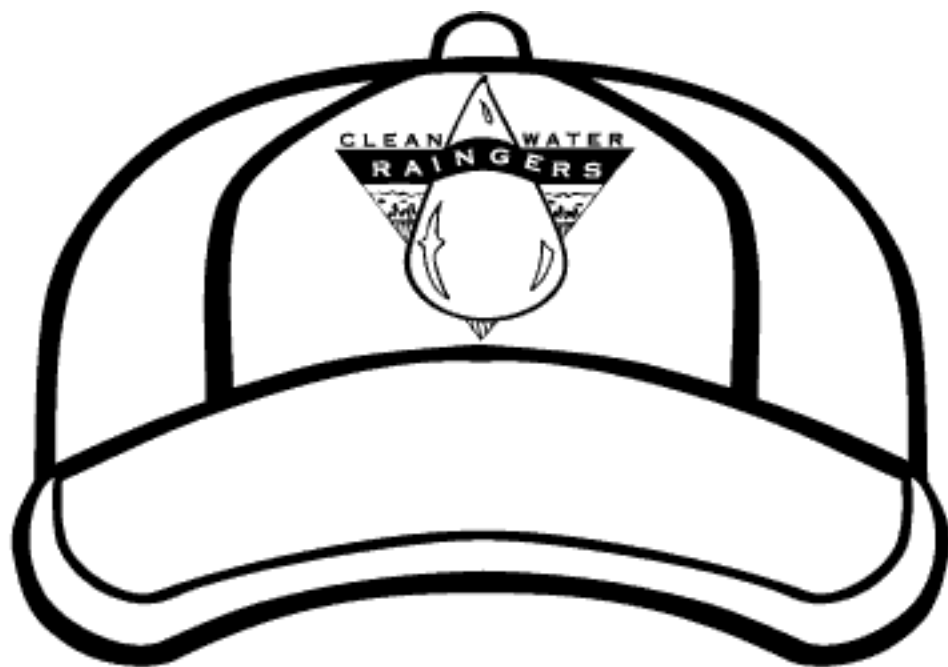


Circle the
sources of
pollution.

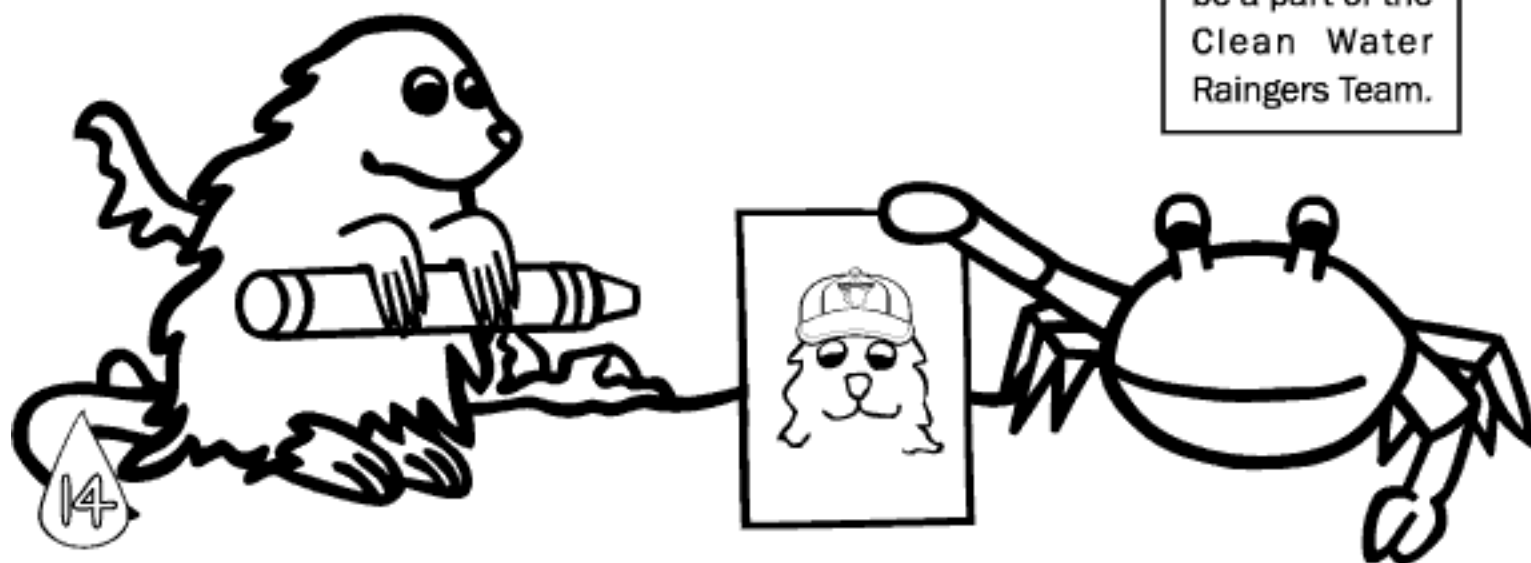
00 AS HOWIE FLYS BACK TO HIS FRIENDS, HE SEES OTHERS SOURCES OF POLLUTION.







Draw yourself
here, so you can
be a part of the
Clean Water
Rangers 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 RAINGERS** CONCEPT WAS
DEVELOPED BY THE **NEW JERSEY DEPARTMENT OF
ENVIRONMENTAL PROTECTION.**

FOR ADDITIONAL INFORMATION, PLEASE CONTACT:

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

609-292-2113

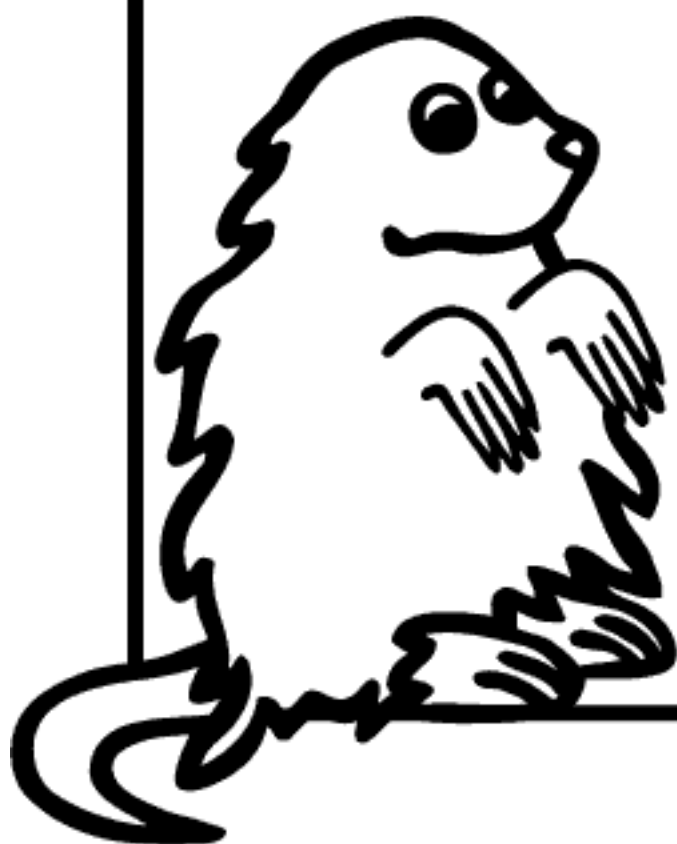
**DONALD T. DIFRANCESCO, ACTING GOVERNOR
STATE OF NEW JERSEY
ROBERT C. SHINN, JR., COMMISSIONER
DEPARTMENT OF ENVIRONMENTAL PROTECTION**

**KYRA HOFFMANN,
COORDINATOR**

**ERIN BRODEL,
GRAPHIC DESIGN & ILLUSTRATION**



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



SPPP Form 5 – New Development and Redevelopment Program

Highway Agency Information

Highway Agency Name: Ocean County Highway Agency

NJPDES # :NJG0152382

PI ID #: 222780

Team Member/Title: Mark F. Jehnke, County Engineer

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

Date of Completion: April 1, 2005 Date of most recent update: June 27, 2025

Describe in general terms your post-construction stormwater management in new development and redevelopment program (post-construction program), and how it complies with the Highway Permit minimum standard. This description must address how adequate long term operation and maintenance of BMPs will be ensured; compliance with the standard in Attachment C of the permit (new storm drain inlet design standard); adoption and implementation of applicable design and performance standards established under N.J.A.C. 7:8 for major development; and use of the Post-Construction Program Design Checklist for Individual Projects. Attach additional pages as necessary.

Post Construction Stormwater Management in New Development & Redevelopment

The Ocean County Highway Agency is implementing a post-construction stormwater management in new development and redevelopment program as per the Highway Agency Permit minimum standard. Ocean County intends to consider the applicable design and performance standards as early as possible in their project planning and design process.

The **Ocean County Engineering Department** will design all projects which are “new development and redevelopment projects” described in the Highway Agency Permit in accordance with the permit requirements. These applicable projects will be listed in Ocean County’s Annual Report & Certification.

The **Ocean County Road Department** will maintain these projects in accordance with the County’s Highway Agency Stormwater Permit.

The **Ocean County Board of Commissioners** is in the process of adopting a resolution which will accomplish the following goals:

- 1) Adopts (and incorporates by reference) for such projects the applicable design and performance standards (including maintenance requirements) established under N.J.A.C. 7:8 for major development, and the storm drain inlet design standard in Attachment C;
- 2) Requires that all such projects be designed to comply with these design and performance standards and this storm drain inlet design standard; and
- 3) Requires that the Highway Permit’s **Post-Construction Program Design Checklist for Individual Projects** be completed before each project’s construction is approved.

The Ocean County Engineering Department works cooperatively with the Ocean County Planning Department relative to stormwater management responsibilities. The cooperation of these, and other County departments, are intended to encourage consistency and coordination among county stormwater management activities, and may result in some future revisions to the County’s post-construction program.

Compliance with the Storm Drain Inlet Design (Attachment C of Permit)

For most projects, Ocean County will use the NJDOT bicycle safe grate and (if needed) a curb opening with a clear space no bigger than two (2) inches across the smallest dimension. The storm drain inlets will also be engineered to ensure adequate hydraulic performance.

For retrofitting of existing storm drain inlets please refer to Form 11 – Storm Drain Inlet Retrofitting.

Operation and Maintenance of Best Management Practices (BMPs)

Since the EDPA, Ocean County has not constructed any projects regulated by the Highway Permit as new development and redevelopment projects. When the County constructs such a project, the County will ensure adequate long-term operation and maintenance of BMPs for that project by preparing (through the **Ocean County Engineering Department**) a project maintenance plan in accordance with N.J.A.C. 7:8-5.8 where applicable, and by requiring and funding the Ocean County Road Department's implementation of that plan.

For BMPs at stormwater facilities, maintenance of these BMPs will also be an integral part of the stormwater facility maintenance program that the County is developing to ensure proper function and operation of all County stormwater facilities regulated by the Highway Permit.

Please refer to Form 16 – Stormwater Facility Maintenance for a description of Ocean County's stormwater facility maintenance program.

Provide the following information for each new development or redevelopment project that is regulated by the Highway Permit, and not exempted under N.J.A.C. 7:8-1.6(b). After a project is listed in an annual report as completely constructed, do not include that project in subsequent annual reports.

Project Name Municipality/County ¹	Description (e.g., new alignment, widening, etc.)	Acres of Disturbance ²	Acres of Add'l Imperv. Surface ²	LURP Permit Required? (Y, P, N) ³	Design Checklist for Individual Projects Completed? (Y/N)	Waiver Claimed Under N.J.A.C. 7:8-5.2(e)? (Y/N)	Approved for Construction? (Y/N)	Construction Completed? (Y/N)

¹Omit county if the Highway Agency is a county, or operates in only one New Jersey county

²Add "(est.)" after number of acres, if number of acres is estimated, approximate, or preliminary

³"LURP Permit Required" means that an NJDEP Land Use Regulation Program permit (stream encroachment permit; freshwater wetlands permit or transition area waiver; CAFRA, coastal wetlands, or waterfront development permit) has been or must be secured for the project.

Y = entire project requires a LURP Permit

P = part of the project requires a LURP Permit

N = none of the project requires a LURP Permit

SPPP Form 6 – Regulatory Mechanisms

Highway Agency
Information

Highway Agency Name: Ocean County Highway Agency

NJPDES # :NJG0152382

PI ID #: 222780

Team Member/Title: Anthony M. Agliata, Planning Director

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

Date of Completion: March 10, 2005

Date of most recent update: March 7, 2024

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

Pet Waste: The Ocean County Highway Agency does not operate any rest areas or service areas for the Agency facilities subject to this permit.

(NOTE: If the Highway Agency is not developing a pet waste regulatory mechanism because the Agency does not operate any rest areas or service areas for the Agency facilities subject to this permit, provide that explanation above.)

Improper Disposal of Waste: adopted April 5, 2006

Wildlife Feeding: adopted April 5, 2006

Illicit Connections: adopted April 5, 2006

What is the nature of these regulatory mechanisms and how will they be enforced?

The regulatory mechanisms for pet waste, improper disposal of waste, illicit connections, wildlife feeding and litter, which will regulate the conduct of the general public on certain County property, including County highways, will consist of a resolution, passed by the Ocean County Board of Commissioners that prescribe penalties and are enforceable under N.J.S.A. 40:24-2 et seq. A draft resolution prepared by the County's Attorney is under review by that Board. This resolution will be enforceable by any local or State police official.

In addition, any Ocean County employee found to be in violation of this resolution may, in addition to fine or imprisonment pursuant to N.J.S.A. 40:24-2, be subject to removal, suspension, demotion, or other County personnel disciplinary actions.

SPPP Form 7 – Litter Pick Up Program

Highway Agency
Information

Highway Agency Name: Ocean County Highway Agency

NJPDES # :NJG0152382

PI ID #: 222780

Team Member/Title: Arthur Reece, County Road Supervisor

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

Date of Completion: March 10, 2005

Date of most recent update: June 27, 2025

Please describe your litter pick up program. Be sure to include the refuse collection schedule and detail how rest area, service area, and roadside clean ups will be implemented.

(NOTE: Attach a litter pick up log containing the following information: dates of roadside clean- ups and estimates of the total amount of trash and debris collected.)

Arthur Reece, Supervisor of the **Ocean County Road Department**, will be the main contact within the County for the litter pickup program. The Road Department conducts “trash patrols” throughout the County on an as needed basis, and will respond to residents’ complaints. In addition to “trash patrols”, the County has an employee dedicated to litter pickup throughout the Government Complex. T the Department of Corrections will assist with the implementation of this program in designated areas of Ocean County.

Ocean County will also continue to utilize **the Adopt-A-Highway volunteers** for roadside clean-ups.

In addition, the County will conduct regular collections of refuse from litter receptacles located on the corner of Hooper and Fischer Avenues in Dover Township.

- **A litter pickup log, including estimates of the total amount of trash and debris collected has been included. This log will be attached to the annual report form submitted to the NJDEP.**

20__ Litter Pick-up Program

[illegible]

Notes	

SPPP Form 8 – Street Sweeping and Road Erosion Control Maintenance

Highway Agency Information

Highway Agency Name: Ocean County Highway Agency

NJPDES # : NJG0152382

PI ID #: 222780

Team Member/Title: Arthur Reece, County Road Supervisor

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

Date of Completion: March 10, 2005

Date of most recent update: June 27, 2025

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.)

Ocean County owns/operates 621 miles of road with approximately 50 miles of road that currently meets the Highway Agency general permit criteria requiring monthly sweeping. The **Ocean County Road Department** will be utilizing their staff and available equipment in order to comply with this requirement.

