

Picatinny's Stormwater Pollution Prevention Plan

**PUBLIC COMPLEX – STORMWATER PLAN
FOR
PICATINNY ARSENAL, NEW JERSEY 07806-5000**



INTRODUCTION:

This SWPPP is being developed to help Picatinny identify potential sources of pollution and establish best management practices to minimize and/or eliminate the exposure of these pollutant sources.

Picatinny's Public Complex Stormwater MS4 General Permit (NJPDES#NJG0151980). The purpose of this plan is to describe how Picatinny Arsenal will implement each permit requirement. Various team members as assigned from the Picatinny Environmental Affairs Division (PEAD) will oversee the requirements. These individuals will ensure successful implementation of the Stormwater Pollution Prevention Plan, Phase II, and Public Complex.

Team Members:

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| Post Construction / Regulatory Mechanism | Carl Appelquist, Environmental Engineer 973-724-5517 Paul Reibel, Environmental Engineer 973-724-5952 |
| Program Coordinator / Training | Carl Appelquist, Environmental Engineer |
| Employee Education | 973-724-5517 |

This plan covers the following requirements:

- Post Construction Stormwater Management in New Development and Redevelopment
- Local Public Education
- Improper Disposal of Waste
- Solids and Floatable Controls
- Maintenance Yard Operations
- Employee Training

Record keeping in the Picatinny Environmental Management System (PEMS) as well as paper documents will document that all permit requirements are met. An Annual Report and Certification is submitted each year on or before May 1 to the New Jersey Department of Environmental Protection (NJDEP), Bureau of Nonpoint Pollution Control, Division of Water Quality, ensuring permit compliance and updating changes as needed. The Morris County Soil Conservation and Control Committee, and the NJDEP will perform inspections randomly.

Included in this plan are the Army policies and regulations that Picatinny is required to follow. These policies and regulations enforce the requirements set forth by the NJDEP.

Stormwater Pollution Prevention Team Members:

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| Stormwater Program Coordinator | Carl Appelquist / Env. Engineer |
| Public Notice Coordinator | Not Applicable |
| Post Construction Stormwater Management Coordinator | Carl Appelquist / Env. Engineer |
| Local Public Education Coordinator | Carl Appelquist/ Env. Engineer |
| Regulatory Mechanism Coordinator | Carl Appelquist / Env. Engineer |
| | Tom Solecki / Env. Engineer Chief / Environmental Affairs Division |
| Physical Plant Manager | Rich Havrisko / Engineer Director Picatinny Public Works Dept. |
| Employee Training Coordinator | Carl Appelquist |
| Administrative Compliance | Carl Appelquist |

Public Notice:

Per phone conversation with the NJDEP this is not applicable to Picatinny. (SWPP Plan Dated 04/27/2010)

Picatinny provides public notice to residents and tenants on the Arsenal via Town Hall Meetings and emails and mail if needed.

Quarterly Environmental Control Committee Meetings are held with tenants and Command Staff to discuss any current and upcoming environmental issues at Picatinny Arsenal.

The Department of Public Works also holds Real Property Planning Board meetings with tenants and Command Staff.

Planning meetings are also held with the United States Army Corps of Engineers, Contracting Staff and others such as the Environmental Affairs Division, Safety, etc. for construction projects.

Tenants can also contact the Environmental Affairs Division and track environmental comments for Service Orders (SO) and Individual Job Orders (IJO) via the PEMS system.

New Development and Redevelopment Program:

The EAD will require all post-construction storm water management to comply with the Public Permit standards. THE EAD has implemented an Environmental Questionnaire “Does Your Project Require an Environmental Check List Am I Regulated” a “New Equipment / Project Check List” and a “Status of Project” check list that is located in the Picatinny Environmental Management System (PEMS).

The checklists are used to identify any water, wastewater, and stormwater issues that need to addressed or require permits from the NJDEP and Morris County Soil Conservation District. The EAD will also be aware of any soil excavation, which might affect existing stormwater management structures, due to the Picatinny Soil Management Site Clearance Policy.

Once identified through the check list or site clearance, the proponent will be required to meet all applicable design and performance standards and maintenance requirements established under N.J.A.C. 7.8 for major development and storm drain inlet design standards listed in Attachment C.

Section 438 of the Energy Independence and Security Act of 2007 (EISA) (42 U.S.C. § 17094) also places legal requirements on new agency construction projects (*i.e.*, development and redevelopment projects involving a Federal facility with a footprint that exceeds 5,000 square feet) to manage stormwater and preserve and/or restore natural site hydrology.