The following roads are included in the County's monthly street sweeping program (roads in bold have seasonal speed limits, and meet the monthly sweeping requirement May 15th through October 1st):

- | | |
|--|--|
| • Bridge Avenue from Bay Ave. East 150' | • Bridge Avenue from Bay Ave. East 150' |
| • Bridge Avenue from Club Drive East to SH 35 | • Bridge Avenue from Club Drive East to SH 35 |
| • Bay Avenue from Bridge Ave to Burnt Tavern Road | • Bay Avenue from Bridge Ave to Burnt Tavern Road |
| • Bay Avenue from Osborne Ave North 200' | • Bay Avenue from Osborne Ave North 200' |
| • Mule Road from Santiago Drive to Davenport Road | • Mule Road from Santiago Drive to Davenport Road |
| • Van Zile Road from SH 88 Northbound to Hendrickson Ave on the west side of the roadway | • Front Street from Church Street to Brindletown Rd |
| • Van Zile Road from Red Maple to Burnt Tavern Road on the west side of the roadway | • Maple Ave/Main Street from Chestnut Ave to Bell Street |
| • Brick Blvd from SH 70 to the Dover Township Line | • Evergreen Road from Main Street North 1400' |
| • Burnt Tavern Road from the GSP to the Boulevard | • Ocean Ave from SH 35 to Broadway |
| • Burnt Tavern Road at the intersection of Van Zile Rd | • Broadway from Ocean Ave to SH 35 |
| • Beaverson Blvd between Brick Blvd and Hooper Ave | • Washington Ave from SH 35 to 500' |
| • Water Street from Highland Pkwy to Brook Road | • River Ave from Arnold Ave to Grove Street |
| • Washington Street from SH 37, west 200' past Whittier Ave | • Atlantic Ave from St Louis Ave to 150' west of SH 35 |
| • Washington Street from Gold Street to Clifton Ave | • Trenton Ave from Bay Ave East to SH 35 North |
| • Washington Street from Dock Street to Main Street | • Arnold Ave from the West Borough Lone to St Louis Ave |
| • Hadley from Washing Street to Franklin Ave | • Arnold Ave from Chicago Ave East to Baltimore Ave |
| • Hooper Ave from Silver Bay Rd/Polhemus Rd to Dover Twp Line | • Bay Ave from Arnold Ave South to Trenton Ave |
| • Hooper Ave from SH 37 to Water Street | • River Ave at intersection of SH 88 |

- Madison Ave from Hooper Ave to Hadley Ave
- Mule Rd from SH 37 to Berkeley Twp Line
- Union Ave from Elm Street to Railroad Ave
- Cedar Bridge Ave and Hurley Ave
- Lanes Mills Road from Burnt Tavern Rd South 150'
- Ocean Gate Ave from East Chelsea Ave to East Long Branch Ave
- Washington Ave from SH 9 to Motor Road (south side of roadway has no curbing)
- Dover Rd from Worth Street West to Fairway Drive
- Kearny Ave from Central Ave to Boulevard
- Sheridan Ave from Boulevard to Central Ave
- Grant Ave from Bay Blvd to Ocean Terrace
- Hamilton Ave from Bay Blvd to Ocean Terrace
- Sumner Ave from Ocean Terrace to Barnegat Ave
- Hiering Ave from Ocean Terrace to Central Ave
- Sherman Ave from Ocean Terrace to Bay Blvd
- Central Ave from the North Borough Line to Lincoln Ave
- Boulevard from Dover Township Line to the Seaside Park Borough Line
- Ocean Terrace from Hiering Ave to Seaside Park Borough Line
- Porter Ave from Ocean Terrace to Boulevard
- Bay Blvd from Porter Ave to SH 37
- "J" Street Central Ave to Boulevard
- 5th Ave from East Central Ave, 100' East
- Boulevard from Porter Ave South to Lafayette Ave
- Ocean Ave from "L" Street North to Porter Ave
- Porter Ave from Ocean Ave to 150' West of the Boulevard
- **Central Ave from 16th Street North 150'**
- **Central Ave from 17th Street North 100' on the west side of the roadway**
- **Central Ave from 18th Street North 100' on the west side of the roadway**
- River Ave at intersection of Bridge Ave
- Bridge Ave from SH 88 to Hollywood Blvd
- Beaver Dam Rd from Bridge Ave South to Dorsett Dr
- Beaver Dam Road from Bridge Ave to SH 88
- Arnold Ave from SH 88 to Lincoln Ave
- Bay Ave from North Borough Line to 250' South of Ocean Road
- Flint Road from South Main Street to SH 166
- Bay Ave from Hillside Ave to Birdsall Road
- **Long Beach Boulevard from 12th Street to Pearl Street**
- **Long Beach Boulevard from 5th Street to Pearl Street**
- Beachwood Blvd from SH 166 Southwest 500'
- Starboard Ave from SH 166 to Capstan Ave
- Long Beach Blvd from 81st Street to 77th Street
- Mathistown Road from Center Street to Radio Road
- Giffordtown Lane from SH 9 400' North
- **Long Beach Blvd from 31st Street to 47th Street**
- **Long Beach Blvd from 57th Street (Harmony Ave) to 65th Street (Goodrich Ave)**
- **Long Beach Blvd from Coghlan Ave to 87th St**
- **Long Beach Blvd from 93rd Street (Bayberry St) to 97th St (Jerome Ave)**
- **Long Beach Blvd from Rose Court to Macevoy Ave (121st St)**
- **Long Beach Blvd from Ohio Street (128th St) to 12th St**
- **Long Beach Blvd from Osborn Ave North 200' on the west side of the roadway**
- Long Beach Blvd from Surf City Borough Line (South 3rd St) to Long Beach Twp Line
- Long Beach Blvd from 8th St North to the Surf City Borough Line (South 3rd St)
- Mill Creek Road from Route 72 to Bay Ave
- Stafford Ave from from SH 9 to Parker Ave
- Bay Ave from Hillside Ave to Birdsall Road
- **Long Beach Boulevard from 12th Street to Pearl Street**
- Long Beach Blvd from Long Beach Twp Line (25th Street) to South 3rd St

In addition, Ocean County currently maintains the following maintenance yards which also fall subject to the monthly street sweeping requirement:

- Chestnut Street
- Manahawkin
- Manchester
- Plumstead
- Lacey
- Lakewood
- Jackson

Road Department employees will complete street sweeping logs during scheduled sweepings. Completed logs will be forwarded to **Arthur Reece** monthly, Road Department Supervisor.

Road Erosion Control Maintenance

Describe your Road Erosion Control Maintenance Program, including how you will perform inspections and frequency. 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)

Ocean County Road Department employees have been instructed to document roadside erosion observed during normal daily activities. The Ocean County Road Department also responds to notifications of roadside erosion from the public. All complaints will be directed to the Road Department Supervisor, Steve Childers.

Responsibility will be placed on the appropriate Road Department Foreman to prioritize, schedule and repair identified roadside erosion. Repairs requiring NJDEP permits will be coordinated with the Ocean County Engineering Department and sites will be repaired in accordance with the Standards for Soil Erosion and Sediment Control in New Jersey. An inspection log that will include a list of all repairs and dates will be maintained by Road Department Foreman. Individual reports will be submitted to Steve Childers monthly for compilation and inclusion in the Annual Report and Certification.

Compliance Month	
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Sweep all rest areas, service areas, maintenance yards, and county owned and operated curbed streets (including roads or highways) with storm drains, that have a posted speed limit of 30 mph or less, that are in predominantly commercial areas at a minimum of once per month, weather and street conditions permitting.

Date	Street Name, Service Area, Maintenance Yard Name	Miles of Road / Lot Swept	Total Amount of Material Collected	Problems / Incidents / Weather Conditions / Notes	Initials
TOTALS					

** This log should be kept with Ocean County's Highway Agency SPPP (Form 8).*

The total amount of materials collected for each month must be submitted in the Annual Report and Certification.

County of Ocean
Highway Agency Stormwater Permit
NJG0152382



20__ Road Erosion Control

Develop a roadside erosion control maintenance program to identify and stabilize roadside erosion. Repairs shall be made in accordance with the Standards for Soil Erosion and Sediment Control in New Jersey.



Date Identified	Location (Municipality, address, geography, etc.)	Does this erosion impact a waterbody? (creek, stream, swale, wetland, etc.)	Describe Repair	Date Completed	Supervisor Initials
		☐ Yes ☐ No Name _____			
		☐ Yes ☐ No Name _____			
		☐ Yes ☐ No Name _____			
		☐ Yes ☐ No Name _____			
		☐ Yes ☐ No Name _____			
		☐ Yes ☐ No Name _____			
		☐ Yes ☐ No Name _____			
		☐ Yes ☐ No Name _____			
		☐ Yes ☐ No Name _____			
NOTES					

* This log should be kept with Ocean County's Highway Agency SPPP (Form 8).

SPPP Form 9 – Herbicide Application and Roadside Vegetation Management

Highway Agency
Information

Highway Agency Name: Ocean County Highway Agency

NJPDES # :NJG0152382

PI ID #: 222780

Team Member/Title: Arthur Reece, County Road Supervisor

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

Date of Completion: March 10, 2005

Date of most recent update: June 27, 2025

Roadside Vegetation Management Program

Describe the program ensuring proper applications of herbicides. Describe your roadside vegetation management program to limit the application of herbicides and mulch. Attach additional pages as necessary.

Roadside Vegetation Management Program:

Ocean County limits the use herbicides in their current roadside vegetative management practices. Herbicides are typically applied in isolated one-time applications to control invasive ivy when required.

Workers who perform roadside vegetation management through the application of herbicides will be trained on the specifications of the permit and how to properly apply these products per the manufacturer's directions (see SPPP Form 13).

The County does not apply mulch to any areas regulated under the Highway Agency General Permit.

SPPP Form 10 – Maintenance Yards

Highway Agency
Information

Highway Agency Name: Ocean County Highway Agency

NJPDES # :NJG0152382

PI ID #: 222780

Team Member/Title: Arthur Reece, County Road Supervisor; Mark F. Jehnke, County Engineer;
Vehicle Services

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

Date of Completion: March 10, 2005

Date of most recent update: June 27, 2025

Stormwater Facility Maintenance Program

Please describe your maintenance yards containment for all materials that are exposed to stormwater which could be a source of pollutants in stormwater discharge. Indicate the container, if they are covered, what they are placed upon, if that area is graded or contained by berms. List all machinery that is exposed to stormwater which could be source of pollutants in a stormwater discharge.

The **Ocean County Road Department** list all machinery that is exposed to stormwater which could be a source of pollutants in a stormwater discharge. To clean spills and dispose of clean-up waste kitty litter, sawdust etc. Storage and handling of of salt and brine, aggregate and construction debris storage, sweepings and basin clean out material storage.

The **Ocean County Engineering Department** is currently developing an inventory of all stormwater facilities owned and/or operated by the County. During the summer of 2025, Inspection crew will begin identifying and mapping stormwater facilities throughout the southern half of the County. Initially, the maintenance program will include currently known County-owned facilities. The County anticipates the completion of a full stormwater facility inventory by July 2025. The inventory will be continuously updated and included in the SPPP.

The **Ocean County Vehicle Services Department** describe best management practices to ensure compliance for fueling operations, discharge of secondary containment, vehicle maintenance, on-sit equipment and vehicle washing/wastewater containment.

Maintenance and Inspection Logs and an Inspection Checklist have been included with this form.

De-icing Material Storage

Ocean County's Highway agencies store the following de-icing materials at the below locations.

Chestnut Street Complex

De-icing material is currently stored in a permanent salt storage shed, which is compliant with the requirements of the County's Highway Agency Permit.

Lacey Garage

De-icing material is currently stored in a permanent salt storage shed, which is compliant with the requirements of the County's Highway Agency Permit.

Lakewood Garage

De-icing material is currently stored in a permanent salt storage shed, which is compliant with the requirements of the County's Highway Agency Permit.

Jackson Garage

De-icing material is currently stored in a permanent salt storage shed, which is compliant with the requirements of the County's Highway Agency Permit.

Manahawkin Garage

De-icing material is currently stored in a permanent salt storage shed, which is compliant with the requirements of the County's Highway Agency Permit.

Plumstead Garage

De-icing material is currently stored in a permanent salt storage shed, which is compliant with the requirements of the County's Highway Agency Permit.

Ship Bottom Garage

De-icing material is currently stored in a permanent salt storage shed (covered sweeping shed), which is compliant with the requirements of the County's Highway Agency Permit.

Due to space constraints at the Ship Bottom Garage, construction of an additional permanent Storage shed is not feasible. During the de-icing season, the existing sweeping shed is utilized as the permanent salt storage shed. The sweeping storage during the de-icing season is transferred to the Manahawkin garage. Once the de-icing season is over, all excess salt is transferred to one of the County's other permanent salt storage sheds.

Manchester Garage

De-icing material is currently stored in a permanent salt storage shed, which is compliant with the requirements of the County's Highway Agency Permit.

De-icing Material and Sand Material Storage:

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

- Prevent and/or minimize the spillage of salt and de-icing materials during loading and unloading activities.
- Conduct loading/unloading during dry weather, if possible.
- At the completion of loading and unloading activities, spilled de-icing materials shall be removed using dry cleaning methods and either reused or disposed of properly.
- Sweeping of storage and loading/unloading areas by hand or mechanical means 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. Reuse or properly discard materials collected during cleanup.
- Tracking of materials from storage and loading/unloading areas shall be minimized.
- Minimize the distance de-icing materials are transported during loading/unloading activities.
- Hay bales may be removed when necessary to accommodate loading/unloading activities. Immediately following, as practicable, loading/unloading activities all removed hay bales shall be reinstalled.

- Hay bales shall be placed across the entrance of storage when not in use, and shall be checked daily.
- Sweep all areas in front of storage bays and adjacent to storage areas after loading/unloading.

Brine Solution Storage:

The following standard operating procedures for good housekeeping of brine solution handling will be implemented at each garage to ensure minimal environmental impact:

- Visually inspect tanks to determine with some degree of certainty that the tank has not leaked.
- Visually inspect to ensure that the bulk liquids have not contaminated the stormwater collected in the secondary containment area when dealing with materials that can be observed.
- If the secondary containment area contains a valve, this valve shall remain closed at all times except as described below;
- Discharge stormwater from secondary containment if inspection has confirmed there are not leaks.
- Otherwise contaminated stormwater shall be hauled for proper disposal.

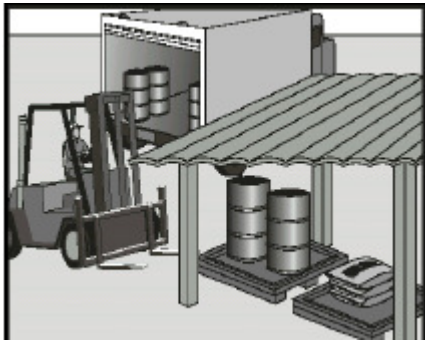
Chestnut Street Complex
Buildings and Grounds
Source Material Inventory

Source Material	Recommendation	Addressed in SOP:
Lead Acid Batteries Used Tires	Store indoors or construct a shed to keep materials covered	Vehicle Maintenance; Good Housekeeping
Dumpsters	- Install 10 mil. Tarp, held with bungees, to cover all dumpsters. - Keep covered at all times when not in use.	Vehicle Maintenance; Good Housekeeping
Waste Oil Storage	Practice good housekeeping and maintenance	Good Housekeeping; Vehicle Maintenance
Operations	Recommendation	Addressed in SOP:
Vehicle Fueling Area	Comply with Ocean County fueling SOP	Vehicle & Equipment Fueling
Vehicle Washing	Do not allow vehicle and equipment washwaters to discharge to the environment.	Vehicle Maintenance

Good Housekeeping

Ocean County Highway District Stormwater Permit

Buildings and Grounds Standard Operating Procedure



Ocean County Highway Districts



Chestnut Street Complex

Introduction and Purpose

This SOP contains the basic practices of good housekeeping to be implemented during typical day-to-day maintenance activities at the Chestnut Street Complex. The purpose of this SOP is to provide a set of guidelines for all county employees at the Chestnut Street Complex.

Scope

This SOP applies to all housekeeping operations conducted at the Chestnut Street Complex.

Standards and Specifications

Materials Storage

Used Tires and Lead Acid Batteries	Store batteries indoors whenever possible. If outdoors, batteries should be placed on an elevated surface and covered.
Spare/Scrap Equipment and Vehicle Parts	- Dispose of on a regular basis - Store parts on impervious surface and covered
Dumpsters	- Install 10 mil. Tarp, held with bungees, to cover all dumpsters. - Keep covered at all times when not in use.
Spill Response and Reporting	- Conduct clean up of any spill(s) immediately after discovery. - Spills are to be cleaned using dry cleaning methods only. - Dispose of contaminated absorbent material properly. - Contact Clean Venture at 908-354-0210. - Notify the NJDEP at 1-877-WARNDEP for all spill emergencies.
Maintenance and Inspection	Periodically check for leaks and damaged equipment and make repairs as necessary. - Perform monthly inspections to ensure compliance with this SOP

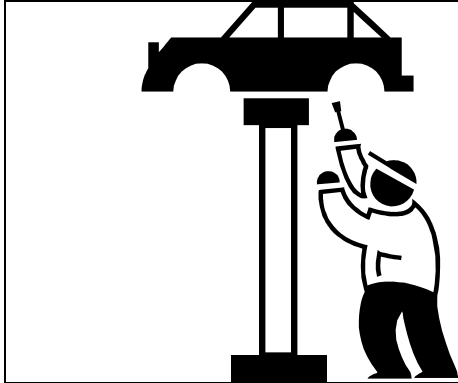
Chestnut Street Complex**Buildings & Grounds 20__ Monthly Good Housekeeping SOP Compliance Inspections**

MONTH	INCLUDE DATES OF INSPECTION, PROBLEMS OBSERVED AND CORRECTIONS
April	• Date: • Problems: • Corrections:
May	• Date: • Problems: • Corrections:
June	• Date: • Problems: • Corrections:
July	• Date: • Problems: • Corrections:
August	• Date: • Problems: • Corrections:
September	• Date: • Problems: • Corrections:
October	• Date: • Problems: • Corrections:
November	• Date: • Problems: • Corrections:
December	• Date: • Problems: • Corrections:
January	• Date: • Problems: • Corrections:
February	• Date: • Problems: • Corrections:
March	• Date: • Problems: • Corrections:

Vehicle Maintenance

Ocean County Highway District Permit

Buildings and Grounds Standard Operating Procedure



Ocean County Highway Districts



Chestnut Street Complex

Introduction and Purpose

This SOP contains the basic practices of vehicle maintenance to be implemented at the Ocean County Highway District. The purpose of this SOP is to provide a set of guidelines for developing safe, responsible vehicle maintenance practices which protect the quality of stormwater run-off originating from County sites.

Scope

This SOP applies to all vehicle maintenance activities performed at the Ocean County Chestnut Street Complex.

Standards and Specification

(General)

General Vehicle Maintenance Guidelines	• Conduct vehicle maintenance operation only in designated areas. • When possible, perform all vehicle and equipment maintenance at an indoor location with a paved floor. • Always use drip pans. • Use portable tents or construct a roofing-device over long-term maintenance areas and for projects that must be performed outdoors.
Fluid Disposal	• All waste liquids should be collected and disposed of properly. • All containers storing liquids should be clearly labeled. • All drips & spills should be addressed using dry-cleaning methods. (absorbent material use & broom sweep up)
Battery & Tire Storage	• All waste lead-acid batteries should be stored indoors. If stored outdoors, all batteries should be under cover and elevated. • Scrap tires should be stored indoors or in a container dedicated to scrap tire storage.
Vehicle and Equipment Washing	• Do not allow vehicle and equipment washwater to discharge to environment after February 2009.
Dumpsters	• Install 10 mil. Tarp, held with bungees, to cover all dumpsters. • Keep covered at all times when not in use.
Maintenance and Inspection	• Monthly check for compliance with this SOP

Revised 09/24

Chestnut Street Complex**Buildings & Grounds: 20 Monthly Vehicle Maintenance SOP Compliance Inspections**

MONTH	INCLUDE DATES OF INSPECTION, PROBLEMS OBSERVED AND CORRECTIONS
April	• Date: • Problems: • Corrections:
May	• Date: • Problems: • Corrections:
June	• Date: • Problems: • Corrections:
July	• Date: • Problems: • Corrections:
August	• Date: • Problems: • Corrections:
September	• Date: • Problems: • Corrections:
October	• Date: • Problems: • Corrections:
November	• Date: • Problems: • Corrections:
December	• Date: • Problems: • Corrections:
January	• Date: • Problems: • Corrections:
February	• Date: • Problems: • Corrections:
March	• Date: • Problems: • Corrections:

Chestnut Street Complex
Road Department
Source Material Inventory

Source Material	Recommendation	Addressed in SOP:
Asphalt/Debris Pile	- Segregate material and properly dispose of on a regular basis - Prevent transport of material to stormwater collection system while on-site	Good Housekeeping
Cold Patch	- Keep materials covered to prevent exposure to precipitation - Regularly sweep to keep area clean.	Good Housekeeping
Clean Sand	Store greater than 50 feet from storm drain inlet	Good Housekeeping
De-Icing Material Storage	- Maintain permanent structure in compliance with Good Housekeeping SOP - Haybales to be installed between October 15st and April 30th.	Good Housekeeping
Drums	- Properly label - Dispose of empty/unused drums - Correctly store drums, covered on spill platforms	Good Housekeeping
Dumpsters	- Install 10 mil. Tarp, held with bungees, to cover all dumpsters. - Keep covered at all times when not in use.	Good Housekeeping
Vehicles/Equipment	Practice good housekeeping for cleaning equipment and servicing vehicles	Vehicle Maintenance
Street Sweepings	Push all sweepings under permanent cover	Good Housekeeping
Lead Acid Batteries Used Tires	Store indoors or construct a shed to keep materials covered	Vehicle Maintenance; Good Housekeeping
Waste Oil Storage	Practice good housekeeping and maintenance	Good Housekeeping; Vehicle Maintenance
Operations	Recommendation	Addressed in SOP:
Vehicle Fueling Area	Comply with County fueling SOP	Vehicle & Equipment Fueling
Vehicle Washing	Do not allow vehicle and equipment washwaters to discharge to the environment.	Good Housekeeping

Jackson Garage
Road Department
Source Material Inventory

SOURCE MATERIAL	RECOMMENDATION	ADDRESSED IN SOP:
De-Icing Material Storage	- Maintain permanent structure in accordance with Good Housekeeping SOP - Install Haybales between October 15st and April 30th..	Good Housekeeping
Drums	- Properly label - Dispose of empty/unused drums - Correctly store drums, covered on spill platforms	Good Housekeeping
Dumpsters	- Install 10 mil. Tarp, held with bungees, to cover all dumpsters. - Keep covered at all times when not in use.	Good Housekeeping
Street Sweepings	Push all sweepings under permanent cover	Good Housekeeping
SOURCE OPERATIONS	RECOMMENDATION	ADDRESSED IN SOP:
Vehicle Fueling Area	Comply with County fueling SOP	Vehicle & Equipment Fueling
Vehicle Washing	Do not allow vehicle and equipment washwater to discharge to the environment.	Good Housekeeping

Lacey Garage
Road Department
Source Material Inventory

SOURCE MATERIAL	RECOMMENDATION	ADDRESSED IN SOP:
De-icing Materials	- Maintain permanent structure in compliance with Good Housekeeping SOP - Haybales to be installed between October 15st and April 30th..	Good Housekeeping
Drums	- Properly label - Dispose of empty/unused drums - Correctly store drums, covered on spill platforms	Good Housekeeping
Dumpsters	- Install 10 mil. Tarp, held with bungees, to cover all dumpsters. - Keep covered at all times when not in use.	Good Housekeeping
Street Sweepings	Construct permanent cover for street sweepings	Good Housekeeping
Used Tires	Store indoors or construct a shed to keep materials covered	Good Housekeeping; Vehicle Maintenance
SOURCE OPERATIONS	RECOMMENDATION	ADDRESSED IN SOP:
Vehicle Fueling Area	Comply with County fueling SOP	Vehicle & Equipment Fueling
Vehicle Washing	Do not allow vehicle and equipment washwaters to discharge to the environment after February 2009.	Good Housekeeping

Lakewood Garage
Road Department
Source Material Inventory

SOURCE MATERIAL	RECOMMENDATION	ADDRESSED IN SOP:
Cold Patch	- Keep covered to prevent exposure to precipitation - Regularly sweep to keep area clean	Good Housekeeping
De-icing Materials	- Maintain permanent structure in compliance with Good Housekeeping SOP - Haybales to be installed between October 15st and April 30th.	Good Housekeeping
Drums	- Properly label - Dispose of empty/unused drums - Correctly store drums, covered on spill platforms	Good Housekeeping
Dumpsters	- Install 10 mil. Tarp, held with bungees, to cover all dumpsters. - Keep covered at all times when not in use.	Good Housekeeping
Street Sweepings	Push all sweepings under permanent cover	Good Housekeeping
Used Tires	Store indoors or construct a shed to keep materials covered	Good Housekeeping; Vehicle Maintenance
SOURCE OPERATIONS	RECOMMENDATION	ADDRESSED IN SOP:
Vehicle Fueling Area	Comply with County fueling SOP	Vehicle & Equipment Fueling
Vehicle Washing	Do not allow vehicle and equipment washwater to discharge to the environment.	Good Housekeeping

Manahawkin Garage
Road Department
Source Material Inventory

SOURCE MATERIAL	RECOMMENDATION	ADDRESSED IN SOP:
Cold Patch	- Keep material covered to prevent exposure to precipitation - Regularly sweep to keep area clean.	Good Housekeeping
De-icing Materials	- Store all de-icing materials in the permanent storage structure - Haybales to be installed between April 1st and October 1st.	Good Housekeeping
Drums	- Properly label - Dispose of empty/unused drums - Correctly store drums, covered on spill platforms	Good Housekeeping
Dumpsters	- Install 10 mil. Tarp, held with bungees, to cover all dumpsters. - Keep covered at all times when not in use.	Good Housekeeping
Street Sweepings	Push all sweepings under permanent cover	Good Housekeeping
Used Tires and Lead Acid Batteries	Store indoors or construct a shed to keep materials covered	Good Housekeeping; Vehicle Maintenance
Waste Oil Storage	Practice good housekeeping and maintenance	Good Housekeeping; Vehicle & Equipment Fueling
SOURCE OPERATIONS	RECOMMENDATION	ADDRESSED IN SOP:
Vehicle Fueling Area	Comply with County fueling SOP	Vehicle & Equipment Fueling
Vehicle Washing	Do not allow vehicle and equipment washwater to discharge to the environment.	Good Housekeeping

Manchester Garage
Road Department
Source Material Inventory

SOURCE MATERIAL	RECOMMENDATION	ADDRESSED IN SOP:
De-icing Materials	- Maintain permanent structure in compliance with Good Housekeeping SOP - Haybales to be installed between October 15st and April 30th..	Good Housekeeping
Drums	- Properly label - Dispose of empty/unused drums - Correctly store drums, covered on spill platforms	Good Housekeeping
Dumpsters	- Install 10 mil. Tarp, held with bungees, to cover all dumpsters. - Keep covered at all times when not in use.	Good Housekeeping
Street Sweepings	Construct permanent cover for street sweepings	Good Housekeeping
Used Tires	Store indoors or construct a shed to keep materials covered	Good Housekeeping; Vehicle Maintenance
SOURCE OPERATIONS	RECOMMENDATION	ADDRESSED IN SOP:
Vehicle Fueling Area	Comply with County fueling SOP	Vehicle & Equipment Fueling
Vehicle Washing	Do not allow vehicle and equipment washwaters to discharge to the environment after February 2009.	Good Housekeeping

Plumsted Garage
Road Department
Source Material Inventory

SOURCE MATERIAL	RECOMMENDATION	ADDRESSED IN SOP:
Clean Sand	Store at least 50 feet from a storm drain inlet, or keep covered	Good Housekeeping
Cold Patch	- Keep covered to prevent exposure to precipitation - Regularly sweep to keep area clean.	Good Housekeeping
De-icing Materials	- Maintain permanent structure in compliance with Good Housekeeping SOP - Haybales to be installed between October 15st and April 30th.	Good Housekeeping
Drums	- Properly label - Dispose of empty/unused drums - Correctly store drums, covered on spill platforms	Good Housekeeping
Dumpsters	- Install 10 mil. Tarp, held with bungees, to cover all dumpsters. - Keep covered at all times when not in use.	Good Housekeeping
Street Sweepings	Push all sweepings under permanent cover	Good Housekeeping
Used Tires and Lead Acid Batteries	Store indoors or construct a shed to keep materials covered	Good Housekeeping; Vehicle Maintenance
Waste Oil Storage	Practice good housekeeping and maintenance	Good Housekeeping; Vehicle & Equipment Fueling
SOURCE OPERATIONS	RECOMMENDATION	ADDRESSED IN SOP:
Vehicle Fueling Area	Comply with County fueling SOP	Vehicle & Equipment Fueling
Vehicle Washing	Do not allow vehicle and equipment washwater to discharge to the environment.	Good Housekeeping

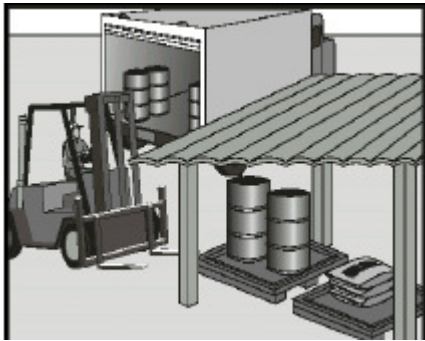
Ship Bottom Garage
Road Department
Source Material Inventory

SOURCE MATERIAL	RECOMMENDATION	ADDRESSED IN SOP:
Cold Patch	- Keep covered to prevent exposure to precipitation - Regularly sweep to keep area clean.	Good Housekeeping
De-icing Materials	- Maintain permanent structure in compliance with Good Housekeeping SOP. - Haybales to be installed between October 15st and April 30th..	Good Housekeeping
Drums	- Properly label - Dispose of empty/unused drums - Correctly store drums, covered on spill platforms	Good Housekeeping
Dumpsters	- Install 10 mil. Tarp, held with bungees, to cover all dumpsters. - Keep covered at all times when not in use.	Good Housekeeping
Street Sweepings	Push all sweepings under permanent cover	Good Housekeeping
Used Tires and Lead Acid Batteries	Store indoors or construct a shed to keep materials covered	Good Housekeeping; Vehicle Maintenance
Waste Oil Storage	Practice good housekeeping and maintenance	Good Housekeeping; Vehicle & Equipment Fueling
SOURCE OPERATIONS	RECOMMENDATION	ADDRESSED IN SOP:
Vehicle Fueling Area	Comply with County fueling SOP	Vehicle & Equipment Fueling
Vehicle Washing	Do not allow vehicle and equipment washwater to discharge to the environment.	Good Housekeeping

Good Housekeeping

Ocean County Highway District Stormwater Permit

Road Department Standard Operating Procedure



Ocean County Highway Districts



Chestnut Street Complex

Jackson Garage

Lacey Garage

Lakewood Garage

Manahawkin Garage

Plumsted Garage

Ship Bottom Garage

Manchester Garage

Introduction and Purpose

This SOP contains the basic practices of good housekeeping to be implemented during typical day-to-day maintenance activities at the Ocean County Highway District. The purpose of this SOP is to provide a set of guidelines for all county employees at the County sites.

Scope

This SOP applies to all housekeeping operations conducted within the Ocean County Highway Agency and its ancillary operations.

Standards and Specifications

Chestnut Street Complex

Asphalt/Construction Debris

- Prevent transport of material to stormwater while stored onsite
- Segregate material and properly dispose of on a regular basis

All Locations

All Containers & Drums (All containers, storing liquids or solids)	- 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. - Keep a spill kit on hand at all liquid storage locations. - Have available & make use of drip pans during liquid transfers. Absorbent spill clean-up materials must be available in maintenance areas and shall be disposed of properly after use. - Collect waste fluids in properly labeled containers and dispose of them properly. - Place trash, dirt and other debris in dumpsters - Keep lids on dumpsters closed when not in use.
Containers and Drums Stored Outside	All drums & containers must be covered and placed on spill platforms.
Dumpsters	- Install 10 mil. Tarp cover for all dumpsters. - Keep covered at all times when not in use.
Clean Sand	Store greater than 50 feet from a storm drain inlet
Cold Patch	- Keep material covered to prevent exposure to precipitation - Regularly sweep and keep area clean.
Used Tires and Lead Acid Batteries	Store batteries indoors whenever possible. If outdoors, batteries should be placed on an elevated surface and covered.
Street Sweepings	Ensure street sweepings are stored under permanent storage structure at the end of each day
Spare/Scrap Equipment and Vehicle Parts	- Dispose of on a regular basis - Keep parts on an impervious surface and covered
Cold Patch	Keep material covered to prevent exposure to precipitation
Waste Oil Storage	Immediately clean small drips and spills
Vehicle and Equipment Washing	Do not allow vehicle and equipment washwaters to discharge to the environment after February 2009.

Standards and Specifications

(Salt and Deicing Material Handling)

Salt Handling and Deliveries	- 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. - 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. - Implement seasonal tarping from October 15th through April 30th
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- Hay bales at entrance of storage when not in use, check daily.
- For brine solution a visual inspection is conducted to ensure that bulk liquids have not contaminated the stormwater collected in the secondary containment area when dealing with materials that can be observed.
- If the secondary containment area for the brine solution contains a valve, this valve shall remain closed at all times except as described above;

Standards and Specifications (Spill Response & Inspections)

Spill Response and Reporting

- Conduct clean up of any spill(s) immediately after discovery.
- Spills are to be cleaned using dry cleaning methods only.
- Dispose of contaminated absorbent material properly.
- Dial 911 in case of an emergency.
- Notify the NJDEP at 1-877-WARNDEP for all spill emergencies.

Maintenance and Inspection

- **The waste oil storage area should be wiped down daily of any residuals or small spills**
- **Periodically check for leaks and damaged equipment** and make repairs as necessary.
- Perform **monthly inspections** to ensure compliance with SOP
- Inspect salt storage area **monthly** and during deliveries (loading) and unloading activities

Chestnut Street Complex**Road Department: 20__ Monthly Good Housekeeping SOP Compliance Inspections**

MONTH	INCLUDE DATES OF INSPECTION, PROBLEMS OBSERVED AND CORRECTIONS
April	• Date: • Problems: • Corrections:
May	• Date: • Problems: • Corrections:
June	• Date: • Problems: • Corrections:
July	• Date: • Problems: • Corrections:
August	• Date: • Problems: • Corrections:
September	• Date: • Problems: • Corrections:
October	• Date: • Problems: • Corrections:
November	• Date: • Problems: • Corrections:
December	• Date: • Problems: • Corrections:
January	• Date: • Problems: • Corrections:
February	• Date: • Problems: • Corrections:
March	• Date: • Problems: • Corrections:

Jackson Garage**Road Department: 20__ Monthly Good Housekeeping SOP Compliance Inspections**

MONTH	INCLUDE DATES OF INSPECTION, PROBLEMS OBSERVED AND CORRECTIONS
April	• Date: • Problems: • Corrections:
May	• Date: • Problems: • Corrections:
June	• Date: • Problems: • Corrections:
July	• Date: • Problems: • Corrections:
August	• Date: • Problems: • Corrections:
September	• Date: • Problems: • Corrections:
October	• Date: • Problems: • Corrections:
November	• Date: • Problems: • Corrections:
December	• Date: • Problems: • Corrections:
January	• Date: • Problems: • Corrections:
February	• Date: • Problems: • Corrections:
March	• Date: • Problems: • Corrections:

Lacey Garage

Road Department: 20__ Monthly Good Housekeeping SOP Compliance Inspections

MONTH	INCLUDE DATES OF INSPECTION, PROBLEMS OBSERVED AND CORRECTIONS
April	• Date: • Problems: • Corrections:
May	• Date: • Problems: • Corrections:
June	• Date: • Problems: • Corrections:
July	• Date: • Problems: • Corrections:
August	• Date: • Problems: • Corrections:
September	• Date: • Problems: • Corrections:
October	• Date: • Problems: • Corrections:
November	• Date: • Problems: • Corrections:
December	• Date: • Problems: • Corrections:
January	• Date: • Problems: • Corrections:
February	• Date: • Problems: • Corrections:
March	• Date: • Problems: • Corrections:

Lakewood Garage

Road Department: 20__ Monthly Good Housekeeping SOP Compliance Inspections

MONTH	INCLUDE DATES OF INSPECTION, PROBLEMS OBSERVED AND CORRECTIONS
April	• Date: • Problems: • Corrections:
May	• Date: • Problems: • Corrections:
June	• Date: • Problems: • Corrections:
July	• Date: • Problems: • Corrections:
August	• Date: • Problems: • Corrections:
September	• Date: • Problems: • Corrections:
October	• Date: • Problems: • Corrections:
November	• Date: • Problems: • Corrections:
December	• Date: • Problems: • Corrections:
January	• Date: • Problems: • Corrections:
February	• Date: • Problems: • Corrections:
March	• Date: • Problems: • Corrections:

Manahawkin Garage**Road Department: 20__ Monthly Good Housekeeping SOP Compliance Inspections**

MONTH	INCLUDE DATES OF INSPECTION, PROBLEMS OBSERVED AND CORRECTIONS
April	• Date: • Problems: • Corrections:
May	• Date: • Problems: • Corrections:
June	• Date: • Problems: • Corrections:
July	• Date: • Problems: • Corrections:
August	• Date: • Problems: • Corrections:
September	• Date: • Problems: • Corrections:
October	• Date: • Problems: • Corrections:
November	• Date: • Problems: • Corrections:
December	• Date: • Problems: • Corrections:
January	• Date: • Problems: • Corrections:
February	• Date: • Problems: • Corrections:
March	• Date: • Problems: • Corrections:

Plumsted Garage**Road Department: 20__ Monthly Good Housekeeping SOP Compliance Inspections**

MONTH	INCLUDE DATES OF INSPECTION, PROBLEMS OBSERVED AND CORRECTIONS
April	• Date: • Problems: • Corrections:
May	• Date: • Problems: • Corrections:
June	• Date: • Problems: • Corrections:
July	• Date: • Problems: • Corrections:
August	• Date: • Problems: • Corrections:
September	• Date: • Problems: • Corrections:
October	• Date: • Problems: • Corrections:
November	• Date: • Problems: • Corrections:
December	• Date: • Problems: • Corrections:
January	• Date: • Problems: • Corrections:
February	• Date: • Problems: • Corrections:
March	• Date: • Problems: • Corrections:

Ship Bottom Garage**Road Department: 20__ Monthly Good Housekeeping SOP Compliance Inspections**

MONTH	INCLUDE DATES OF INSPECTION, PROBLEMS OBSERVED AND CORRECTIONS
April	• Date: • Problems: • Corrections:
May	• Date: • Problems: • Corrections:
June	• Date: • Problems: • Corrections:
July	• Date: • Problems: • Corrections:
August	• Date: • Problems: • Corrections:
September	• Date: • Problems: • Corrections:
October	• Date: • Problems: • Corrections:
November	• Date: • Problems: • Corrections:
December	• Date: • Problems: • Corrections:
January	• Date: • Problems: • Corrections:
February	• Date: • Problems: • Corrections:
March	• Date: • Problems: • Corrections:

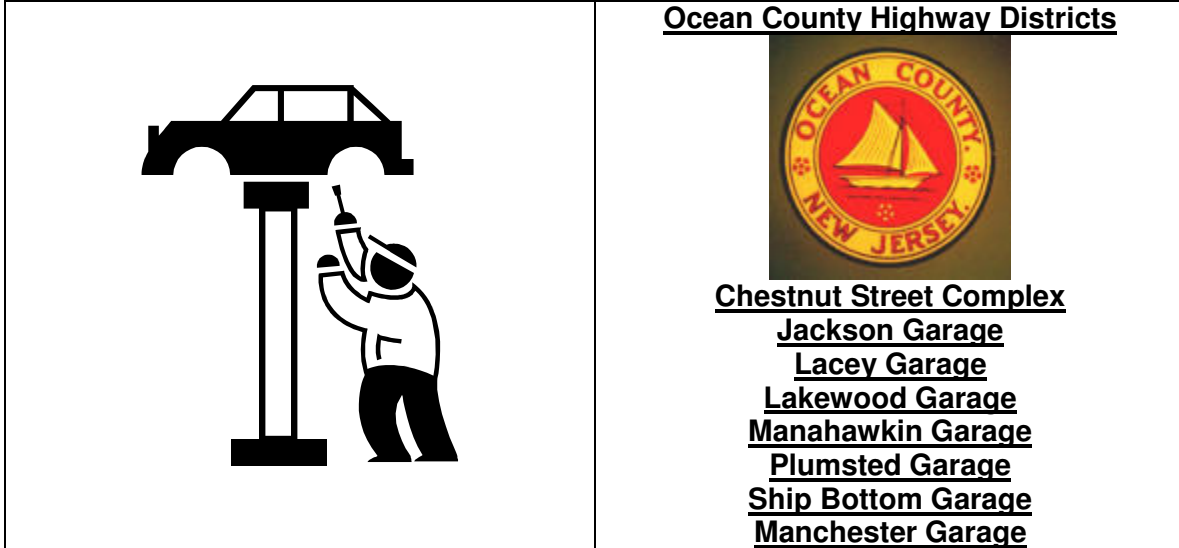
Manchester Garage**Road Department: 20__ Monthly Good Housekeeping SOP Compliance Inspections**

MONTH	INCLUDE DATES OF INSPECTION, PROBLEMS OBSERVED AND CORRECTIONS
April	• Date: • Problems: • Corrections:
May	• Date: • Problems: • Corrections:
June	• Date: • Problems: • Corrections:
July	• Date: • Problems: • Corrections:
August	• Date: • Problems: • Corrections:
September	• Date: • Problems: • Corrections:
October	• Date: • Problems: • Corrections:
November	• Date: • Problems: • Corrections:
December	• Date: • Problems: • Corrections:
January	• Date: • Problems: • Corrections:
February	• Date: • Problems: • Corrections:
March	• Date: • Problems: • Corrections:

Vehicle Maintenance

Ocean County Highway District Permit

Road Department Standard Operating Procedure



Introduction and Purpose

This SOP contains the basic practices of vehicle maintenance to be implemented at the Ocean County Highway District. The purpose of this SOP is to provide a set of guidelines for developing safe, responsible vehicle maintenance practices which protect the quality of stormwater run-off originating from County sites.

Scope

This SOP applies to all vehicle maintenance activities performed within the Ocean County Highway Agency and its ancillary operations.

Standards and Specification:

General Vehicle Maintenance Guidelines	• Conduct vehicle maintenance operation only in designated areas. • When possible, perform all vehicle and equipment maintenance at an indoor location with a paved floor. • Always use drip pans. • Use portable tents or construct a roofing-device over long-term maintenance areas and for projects that must be performed outdoors.
Fluid Disposal	• All waste liquids should be collected and disposed of properly. • All containers storing liquids should be clearly labeled. • All drips & spills should be addressed using dry-cleaning methods. (absorbent material use & broom sweep up)
Battery & Tire Storage	• All waste lead-acid batteries should be stored indoors. If stored outdoors, all batteries should be under cover and elevated. • Scrap tires should be stored indoors or in a container dedicated to scrap tire storage.
Vehicle and Equipment Washing	• Do not allow vehicle and equipment washwaters to discharge to the environment after February 2009.
Maintenance and Inspection	• Monthly check for leaks and damaged equipment and make repairs as necessary.

Chestnut Street Complex
Road Department: 20 Monthly Vehicle Maintenance SOP Compliance Inspections

MONTH	INCLUDE DATES OF INSPECTION, PROBLEMS OBSERVED AND CORRECTIONS
April	• Date: • Problems: • Corrections:
May	• Date: • Problems: • Corrections:
June	• Date: • Problems: • Corrections:
July	• Date: • Problems: • Corrections:
August	• Date: • Problems: • Corrections:
September	• Date: • Problems: • Corrections:
October	• Date: • Problems: • Corrections:
November	• Date: • Problems: • Corrections:
December	• Date: • Problems: • Corrections:
January	• Date: • Problems: • Corrections:
February	• Date: • Problems: • Corrections:
March	• Date: • Problems: • Corrections:

Jackson Garage
Road Department: 20 Monthly Vehicle Maintenance SOP Compliance Inspections

MONTH	INCLUDE DATES OF INSPECTION, PROBLEMS OBSERVED AND CORRECTIONS
April	• Date: • Problems: • Corrections:
May	• Date: • Problems: • Corrections:
June	• Date: • Problems: • Corrections:
July	• Date: • Problems: • Corrections:
August	• Date: • Problems: • Corrections:
September	• Date: • Problems: • Corrections:
October	• Date: • Problems: • Corrections:
November	• Date: • Problems: • Corrections:
December	• Date: • Problems: • Corrections:
January	• Date: • Problems: • Corrections:
February	• Date: • Problems: • Corrections:
March	• Date: • Problems: • Corrections:

Lacey Garage
Road Department: 20 Monthly Vehicle Maintenance SOP Compliance Inspections

MONTH	INCLUDE DATES OF INSPECTION, PROBLEMS OBSERVED AND CORRECTIONS
April	• Date: • Problems: • Corrections:
May	• Date: • Problems: • Corrections:
June	• Date: • Problems: • Corrections:
July	• Date: • Problems: • Corrections:
August	• Date: • Problems: • Corrections:
September	• Date: • Problems: • Corrections:
October	• Date: • Problems: • Corrections:
November	• Date: • Problems: • Corrections:
December	• Date: • Problems: • Corrections:
January	• Date: • Problems: • Corrections:
February	• Date: • Problems: • Corrections:
March	• Date: • Problems: • Corrections:

Lakewood Garage
Road Department: 20 Monthly Vehicle Maintenance SOP Compliance Inspections

MONTH	INCLUDE DATES OF INSPECTION, PROBLEMS OBSERVED AND CORRECTIONS
April	• Date: • Problems: • Corrections:
May	• Date: • Problems: • Corrections:
June	• Date: • Problems: • Corrections:
July	• Date: • Problems: • Corrections:
August	• Date: • Problems: • Corrections:
September	• Date: • Problems: • Corrections:
October	• Date: • Problems: • Corrections:
November	• Date: • Problems: • Corrections:
December	• Date: • Problems: • Corrections:
January	• Date: • Problems: • Corrections:
February	• Date: • Problems: • Corrections:
March	• Date: • Problems: • Corrections:

Manahawkin Garage
Road Department: 20 Monthly Vehicle Maintenance SOP Compliance Inspections

MONTH	INCLUDE DATES OF INSPECTION, PROBLEMS OBSERVED AND CORRECTIONS
April	• Date: • Problems: • Corrections:
May	• Date: • Problems: • Corrections:
June	• Date: • Problems: • Corrections:
July	• Date: • Problems: • Corrections:
August	• Date: • Problems: • Corrections:
September	• Date: • Problems: • Corrections:
October	• Date: • Problems: • Corrections:
November	• Date: • Problems: • Corrections:
December	• Date: • Problems: • Corrections:
January	• Date: • Problems: • Corrections:
February	• Date: • Problems: • Corrections:
March	• Date: • Problems: • Corrections:

Plumsted Garage

Road Department: 20 Monthly Vehicle Maintenance SOP Compliance Inspections

MONTH	INCLUDE DATES OF INSPECTION, PROBLEMS OBSERVED AND CORRECTIONS
April	• Date: • Problems: • Corrections:
May	• Date: • Problems: • Corrections:
June	• Date: • Problems: • Corrections:
July	• Date: • Problems: • Corrections:
August	• Date: • Problems: • Corrections:
September	• Date: • Problems: • Corrections:
October	• Date: • Problems: • Corrections:
November	• Date: • Problems: • Corrections:
December	• Date: • Problems: • Corrections:
January	• Date: • Problems: • Corrections:
February	• Date: • Problems: • Corrections:
March	• Date: • Problems: • Corrections:

Ship Bottom Garage
Road Department: 20 Monthly Vehicle Maintenance SOP Compliance Inspections

MONTH	INCLUDE DATES OF INSPECTION, PROBLEMS OBSERVED AND CORRECTIONS
April	• Date: • Problems: • Corrections:
May	• Date: • Problems: • Corrections:
June	• Date: • Problems: • Corrections:
July	• Date: • Problems: • Corrections:
August	• Date: • Problems: • Corrections:
September	• Date: • Problems: • Corrections:
October	• Date: • Problems: • Corrections:
November	• Date: • Problems: • Corrections:
December	• Date: • Problems: • Corrections:
January	• Date: • Problems: • Corrections:
February	• Date: • Problems: • Corrections:
March	• Date: • Problems: • Corrections:

Manchester Garage
Road Department: 20 Monthly Vehicle Maintenance SOP Compliance Inspections

MONTH	INCLUDE DATES OF INSPECTION, PROBLEMS OBSERVED AND CORRECTIONS
April	• Date: • Problems: • Corrections:
May	• Date: • Problems: • Corrections:
June	• Date: • Problems: • Corrections:
July	• Date: • Problems: • Corrections:
August	• Date: • Problems: • Corrections:
September	• Date: • Problems: • Corrections:
October	• Date: • Problems: • Corrections:
November	• Date: • Problems: • Corrections:
December	• Date: • Problems: • Corrections:
January	• Date: • Problems: • Corrections:
February	• Date: • Problems: • Corrections:
March	• Date: • Problems: • Corrections:

Chestnut Street Complex
Wrecked vehicle
Source Material Inventory

SOURCE MATERIAL	RECOMMENDATION	ADDRESSED IN SOP:
Wrecked Vehicle	• Install 10 mil. Tarp, held with bungees, to cover all vehicles. • Keep covered at all times when not in use. • Stored on impervious surfaces	Good Housekeeping; Vehicle & Equipment Fueling
Vehicle Leaks	• Do not allow vehicle and parts to discharge to the environment. • Practice good housekeeping, maintenance and inspections	Good Housekeeping; Vehicle & Equipment Fueling
Lead Acid Batteries Used Tires	• Store indoors or construct a shed to keep materials covered	Vehicle Maintenance; Good Housekeeping
Waste Oil Storage	• Practice good housekeeping and maintenance	Good Housekeeping; Vehicle Maintenance

Jackson Garage
Wrecked vehicle
Source Material Inventory

SOURCE MATERIAL	RECOMMENDATION	ADDRESSED IN SOP:
Wrecked Vehicle	• Install 10 mil. Tarp, held with bungees, to cover all vehicles. • Keep covered at all times when not in use. • Stored on impervious surfaces	Good Housekeeping; Vehicle & Equipment Fueling
Vehicle Leaks	• Do not allow vehicle and parts to discharge to the environment. • Practice good housekeeping, maintenance and inspections	Good Housekeeping; Vehicle & Equipment Fueling
Lead Acid Batteries Used Tires	• Store indoors or construct a shed to keep materials covered	Vehicle Maintenance; Good Housekeeping
Waste Oil Storage	• Practice good housekeeping and maintenance	Good Housekeeping; Vehicle Maintenance

Lacey Garage
Wrecked vehicle
Source Material Inventory

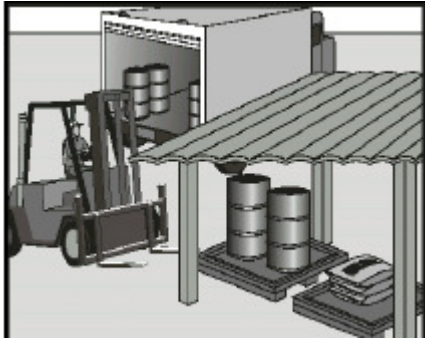
SOURCE MATERIAL	RECOMMENDATION	ADDRESSED IN SOP:
Wrecked Vehicle	• Install 10 mil. Tarp, held with bungees, to cover all vehicles. • Keep covered at all times when not in use. • Stored on impervious surfaces	Good Housekeeping; Vehicle & Equipment Fueling
Vehicle Leaks	• Do not allow vehicle and parts to discharge to the environment. • Practice good housekeeping, maintenance and inspections	Good Housekeeping; Vehicle & Equipment Fueling
Lead Acid Batteries Used Tires	• Store indoors or construct a shed to keep materials covered	Vehicle Maintenance; Good Housekeeping
Waste Oil Storage	• Practice good housekeeping and maintenance	Good Housekeeping; Vehicle Maintenance

Wrecked Vehicle Good Housekeeping

Ocean County Highway District Stormwater Permit

Prosecutor's Office/Sheriff's Office

Standard Operating Procedure



Ocean County Highway Districts



Chestnut Street Complex

Jackson Garage

Lacey Garage

Introduction and Purpose

This SOP contains the basic practices of good housekeeping to be implemented during typical day-to-day maintenance activities at the Ocean County Highway District. The purpose of this SOP is to provide a set of guidelines for all county employees at the Ocean County Highway District.

Scope

This SOP applies to all housekeeping operations conducted at the Ocean County Highway District.

Standards and Specifications

Material Storage

Wrecked Vehicles	• Store parts on impervious surface and covered • Wrecked vehicles with potential pollutant exposure shall be covered with 10 mil. Tarp and held with bungees. • Inspect tarps and replace when torn. • Check existing tarps are in place and intact. Replace as needed with new tarps/bungees.
Spill Response and Reporting	• Conduct clean up of any spill(s) immediately after discovery. • Spills are to be cleaned using dry cleaning methods only. • Dispose of contaminated absorbent material properly. • Contact Clean Venture at 908-354-0210. • Notify the NJDEP at 1-877-WARNDEP for all spill emergencies.
Maintenance and Inspection	• Periodically check for leaks and damaged equipment and make repairs as necessary. • Perform monthly inspections to ensure compliance with this SOP

Chestnut Street Complex**Prosecutor's/Sherriff's Office: 20__ Monthly Good Housekeeping SOP Compliance Inspections**

MONTH	INCLUDE DATES OF INSPECTION, PROBLEMS OBSERVED AND CORRECTIONS
April	• Date: • Problems: • Corrections:
May	• Date: • Problems: • Corrections:
June	• Date: • Problems: • Corrections:
July	• Date: • Problems: • Corrections:
August	• Date: • Problems: • Corrections:
September	• Date: • Problems: • Corrections:
October	• Date: • Problems: • Corrections:
November	• Date: • Problems: • Corrections:
December	• Date: • Problems: • Corrections:
January	• Date: • Problems: • Corrections:
February	• Date: • Problems: • Corrections:
March	• Date: • Problems: • Corrections:

Lacey Garage**Prosecutor's/Sherriff's Office: 20__ Monthly Good Housekeeping SOP Compliance Inspections**

MONTH	INCLUDE DATES OF INSPECTION, PROBLEMS OBSERVED AND CORRECTIONS
April	• Date: • Problems: • Corrections:
May	• Date: • Problems: • Corrections:
June	• Date: • Problems: • Corrections:
July	• Date: • Problems: • Corrections:
August	• Date: • Problems: • Corrections:
September	• Date: • Problems: • Corrections:
October	• Date: • Problems: • Corrections:
November	• Date: • Problems: • Corrections:
December	• Date: • Problems: • Corrections:
January	• Date: • Problems: • Corrections:
February	• Date: • Problems: • Corrections:
March	• Date: • Problems: • Corrections:

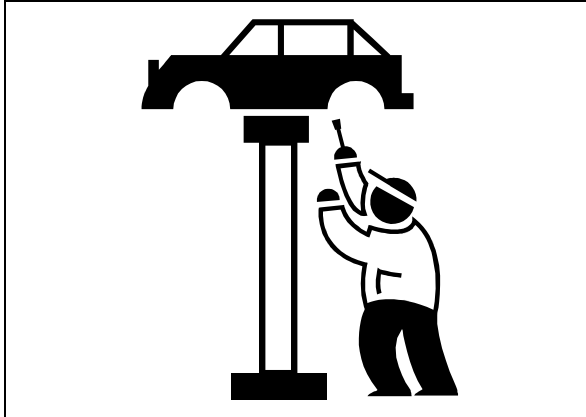
Jackson Garage**Prosecutor's/Sherriff's Office: 20__ Monthly Good Housekeeping SOP Compliance Inspections**

MONTH	INCLUDE DATES OF INSPECTION, PROBLEMS OBSERVED AND CORRECTIONS
April	• Date: • Problems: • Corrections:
May	• Date: • Problems: • Corrections:
June	• Date: • Problems: • Corrections:
July	• Date: • Problems: • Corrections:
August	• Date: • Problems: • Corrections:
September	• Date: • Problems: • Corrections:
October	• Date: • Problems: • Corrections:
November	• Date: • Problems: • Corrections:
December	• Date: • Problems: • Corrections:
January	• Date: • Problems: • Corrections:
February	• Date: • Problems: • Corrections:
March	• Date: • Problems: • Corrections:

Wrecked Vehicle Maintenance

Ocean County Highway District Permit

Prosecutor's Office/Sheriff's Office Standard Operating Procedure



Ocean County Highway Districts



Chestnut Street Complex
Jackson Garage
Lacey Garage

Introduction and Purpose

This SOP contains the basic maintenance practices of wrecked vehicle to be implemented at the Ocean County Highway District. The purpose of this SOP is to provide a set of guidelines for developing safe, responsible wrecked vehicle maintenance practices which protect the quality of stormwater run-off originating from County sites.