Federal Guidance – For specific technical guidance the following document: Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under section 438 of the Energy Independence and Security Act, December 4, 2009 can be found at:
<http://water.epa.gov/polwaste/nps/upload/eisa-438.pdf>

Green Infrastructure – EPA has an extensive site on Federal requirements for and strategies to plan and implement green infrastructure projects to address stormwater runoff issues. See:
<http://epa.gov/greeninfrastructure>.

Public Education:

Personnel working at Picatinny can access the Picatinny Environmental Management System via the Picatinny Arsenal home page. The management system provides information and guidance on policies, regulatory requirements, management plans for stormwater areas, inspection reports, environmental video training, and questions and answer hotline.

The EAD has developed a 15 minute training presentation that can be viewed from everyone's computer while working at Picatinny. This presentation covers, air, hazardous waste, water, solid waste and stormwater. The Commander has made it mandatory that everyone who works at Picatinny view as requested. A database is used to track this requirement.

All new employees that work at Picatinny must attend a "New Employee Orientation" at which an overview of environmental policies is presented.

Educational materials and NJDEP educational pamphlets will be distributed to tenants, contractors, etc., during an Earth Day event held in April of each year.

An article pertaining to environmental issues may also be placed in "The Voice" the Picatinny Newspaper.

Notices may also be sent via email to all personnel that live and work at Picatinny Arsenal.

Fertilizers and pesticides are managed using the Integrated Pest Management Plan. A professional contractor does lawn maintenance. However some residents may have small vegetable or flower gardens and information on these activities will be provided through the Housing Property Management Company.

During inspections of all stormwater buildings / areas, site specific training may be provided to operators, tenants and supervisors. On a yearly basis, all supervisors are asked to certify that their personnel have read the individual management plan and been trained to recognize stormwater requirements.

Storm Drain Inlet Labeling / Repair and Maintenance:

Picatinny implemented a storm drain-labeling program in August 2005. When needed, a marker may be placed near the storm drain to indicate that “No dumping is allowed”.

Storm drain maintenance and repair is primarily completed via a contract mechanism with the DPW subcontractor Chugach Industries.

When storm drain grates are replaced or repaired, the storm drainage inlets must meet the standards as set forth in NJDEP Attachment C: Design Standard – Storm Drain Inlets. The standard applies to storm drainage inlets installed as part of new development and redevelopment projects that disturb one acre or more. In addition, retrofitting of existing storm drainage inlets to this standard is required where such inlets are in direct contact with repaving, repairing (excluding repair of individual potholes), reconstruction or alteration of facilities owned or operated by the Public Complex. For exemptions to this standard see the “Exemptions” as stated in the attachment.

Stormwater Maps / MS4 Outfall Mapping/ Illicit Connection Program:

The Environmental Affairs Division has a map of the storm sewer system on its GIS. These maps were created from a photographic fly over of the base in 2000. In 2014/2015 the storm drains were mapped via GIS tools in the field by Army Mapper personnel.

Detailed maps of the storm sewer system are located in the Department of Public Works files.

In 1991, Foster Wheeler Corp. completed a comprehensive Water Discharge Investigation of the base. A comprehensive review of all pertinent information and data to identify water discharges from all buildings on Picatinny was performed. Over 200 buildings were field checked to verify information, which was compiled from questionnaires. Dye and smoke testing were performed to verify information from maps and employees. Contact and no-contact streams were sampled and analyzed. A trial report was prepared and corrective actions were taken.

Storm drains are inspected during Arsenal at Large inspections. Storm drains and industrial areas that have an individual management plan, as needed per the Industrial Complex Permit, are inspected on a yearly basis as part of the Environmental Performance Assistance Assessment Survey (EPAAS).

Areas are inspected for illicit connections, stream scouring or flooding issues.

Monthly inspections are completed by operators via the PEMS system.

Any new projects that require any new connections or discharges to the sewer and storm sewer system are submitted via the PEMS "Project Checklist Questionnaire". All information is reviewed by personnel in the PEAD. If needed, management plans are updated or new management plans with monthly inspection requirements are created for these areas.

All new connection and repair work may be tracked via a Service Order, Individual Job Order or contract mechanism.

All information is reported to the NJDEP electronically on the Annual Storm Water Report, submitted by May 2 as required.

Vegetative Waste Collection and Disposal:

Picatinny boundaries contain a total of 6,483 acres of which 2,492 acres are developed into administrative facilities, industrial complexes, and the family housing area. The undeveloped acreages consist of wooded mountain ridges, wetlands, and forests. Freshly cut grass is not raked or picked up but left in the mowed areas. Leaves are cleaned up at the beginning of the year (March-April) and at the end of the contract year (October – December weather permitting). Leaf pickup is performed in areas defined in the contract as improved grounds. These areas amount to 112 areas consisting of all primary roads, residential quarters, occupied buildings, and recreational sites. Leaves are blown/ raked and picked up with a vacuum truck, within 7 days. The disposal site is an area located near the Escape Trail Gate. Leaf debris is turned into mulch.