Scope

This SOP applies to all wrecked vehicle maintenance activities performed within the Chestnut Street Complex.

Standards and Specification

(General)

General Vehicle Maintenance Guidelines	- Wrecked Vehicles with damage that exposes fluids and/or batteries or other vehicle pollutants to stormwater shall be covered using a 10mil. Tarp and bungees. - Inspect tarps and replace when torn.
Fluid Disposal	All drips & spills should be addressed using dry-cleaning methods. (absorbent material use & broom sweep up)
Maintenance and Inspection	Monthly check for compliance with this SOP

Location: _____

20 Monthly Vehicle Maintenance SOP Compliance Inspections

MONTH	INCLUDE DATES OF INSPECTION, PROBLEMS OBSERVED AND CORRECTIONS
April	• Date: • Problems: • Corrections:
May	• Date: • Problems: • Corrections:
June	• Date: • Problems: • Corrections:
July	• Date: • Problems: • Corrections:
August	• Date: • Problems: • Corrections:
September	• Date: • Problems: • Corrections:
October	• Date: • Problems: • Corrections:
November	• Date: • Problems: • Corrections:
December	• Date: • Problems: • Corrections:
January	• Date: • Problems: • Corrections:
February	• Date: • Problems: • Corrections:
March	• Date: • Problems: • Corrections:

Chestnut Street Complex
Vehicle Services
Source Material Inventory

Source Material	Recommendation	Addressed in SOP:
Drums	• Properly label • Dispose of empty/unused drums • Correctly store drums, covered on spill platforms	Good Housekeeping
Dumpsters	• Install 10 mil. Tarp, held with bungees, to cover all dumpsters. • Keep covered at all times when not in use.	Vehicle Maintenance; Good Housekeeping
Lead Acid Batteries Used Tires	• Store indoors or construct a shed to keep materials covered	Vehicle Maintenance; Good Housekeeping
Waste Oil Storage	• Practice good housekeeping and maintenance	Good Housekeeping; Vehicle Maintenance
Operations	Recommendation	Addressed in SOP:
Vehicle Fueling Area	• Comply with Ocean County fueling SOP	Vehicle & Equipment Fueling
Vehicle Washing	• Do not allow vehicle and equipment washwaters to discharge to the environment.	Vehicle Maintenance

Manahawkin Garage
Vehicle Services
Source Material Inventory

SOURCE MATERIAL	RECOMMENDATION	ADDRESSED IN SOP:
Drums	• Properly label • Dispose of empty/unused drums • Correctly store drums, covered on spill platforms	Good Housekeeping
Dumpsters	• Install 10 mil. Tarp, held with bungees, to cover all dumpsters. • Keep covered at all times when not in use.	Good Housekeeping
Used Tires and Lead Acid Batteries	• Store indoors or construct a shed to keep materials covered	Good Housekeeping; Vehicle Maintenance
Waste Oil Storage	• Practice good housekeeping and maintenance	Good Housekeeping; Vehicle & Equipment Fueling
SOURCE OPERATIONS	RECOMMENDATION	ADDRESSED IN SOP:
Vehicle Fueling Area	• Comply with Ocean County fueling SOP	Vehicle & Equipment Fueling
Vehicle Washing	• Do not allow vehicle and equipment washwaters to discharge to the environment.	Vehicle Maintenance

Lacey Garage
Vehicle Services
Source Material Inventory

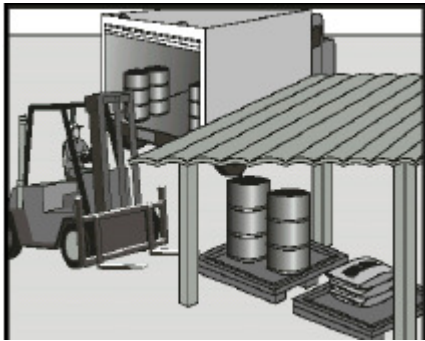
SOURCE MATERIAL	RECOMMENDATION	ADDRESSED IN SOP:
Drums	• Properly label • Dispose of empty/unused drums • Correctly store drums, covered on spill platforms	Good Housekeeping
Dumpsters	• Install 10 mil. Tarp, held with bungees, to cover all dumpsters. • Keep covered at all times when not in use.	Good Housekeeping
Used Tires	• Store indoors or construct a shed to keep materials covered	Good Housekeeping; Vehicle Maintenance
SOURCE OPERATIONS	RECOMMENDATION	ADDRESSED IN SOP:
Vehicle Fueling Area	• Keep spill kit nearby in case of spills during fuel delivery or fueling area	Vehicle & Equipment Fueling
Vehicle Washing	• Do not allow vehicle and equipment washwaters to discharge to the environment.	Vehicle Maintenance

Good Housekeeping

Ocean County Highway District Stormwater Permit

Vehicle Services

Standard Operating Procedure



Ocean County Highway Districts



Chestnut Street Complex

Jackson Garage

Lacey Garage

Lakewood Garage

Manahawkin Garage

Plumsted Garage

Ship Bottom Garage

Manchester Garage

Introduction and Purpose

This SOP contains the basic practices of good housekeeping to be implemented during typical day-to-day maintenance activities at the Ocean County Highway District. The purpose of this SOP is to provide a set of guidelines for all county employees at the County Sites.

Scope

This SOP applies to all housekeeping operations conducted within the Ocean County Highway Agency and its ancillary operations.

Standards and Specifications

(Container & Drum Handling)

All Containers & Drums (All containers, storing liquids or solids)	• 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. • Have available & make use of use drip pans during liquid transfers. • Absorbent spill clean-up materials must be available in maintenance areas and shall be disposed of properly after use. • Collect waste fluids in properly labeled containers and dispose of them properly. • Place trash, dirt and other debris in dumpsters
Containers and Drums Stored Outside	• All drums & containers must be covered and placed on spill platforms.
Dumpsters	• Install 10 mil. Tarp, held with bungees, to cover all dumpsters. • Keep covered at all times when not in use.

Used Tires and Lead Acid Batteries	• Store batteries indoors whenever possible. If outdoors, batteries should be placed on an elevated surface and covered.
Spare/Scrap Equipment and Vehicle Parts	• Dispose of on a regular basis • Keep parts on an impervious surface and covered

Standards and Specifications
(Spill Response & Inspections)

Spill Response and Reporting	• Conduct clean up of any spill(s) immediately after discovery. • Spills are to be cleaned using dry cleaning methods only. • Dispose of contaminated absorbent material properly. • Contact Clean Venture at 908-354-0210. • Notify the NJDEP at 1-877-WARNDEP for all spill emergencies.
Maintenance and Inspection	• The waste oil storage area should be wiped down daily of any residuals or small spills • Periodically check for leaks and damaged equipment and make repairs as necessary. • Inspect dumpsters monthly to ensure they are properly covered (lids closed, where applicable) and are not leaking. • Perform monthly inspections to ensure compliance with this SOP

Chestnut Street Complex**Vehicle Services: 20__ Monthly Good Housekeeping SOP Compliance Inspections**

MONTH	INCLUDE DATES OF INSPECTION, PROBLEMS OBSERVED AND CORRECTIONS
April	• Date: • Problems: • Corrections:
May	• Date: • Problems: • Corrections:
June	• Date: • Problems: • Corrections:
July	• Date: • Problems: • Corrections:
August	• Date: • Problems: • Corrections:
September	• Date: • Problems: • Corrections:
October	• Date: • Problems: • Corrections:
November	• Date: • Problems: • Corrections:
December	• Date: • Problems: • Corrections:
January	• Date: • Problems: • Corrections:
February	• Date: • Problems: • Corrections:
March	• Date: • Problems: • Corrections:

Lacey Garage

Vehicle Services: 20__ Monthly Good Housekeeping SOP Compliance Inspections

MONTH	INCLUDE DATES OF INSPECTION, PROBLEMS OBSERVED AND CORRECTIONS
April	• Date: • Problems: • Corrections:
May	• Date: • Problems: • Corrections:
June	• Date: • Problems: • Corrections:
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August	• Date: • Problems: • Corrections:
September	• Date: • Problems: • Corrections:
October	• Date: • Problems: • Corrections:
November	• Date: • Problems: • Corrections:
December	• Date: • Problems: • Corrections:
January	• Date: • Problems: • Corrections:
February	• Date: • Problems: • Corrections:
March	• Date: • Problems: • Corrections:

Manahawkin Garage**Vehicle Services: 20__ Monthly Good Housekeeping SOP Compliance Inspections**

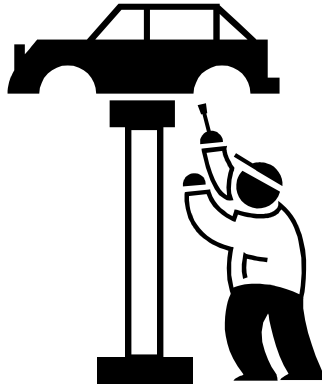
MONTH	INCLUDE DATES OF INSPECTION, PROBLEMS OBSERVED AND CORRECTIONS
April	• Date: • Problems: • Corrections:
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September	• Date: • Problems: • Corrections:
October	• Date: • Problems: • Corrections:
November	• Date: • Problems: • Corrections:
December	• Date: • Problems: • Corrections:
January	• Date: • Problems: • Corrections:
February	• Date: • Problems: • Corrections:
March	• Date: • Problems: • Corrections:

Vehicle Maintenance

Ocean County Highway District Permit

Vehicle Services

Standard Operating Procedure



Ocean County Highway Districts



Chestnut Street Complex

Jackson Garage

Lacey Garage

Lakewood Garage

Manahawkin Garage

Plumsted Garage

Ship Bottom Garage

Manchester Garage

Introduction and Purpose

This SOP contains the basic practices of vehicle maintenance to be implemented at the Ocean County Highway District. The purpose of this SOP is to provide a set of guidelines for developing safe, responsible vehicle maintenance practices which protect the quality of stormwater run-off originating from County sites.

Scope

This SOP applies to all vehicle maintenance activities performed within the Ocean County Highway Agency and its ancillary operations.

Standards and Specification

(General)

General Vehicle Maintenance Guidelines	• Conduct vehicle maintenance operation only in designated areas. • When possible, perform all vehicle and equipment maintenance at an indoor location with a paved floor. • Always use drip pans. • Use portable tents or construct a roofing-device over long-term maintenance areas and for projects that must be performed outdoors.
Fluid Disposal	• All waste liquids should be collected and disposed of properly. • All containers storing liquids should be clearly labeled. • All drips & spills should be addressed using dry-cleaning methods. (absorbent material use & broom sweep up)
Battery & Tire Storage	• All waste lead-acid batteries should be stored indoors. If stored outdoors, all batteries should be under cover and elevated. • Scrap tires should be stored indoors or in a container dedicated to scrap tire storage.

Revised 09/24

Dumpsters	• Install 10 mil. Tarp, held with bungees, to cover all dumpsters. • Keep covered at all times when not in use.
Vehicle and Equipment Washing	• Do not allow vehicle and equipment washwater to discharge to environment after February 2009.
Maintenance and Inspection	• Monthly check for compliance with this SOP

Location: _____

20 Monthly Vehicle Maintenance SOP Compliance Inspections

MONTH	INCLUDE DATES OF INSPECTION, PROBLEMS OBSERVED AND CORRECTIONS
April	• Date: • Problems: • Corrections:
May	• Date: • Problems: • Corrections:
June	• Date: • Problems: • Corrections:
July	• Date: • Problems: • Corrections:
August	• Date: • Problems: • Corrections:
September	• Date: • Problems: • Corrections:
October	• Date: • Problems: • Corrections:
November	• Date: • Problems: • Corrections:
December	• Date: • Problems: • Corrections:
January	• Date: • Problems: • Corrections:
February	• Date: • Problems: • Corrections:
March	• Date: • Problems: • Corrections:

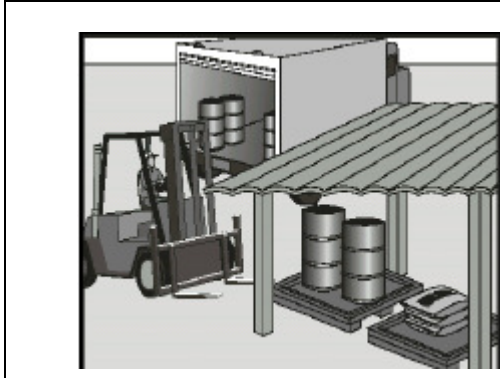
Chestnut Street Complex
Traffic Department
Source Material Inventory

Source Material	Recommendation	Addressed in SOP:
Drums	• Properly label • Dispose of empty/unused drums • Correctly store drums, covered on spill platforms	Good Housekeeping
Dumpsters	• Install 10 mil. Tarp, held with bungees, to cover all dumpsters. • Keep covered at all times when not in use.	Good Housekeeping
Operations	Recommendation	Addressed in SOP:
Vehicle Fueling Area	• Comply with Ocean County Fueling SOP	Vehicle & Equipment Fueling
Line Painting Practices	• Avoid impact to stormwater inlets	Good Housekeeping
Vehicle Washing	• Do not allow vehicle and equipment washwater to discharge to the environment.	Good Housekeeping

Good Housekeeping

Ocean County Highway District Stormwater Permit

Traffic Department Standard Operating Procedure



Ocean County Highway Districts



Chestnut Street Complex

Introduction and Purpose

This SOP contains the basic practices of good housekeeping to be implemented during typical day-to-day maintenance activities at the Chestnut Street Complex. The purpose of this SOP is to provide a set of guidelines for all county employees at the Chestnut Street Complex.

Scope

This SOP applies to all housekeeping operations conducted at the Chestnut Street Complex.

Standards and Specifications

(Container & Drum Handling)

All Containers & Drums (All containers, storing liquids or solids)	• 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. • Keep a spill kit on hand at the following locations: 1. line paint storage garage • Have available & make use of use drip pans during liquid transfers. • Absorbent spill clean-up materials must be available in maintenance areas and shall be disposed of properly after use. • Collect waste fluids in properly labeled containers and dispose of them properly. • Place trash, dirt and other debris in dumpsters
Containers and Drums Stored Outside	• All drums & containers must be covered and placed on spill platforms.
Operations	• Test line painting equipment on an impervious surface.
Vehicle and Equipment Washing	• Do not allow vehicle and equipment washwater to discharge to the environment
Dumpsters	• Install 10 mil. Tarp, held with bungees, to cover all dumpsters. • Keep covered at all times when not in use.

Standards and Specifications

(Spill Response & Inspections)

Spill Response and Reporting

- Conduct clean up of any spill(s) immediately after discovery.
- Spills are to be cleaned using dry cleaning methods only.
- Dispose of contaminated absorbent material properly.
- Contact Clean Venture at 908-354-0210.
- Notify the NJDEP at 1-877-WARNDEP for all spill emergencies.

Maintenance and Inspection

- **Periodically check for leaks and damaged equipment** and make repairs as necessary.
- Perform **monthly inspections** to ensure compliance with this SOP

Chestnut Street Complex**Traffic Department: 20__ Monthly Good Housekeeping SOP Compliance Inspections**

MONTH	INCLUDE DATES OF INSPECTION, PROBLEMS OBSERVED AND CORRECTIONS
April	• Date: • Problems: • Corrections:
May	• Date: • Problems: • Corrections:
June	• Date: • Problems: • Corrections:
July	• Date: • Problems: • Corrections:
August	• Date: • Problems: • Corrections:
September	• Date: • Problems: • Corrections:
October	• Date: • Problems: • Corrections:
November	• Date: • Problems: • Corrections:
December	• Date: • Problems: • Corrections:
January	• Date: • Problems: • Corrections:
February	• Date: • Problems: • Corrections:
March	• Date: • Problems: • Corrections:

20__ De-icing Material & Sand Storage Inspection Checklist

The salt storage area is to be inspected during bulk delivery and loading, as well as once a month, to ensure minimal environmental impact.

Facility Name: _____

Date	Initials	Activity			Inspected/ Cleaned	Structure Condition	Swept	Haybales
		Bulk Delivery	Loading	Routine Inspection				
		☐	☐	☐	☐ Cleaned ☐ Inspected Notes: _____	☐ Satisfactory ☐ Damaged (If damaged, describe) Notes: _____	☐ Swept & Cleaned ☐ Satisfactory Notes: _____	☐ Haybales Satisfactory ☐ Haybales Replaced Notes: _____
		☐	☐	☐	☐ Cleaned ☐ Inspected Notes: _____	☐ Satisfactory ☐ Damaged (If damaged, describe) Notes: _____	☐ Swept & Cleaned ☐ Satisfactory Notes: _____	☐ Haybales Satisfactory ☐ Haybales Replaced Notes: _____
		☐	☐	☐	☐ Cleaned ☐ Inspected Notes: _____	☐ Satisfactory ☐ Damaged (If damaged, describe) Notes: _____	☐ Swept & Cleaned ☐ Satisfactory Notes: _____	☐ Haybales Satisfactory ☐ Haybales Replaced Notes: _____
		☐	☐	☐	☐ Cleaned ☐ Inspected Notes: _____	☐ Satisfactory ☐ Damaged (If damaged, describe) Notes: _____	☐ Swept & Cleaned ☐ Satisfactory Notes: _____	☐ Haybales Satisfactory ☐ Haybales Replaced Notes: _____
		☐	☐	☐	☐ Cleaned ☐ Inspected Notes: _____	☐ Satisfactory ☐ Damaged (If damaged, describe) Notes: _____	☐ Swept & Cleaned ☐ Satisfactory Notes: _____	☐ Haybales Satisfactory ☐ Haybales Replaced Notes: _____
		☐	☐	☐	☐ Cleaned ☐ Inspected Notes: _____	☐ Satisfactory ☐ Damaged (If damaged, describe) Notes: _____	☐ Swept & Cleaned ☐ Satisfactory Notes: _____	☐ Haybales Satisfactory ☐ Haybales Replaced Notes: _____
		☐	☐	☐	☐ Cleaned ☐ Inspected Notes: _____	☐ Satisfactory ☐ Damaged (If damaged, describe) Notes: _____	☐ Swept & Cleaned ☐ Satisfactory Notes: _____	☐ Haybales Satisfactory ☐ Haybales Replaced Notes: _____
		☐	☐	☐	☐ Cleaned ☐ Inspected Notes: _____	☐ Satisfactory ☐ Damaged (If damaged, describe) Notes: _____	☐ Swept & Cleaned ☐ Satisfactory Notes: _____	☐ Haybales Satisfactory ☐ Haybales Replaced Notes: _____

20__ De-icing Brine Storage Inspection Checklist

The salt storage area is to be inspected during bulk delivery and loading, as well as once a month, to ensure minimal environmental impact.

Facility Name: _____

Date	Initials	Activity			Inspected/ Cleaned	Tank Condition	Secondary Containment Condition
		Bulk Delivery	Loading	Routine Inspection			
		☐	☐	☐	☐ Cleaned ☐ Inspected Notes: _____ _____	☐ Satisfactory ☐ Damaged (If damaged, describe) Notes: _____ _____	☐ Satisfactory ☐ Damaged (If damaged, describe) Notes: _____ _____
		☐	☐	☐	☐ Cleaned ☐ Inspected Notes: _____ _____	☐ Satisfactory ☐ Damaged (If damaged, describe) Notes: _____ _____	☐ Satisfactory ☐ Damaged (If damaged, describe) Notes: _____ _____
		☐	☐	☐	☐ Cleaned ☐ Inspected Notes: _____ _____	☐ Satisfactory ☐ Damaged (If damaged, describe) Notes: _____ _____	☐ Satisfactory ☐ Damaged (If damaged, describe) Notes: _____ _____
		☐	☐	☐	☐ Cleaned ☐ Inspected Notes: _____ _____	☐ Satisfactory ☐ Damaged (If damaged, describe) Notes: _____ _____	☐ Satisfactory ☐ Damaged (If damaged, describe) Notes: _____ _____
		☐	☐	☐	☐ Cleaned ☐ Inspected Notes: _____ _____	☐ Satisfactory ☐ Damaged (If damaged, describe) Notes: _____ _____	☐ Satisfactory ☐ Damaged (If damaged, describe) Notes: _____ _____
		☐	☐	☐	☐ Cleaned ☐ Inspected Notes: _____ _____	☐ Satisfactory ☐ Damaged (If damaged, describe) Notes: _____ _____	☐ Satisfactory ☐ Damaged (If damaged, describe) Notes: _____ _____
		☐	☐	☐	☐ Cleaned ☐ Inspected Notes: _____ _____	☐ Satisfactory ☐ Damaged (If damaged, describe) Notes: _____ _____	☐ Satisfactory ☐ Damaged (If damaged, describe) Notes: _____ _____
		☐	☐	☐	☐ Cleaned ☐ Inspected Notes: _____ _____	☐ Satisfactory ☐ Damaged (If damaged, describe) Notes: _____ _____	☐ Satisfactory ☐ Damaged (If damaged, describe) Notes: _____ _____

SPPP Form 11 – Storm Drain Inlets

Highway Agency
Information

Highway Agency Name: Ocean County Highway Agency

NJPDES # :NJG0152382

PI ID #: 222780

Team Member/Title: Arthur Reece, County Road Supervisor; Mark F. Jehnke, County Engineer

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

Date of Completion: March 10, 2005

Date of most recent update: June 27, 2025

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

The Ocean County Engineering Department and Road Department will be responsible for labeling all storm drain inlets owned/operated by the County's Highway Agency along streets with sidewalks, and in County maintenance yards. Interns for the Engineering Department will apply plastic labels provided by the Barnegat Bay National Estuary Program to easily accessible inlets. Each Road Department General Supervisor will be responsible for labeling remaining inlets in their respective portions of the County, as well as in County maintenance yards.

The County has designated Arthur Reece as the County's coordinator for areas within Sector 1, and Bob Steers as the coordinator for areas within Sector 2.

Long-Term Inlet Labeling Maintenance

The Ocean County Road Department will ensure long-term maintenance of their storm drain inlet labels during their annual catch basin cleaning program. Whenever a storm drain is inspected, cleaned or repaired, the label will be inspected for damage and replaced if needed, where applicable.

Inlet Labeling Schedule

Ocean County will **use Routes 70, 530 and 618 to distinguish sectors one (1) and two (2).**

- Sector 1, to the south of, and including the dividing line, will be completed by the interim deadline of April 1, 2007.
- Sector 2, north of the dividing line, will be completed by April 1, 2009.

- ***The enclosed map depicts the County borders and the sector division line.***

Description of Labels

For a majority of existing basins which need to be labeled, plastic labels depicting a fish and reading “ONLY RAIN IN THE DRAIN – FLOW TO BARNEGAT BAY” (provided by the Barnegat Bay National Estuary Program) will be used for areas located within the Barnegat Bay Watershed. Labels utilized in the remaining watersheds will depict a similar educational statement. Areas that cannot accept the placement of the adhesive labels will be labeled using paint and a stencil depicting a similar message.



When inlets are replaced or new inlets are installed to meet the new design standard, “COUNTY OF OCEAN – DO NOT DUMP WASTE DRAINS TO WATERWAY” will be permanently stamped into the new casting.

What type of storm drain inlet design will generally be used for retrofitting? For most projects Ocean County will use the NJDOT bicycle safe grate and (if needed) a curb opening with a clear space no bigger than two inches across the smallest dimension.

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

[illegible]

County of Ocean
Highway Agency Stormwater Permit
NJG0152382

20__ Storm Drain Inlet Labeling Log



What storm drains need to be labeled?

Label all County storm drain inlets that are next to sidewalks, or within plazas, parking areas or maintenance yards.

Date	Location Labeled (Municipality/Street)	Number of Storm Drains Labeled	Storm Drain Inlet IDs	Type of Label Applied	Describe Stencil/Label Educational Message
				☐ Plastic Marker ☐ Stencil ☐ Other: _____	
				☐ Plastic Marker ☐ Stencil ☐ Other: _____	
				☐ Plastic Marker ☐ Stencil ☐ Other: _____	
				☐ Plastic Marker ☐ Stencil ☐ Other: _____	
				☐ Plastic Marker ☐ Stencil ☐ Other: _____	
				☐ Plastic Marker ☐ Stencil ☐ Other: _____	
				☐ Plastic Marker ☐ Stencil ☐ Other: _____	
				☐ Plastic Marker ☐ Stencil ☐ Other: _____	
				☐ Plastic Marker ☐ Stencil ☐ Other: _____	
				☐ Plastic Marker ☐ Stencil ☐ Other: _____	
				☐ Plastic Marker ☐ Stencil ☐ Other: _____	
				☐ Plastic Marker ☐ Stencil ☐ Other: _____	
				☐ Plastic Marker ☐ Stencil ☐ Other: _____	
				☐ Plastic Marker ☐ Stencil ☐ Other: _____	
				☐ Plastic Marker ☐ Stencil ☐ Other: _____	
				☐ Plastic Marker ☐ Stencil ☐ Other: _____	
				☐ Plastic Marker ☐ Stencil ☐ Other: _____	
				☐ Plastic Marker ☐ Stencil ☐ Other: _____	
				☐ Plastic Marker ☐ Stencil ☐ Other: _____	
TOTALS					
Notes					

SPPP Form 12 – Catch Basins

Highway Agency
Information

Highway Agency Name: Ocean County Highway Agency

NJPDES # :NJG0152382

PI ID #: 222780

Team Member/Title: Arthur Reece, County Road Supervisor; Mark F. Jehnke, County Engineer

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

Date of Completion: March 10, 2005

Date of most recent update: June 27, 2025

Please describe your annual catch basin cleaning program and schedule. Attach additional pages as necessary.

Catch Basin Cleaning Program Alternate Schedule

Due to the estimated number of storm drain inlets (9,000+), the size of the County, and the available manpower and equipment, identification, inspection and cleaning of inlets in one year may not initially be feasible.

Consequently, the County proposes to initially identify, map and inspect all County owned and operated catch basins. A prioritized list of areas requiring immediate attention will be developed from this information. As of April 2021, the County Engineering Department has identified 10,521 storm drain inlets owned or operated by the County.

The County is required to inspect 20% of total catch basins each year, while cleaning the necessary ones. This will be done a rotational basis and the County anticipates that the cleaning of all County owned and operated catch basins will take about 5 years.

The County has created a Stormwater Management Crew, which has been designated to catch basin cleaning and stormwater facility maintenance. In addition, the County's budget this includes funds to purchase additional equipment to achieve compliance with the annual catch basin cleaning requirements.

Ocean County currently operates three (3) vehicles capable of catch basin cleaning, which are dedicated to this activity when the equipment is operational and when weather permits.

Catch Basin Cleaning Program Description

The **Ocean County Road Department** will be responsible for implementing the catch basin cleaning program. Catch basins will initially be inspected and a prioritized list of those requiring cleaning will be developed. 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. Catch basins will continue to be inspected following the alternate schedule, even if they were found to be cleaned during the previous inspection. At the time of cleaning, the catch basins will also be inspected for proper function. Maintenance will be scheduled for those basins that are in disrepair

Management of Catch Basin Cleaning Materials

Road clean up materials will remain staged on concrete pads for the appropriate staging time, as per the standards set in guidance provided by the NJDEP Division of Solid and Hazardous Waste. Approximately once a month, waste will be hauled to the Ocean County Landfill for disposal. Permission has been granted by the Ocean County Utilities Authority to discharge water from catch basin cleaning into their sanitary sewers. All solid waste will be tested.

20__ Inlet Inspection Log

Date	Municipality / Street Name	Inlet ID	Inspected?	Cleaning Required		Labeled			Damaged		*Condition	Initials
			☐ Yes	☐ Yes	☐ No	☐ Yes	☐ No	☐ N/A	☐ Yes	☐ No		
			☐ Yes	☐ Yes	☐ No	☐ Yes	☐ No	☐ N/A	☐ Yes	☐ No		
			☐ Yes	☐ Yes	☐ No	☐ Yes	☐ No	☐ N/A	☐ Yes	☐ No		
			☐ Yes	☐ Yes	☐ No	☐ Yes	☐ No	☐ N/A	☐ Yes	☐ No		
			☐ Yes	☐ Yes	☐ No	☐ Yes	☐ No	☐ N/A	☐ Yes	☐ No		
			☐ Yes	☐ Yes	☐ No	☐ Yes	☐ No	☐ N/A	☐ Yes	☐ No		
			☐ Yes	☐ Yes	☐ No	☐ Yes	☐ No	☐ N/A	☐ Yes	☐ No		
			☐ Yes	☐ Yes	☐ No	☐ Yes	☐ No	☐ N/A	☐ Yes	☐ No		
			☐ Yes	☐ Yes	☐ No	☐ Yes	☐ No	☐ N/A	☐ Yes	☐ No		
			☐ Yes	☐ Yes	☐ No	☐ Yes	☐ No	☐ N/A	☐ Yes	☐ No		
			☐ Yes	☐ Yes	☐ No	☐ Yes	☐ No	☐ N/A	☐ Yes	☐ No		
			☐ Yes	☐ Yes	☐ No	☐ Yes	☐ No	☐ N/A	☐ Yes	☐ No		
			☐ Yes	☐ Yes	☐ No	☐ Yes	☐ No	☐ N/A	☐ Yes	☐ No		
			☐ Yes	☐ Yes	☐ No	☐ Yes	☐ No	☐ N/A	☐ Yes	☐ No		
			☐ Yes	☐ Yes	☐ No	☐ Yes	☐ No	☐ N/A	☐ Yes	☐ No		
			☐ Yes	☐ Yes	☐ No	☐ Yes	☐ No	☐ N/A	☐ Yes	☐ No		
			☐ Yes	☐ Yes	☐ No	☐ Yes	☐ No	☐ N/A	☐ Yes	☐ No		
			☐ Yes	☐ Yes	☐ No	☐ Yes	☐ No	☐ N/A	☐ Yes	☐ No		
			☐ Yes	☐ Yes	☐ No	☐ Yes	☐ No	☐ N/A	☐ Yes	☐ No		
			☐ Yes	☐ Yes	☐ No	☐ Yes	☐ No	☐ N/A	☐ Yes	☐ No		
			☐ Yes	☐ Yes	☐ No	☐ Yes	☐ No	☐ N/A	☐ Yes	☐ No		

Notes

***1 - BASIN IN DISREPAIR - REQUIRES IMMEDIATE ATTENTION**

2 - SEDIMENT/DEBRIS - REQUIRES CLEANING

3 - MINIMAL SEDIMENT/DEBRIS - LOW PRIORITY

4 - NO SEDIMENT/DEBRIS - DOES NOT REQUIRE CLEANING

SPPP Form 13 – Employee Training

Highway Agency Information

Highway Agency Name: Ocean County Highway Agency

NJPDES # :NJG0152382

PI ID #: 222780

Team Member/Title: Keith Goetting, Department of Employee Relations Director

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

Date of Completion: March 10, 2005

Date of most recent update: July 30, 2025

Employee Training Program

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.

Topic	Training to Include:	Employees to be Trained:
Maintenance Yard Operations	▪ De-icing material storage ▪ Fueling ▪ Vehicle maintenance ▪ Equipment/vehicle washing ▪ Good housekeeping SOPs	▪ Road Department ▪ Engineering Department ▪ Vehicle Services
Stormwater Facility Maintenance	▪ Catch basin cleaning schedules ▪ Record keeping requirements	▪ Road Department ▪ Engineering Department ▪ Solid Waste Management
SPPP Training & Recordkeeping	▪ To be updated	▪ Road Department ▪ Engineering Department ▪ Solid Waste Management ▪ Vehicle Services ▪ Building and Grounds
Street Sweeping	▪ Sweeping schedules ▪ Record keeping requirements	▪ Road Department ▪ Solid Waste Management
Illicit Connection Elimination and Outfall Pipe Mapping	▪ Information regarding the hazards associated with illicit connections ▪ Details of the program ○ Investigation techniques ○ Physical observations ○ Field sampling ○ Mapping procedures.	▪ Engineering Department ▪ Road Department ▪ County Health Department
Road Erosion Control and Outfall Pipe Stream Scouring Remediation	▪ Identifying road erosion and outfall pipe stream scouring ▪ Repairs	▪ Road Department ▪ Engineering Department
Waste Disposal Education	▪ How to respond to inquiries regarding proper waste disposal	▪ Road Department ▪ Vehicle Services ▪ Buildings and Grounds ▪ Solid Waste Management
Construction Activity/Post-Construction Stormwater Management in New Development and Redevelopment	▪ Requirement to obtain NJPDES construction activity stormwater permit ▪ Requirements for Post-Construction Stormwater	▪ Engineering Department ▪ Planning Department

	Management in New Development and Redevelopment	
Roadside Vegetation Management	▪ Training will include herbicide and mulch application requirements	▪ Road Department

Training was conducted for the 2005-2006 permit cycle on the following dates:

- November 30, 2006 – 7:00 am
- December 8, 2006 – 1:30 pm and 3:30 pm
- December 15, 2006 – 1:30 pm and 3:30 pm
- December 22, 2006 – 7:00 am
- March 30, 2006 – 9:00 am, 11:00 am and 1:00 pm

SPPP Form 14– MS4 Outfall Pipe Mapping

Highway Agency Information

Highway Agency Name: Ocean County Highway Agency

NJPDES # :NJG0152382

PI ID #: 222780

Team Member/Title: Mark F. Jehnke, County Engineer

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

Date of Completion: April 1, 2005

Date of most recent update: June 27, 2025

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., employees, a consultant, etc.)?

Ocean County Engineering Department is currently mapping, using Global Positioning System (GPS), the location of all County-owned outfall pipes, as well as the surface water body receiving the discharge from the outfalls. Scouring and dry weather flow inspections (weather permitting) will be conducted during outfall mapping. In addition, an alphanumeric identifier will be assigned to each outfall. The County is also obtaining photo documentation of all outfall locations. This data will be managed through the Ocean County Global Information System (GIS).

Ocean County will **use Routes 70, 530, and 618 to distinguish sectors one (1) and (2).**

- Sector 1 – south of and including the dividing line
- Sector 2 – north of the dividing line

Outfall mapping began in April 2006, and is scheduled to be completed in accordance with the NJDEP General permit requirement. Outfall mapping in Sector 1 will be completed by April 1, 2007. All remaining County owned or operated outfalls will be mapped by July 2025.

A map depicting County sectors has been included with Form 11 – Storm Drain Inlet Labeling.

SPPP Form 15 - Outfall Pipe Inspection

Highway Agency
Information

Highway Agency Name: Ocean County Highway Agency

NJPDES # :NJG0152382

PI ID #: 222780

Team Member/Title: Mark F. Jehnke, County Engineer

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

Date of Completion: March 10, 2005

Date of most recent update: June 27, 2025

Outfall Pipe Scouring Detection, Remediation and Maintenance Program

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 scouring, date of anticipated repair, method of repair and date of completion.)