Mulch piles are turned over on a monthly basis (weather permitting). An activity log for this process is located in the PEAD office.

In addition to leaves, the area also may contain felled or dead fall trees that are utilized for the firewood program.

Any branches, shrubs or other woody vegetation may be chipped on site or taken to the compost area for mulch materials. This material may not be placed in a wetland area.

Other Regulatory Mechanisms:

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|-------------------------|----------|
| Pet Waste | Feb 2004 |
| Litter | Dec 2004 |
| Improper Waste Disposal | 1980 |
| Wildlife Feeding | Jan 1985 |
| Vegetative Waste | 1990 |
| Illicit Connections | 1991 |

Pet Waste: Signs instructing residents to curb their dogs and pick up pet waste are located in the housing areas.

Litter: Every building/outdoor recreation area has covered trash receptacles, recycling containers, and cigarette butt containers. Building managers check outside areas for litter.

Improper Waste Disposal: All buildings located on Picatinny that generate materials like used motor oil, paints and solvents are required to dispose of their waste through our waste contractor (turn in document). All buildings that generate waste are required to follow their RCRA and Stormwater Management Plan. The plans address proper storage/disposal procedures. Employees are given training and their management plans are reviewed annually.

Housing waste is managed via the Housing Property Management Contract Company.

Wildlife Feeding: Feeding of wildlife is strictly prohibited at Picatinny Arsenal. Individuals are to notify either Security or Pest Management Control whenever stray animals are observed near buildings or residential areas. The Natural Resource Manager oversees this program.

Vegetative Waste: See previous

Illicit Connections: See previous

Street Sweeping and Road Erosion Control Maintenance:

Picatinny will sweep all defined areas, including parking lots and curbed streets with a posted speed limit of 35 mph or less. Weather and street surface conditions permitting; all defined areas will be swept once a month during the weekend. A street sweeping log will be maintained which will include the date, areas swept and the total amount of materials collected. A Standing Operating Order (SOO) for this type of work is maintained by the DPW support contractor. This data may be maintained in the Maximo database work log.

The Roads and Grounds department will routinely monitor, inspect and maintain all roads and streets for erosion problems. All identified road erosion problems and repairs will be reported and logged with dates. All erosion repairs will be made in accordance with Standards for Soil Erosion and Sedimentation Control in NJ NJAC 2:90:1. A SOO for this type of work is maintained by the DPW support contractor. Work data may be maintained in the Maximo database work log.

Annual planned maintenance of roads and grounds is listed on the Annual Work Plan maintained by the Picatinny DPW.

De-icing Material Storage

De-icing materials are stored in two acorn storage domes. The salt domes are completely contained and have had extensive work done to bring them up to code. Doors were installed the domes. Equipment can drive into load or unload salt, gravel, sand or other road materials. The site is inspected monthly by the operators.

Salt brine material is also used on the road ways during inclement weather.

Sand is stored outside in an approved containment area.

Fueling and Vehicle Maintenance Operations:

Fueling operations are conducted at the base fuel station. The gas station consists of two above ground storage tanks that contain gasoline and diesel fuel. There is a large truck containment pad for the bulk transfer of fuel. Mobile fuel equipment may be parked in this containment area as well.

Fueling:

- a. No topping off of vehicles, mobile fuel tanks, and storage tanks. Drip pans must be used under all hose and pipe connections and other leak prone areas during bulk transfer of fuels. A trained employee must be present to supervise during bulk fuel transfer.
- b. Instructions must be clearly posted in area to ensure safe operation of fueling equipment and appropriate contact information for the person(s) responsible for spill response.
- c. Any equipment, tanks, pumps, piping and fuel dispensing equipment found to be leaking or in disrepair must immediately be repaired or replaced.

Vehicle Maintenance:

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

General Good Housekeeping:

- a. Properly mark or label all containers. Labels must be kept clean and visible. All containers must be kept in good condition and tightly closed when not in use. When practical, containers must be stored indoors. If indoor storage is not practical, containers may be stored outside as long as they are covered and placed on spill platforms. Outdoor storage locations must be regularly maintained.

Vehicle Maintenance/Storage Areas:

Most vehicles being serviced are stored indoors. The vehicle maintenance facility has a concrete floor and inside berms to prevent any fluids from getting into the nearby soil and storm drainage areas.