The Ocean County Department of Engineering will develop and implement a stormwater outfall pipe stream scouring, remediation and maintenance program to detect and control localized stream scouring in the vicinity of the highway system outfall pipes operated by the County. The initial steps of this effort will be coordinated with the mapping and inspection activities of outfall pipes required under the permit.

A prioritized list will be created of outfall pipes found to have scouring. A schedule will be established for repairs, beginning with the outfall pipes most in need of remediation, those most easily accessible. In addition, repairs that do not require NJDEP Land Use permits or other local, State, or Federal permits, will be completed first.

For outfall remediation requiring NJDEP permits, the Ocean County Engineering Department will prepare and submit all required applications.

Long-term Maintenance:

Those outfall pipes in which scouring had been detected and addressed in the past will be inspected annually thereafter for two (2) years subsequent to the repair, to ensure the associated stabilization projects were successful. Once it is determined that the scouring repairs have adequately mitigated any subsequent scouring, those outfalls will be inspected a minimum of one time during each five-year permit cycle. An inspection of all outfalls found in satisfactory condition will be conducted a minimum of one time per five (5) year permit cycle.

All repairs will be made in accordance with the Standards for Soil Erosion and Sediment Control in New Jersey.

- A log including locations of identified scouring, dates of repairs and completion, and methods of repair has been included.

Initial Physical Inspection Illicit Connection

The **Ocean County Engineering Department** began implementing the County's Illicit Connection Elimination Program in April 2006, which includes conducting an initial physical inspection of all outfall pipes during the MS4 Outfall pipe mapping process. The initial inspection of all outfalls will be completed by December 1, 2020. The Outfall Inspection Checklist, which is located immediately subsequent to Form 6, is completed in the field to initially document outfalls that exhibit indications of dry weather or intermittent flow. The Illicit Connection Inspection Report Forms provided by the NJDEP will also be used to record the collected information.

Illicit Connection Elimination Program Details

Outfall pipes found to have dry weather flow or indications of intermittent non-stormwater flow will be investigated by the Ocean County Engineering Department in cooperation with the Ocean County Health Department to locate the illicit connection. If the source of the illicit connection is located, and originates from the County's own activities, it will be eliminated within six months.

If, after the appropriate amount of investigation, the County is unable to locate the source of the illicit connection it will be noted on the **Closeout Investigation Form** and forwarded to NJDEP with the Annual Certification Report. For illicit connections from a public source (e.g. the host municipality or a neighboring municipality), notification will be provided to that entity, and a written explanation sent to the NJDEP detailing the results of the investigation. The report should be directed to the permit manager and enforcement case manager at the following addresses:

**New Jersey Department of Environmental Protection
Bureau of Nonpoint Pollution Control
Division of Water Quality
PO Box 029
Trenton, New Jersey 08265
Attn: Matt Klewin**

**New Jersey Department of Environmental Protection
Central Bureau of Water
Compliance and Enforcement
PO Box 407
Trenton, New Jersey 08625-0407
Attn: Melissa Hornsby**

If the illicit connection poses an immediate threat, employees have been instructed to call the NJDEP Spill hotline at **1-877-WARNDEP**. Separate written notification of such action will also be sent to the NJDEP at the above address.

Subsequent to completing initial inspections of each outfall, the County will re-inspect each outfall for illicit connections at least once per five-year permit cycle. In addition, the County will investigate possible illicit connections reported by residents. Illicit connection inspections will also be conducted while completing investigations for the Outfall Pipe Stream Scouring Detection, Remediation and Maintenance Program (see Form 15), if the inspection is preceded by a 72 hour dry weather period.

Reporting Illicit Connections

Residents of Ocean County can report illicit connections by calling the Ocean County Health Department or NJDEP Spill Hotline at 1-877-WARNDEP.

The following NJDEP forms have been included:

- Illicit Connection Inspection Report Form, to be completed for each County outfall.
- Closeout Investigation Form, to be completed and submitted when appropriate.

For outfalls with dry weather and intermittent flow – Submit Illicit Connection Inspection Report and Closeout Investigation Forms to NJDEP with the Annual Report and Certification.

For outfalls with no dry weather and intermittent flow – Keep Illicit Connection Inspection Report Form with the SPPP for NJDEP inspection.

Outfall Inspection Form

This form is provided to assist MS4 permittees with appropriate recordkeeping for their routine outfall inspections as required by the current MS4 NJPDES permit. Initial illicit connection inspections must be performed during dry weather, which is at least 72 hours after the previous precipitation or snowmelt event.

It is recommended to attach photo(s) of the inspection of the outfall to this form.

Upon discovery of stream scouring, you may use "Stream Scouring Investigation Record Keeping Form" for required documentation.

Upon discovery of any possible illicit connections, you MUST use "Illicit Connection Inspection Report Form."

SECTION 1: PERMITTEE INFORMATION

MS4 Permittee: _____ NJPDES #: NJG0 _____

SECTION 2: OUTFALL SUMMARY INFORMATION

If this outfall is newly identified, be sure to add it to your electronic outfall pipe map.

Outfall ID: _____ Outfall Location Description: _____

Municipality: _____ County: _____

Receiving Waterbody: _____

Describe the type of conveyance(s) that delivers the stormwater to the receiving waterbody (concrete or corrugated pipe, concrete channel, etc.): _____

If the ultimate discharge into the receiving water **is from an enclosed pipe**, is any part of the end of the pipe fully or partially submerged? ☐ NEVER ☐ SOMETIMES* ☐ ALWAYS*

*If 'Sometimes' or 'Always,' describe submerged conditions and condition at time of inspection:

If the ultimate discharge into the receiving water **is not from an enclosed pipe**, what is the approximate distance between the end of the last enclosed stormwater conveyance pipe to the receiving waterbody (ft): _____

Do any other NJPDES permittees discharge through this MS4 outfall? ☐ YES* ☐ NO ☐ UNKNOWN

*If 'YES', list Permittee Name(s) or NJPDES #(s): _____

If 'YES', please contact your MS4 Case Manager.

SECTION 3: INSPECTION CONDITIONS

Date of current inspection: ____/____/____ Date of previous inspection: ____/____/____

Latest precipitation/snowmelt event: ____/____/____ Amount of Precipitation (in.): _____

Outfall condition: ☐ PROPER CONDITION ☐ NEEDS MAINTENANCE ☐ NEEDS REPAIR

If applicable, describe the type of maintenance or repair needed: _____

Bank Stability around outfall: ☐ GOOD ☐ FAIR ☐ NEEDS STABILIZATION

If applicable, describe problem and the work needed to stabilize the outfall: _____

Is there a dry weather flow present at the outfall or other evidence that a previous illicit discharge may have occurred? *(If the outfall is partially or fully submerged, dry weather flow observations must be made at the next upstream point (e.g. manhole) above the influence of the receiving surface waterbody.)*

☐ PRESENT ☐ EVIDENCE ☐ NEITHER

If applicable: Manhole ID: _____ Approximate distance upstream from outfall (ft.): _____

If a dry weather flow is present at the outfall or there is other evidence that a previous illicit discharge may have occurred, the permittee must document the illicit discharge investigation on the

“Illicit Connection Inspection Report Form” at the link above.

SECTION 4: STREAM SCOURING

Is stream scouring present? ☐ YES* ☐ NO

*If ‘YES’, describe the scouring, including where the scouring is occurring relative to the outfall:

If you answered ‘YES,’ you must document sources of stormwater that contribute to the outfall. The Department has created the **“Stream Scouring Investigation Record Keeping Form” for your use at the link above.**

SECTION 5: INSPECTOR INFORMATION

Inspector’s Name: _____

Title: _____ Affiliation: _____

Signature: _____ Date: _____

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20__ Outfall Inspection Checklist

Outfall No.	Physical location (Municipality, surrounding area, etc.)	Latitude / Longitude (if applicable)	Receiving Waterbody	* Illicit Connection Inspection Report Form				Scouring Present (If Yes, Describe in Comments)		Comments	Inspector Initials	
				Date of Inspection	Dry-weather Flow** (Dry weather flow inspections of all outfalls MUST be completed with at least 72 hours of dry-weather prior to inspection)							
					☐ N/A - rain	☐ Intermittent	☐ YES	☐ NO	☐ YES	☐ NO		
					☐ N/A - rain	☐ Intermittent	☐ YES	☐ NO	☐ YES	☐ NO		
					☐ N/A - rain	☐ Intermittent	☐ YES	☐ NO	☐ YES	☐ NO		
					☐ N/A - rain	☐ Intermittent	☐ YES	☐ NO	☐ YES	☐ NO		
					☐ N/A - rain	☐ Intermittent	☐ YES	☐ NO	☐ YES	☐ NO		
					☐ N/A - rain	☐ Intermittent	☐ YES	☐ NO	☐ YES	☐ NO		
					☐ N/A - rain	☐ Intermittent	☐ YES	☐ NO	☐ YES	☐ NO		
					☐ N/A - rain	☐ Intermittent	☐ YES	☐ NO	☐ YES	☐ NO		
					☐ N/A - rain	☐ Intermittent	☐ YES	☐ NO	☐ YES	☐ NO		
					☐ N/A - rain	☐ Intermittent	☐ YES	☐ NO	☐ YES	☐ NO		
					☐ N/A - rain	☐ Intermittent	☐ YES	☐ NO	☐ YES	☐ NO		

*The NJDEP Form: "Illicit Connection Inspection Report Form" and "Illicit Connection Records" must be completed for every County owned/operated outfall.

*When applicable, the NJDEP form: "Closeout Investigation Form" must also be completed

** Additional investigation required during dry weather period.

Stream Scouring Investigation Recordkeeping Form

This form is provided to assist MS4 permittees with appropriate recordkeeping throughout the investigation process of outfall stream scouring. This form is to be kept with the permittee's SPPP, as per the recordkeeping requirements of the MS4 NJPDES permit. It is recommended to attach photo(s) of the outfall and scouring to this form.

SECTION 1: PERMITTEE INFORMATION

MS4 Permittee: _____ NJPDES #: NJG0 _____

SECTION 2: OUTFALL SUMMARY INFORMATION

If this outfall is newly identified, be sure to add it to your electronic outfall pipe map.

Outfall ID: _____ Outfall Location Description: _____

Municipality: _____ County: _____

Receiving Waterbody: _____

Describe the type of conveyance(s) that delivers the stormwater to the receiving waterbody (concrete or corrugated pipe, concrete channel, etc.): _____

If the ultimate discharge into the receiving water **is from an enclosed pipe**, is the end of the pipe fully or partially submerged? ☐ NEVER ☐ SOMETIMES* ☐ ALWAYS*

*If 'Sometimes' or 'Always,' describe submerged conditions and condition at time of inspection:

If the ultimate discharge into the receiving water **is not from an enclosed pipe**, what is the approximate distance between the end of the last enclosed stormwater conveyance pipe to the receiving waterbody (ft.): _____

Do any other NJPDES permittees discharge through this MS4 outfall? ☐ YES* ☐ NO ☐ UNKNOWN

*If 'YES', list Permittee Name(s) or NJPDES #(s): _____

If 'YES', please contact your MS4 Case Manager.

SECTION 3: INSPECTION CONDITIONS

When was the stream scouring first identified? ____/____/____

Date of current inspection: ____/____/____ Date of previous inspection: ____/____/____

Latest precipitation/snowmelt event: ____/____/____ Amount of Precipitation (in.): _____

Provide a description of the stream scouring and outfall condition: _____

Describe investigation and findings, including suspected sources and action(s) being taken to reduce the volume or rate of flow from the sources contributing stormwater to the outfall, including dates of actions taken: _____

Was stream scouring identified during the previous inspection?

☐ YES* ☐ NO

*If 'YES', describe previous actions taken: _____

Since the date of last inspection, has the stream scouring worsened?

☐ YES* ☐ NO

*If 'YES', describe any potential causes, including new source(s) contributing stormwater to the MS4 discharging at this outfall since previous inspection (e.g. new housing developments, commercial plazas, etc.):

SECTION 4: SCHEDULING OF STREAM REMEDIATION

Description of the remediation project: _____

List milestones and dates of remediation (i.e. applied for permit, advertised for bid, awarded bid for project, completed project, etc.): _____

SECTION 5: PERMITS OBTAINED (Flood Hazard, Freshwater Wetlands, Soil Conservation District, etc.)

<u>Permit Type</u>	<u>Permit Authorization #</u>	<u>Application date</u>	<u>Authorization date</u>
_____	_____	____/____/____	____/____/____
_____	_____	____/____/____	____/____/____
_____	_____	____/____/____	____/____/____
_____	_____	____/____/____	____/____/____
_____	_____	____/____/____	____/____/____

SECTION 6: INSPECTOR INFORMATION

Inspector's Name: _____

Title: _____ Affiliation: _____

Signature: _____ Date: _____

Illicit Connection Inspection Report Form

For additional information regarding illicit discharge investigations, refer to Chapter 3.6 of the [Tier A Guidance Document](#).

If a dry weather flow or other evidence of an intermittent illicit discharge is observed, this form shall be used to document the illicit discharge investigation in accordance with the current MS4 NJPDES Permit. This completed form shall be uploaded with the permittee's Annual Report and Certification and be kept with the permittee's SPPP as per the recordkeeping requirements of the permit. Initial illicit connection inspections must be performed during dry weather, which is at least 72 hours after the end of the previous precipitation or snowmelt event.

It is required to attach photos of the investigation to this form.

Illicit discharges must be reported immediately to the NJDEP Hotline at 1-877-WARNDEP (1-877-927-6337).

SECTION 1: PERMITTEE INFORMATION

MS4 Permittee: _____ NJPDES #: NJG0_____

SECTION 2: OUTFALL SUMMARY INFORMATION

If this outfall is newly identified, be sure to add it to your electronic outfall pipe map.

Outfall ID: _____ Outfall Location Description: _____

Municipality: _____ County: _____

Receiving Waterbody: _____

Describe the type of conveyance(s) that delivers the stormwater to the receiving waterbody (concrete or corrugated pipe, concrete channel, etc.): _____

If the ultimate discharge into the receiving water **is from an enclosed pipe**, is the end of the pipe fully or partially submerged? ☐ NEVER ☐ SOMETIMES* ☐ ALWAYS*

*If 'Sometimes' or 'Always,' describe submerged condition at time of inspection:

If the ultimate discharge into the receiving water **is not from an enclosed pipe**, what is the approximate distance between the end of the last enclosed stormwater conveyance pipe to the receiving waterbody (ft.): _____

Do any other NJPDES permittees discharge through this MS4 outfall? ☐ YES* ☐ NO ☐ UNKNOWN

*If 'YES', list Permittee Name(s), NJPDES #(s), and Location of Connection:

If 'YES', please contact your MS4 Case Manager.

SECTION 3: OUTFALL INSPECTION

Date of current inspection: ____/____/____

Latest precipitation/snowmelt event: ____/____/____ Amount of Precipitation (in.): _____

Date dry weather flow or other evidence of an intermittent illicit discharge was first discovered: ____/____/____

List the date(s) of previous inspection(s) and describe the actions taken, if applicable: _____

SECTION 4: PHYSICAL OBSERVATIONS

If the outfall is either partially or fully submerged, dry weather flow observations must be made at the next upstream point (e.g. manhole) above the influence of the receiving surface waterbody.

If applicable: Manhole ID: _____ Approximate distance upstream from outfall (ft.): _____

The permittee shall use the table below to describe 1) the observed dry weather flow and/or 2) when there are indications of intermittent illicit discharges present.

(Potential illicit discharge sources are listed in parentheses.)

Odor	☐ None ☐ Sewage (stale/septic sanitary wastewater) ☐ Petroleum/Gas (petroleum refineries, vehicle maintenance facilities, petroleum product storage) ☐ Rancid/Sour (food preparation facilities, e.g. restaurants, hotels, etc.) ☐ Sulfide (industries discharging sulfide compounds or organics, e.g. meat packers, canneries, dairies, etc.) ☐ Other: _____
Color	☐ Clear ☐ Brown (meat packers, printing plants, metal works, concrete or stone operations, fertilizer facilities, and petroleum refining facilities) ☐ Gray (dairies, sewage) ☐ Yellow (chemical plants, textile and tanning plants) ☐ Red (meat packers) ☐ Other: _____
Turbidity	☐ Clear ☐ Cloudy (sanitary wastewater, concrete or stone operations, fertilizer facilities, and automotive dealers) ☐ Opaque (food processors, lumber mills, metal works, pigment plants)
Floatable Matter (Does not include litter)	<i>Floatables of industrial origin may include animal fats, spoiled foods, solvents, sawdust, foams, packing materials, or fuel. Floatables in sanitary wastewater include fecal matter, toilet paper, sanitary napkins, and condoms.</i> ☐ None ☐ Sewage (toilet paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other: _____

Deposits and Stains within outfall	<i>Coatings, residues or fragments of material may be indicators of a potential intermittent non-stormwater discharge</i> ☐ None ☐ Grayish-Black (leather tanneries) ☐ White crystalline powder (Nitrogenous fertilizers) ☐ Excessive sediments (construction sites) ☐ Oily residues (petroleum refineries, storage facilities, vehicle service areas) ☐ Other: _____
Vegetation	<i>As compared to surrounding Riparian bank and/or stream vegetation</i> ☐ Normal ☐ Excessive growth and/or algal presence (Food processing plants) ☐ Inhibited Growth (Industrial operation effluent, CAFOs)

**If the Physical Observations have been conducted and it was determined there was no odor, no discoloration of the water or no deposits and stains left on the outfall, turbidity was clear, no floatable matter, and the vegetation surrounding outfall appears normal, then the dry weather discharge is likely from a groundwater source, but the "Field Monitoring" section below must still be completed for verification.*

*Prior to conducting the analyses in Sections 5 & 6, the source may be traced back upstream in the storm sewer to a more definitive location by various methods, such as opening manholes, using a camera and/or performing dye tests or smoke tests.**

SECTION 5: FIELD MONITORING

Field calibrate instruments in accordance with manufacturer's instructions prior to testing.

Estimated Dry Weather Flow Rate	The Tier A guidance document recommends taking the estimate flow rate during the physical observations. _____ GPM
Detergents Examples include surfactants and methylene blue active substances (MBAS)	Potential discharge types include sewage, washwater, industrial or commercial liquid waste Measurement: _____ mg/L
Temperature of dry weather discharge	Temperatures >70°F may indicate cooling water discharges depending on the season Measurement: _____ °F

Proceed to Section 6 in accordance with the Guidance Document recommendations.

SECTION 6: DRY WEATHER FLOW ANALYSIS - WATER QUALITY

** Based on the potential discharge types determined in the 'Physical Observation' and 'Field Monitoring' sections, further testing must be conducted using the appropriate subset of parameters below. The following parameters are recommended by the EPA for specific types of discharges as noted in the table below. For more information, refer to Chapter 12 of the EPA's Illicit Discharge Detection and Elimination guidance document (https://www3.epa.gov/npdes/pubs/idde_manualwithappendices.pdf).*

Indicate the location of your measurements (e.g. outfall, manhole number, etc.): _____

Parameter	Potential Discharge Type (EPA Guidance)	Discharge Measurement
Ammonia	Sewage, wastewater	mg/L
Potassium	Sewage, industrial or commercial liquid waste	mg/L
Boron	>0.35 mg/L likely indicates sewage or wastewater	mg/L
Chlorine	Industrial or commercial liquid waste	mg/L
Conductivity	Sewage, wastewater, and industrial or commercial liquid waste	S/m
E. coli (FW & PL waters)**	>12,000 Count/100 mL is likely Sanitary Wastewater	Count/100 mL
Enterococci (SC & SE1 waters)**	>5,000 Count/100 mL is likely Sanitary Wastewater	Count/100 mL
Fecal Coliform (SE2 & SE3 waters)**	Sewage	Count/100 mL
Fluoride	Distinguishes potable water from natural or irrigation water	mg/L
pH of Dry Weather Discharge	Washwater	SU

**The abbreviations FW, PL, SC, SE 1, SE2, and SE3 refer to the surface water quality classification of the receiving surface waterbody where the outfall discharges, as defined in N.J.A.C. 7:9B. FW=Freshwater, PL=Pinelands, SC=Saline Coastal, SE=Saline Estuary. Map coverage of these classifications is available on NJ-GeoWeb (<https://njdep.maps.arcgis.com/apps/webappviewer/index.html?id=02251e521d97454aabadfd8cf168e44d>) using the layer under 'Water' of 'Surface Water Quality Classification.'

SECTION 7: ILLICIT DISCHARGE INVESTIGATION

The investigation is not complete until the source of the dry weather flow is found, and any illicit discharge is eliminated.

Based on the latest results from the investigation, including the results in Sections 4, 5 and 6, is/was this dry weather flow from an illicit connection? ☐ YES ☐ NO ☐ INVESTIGATION IS ONGOING

If the investigation has been completed, what was the source of the dry weather flow or illicit connection?

Describe the investigation, including the methods that were/will be used to identify the suspected source of the illegal discharge, or conclude there was no illicit discharge, along with the timeline of the steps of the investigation. Attach additional pages if necessary.

SECTION 8: ILLICIT DISCHARGE ELIMINATION

If it was an illicit discharge, has the source been eliminated?

☐ YES ☐ NO

Describe the plan of action that was/will be followed to eliminate the illicit connection. This plan should detail who is/was responsible for the discharge, what methods were/will be used to fix it, how long it took/will take, and how removal was/will be confirmed and rechecked: _____

SECTION 9: INSPECTOR INFORMATION

Inspector's Name: _____

Title: _____ Affiliation: _____

Signature: _____ Date: _____

SPPP Form 16 – Stormwater Facility Maintenance

Highway Agency
Information

Highway Agency Name: Ocean County Highway Agency

NJPDES # :NJG0152382

PI ID #: 222780

Team Member/Title: Arthur Reece, County Road Supervisor

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

Date of Completion: March 10, 2005

Date of most recent update: June 27, 2025

Stormwater Facility Maintenance Program

Please describe your stormwater facility maintenance program for cleaning and maintenance of all stormwater facilities operated by the Highway Agency. 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.)

The **Ocean County Road Department** implemented the stormwater facility maintenance program in October 2005. This program was designed to ensure the proper function and operation of all highway system stormwater facilities operated by the County. Identified stormwater facilities will be inspected on an annual basis, and any needed repairs will be prioritized. Any repairs will be outlined by the Ocean County Engineering Department, and may include consultation with the Ocean County Soil Conservation District.

The **Ocean County Engineering Department** is currently developing an inventory of all stormwater facilities owned and/or operated by the County. During the summer of 2025, Field crew will begin identifying and mapping stormwater facilities throughout the southern half of the County. Initially, the maintenance program will include currently known County-owned facilities. The County anticipates the completion of a full stormwater facility inventory by August 2025. The inventory will be continuously updated and included in the SPPP.

- **Maintenance and Inspection Logs and an Inspection Checklist have been included with this form.**

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20__ Surface Infiltration Basin Inspection Log

Date: _____	Initials: _____	Basin Location/ Name: _____				Date of Most Recent Rain Event: _____			
Inspection Cycle (Circle One) : Quarterly / Annually / Monthly / Special Event Inspection					Rain Condition (Circle One): Drizzle / Shower / Downpour / Other (explain): _____				
					Ground Condition (Circle One) : Dry / Moist / Submerged / Snow Accumulation				
Basin ID	Location	Basin Component	Inspection Item	Maintenance Actions	Anticipated Start Date	Actual Start Date	Date Completed		
		Infiltration Bed (Basin Bottom)	Stranding Water after 72 hour drain time	Remove any sediment build up					
			Excessive sediment, silt, or trash accumulation on basin bed	Remove silt, Sediment and trash (sediment removal when basin is thoroughly dry)					
			Erosion of Channelization is present	Check out fall is clogged / Re-grade the infiltration basin bed					
			Animal burrows/rodents are present	Pest control					
			Uneven Bed	Use light equipment to resurface the bed					
			Evidence of Sinkholes or subsidence	Monitor Sinkhole for development					
			Other (describe):						
		Vegetation	Large Spot(s) Showing Bare Soil - Vegetative Cover is at Least 85% of Basin	Revegetate the entire basin if 50% or more has been lost					
			Overgrown Vegetation	Mow/Trim the vegetation					
			Tree Growth in the Basin	Clear, Trim, Prune the trees, vegetation removal					
			Other (describe):						
		Embankment and Side Slopes	Signs of erosion, soil lide or bulges, seeps and wet spots, loss of vegetaion, or erosion on basin slope	Check excessive overland runoff flow through the embankment/Check Sinkholes/ Restabalize the bank					
			Other (describe):						
		Outlet	Trash or debris acumulation more than 20%	Clean and Remove / Address source of trash to reduce future failure					
			Trash rack is damaged or rusted greater than 50%/ Trash rack is bent, loose, or missing parts	Repair or Replace Trash Rack					
			Outlet Components misaligned or missing (plates)	Replace or Repair Component					
			Discharge apron is eroded or scoured	Restabalize the discharge riprap apron					
			Standing water is present in the outlet structure longer than 72 hrs	Restabalize the discharge riprap apron					
			Other (describe):						
		Emergency Spillway	Trees or excessive vegetation Present	Remove trees and roots, and restore berm if necessary					
			Damaged Structure (describe):	Repair (describe):					
			Other (describe):						
		Miscellaneous	Fence: Broken or Eroded Parts	Replace or Repair Component					
			Gate: Missing gate or lock	Replace or Repair Component					
			Sign/Plate: tilted, missing or faded	Replace or Repair Component					
			Excessive or overgown vegetaion blocking access to the basin	Replace or Repair Component					
			Other (describe):						

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20__ Surface Extended Detention Basin Inspection Log

Date: _____	Initials: _____	Basin Location/ Name: _____				Date of Most Recent Rain Event: _____		
Inspection Cycle (Circle One) : Quarterly / Annually / Monthly / Special Event Inspection					Rain Condition (Circle One): Drizzle / Shower / Downpour / Other (explain): _____			
					Ground Condition (Circle One) : Dry / Moist / Submerged / Snow Accumulation			
Basin ID	Location	Basin Component	Inspection Item	Maintenance Actions	Anticipated Start Date	Actual Start Date	Date Completed	
			Observed Detention/Drain Time _____ hrs	Check if outlets are clogged				
			Excessive sediment, silt, or trash accumulation in low flow channel	Remove silt, sediment, and trash				
			Excessive sediment, silt, or trash accumulation on basin bottom	Remove silt, sediment, and trash				
			Erosion is Present	Regrade the basin bed				
			Scouring under basin bottom channel	Repair or Replace Channel				
			Animal borrows/rodents are present	Call Pest Control				
			Liner of the basin is visible or damaged	Repair or Replace Liner				
			Other (describe):					
		Vegetation	Large Spot(s) Showing Bare Soil	Vegetative cover must be maintained at 85%. Revegetate the entire basin if 50% of more vegetation has been lost.				
			Overgrown Vegetation	Mow/Trim the vegetation				
			Tree Growth in the Basin	Clear, Trim and Prune the trees				
			Other (describe):					
		Embankment and Side Slopes	Signs of erosion, soil slide or bulges, seeps and wet spots, loss of vegetation, or erosion on basin slope	Check excessive overland runoff flow through the embankment/Check Sinkholes/ Restabilize the bank				
			Other (describe):					
		Outlet	Trash or debris accumulation more than 20%	Clean and Remove / Address source of trash to reduce future failure				
			Trash rack is damaged or rusted greater than 50%/ Trash rack is bent, loose, or missing parts	Repair or Replace Trash Rack				
			Outlet Components misaligned or missing (plates)	Replace or Repair Component				
			Discharge apron is eroded or scoured	Restabilize the discharge riprap apron				
			Standing water is present in the outlet structure longer than 72 hrs	Pump out standing water				
			Other (describe):					
		Emergency Spillway	Trees or excessive vegetation Present	Remove trees and roots, and restore berm if necessary				
			Damaged Structure (describe):	Repair (describe):				
			Other (describe):					
		Miscellaneous	Fence: Broken or Eroded Parts	Replace or Repair Component				
			Gate: Missing gate or lock	Replace or Repair Component				
			Sign/Plate: tilted, missing or faded	Replace or Repair Component				
			Excessive or overgrown vegetation blocking access to the basin	Replace or Repair Component				
			Other (describe):					

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20__ Bioretention Basin (Raingarden) Inspection Log

Date: _____	Initials: _____	Basin Location/ Name: _____	Date of Most Recent Rain Event: _____
Inspection Cycle (Circle One) : Quarterly / Annually / Monthly / Special Event Inspection		Rain Condition (Circle One): Drizzle / Shower / Downpour / Other (explain): _____	
		Ground Condition (Circle One) : Dry / Moist / Submerged / Snow Accumulation	

Basin ID	Location	Basin Component	Inspection Item	Maintenance Actions	Anticipated Start Date	Actual Start Date	Date Completed
		Basin Bed/Bottom	Standing Water is present, Observed Detention/Drain Time _____ hrs	Recheck after 72 hrs, if standing water still present report to mosquito commission, till the soil bed with rotary tiller or disc harrow, replace planting soil if necessary			
			Excessive sediment, silt, or trash accumulation on basin bottom	Remove silt, sediment, and trash			
			Erosion is Present	Regrade the infiltration basin bed			
			Animal borrows/rodents are present	Call Pest Control			
			Uneven Bed	use light equipment to resurface the bed			
			Evidence of sinkholes or subsidence	Monitor for development			
		Other (describe):					
		Vegetation	Large Spot(s) Showing Bare Soil	Vegetative cover must be maintained at 85%. Revegetate the entire basin if 50% of more vegetation has been lost.			
			Invasive Planats are Present	Remove invasive plants and restore the vegetation			
			The Basin has been mowed or removed	Revegetate the sytem - Bioretention basin system shoud NOT be mowed			
			Other (describe):				
		Embankment and Side Slopes	Signs of erosion, soil lide or bulges, seeps and wet spots, loss of vegetaion, or erosion on basin slope	Check excessive overland runoff flow through the embankment/Check Sinkholes/ Restabalize the bank			
			Overgrown Perimeter Vegetation	Mow the vegetation on the perimeter of the embankment			
			Other (describe):				
		Outlet	Trash or debris acumulation more than 20%	Clean and Remove / Address source of trash to reduce future failure			
			Trash rack is damaged or rusted greater than 50%/ Trash rack is bent, loose, or missing parts	Repair or Replace Trash Rack			
			Outlet Components misaligned or missing (plates)	Replace or Repair Component			
			Discharge apron is eroded or scoured	Restabalize the discharge riprap apron			
			Other (describe):				
		Emergency Spillway	Trees or excessive vegetation Present	Remove trees and roots, and restore berm if necessary			
			Damaged Structure (describe):	Repair (describe):			
			Other (describe):				
		Miscellaneous	Fence: Broken or Eroded Parts	Replace or Repair Component			
			Gate: Missing gate or lock	Replace or Repair Component			
			Sign/Plate: tilted, missing or faded	Replace or Repair Component			
			Excessive or overgown vegetaion blocking access to the basin	Replace or Repair Component			
			Other (describe):				

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20__ Wet Pond Inspection Log

Date: _____	Initials: _____	Basin Location/ Name: _____	Date of Most Recent Rain Event: _____				
Inspection Cycle (Circle One) : Quarterly / Annually / Monthly / Special Event Inspection		Rain Condition (Circle One): Drizzle / Shower / Downpour / Other (explain): _____					
		Ground Condition (Circle One) : Dry / Moist / Submerged / Snow Accumulation					
Basin ID	Location	Basin Component	Inspection Item	Maintenance Actions	Anticipated Start Date	Actual Start Date	Date Completed
		Pond Area	The water level in the pond is below the design water surface elevation	Check for less runoff, lower groundwater table, Damage to the outlet structure and liner; Make repairs			
			Islands or shallow marsh emerging out of the pond	Check if excessive sediment; Remove excess sediment and find source			
			Debris or trash floating on the water	Check if outlets are clogged			
			Excessive dead vegetation in the pond	Clean and Remove Vegetation			
			Mosquito breeding	Aerate or circulate pond, remove dead vegetaion			
			Presence of domestic waterfowl and wildlife	Minimize mowing at Perimeterand keep waterfowl from accessing			
			Erosion on Pond Side	Check surrounding area drainage; install deep rooted riparian vegetation			
			Liner of basin visible and damaged	Repair Liner			
			The Aerator/ fountain is not working	Refer to the manufaturer's O&M Manual			
			Other (describe):				
		Vegetation	Invasive Plansts are Present	Remove invasive plants and restore the vegetation			
			Algea blooming	Remove algea and aerate the pond			
			Other (describe):				
		Embankment and Side Slopes	Signs of erosion, soil lide or bulges, seeps and wet spots, loss of vegetaion, or erosion on basin slope	Check excessive overland runoff flow through the embankment/Check Sinkholes/ Restabalize the bank			
	Other (describe):						
		Outlet	Trash or debris acumulation more than 20%	Clean and Remove / Address source of trash to reduce future failure			
			Trash rack is damaged or rusted greater than 50%/ Trash rack is bent, loose, or missing parts	Repair or Replace Trash Rack			
			Outlet Components misaligned or missing (plates)	Replace or Repair Component			
			Discharge apron is eroded or scoured	Restabalize the discharge riprap apron			
			Standing water is present in the outlet structure longer than 72 hrs	Pump out standing water			
			Other (describe):				
		Emergency Spillway	Trees or excessive vegetation Present	Remove trees and roots, and restore berm if necessary			
			Damaged Structure (describe):	Repair (describe):			
			Other (describe):				
		Miscellaneous	Fence: Broken or Eroded Parts	Replace or Repair Component			
			Gate: Missing gate or lock	Replace or Repair Component			
			Sign/Plate: tilted, missing or faded	Replace or Repair Component			
			Excessive or overgrown vegetaion blocking access to the basin	Replace or Repair Component			
			Other (describe):				

County of Ocean
Highway Agency Stormwater Permit
NJG015238

20__ Grass Swale Inspection Log

Date: _____		Basin Location/ Name: _____		Date of Most Recent Rain Event: _____			
Inspection Cycle (Circle One) : Quarterly / Annually / Monthly / Special Event Inspection				Rain Condition (Circle One): Drizzle / Shower / Downpour / Other (explain): _____			
				Ground Condition (Circle One) : Dry / Moist / Submerged / Snow Accumulation			
Basin ID	Location	Basin Component	Inspection Item	Maintenance Actions	Anticipated Start Date	Actual Start Date	Date Completed
		Grass Swale Area	Standing Water is present, Observed Detention/Drain Time _____ hrs	Recheck after 72 hrs, if standing water still present report to mosquito commission, till the soil bed with rotary tiller or disc harrow, replace planting soil if necessary			
			Excessive sediment, silt, or trash accumulation on basin bottom	Remove silt, sediment, and trash			
			Erosion is Present	Regrade the infiltration basin bed			
			Animal borrows/rodents are present	Call Pest Control			
			Uneven Bed	use light equipment to resurface the bed			
			Sediment and/or Debris on the edge between the contributing drainage area and the grass swale	Remove Sediment and Debris			
			Other (describe):				
		Vegetation	Large Spot(s) Showing Bare Soil	Vegetative cover must be maintained at 85%. Revegetate the entire basin if 50% of more vegetation has been lost.			
			Excessive tree canopy shading th vegetaded area inhibiting the growth of vegetation	Prune and trim the trees			
			Grass is overgrown and tall (____inches)	Mow the grass to the design height			
			Grass clippings are not collected and removed	Remove grasss clippings			
			Other (describe):				
		Outlet	Trash or debris acumulation more than 20%	Clean and Remove / Address source of trash to reduce future failure			
			Trash rack is damaged or rusted greater than 50%/ Trash rack is bent, loose, or missing parts	Repair or Replace Trash Rack			
			Outlet Components misaligned or missing (plates)	Replace or Repair Component			
			Discharge apron is eroded or scoured	Restabalize the discharge riprap apron			
			Standing water is present in the outlet structure longer than 72 hrs	Clean out the standing water			
			Other (describe):				